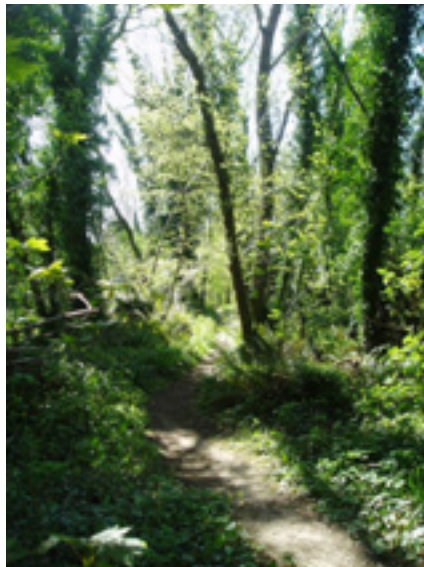


Ecological Study of the Countryside Habitats in County Fingal

Phase III – Woodland Birds



**Fingal County Council
November 2006**

SUPPORTED BY THE HERITAGE COUNCIL



LE CUIDIÚ AN CHOMHAIRLE OIDHREACHTA



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Prepared by:

Oscar J. Merne and Julie Roe

November 2006

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Fingal County Council
Comhairle Contae Fhine Gall



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Summary

Eight woodland areas in Fingal County (demesne woods at Santry, Howth Castle, Malahide, Portrane, Ardgillan, Hampton, Gormanston, and at Delvin River Woodland) were visited in April and May 2006 to survey the breeding bird communities with a view to establishing baselines for future monitoring. Data are also required for Fingal County Council's Biodiversity Action Plan.

Bird survey data collected by others in seven additional Fingal woods (Knockmaroon, Lucan, Luttrellstown, Abbotstown, Newbridge Demesne, Milverton and Brackenstown) in spring 2003 and 2005 were made available and are summarised in this report. Their full integration with the data collected in the eight woods surveyed in 2006 was not possible because of variations in methodologies employed and standards achieved.

All 15 Fingal woods surveyed are predominantly mature mixed deciduous woods, some of which have a small amount of conifers. They also have in common their establishment on rich mineral lowland soils, with the exception of part of the woodlands at the higher levels of Howth Castle Demesne which are on acid soils. Most of the woodland appears to have been planted in the 19th century, and most showed little sign of significant grazing/browsing of the understory.

Because of the above common factors, there was little variation in the core woodland bird community between woods. About 25-30 common and widespread woodland bird species were found in most of the woods. Many of these species are year-round residents, while several (warbler species and Spotted Flycatcher) are summer migrants to Ireland.

The total number of woodland bird species recorded is about double the 25-30 core species, but most of the non-core species were found in a minority (in some cases only one) of the woodlands.

The birds found in the Fingal woods are compared with those found in the relevant ten kilometre squares of the Irish National Grid during breeding bird surveys carried out in 1969-72 and 1988-91. In most cases little change was noted between the present survey and the earlier ones, but it was found that one species (Blackcap) had colonised most woods since the earlier surveys, while another species (Spotted Flycatcher) had almost disappeared. These status changes conform with population increases and declines recorded in Ireland generally.

1. Introduction

In 2004, Fingal County Council initiated an ecological study of the countryside habitats in Fingal. This study covers rural habitats such as rivers, wetlands, woodlands, hedgerows, farmlands and demesnes, with emphasis on the birds, mammals, invertebrates, flora and fungi of these habitats. The findings of this study will be used for the preparation of Fingal County Council's Biodiversity Action Plans for habitats and species in the Fingal area.

Some of the survey work has been completed already, and the current Phase III of the project addresses the flora and fauna of the Fingal woodlands. Fifteen areas of woodland have been identified by Fingal County Council where the breeding bird community is to be surveyed. The objective of this survey is to establish a good baseline to aid the formulation of woodland development and management strategies for the future.

Six of the woodlands have been surveyed by members of BirdWatch Ireland branches, one has been the subject of a recent Environmental Impact Statement, while the remaining eight are the subject of the current study by the authors of this report. These eight woodland areas are:

- A. Santry Demesne, Santry
- B. Howth Castle Demesne, Howth
- C. Malahide Demesne, Malahide
- D. Portrane Demesne, Portrane
- E. Ardgillan Demesne, Balbriggan/Skerries
- F. Hampton Demesne, Balbriggan
- G. Gormanston Demesne, Gormanston
- H. Delvin River Woodland, Stamullin

The field survey work at these eight woodlands was carried out in spring 2006 by the authors of this report.

2. Survey methodology

The methodology proposed for the breeding bird survey is summarised as follows:

In March 2006 a suitable survey transect was to be identified and set out in each of the eight woodlands. Around mid-April and mid May each transect was to be walked, ideally between dawn and 09.00 hrs, in weather conditions favourable to detecting all birds present. Birds seen and heard were to be recorded using the Countryside Bird Survey (CBS) methods (see *Countryside Bird Survey – Fieldwork Guidelines* (Anon. Undated)).

The CBS survey method is based on a 1-kilometre square of the National Grid. Within the square two more-or-less parallel transect lines, each 1-kilometre long, are set out c.500 m apart. These are each divided into 200 m long sections for bird recording purposes. Registrations of all birds found while moving slowly (c.1 km per hour) along the transects are recorded in three bands:

- Band 1 25 m either side of the transect line.
- Band 2 25-100 m either side of the transect line.
- Band 3 100-250 m either side of the transect line.

This methodology, which was designed for application in the countryside at large, had to be modified somewhat for application in the mature, mainly deciduous woodland of the Fingal study areas.

In the first instance, examination of the site maps and vertical aerial photographs of each of the woodland study areas, and the initial reconnaissance of the woodlands on the ground, indicated that it would be physically difficult to fit two 1-kilometre long transects to the woodland areas present, and that Bands 1 and 2 would, in most cases, extend well beyond the woodland boundaries. Secondly, the representativeness of two 1-kilometre long 50 m wide transect bands was also doubtful. Also taken into account was the reduced visual and audio detectability of birds in mature woodland, as compared with open countryside.

Therefore it was decided to modify and improve on the CBS methodology to suit the woodlands in the study areas, aided by reference to *Bird Census Techniques* (Bibby *et al.* 1992). Accordingly, the following methods were used in the Fingal woodland breeding bird survey in 2006:

- To improve the representativeness of the sample survey methodology, the total transect length in each woodland was extended significantly beyond the two 1-kilometre lengths required by the CBS.
- Each woodland was visited twice by the same observer, between mid-April and late May, with, as far as possible, an interval of about four weeks between visits.
- The visits were made between sunrise and c.10.00hrs, i.e. after the “dawn chorus” had died down, and before the birds reduced their early morning activity.
- As far as possible, the visits were made in fair weather, to maximise visual and audio detectability, i.e. calm or light winds, no or very light rain, good visibility.
- The transects were covered at a rate of c.1 km per hour, walking at a slow methodical pace and recording all birds seen and heard up to 25-30 m either side of the transect.
- Registrations were increased by additionally stopping for several minutes at intervals of c.100 m.

- During the course of the transect surveys, the breeding status of the birds found was assessed, using the criteria employed for the *New Atlas of Breeding Birds in Britain and Ireland* (Gibbons *et al.* 1993).
- Observations of birds were aided by use of binoculars.
- Observations of birds were recorded on field maps rather than CBS-type forms.
- As most of the eight woodlands surveyed are not in single blocks but rather in two or more distinct (and not always contiguous) sections, the transect lines were fitted to cover, as far as possible, representative parts of these sections.

3. Results

3.1 Santry Demesne (National Grid reference O 165.405)

Location and extent

This site is located at the northern edge of Dublin City, north-west of Santry village, west of the Dublin-Belfast roads (M1 motorway and old N1) and south of the M50 motorway and Dublin Airport. It is bounded on the south side by the Santry-Ballymun road (R104), while the R108 and a minor road run close to the west end of the demesne. The demesne is owned by Fingal County Council and woodland covers approximately 60% of the area. The remainder is predominantly parkland, with a small lake, and the Santry River flows west to east through the demesne.

The woodlands – distribution, extent and type(s)

The woodlands are made up of three blocks within the main part of the demesne, and a small block and a linear belt in the separate north-western annex to the demesne. These five areas were designated Sections A-E (see map: Figure 1, Appendix 1) and their woodlands and understoreys are briefly described below. A belt of woodland at the northern edge was excluded from the survey as it is now part of a large development of apartment blocks and a hotel outside the public demesne.

Section A This is a small area of mature mixed woodland at the southern edge of the demesne, bounded by the Santry-Ballymun road and housing and industrial/commercial development to the south, and demesne parkland to the north. This wood is mixed deciduous/coniferous, with Sessile Oak, Ash, Sycamore, Horse Chestnut, Mountain Ash, Beech, Lime, Hawthorn, Scots Pine and Larch being the main tree species. The understorey is mainly Elder, Laurel, Snowberry, Stinging Nettle, Hogweed, Bluebell and Ramsons. The wood is completely surrounded by a high security fence.

Section B This, mainly deciduous woodland is situated at the north-east side of the demesne, bounded by the Dublin-Belfast road to the east, a small demesne lake (fed by the Santry Stream) to the north, Santry Stadium to the south, and open demesne parkland to the west. The main part of this wood is dominated by Sessile Oak, with Beech, Sycamore, Horse Chestnut, Alder, Ash, Wild Cherry, Elm, Crack Willow, Mountain Ash, Yew and European Larch also occurring. The understorey has extensive areas of Ransoms, and also Laurel, Bramble, Ivy and Bluebell. Where the wood edges the lake, Common Reed, Bullrush and willows occur.

Section C This section is the largest area of woodland in the demesne and is in the north-west part of the main demesne. It has new apartment blocks and a major hotel to the north, and demesne parkland and a walled garden to the south. The Santry Stream flows through the woodland. Beech and Holm Oak dominate this wood, with Horse Chestnut, Ash, Sycamore, Lime, Wild Cherry, White Poplar, Crack Willow, Mountain Ash, Hawthorn, Elder, Holly and Scots Pine recorded. The understorey has mainly Ivy, Lesser Celandine, Hogweed and Stinging Nettle.

Section D This is a c.300 m narrow strip of woodland straddling the Santry Stream, and separated from the main demesne area by a road and bridge. To the north are apartment blocks (under construction) and commercial development, while to the south is development land/university playing fields. The linear woodland is deciduous, with Beech, Elm, Lime, Ash, Sessile Oak, Horse Chestnut, Sycamore, Alder, Mountain Ash, Wild Cherry, White Poplar, Crack Willow, Hawthorn, Blackthorn, Holly and Elder. With the stream and a footpath running through it the woodland is open and has an understorey of Ivy, Bramble, Stinging Nettle, Lesser Celandine, Wild Dog Violet, Bluebell, Primrose and Wood Anemone.

Section E This is a very small area of woodland (c. 175x70 m) at the extreme western end of the study area, and linked to Section D by a c.280 m corridor of grassland, some of which has been planted recently. It is bounded on the west by a minor road, on the south and south-east by industrial/commercial development, and on the north by commercial development and some woodland. The wood is deciduous, with a mixture of Birch, Alder, Sycamore, White Poplar, Horse Chestnut, Wild Cherry, Ash, Elder, Hawthorn and Blackthorn. The wood is very dense and has little understorey other than Ivy.

For bird survey purposes most of the woodland area described above was sampled by means of the transects indicated in Figure 1 (Appendix 1). The total transect length is c. 2,870 m, and this is considered to be representative of the Santry woods. The sampled area is divided into five sections (A-E) so that bird registrations can be ascribed to the different parts of the woodland.

The breeding bird community of Santry Demesne woodlands

A total of 43 bird species (see Table 1) was recorded during the April and May 2006 surveys. This total includes nine species which are not strictly woodland birds, but which were recorded on the small lake (Little Grebe, Grey Heron, Mute Swan, Mallard, Tufted Duck and Moorhen), on the open parkland (Lesser Black-backed and Herring Gull), and close to the woodland edge (Reed Bunting). Totals for each species recorded in each section on each visit are given in Table 1. These results are discussed below.

Of the typical woodland species, the most numerous and ubiquitous were Wood Pigeon (92 individuals/all sections), Blackbird (44/10), Wren (36/10) and Robin (27/10). Other numerous and widespread species were Magpie (57/9), Blue Tit (25/9), Great Tit (14/8) and Dunnock (10/7). Starlings were also numerous but the total of 167 is made up largely of non-breeding flocks of 105 and 40 in two sections on one date.

Table 1: Bird species recorded - Santry Demesne woodlands

BIRD SPECIES		SECTION A		SECTION B		SECTION C		SECTION D		SECTION E	
		14.4.06	17.5.06	14.4.06	17.5.06	14.4.06	17.5.06	14.4.06	17.5.06	14.4.06	17.5.06
1.	Little Grebe			4	4						
2.	Grey Heron	1									
3.	Mute Swan			2	1						
4.	Mallard		4	3	6	4					
5.	Tufted Duck			8	2						
6.	Sparrowhawk				1						
7.	Kestrel						1	1			
8.	Moorhen			6	7	1			1		
9.	Pheasant					1		1			
10.	Lesser Black-backed Gull	1									
11.	Herring Gull	5	1						1		
12.	Stock Dove	2						2			
13.	Wood Pigeon	8	15	6	7	12	10	6	7	6	15
14.	Collared Dove				3						3
15.	Swallow									2	2
16.	Meadow Pipit								1		
17.	Pied Wagtail				1	1		1	1		
18.	Wren	5	4	4	2	4	3	6	5	2	1
19.	Duncock	1		1		1	1	2	3	1	
20.	Robin	3	3	2	3	2	2	3	4	2	3
21.	Blackbird	3	6	4	5	5	7	4	4	3	3
22.	Song Thrush	1						1	1	1	
23.	Mistle Thrush	2		2	2		1	1		1	
24.	Blackcap			2				1	1		1
25.	Chiffchaff			1				1		1	
26.	Willow Warbler									1	
27.	Goldcrest	2		1				3	4		2
28.	Long-tailed Tit	2									3
29.	Coal Tit	1		2		1		1		2	
30.	Blue Tit	4	2		2	4	3	2	3	3	2
31.	Great Tit	2	2		1	4	1	1	2		1
32.	Treecreeper						3				
33.	Magpie	8	12	1	6	2	22	1	3	2	
34.	Jackdaw	4	1	1	2	3	1	6	10		1
35.	Rook	4					10	4	2		
36.	Hooded Crow	2	1		1	2	1	1	2	1	
37.	Starling	2	43	2	11	4	105				
38.	Chaffinch		1	1	1	2	2	2		2	2
39.	Greenfinch	1	1		1	1			1	1	2
40.	Goldfinch	1				1	1		2		
41.	Redpoll							1		1	
42.	Bullfinch										2
43.	Reed Bunting								1		
(43 species)											

3.2 Howth Castle Demesne (National Grid reference O 275.385)

Location and extent

This site lies on the north-west side of Howth Head, which forms the northern side of Dublin Bay. It is accessed by the Sutton-Howth road (R105). To the east lies the main built-up area of old Howth, while to the south the area rises to the Ben of Howth (171 m asl). The woodlands are privately-owned and are part of the property of Howth Castle and the Deer Park Hotel and Golf Courses. Apart from the hotel and castle, and their car parks, most of the land around and adjacent to the woods is covered by several golf courses.

The woodlands – distribution, extent and type(s)

The woodlands in the surveyed parts of Howth Castle Demesne were divided into five distinct sections (A-E. See map: Figure 2, Appendix 1). The following is a brief description of the woodland and its understorey in each of these sections.

Section A This section is by far the largest and most complex block of woodland in Howth Castle Demesne. The high centre of the section (>300 m asl) is largely bare rock with some Gorse, heathers and small Birches. This area is flanked on the north-west, west and south-west sides by mixed deciduous/coniferous woodlands dominated by mature Beech, Sessile Oak, Birch, European Larch, Scots Pine and other conifers. The understorey is densely covered by *Rhododendron ponticum*, and, on the north-western flanks, ornamental species. The northern flank, mainly west of the hotel and golf club has a wide variety of native and exotic trees, including some Gum, Cabbage Palm, maples, Western Red Cedar, etc. The southern flank is dominated by Birch and Scots Pine, while the eastern side of Section A has mainly Beech, Ash, Alder, willows and Sycamore. Other tree species noted included Holm Oak, Hazel, White Poplar, Mountain Ash and European Larch. Outside the dense *Rhododendron* the understorey is mixed, with grassy areas, Bracken, heathers, Bramble, Ramsons, Elder, Gorse, Blackthorn, Holly, Hogweed, Bluebell, Ivy, Honeysuckle and Bilberry.

Section B This small woodland is an extension of the main block (Section A) and is bordered on the north side by golf course fairways, and on the south side by rising rocky ground with heathland. The section is dominated by mature Ash, Sycamore, Sessile Oak, Beech, Horse Chestnut, Alder, Birch, Hazel, Hawthorn, European Larch and Scots Pine. The understorey is dominated by Bramble, Bracken, Bluebell and ferns, with some open grassy spaces.

Section C This section extends eastwards from Section B and the main block of woodland. To the north it is bounded by GAA playing fields, to the east by suburban Howth, and to the south by rising rocky ground with heathland. Its western part is a relatively narrow band of mature Beech with a grassy understorey, while the much wider eastern part is overgrown Sessile Oak, Sycamore, Alder, Ash and Scots Pine. Some Hawthorn and Mountain Ash were also noted. There is a dense understorey of *Rhododendron*, Holly, Elder, Bramble, Stinging Nettle, with Ivy and Honeysuckle. At the southern edge the woodland merges into heath with Bracken, Gorse, heathers and small willows and birches.

Section D This north-western spur from the main woodland block is dominated by Beech, with some Sessile Oak, Ash, Horse Chestnut, Alder, European Larch and Scots Pine. Ivy is present on some of the trees. The understorey is mainly grassy, with some Bramble.

Section E This wood, separated from the main complex by golf course fairways and GAA playing fields, is set on a fairly steep slope. The western part is dominated by mature Sycamore, Ash, Sessile Oak, Beech, Horse Chestnut, White Poplar, Hazel and Scots Pine. New Zealand Holly is also present. The understorey is dominated by ferns, Bramble, Lesser Celandine, Bluebell, Elder,

Hawthorn and Gorse, with Yellow Iris in a marshy area. The eastern part is dominated by Scots Pine (some dead trees), with much Gorse in the understorey, and open grassy areas.

For bird survey purposes a large part of the total area of woodland in the demesne was sampled by means of the transects indicated in Figure 2. The total transect length is c.3,875 m, and this is considered to be representative of the Howth woods. The sampled area is divided into five sections (see above) so that bird registrations can be ascribed to the different parts of the woodland.

The breeding bird community of Howth Castle Demesne woodlands

A total of 50 bird species (see Table 2) was recorded during the April and May 2006 surveys. This total includes quite a large number of species which were recorded during the survey but which were not, or probably were not, breeding in the woodland. Brent Goose, Oystercatcher, Lesser Black-backed Gull, Herring Gull and Great Black-backed Gull were simply feeding on the golf course and playing fields beside the woods. Swift, Swallow and House Martin were seen feeding on aerial insects over the woods. Meadow Pipit, Grey Wagtail, Pied Wagtail, Wheatear and Linnet are thought unlikely to be breeding within the woods. Single Grasshopper Warbler and Wood Warbler were found on the first visit, and were engaged in territorial song in suitable habitat, but were not found on the second visit and may have been passing migrants. Mallard and Moorhen are not strictly woodland birds, but at Howth Castle Demesne both species bred in the woodland at the edge of the reservoir. Peregrine is also not strictly a woodland species, but a pair have a nesting site on a cliff in the woodland. Excluding all the above 16 species there remain 34 typical woodland species breeding in this site.

Of the typical woodland species, the most numerous and ubiquitous were Wren (69 individuals/all sections), Blackbird (61/10), Blue Tit (53/10), Chaffinch (38/10), Great Tit (35/10) and Greenfinch (22/10). Other numerous and widespread species were Wood Pigeon (72/9), Magpie (54/9), Robin (40/9), Hooded Crow (33/8) and Dunnock (18/8).

Table 2: Bird species recorded - Howth Castle Demesne woodlands

BIRD SPECIES		SECTION A		SECTION B		SECTION C		SECTION D		SECTION E	
		15.4.06	20.5.06	15.4.06	20.5.06	15.4.06	20.5.06	15.4.06	20.5.06	15.4.06	20.5.06
1.	Grey Heron	1									
2.	Brent Goose					45					
3.	Mallard	6	8								
4.	Sparrowhawk	1									
5.	Peregrine	1	2								
6.	Moorhen	1									
7.	Oystercatcher										1
8.	Lesser Black-backed Gull		2					1			
9.	Herring Gull		46			7	16			5	
10.	Great Black-backed Gull		19								
11.	Feral/Rock Dove										1
12.	Stock Dove	2				3		1		3	
13.	Wood Pigeon	10	17		2	1	29	2	1	7	3
14.	Collared Dove					1	2				
15.	Swift								3		21
16.	Swallow		1				1				
17.	House Martin										1
18.	Meadow Pipit	1					1				
19.	Grey Wagtail									1	
20.	Pied Wagtail		1					1			1
21.	Wren	10	22	2	4	5	6	3	2	6	9
22.	Dunnock	5	4		1	2	2		1	2	1
23.	Robin	12	11	2	1	3		2	3	3	3
24.	Wheatear	1									
25.	Blackbird	15	13	3	2	7	10	1	1	1	8
26.	Song Thrush	2	2			1	1	1			1
27.	Mistle Thrush	2				1		1	2	1	
28.	Grasshopper Warbler					1					
29.	Blackcap	2	3		2	1			1		
30.	Wood Warbler					1					
31.	Chiffchaff	3	5		1	3	1			1	
32.	Willow Warbler	5	3	2		6	2			1	
33.	Goldcrest	6	5	1		1		2	3		
34.	Long-tailed Tit	4									7
35.	Coal Tit	4				2				3	
36.	Blue Tit	20	7	3	1	12	3	2	1	3	1
37.	Great Tit	8	3	1	3	5	1	2	1	10	1
38.	Treecreeper	2								2	
39.	Magpie	11	15	2		6	4	1	1	7	7
40.	Jackdaw					4				3	1
41.	Rook							1			
42.	Hooded Crow	8	4	3	1	2	6			7	2

(Table 2. continued overleaf)

Table 2. (contd.) Bird species recorded - Howth Castle Demesne woodlands

BIRD SPECIES		SECTION A		SECTION B		SECTION C		SECTION D		SECTION E	
		15.4.06	20.5.06	15.4.06	20.5.06	15.4.06	20.5.06	15.4.06	20.5.06	15.4.06	20.5.06
43.	Starling		11		12	18	2				2
44.	Chaffinch	8	6	3	1	3	2	5	5	2	3
45.	Greenfinch	3	4	1	2	1	4	1	1	3	2
46.	Goldfinch	1								5	
47.	Siskin	1				1					
48.	Linnet	1					4			2	3
49.	Redpoll	4						2			
50.	Bullfinch	3	2				2	2			1
(50 species)											

3.3 Malahide Demesne (National Grid reference O 220.455)

Location and extent

This site is located west of the old town of Malahide, and south-east of the Malahide extension at Yellow Walls. The demesne is bounded on the east by the Dublin-Belfast railway line, on the north and west by the Dublin-Malahide road (R107), and on the south by a minor road. The demesne is the property of Fingal County Council, and approximately 35-40% is woodland. The remainder is playing fields, parkland, castle buildings and gardens.

The woodlands – distribution, extent and type(s)

The woodlands are made up of narrow belts (c.30 m) along the entire southern edge and much of the northern edge, wider blocks at the western side of the demesne, and a broad swathe bisecting the demesne and encompassing the castle and its ornamental gardens. A large part of these woodlands was surveyed and divided into four sections which were designated Sections A-D (see map: Figure 3, Appendix 1). A brief description of the woodland and its understorey in each section is given below.

Section A This section is the largest block of woodland in Malahide Demesne. It extends from the western gate eastwards and merges with the ornamental castle grounds. A rectangular block extends southwards from the main wood. A number of footpaths and narrow roads/tracks criss-cross the woodland. To the north and the rest of the south are playing fields. Beech, Sycamore, Horse Chestnut, Elm, Sessile Oak, Ash, European Larch, Norway Spruce and Yew are the main tree species present. The understorey is composed mainly of Elder, Hawthorn, Holly, Ivy, Laurel, Bramble, Stinging Nettle and Arum Lily.

Section B This wood is a fairly wide belt extending c.650 m from the west to the south-west gates of the demesne, bordered by the main Dublin-Malahide road on the west side and playing fields on much of the east side. A block of woodland extends eastwards from the main section. This wood is mixed deciduous/coniferous, with a mature plantation of Sitka Spruce covering much of the western side, and other conifers (Scots Pine, Western Red Cedar) scattered throughout. Some Monkey-puzzle is also present. Outside the plantation the woodland is dominated by Beech, Sycamore, Sessile Oak, Holm Oak, Lime, Elm, Horse Chestnut, Ash, Hazel, Mountain Ash, willows, Hawthorn, Blackthorn and Yew. The understorey is composed of Ivy, Holly, Laurel, Elder, Snowberry, Bramble and Arum Lily.

Section C This section is a narrow band of mainly deciduous trees extending c.800 m along the southern boundary of the demesne, from the south-west gate to the main southern gate. The wood is dominated by Beech, Lime, Sycamore, Sessile Oak, Horse Chestnut, Ash and Alder. There are also Hawthorn, Whitebeam, Hazel and willows, while the understorey consists of Ivy, Snowberry, Bramble, Honeysuckle, Laurel, Flowering Currant, Broom and Gorse.

Section D This wood lies to the east of the castle and its associated buildings and grounds. The Dublin-Belfast railway line forms the eastern boundary. It is mixed deciduous/coniferous, with a mature Sitka Spruce plantation occupying about half of the area. The non-plantation part of the wood is very diverse, with Sessile Oak, Holm Oak, Beech, Sycamore, Horse Chestnut, White Poplar, Yew, Scots Pine, Monterey Pine and Larch. The understorey consists of Ivy, Elder, Holly, Laurel, Hazel, Snowberry, Bramble, Ransoms, Hogweed and ferns.

For bird survey purposes a large part of the total area of woodland in the demesne was sampled by means of the transects indicated in Figure 3. The total transect length is c.3,700 m, and this is considered to be representative of the Malahide woods. The sampled area is divided into four sections (see above) so that bird registrations can be ascribed to the different parts of the woodland. The woodland block north of the castle and associated buildings and gardens was excluded because it is predominantly composed of ornamental and alien species of trees and shrubs.

The breeding bird community of Malahide Demesne woodlands

A total of 34 bird species (see Table 3) was recorded during the April and May 2006 surveys. This total includes four species which are not strictly woodland birds, but which were recorded close to the woodland edge (Herring Gull), or, in the case of Swift, Swallow and House Martin, feeding on aerial insects low over the woods. Totals for each species recorded in each section on each visit are given in Table 3. These results are discussed below.

Of the typical woodland species, the most numerous and ubiquitous were Wood Pigeon (163 individuals/all sections), Wren (73/8), Goldcrest (61/8), Blackbird (55/8), Robin (54/8), Jackdaw (44/8), Blue Tit (41/8), Chaffinch (28/8) and Greenfinch (22/8). Other numerous and widespread species were Rook (34/6), Great Tit (27/7) and Magpie (26/7). Starling was numerous (98) but confined mainly to two sections on one visit.

Table 3: Bird species recorded - Malahide Demesne woodlands

BIRD SPECIES		SECTION A		SECTION B		SECTION C		SECTION D	
		18.4.06	19.5.06	18.4.06	19.5.06	18.4.06	19.5.06	18.4.06	19.5.06
1.	Sparrowhawk			1				1	
2.	Pheasant			1					
3.	Herring Gull			1			3		
4.	Stock Dove			2					
5.	Wood Pigeon	31	15	28	31	4	16	21	17
6.	Collared Dove					2	2		
7.	Swift		5		1				
8.	Swallow				6		6		6
9.	House Martin								1
10.	Wren	7	8	16	16	8	6	4	8
11.	Dunnock	3		1					2
12.	Robin	5	8	7	8	3	10	4	9
13.	Blackbird	7	6	6	17	1	6	3	9
14.	Song Thrush	3		3					1
15.	Mistle Thrush	3	2	1	1	1			2
16.	Blackcap	2		7	1	2		1	
17.	Wood Warbler			1					
18.	Chiffchaff	2		2					1
19.	Willow Warbler	3		1		1			
20.	Goldcrest	9	5	10	15	3	1	5	13
21.	Long-tailed Tit	1		4	6			3	
22.	Coal Tit	1	1	2		2		4	2
23.	Blue Tit	13	6	8	2	3	2	4	3
24.	Great Tit	6	1	7	1	7	2	3	
25.	Treecreeper			1					
26.	Magpie	6	5	2	3	5		2	3
27.	Jackdaw	3	10	3	16	2	2	3	5
28.	Rook		2	1	16	1	6		8
29.	Hooded Crow	2	2						
30.	Starling				35		60		3
31.	Chaffinch	5	4	4	3	1	4	4	3
32.	Greenfinch	2	2	2	3	6	1	4	2
33.	Goldfinch	1				1			
34.	Bullfinch	2			1		1		

(34 species)

3.4 Portrane Demesne (National Grid reference O 245.505)

Location and extent

This site is located close to the east coast and south of the Donabate-Portrane road (R126). Much of the land is owned by the North-East Health Board and is the site of a major psychiatric hospital – St. Ita's. Those lands not occupied by the extensive hospital buildings are a mixture of pastures, hedgerows, coniferous plantations and deciduous/mixed woodlands. The woodlands cover c.60% of the demesne.

The woodlands – distribution, extent and types

The woodlands (see map: Figure 4, Appendix 1) are made up of five blocks, varying considerably in size and shape, and with conifer plantations occupying large parts of two of the sections. Four of the sections are loosely contiguous, while the fifth, at the eastern edge of the demesne, is isolated. A brief description of the woodland and its understorey in each section is given below.

Section A This section is a narrow belt of mixed woodland extending c.500 m from the old demesne entrance at the edge of Donabate village to the large block of mainly conifer plantation (Section B). To the south are arable fields, while on the north side is damp rushy grassland. Mature deciduous trees dominate, with Beech, Sessile Oak, Horse Chestnut, Lime, Sycamore, Hazel and Ash being the main species. Scots Pine and exotic conifers are also present, while the understorey is composed of Elder, Snowberry, Bramble, Wild Raspberry, Ivy and Nettle.

Section B This is the largest block of woodland in the Demesne and lies to the west of the large hospital complex. Arable land lies to the south and marshy grassland to the north. A track runs through the wood on an east/west axis, and a couple of overgrown footpaths radiate out from this to the north and south. Over half of the wood is a fairly mature Sitka Spruce plantation, with an almost bare understorey of spruce needles. However, a high proportion of the trees were covered in Ivy, and some Snowberry, Bramble, Elder, Ramsons and ferns had colonised some clearings. The perimeter of the plantation is deciduous, with Beech and Sycamore, while blocks of deciduous woodland are located at the south edge (c. 1.2 ha) and on the north-east side (c.1.5 ha).

Section C This section is a small area of mixed woodland linking the conifer plantation (Section B) to the west with the south-east wood (Section D). On its south side is an old walled garden, and to the north is a row of disused hospital buildings. The wood is fairly open and is dominated by Sessile Oak, Beech and Sycamore, with an understorey of Hawthorn, Holly, Stinging Nettle, Ransoms and Butterbur. White Poplar, Gum, Birch, Hazel, Flowering Currant and Snowberry are also present.

Section D This medium-sized block of woodland has arable land to the south, an old walled garden to the west, the main hospital complex and lawns to the east, and a field and shrubbery to the north. It is an open mature deciduous wood of Beech, Sessile Oak and Sycamore, with an understorey of Ivy, grasses, Honeysuckle and Ransoms.

Section E This section of woodland lies within a triangle formed by three roads at the east end of the demesne. Apart from a large house and garden, and a separate row of small houses, the wood occupies all of the triangle. Much of the wood is a mature conifer plantation (Sitka Spruce), while Sessile Oak, Sycamore, Monterey Cypress, Holly and Ivy are also present. A Privet and Hawthorn hedge forms the boundary of the south and west sides.

The breeding bird community of Portrane Demesne woodlands

A total of 36 bird species (see Table 4) was recorded during the April and May 2006 surveys. Most of these are typical woodland birds, but Mallard and Herring Gull were simply seen flying over, Skylark was singing over open grassland beside the woods, Swallow was nesting in hospital out-buildings and hunting for flying insects over the woods and open ground, while Pied Wagtail was associated with the hospital buildings.

Table 4: Bird species recorded - Portrane Demesne woodlands

BIRD SPECIES		SECTION A		SECTION B		SECTION C		SECTION D		SECTION E	
		19.4.06	16.5.06	19.4.06	16.5.06	19.4.06	16.5.06	19.4.06	16.5.06	19.4.06	16.5.06
1.	Grey Heron	1						3			
2.	Mallard	1	3								
3.	Pheasant	2		1	2	1	1			1	
4.	Herring Gull	1	8	1						4	
5.	Feral/Rock Dove									3	11
6.	Stock Dove						2	2		1	
7.	Wood Pigeon	13	14	41	24	7	14	1	8	12	13
8.	Collared Dove	2								2	3
9.	Skylark										1
10.	Swallow		1				1			2	1
11.	Pied Wagtail									1	1
12.	Wren	5	8	10	11	5	6	2	4	7	6
13.	Dunnoek	4	3			1			1	5	3
14.	Robin	2	1	3	4	6	5	1	3	6	1
15.	Blackbird	8	7	1	5	2	3	3	6	9	3
16.	Song Thrush	2	3			1	2		2	2	1
17.	Mistle Thrush	2					3	2		2	3
18.	Blackcap		1		1		2	1	1	1	
19.	Chiffchaff			2	1	1	2				
20.	Willow Warbler	1				1		1		1	
21.	Goldcrest	2	2	17	5	1			5	7	4
22.	Long-tailed Tit			2							
23.	Coal Tit	1	1	3	4		1			1	
24.	Blue Tit	2	5	4		3	2	1	1	2	
25.	Great Tit	2	1	2	1	1		4		4	1
26.	Magpie	1		1	2				1		1
27.	Jackdaw			1		1	2		1		3
28.	Rook	2	1					44	40	20	20
29.	Hooded Crow			1	1						
30.	Raven										1
31.	Starling							1			4
32.	Chaffinch	4	1	6			1				2
33.	Greenfinch		1	3	4	1			3	4	2
34.	Goldfinch									2	2
35.	Crossbill									3	
36.	Bullfinch				2			1			1

(36 species)

Of the typical woodland species, the most numerous and ubiquitous were Wood Pigeon (147 individuals/all sections), Wren (64/10), Blackbird (47/10) and Robin (32/10). Rook was also numerous (127), but largely confined to two colonies. Of the remaining species, the most numerous and widespread were Goldcrest (43/8), Blue Tit (20/8), Greenfinch (18/7), Great Tit (16/8), Dunnock (17/6) and Chaffinch (14/6).

3.5 Ardgillan Demesne (National Grid reference O 222.614)

Location and extent

Ardgillan Demesne is owned by Fingal County and was opened to the public as a Regional Park in June 1985. It is situated close to the east coast, between Balbriggan (c.3km) and Skerries (c.3.5km). It has dramatic panoramic views towards the Mourne mountains and the north Dublin coastline. The Dublin-Belfast railway line runs along much of its eastern boundary, while the hinterland is mixed farmland rising gently to c.100m asl. The demesne consists of 81 ha. (200 acres) of rolling lawns and meadows, mixed woodland and gardens. The woodland covers c.20% of the demesne.

The woodlands – distribution, extent and types

Ardgillan Demesne woodlands are mainly composed of Beech, Sycamore and occasional Oaks with an understory of Holly and Laurel. The seaward side was once Elm but now lost to Dutch Elm disease. The woodland in the surveyed parts of Ardgillan Demesne was divided into two distinct sections (A, B. See map: Figure 5, Appendix 1). The following is a brief description of the woodland and its understorey in each of these sections.

Section A This section of woodland lies near the 'Ladies Stairs' on the Skerries-Balbriggan Road and has a nice stand of mixed species plus Lime, Sweet Chestnut, Wild Cherry and an understory of Laurel and occasional Rhododendron. This area also contains a wet area of Willows, and there are two very small stands of Spruce, the only conifers in the demesne lie just north of the 'Ladies Stairs'.

Section B This area just below east of walled garden is predominantly Sycamore: its east side has a herb layer and its west side a thick understory of Laurel.

The breeding bird community of Ardgillan Demesne woodlands

A total of 36 bird species (see Table 5) was recorded during the April and May 2006 surveys. Most of these are typical woodland birds, but Swift, Swallows and House Martins and Sand Martins were seen feeding on aerial insects low over the woods and lawns. Totals for each species recorded in each section on each visit are given in Table 5. These results are discussed below.

Of the typical woodland species, the most numerous and ubiquitous were Wood Pigeon (34 individuals/all sections), Wren (34/4), Blackbird (31/4), Blue Tit (33/4), Goldcrest (26/4), Chaffinch (25/3), Robin (21/4), Greenfinch (21/3) and (Jackdaw 21/3). Buzzards were observed circling near the woodland but it is believed that this pair is associated with the Hampton Demesne woodland. Long-eared Owl pellets have been found but only very occasional have there been sightings or have young been heard calling. Woodcock certainly winter at Ardgillan in small numbers but there is no confirmed breeding of this species.

Table 5: Bird species recorded - Ardgillan Demesne woodlands

BIRD SPECIES	SECTION A		SECTION B	
	29.4.06	31.5.05	29.4.06	31.5.05
1. Grey Heron		1		
2. Buzzard				1
3. Sparrowhawk		1		
4. Kestrel	2	1		
5. Pheasant			1	
6. Stock Dove		1		
7. Wood Pigeon	5	16	9	4
8. Collared Dove				
9. Swift		2		1
10. Swallow		1		4
11. House Martin				2
12. Sand Martin		3		
13. Wren	9	11	6	8
14. Dunnock	6	5		5
15. Robin	6	7	1	5
16. Blackbird	9	10	7	5
17. Song Thrush	3	1		2
18. Mistle Thrush	3	1	1	
19. Blackcap	7	3	2	
20. Chiffchaff	3	1		1
21. Willow Warbler	5		2	
22. Goldcrest	8	7	6	5
23. Long-tailed Tit				4
24. Coal Tit	2	3	1	
25. Blue Tit	12	6	8	7
26. Great Tit	6	1	7	1
27. Treecreeper		2	1	
28. Magpie	2	2		3
29. Jackdaw	8	5	4	11
30. Rook	2	8		4
31. Hooded Crow		1	1	
32. Starling		2		4
33. Chaffinch	9	10		6
34. Greenfinch	4	8		9
35. Goldfinch	1		1	3
36. Bullfinch	2		2	4

(36 species)

3.6 Hampton Demesne (National Grid reference O 213.617)

Location and extent

This small, privately-owned demesne lies just south of the southern outskirts of Balbriggan, and a short distance north-west of Ardgillan Demesne. It is c.40m asl and is c.1km from the sea, surrounded by arable land and bordered to the west by Balbriggan Golf Course. The Dublin-Belfast road (N1) and railway line pass west and east of the demesne respectively.

The woodlands – distribution, extent and types

The small, undisturbed woodland of Hampton Demesne was divided into four survey sections (A-D. See map: Figure 6, Appendix 1). The following is a brief description of each woodland section.

Section A This narrow belt of newly planted woodland extends to the east of the demesne and is bordered by arable fields to the south.

Section B Introduced vines dominate this small, semicircular open area.

Section C A rectangular new deciduous plantation situated within the main woodland.

Section D This main block of mature woodland consists mainly of deciduous trees (Horse Chestnut, Sycamore, Beech, Hazel) interspersed with a few conifers. The understorey is composed of Laurel, Holly, Rhododendron, Ferns, Ivy and Nettle. Bramble is dominant around the southern margins. The woodland contains two small ponds; one situated to the east of section C and a second to the north of this woodland block.

The breeding bird community of Hampton Demesne woodland

A total of 39 bird species (see Table 6) was recorded during the April and May 2006 surveys. This total includes four species which are not strictly woodland birds, in the case of Swift, Swallow, Sand Martin and Moorhen. The first three were recorded feeding on aerial insects low over the woods, while Moorhen with young were recorded on both ponds within the woodland. A flock of Crossbill was recorded passing through the woodland to the conifers in the neighbouring golf course. Totals for each species recorded in each section on each visit are given in Table 6. These results are discussed below.

Of the typical woodland species, the most numerous and ubiquitous were Wood Pigeon (38 individuals/six sections), Blackbird (26/6), and Wren (14/5). Of the remaining species, the most numerous and widespread were Blackcap (13/7), Dunnock (12/5), Great Tit (12/5), Chaffinch (12/4), Goldfinch (12/4), Blue Tit (10/5) and Starling (10/3). Notably, of the eight Fingal Woodland sites studied, Tree Sparrow was recorded only at the Hampton Demesne site. Buzzards were observed circling over the woodland, twig carrying, mating and calling. There is suitable habitat for Whitethroat at this site, though none was reported. Until 2004, a Barn Owl had been regularly sighted on the approach lane to the house.

Table 6: Bird species recorded - Hampton Demesne woodland

BIRD SPECIES	SECTION A		SECTION B		SECTION C		SECTION D	
	28.4.06	31.5.06	28.4.06	31.5.06	28.4.06	31.5.06	28.4.06	31.5.06
1. Grey Heron								1
2. Moorhen			1	2				2
3. Buzzard							2	
4. Kestrel	2	2						
5. Pheasant							2	1
6. Rock Dove/Feral Pigeon								6
7. Stock Dove	1	1	1	1			2	2
8. Wood Pigeon	1	4		5		6	8	14
9. Collared Dove		1						1
10. Swift	2	1					2	1
11. Swallow	4	7				3	4	1
12. House Martin		1						1
13. Sand Martin	2			1			2	4
14. Wren		4	1	5			3	1
15. Dunnock				3	2	4	1	2
16. Robin	1					1	1	2
17. Blackbird	2	12		3		2	2	5
18. Song Thrush	3	3		1		1	3	1
19. Mistle Thrush	1	1					1	1
20. Blackcap	1	1	3	3		2	2	1
21. Chiffchaff			1	1	1		1	1
22. Willow Warbler						1		1
23. Goldcrest					1		1	3
24. Long-tailed Tit			1	2			2	2
25. Coal Tit			1	1			1	3
26. Blue Tit	1	1		3			1	4
27. Great Tit		3	2	2			2	3
28. Magpie		1		2			1	1
29. Jackdaw		3					2	3
30. Rook	2						2	2
31. Hooded Crow	1	1					1	1
32. Starling		8		1				1
33. Tree Sparrow		1						
34. Chaffinch	1			2			4	5
35. Greenfinch	1	2					1	2
36. Goldfinch	4	1	2	1			2	2
37. Siskin				1				1
38. Crossbill								44
39. Bullfinch				2			2	3

(39 species)

3.7 Gormanston Demesne (National Grid reference O 165.664)

Location and extent

This demesne belongs to Gormanston College, and is situated on the Delvin River, which forms the boundary between Co. Meath and Fingal County. It lies between the Dublin-Belfast M1 motorway and N1 road c.4km north-west of Balbriggan. The demesne is a mixture of woodland, college buildings, playing fields, lawns and ornamental gardens.

The woodlands – distribution, extent and types

The woodlands at Gormanston Demesne were divided into three sections (A-C. See map: Figure 7, Appendix 1). The following is a brief description of these sections.

Section A This east section of the woodland block to the west of the main college buildings is bordered to the south by playing fields. Predominantly deciduous woodland with Horse Chestnut, Beech, Sycamore, Ash and Copper Beech. The understory is dominated by Bramble, with some Laurel, Ramsons, Holly, Ivy, Hogweed, Nettle, and ferns. It is bordered to the north by a stream (Meath border) and a broad belt of 40-yr old conifers.

Section B This area is the continuation west of section A (above).

Section C This transect extends from the main gate of the demesne to the College building and consists of a mix of deciduous and coniferous blocks and lawns and an amazing pathway through parallel rows of old Yews.

The breeding bird community of Gormanston Demesne woodlands

A total of 35 bird species (see Table 7) was recorded during the April and May 2006 surveys. This total includes six species which are not strictly woodland birds - Swift, Swallow, House Martin, Mallard, Pied Wagtail and Grey Wagtail. The first three were recorded feeding on aerial insects over the woodlands and adjacent college buildings. Mallard was recorded on the stream which borders the study area to the north, while Pied Wagtail was associated with the college building, and Grey Wagtail was breeding along the woodland stream. Totals for each species recorded in each section on each visit are given in Table 7. These results are discussed below.

Of the typical woodland species, the most numerous and ubiquitous were Wood Pigeon (79 individuals/all sections), Blackbird (44/6), Rook (36/5) with the main concentration in area A (24/1), Great Tit (27/6), Jackdaw (27/4), Blue Tit (25/6), Wren (24/6). Of the remaining species, the most numerous and widespread were Song Thrush (19/6), Long-tailed Tit (16/4), Goldcrest (13/6), Robin (12/5), and Hooded Crow (11/5). Two species not recorded on the count dates but which have been reported at this site are Goldfinch and Siskin.

Table 7: Bird species recorded - Gormanston Demesne woodlands

BIRD SPECIES		SECTION A		SECTION B		SECTION C	
		27.4.06	28.5.06	27.4.06	28.5.06	27.4.06	28.5.06
1.	Mallard			1			
2.	Sparrowhawk	1	1				
3.	Kestrel				1		
4.	Pheasant						2
5.	Rock Dove/Feral Pigeon						1
6.	Wood Pigeon	12	9	13	13	13	19
7.	Collared Dove		1	1			
8.	Swift		1				
9.	Swallow		7				3
10.	House Martin		2				
11.	Grey Wagtail		1				
12.	Pied Wagtail		1				
13.	Wren	2	2	4	5	4	7
14.	Dunnock		1	1	1	2	4
15.	Robin	2	1		2	5	2
16.	Blackbird	5	4	3	4	11	17
17.	Song Thrush	5	3	2	2	3	4
18.	Mistle Thrush	1	2			3	
19.	Blackcap	2	1	2			1
20.	Chiffchaff			1	2		2
21.	Willow Warbler	1		1	1	2	
22.	Goldcrest	1	2	2	4	2	2
23.	Long-tailed Tit	5			6	1	4
24.	Coal Tit		2	1		2	2
25.	Blue Tit	5	2	3	2	9	4
26.	Great Tit	6	2	4	2	7	6
27.	Treecreeper	1		1	2		
28.	Magpie		1				3
29.	Jackdaw	2	3			14	8
30.	Rook	5	24	1		1	5
31.	Hooded Crow	2	2	2	1	4	
32.	Starling	2					2
33.	Chaffinch	2	1	6	3	6	3
34.	Greenfinch	1		1		2	
35.	Bullfinch	1		1			3
(35 species)							

3.8 Delvin River Woodland (National Grid reference O 148.645)

Location and extent

This small, narrow strip of woodland (700m) lies on a north/south axis in a stream valley linked to the Delvin River, on the Co. Meath/Fingal County boundary. It forms part of the grounds of a nursing home, which is situated c.1km southwest of the village of Stamullin. The woodland lies c.5.5km west of Balbriggan.

The woodlands – distribution, extent and types

The Delvin River woodland was divided into three sections (A-C. See map: Figure 8, Appendix 1). The following is a brief description of these sections.

Section A A small section of the mixed deciduous woodland with a private woodland walk and bordered to the north by a stream.

Section B An undisturbed, mixed deciduous woodland with Sycamore, Horse Chestnut, Beech and an understory of fern, Bluebell, Nettle, Brambles, Holly, Hogweed and Primroses. Sloping to the west, Alder dominates the stream valley floor and area of standing water with Yellow Iris lies to the south. Deadwood has been left on the woodland floor.

Section C This section covers the mixed stands of coniferous and deciduous trees in the garden of the nursing home.

The breeding bird community of Delvin River woodland

A total of 39 bird species (see Table 8) was recorded during the April and May 2006 surveys. This total includes four species which are not strictly woodland birds; Swift, Swallow were recorded feeding on aerial insects over the woodland, a Reed Bunting at the edge of the woodland was associated with a wet area north of Section A, while a Grey wagtail was observed on the first visit at the stream by the woodland trail but not recorded thereafter. Totals for each species recorded in each section on each visit are given in Table 8. These results are discussed below.

This sloped woodland was shaded from the morning sun and is slow to heat up, which delayed the start of the dawn chorus (also affecting the rate of growth of the understory) on the first visit. This accounts for the low numbers of birds recorded in April. Of the typical woodland species, the most numerous and ubiquitous were Wood Pigeon (40 individuals/five sections), Blackbird (27/5), Wren (25/4), Chaffinch (22/5), Blue Tit (21/4) and Robin (20/5). Of the remaining species, the most numerous and widespread were Goldcrest (19/5), Great Tit (18/4), Jackdaw (14/3) and Greenfinch (13/5). Notably, of the eight Fingal Woodland sites studied, Spotted Flycatcher was recorded only at the Delvin River Woodland site. Buzzards were observed circling over the woodland and calling. This woodland has perfect habitat for Woodcock though the species was not recorded during the visits

Table 8: Bird species recorded - Delvin River woodland

BIRD SPECIES		SECTION A		SECTION B		SECTION C	
		27.4.06	28.5.06	27.4.06	28.5.06	27.4.06	28.5.06
1.	Buzzard		1	2	1		
2.	Sparrowhawk				1		
3.	Pheasant		1	2	3		
4.	Rock Dove/Feral Pigeon						2
5.	Stock Dove			1			
6.	Wood Pigeon	1	8	6	21		4
7.	Collared Dove						3
8.	Swift		8		1		
9.	Swallow		3				6
10.	Grey Wagtail	1					
11.	Wren	2	8		12		3
12.	Dunnock		1		4		2
13.	Robin		2	4	11	1	2
14.	Blackbird	2	3	5	16		1
15.	Song Thrush		2	1	3	1	
16.	Mistle Thrush	1		1			3
17.	Blackcap	2	1	1	6	2	
18.	Chiffchaff		1	3	4		
19.	Willow Warbler			1			
20.	Goldcrest	1	3	6		1	8
21.	Spotted Flycatcher		1				
22.	Long-tailed Tit				4		
23.	Coal Tit		1	1			1
24.	Blue Tit		2	7	8		4
25.	Great Tit	2	2	4	10		
26.	Treecreeper			1			1
27.	Magpie			1	5		2
28.	Jackdaw		3		9		2
29.	Rook	1		2	3		
30.	Hooded Crow	1		4	1		
31.	Starling		1				
32.	House Sparrow						1
33.	Chaffinch	3	1	5	8		5
34.	Greenfinch	1	2		3	1	6
35.	Goldfinch					2	2
36.	Siskin						1
37.	Redpoll					1	
38.	Bullfinch			3		3	
39.	Reed Bunting	1					

(39 species)

4. Comparisons with the woodland breeding birds recorded in the *New Atlas of Breeding Birds in Britain and Ireland: 1988-1991* (Gibbons *et al.* 1993)

Table 9: Woodland Birds In Ireland, Fingal in 1988-91, and in 8 Fingal sites 2006

	BIRD SPECIES	Breeding in Ireland	Breeding in Fingal area	Breeding in 8 Fingal woods in 2006
1.	Grey Heron	P	P	P
2.	Hen Harrier	P	A	A
3.	Sparrowhawk	P	P	P
4.	Buzzard	P	A	P
5.	Kestrel	P	P	P
6.	Merlin?	P	A	A
7.	Pheasant	P	P	P
8.	Woodcock	P	P	A
9.	Rock Dove/Feral Pigeon	P	P	P
10.	Stock Dove	P	P	P
11.	Wood Pigeon	P	P	P
12.	Collared Dove	P	P	P
13.	Cuckoo?	P	P	A
14.	Barn Owl	P	P	A
15.	Long-eared Owl	P	P	P
16.	Short-eared Owl?	P	A	A
17.	Nightjar	P	A	A
18.	Tree Pipit	P	A	A
19.	Wren	P	P	P
20.	Dunnock	P	P	P
21.	Robin	P	P	P
22.	Redstart	P	A	A
23.	Blackbird	P	P	P
24.	Song Thrush	P	P	P
25.	Mistle Thrush	P	P	P
26.	Grasshopper Warbler?	P	P	P
27.	Whitethroat?	P	P	A
28.	Garden Warbler	P	A	A
29.	Blackcap	P	P	P
30.	Wood Warbler	P	A	P
31.	Chiffchaff	P	P	P
32.	Willow Warbler	P	P	P
33.	Goldcrest	P	P	P
34.	Spotted Flycatcher	P	P	P
35.	Pied Flycatcher	P	A	A

(Table 9. continued overleaf)

Table 9. (Contd.) Woodland Birds In Ireland, Fingal in 1988-91, and in 8 Fingal sites 2006

	BIRD SPECIES	Breeding in Ireland	Breeding in Fingal area	Breeding in 8 Fingal woods in 2006
36.	Long-tailed Tit	P	P	P
37.	Coal Tit	P	P	P
38.	Blue Tit	P	P	P
39.	Great Tit	P	P	P
40.	Treecreeper	P	P	P
41.	Jay	P	P	A
42.	Magpie	P	P	P
43.	Jackdaw	P	P	P
44.	Rook	P	P	P
45.	Hooded Crow	P	P	P
46.	Raven	P	A	P
47.	Starling	P	P	P
48.	House Sparrow	P	P	P
49.	Tree Sparrow	P	P	P
50.	Chaffinch	P	P	P
51.	Greenfinch	P	P	P
52.	Goldfinch	P	P	P
53.	Siskin	P	P	P
54.	Linnet?	P	P	P
55.	Redpoll	P	P	P
56.	Crossbill	P	A	P
57.	Bullfinch	P	P	P
58.	Reed Bunting?	P	P	P

(58 species)**P = Present; A = Absent**

Note: Species followed by a "?" are ones which are marginally classified as woodland birds (58 species, of which 6 are marginally classified as woodland species)

The *New Atlas of Breeding Birds* recorded confirmed and possible breeding in each 10-kilometre square of the National Grid. While the Fingal woods occupy only a small area within their respective 10-kilometre squares, there is considerable correspondence between the species found in the Fingal Woods during the present survey and the species found during the 1988-1991 survey. It should be noted that the *New Atlas* survey covered a four-year period, while the 2006 survey was limited to two visits in one year. Therefore the results of the two surveys cannot be expected to be fully comparable. The difference in survey intensity may account for some species not being recorded in 2006. Furthermore, in the *New Atlas* survey observers made a special effort to record nocturnal and crepuscular species, which effort was not applied in the 2006 survey. Nonetheless, species recorded during the *New Atlas* survey but not in the 2006 survey, and *vice versa*, may reflect changes in the status of these species over time, and not simply the difference in observer effort. For example, the low number of Spotted Flycatchers (1 site) in 2006 fits in well with the documented decline in this summer migrant, while the more widespread occurrence of Blackcaps in 2006 reflects the general increase and spread of this species in Ireland.

5. Site-by-site comparisons

Santry Demesne falls within National Grid 10-kilometre square no. O 14. The number of species found in the woodland bird survey in 2006 was 43 (see Table 1). However, a number of these are not woodland birds. The Santry Demesne contains a small lake, the Santry Stream flows through it, and there are large areas of open parkland. In 2006 these non-woodland habitats produced sightings of 12 species which are not woodland birds: Little Grebe, Grey Heron (apart from breeding colonies), Mute Swan, Mallard, Tufted Duck, Moorhen, Lesser Black-backed Gull, Herring Gull, Swallow, Meadow Pipit, Pied Wagtail and Reed Bunting. When these 12 species are removed from the comparison between 2006 and the *New Atlas* survey the remaining 31 species correspond very closely with the 36 woodland species found in the Santry 10-km square in 1988-91. Species found in 2006 but not in 1988-91 were Pheasant, Long-tailed Tit, Treecreeper and Redpoll. Species found in 1988-91 but not found in 2006 were Barn Owl, Long-eared Owl, Spotted Flycatcher, House Sparrow and Tree Sparrow.

Howth Castle Demesne falls within National Grid 10-kilometre square no. O 23. The number of species found in the woodland bird survey in 2006 was 50 (see Table 2), which compares with 38 confirmed breeding and 3 possibly breeding (total 41) in the 10 km square in 1988-91. However, 15 species recorded in 2006 (see above) are not considered to be typical woodland birds, so the remaining 35 woodland birds in 2006 compares well with the 38 found in the 10-km square during the *New Atlas* survey. No species which was found in 2006 was not recorded in 1988-91. Species found in 1988-91 but not found in 2006 were Kestrel, Pheasant, Long-eared Owl, Spotted Flycatcher, Raven and House Sparrow.

Malahide Demesne falls within National Grid 10-kilometre square no. O 24. The number of species found in the woodland bird survey in 2006 was 34 (see Table 3), which compares with 37 confirmed breeding in the 10-km square in 1988-91. When four non-woodland species (Herring Gull, Swift, Swallow and House Martin) are removed from the Malahide Demesne list of 2006, the shortfall in 2006 is more evident. The woodland species found in 2006 but not in 1988-91 was Wood Warbler. Species found in 1988-91 but not in 2006 were Grey Heron, Kestrel, Rock Dove, Spotted Flycatcher, Jay, House Sparrow and Tree Sparrow.

Portrane Demesne falls within National Grid 10-kilometre square no. O 25. The number of species found in the woodland bird survey in 2006 was 36 (see Table 4), which compares with 33 confirmed breeding and 4 possibly breeding (total 37) in the 10-km square in 1988-91. When five non-woodland species (Mallard, Herring Gull, Skylark, Swallow and Pied Wagtail) are removed from the Portrane Demesne list of 2006, the difference is more significant. One woodland species, Crossbill, was found in 2006 but not in 1988-91. Species found in 1988-91 but not in 2006 were Sparrowhawk, Kestrel, Barn Owl, Long-eared Owl, Spotted Flycatcher, Treecreeper, Jay, House Sparrow, Tree Sparrow and Siskin.

Ardgillan and Hampton Demesnes fall within National Grid 10-kilometre square no. O 26. The number of species found in the woodland bird survey in 2006 was 36 in Ardgillan Demesne (see Table 5) and 39 in Hampton Demesne (see Table 6). This compares with 35 confirmed breeding and 4 possibly breeding (total 39) in the 10-km square in 1988-91. Woodland species found in Ardgillan Demesne in 2006 but not in 1988-91 were Buzzard, Blackcap (reflecting the increase and spread in Ireland), and, surprisingly, Long-tailed Tit. Species found in 1988-91 but not in 2006 were Rock Dove/Feral Pigeon, Barn Owl (declining), Spotted Flycatcher (declining), House Sparrow (declining) and Tree Sparrow (scarce and localised).

At Hampton Demesne the birds found there in 2006 but not in 1988-91 were Buzzard, Blackcap and Long-tailed Tit (as at Ardgillan), and also Siskin and Crossbill. Species found in 1988-91 but not in 2006 were Sparrowhawk, Barn Owl, Spotted Flycatcher, Treecreeper and House Sparrow.

Gormanston Demesne and **Delvin River Woodland** fall within National Grid 10-kilometre square no. O 16. The number of species found in the woodland bird survey in 2006 was 35 in Gormanstown Demesne (see Table 7) and 39 in Delvin River Woodland (see Table 8). This compares with 37 confirmed breeding and 2 possibly breeding (total 39) in the 10-km square in 1988-91. Woodland species found in Gormanston Demesne in 2006 but not in 1988-91 were Sparrowhawk and Blackcap, while those found in 1988-91 but not in 2006 were Grey Heron, Stock Dove, Long-eared Owl, Barn Owl, Spotted Flycatcher, Treecreeper, House Sparrow and Tree Sparrow. At the Delvin River Woodland the species found in 2006 but not in 1988-91 were Buzzard, Sparrowhawk, Blackcap, Siskin and Redpoll. Those found in 1988-91 but not in 2006 were Grey Heron, Kestrel, Long-eared Owl, Barn Owl and Tree Sparrow.

Some of the discrepancies/shortfalls between the numbers of species found in the eight woods in 2006 and those found in 1988-91 are probably due to (a) the fact that the study woods form only a small part of their respective 10-km squares, (b) the nocturnal or crepuscular habits of several species (e.g. owls, Woodcock) which were not found in 2006, and (c) the much more extended time-scale of the 1988-91 survey. However, easily detected species such as Spotted Flycatchers and House Sparrows were only found at one site respectively in 2006, and their absence at the other sites may reflect the overall declines in these species which have been noted by Newton *et al.* (1999).

In order to draw comparisons between the bird communities in the eight Fingal woods surveyed in 2006, the 40 woodland species recorded in these woods have been listed in Table 10, where their presence or absence in each wood is indicated.

From this table it can be seen that 24 woodland species were recorded in all of the woods surveyed, while a further three were recorded in seven of the eight woods, two more species in six woods, one more in five woods, and two more in four woods. Thus 32 of the 40 woodland species were recorded in four to all of the woods. The remaining eight species – Buzzard (3 woods), Redpoll (3 woods), Wood Warbler (2 woods), Crossbill (2 woods), Spotted Flycatcher (1 wood), Raven (1 wood), House Sparrow (1 wood), Tree Sparrow (1 wood) – were present in one to three of the woods in Fingal.

In the case of **Buzzard**, their presence in three woods is interesting, particularly as this species was close to extinction in Ireland half a century ago. However, it is now increasing and spreading in the north and east of Ireland. It may be just a matter of time before the species breeds in some of the other Fingal woods, although the absence of open farmland with rabbit populations in proximity to some of the woods is likely to be a limiting factor.

Redpolls are common and widespread in Ireland and their absence from five of the eight Fingal woods surveyed in 2006 is somewhat puzzling. However, it can be seen from *The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991* (Gibbons *et al* 1993) that the species was absent from virtually all of Co. Dublin.

Wood Warblers are rare and localised summer visitors to Ireland, occurring mainly in a few upland Sessile Oak woods. Single males were recorded singing in Howth and Malahide, indicating probable breeding. If breeding becomes established in Fingal woods this would represent an extension to the species' range in Ireland.

Crossbills, formerly rather irregular visitors and breeders in Ireland, are now well-established in mature coniferous forests, mainly in the uplands. They feed only on seeds from the cones of pines and spruces and therefore are heavily dependant on the presence of large numbers of these trees. Some of the Fingal woods have conifer plantations, and a scattering of stands and individual conifers, and this explains the presence of Crossbills in Portrane. *The New Atlas of Breeding Birds* (Gibbons *et al* 1993) shows a complete absence of this species from Fingal, so the 2006 record indicate a range expansion.

The finding of just one **Spotted Flycatcher** in one Fingal wood (Delvin River) during the 2006 survey was very surprising. It has been known for some time that the species (a summer visitor from sub-Saharan Africa) has been declining, but with suitable breeding and feeding habit available in all the Fingal woods, it was fully expected that most would have one or more pairs. In the survey of 1988-1991 (Gibbons *et al* 1993) the species was common throughout Ireland, so the major decline appears to have been a recent phenomenon.

Until relatively recently **Ravens** were confined to wild upland and coastal areas, probably due to persecution, where they nested mainly on high cliffs. However, in recent decades the species spread to the lowlands and increasingly birds are nesting in mature trees. The presence of a pair at Portrane suggests tree-nesting there and indicates a continuation of this trend in the lowlands. Elsewhere in Fingal County a few Ravens are confined mainly to coastal cliffs.

The finding of **House Sparrow** and **Tree Sparrow** in only one wood (Delvin River and Hampton respectively) was surprising, especially in the case of the former. Tree Sparrows are scarce and localised in their distribution in Ireland (mainly the north-east and east). Fingal County and north to Co. Louth is a stronghold, so it was not surprising to find Tree Sparrows in one of the surveyed woods. The absence of House Sparrows from all but one wood is somewhat surprising, especially as all of the woods have buildings within or beside them, so that there is no shortage of suitable nesting sites. However, this species has been declining (for reasons not fully understood) in Ireland and Britain, especially during the last decade.

The 24 to 32 species which made up the bird community of half to all of the Fingal woods surveyed in 2006 present no real surprises, as all are common and widespread in Ireland, and the Fingal woods provide ideal nesting and feeding habitat for them. Some birds not recorded in all woods may have been present but were simply not seen or heard, e.g. Treecreeper. It is interesting to note that Collared Dove was found in all the woods, considering that it is a relative newcomer to Ireland, first starting to colonise less than fifty years ago. Also of note is the presence of Blackcap (in some cases several pairs) in all the woods. This species has been steadily increasing and extending its range in Ireland in recent decades. Within Fingal, the finding of the species in all the woods represents a major range expansion since 1988-1991 (Gibbons *et al* 1993).

Table 10: Bird species present or absent in each of the eight woodlands surveyed in 2006x

BIRD SPECIES	Santry	Howth	Malahide	Portrane	Ardgillan	Hampton	Gormanst.	Delvin R.
Grey Heron	P	P	A	P	P	P	A	A
Sparrowhawk	P	P	P	A	P	A	P	P
Buzzard	A	A	A	A	P	P	A	P
Kestrel	P	A	A	A	P	P	P	A
Pheasant	P	A	P	P	P	P	P	P
Stock Dove	P	P	P	P	P	P	A	P
Wood Pigeon	P	P	P	P	P	P	P	P
Collared Dove	P	P	P	P	P	P	P	P
Wren	P	P	P	P	P	P	P	P
Duncock	P	P	P	P	P	P	P	P
Robin	P	P	P	P	P	P	P	P
Blackbird	P	P	P	P	P	P	P	P
Song Thrush	P	P	P	P	P	P	P	P
Mistle Thrush	P	P	P	P	P	P	P	P
Blackcap	P	P	P	P	P	P	P	P
Wood Warbler	A	P	P	A	A	A	A	A
Chiffchaff	P	P	P	P	P	P	P	P
Willow Warbler	P	P	P	P	P	P	P	P
Goldcrest	P	P	P	P	P	P	P	P
Spotted Flycatcher	A	A	A	A	A	A	A	P
Long-tailed Tit	P	P	P	P	P	P	P	P
Coal Tit	P	P	P	P	P	P	P	P
Blue Tit	P	P	P	P	P	P	P	P
Great Tit	P	P	P	P	P	P	P	P
Treecreeper	P	P	P	A	P	A	P	P
Magpie	P	P	P	P	P	P	P	P
Jackdaw	P	P	P	P	P	P	P	P
Rook	P	P	P	P	P	P	P	P
Hooded Crow	P	P	P	P	P	P	P	P
Raven	A	A	A	P	A	A	A	A
Starling	P	P	P	P	P	P	P	P
House Sparrow	A	A	A	A	A	A	A	P
Tree Sparrow	A	A	A	A	A	P	A	A
Chaffinch	P	P	P	P	P	P	P	P
Greenfinch	P	P	P	P	P	P	P	P
Goldfinch	P	P	P	P	P	P	A	P
Siskin	A	P	P	A	A	P	A	P
Redpoll	P	P	A	A	A	A	A	P
Crossbill	A	A	A	P	A	P	A	A
Bullfinch	P	P	P	P	P	P	P	P

P = Present; A = Absent

6. Birds of conservation concern

Newton *et al.* (1999) identified 18 bird species in Ireland as being of highest conservation concern, and placed these on a **Red List**. Of these species, only three can be regarded as woodland species, i.e. **Hen Harrier**, **Barn Owl** and **Nightjar**. Because of the very specific habitat requirements of Hen Harriers and Nightjars, and their historical distribution in Ireland, these two species are extremely unlikely to be found in the Fingal woodlands. Barn Owls could be expected to occur in some of the study areas, but were not found during the 2006 survey. During the New Atlas survey in 1988-91 this species was recorded as *possibly breeding* in the 10-km squares containing Santry Demesne, Gormanston Demesne/Delvin River Woodland, Portrane Demesne, and Ardgillan/Hampton Demesnes. Barn Owl has not been sighted at Hampton Demesne since 2004. However, the species is known to have declined in Ireland since 1988-91 and it is possible that it is now completely absent from the eight Fingal woodlands in the present study.

Newton *et al.* also identified 77 species of medium conservation concern, and placed these on an **Amber List**. About 13 of these can be regarded as woodland or partly woodland species, i.e. **Little Egret** (breeding only), **Goshawk**, **Merlin** (some breeding in woodland), **Woodcock**, **Stock Dove**, **Cuckoo** (occasionally breeding in woodland edge, laying in nests of woodland birds), **Short-eared Owl** (some breeding in very young plantations), **Redstart**, **Lesser Whitethroat** (occasionally breeding in woodland edge in its British range), **Wood Warbler**, **Spotted Flycatcher**, **Pied Flycatcher** and **Redpoll**.

The majority of the above species were not found during the Fingal woodland breeding bird survey in 2006, and indeed some of them would not be expected to occur. These are as follows:

Little Egret¹: This species has only recently begun to colonise Ireland, steadily moving north from Mediterranean areas. So far the species is confined to Cos. Cork, Waterford and Wicklow, though it is thought it may now be nesting in one or two locations in Co. Dublin e.g. Newbridge Demesne. It is likely Little Egrets will breed in some of the Fingal woods in future, especially those which are close to the coastal estuaries.

Goshawk: This species is a very rare recent breeder in Ireland and so far has not been recorded nesting in eastern counties.

Merlin: While this species is quite a widespread breeder, most birds are found in the uplands. Until recently Merlins favoured open moorland, but now some are breeding in adjacent mature coniferous plantations. It is thought the lowland deciduous and mixed woodlands of Fingal are not a suitable nesting habitat for them.

Short-eared Owl: In Ireland the very few instances of breeding by this species have been in moorland areas (with clear-felled or recently planted conifers), mainly in the southwest where introduced Bank Voles *Clethrionomys glareolus* are common.

Redstart: In Ireland this scarce summer migrant is found mainly in Sessile Oak woodland in mountain glens, particularly in Cos. Wicklow and Kerry. Therefore it would be surprising to find the species breeding in the Fingal woods. Apart from its localised distribution, the lack of natural nesting holes in the Fingal woods would discourage any stray migrants from establishing breeding territory in these woods.

¹ Since writing this it is now known to be breeding in woods on the Boyne Estuary (Cos. Louth/Meath) and at Newbridge House (Co. Dublin).

Lesser Whitethroat: While the species breeds in scrub and woodland edge elsewhere in its range, it is a very rare breeder in Ireland and has been found in only one location, in coastal scrub. Therefore it is unlikely to breed in the Fingal woods.

Pied Flycatcher: This is a very rare summer visitor to Ireland, which has been found nesting only in a couple of upland Sessile Oak woods in Cos. Wicklow and Antrim. Therefore it is unlikely to breed in the Fingal woods.

Of the remaining six **Amber List** woodland species, **Stock Dove**, **Wood Warbler**, **Redpoll** and **Spotted Flycatcher** were found in some of the Fingal woods. Two species that could be expected to occur in some of the Fingal woods (on account of their general status and distribution in Ireland, and Fingal in particular, and also because suitable nesting habitat is present in these woods) are **Woodcock** and **Cuckoo**.

Woodcock are very difficult to find unless listened for while “roding” (territorial display flight) at dusk. This would require additional dedicated search, which was not included in the survey brief.

Cuckoos have declined greatly in the eastern lowlands of Ireland, and woodland edge is not a preferred habitat for the species. By 1988-91 very few were recorded in the Fingal area (Gibbons *et al.* 1993). Had any been present at any of the eight Fingal woodlands surveyed in 2006, they would have been detected by hearing their loud and very distinctive call.

While the Amber List Peregrine Falcon is not a woodland bird, a pair was found nesting in the Howth Castle Demesne woodland. This is an exceptional occurrence, accounted for by the fact that a large cliff with a suitable nesting ledge is located just inside the woodland edge. This species was close to extinction in Ireland thirty-five years ago, due to persistent organo-chlorine pesticides accumulating in the birds through their food-chain. The use of these pesticides was banned or severely curtailed and the Peregrines have recovered. Now there are over 450 pairs breeding in Ireland. Their continued use of the site at Howth Castle Demesne depends on preventing disturbance or vandalism, and probably also on the maintenance of open space in the vicinity of the cliff.

Of the other Amber List species found in the Fingal woods, Stock Doves benefit from the presence of large holes in old trees, while Redpolls have a strong preference for groves of Alders. If these nesting sites and habitat are maintained the birds can be expected to continue using the woods. The rare status of Wood Warbler, and the decline in Spotted Flycatchers - both summer migrants from Africa - are probably beyond our control, though Spotted Flycatchers, if they arrive here at all, may benefit from the provision of open-fronted nest boxes.

6.1 Birds listed in Annex I of the European Union Directive on the Conservation of Wild Birds

This Directive (no. 79/409/EEC) lists in Annex I bird species which are of particular conservation concern in the European Union. A number of these occur in Ireland, but only very few can be regarded as woodland species, e.g. Little Egret (nesting in woodland, see above), Hen Harrier (see above), Merlin (see above), Short-eared Owl (see above), Nightjar. None of these was found in any of the eight Fingal woodlands surveyed in 2006. However, one Annex I species, Peregrine Falcon, normally restricted to nesting on sheer cliffs in open terrain, was found nesting on a cliff within the woodland at Howth Castle Demesne.

7. Bird conservation issues in the Fingal woodlands

Predation by other species of birds (e.g. of adult and young songbirds by Sparrowhawks, and of eggs and chicks by members of the crow family – particularly Magpies and Hooded Crows) is quite natural and generally does not have a significant adverse effect on breeding birds at the population level. In several of the Fingal woods the remains of Sparrowhawk “kills”, and crow-predated eggs were noted.

Mammalian predation of tree-nesting birds is also not usually significant, though this may not always be true in the case of alien predators such as Brown Rats *Rattus norvegicus* and Grey Squirrels *Sciurus carolinensis* – both of which were found in the Fingal woods.

Those Fingal woods which are accessible to large numbers of people, and their dogs (e.g. Santry, Malahide and Ardgillan) may be subject to levels of disturbance which could cause desertion of eggs/chicks, especially where people unwittingly linger too long close to nests. Happily, school-boy egg-collecting is largely a thing of the past. In such public places there is a risk of vandalism, including lighting fires which may burn vegetation in which birds are nesting.

Some woodland management practices may be inimical to the woodland bird community. For example, felling of trees and clearance of undergrowth during the nesting season could destroy many nests with eggs or chicks. The removal of undergrowth (and ivy from trees) outside the nesting season may reduce nesting, roosting and feeding habitat for birds.

While the majority of the long-established Fingal woodlands surveyed in 2006 are composed partly of alien species, and have understories of alien shrubs and ground plants, in principle it is desirable to “phase out” at least those alien species (e.g. Rhododendron) which are of very little value to birds. A policy of limiting future planting to native species would be generally beneficial to the woodland birds community.

8. Recommendations

To maintain or enhance the breeding birds communities found the Fingal woodlands, both in terms of population density and species diversity, the following measures are recommended for implementation in the woodlands:

1. Woodland management:

Appropriate woodland management (e.g. not removing ivy from trees, leaving ground and shrub layers, not removing dead or dying or fallen trees), phase out non-native species of trees and replace with variety of natives.

2. Nest boxes:

In general, the numbers of Blue Tits and Great Tits found in the eight Fingal woods was much smaller than could be expected in old woodlands dominated by Oak. It was noticed that natural tree holes, in which these tits often nest, were very scarce. This deficiency of natural nesting holes can easily be compensated for by erecting large numbers of standard tit boxes. The provision of such boxes can increase significantly the density of breeding tits, which can then exploit the abundance of small caterpillars and other insects in late spring and early summer.

Other nesting boxes, designed to meet the needs of other bird species, can also be deployed in the Fingal woods. Open-fronted and boxes with larger holes are used by Robins, House and Tree Sparrows, and may attract rare breeders such as Redstarts and Pied Flycatchers. Special large boxes for Kestrels and Barn Owls are also worth putting up.

Nest box schemes can be established in conjunction with local secondary schools. It may be possible for students to make boxes as part of their woodwork class, while they can study the progress of nests in boxes as part of their biology class.

3. Supplementary winter feeding:

- Plots of linseed/cereals adjacent to woodland
- Peanuts, seeds, sunflowers, teasels, water – feeding stations.

Irish woodlands can be bleak and inhospitable places for birds in winter, especially when insects become scarce or absent, and when the autumn bounty of seeds and berries has been exhausted. The provision of seeds, grains, peanuts, etc. in hoppers and suspended wire-mesh feeders, can greatly enhance the survival of small birds such as finches, buntings and tits. Providing such food in woods also has the benefit of encouraging small birds to concentrate in this sheltered habitat. It is important to ensure that supplementary feeding continues through the coldest winter months. In some nature reserves observation hides have been erected close to feeders, thus providing birdwatchers and the public with the opportunity for close study, observation and enjoyment of woodland birds during the winter.

In relation to the seven Fingal woods which were surveyed in 2003 and 2005 it is recommended that those woodlands which were least comprehensively surveyed be re-surveyed in the near future, using the methodology employed for the eight woodlands surveyed in 2006. This will make it possible to draw meaningful comparisons between the re-surveyed woods and those more comprehensively surveyed. In particular, the birds in Milverton were not surveyed at the appropriate time, while the bird diversity recorded in two other woods surveyed in 2003/2005 appears to have been inadequately recorded.

9. Conclusions

The eight Fingal woodlands surveyed in 2006, together with seven additional woods surveyed in 2003 and 2005, constitute the great majority of the area of mature semi-natural mixed deciduous woodland present in Fingal County. Therefore they form a major, if fragmented, biotope in their own right, and in the context of this report provide vital breeding and feeding habitats for woodland birds.

The results of surveys of the breeding bird communities of eight Fingal woods in 2006 are presented in detail, along with summaries of the results from the seven woodlands surveyed in 2003 and 2005.

A total of sixty-five bird species was recorded during these surveys, but twenty-five of these are simply mentioned in passing as they are not typical woodland birds and were generally seen flying or feeding over the woods or in adjacent non-woodland terrestrial and aquatic habitats.

Forty typical woodland bird species were recorded in the eight woods surveyed in 2006, somewhat less in the seven additional woods surveyed earlier. Twenty-four of these were found in all the woods surveyed in 2006, with a further eight species recorded in four to seven of these woods. Most of these species are common and widespread in Ireland and are typical of mature mixed deciduous woodland in the lowlands of eastern Ireland. The bird community in the Fingal woods differs significantly from that of similar woods in nearby western Britain, where Tawny Owls, woodpeckers, Nuthatches and others are found.

Compared with breeding bird surveys carried out in 1968-72 and 1988-91, some increases and decreases were found. For example Buzzard and Blackcap appear to have increased and colonised in the Fingal area, while Spotted Flycatcher, and probably House Sparrow have decreased and contracted their range. Records of Wood Warbler, Raven and Crossbill were also of interest.

The rich diversity of birds in the Fingal woods is due to the diversity of the woodland habitat, well structured and with a variety of tree and shrub species. There appeared to be little if any grazing within the woods and therefore the understorey was well developed, providing nesting and feeding habitat for many of the birds.

It was noted that some of the woods had quite large areas of invasive alien shrubs such as Rhododendron and Cherry Laurel. These shrubs are of little value to breeding birds (though they provide roosting sites in winter for thrush species), and, when dense, prevent natural generation of more desirable species. Their removal is recommended.

While time and resources did not allow for fully quantitative surveys/censuses to be carried out, this project provides a general baseline of the bird communities of the Fingal woods, which will be useful for monitoring future changes and for a biodiversity action plan.

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Appendix 1: Maps of Fingal woodland sites surveyed

Figure 1. Map of Santry Demesne survey areas

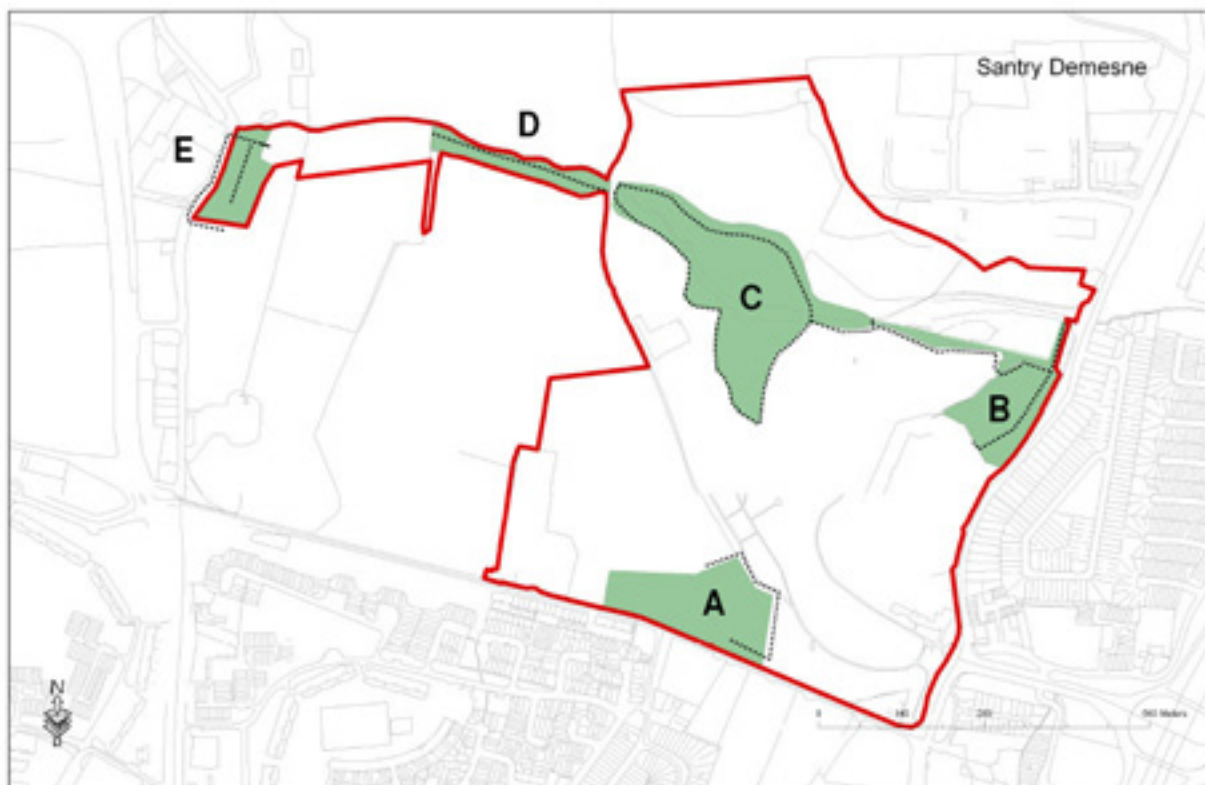
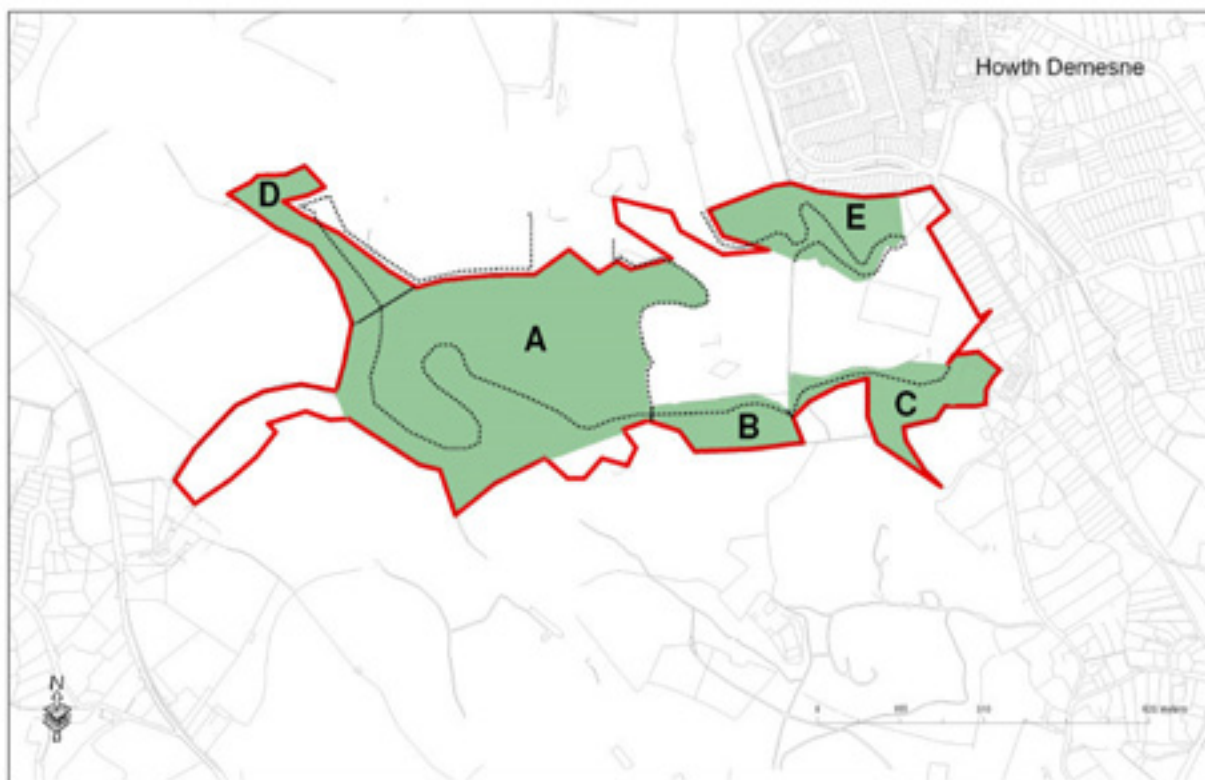


Figure 2. Map of Howth Demesne survey areas



..... Survey route taken

Figure 3. Map of Malahide Demesne survey areas

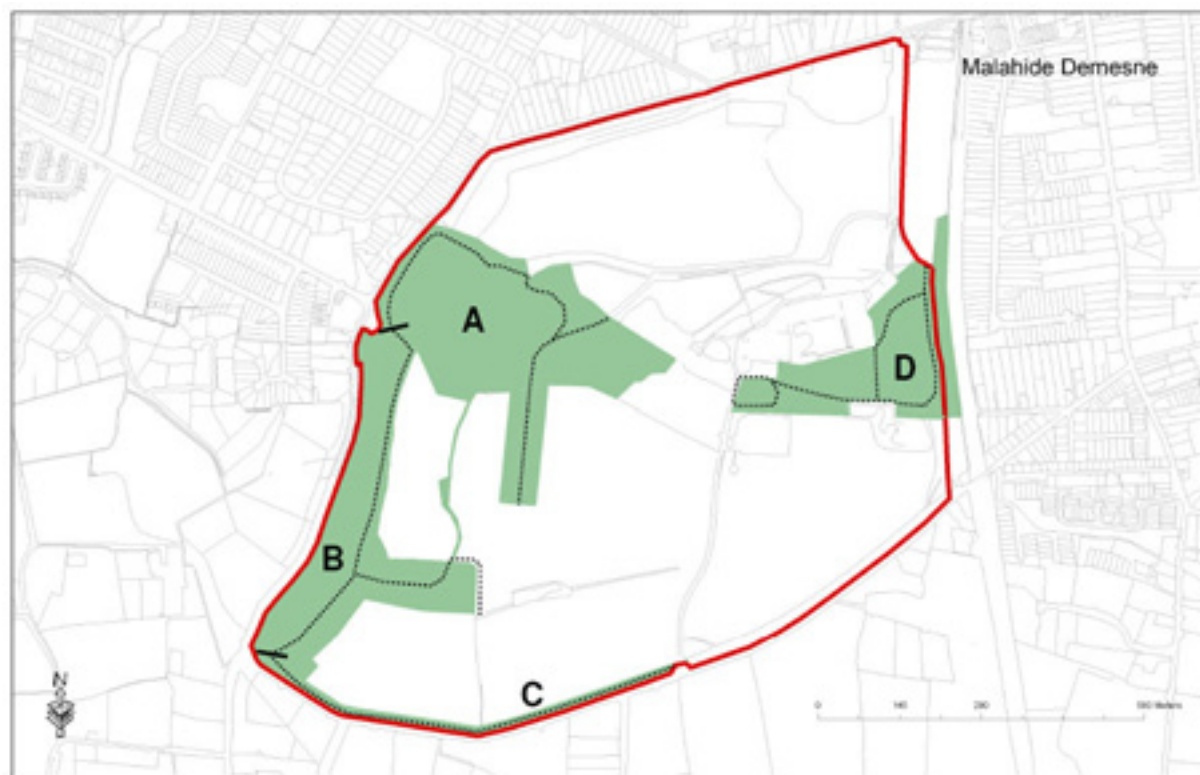
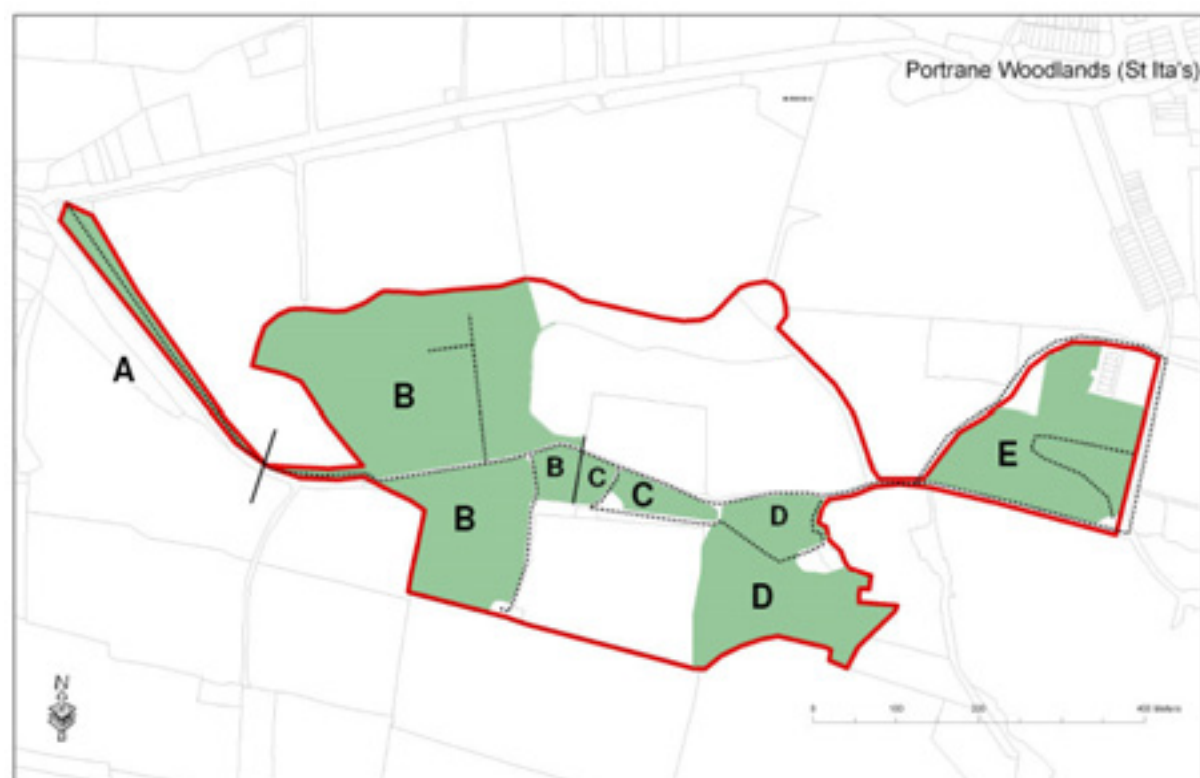


Figure 4. Map of Portrane Demesne survey areas

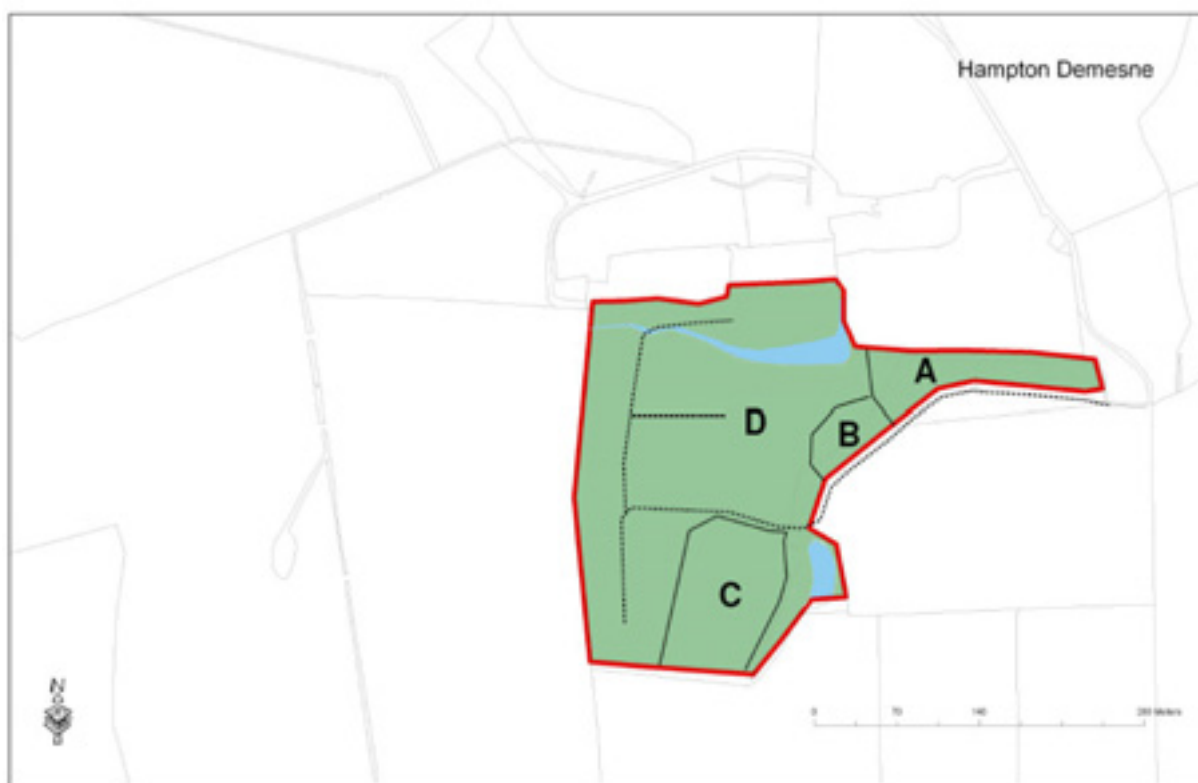


..... Survey route taken

Figure 5. Map of Ardgillan Demesne survey areas



Figure 6. Map of Hampton Demesne survey areas



..... Survey route taken

Figure 7. Map of Gormanston Woodlands survey areas



Figure 8. Map of Delvin Woodlands survey areas



..... Survey route taken

Appendix 2: Bird species recorded in Fingal woods

Bird species, with scientific names, recorded in Fingal woods			
Species	Scientific Name	Species	Scientific Name
Little Grebe	<i>Tachybaptus ruficollis</i>	Song Thrush	<i>Turdus philomelos</i>
Grey Heron	<i>Ardea cinerea</i>	Mistle Thrush	<i>Turdus viscivorus</i>
Mute Swan	<i>Cygnus olor</i>	Blackbird	<i>Turdus merula</i>
Pale-bellied Brent Goose	<i>Branta bernicla hrota</i>	Blackcap	<i>Sylvia atricapilla</i>
Mallard	<i>Anas platyrhynchos</i>	Grasshopper Warbler	<i>Locustella naevia</i>
Tufted Duck	<i>Aythya fuligula</i>	Willow Warbler	<i>Phylloscopus trochilus</i>
Common Buzzard	<i>Buteo buteo</i>	Wood Warbler	<i>Phylloscopus sibilatrix</i>
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	Chiffchaff	<i>Phylloscopus collybita</i>
Common Kestrel	<i>Falco tinnunculus</i>	Goldcrest	<i>Regulus regulus</i>
Peregrine Falcon	<i>Falco peregrinus</i>	Great Tit	<i>Parus major</i>
Pheasant	<i>Phasianus colchicus</i>	Coal Tit	<i>Parus ater</i>
Moorhen	<i>Gallinula chloropus</i>	Blue Tit	<i>Parus caeruleus</i>
Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	Long-tailed Tit	<i>Aegithalos caudatus</i>
Herring Gull	<i>Larus argentatus</i>	Treecreeper	<i>Certhia familiaris</i>
Lesser Black-backed Gull	<i>Larus fuscus</i>	Magpie	<i>Pica pica</i>
Great Black-backed Gull	<i>Larus marinus</i>	Jay	<i>Garrulus glandarius</i>
Rock Dove/Feral Pigeon	<i>Columba livia</i>	Jackdaw	<i>Corvus monedula</i>
Stock Dove	<i>Columba oenas</i>	Rook	<i>Corvus frugilegus</i>
Wood Pigeon	<i>Columba palumbus</i>	Hood Crow	<i>Corvus cornix</i>
Collared Dove	<i>Streptopelia decaocto</i>	Raven	<i>Corvus corax</i>
Long-eared Owl	<i>Asio otus</i>	Starling	<i>Sturnus vulgaris</i>
Common Swift	<i>Apus apus</i>	House Sparrow	<i>Passer domesticus</i>
Common Skylark	<i>Alauda arvensis</i>	Tree Sparrow	<i>Passer montanus</i>
Barn Swallow	<i>Hirundo rustica</i>	Chaffinch	<i>Fringilla coelebs</i>
House Martin	<i>Delichon urbica</i>	Linnet	<i>Carduelis cannabina</i>
Meadow Pipit	<i>Anthus pratensis</i>	Lesser Redpoll	<i>Carduelis flammea</i>
Pied Wagtail	<i>Motacilla alba yarrellii</i>	Goldfinch	<i>Carduelis carduelis</i>
Grey Wagtail	<i>Motacilla cinerea</i>	Greenfinch	<i>Carduelis chloris</i>
Wren	<i>Troglodytes troglodytes</i>	Siskin	<i>Carduelis spinus</i>
Dunnock	<i>Prunella modularis</i>	Bullfinch	<i>Pyrrhula pyrrhula</i>
Robin	<i>Erithacus rubecula</i>	Common Crossbill	<i>Loxia curvirostra</i>
Northern Wheatear	<i>Oenanthe oenanthe</i>	Reed Bunting	<i>Emberiza schoeniclus</i>
Stonechat	<i>Saxicola torquata</i>		

Appendix 3: Seven additional Fingal woods, 2003-2005

Introduction to 2003-2005 surveyed woods

Fingal County Council requested a number of field ornithologists – mainly members of the Tolka Branch of BirdWatch Ireland – to carry out breeding bird surveys in seven woodland areas in spring/summer 2003 and 2005. The field survey work was completed and the data were given to Hans Visser, the Biodiversity Officer for Fingal County Council. However, no attempt was made to analyse or compile these data into a report.

In September 2006, after the breeding bird survey work had been completed at eight further woodland sites in Fingal County (see main body of this report), Hans Visser requested the author of this report to examine the earlier data, and integrate the two data sets in a single report.

When the data from 2003-2005 were examined it was found that full integration with the 2006 data would be difficult or impossible, due to variation and lack of standardisation in the methods employed by the various field workers. For example, some employed unmodified Countryside Bird Survey methodology, which often resulted in non-woodland birds being included in the survey, and retrospectively it was difficult or impossible to segregate them from the birds found in the woods. This problem was particularly intractable with species which occur equally in woodland and non-woodland habitats. In a number of cases adequate large-scale maps were unavailable, resulting in difficulties in linking bird data with particular areas of woodland. Further problems arose with the interpretation of some of the quantitative data examined. Unfortunately, too, some of the data suggested that a couple of the observers were not adequately experienced in bird survey methodology, thus undermining the credibility of some of the results. It should be stated, on the other hand, that some of the survey work was carried out in a very methodical and professional way.

An attempt was made to clarify and discuss with the original field workers some of the above difficulties, but with the lapse of time since the survey work was carried out, it was not possible to achieve any progress with this. Because of the above difficulties, and also because of shortage of time with the late receipt of the 2003-2005 data, it was decided to standardise these data as much as possible and present them in a separate part of the report. The following is a site-by-site summary of the pre-2006 survey results, with short comments on the woodland habitat, based on brief visit to five of them in September 2006.

Knockmaroon Wood, Liffey Valley

Location - ING centre point: O 082.360
Map: Large-scale; woodland and transect indicated
Observer: Fridolin Kerr
Survey dates: 30.4.05, 28.5.05
Number species recorded: 30
Numbers: Totals for both visits given.

Table 11: Bird species recorded - Knockmaroon Wood, Liffey Valley

	Species	30.4.05	28.5.05
1.	Mallard	2	1
2.	Sparrowhawk		1
3.	Pheasant	9	2
4.	Black-headed Gull		2
5.	Stock Dove	2	2
6.	Woodpigeon	65	85
7.	Swift		11
8.	Swallow	6	12
9.	Grey Wagtail		1
10.	Wren	10	9
11.	Dunnock	2	
12.	Robin	8	6
13.	Blackbird	29	10
14.	Song Thrush	10	4
15.	Mistle Thrush	7	8
16.	Chiffchaff	1	
17.	Goldcrest	3	1
18.	Long-tailed Tit	2	
19.	Blue Tit	22	4
20.	Great Tit	6	6
21.	Magpie	8	7
22.	Jackdaw	13	24
23.	Rook	11	16
24.	Hooded Crow	1	1
25.	Raven	2	
26.	Starling	1	3
27.	Chaffinch	9	7
28.	Bullfinch	3	1
29.	Greenfinch	1	2
30.	Goldfinch	3	

This woodland is part of a large private estate located on the north side of the River Liffey, just to the east of the Westlink toll bridge. The woodland itself is linear, and is established on the steeply sloping bank of the Liffey and on one of its small tributaries.

It is an excellent mature wood, mainly with deciduous trees.

A total of 30 bird species were recorded during the visits in April and May 2005, and these are listed above together with the numbers registered on each visit. Black-headed Gull, Swift and Swallow can

be excluded as these were seen simply flying over the woodland and were not breeding there. The remaining 27 species are all likely breeders, within the woods or on the edge. They make up a fairly typical woodland bird community for this part of Ireland.

Notable are the high numbers of Wood Pigeons, and the lack of Coal Tits. Note also the variation in numbers between the two counts: this emphasises the importance of carrying out such surveys at least twice.

Lucan Demesne Wood, Liffey Valley

Location - ING centre point: O 022.355
Map: Large-scale, woodland and CBS sections indicated
Observer: Bob Strickland
Survey dates: 30.4.05, 28.5.05
Number species recorded: 30
Numbers: Totals for three visits given in CBS format.

Table 12: Bird species recorded - Lucan Demesne Wood, Liffey Valley

	Species	16.4.03	? 5.03	22.6.03
1.	Mute Swan	2		
2.	Mallard	1	3	
3.	Sparrowhawk	1		
4.	Pheasant	2	1	
5.	Feral Pigeon		3	1
6.	Stock Dove			1
7.	Woodpigeon	7	9	10
8.	Swift			1
9.	Swallow	1	3	
10.	House Martin	1		
11.	Wren	5	7	11
12.	Dunnock		2	1
13.	Robin	6	3	6
14.	Blackbird	17	6	11
15.	Song Thrush			4
16.	Mistle Thrush	1	2	1
17.	Blackcap	3	2	3
18.	Goldcrest			1
19.	Coal Tit	3		
20.	Blue Tit	1	1	1
21.	Great Tit	2	1	
22.	Treecreeper	1		
23.	Magpie		1	
24.	Jackdaw	4	3	5
25.	Rook		4	
26.	Hooded Crow	1		2
27.	Starling		1	
28.	Chaffinch	5	3	
29.	Greenfinch			1
30.	Reed Bunting		1	

This linear stretch of woodland is somewhat similar to that at Knockmaroon in that it is established on the sloping north bank of the River Liffey. The north-western part is separated from the river by a flood plain, while the south-eastern part closely follows a sweeping curve in the river's course. This woodland, which lies on calcareous soils, is largely deciduous, although a small conifer (spruce) plantation forms part of the north-west end. The main deciduous part is dominated by Beech, Ash, Oak and Hazel. The woodland is part of a country park owned and managed by Fingal County Council.

A total of 30 bird species were recorded in the woodland during three visits in April, May and June 2003. Mute Swan, Swift, Swallow, House Martin and probably Reed Bunting can be excluded as they were simply flying over, or were on the river. The remaining 25 species form a fairly typical woodland community for this part of Ireland.

It is interesting to note that Blackcaps, which until recently were scarce and localised breeding birds in Ireland, appear to be well established in this wood. However, the very small number of tits is difficult to explain as the habitat for these species appears ideal.

Luttrelstown Demesne Wood, Liffey Valley

Location - ING centre point: O 054.365
Map: None provided. All woodland covered.
Observer: Daithi De Brun
Survey dates: 29.4.05, 14.5.05
Number species recorded: 17
Numbers: Totals for both visits given.

Table 13: Bird species recorded - Luttrelstown Demesne Wood, Liffey Valley

	Species	29.4.05	14.5.05
1.	Sparrowhawk	2	1
2.	Buzzard	4	4
3.	Woodpigeon	8	10
4.	Wren	2	1
5.	Dunnock	3	1
6.	Robin	7	11
7.	Blackbird	11	13
8.	Song Thrush	5	3
9.	Mistle Thrush	2	2
10.	Blackcap	1	2
11.	Chiffchaff	3	5
12.	Blue Tit	5	8
13.	Great Tit	10	12
14.	Treecreeper	1	
15.	Magpie	20	20
16.	Jackdaw	30	30
17.	Raven	1	

These woodlands are part of a large private estate, also on the north bank of the River Liffey. The woods are linear and follow the course of the Liffey for nearly two kilometres, and also the banks of a small tributary flowing in from the north. It is an excellent mature wood, with mainly deciduous trees.

Surprisingly, only 17 bird species were recorded here during visits in late April and mid-May 2005, but all species found are typical woodland birds. It is particularly strange that no finches appear to have been found, and the observer, when queried about this absence, was unable to clarify the situation. However, it is pleasing to note that Buzzards, almost extinct in Ireland half a century ago, were present in these woods. Also that Blackcaps were recorded on both visits.

Abbotstown Wood, Tolka Valley

Location - ING centre point:	O 085.385
Map:	Inadequate small-scale map provided. (Apparently Section 7 is woodland – HV).
Observer:	John McMahon
Survey dates:	20.4. 03, ? 5.03 (plus nine counts outside the survey period).
Number species recorded:	23
Numbers:	Totals for both visits given.

Table 14: Bird species recorded - Abbotstown Wood, Tolka Valley

	Species	20.4.03	? .5.03
1.	Grey Heron	4	
2.	Mallard	3	
3.	Pheasant	3	
4.	Moorhen	3	2
5.	Woodpigeon		1
6.	House Martin	2	
7.	Pied Wagtail		3
8.	Wren	1	1
9.	Robin		2
10.	Blackbird		3
11.	Song Thrush	2	1
12.	Chiffchaff	1	1
13.	Goldcrest		1
14.	Coal Tit	1	
15.	Great Tit	5	4
16.	Magpie		2
17.	Jackdaw	5	
18.	Rook		2
19.	Starling	1	2
20.	Tree Sparrow	1	
21.	Chaffinch	1	
22.	Greenfinch	1	
23.	Linnet	1	

This wood extends about one kilometre along the River Tolka at the south side of the Abbotstown Estate, close to the junction of the M50 motorway and the N3 National Road, just north of Blanchardstown. Fingal County Council has started clearing invasive Cherry Laurel from the understorey. It is an excellent mature wood, mainly deciduous, but with a notable grove of Yews at the west end.

A rather list of 23 bird species was recorded in April and May 2003, even smaller when non-woodland species – Moorhen, House Martin, Pied Wagtail and Linnet are excluded. The remaining 19 species are typical woodland birds.

The scarcity of Woodpigeons (only one, on one visit) is surprising, and, indeed, numbers of other birds are on the low side. The complete absence of Blue Tit is also unexpected. However, it is notable that Tree Sparrow, a rather scarce and local species in Ireland, was found here.

Brackenstown Wood, Swords

Location - ING centre point: O 160.467
Map: Inadequate small-scale map provided.
Observer: James McNally
Survey dates: 19.4.03, 31.5.03, 28.6.03
Number species recorded: 40 species (including birds in woodland lake and in grassland beside the wood).
Numbers: Totals for three counts given, in modified CBS format.

Table 15: Bird species recorded - Brackenstown Wood, Swords

	Species	19.4.03	31.5.03	28.6.03
1.	Grey Heron	4		
2.	Mallard	6	7	
3.	Sparrowhawk			1
4.	Pheasant	3	2	1
5.	Moorhen	2		5
6.	Black-headed Gull			26
7.	Stock Dove	2	2	2
8.	Collared Dove		2	
9.	Woodpigeon	69	40	60
10.	Kingfisher	1	1	2
11.	Swift		4	2
12.	Swallow	2	4	6
13.	House Martin			10
14.	Grey Wagtail		4	2
15.	Dipper	1	1	
16.	Wren	31	27	22
17.	Dunnock	9	5	5
18.	Robin	14	17	3
19.	Blackbird	25	19	6
20.	Song Thrush	7	14	5
21.	Mistle Thrush	3		
22.	Whitethroat	1	1	
23.	Blackcap	8	11	10
24.	Chiffchaff	4	7	7
25.	Willow Warbler	3	2	2
26.	Goldcrest	11	12	6
27.	Long-tailed Tit			6
28.	Coal Tit	1	2	1
29.	Blue Tit	15	6	5
30.	Great Tit	1	1	2
31.	Magpie	13	9	6
32.	Jackdaw	12	19	8
33.	Rook	3	5	10
34.	Hooded Crow	6	2	4
35.	Starling	8	16	

(Continued overleaf)

Table15 (contd.): Bird species recorded - Brackenstown Wood, Swords

	Species	19.4.03	31.5.03	28.6.03
31.	Magpie	13	9	6
32.	Jackdaw	12	19	8
33.	Rook	3	5	10
34.	Hooded Crow	6	2	4
35.	Starling	8	16	
36.	House Sparrow			2
37.	Chaffinch	13	13	6
38.	Greenfinch	12	2	6
39.	Linnet	1		
40.	Bullfinch	6	4	7

This old wood lies on the Ward River and forms part of the Ward River Valley Park, owned and managed by Fingal County Council. The park is situated at the western edge of Swords. There is a disused water mill in the wood, with an associated large pond. The wood is largely deciduous and is somewhat overgrown in places with invasive Cherry Laurel.

The bird species diversity, at 40 species, is one of the highest in the Fingal woods surveyed between 2003 and 2006. Even after the removal of the non-woodland species (Moorhen, Kingfisher, Swift, Dipper, Swallow, House Martin, Grey Wagtail and Linnet) the diversity is quite high. The numbers and density of several species is also impressive, especially those of Wood Pigeons, Wrens, Blackbirds and Blackcaps. The bird community is typical of woodland in eastern Ireland.

Milverton, Skerries

Location - ING centre point:	O 247.590
Map:	Probably adequate, though survey area not indicated.
Observer:	Faith Wilson
Survey dates:	Not provided, but apparently visits made before the breeding season had fully begun.
Number species recorded:	43 species
Numbers:	None given

Table 16: Bird species recorded - Milverton, Skerries

	Species		Species
1.	Little Grebe	23.	Robin
2.	Grey Heron	24.	Blackbird
3.	Mallard	25.	Fieldfare
4.	Sparrowhawk	26.	Song Thrush
5.	Buzzard	27.	Redwing
6.	Kestrel	28.	Mistle Thrush
7.	Peregrine	29.	Goldcrest
8.	Pheasant	30.	Long-tailed Tit
9.	Moorhen	31.	Coal Tit
10.	Golden Plover	32.	Blue Tit
11.	Curlew	33.	Great Tit
12.	Snipe	34.	Magpie
13.	Woodcock	35.	Jackdaw
14.	Black-headed Gull	36.	Rook
15.	Rock Dove/Feral Pigeon	37.	Hooded Crow
16.	Stock Dove	38.	Raven
17.	Wood Pigeon	39.	Starling
18.	Collared Dove	40.	House Sparrow
19.	Long-eared Owl	41.	Chaffinch
20.	Pied Wagtail	42.	Greenfinch
21.	Wren	43.	Siskin
22.	Dunnock		

This small site, just south of Skerries, between the R127 road and the Dublin-Belfast railway line, was not surveyed as part of the Fingal wood breeding birds survey carried out between 2003 and 2005. Instead, bird data were extracted from an Environmental Impact Assessment carried out for proposed major development of the estate. Unfortunately, because of this, the field survey work was carried out in late winter/early spring, when many wintering species were still present, and summer migrants had not yet arrived. Also, the bird survey was not quantitative. This makes it difficult for any comparison to be made with the other woodlands. However, it seems likely that most, if not all, of the resident bird species on the list breed in the estate's woodland.

It is interesting to note that Buzzard and Long-eared Owl were recorded, and it is possible that Woodcock, both a resident breeder and winter visitor, may breed there too.

Newbridge Demesne Woods, Donabate

Location - ING centre point:	O 220.495
Map:	Large-scale map (and also good quality colour aerial photograph) provided, with woodland sections clearly marked.
Observers:	Julie Roe, Liam Feeney and members of Fingal Branch, BirdWatch Ireland.
Survey dates:	7, 9, 15, 21, 28.5.05; 4, 6, 25.6.05; 6, 8, 12.7.05. (Not all sections were covered on the same dates.)
Number species recorded:	34 species
Numbers:	These woodlands were divided into four sections and numbers are provided for each species found in each section on each survey date.

Table 17: Bird species recorded - Newbridge Demesne Woods, Donabate

	Species	7-21.5.05	28.5. -6.6.05	25.6. -12.7.05
1.	Grey Heron	6	4	7
2.	Little Egret			1
3.	Sparrowhawk	3	1	3
4.	Buzzard	2	1	3
5.	Kestrel	1	1	
6.	Pheasant	1	1	4
7.	Stock Dove	1		4
8.	Wood Pigeon	58	41	46
9.	Long-eared Owl			5
10.	Wren	15	26	15
11.	Dunnock	8	2	
12.	Robin	19	19	12
13.	Blackbird	28	25	12
14.	Mistle Thrush	8	11	8
15.	Song Thrush	5	4	
16.	Blackcap	3	1	4
17.	Chiffchaff	13	1	
18.	Willow Warbler		1	
19.	Goldcrest	12	20	13
20.	Long-tailed Tit	2	2	
21.	Coal Tit	4	4	2
22.	Blue Tit	20	24	24
23.	Great Tit	7	1	2
24.	Treecreeper	1	3	2
25.	Jay	1		1
26.	Magpie	4	2	26
27.	Jackdaw	40	48	20
28.	Rook	59	67	57
29.	Hooded Crow	4	3	5
30.	Starling	2	7	
31.	Chaffinch	20	19	8
32.	Greenfinch	10	4	
33.	Goldfinch	7	2	2
34.	Bullfinch	1	4	2

This large demesne (150 ha. (370 acres)), owned and managed by Fingal County Council, is situated between the Rogerstown and Swords/Malahide Estuaries, just southwest of the town of Donabate. The parkland is a good example of an eighteenth century landscape park with perimeter woodland belts and fine vistas across lawns and wildflower meadows. Most of the woodland is deciduous.

A series of 11 visits were made to the demesne between 7th May and 12th July 2005, during which four sections of woodland were each surveyed for breeding birds three times. A total of 34 species were recorded, all of which are woodland species. Notable among these was a Little Egret – a potential future breeding species. Also of note were Buzzard, Long-eared Owl (2 adults, 2 young), Blackcap and Jay. This last species is surprisingly scarce in the Fingal woods. The other species are typical woodland birds in this part of Ireland, and the numbers of some are quite high.

Combined list of birds recorded in seven additional Fingal woods in 2003-2005

The following bird species were recorded at the seven Fingal woods surveyed between 2003 and 2005:

Table 18: Bird species were recorded at seven Fingal woods surveyed, 2003 - 2005

Species	Species
1. Little Grebe	33. Blackbird
2. Cormorant	34. Fieldfare
3. Grey Heron	35. Song Thrush
4. Little Egret	36. Redwing
5. Mallard	37. Mistle Thrush
6. Sparrowhawk	38. Whitethroat
7. Buzzard	39. Blackcap
8. Kestrel	40. Willow Warbler
9. Peregrine Falcon	41. Chiffchaff
10. Pheasant	42. Goldcrest
11. Moorhen	43. Long-tailed Tit
12. Golden Plover	44. Coal Tit
13. Curlew	45. Blue Tit
14. Snipe	46. Great Tit
15. Woodcock	47. Treecreeper
16. Black-headed Gull	48. Jay
17. Lesser Black-backed Gull	49. Magpie
18. Rock Dove/Feral Pigeon	50. Jackdaw
19. Stock Dove	51. Rook
20. Wood Pigeon	52. Hooded Crow
21. Collared Dove	53. Raven
22. Long-eared Owl	54. Starling
23. Kingfisher	55. House Sparrow
24. Swift	56. Tree Sparrow
25. Swallow	57. Chaffinch
26. House Martin	58. Greenfinch
27. Grey Wagtail	59. Goldfinch
28. Pied Wagtail	60. Siskin
29. Dipper	61. Linnet
30. Wren	62. Bullfinch
31. Dunnock	63. Reed Bunting
32. Robin	

A total of 63 bird species were recorded in these seven Fingal woodlands during the spring/summer of 2003 to 2005. However, a number of these species were recorded simply flying over the woods, on water bodies in or adjacent to the woods, or, in the case of Milverton, as late winter visitors. These species include Little Grebe, Cormorant, Mallard, Peregrine, Moorhen, Golden Plover, Curlew, Snipe, Black-headed Gull, Lesser Black-backed Gull, Kingfisher, Swift, Swallow, House Martin, Dipper, Fieldfare, Redwing. Grey and Pied Wagtails are doubtfully woodland birds, while Whitethroat and Linnet are marginally so.

If these 21 species (doubtfully or categorically not woodland species) are excluded, the list of woodland species reduces to 42. This is more in line with the species diversity found in the eight Fingal woodlands surveyed in 2006.

Little Egret (found at Newbridge in 2005) is retained on the list of woodland birds because the species, now well established as a breeding bird in Ireland (from East Cork to Co. Wicklow, with breeding discovered on the Boyne Estuary in 2006), nests in tall trees, usually with Grey Herons. BirdWatch Ireland Fingal Branch monitors this site and during summer 2006 and has observed up to 10 Little Egrets frequenting the heronry.

Although the survey and census methodology employed during the 2003-2005 woodland surveys is not entirely compatible with the standardised methods used for the eight woodlands surveyed in 2006, it is clear that most of the seven woodlands covered in 2003-2005 received sufficient attention to establish the general bird communities present in them, with an indication of relative abundance. However, it may be desirable to revisit Milverton to carry out a survey in April and May, and to quantify the breeding bird community present. The rather low species diversity recorded at a couple of the other sites could be improved on by further survey work there.