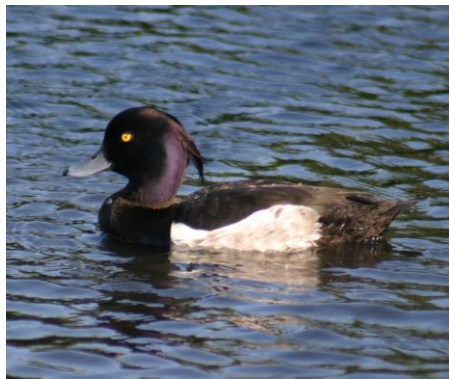


Birds of St Stephen's Green in Autumn & Winter 2012



Report to the Office of Public Works

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Summary

A bird survey of St Stephen's Green undertaken between 27th September and 8th December 2012. A total of eight visits was undertaken. During each visit, the observer walked through along a route that took him to within 50m of every point. All birds seen or heard were recorded and mapped. Birds flying over and obviously not interacting with the park in any way were not recorded. Additional studies were undertaken in an attempt at identifying important evening/ night-time roosts used in winter and/ or others which move on a regular basis between the wetland within the park and other inland and coastal locations. A total of 32 species was recorded across all visits, including 10 waterbirds, one bird of prey and the remainder were passerines (other songbirds, crows and finches), with Goldcrest *Regulus regulus*, Magpie *Pica pica*, Robin *Erithacus rubecula* and Wren *Troglodytes troglodytes* among the most widely dispersed. Highest numbers of species and individuals were recorded later in November and December. A total of five species of conservation concern in Ireland were recorded; they include three gull species (Black-headed Gull *Chroicocephalus ridibundus*, Lesser Black-backed Gull *Larus fuscus* and Herring Gull *Larus argentatus*, the latter two which may nest on the rooftops of buildings bordering the park), Mute Swan *Cygnus olor* and Tufted Duck *Aythya fuligula*. Recommendations given include placement of bird feeding station and display boards as appropriate.

Background

St Stephen's Green is a small city-centre park of roughly nine hectares. It contains a broad mix of biodiversity habitats, with parts of the park well wooded, with a large ornamental lake that occupies much of the northern half of the park.

A recent survey of the Phoenix Park in Dublin City (Crowe 2008) showed the value of urban parklands for birds. That survey showed the park to support a diversity of species, including 47 breeding species, as well as a variety of breeding and winter migrants. Areas with waterbodies were especially good, supporting highest numbers of species and greatest abundance. Large patches of woodland were used by many species providing shelter and secure roosting.

This project aims to report on a survey of St Stephen's Green undertaken between September and December 2012. It highlights numbers and distribution, together with details of the significance of the findings in terms of conservation importance.

Methods

The scientific names of all bird species mentioned in the text are presented in Table 1.

Survey design

St Stephen's Green is relatively small in size, and the site was treated as one unit during surveys. The park was visited on eight occasions, between 27th September and 8th December. This survey was undertaken outside the breeding season, when birds are generally less vocal, thus the work was not necessarily constrained to the early mornings.

The methods used closely those used by Chamberlain *et al.* (2007). During each visit, the observer walked through along a route that took him to within 50m of every point. All birds seen or heard were recorded and mapped. Birds flying over and obviously not interacting with the park in any way were not recorded.

A series of additional studies were undertaken in an attempt at identifying important evening/ night-time roosts used in winter by species such as Pied Wagtail, which may use the treed area bordering the green, Starlings as well as waterbirds which likely move on a regular basis between the wetland within the park and other inland and coastal locations.

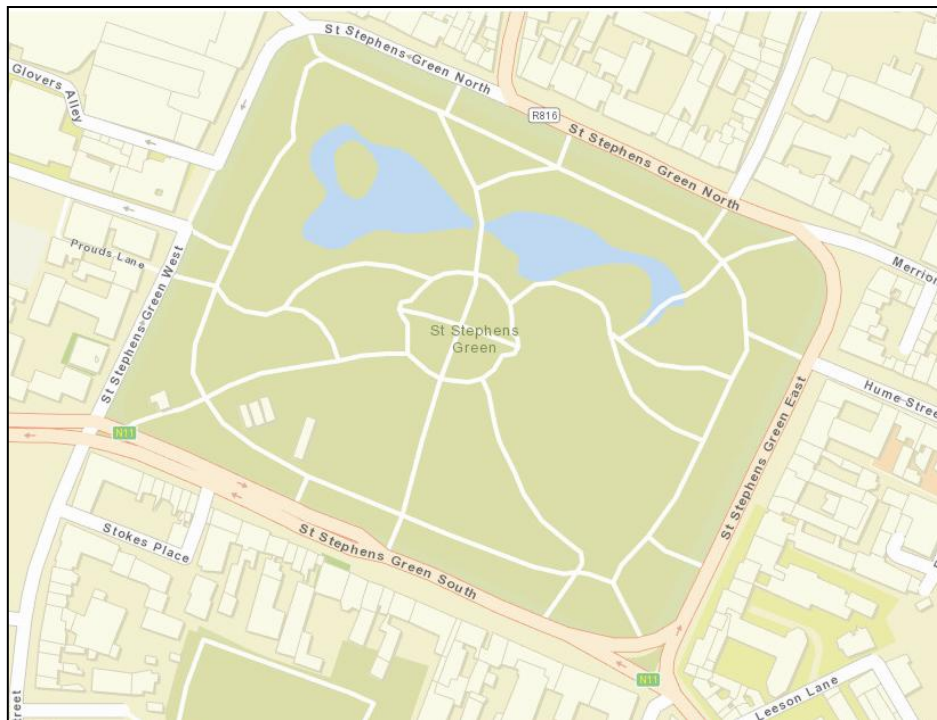


Figure 1. Map of St Stephen's Green, illustrating the large wetland that spans part of the northern area of the park, together with the tracks, and the main routes surrounding the park.

Results

Available habitats

The park comprises large areas of open grassland with patches of woodland, predominantly broadleaf bordering the edge of the park and the wetland area (Fig. 2). Footpaths occur throughout the park and bisect the large wetland that is located to the north. There is relatively small area of built area, mostly concentrated in the southwest.



Figure 2. Approximate distributions of habitats available in the park, blue indicates wetland, dark green is woodland (predominantly broadleaf), light green is open grassland, grey illustrates buildings and white indicated paths.

Bird survey

A total of 32 species was recorded across all visits (Table 1). However, this includes six species that were seen in flight only, and which did not associate with the park. A broad diversity of species was recorded overall, including 10 waterbirds, one bird of prey (Sparrowhawk) and the remainder were passerines (other songbirds, crows and finches). Goldcrest, Magpie, Robin and Wren were the most widely distributed species recorded (Fig. 3).

The visit that scored the highest diversity of species was early December; some 22 species were recorded on both the 5th and 6th of December. Largest numbers were also present on the latter date,

due to the presence of large numbers of Mallard and Herring Gull. Fewest species were recorded during the earlier surveys in September and October.

The species recorded included two Red-listed species, Black-headed Gull and Herring Gull, which are of high conservation concern in Ireland, and a further three which are of medium conservation concern (Amber-listed). Further details about the status of these species are presented in the discussion.

Table 1: Survey dates in 2012, together with details of weather conditions.

Visit	1	2	3	4	5	6	7	8
Date	27/09	5/10	17/11	22/11	27/11	04/12	05/12	08/12
Time start	1430	0800	1530	1520	1205	0822	1515	
Time end	1505	0845	1645	1610	1255	0910	1605	
Cloud	33-66%	0-33%	0-33%	0-33%	0-33%	0-33%	0-33%	0-33%
Rain	None	None	None	None	None	None	None	None
Wind	Calm	Calm	Calm	Calm	Calm	Calm	Light	Breezy
Visibility	Good	Good	Good	Good	Good	Good	Good	Good

Table 2. Full list of species recorded, including scientific names, together with national conservation status (BoCCI*) and totals recorded on each visit. Refer to table 1 for further details about the visits.

Species	BoCCI*	1	2	3	4	5	6	7	8
Mute Swan	<i>Cygnus olor</i>	A	7	7	7	6	7	7	7
Light-bellied Brent Goose	<i>Branta bernicla hrota</i>					30**	12**		
Mallard	<i>Anas platyrhynchos</i>		75	80	90	125	71	75	101
Tufted Duck	<i>Aythya fuligula</i>	A			15	10	19	11	15
Grey Heron	<i>Ardea cinerea</i>							1	1
Sparrowhawk	<i>Accipiter nisus</i>							1	1
Moorhen	<i>Gallinula chloropus</i>		7	6	8	7	6	6	7
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	R				20**	2		20
Lesser Black-backed Gull	<i>Larus fuscus</i>	A		2					
Herring Gull	<i>Larus argentatus</i>	R	82	30		1	118	6	100
Woodpigeon	<i>Columba palumbus</i>				1	4	8	4	2
Pied Wagtail	<i>Motacilla alba</i>				2**				
Wren	<i>Troglodytes troglodytes</i>		2	4	2	4	1	1	
Dunnock	<i>Prunella modularis</i>							1	1
Robin	<i>Erithacus rubecula</i>		4	3	1	5	5	2	1
Blackbird	<i>Turdus merula</i>				1	4	3	6	3
Song Thrush	<i>Turdus philomelos</i>							1	
Blackcap	<i>Sylvia atricapilla</i>					1			
Chiffchaff	<i>Phylloscopus collybita</i>							1	1
Goldcrest	<i>Regulus regulus</i>					6	9	6	2
Long-tailed Tit	<i>Aegithalos caudatus</i>				9		6	8	12
Blue Tit	<i>Cyanistes caeruleus</i>			1	2			2	2
Great Tit	<i>Parus major</i>				2	1	2		
Coal Tit	<i>Parus ater</i>				3		2	2	1
Treecreeper	<i>Certhia familiaris</i>					1			
Magpie	<i>Pica pica</i>			5	4	4	4	3	2
Rook	<i>Corvus frugilegus</i>								2**
Hooded Crow	<i>Corvus corone cornix</i>						1**		
Chaffinch	<i>Fringilla coelebs</i>			2	2			1	2
Greenfinch	<i>Carduelis chloris</i>							2	
Siskin	<i>Carduelis spinus</i>								2**
Bullfinch	<i>Pyrrhula pyrrhula</i>						1**		

*Birds of Conservation Concern in Ireland (BoCCI), from Lynas et al. 2007

** In flight over the park only

Goldcrest



Magpie



Robin



Wren



Figure 3. Locations of widely distributed species throughout the park based on all visits combined. Red dots indicate locations of individuals or flocks.

Discussion

This survey has shown that a broad diversity of bird species use St Stephen's Green. That fewest species were reported in September and early October is consistent with the post-breeding period when many species are dispersing away from their nesting areas. The park is reasonably close to a number of internationally important wetland sites, especially Dublin Bay and Baldoyle Bay, which include highly mobile waterbird species such as Light-bellied Brent Goose Black-headed Gull, Lesser Black-backed Gull and Herring Gull, and many were seen flying over the park. Light-bellied Brent Goose is now a regular feature as it moves between coastal night-time roosts and inland grasslands

for feeding. It is not unusual that highest numbers and diversity was recorded during late November and early December. A number of winter migrants were also reported, including Blackcap and Siskin.

Unfortunately, the timing of this survey did not permit recording of breeding birds which would have undoubtedly added a substantial number of species to the list. Ideally, in order to get the most thorough representation of the diversity and abundance of birds occurring in the park, visits would be required during the height of the breeding season (April to June) and during the mid-winter period (December to February).

A total of five species of conservation concern in Ireland (Lynas *et al.* 2007) were recorded. Of the three gull species, Black-headed and Herring Gulls, have shown large-scale declines in their breeding numbers in recent decades (Mitchell *et al.* 2004), while there has been a smaller decline in numbers of breeding Lesser Black-backed Gull. The closest breeding colonies to Dublin City would include Lambay Island, the Dalkey Islands and Ireland's Eye. Although, it is possible that some Herring Gulls and Lesser Black-backed Gulls do nest in the chimneys of tall city buildings adjacent to the park. The other amber-listed species of medium conservation concern included Mute Swan and Tufted Duck. Mute Swan is relatively widespread throughout Dublin City. They nest adjacent to waterbodies, usually where they are concealed by reeds and areas of marsh vegetation. Thus it is not likely that they nest in the park grounds, rather they use the lake for feeding and roosting. Tufted Duck is largely a winter visitor to Ireland and regularly occurs on the park lake (O. Merne pers. comm.).

Recommendations

It is recommended that a full breeding survey be undertaken of the park between April and early June. This will certainly add to the diversity of species using the park, and will identify species that are most likely to be breeding.

Some display material in appropriately cited locations would improve awareness of the bird diversity within the park. A woodland display in the Bog Nature Area (Fig. 4a) highlighting the diversity of passerine birds that occur in the area, especially Great Tit, Long-tailed Tit, Goldcrest, as well as Robin, Blackbird, Dunnock, Wren, Coal Tit and Blue Tit. Other species to include in this display will be apparent once a breeding survey has been undertaken. Provision of a feeding station would serve to bring park visitors close to some of these species and might serve as a significant attraction. However, care is needed due the presence of Grey Squirrels, and any feeders set up in the area should be of a design that precludes access by this species.

Another sign for wetland birds visiting the park, illustrating Mute Swan, Mallard, Tufted Duck, Black-headed Gull, Common Cull, Herring Gull, could be set up on the grassy verge beside the Summer House (Fig. 4b).



Figure 4a. An appropriate location for a woodland bird display.



Figure 4b. An appropriate location for a waterbird display.

Literature cited

- Chamberlain, D.E., Gough, S., Vaughan, H., Vickery, J.A. & Appleton, G.F. 2007. Determinants of bird species richness in public green spaces. *Bird Study* 54, 87-97.
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