

Summer Bird Survey of the lands surrounding the Broadmeadows/Swords Estuary

May – June 2009



Prepared for
Fingal County Council
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SUMMARY

The Broadmeadows/ Swords Estuary is situated immediately north of Malahide and east of Swords, Co Dublin. The estuary is designated as a Special Protection Area (SPA) for birds under the EU Birds Directive.

The estuary has been the focus of systematic waterbird monitoring since the early 1980s and monthly winter waterbird counts have been undertaken under the Irish Wetland Bird Survey (I-WeBS) since 1994. Despite this little was known about the wintering and breeding species of the lands surrounding this designated area. In response to Fingal County Council's need for baseline data to inform the preparation of the Swords Local Area Plan, the County Development Plan and future development decisions, two comprehensive studies of the area were commissioned. The first survey covered wintering birds over the period January – March 2009¹ and highlighted how protected bird species utilised the lands. This report presents the findings of the second survey and covers the period May – June 2009. The aims of this study were as follows:

- To collect baseline data on all summering birds species of the lands surrounding the Broadmeadows/ Swords Estuary; and
- To highlight the presence of any breeding species of conservation concern, with a focus on species listed under Birds of Conservation Concern Ireland, particularly those which are of regional importance and the focus of specific conservation actions in Fingal.

The study area comprised parts of the townlands of Lissenhall East, Ballymadrough, Kilcrea and Corballis to the north and Seatown East on the south of the estuary. These lands surrounding the inner estuary are predominantly low lying with agriculture and pasture for horses and cattle dominating the northern districts, while the remaining undeveloped lands to the south are under agricultural use. The survey areas covered were based on the areas surveyed during the winter survey with two exceptions; the amenity lands to the south of estuary which are important for wintering geese were excluded and an additional land to the north of Corballis was included. The nine sections and all study areas were surveyed three times during May and June 2009. Several nocturnal visits were also made in order to search for the owls.

The summer bird survey has produced a valuable set of baseline data on the bird species which breed and utilise the lands surrounding the Broadmeadows/ Swords Estuary. A total of 57 bird species were recorded in the survey area. Proof of definite breeding was observed in respect of 40 species while a further 5 species indicated signs of probable or possible breeding. The remaining 12 species recorded were not found to breed within the survey area. Common birds were present throughout the lands in good numbers with high levels diversity recorded at Ballymadrough/Seapoint, Kilcrea and Corballis. No owl species were recorded during the nocturnal visits.

One Annex I species, Little Egret, was recorded but this species do not breed inside the survey area. Twenty bird species of conservation concern under BoCCI were recorded, of these, 11 species were found to be breeding in the survey area:

- **Red listed species:** Yellowhammer
- **Amber listed species:** Shelduck, Stock Dove, Skylark, Sand Martin, Swallow, Spotted Flycatcher, Starling, House Sparrow, Tree Sparrow and Linnet.

The Yellowhammer is the most important breeding species recorded and of particular note is the range of important lowland farmland birds of conservation concern which were confirmed to breed in the study area: Stock Dove, Skylark, Tree Sparrow and Linnet. These are all species which are in decline in Ireland due to development, agricultural intensification, and the loss of hedgerows and winter feeding areas, and are therefore the focus of specific conservation actions in Fingal.

¹ Roe, J. & Lovatt, J. *Wintering bird survey of the lands surrounding the Broadmeadows/Swords Estuary, January – March 2009*. Fingal County Council.

Areas of particular importance for protected species were identified as Corballis (Section H), Ballymadrough (Section C), Seatown East (Section I) and the Kilcrea (Sections F and G). The survey findings show that areas with a mix of arable land and/or pasture for cattle and horses and unmanaged areas with mature hedgerows provided suitable breeding and feeding habitat for these protected species and that which had weak or no hedging combined with areas of cereal, root crops and lawns held a poorer diversity of species and fewer species of conservation concern.

The Newbridge River at Kilcrea, with its flood zones and pasture fields was also found to be an important feeding and resting area for Little Egret, an Annex I species which breed close to the study area in the herony at Newbridge Demesne, and for summering Black-tailed Godwits. Other Amber listed species recorded here were Shelduck, which breed in the banks of pasture fields, and Spotted Flycatcher, a species which had become an uncommon breeder in Fingal. Two pairs of Buzzard bred in the study area; one at the woodland track at Kilcrea and a pair at Ballymadrough. Sand Martin attempted to breed at Seapoint and the damp unmanaged land along the Lissenhall Stream was also important for relatively uncommon breeders in Fingal; Whitethroat and Sedge Warblers.

The findings of this study show that these lands are important for a range of breeding species of conservation concern and that the diversity recorded is a direct reflection of the mix of habitats and current land use.

1. INTRODUCTION

The Broadmeadows/ Swords Estuary is designated as a Special Protection Area (SPA) for birds under the EU Birds Directive. It is also listed as a Ramsar Site (Crowe 2005) and a Special Area of Conservation (SAC) for its habitats under the EU Habitats Directive.

The estuary has been the focus of systematic waterbird monitoring since the early 1980s (Hutchinson 1989, Sheppard 1993) and monthly counts from September to March have been conducted since 1994 under the Irish Wetland Bird Survey (I-WeBS)².

No systematic surveys of the lands surrounding the estuary had been undertaken and in response to Fingal County Council's need for baseline data to inform the preparation of the Swords Local Area Plan, the County Development Plan and future development decisions, two comprehensive studies of the area were commissioned. The first survey covered wintering birds over the period January – March 2009³ and highlighted how protected bird species utilised the lands. This report presents the findings of the second survey and covers the period May – June 2009. The aims of this study were as follows:

- To collect baseline data on all summering birds species of the lands surrounding the Broadmeadows/ Swords Estuary; and
- To highlight the presence of any breeding species of conservation concern, with a focus on species listed under Birds of Conservation Concern Ireland, particularly those which are of regional importance and the focus of specific conservation actions in Fingal.

² I-WeBS (Irish Wetland Bird Survey) is the national monitoring project for non-breeding waterbirds, wintering in Ireland, organised by BirdWatch Ireland, National Parks & Wildlife of the Department of the Environment, Heritage & Local Government and the Wildfowl and Wetlands Trust, and supported by The Heritage Council.

³ Roe, J. & Lovatt, J. *Wintering bird survey of the lands surrounding the Broadmeadows/Swords Estuary, January – March 2009*. Fingal County Council.

2. CONSERVATION LEGISLATION AND POLICY

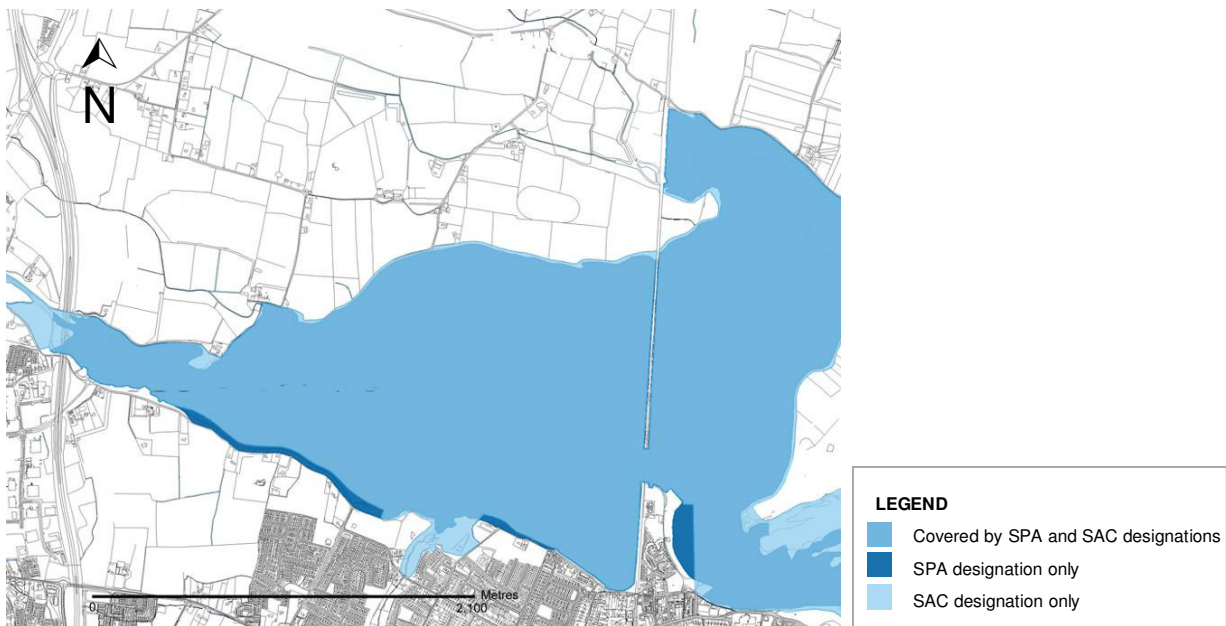
2.1 European Union Directives

The European Union's Habitats Directive

The National Parks & Wildlife Service (NPWS) has prepared Site Synopses in relation to the Special Area of Conservation (SAC) and Special Protection Area (SPA) designations covering the Broadmeadows/ Swords Estuary. These synopses contain outline descriptions of the designated areas, and in the case of the SAC synopsis, emphasis is on habitats which are included in Annexes to the EU Habitats Directive.

The extent of the Broadmeadows/ Swords Estuary SPA and SAC designations (adjacent to the survey area covered in this study) is shown in Figure 1 and the directives explained below.

Figure 1. Special and Protection Area and Special Area of Conservation designations at the Broadmeadows / Swords Estuary⁴



Special Protection Areas (SPAs)

In 1979 the European Union adopted a directive on the conservation of wild birds (Directive 79/409/EEC), which is commonly referred to as the "Birds Directive". The primary purpose of this directive is to give protection to Europe's birds and their habitats, especially to vulnerable species which are listed in Annex I of the directive. Species listed in Annex I are subject to special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. In relation to bird habitats, there is emphasis on wetlands, which are vital for many migratory waterbirds, some of which are listed in Annex I. Thirty three species of bird listed under Annex I of the EU Birds Directive 79/409 are deemed relevant to Ireland. The primary means for bird habitat protection is the establishment of a comprehensive network of Special Protection Areas (SPAs), under Article 4 of the directive. The SPAs are usually chosen on the basis that the sites are internationally important for birds, particularly Annex I species. Within the SPAs the authorities are obliged to prevent significant pollution or deterioration of the habitat, and significant disturbance to the birds for which the SPAs have been designated.

⁴ All base maps used in this report were reproduced with kind permission of Fingal County Council. © Ordnance Survey Ireland.

2.2 Bird Species of Conservation Concern

In addition to species listed in the EU Birds Directive (see Section 2.1), species of conservation concern in the Irish and European context are also classified under Birds of Conservation Concern Ireland (BoCCI) and Species of European Conservation Concern (SPEC). Both of these assessment processes are used to identify priority species in order that conservation action can be taken to improve species status.

Birds of Conservation Concern Ireland (BoCCI) 2008 – 2013 (Lynas, P. *et al* 2008)

BirdWatch Ireland and the Royal Society for the Protection of Birds (RSPB) have listed priority bird species suffering decline in the Irish/European and global context. The Birds of Conservation Concern in Ireland (BoCCI) list classifies birds as Red (high conservation concern) or Amber (medium conservation concern) based on their conservation status and hence conservation priority. All other regularly occurring species are classified as Green List and are not considered threatened. Listed species must meet one or more of the following criteria:

- Red List:** Their breeding population or range has declined dramatically in recent years, or their breeding population has undergone a significant decline since 1800, or they are of global conservation concern.
Red listed species automatically qualify for Amber status.
- Amber List:** Their population or range has declined moderately in recent years, or they are rare or sporadically breeding species, or their breeding or wintering population is internationally important and/or localised, or they have an unfavourable conservation status in Europe.
- Green List:** Do not meet Red or Amber-listing criteria.

European Conservation Status (SPEC)

Species of European Conservation Concern are assessed by BirdLife International and recognised by the SPEC process:

- SPEC 1:** Species are those which are of global conservation concern. SPEC 1 species are automatically BoCCI Red-listed and both SPEC 2 and 3 species are Amber-listed except for those that do not breed in Ireland.
- SPEC 2:** Species are those which have an unfavourable conservation status in Europe (if the population is threatened, declining, depleted from historical levels or is found only in a few locations) and is concentrated in Europe (i.e. more than 50% of the global population occurs in Europe).
- SPEC 3:** Species are which have an unfavourable conservation status in Europe (as above), but which are not concentrated in Europe.

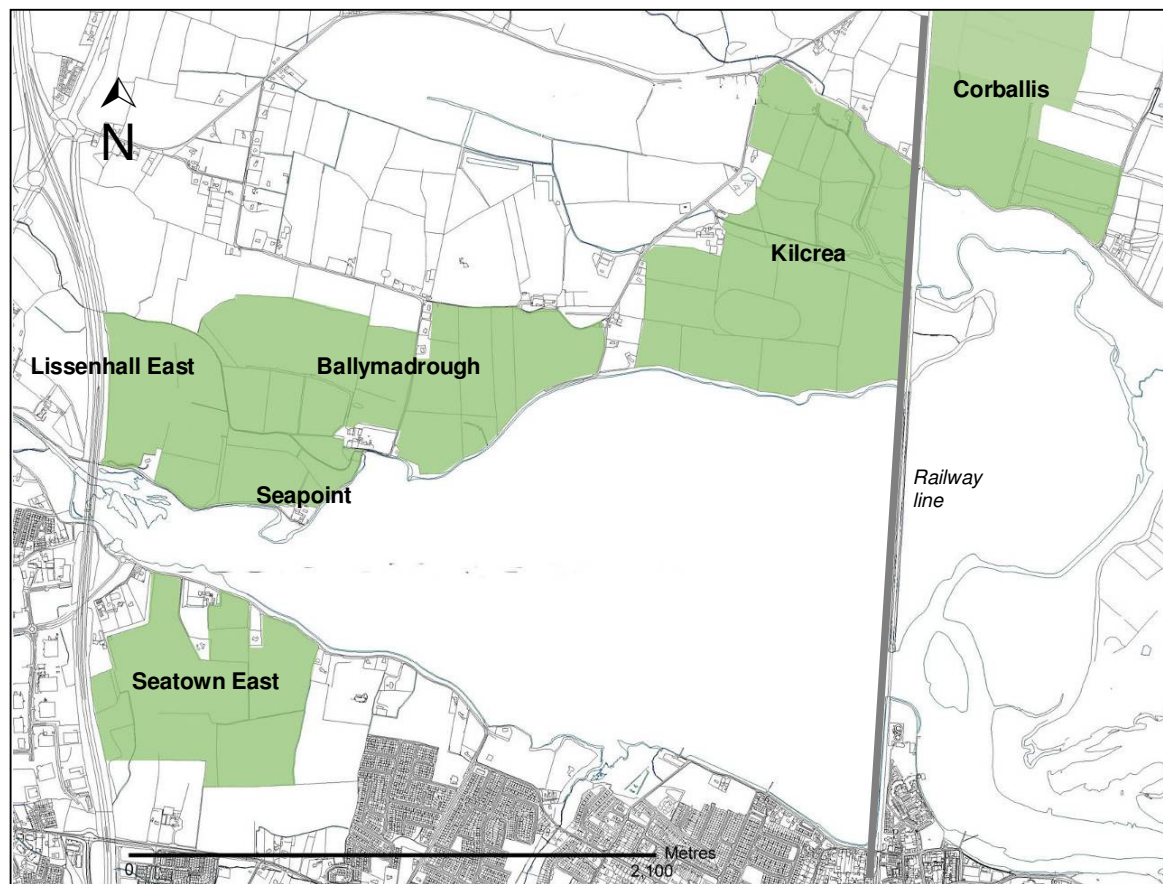
Species which do not fulfil these criteria are regarded as **non-SPEC** species and of least conservation concern.

3. LOCATION AND STUDY AREA

3.1 Study area

The Broadmeadows/Swords Estuary lies c.15 km NNE of the centre of Dublin City, with the towns of Swords to the west and Malahide to the south east. The study area comprises parts of the townlands of Lissenhall East, Ballymadrough, Kilcrea and Corballis to the north and Seatown East to the south of the estuary.

Figure 2. Map of Study Area at lands surrounding the Broadmeadows/Swords Estuary⁵

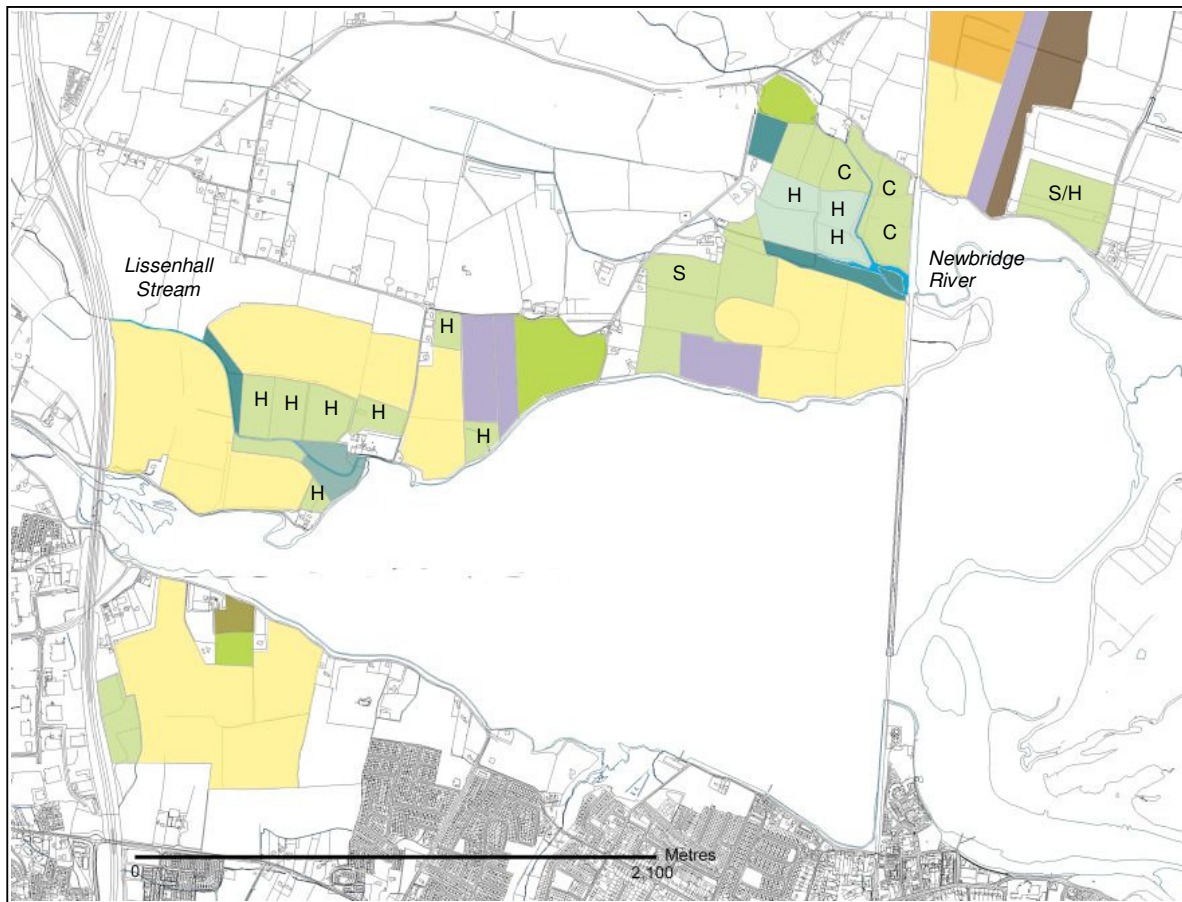


⁵ All base maps used in this report were reproduced with kind permission of Fingal County Council. © Ordnance Survey Ireland.

3.2 Landscape overview

The lands are rural with agriculture and pasture for horses and cattle dominating the northern districts. Lands here are predominately low lying. There are two river outflows; the Lissenhall Stream enters the estuary at Ballymadrough to the east of Seapoint and the Newbridge River flows through Kilcrea east and out under the main railway line. The fields surrounding these rivers are subject to flooding due to tidal movements and also drainage from surrounding areas. This was particularly the case at east Kilcrea with many of the very low lying fields being wet and holding water in ditches. A good network of native hedgerow exists in Ballymadrough and Kilcrea. Mature native trees are present in much of the hedging and there are several stands of mature trees. There are few dwellings, many of which are surrounded with mature vegetation and attract birds and other wildlife. Two narrow roads service most of the northern districts. At Seatown East to the south, lands are under agricultural use. Figure 3 shows the study area and land use between May and June 2009.

Figure 3. Map of lands surrounding the Broadmeadows/Swords Estuary, Land Use, May – June, 2009



LEGEND

Pasture	Damp grassland	Cereal (wheat or barley)	Stubble
Tidal pasture	Rough/rank grassland	Root crop	Ploughed
H=horses C=cattle S=sheep	Unmanaged		
Lawn			River/stream

4. SURVEY METHODOLOGY

The area for the summer survey is based on the area covered in the winter survey (January – March 2009). In the winter survey, the species focus on the amenity lands on the southern side of the estuary was on geese and therefore these areas were excluded from the summer survey. Additional lands at Corballis appeared to be species rich and the summer survey area was extended north to include these.

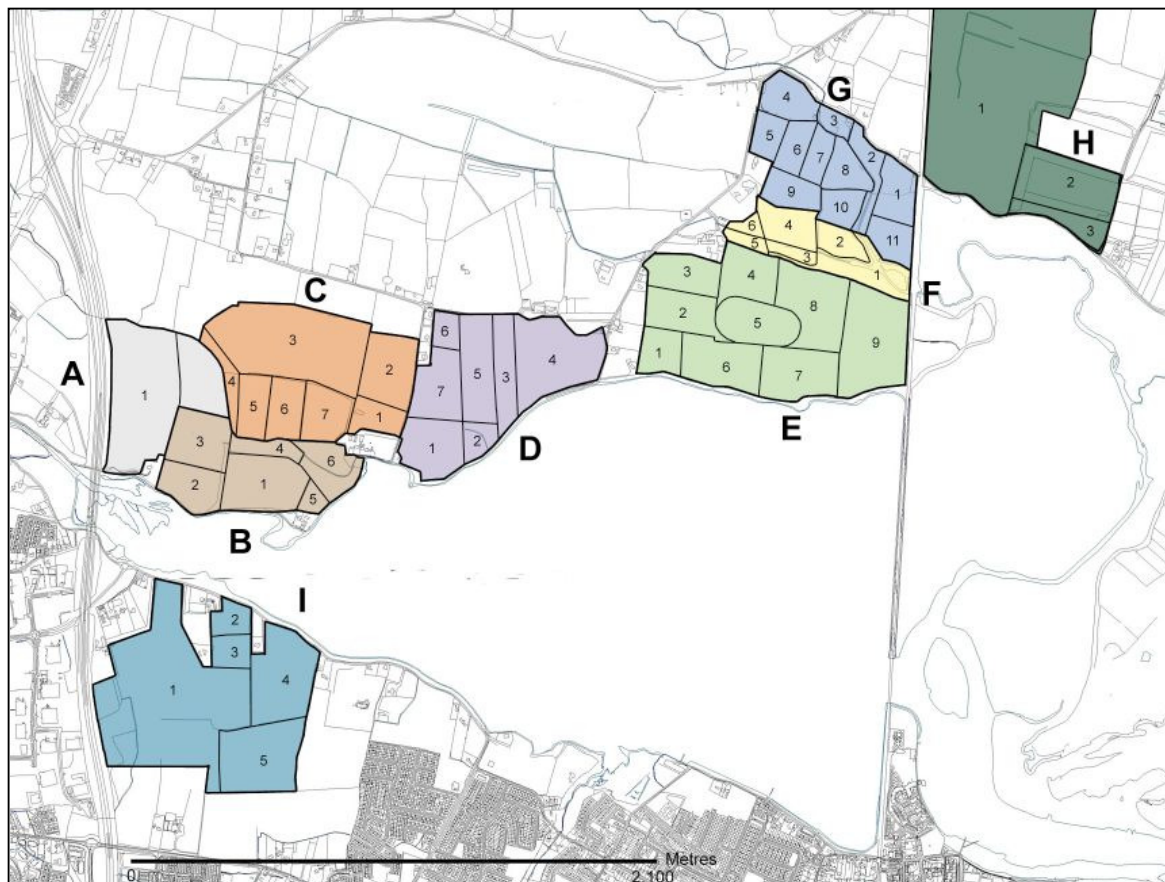
The survey area is divided into nine sections (labelled A-I, see Figure 4). These sections are referenced by individual field to provide a higher level of baseline information. The 56 sub-sections reflect the current field structure in each section.

All sub-sections shown in the map were visited three times from May to June 2009. Every field was walked along its boundaries, open areas were observed and all birds present recorded. In areas where breeding birds were particularly sensitive to disturbance (e.g. Buzzard), fields were not entered. All observations took place when weather conditions were suitable for surveying. Birds noted were categorised by observation of behaviour associated with on an indicative grid with a scale of 1 to 4; with a rank of 1 indicating evidence of breeding. A fuller outline of behaviours and categorisations is provided in Appendix 1.

Additional visits were made to confirm breeding indicators and several nocturnal visits were also made in order to search for the owls. Nocturnal visits focused on areas with suitable habitat at Ballymadrough/Seapoint, Kilcrea and Corballis.

Observations were documented on land use and general habitats in each section.

Figure 4. Colour coded map study sections for lands surrounding the Broadmeadows/Swords Estuary



5. RESULTS

5.1 Results overview

A total of 57 species were recorded in the survey area in May and June 2009 (see Table 2).

Table 1: List of species recorded at lands surrounding Broadmeadows Estuary, May – June 2009

No.	Species	Scientific name	Breeding indicator	No.	Species	Scientific name	Breeding indicator
1.	Mute Swan	<i>Cygnus olor</i>	4	30.	Song Thrush	<i>Turdus philomelos</i>	1
2.	Little Egret	<i>Egretta garzetta</i>	4	31.	Mistle Thrush	<i>Turdus viscivorus</i>	1
3.	Grey Heron	<i>Ardea cinerea</i>	4	32.	Blackbird	<i>Turdus merula</i>	1
4.	Shelduck	<i>Tadorna tadorna</i>	1	33.	Blackcap	<i>Sylvia atricapilla</i>	1
5.	Mallard	<i>Anas platyrhynchos</i>	1	34.	Whitethroat	<i>Sylvia communis</i>	1
6.	Sparrowhawk	<i>Accipiter nisus</i>	4	35.	Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	1
7.	Buzzard	<i>Buteo buteo</i>	1	36.	Willow Warbler	<i>Phylloscopus trochilus</i>	1
8.	Kestrel	<i>Falco tinnunculus</i>	4	37.	Chiffchaff	<i>Phylloscopus collybita</i>	1
9.	Pheasant	<i>Phasianus colchicus</i>	1	38.	Goldcrest	<i>Regulus regulus</i>	1
10.	Moorhen	<i>Gallinula chloropus</i>	1	39.	Spotted Flycatcher	<i>Muscicapa striata</i>	1
11.	Black-tailed Godwit	<i>Limosa limosa</i>	4	40.	Great Tit	<i>Parus major</i>	1
12.	Whimbrel	<i>Numenius phaeopus</i>	4	41.	Coal Tit	<i>Parus ater</i>	1
13.	Redshank	<i>Tringa tetanus</i>	4	42.	Blue Tit	<i>Parus caeruleus</i>	1
14.	Greenshank	<i>Tringa nebularia</i>	4	43.	Magpie	<i>Pica pica</i>	1
15.	Herring Gull	<i>Larus argentatus</i>	4	44.	Jackdaw	<i>Corvus monedula</i>	1
16.	Great Black-backed Gull	<i>Larus marinus</i>	4	45.	Rook	<i>Corvus frugilegus</i>	1
17.	Stock Dove	<i>Columba oenas</i>	1	46.	Hooded Crow	<i>Corvus corone cornix</i>	2
18.	Wood Pigeon	<i>Columba palumbus</i>	1	47.	Raven	<i>Corvus corax</i>	4
19.	Collared Dove	<i>Streptopelia decaocto</i>	3	48.	Starling	<i>Sturnus vulgaris</i>	1
20.	Swift	<i>Apus apus</i>	3	49.	House Sparrow	<i>Passer domesticus</i>	1
21.	Skylark	<i>Alauda arvensis</i>	1	50.	Tree Sparrow	<i>Passer montanus</i>	1
22.	Sand Martin	<i>Riparia riparia</i>	1	51.	Chaffinch	<i>Fringilla coelebs</i>	1
23.	Swallow	<i>Hirundo rustica</i>	1	52.	Greenfinch	<i>Carduelis chloris</i>	1
24.	House Martin	<i>Delichon urbica</i>	3	53.	Goldfinch	<i>Carduelis carduelis</i>	1
25.	Meadow Pipit	<i>Anthus pratensis</i>	1	54.	Linnet	<i>Carduelis cannabina</i>	1
26.	Pied Wagtail	<i>Motacilla alba</i>	3	55.	Bullfinch	<i>Pyrrhula pyrrhula</i>	1
27.	Wren	<i>Troglodytes troglodytes</i>	1	56.	Yellowhammer	<i>Emberiza citronella</i>	1
28.	Dunnock	<i>Prunella modularis</i>	1	57.	Reed Bunting	<i>Emberiza schoeniclus</i>	1
29.	Robin	<i>Erithacus rubecula</i>	1				

Indicators

1. Evidence of Breeding: Eggs/nest; Occupied nest; Adult carrying faecal sac or food for young; Recently fledged young
2. Probable Breeder: Paired birds seen; Permanent Territory; Courtship & display; Nest building; Visiting nest site
3. Possible Breeder: Species in suitable habitat during breeding season; Singing male present
4. Birds present but not likely breeding, or know to nest outside the survey area

Proof of definite breeding was observed in respect of 40 of the species while a further 5 species indicated signs of probable or possible breeding. The remaining 12 species recorded were not found to breed within the survey area. No owl species were recorded during the nocturnal visits.

One Annex I species, Little Egret, was recorded but this species do not breed inside the survey area (see Table 3). Twenty bird species of conservation concern under BoCCI were recorded during the survey period, of these, 11 species were found to be breeding in the survey area:

- **Red listed species:** Yellowhammer
- **Amber listed species:** Shelduck, Stock Dove, Skylark, Sand Martin, Swallow, Spotted Flycatcher, Starling, House Sparrow, Tree Sparrow and Linnet.

Table 2: Overview of conservation status of species recorded at lands surrounding Broadmeadows/Swords Estuary, May – June 2009

No	Species	Breeding in study area	EU Birds Directive	Birds of Conservation Concern			
				Europe	Ireland		Fingal
				SPEC	BoCCI	BoCCI qualifying criteria*	Target species
1.	Mute Swan				Amber	Wintering population	
2.	Little Egret		Annex I				
3.	Shelduck	✓			Amber	Localised non-breeding population	
4.	Kestrel			3	Amber	New SPEC 3 species	
5.	Black-tailed Godwit			2	Amber	Non-breeding population	✓
6.	Redshank			2	Red/Amber	R: Decline in breeding population A: Non-breeding populations	✓
7.	Greenshank				Amber	Breeding rarity Non-breeding population	
8.	Herring Gull				Red	Decline in breeding population	
9.	Great Black-backed Gull				Amber	Decline in breeding population	
10.	Stock Dove	✓			Amber	Decline in breeding population	✓
11.	Swift				Amber	Decline in breeding population	
12.	Skylark	✓		3	Amber	SPEC 3 species	✓
13.	Sand Martin	✓		3	Amber	SPEC 3 species	✓
14.	Swallow	✓		3	Amber	SPEC 3 species	
15.	House Martin			3	Amber	New SPEC 3 species	
16.	Spotted Flycatcher	✓		3	Amber	SPEC 3 species	✓
17.	Starling	✓		3	Amber	New SPEC 3 species	
18.	House Sparrow	✓		3	Amber	New SPEC 3 species	
19.	Tree Sparrow	✓		3	Amber	New SPEC 3 species	✓
20.	Linnet	✓		2	Amber	New SPEC 2 species	✓
21.	Yellowhammer	✓			Red/Amber	R: Decline in breeding population A: Decline in breeding range	✓

* Red listed species automatically qualify for Amber status
Further detail on the BoCCI qualifying criteria is presented in Appendix 2.

In Chapter 5.2 results from each of the nine survey sections (A-I) are presented individually. An overview of the habitats is given and birds of importance recorded in each of the sections are highlighted.

Chapter 5.3 presents the key breeding species for this site and illustrates their distribution over the entire study area.

The full list of species recorded in each section is presented in Appendix 1.

5.2 Survey results by section

5.2.1 Lissenhall East - Section A

These two large fields situated along east side the M1 motorway were planted with cereal at the time of the survey.

Six bird species were recorded in Section A (see Appendix 1). Of note were two pairs of Skylark which bred in fields 1 and 2. Shelduck were recorded resting in the northern sector of field 2 but did not breed in this section.



View of field A2 from B3

Figure 5. Map of important species recorded at Lissenhall East - Section A



5.2.2 Ballymadrough/Seapoint - Section B

At the time of the survey fields 1-3 were in cereal. Here mature hedging borders the fields and a stand of mature trees is present at the western end of field 1. A horse paddock with good hedging is present at 4 and 5. There is a tidal pasture zone located at 6 where the Lissenhall Stream flows into the estuary.



Tidal pasture at B6

Thirty-seven bird species were recorded in Section B (see Appendix 1) with common birds well represented. Important breeding species were Yellowhammer, Skylark, Tree Sparrow and Linnet. Also, a small colony of Sand Martins excavated nest holes in the bank along the edge of the estuary at field 1 but may have abandoned the site due to the high level of pedestrian disturbance. In May Stock Dove was recorded at field 1 but was not present on follow up visits.

The Lissenhall Stream and its damp marginal vegetation at fields 4 and 6 supported breeding Mallard, Moorhen, Sedge Warbler and Reed Bunting. Blackcap was heard at Newport House and possibly bred in the gardens. Buzzard was regularly seen hunting the lands on both sides of the inner estuary and a pair bred in in the treeline between fields 1 and 3. Sparrowhawk was also recorded hunting in this section.

Figure 6. Map of important species recorded at Ballymadrough/Seapoint - Section B



5.2.4 Ballymadrough East – Section D

Fields 1 and 7 were in cereal, 5 was planted with potatoes while 3 was being sown with root crops in May. Field 2 had a small wet area toward the centre and together with 6 were in pasture for horses. Field 4 was a lawn belonging to Seatown House. Good hedging was present at fields 1-2, taller weaker hedging at 5 and 7, while fields 3-4 had a dividing fence. A stone wall is situated along the southern boundary of Section D.



Cereal field at D1

Twenty-seven bird species were recorded in Section D. The full list is shown in Appendix 1 with common birds well represented. Linnet was the most important breeding species recorded. Stock Dove (2) utilised this area for feeding and Shelduck (*peak 5*) for resting up.

Figure 8. Map of important species recorded in Ballymadrough East - Section D



5.2.5 Kilcrea South - Section E

Field 1 was in short pasture with good hedging on the west side. Fields 2-3 were in pasture for sheep, with good hedging on the west border and wooden fencing elsewhere. Field 4 which had wooden fencing was part of a stud farm. Fields 5, 7-9 were in cereal and 6 was planted with potatoes. The northern boundary of 6-7 had weak hedging with some trees.



Root crop at E6

Twenty-six bird species were recorded in Section E. The full list is presented in Appendix 1. Important breeding species recorded were Skylark and Linnet. Meadow Pipit bred in fields 1 and 9, and Stock Dove was recorded in the area but did not breed here. The hedgerows along fields 1-3 held good numbers of common birds while the pasture at 2-4 and the root crop field at 6 were species poor.

Figure 9. Map of important species recorded at Kilcrea South- Section E



5.2.6 Kilcrea (Channel) – Section F

This area is liable to flooding due the presence of a river (Newbridge River) and low lying land. There is a sluice gate where the river flows into the estuary at field 1. Rank grass borders the channel and elsewhere with bramble and gorse bushes. Field 2 was grazed by horses. Fields 1 and 5 have a mature woodland boundary and a track on the south side. Field 3 is rough damp vegetated with tall wild hedging and a small stand of alders.

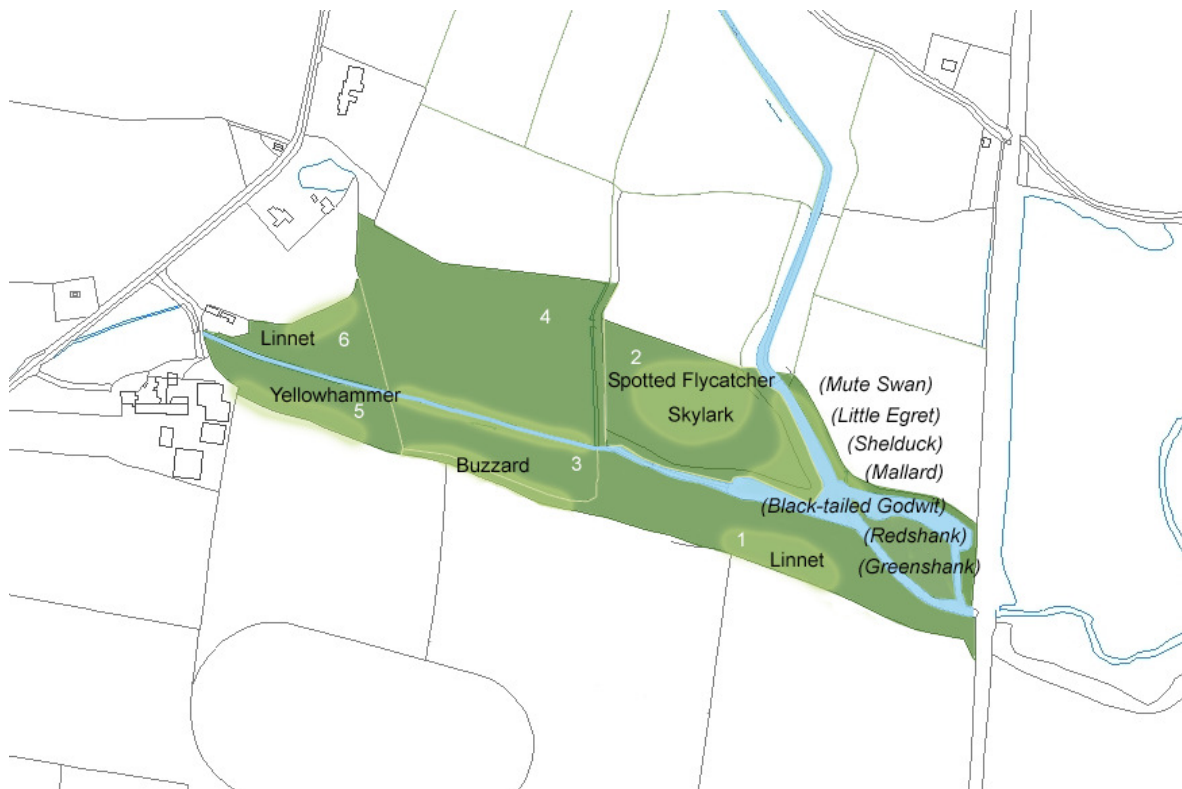


Newbridge River at F1/F2

Thirty-five bird species were recorded in Section F (see Appendix 1 for full list). Important breeding species recorded were Skylark, Spotted Flycatcher, Linnet and Yellowhammer. A pair of Buzzards bred along the woodland track at 1. Other breeding species recorded include Meadow Pipit and Reed Bunting.

The channel attracted a variety of migrant and non-breeding waders; Whimbrel (*peak 2*), Redshank (*29*) and Greenshank (*3*) were recorded in May and summering Black-tailed Godwits (*125*) were regularly seen feeding and roosting at the channel and field at F2. Wildfowl recorded at the channel were Mute Swan (*peak 2*), Shelduck (*24*), Mallard (*12*) and Moorhen (*1*). Little Egret is an important record for this section with birds from the breeding colony at Newbridge Demesne along with non-breeders (*peak 8*) feeding and resting at the channel.

Figure 10. Map of important species recorded at Kilcrea (Channel) - Section F



5.2.7 Kilcrea North – Section G

The whole area is very low lying with water lying on the fields. The Newbridge River flows alongside fields 3, 8, 10, and 2. Field 4 contains a private dwelling and lawn, and 3 was a farmyard with sheds and an open barn. There is a good hedgerow regime in almost all sections. The lands are in short pasture and used for cattle and horse grazing. Fields 1, 2, and 11 had lower hedging and an open track along 2. Fields 9 and 10 were very damp with good hedging and Alders taking hold. Field 5 is a shooting reserve where rough grasses and bramble were present.



Damp pasture at G9

Forty-two bird species were recorded in Section G during the course of the survey (see Appendix 1 for full list). The lands and hedgerows in this section supported a particularly good diversity and number of breeding species. Important breeding species recorded were Yellowhammer, Skylark and Linnet. At least three pairs of Shelduck bred in the bank of field 11. Swallows nested in a barn at 3, and House Sparrow and Starling in an old derelict house at 1. Other breeding species recorded include Meadow Pipit and a pair of Sedge Warblers in the damp field at 5. Summering Black-tailed Godwits (*peak 110*) were recorded feeding in the short pasture of fields 1 and 11. Two species of birds of prey, Kestrel (*Amber listed species*) and Sparrowhawk (*nesting at Newbridge Demesne*), used the area for hunting.

Figure 11. Map of important species recorded in Kilcrea North - Section G



5.2.8 Corballis – Section H

Field 1 was a mosaic of cereal, stubble, root crops and ploughed land. There was mature hedging along the railway line and patchy hedging on the southern boundary. A hedge divides 1 from 2 and 3. Field 2 was grazed by sheep with a conifer plantation on its northern boundary. Field 3 had a low hedge bordering the road. There was a small area of gorse and grass above the conifer wood on the east side.



Thirty-two species were recorded in Section H (see Appendix 1). This is a key breeding area for Yellowhammer (4-5 pairs), Tree Sparrow (1-2 pairs), and Skylark (7 pairs). Linnet is another important species recorded (1 pair). The northern section of field 1 proved an attractive feeding area for Stock Dove (peak 5). Other breeding species included Meadow Pipit, Reed Bunting and a pair of Willow Warbler nested in the conifers north of field 2.

Figure 12. Map of important species recorded in Corballis - Section H



5.2.9 Seatown East – Section I

This section lies to the south of the estuary. Fields 1 and 3-5 were planted in cereal with good hedging to the western boundary of field 1. Field 2 was unmanaged and field 3 was a lawn belonging to a private dwelling.



View south across the estuary to Section I

Twenty-seven bird species were recorded in Section I (see Appendix 1). This is a key breeding area for Yellowhammer (3 *pairs*), and Tree Sparrow (1-2 *pairs*), Skylark (1-2 *pairs*) and Linnet (1 *pairs*) are other important species. Of note was the hedging along on the western boundary of field 1 which also held particularly good numbers of common breeding birds such as Song Thrush, Blackbird, Dunnock and Wren. The Buzzards which bred at Ballymadrough were regularly seen hunting at over these lands.

Figure 13. Map of important species recorded in Seatown East - Section I



5.3 Distribution of key breeding species

The following section presents the key breeding species in taxonomic order and illustrates their distribution over the entire study area.

5.3.1 Stock Dove (*Columba oenas*)

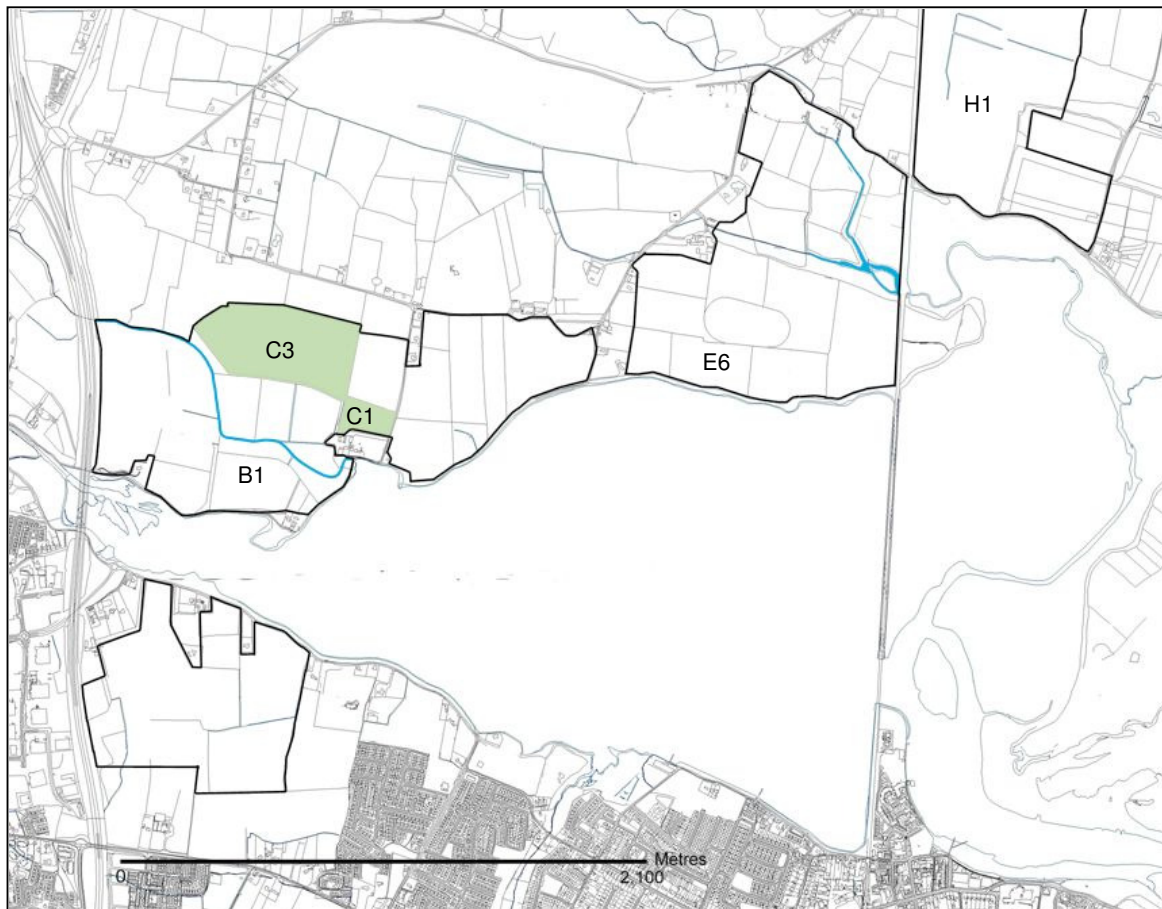
Status: Amber listed under BoCCI
Regional Importance

This is a species with localised distribution in Ireland and is Amber listed under BoCCI as there has been a 35-70% decline in the breeding range over 25 years.

Two pairs were recorded breeding in Section C, at fields 1 and 3. The northern area of field H1 provided good habitat for feeding with five birds recorded here in May. Singles were also seen at fields B1 and E6.



Figure 14. Stock Dove - areas utilised in survey area. May - June 2009



5.3.2 Sand Martin (*Riparia riparia*)

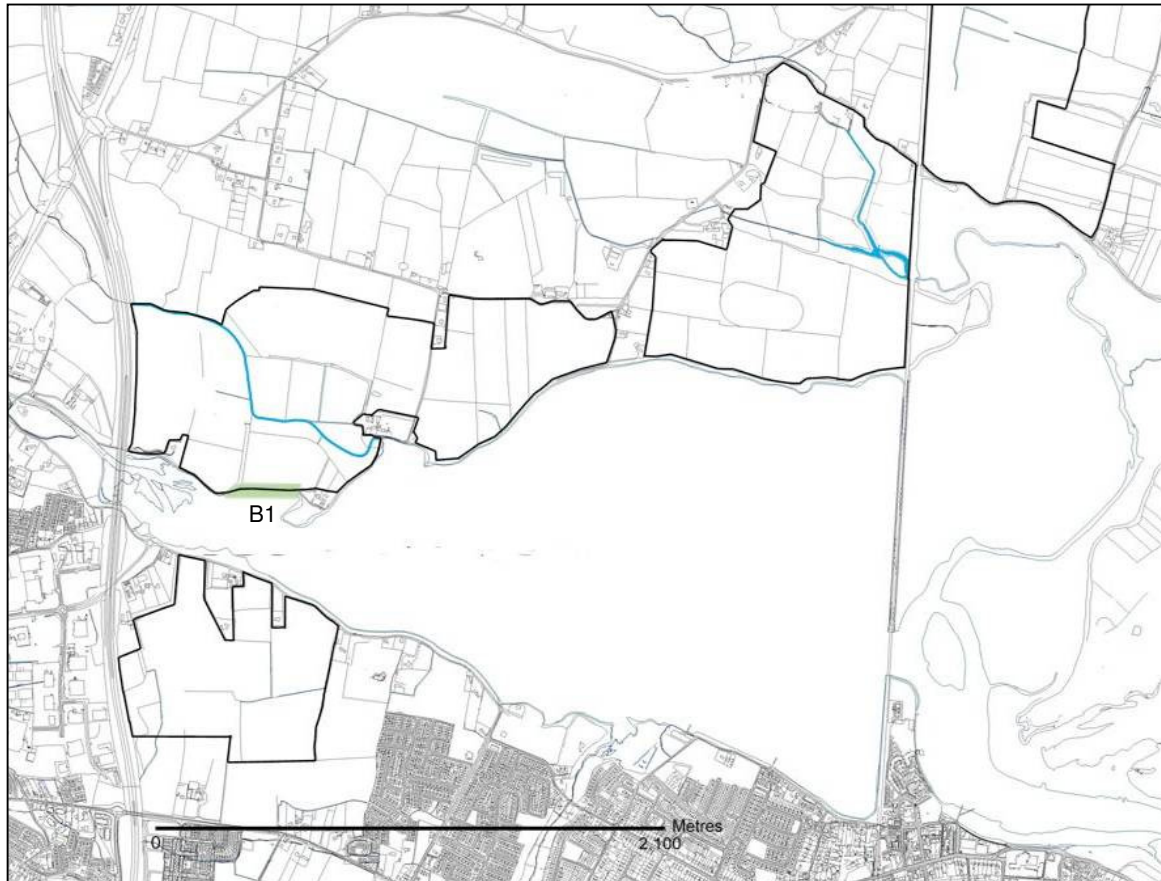
Status: Amber listed under BoCCI

Sand Martin has unfavourable conservation status in Europe and is Amber listed in BoCCI. This species nest in quarries and vertical earth banks along the coast. Undisturbed nesting sites are becoming rarer in the Fingal area.

In mid-May a small colony of Sand Martins (8) excavated nest holes in the bank along the edge of the estuary at B1. The birds were not seen on follow-up visits and may have abandoned the site. This may have been due to the high level of pedestrian disturbance as the area attracts many visitors who come to feed swans at the edge of the estuary.



Figure 15. Sand Martin - area utilised in survey area. May - June 2009



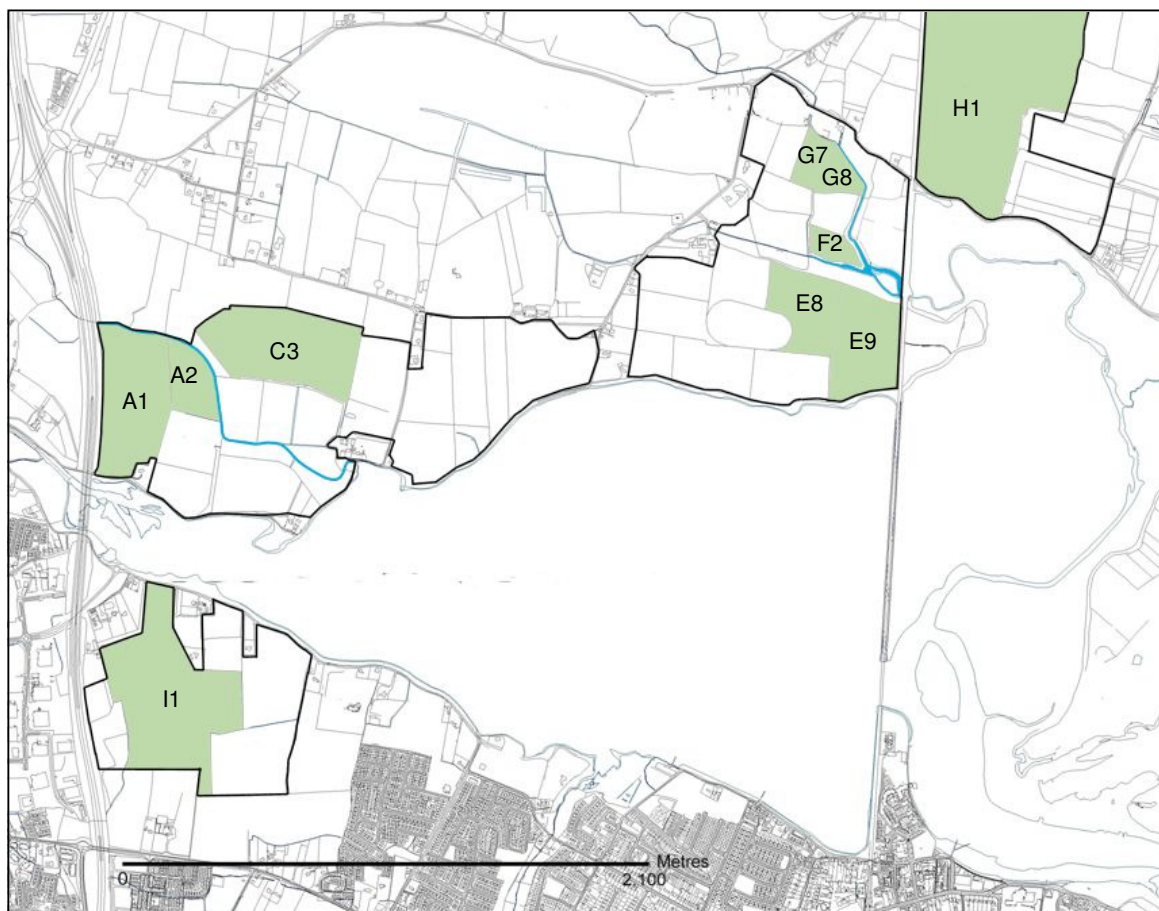
5.3.3 Skylark (*Alauda arvensis*)

Status: Amber listed under BoCCI

Skylark has unfavourable conservation status in Europe and is Amber listed in BoCCI. This species was well distributed throughout the survey area with a total of 16-17 breeding pairs present. The most important breeding area was identified as field H1 at Corballis with 7 pairs. All other survey sections highlighted in Figure 16 held 1-2 pairs.



Figure 16. Skylark - areas utilised in survey area. May - June 2009



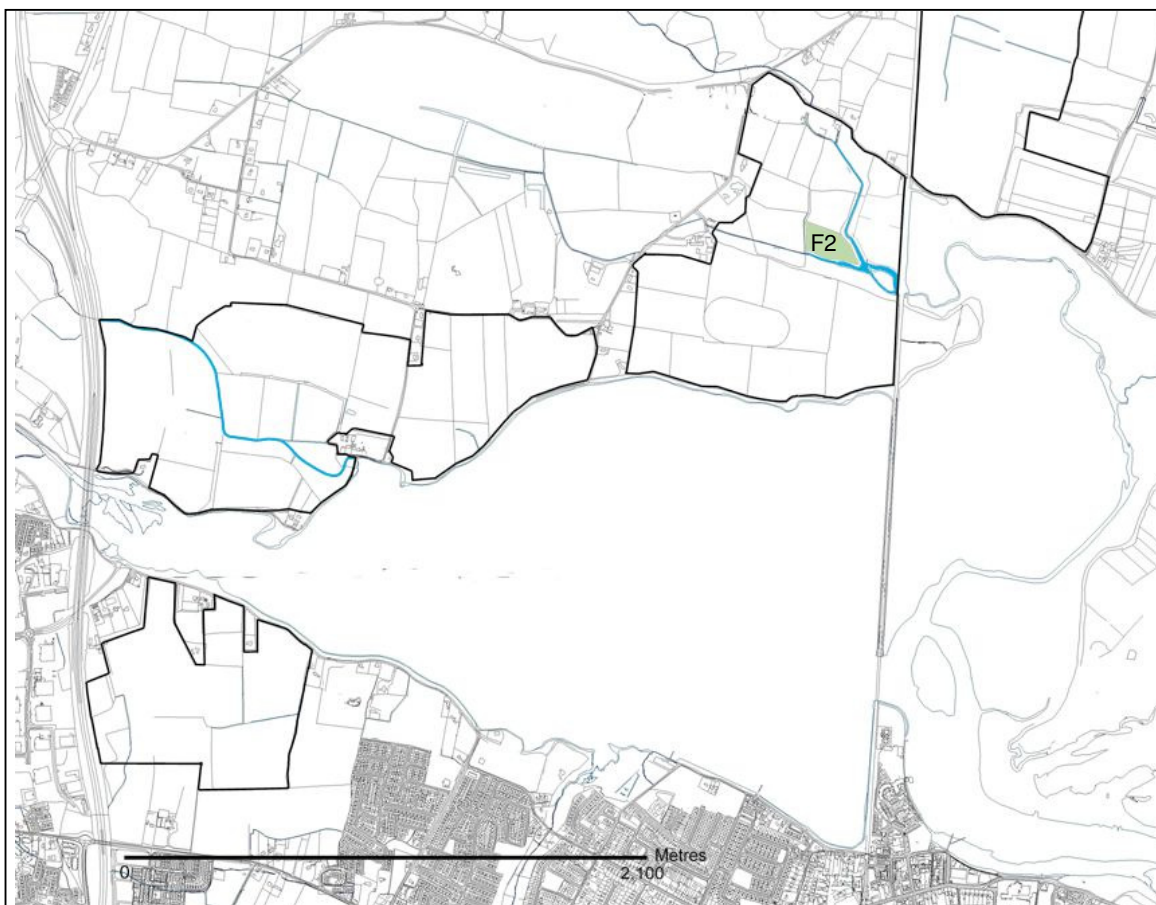
5.3.4 **Spotted Flycatcher** (*Muscicapa striata*)

Status: Amber listed under BoCCI

Spotted Flycatcher has unfavourable conservation status in Europe and is Amber listed in BoCCI. This migrant species winters in Africa and arrives in Ireland from April onwards. Spotted Flycatcher has become an uncommon breeder in Fingal. One pair bred in the survey area at F2.



Figure 17. Spotted Flycatcher - area utilised in survey area. May - June 2009



5.3.5 Tree Sparrow (*Passer montanus*)

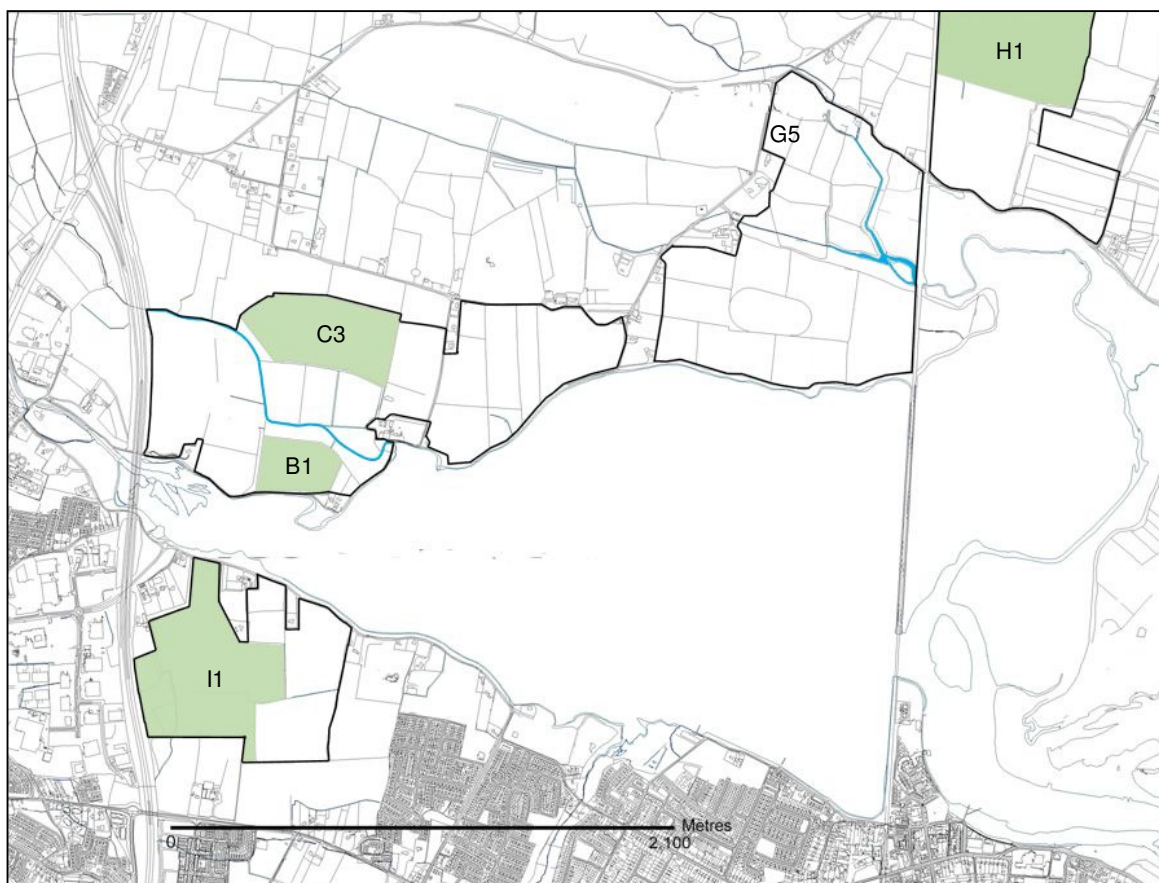
Status: Amber listed under BoCCI
Regional Importance

Tree Sparrow has unfavourable conservation status in Europe and is Amber listed in BoCCI. This is a species with localised distribution; with Fingal being one of the main strongholds on the east coast.

At least 7 pairs bred in the survey area. Four sites were identified: C3 (3 pairs), in H1 (2 pairs), B1 (1 pair) and I1 (1 pair). Tree Sparrow was also recorded at G5 but no indicators of breeding were seen.



Figure 18. Tree Sparrow - areas utilised in survey area. May - June 2009



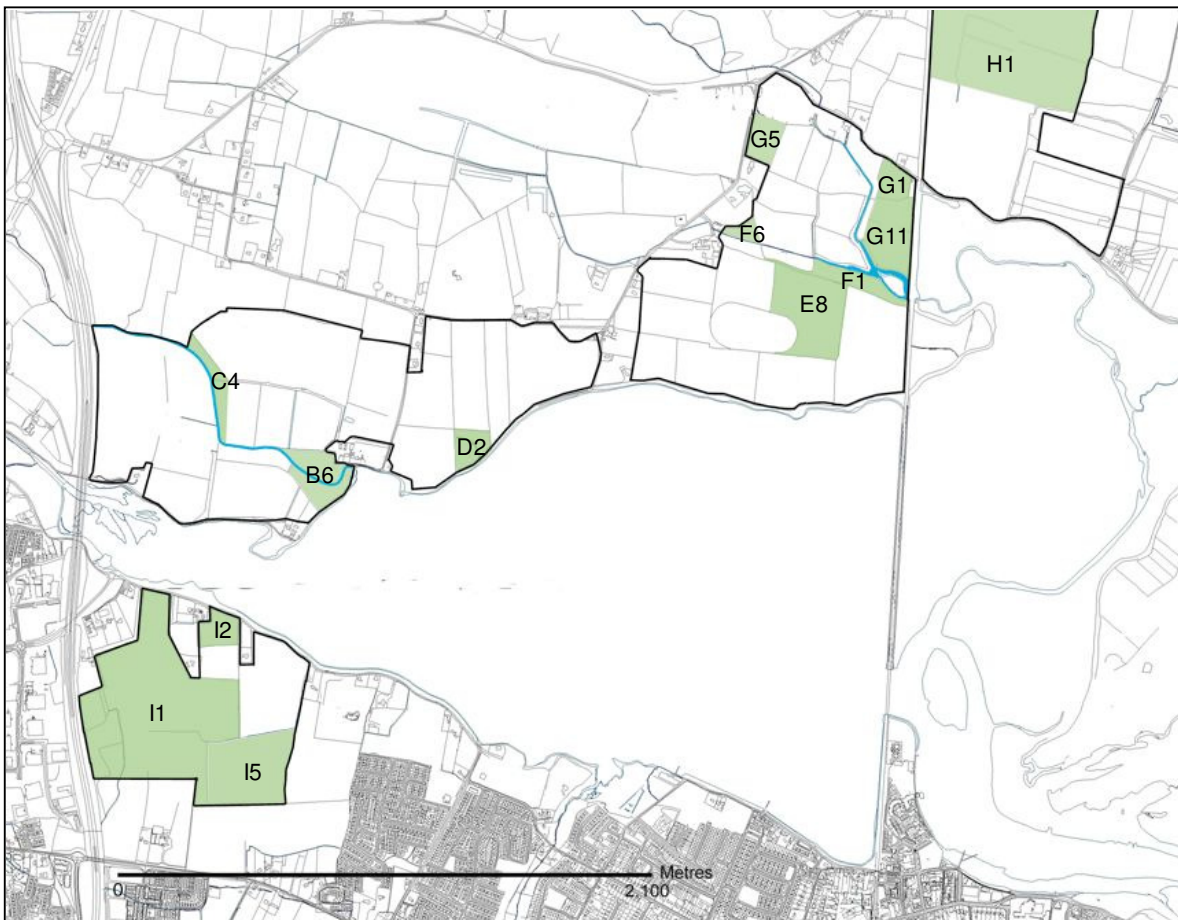
5.3.6 Linnet (*Carduelis cannabina*)

Status: Amber listed under BoCCI

Linnet has unfavourable conservation status in Europe and is Amber listed in BoCCI. Thirteen breeding pairs were recorded in the survey area. Linnets were found in areas with unmanaged ground at Sections G (3 pairs), F (2 pairs), B6 (1 pair), C4 (1 pair), D2 (1 pair) and I2 (1 pair). They avoid areas with weed-free agriculture but were also recorded in rougher areas with bramble or good hedging at arable fields: E8 (2 pairs), H1 (1 pair), I1 and I5 (2 pairs). In June, it was also noted that the pasture fields in Section G proved a good feeding area for this species.



Figure 19. Linnet - areas utilised in survey area. May - June 2009



5.3.7 Yellowhammer (*Emberiza citrinella*)

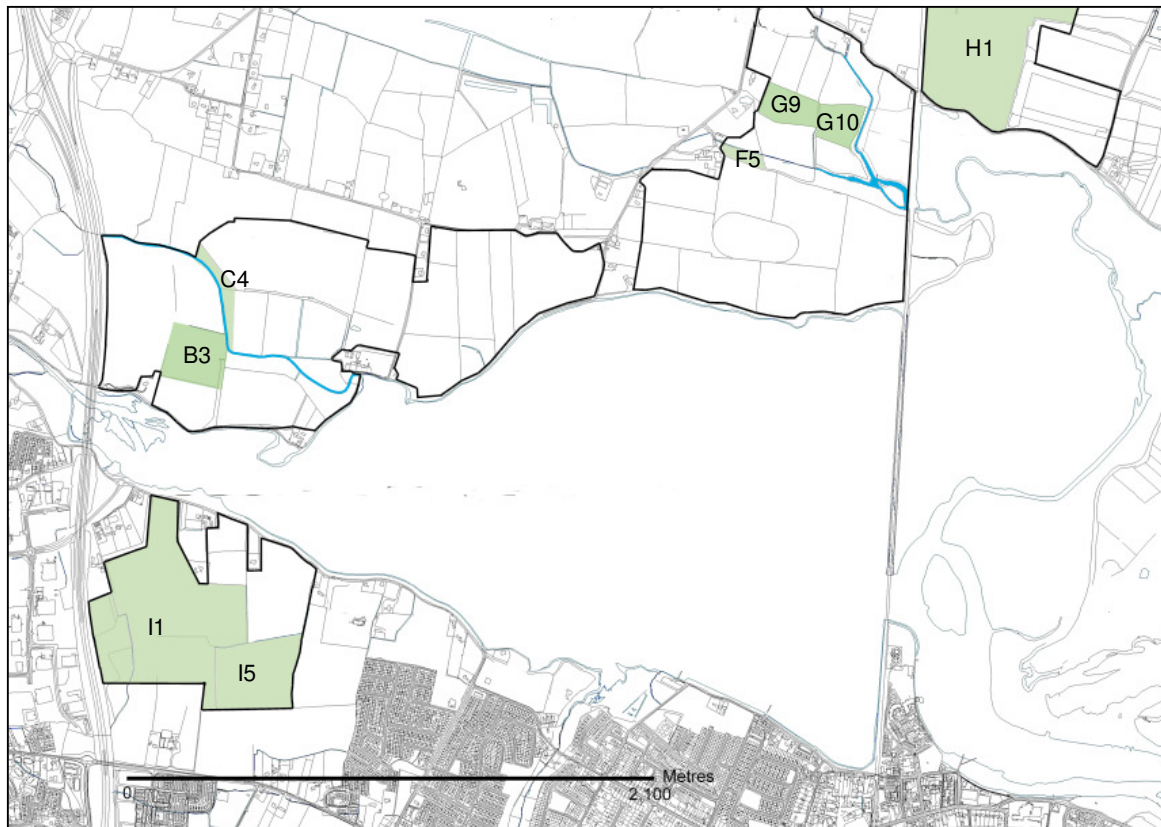
Status: Red listed under BoCCI
Regional Importance

Yellowhammer is Red listed under BoCCI as there has been a decline of over 50% in their breeding population in Ireland during the past 25 years.

Yellowhammer were present at arable and pasture fields with good hedging or scrub, with 12-14 breeding pairs recorded in the survey area. The key sites were identified were H1 (4-5 pairs), I1 (2 pairs) and I5 (1 pair). Other survey sections highlighted in Figure 20 supported 1-2 pairs: G (2 pairs), C (1-2 pairs), B (1 pair) and F (1 pair).



Figure 20. Yellowhammer - areas utilised in survey area. May - June 2009



5.3.8 Other important observations

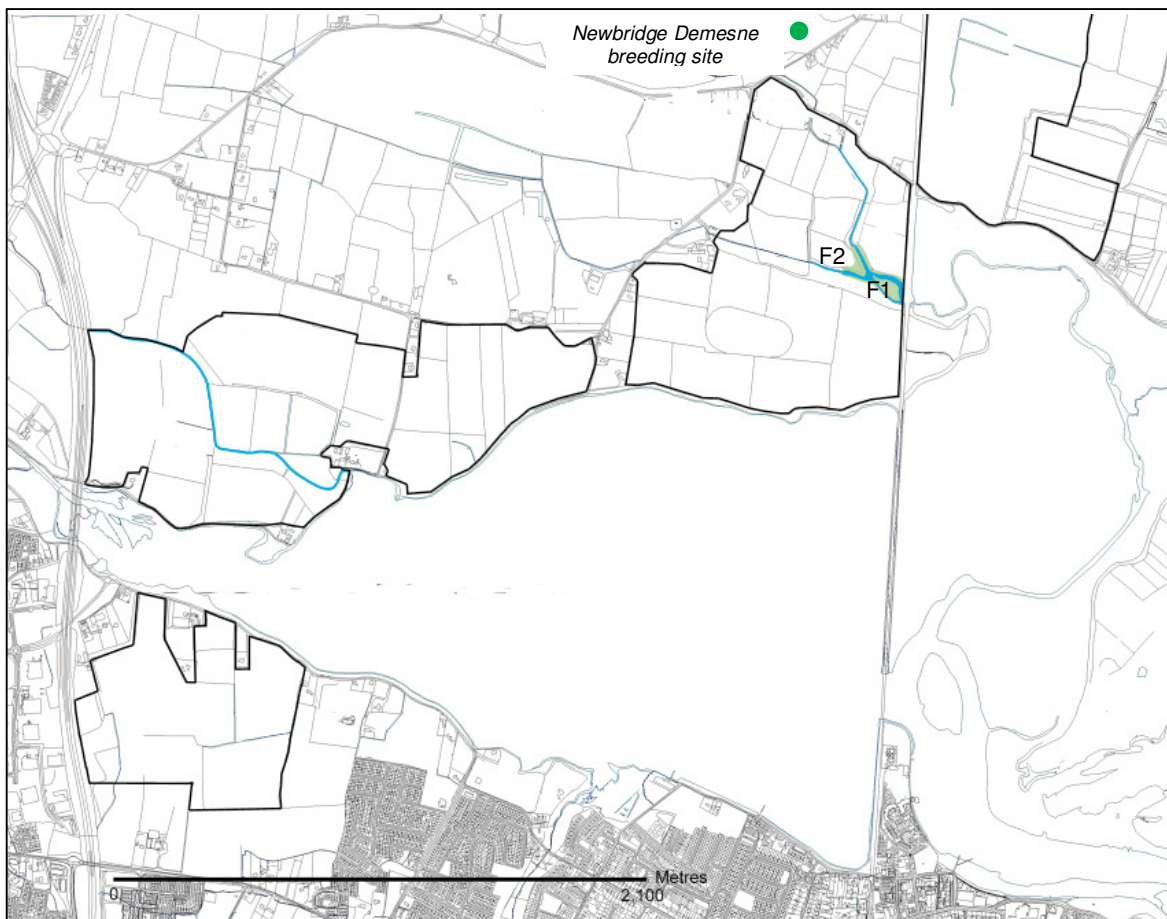
Little Egret (*Egretta garzetta*)

Status: Annex I of the EU Birds Directive

Since 2006, Little Egret has been confirmed breeding at the herony in Newbridge Demense, with at least 3 pairs present (see Figure 21). Birds from this breeding colony along with non-breeders (*peak 8*) were regularly seen feeding and resting at the channel at Kilcrea (F1-2).



Figure 21. Little Egret - areas utilised in survey area. May - June 2009



Black-tailed Godwit (*Limosa limosa*)

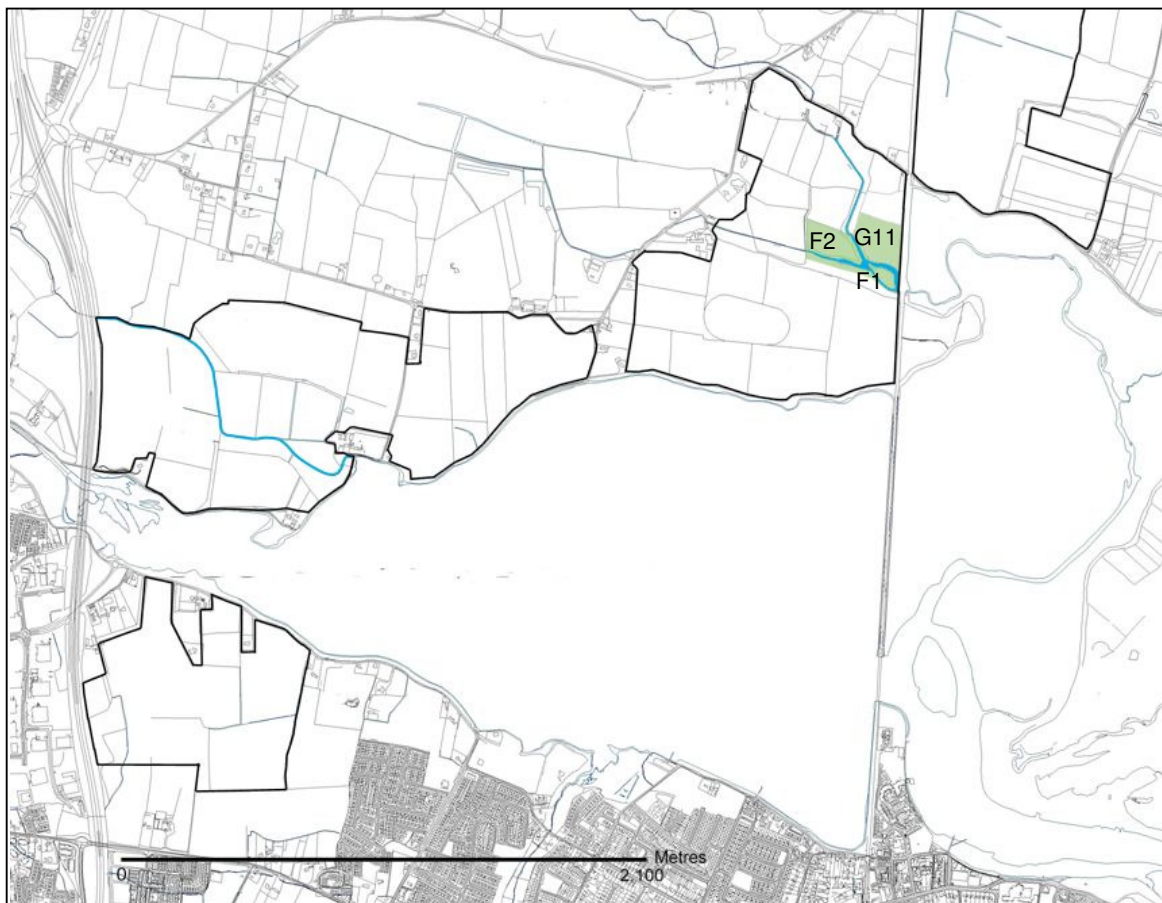
Status: *Amber listed under BoCCI*
Natura 2000 site - listed species

This is a localised non-breeding species with at least 50% of the winter population occurring at 10 or fewer sites in Ireland. Black-tailed Godwits occur in numbers of international importance at the Broadmeadows/ Swords Estuary Natura 2000 site (threshold ≥ 160).

A summering non-breeding flock of c350 Black-tailed Godwits were present at the estuary in 2009. Godwits flocks were recorded feeding in the channel at F1-F2 (*peak 125*) and on a pasture field at G11 (*110*).



Figure 22. Black-tailed Godwits - areas utilised in survey area. May - June 2009

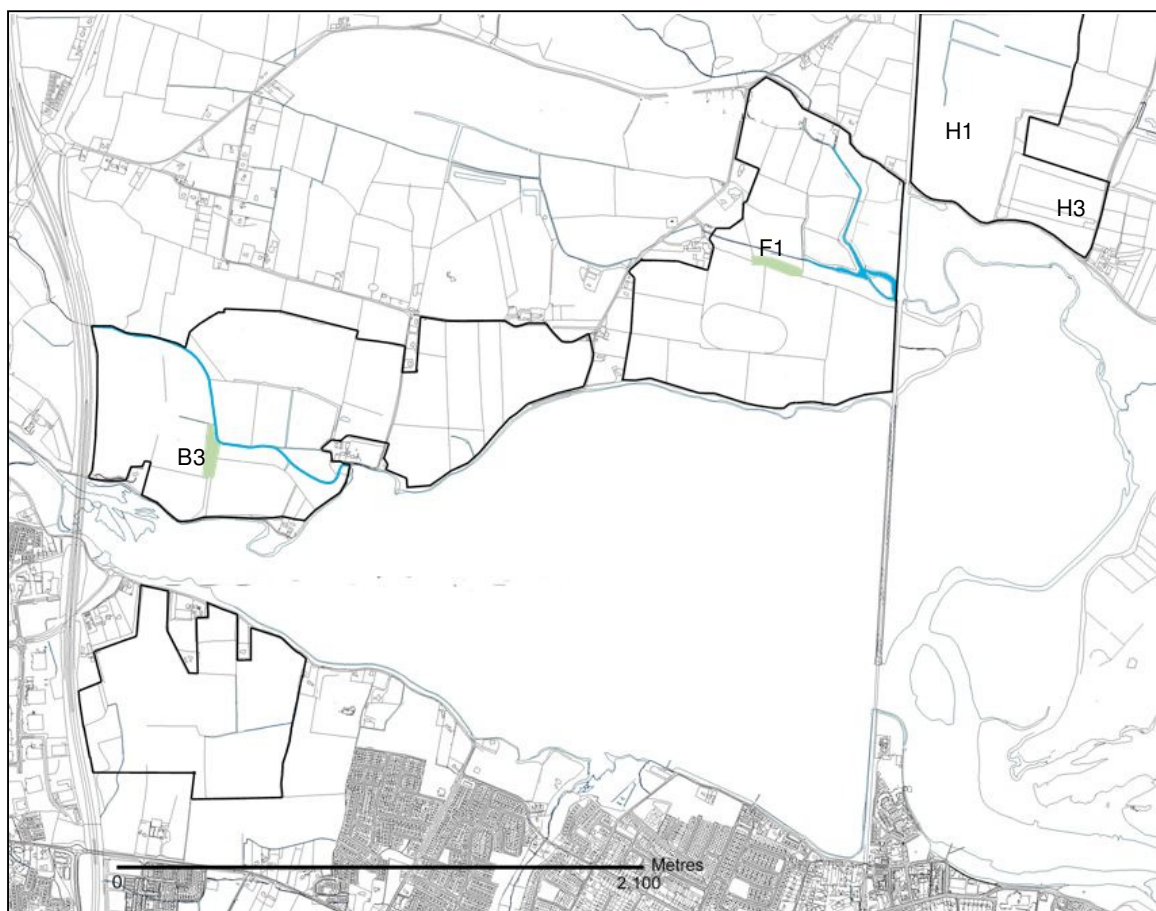


Buzzard (*Buteo buteo*)

Buzzards are regularly seen hunting and circling over the lands surrounding the estuary. Two breeding sites were identified during the survey: at the woodland track at Kilcrea (F1) and at a mature stand of trees at Ballymadrough/Seapoint (B3).



Figure 23. Buzzard - breeding sites identified in the survey area. May - June 2009



6. DISCUSSION

The results of the summer survey showed that there was a very good diversity of species present throughout the lands surrounding the Broadmeadows/Swords Estuary with 57 bird species recorded. Twenty bird species of conservation concern under BoCCI were present; of these, 11 species were found to be breeding in the survey area.

Of note is the range of important lowland farmland birds of conservation concern which were confirmed to breed in the study area: Stock Dove, Skylark, Tree Sparrow, Linnet and Yellowhammer. All these species are the focus of specific conservation actions in Fingal with Yellowhammer, a Red listed species under BoCCI, the most important having declined by an estimated 90% across Ireland over the last two decades (Donaghy 1998, Newton *et al.* 1999, Hillis 2004)⁶. In farmland areas development, agricultural intensification, and the loss of hedgerows and winter feeding areas e.g. stubble, has resulted in the decline of all these species and a contraction of their range in Ireland. The study sections with a mix of arable land and/or pasture for cattle and horses and unmanaged areas with mature hedgerows provided suitable breeding and feeding habitat for these protected species. Areas of particular importance were Corballis (Section H), Ballymadrough (Section C), Seatown East (Section I) and the Kilcrea (Sections F and G). Survey areas which had weak or no hedging combined with areas of cereal, root crops and lawns held a poorer diversity of species and fewer species of conservation concern. Table 3 shows the overview of these breeding species for each survey section.

Table 3: Overview of key lowland farmland breeding species of conservation concern by survey section, May – June 2009

No.	Species	Section A	Section B	Section C	Section D	Section E	Section F	Section G	Section H	Section I	Total pairs
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Red listed under BoCCI:

1.	Yellowhammer		1 pair	1-2 pairs			1 pair	2 pairs	4-5 pairs	3 pairs	12-14
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Amber listed under BoCCI:

1.	Stock Dove			2 pairs							2
2.	Skylark	2 pairs		1 pair		2 pairs	1 pair	2 pairs	7 pairs	1-2 pairs	16-17
3.	Tree Sparrow		1 pair	3 pairs					1-2 pairs	1 pair	6-7
4.	Linnet		1 pair	1 pair	1 pair	2 pairs	1 pair	3 pairs	1 pair	3 pairs	13

Total species recorded:

No. of species recorded:	6	37	36	27	26	35	42	32	27	57
No. of species of conservation concern confirmed breeding:	1	4	7	2	3	5	5	4	5	11

The survey findings show that the Newbridge River at Kilcrea with its flood zones flanked by pasture (Sections F and G), is important area for a range of species. Little Egret, an Annex I species which breed locally, utilise the channel near the sluice gate for feeding and resting up. Shelduck, an Amber listed species, breed in the banks of the pasture fields. Flocks of Black-tailed Godwits, a summering non-breeder and Natura 2000 listed species, were also recorded feeding at the channel and in the pasture fields north of the channel. The good hedging and woodland track supported Spotted Flycatcher, an Amber listed species which has become an uncommon breeder in Fingal in recent years, and breeding Buzzard.

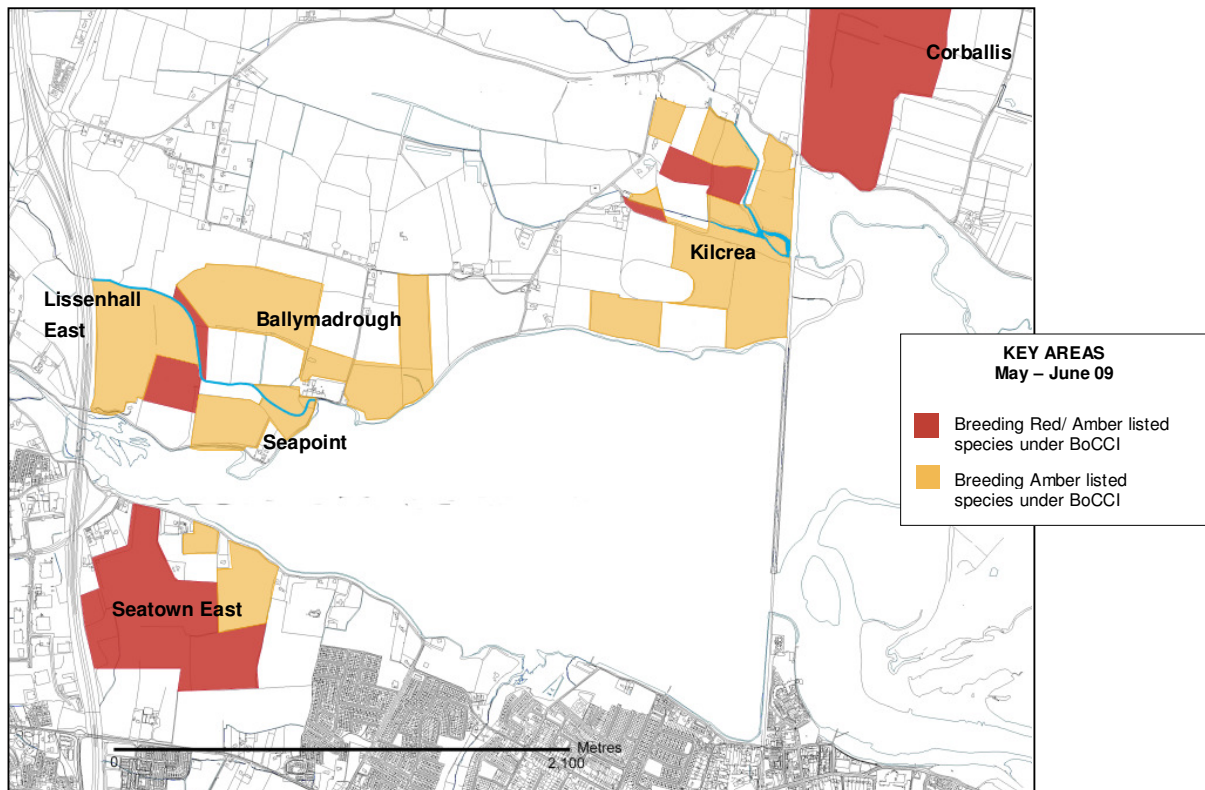
⁶ Lynas, P., Newton, S. F., & Robinson, J. A. (2007). *The Status of Birds in Ireland: an analysis of conservation concern 2008-2013*. Irish Birds 8. 149:165

In addition to the important lowland farmland birds recorded at Ballymadrough/Seapoint, the damp unmanaged lands and pasture along the Lissenhall Stream provided perfect habitat for breeding Shelduck, and for Whitethroat and Sedge Warbler; both locally uncommon breeding species. Buzzard bred in the tree stand and Sand Martin excavated nest holes along a bank at Seapoint - but may have failed to fledge their young due to the high level of pedestrian disturbance here.

The findings of this study show that these lands are important for a range of important breeding species of conservation concern and locally uncommon breeding species and that the diversity recorded is a direct reflection of the mix of habitats and current land use. The distribution of these breeding species may change in the future with individual fields becoming more or less important as a result of any changes in farming practices.

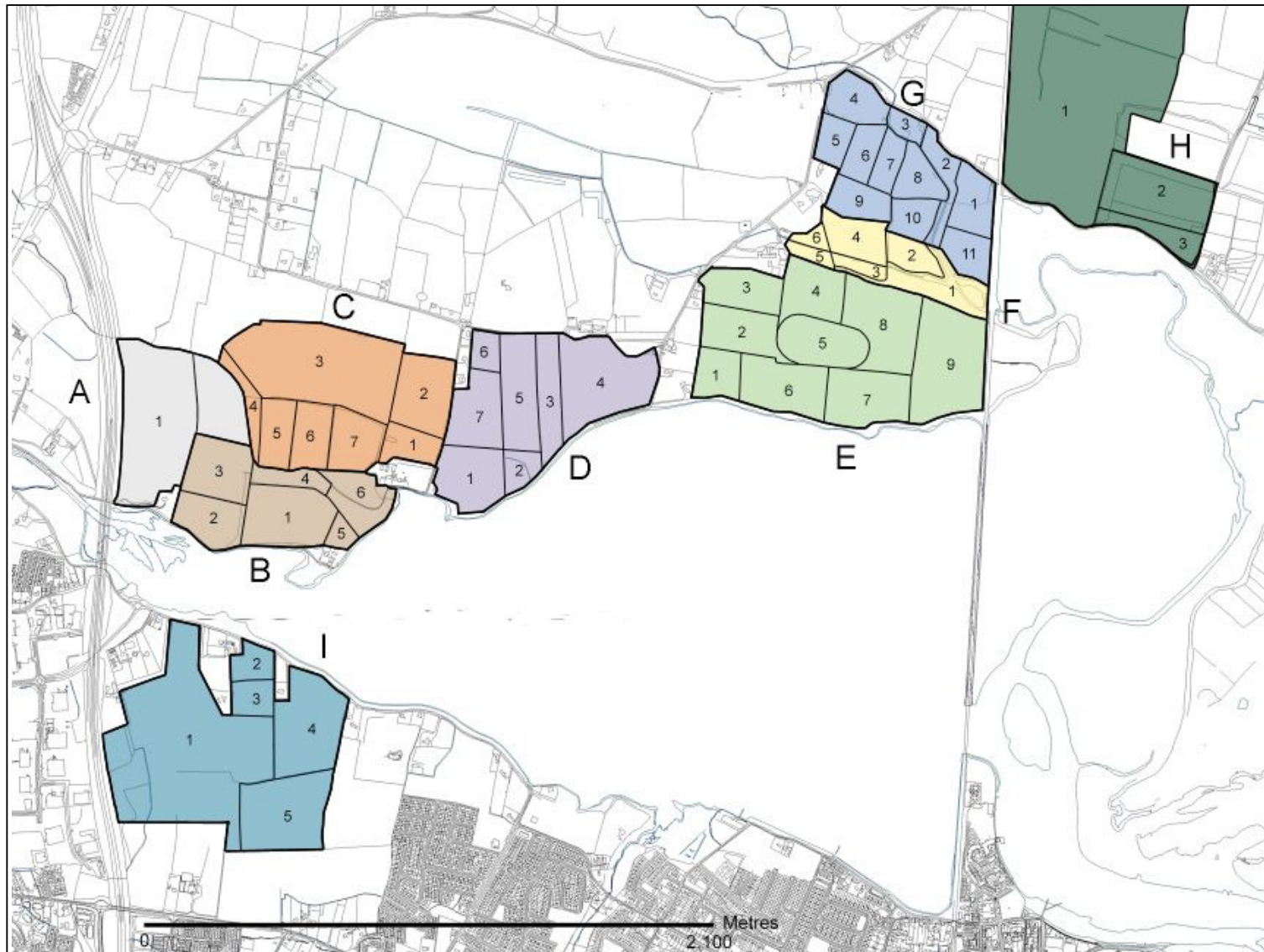
Based on the findings of the summer survey 2009, the following map illustrates the distribution of key breeding species of conservation concern across the lands surrounding the Broadmeadows/Swords Estuary.

Figure 24. Map of key areas identified - breeding birds of conservation concern at lands surrounding Broadmeadows Estuary, May – June 2009



APPENDIX 1: MAP OF THE STUDY AREA SECTIONS AND BASELINE DATA

Map of the survey sections at lands surrounding the Broadmeadows/Swords Estuary



Section A Data

Overview of species recorded in Section A – Lissenhall East

	Species	May	June	Breeding indicator	No. of pairs
1.	Shelduck	✓		3	
2.	Skylark	✓	✓	1	2
3.	Wren		✓	1	1
4.	Dunnock		✓	1	1
5.	Blackbird	✓		1	
6.	Hooded Crow	✓	✓	4	

Section B Data

Overview of species recorded in Section B – Ballymadrough/Seapoint

	Species	May	June	Breeding indicator	No. of pairs
1.	Grey Heron	✓		4	
2.	Mallard	✓	✓	1	1 (3y)
3.	Sparrowhawk	✓	✓	4	
4.	Buzzard	✓		4	
5.	Pheasant	✓	✓	2	
6.	Moorhen	✓	✓	1	1
7.	Stock Dove	✓		3	
8.	Wood Pigeon	✓	✓	1	2
9.	Swift	✓	✓	3	
10.	Sand Martin	✓		1	5-8
11.	Swallow	✓	✓	3	
12.	House Martin	✓	✓	3	
13.	Wren	✓	✓	1	9
14.	Duncock	✓	✓	1	7
15.	Robin	✓	✓	1	3-4
16.	Song Thrush	✓	✓	1	4
17.	Mistle Thrush		✓	3	
18.	Blackbird	✓	✓	1	3-4
19.	Blackcap	✓		3	
20.	Sedge Warbler	✓	✓	1	1
21.	Goldcrest	✓	✓	1	3
22.	Coal Tit	✓	✓	1	1-3

	Species	May	June	Breeding indicator	No. of pairs
23.	Blue Tit	✓	✓	1	4
24.	Great Tit	✓	✓	1	2
25.	Magpie	✓		3	
26.	Jackdaw	✓	✓	3	
27.	Rook		✓	3	
28.	Hooded Crow		✓	4	
29.	Starling	✓	✓	4	
30.	Tree Sparrow	✓	✓	1	1
31.	Chaffinch	✓	✓	1	6
32.	Greenfinch		✓	1	1
33.	Goldfinch	✓	✓	1	2-3
34.	Linnet	✓	✓	1	1
35.	Bullfinch	✓	✓	1	2-3
36.	Yellowhammer	✓		1	1
37.	Reed Bunting	✓	✓	1	1-2

Section C Data

Overview of species recorded in Section C – Ballymadrough

	Species	May	June	Breeding Indicator	No. of pairs
1.	Grey Heron		✓		
2.	Shelduck	✓	✓	2	
3.	Mallard		✓		
4.	Buzzard	✓	✓		
5.	Pheasant	✓	✓	3	
6.	Stock Dove		✓	1	2
7.	Wood Pigeon	✓	✓	1	8
8.	Skylark		✓	1	1
9.	Swallow	✓	✓	1	1
10.	House Martin		✓	4	
11.	Meadow Pipit	✓	✓	1	2
12.	Wren	✓	✓	1	20-22
13.	Duncock	✓	✓	1	7
14.	Robin	✓	✓	1	5-7
15.	Song Thrush	✓	✓	1	3
16.	Mistle Thrush		✓	3	
17.	Blackbird	✓	✓	1	8
18.	Blackcap	✓	✓	1	2
19.	Whitethroat	✓	✓	1	1
20.	Sedge Warbler	✓	✓	1	2-3
21.	Goldcrest	✓	✓	1	2-3
22.	Blue Tit	✓	✓	1	4-5

	Species	May	June	Breeding Indicator	No. of pairs
23.	Great Tit	✓	✓	1	2
24.	Magpie	✓	✓	1	1-2
25.	Jackdaw	✓	✓	1	4-5
26.	Rook	✓		4	
27.	Hooded Crow		✓	3	
28.	Starling		✓	2	
29.	Tree Sparrow	✓		1	3
30.	Chaffinch	✓	✓	1	2-3
31.	Greenfinch	✓		3	
32.	Goldfinch	✓	✓	1	2
33.	Linnet	✓	✓	1	1
34.	Bullfinch	✓	✓	1	2
35.	Yellowhammer	✓	✓	1	1-2
36.	Reed Bunting	✓	✓	1	2

Section D Data

Overview of species recorded in Section D – Ballymadrough East

	Species	May	June	Breeding indicator	No. of pairs
1.	Shelduck	✓	✓	3	
2.	Pheasant	✓	✓	1	3-4
3.	Herring Gull		✓	4	
4.	Great Black-backed Gull	✓	✓	4	
5.	Stock Dove		✓	3	
6.	Wood Pigeon	✓	✓	1	4+
7.	House Martin		✓	4	
8.	Meadow Pipit	✓		3	
9.	Wren	✓	✓	1	7
10.	Dunnock	✓	✓	1	6
11.	Robin	✓	✓	1	4-5
12.	Song Thrush	✓	✓	1	1
13.	Mistle Thrush	✓	✓	3	
14.	Blackbird	✓	✓	1	5
15.	Goldcrest		✓	1	2
16.	Blue Tit	✓	✓	1	4+
17.	Great Tit		✓	1	1-2
18.	Magpie		✓	1	1
19.	Jackdaw	✓	✓	1	4
20.	Rook	✓	✓	1	2-3
21.	Raven		✓	4	
22.	Starling	✓		3	

	Species	May	June	Breeding indicator	No. of pairs
23.	Chaffinch	✓	✓	1	6-7
24.	Greenfinch	✓		1	1-2
25.	Goldfinch		✓	1	1-2
26.	Linnet	✓	✓	1	1
27.	Reed Bunting	✓	✓	1	1-2

Section E Data

Overview of species recorded in Section E – Kilcrea South

	Species	May	June	Breeding indicator	No. of pairs
1.	Grey Heron	✓		4	
2.	Pheasant	✓	✓	1	3-4
3.	Herring Gull	✓		4	
4.	Great Black-backed Gull	✓		4	
5.	Stock Dove		✓	4	
6.	Wood Pigeon	✓	✓	1	2-3
7.	Swift		✓	4	
8.	Skylark	✓	✓	1	2
9.	Swallow	✓	✓	4	
10.	Meadow Pipit	✓	✓	1	1-2
11.	Wren	✓	✓	1	5+
12.	Dunnock	✓	✓	1	3+
13.	Robin	✓	✓	1	2+
14.	Blackbird	✓	✓	1	4+
15.	Song Thrush	✓	✓	1	1-2
16.	Blue Tit	✓	✓	1	3+
17.	Great Tit	✓	✓	1	2
18.	Magpie	✓	✓	3	
19.	Jackdaw	✓	✓	3	
20.	Rook	✓	✓	3	
21.	Hooded Crow	✓	✓	3	
22.	Starling	✓	✓	1	1+

	Species	May	June	Breeding indicator	No. of pairs
24.	Chaffinch	✓	✓	1	3+
25.	Goldfinch	✓		3	
26.	Linnet	✓	✓	1	2

Section F Data

Overview of species recorded in Section F – Kilcrea (Channel)

	Species	May	June	Breeding indicator	No. of pairs
1.	Mute Swan	✓		4	
2.	Little Egret	✓	✓	4	
3.	Grey Heron	✓	✓	4	
4.	Shelduck	✓	✓	3	
5.	Mallard	✓	✓	3	
6.	Buzzard	✓	✓	1	1
7.	Pheasant		✓	3	
8.	Moorhen		✓	3	
9.	Black-tailed Godwit	✓	✓	4	
10.	Whimbrel	✓		4	
11.	Redshank	✓	✓	4	
12.	Greenshank	✓		4	
13.	Wood Pigeon	✓	✓	1	4+
14.	Skylark		✓	3	
15.	Swallow	✓	✓	4	
16.	Meadow Pipit	✓	✓	1	2
17.	Wren	✓	✓	1	8
18.	Duncock	✓	✓	1	2
19.	Robin	✓	✓	1	2
20.	Blackbird	✓	✓	1	2
21.	Song Thrush	✓	✓	1	2
22.	Spotted Flycatcher	✓	✓	1	1
23.	Goldcrest		✓	1	1

	Species	May	June	Breeding indicator	No. of pairs
24.	Blue Tit	✓	✓	1	2-3
25.	Great Tit		✓	1	1
26.	Magpie		✓	3	
27.	Hooded Crow	✓	✓	3	
28.	Starling	✓	✓	1	3
29.	House Sparrow		✓	1	3-5
30.	Chaffinch	✓	✓	1	3
31.	Greenfinch	✓	✓	1	1
32.	Goldfinch	✓	✓	1	1-3
33.	Linnet	✓	✓	1	1
34.	Yellowhammer	✓	✓	1	1
35.	Reed Bunting	✓	✓	1	1

Section G Data

Overview of species recorded in Section G – Kilcrea North

	Species	May	June	Breeding indicator	No. of pairs
1.	Little Egret	✓	✓	4	
2.	Grey Heron	✓	✓	4	
3.	Shelduck	✓	✓	1	3-6
4.	Mallard	✓	✓	3	
5.	Sparrowhawk		✓	4	
6.	Buzzard	✓	✓	4	
7.	Kestrel	✓		4	
8.	Pheasant	✓	✓	1	3-4
9.	Black-tailed Godwit	✓	✓	4	
10.	Stock Dove	✓		4	
11.	Wood Pigeon	✓	✓	3	
12.	Swift	✓	✓	4	
13.	Skylark	✓	✓	1	2
14.	Swallow	✓	✓	1	2
15.	House Martin	✓	✓	4	
16.	Meadow Pipit	✓	✓	1	5-6
17.	Pied Wagtail	✓		3	
18.	Wren	✓	✓	1	11-13
19.	Duncock	✓	✓	1	7-9
20.	Robin	✓	✓	1	7
21.	Blackbird	✓	✓	1	6-9
22.	Song Thrush	✓	✓	1	3-4

	Species	May	June	Breeding indicator	No. of pairs
23.	Mistle Thrush	✓	✓	1	
24.	Sedge Warbler	✓	✓	1	1
25.	Goldcrest	✓		3	
26.	Coal Tit	✓	✓	3	
27.	Blue Tit	✓	✓	1	4-7
28.	Great Tit	✓	✓	1	3
29.	Magpie	✓	✓	3	
30.	Jackdaw	✓	✓	1	2
31.	Rook	✓	✓	3	
32.	Hooded Crow	✓		4	
33.	Starling	✓	✓	1	7-8
34.	House Sparrow	✓	✓	3	
35.	Tree Sparrow	✓		4	
36.	Chaffinch	✓	✓	1	4-7
37.	Greenfinch	✓	✓	1	3-4
38.	Goldfinch	✓	✓	1	3-4
39.	Linnet	✓	✓	1	3
40.	Bullfinch	✓		3	
41.	Yellowhammer	✓	✓	1	2
42.	Reed Bunting	✓	✓	1	1-2

Section H Data

Overview of species recorded in Section H – Corballis

	Species	May	June	Breeding indicator	No. of pairs
1.	Grey Heron	✓	✓	4	
2.	Shelduck	✓	✓	4	
3.	Pheasant	✓	✓	1	1-2
4.	Stock Dove	✓	✓	4	
5.	Wood Pigeon	✓	✓	3	
6.	Collared Dove	✓	✓	3	
7.	Swift	✓	✓	4	
8.	Skylark	✓	✓	1	7
9.	Swallow		✓	4	
10.	House Martin	✓	✓	4	
11.	Meadow Pipit	✓	✓	1	4
12.	Wren	✓	✓	1	14-15
13.	Duncock	✓	✓	1	12
14.	Robin	✓	✓	1	3
15.	Blackbird	✓	✓	1	5-7
16.	Song Thrush	✓	✓	1	2
17.	Mistle Thrush	✓	✓	3	
18.	Willow Warbler	✓	✓	1	1
19.	Blue Tit	✓	✓	1	3-4
20.	Great Tit		✓	1	1
21.	Magpie	✓		3	
22.	Jackdaw	✓	✓	4	

	Species	May	June	Breeding indicator	No. of pairs
23.	Hooded Crow	✓	✓	4	
24.	Starling	✓	✓	3	
25.	House Sparrow	✓	✓	4	
26.	Tree Sparrow	✓	✓	1	2
27.	Chaffinch		✓	1	3-4
28.	Greenfinch	✓	✓	1	1-2
29.	Goldfinch	✓	✓	1	2
30.	Linnet	✓	✓	1	1
31.	Yellowhammer	✓	✓	1	4-5
32.	Reed Bunting	✓	✓	1	1-2

Section I Data

Overview of species recorded in Section I – Seatown East

	Species	May	June	Breeding indicator	No. of pairs
1.	Buzzard	✓	✓	4	
2.	Pheasant	✓	✓	1	1-2
3.	Wood Pigeon	✓	✓	1	8+
4.	Swift	✓	✓	4	
5.	Skylark	✓	✓	1	1-2
6.	Swallow	✓	✓	1	2-5
7.	House Martin	✓	✓	4	
8.	Meadow Pipit	✓	✓	1	1-2
9.	Wren	✓	✓	1	8-10
10.	Dunnock	✓	✓	1	8-9
11.	Robin	✓	✓	1	4-5
12.	Blackbird	✓	✓	1	9-10
13.	Song Thrush	✓	✓	1	1-2
14.	Blue Tit		✓	1	3-4
15.	Great Tit	✓	✓	1	2-3
16.	Magpie	✓	✓	1	1
17.	Jackdaw	✓	✓	3	
18.	Rook	✓	✓	3	
19.	Hooded Crow	✓	✓	4	
20.	Starling	✓	✓	3	
21.	House Sparrow	✓	✓	1	2-3
22.	Tree Sparrow	✓	✓	1	1

	Species	May	June	Breeding indicator	No. of pairs
23.	Chaffinch	✓	✓	1	3-4
24.	Greenfinch	✓	✓	1	1
25.	Goldfinch	✓	✓	1	1-2
26.	Linnet	✓	✓	1	3
27.	Yellowhammer	✓	✓	1	3

APPENDIX 2: SPECIES OF CONSERVATION CONCERN AND THEIR CONSERVATION STATUS

No.	Species	Natura 2000 site - listed species	Birds of Conservation Concern			
			EU Birds Directive	Europe	Ireland	
				SPEC	BoCCI	BoCCI qualifying criteria
1.	Mute Swan	✓			Amber	International importance during the non-breeding season: at least 20% of the European non-breeding population occurs in Ireland.
2.	Little Egret		Annex I			
3.	Grey Heron	✓				
4.	Shelduck				Amber	Localised non-breeding population: non-breeding population occurs at ten or fewer sites.
5.	Mallard	✓				
6.	Kestrel			3	Amber	New SPEC 3 species: unfavourable conservation status in Europe.
7.	Black-tailed Godwit	✓		2	Amber	Localised non-breeding species: at least 50% of the non-breeding population occurs at 10 or fewer sites.
8.	Redshank	National Importance			Red Amber	R: Decline in breeding population: ≥ 50% over 25 years. A: Localised non-breeding species: at least 50% of the non-breeding population occurs at 10 or fewer sites.
9.	Greenshank	National Importance			Amber	Breeding rarity: Less than 100 pairs breed in Ireland. International importance during the non-breeding season: at least 20% of the European non-breeding population occurs in Ireland.
10.	Herring Gull				Red	Decline in breeding population: 50% over 25 years.
11.	Great Black-backed Gull				Amber	Decline in breeding population.
12.	Stock Dove				Amber	Decline in breeding range: 35-70% over 25 yrs.
13.	Swift				Amber	>25% decline in the breeding population.
14.	Skylark			3	Amber	New SPEC 3 species: unfavourable conservation status in Europe.
15.	Sand Martin			3	Amber	SPEC 3 species: unfavourable conservation status in Europe.
16.	Swallow			3	Amber	SPEC 3 species: unfavourable conservation status in Europe.
17.	House Martin			3	Amber	New SPEC 3 species: unfavourable conservation status in Europe.
18.	Spotted Flycatcher			3	Amber	SPEC 3 species: unfavourable conservation status in Europe.
19.	Starling			3	Amber	New SPEC 3 species: unfavourable conservation status in Europe.
20.	House Sparrow			3	Amber	New SPEC 3 species: >25% decline in population.
21.	Tree Sparrow			3	Amber	New SPEC 3 species: unfavourable conservation status in Europe.
22.	Linnet			2	Amber	New SPEC 2 species: unfavourable conservation status in Europe
23.	Yellowhammer				Red Amber	R: Decline in breeding population: 50% over 25 years. A: Decline in breeding range: 35-70% over 25 years.

APPENDIX 3: REFERENCES

- Lynas, P., Newton, S. F., & Robinson, J. A. (2007). *The Status of Birds in Ireland: an analysis of conservation concern 2008-2013*. Irish Birds 8. 149:165
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