MOOR GREEN LAKES

NATURE RESERVE

BREEDING BIRD SURVEY

2012.

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Moor Green Lakes Breeding Bird Survey 2012.

Introduction:

A breeding bird survey of Moor Green Lakes nature reserve is carried out periodically to monitor changes in populations. Previous surveys have used a paid consultant but in order to save on costs the 2012 survey was carried out by volunteers from within the Moor Green Lakes Management committee. This placed some constraints upon the amount of effort available and as a result fewer visits were made. Also emphasis has been placed upon surveying a list of target species which are most relevant to the reserve (based on a lias prepared by Peter Standley, Scientific Advisor to the MGL Group, Appendix II).

Methods:

BTO Common Bird Census methodology was adopted with territorial birds being marked on maps of the reserve. Different symbols indicate singing or calling birds and can also be used to show where two singing birds in proximity are known to be different or the same individual. A total of 6 formal survey visits were made starting between 06:00 – 07:00 in the morning to maximise bird song and activity. Survey visits generally lasted 2-3 hours. Three surveys each were conducted by the author and Colin Wilson. Data from one incidental CBC visit later in the day by the author is also included as well as information on breeding activity from all other visits made by the author.

The table below shows details of the timing and weather conditions during the official surveys.

Date	Observer	Start	Finish	Weather
3/4/2012	C Wilson	07:00	08:30	Dry, calm, foggy
20/4/2012	C Wilson	07:00	09:00	Dry, bright, light wind
4/5/2012	R Murfitt	07:00	09:45	Cloudy, light wind
11/5/2012	R Murfitt	06:30	08:45	<33% cloud, good visibility, light wind
19/6/2012	R Murfitt	06:45	09:00	Sunny spells, good visibility, calm
6/7/2012	C Wilson	06:30	08:25	Dry, calm, overcast

Results:

The table below compares number of breeding territories recorded in the three surveys conducted since 2000 for the 2012 list of target species.

Number of territories of Breeding Bird species in 2000, 2006 and 2012

Species	2000	2006	2012
Waterside species			
Mute swan	1	1	1
Great-crested grebe	4	3	4
Grey heron	-	-	-
Kingfisher	1	1	1
Sand martin	-	-	-
Wildfowl			
Mandarin	2	8	5+
Wigeon	-	-	-
Gadwall	-	3	1?
Teal	-	1	-
Shoveller	-	-	-
Tufted duck	33	36	Max 18 drakes
Waders			
Little Ringed Plover	1	3	-
Lapwing	11	13	3 confirmed nesting pairs
Snipe	-	-	-
Redshank	2	3	1 but no sign of nesting
Gulls and terns			
Black-headed Gull	-	189	-
Common tern	5	30	1
Open Area Species			
Cuckoo	-	-	-
Barn Owl	-	1	-
Skylark	1	-	-
Pied Wagtail	4	3	1
Linnet	1	3	?
Warblers/Wetland Scrub			
Sedge Warbler	6	12	1
Reed Warbler	-	3	5
Lesser Whitethroat	-	1	-
Common Whitethroat	19	34	16
Garden Warbler	3	4	13
Blackcap	9	17	29
Willow Warbler	5	7	1
Chiffchaff	4	8	10
Yellowhammer	-	1	-
Reed Bunting	9	9	4

Species in bold are red-listed species of high conservation concern

Territory maps highlighting positions of territories on the reserve during the survey are given in Appendix I. For some species which do not show marked territorial behaviour like wildfowl, no maps are given.

Species Accounts:

The following discussion considers changes in numbers of breeding birds across the three surveys and relates this to changes in wider populations of the species concerned as well as potential impacts of changes in habitat structure at Moor Green Lakes.

Waterside species;

Numbers of the 5 species classed under this category have remained very consistent across the three surveys.

Great-crested grebe – 3 broods seen on Colebrook Lake and 1 on Grove lake.

Kingfisher – a pair apparently attempted to nest in the bank of the river Blackwater but seem to have been flooded out following heavy rain.

Mute swan – pair with six cygnets on Grove lake.

Wildfowl;

Mandarin – the breeding population of this species has clearly built up since the 2000 survey. The estimate of 5 territories in 2012 is probably an underestimate since this refers to the 5 breeding pairs using nestboxes and there are likely to have been some pairs using natural holes that were unrecorded.

Gadwall – 3 pairs were considered to have held territory in 2006 but no young or other signs of nesting were recorded. In the 2012 survey a single female was recorded in mid-May and could be indicative of a nesting attempt but again no young or other signs of nesting were seen.

Tufted duck – one brood seen on Colebrook Lake was the only confirmation of breeding on the reserve during 2012. The maximum count of drakes during the 2012 survey was 18 and this can be considered to be an upper estimate for potential number of territories. This represents a significant decline from the 30+ territories recorded in the previous two surveys though there is a degree of uncertainty in estimates based only on numbers of males. The 2006 survey noted most birds attempting to nest on Tern Island and it is likely that this species has been put off using this island for nesting following the annual "predator attacks" in recent years which has also led the Black-headed gull colony to desert the island completely in 2012. However, there were no broods of this species seen in 2006 so no evidence of successful breeding then. Seven broods were seen during 2012 on Manor lake and the New Workings so it may be that this species has switched to breeding in these areas as they have matured to provide more cover for nesting.

Waders;

Little Ringed Plover – there were no territories of this species on the reserve in 2012 though two birds were recorded on Plover Island during the late April survey. This is a reduction from the 3 pairs recorded on territory in 2006, one of which used the Grove Lake scrape, an area which is now overgrown with reeds and other tall vegetation so precluding use by this species. The availability of

breeding habitat for this species on the reserve is clearly in decline as the vegetation matures and breeding by this species is now focussed on the New Workings.

Lapwing – 3 pairs nested in 2012, 2 on Plover Island and 1 on Tern Island. Broods of 4 and 1 small young were seen but disappeared at an early age and it appears that no young were fledged. This represents a significant decline in the breeding population from the 13 territories recorded in 2006. This decline can be attributed to changes in habitat on the reserve as vegetation has matured and become too overgrown for this species which needs significant bare ground in order to nest. This can be clearly seen by comparison of the territory maps between the two surveys, with that for the 2006 survey showing territories on Grove island, Grove scrape, Long Island and Sandpiper Island respectively, all areas which are now too heavily vegetated for this species. The 2006 survey recorded nesting attempts on Long and Sandpiper Islands as well two territories on Grove, all areas which are now much too overgrown to attract this species to breed. The 2006 survey does not mention any breeding success for this species and, commenting on the high number of predators, stated "The outlook for this sink population is not good". This prophecy is borne out by the findings in 2012. As mentioned already, this decline will be linked to changes in habitat on the reserve but this species is in decline generally in the UK (32% decline 1995-2010, State of UK's Birds, 2012) and is therefore Red-listed.

Redshank – at least 1 pair appeared to hold territory on Colebrook Lake North and was seen mating but there was no further evidence of breeding. The 2006 survey mentions that the Redshank population was under threat due to low breeding success and this trend has continued such that now this species seems to have been lost as a breeding species. Again the maturation of and increased coverage by vegetation on the reserve is likely to have played a part in this decline.

Gulls and terns:

The gradual demise of the Black-headed gull and Common tern colony at Moor Green Lakes has been well documented in Moor Green Lakes Group Annual Reports. The breeding success of the colony has been severely disrupted by predation events, apparently during the hours of darkness, which are suspected to be down to mink. These have occurred annually since 2006, culminating in no Black-headed gulls attempting to nest in 2012 and just a single pair of Common terns, on Tern Island, which failed to hatch young. Small numbers of Black-headed gulls were occasionally seen displaying on Tern Island during the Spring/Summer of 2012 but none settled to breed. It may well be that the virtually complete loss of the colony in 2012 was due to the founding of a new breeding colony of both species on newly-created islands at Fleet Pond. It is known that there is significant interchange of terns between Fleet Pond and Moor Green Lakes so the new habitat there may well have attracted the birds which normally use Moor Green Lakes.

Open area species:

Cuckoo – this is a species which is in rapid decline in the UK, with the focus on changes in its' African wintering quarters as a potential explanation. There was no evidence of breeding by this species on the reserve in 2012.

Barn owl – no evidence of breeding on the reserve but two pairs nested in the nest-boxes provided on Manor Farm and the New Workings. The Colebrook Lake nest-box is used by roosting individuals.

Skylark – no evidence of breeding on the reserve but at least 1 territory on the New Workings. There is now probably insufficient area of open habitat on the reserve to support breeding by this species.

Warblers/wetland scrub species:

Sedge warbler – this species has shown a significant decline from 12 territories in 2006 to just one in 2012. Reasons for this decline are unclear but it may reflect changes in vegetation with a reduction in the low, rough habitats used by this species.

Reed warbler – this species has increased from 3 territories in 2006 to 5 territories in 2012. This slight increase will be due to a small increase in the area of reeds on the reserve e.g. the Grove scrape has been colonised by reeds.

Common whitethroat – this species has apparently declined from 34 territories in 2016 to 16 territories in 2012. Again this decline is probably due to changes in habitat as the woodland around the lakes, especially along the river, has matured and become less suitable for this species which requires low scrubby habitats rather than closed woodland. This conclusion is supported by the fact that woodland warblers have correspondingly increased in numbers (see below).

Garden warbler – a significant increase from 3 and 4 territories in 2001 and 2006 respectively to 13 territories in 2012 is likely to reflect the maturation of the coppice woodland along the southern and western edges of the reserve.

Blackcap – an increasing trend for this species from 9 to 17 to 29 territories over the three surveys is again, as for Garden Warbler, likely to be reflective of the increasing area of mature coppice woodland around the reserve.

Willow warbler – this species has declined sharply from 7 territories in 2006 to just one in 2012. In this case the reasons for change are probably not the result of changing habitat on the reserve but rather reflective of national trends. These show that the Willow warbler has been declining sharply in southern parts of the UK but showing some increase in the North. Reasons behind these changes are unclear but climate change has been suggested as well as changes on wintering grounds in Africa.

Chiffchaff – unlike the closely related Willow warbler, numbers of this species have held up with 10 territories in 2012 compared to 8 in 2006.

Yellowhammer – there was no evidence of breeding Yellowhammers on the reserve in 2012. This species was present on only a single territory in 2006 but now appears to have been lost altogether. This is part of a wider decline of this species across the UK, particularly on farmland.

Reed bunting – this species has shown a decline from 9 territories in both previous surveys (2001 and 2006) to 4 territories in 2012. As for Sedge warbler, this may reflect changes in habitat as the tree cover has increased and the more open, scrubby marginal habitats suitable for this species have been reduced.

Discussion and Management Recommendations:

(1) It is clear that a significant number of the management proposals made in the 2006 Bird survey report have not been accomplished in recent years. These include the following;

- Sandpiper Island has not been kept clear of vegetation and Plover Island is also becoming partly vegetated by bramble etc which covers approximately 50% of the surface. Plover Island remains important as a breeding habitat for Lapwings and efforts should be made to completely clear this Island during the next management cycle otherwise bramble etc will become even more established and hence more difficult to clear.

- The recommendation for Grove Island was for large trees to be pollarded or removed. The island has, however, become overgrown with large trees which are now used as a roost by Cormorants. As a result the island is no longer suitable for breeding waders and less suitable for breeding wildfowl.

- Long Island – the vegetation on Long Island has got out of control as, until relatively recently with the installing of the pontoon bridge, there was no easy means of access for machinery. Most of the proposals for Long Island in the previous Breeding Bird Survey report e.g. limiting height of tree growth to 2m, have therefore not been met. However, better access now means that a start has been made on clearing brambles and goats have been used for the last two autumns to help with bramble clearance. Bramble clearance should continue and more work is needed to clear mature trees from the island and open up some of the scrapes again to improve use by waders and wildfowl. The scrape bunds and margins have become overgrown with rushes and young willows which should be cleared to create feeding areas for waders and loafing areas for wildfowl. Clearance of trees from Long Island will increase the linkage between Colebrook Lake North and South for wildfowl and encourage use again of the island scrapes and island itself by waders and wildfowl, which are otherwise discouraged by poor sightlines caused by dense scrub or other vegetation. In terms of scrape clearance, efforts should initially be focussed on the scrapes on the northern bank of Long Island which have been most used by waterfowl and are viewable from the hide.

- On the positive side, Tern Island has been cleared of vegetation annually and has continued to be used by breeding Lapwings and the dwindling population of Common Terns.

(3) The coppicing of the woodland on the southern banks of Colebrook and Grove lakes and western bank of Colebrook Lake South has been successful in delivering a varied age structure suitable for use by a range of breeding warblers, as evidenced by the increasing numbers of some *Sylvia* warblers (Blackcap, Garden warbler) in these areas.

(4) The small reedbeds have extended by natural colonisation, including those that have taken over the Grove scrape, and now provide useful habitat for breeding Reed warblers and Reed buntings as well as wintering habitat for Water rail. These should be maintained and encroaching scrub removed to prevent succession to carr.

(5) It is recommended that a photographic archive of the reserve habitats should be compiled consisting of pictures from previous years as well as currently, in order that changes in habitat can

be monitored more easily and Management plans be better informed. If necessary, restoration work to reverse undesirable changes can then be implemented. This should help to make it clearer how the reserves habitats are changing over the years and enable management to restore previous conditions where appropriate.

(6) The northern and western banks of Colebrook Lake North should continue to be kept free of willows and other trees to encourage access for wildfowl.

(7) The strip of scrub (adjacent to the bird feeders) which backs onto Colebrook Lake North scrape needs to be kept in check to prevent it encroaching on the margins of the scrape. The trees encroaching upon the scrape should be cleared, continuing the progress made here in 2012. Ideally the hedge that provides cover for visitors using the path to the hide should be reduced in height by pollarding or trimming. This would help to maintain a more open vista from the scrape and encourage use by waders.

Acknowledgements:

I gratefully acknowledge the assistance of Colin Wilson for helping with the fieldwork involved in this survey. I also acknowledge the input of Peter Standley, Scientific Adviser to the Moor Green Lakes Group, who provided a list of suggested survey species (Appendix II) and provided written comments on the survey findings and Management recommendations (Appendix III).

APPENDIX I: territory maps

O indicates position of territory

Fig. 1: Lapwing

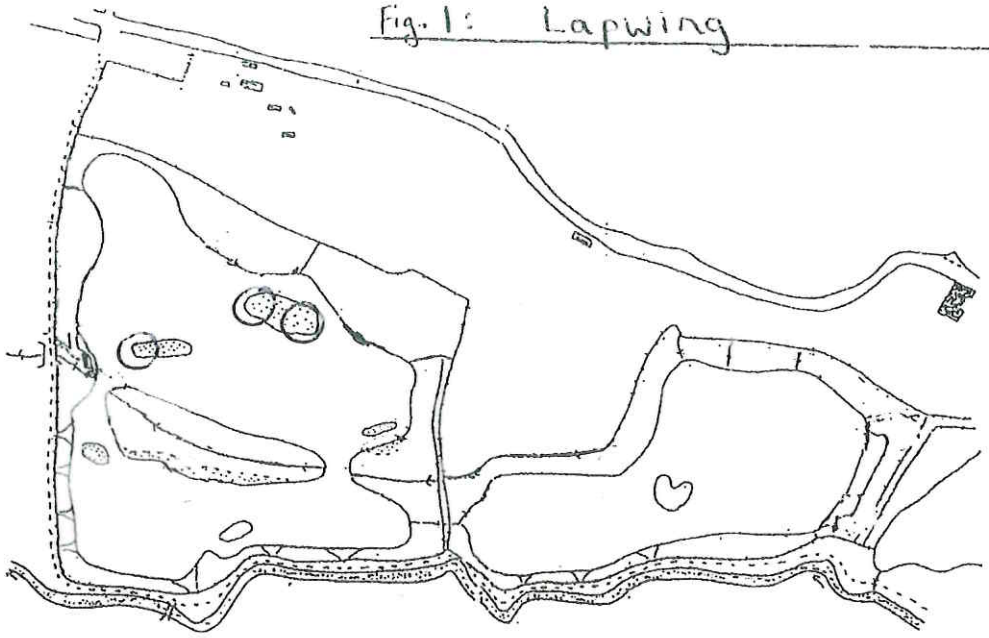


Fig. 2: Redshank

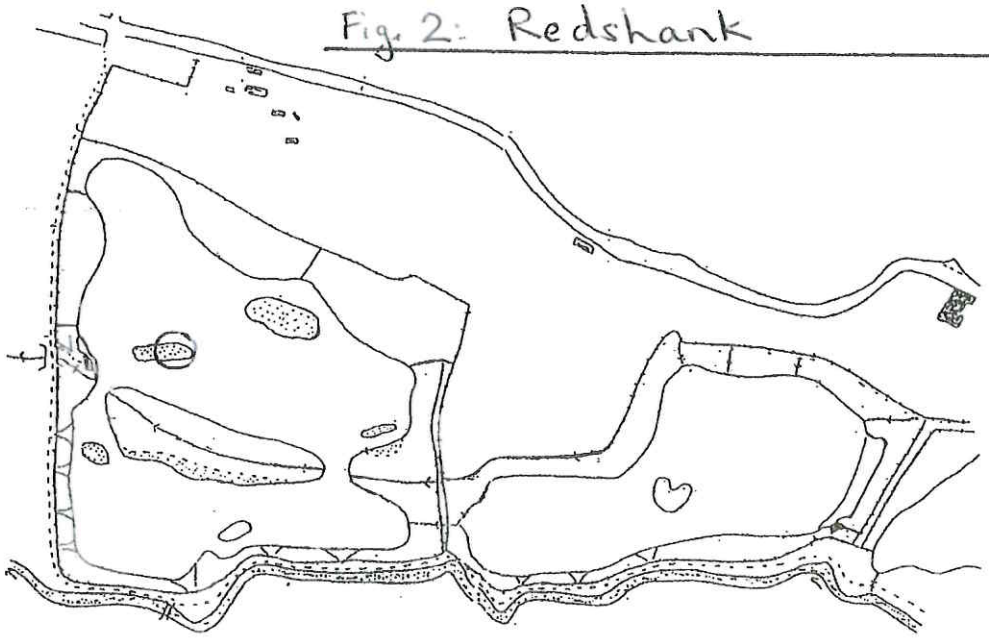


Fig 3: Common tern

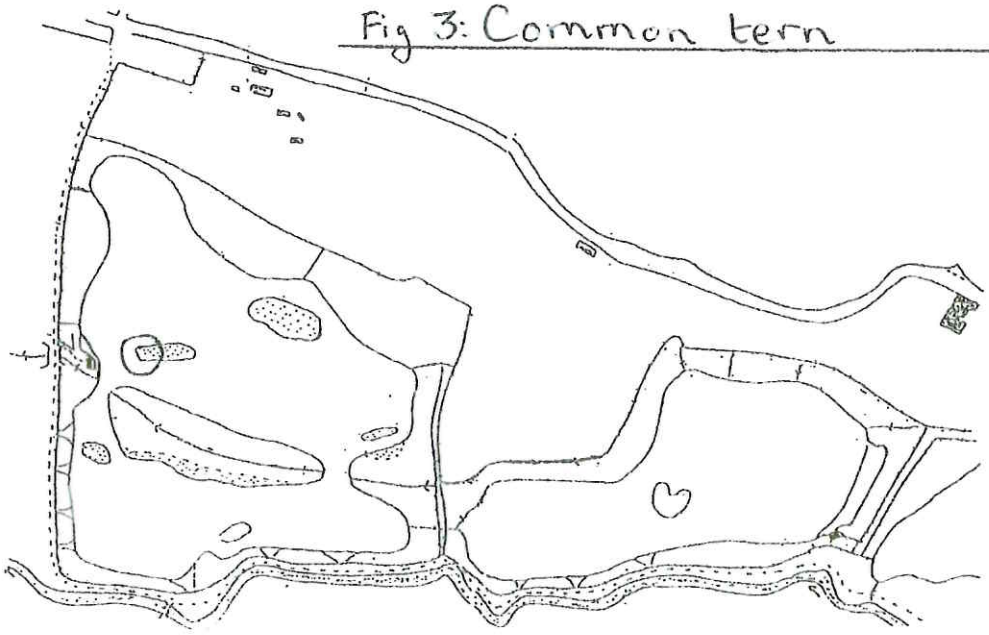


Fig.4: Sedge Warbler

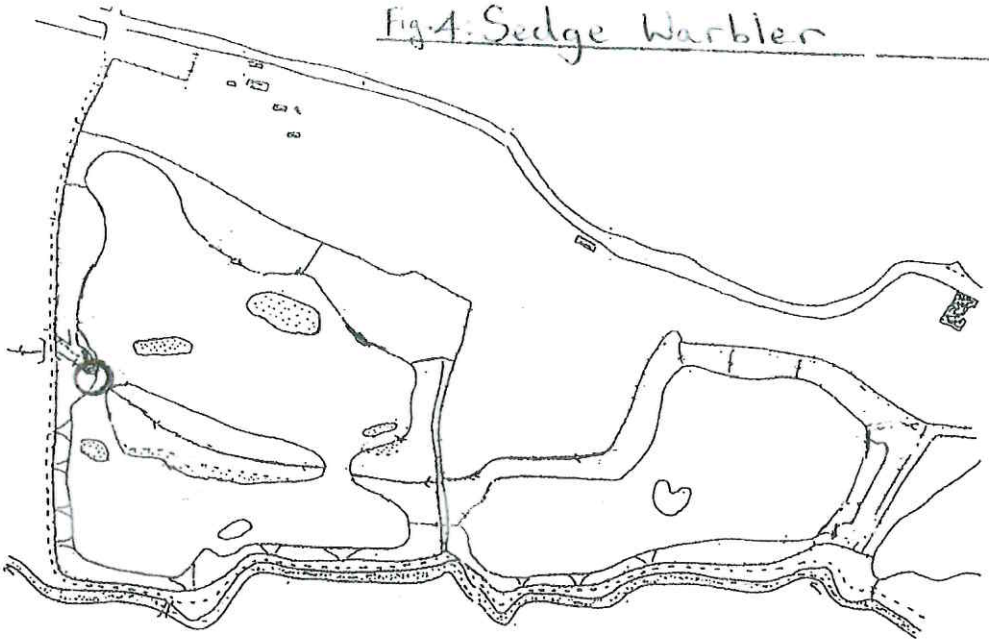


Fig.5: Reed Warbler

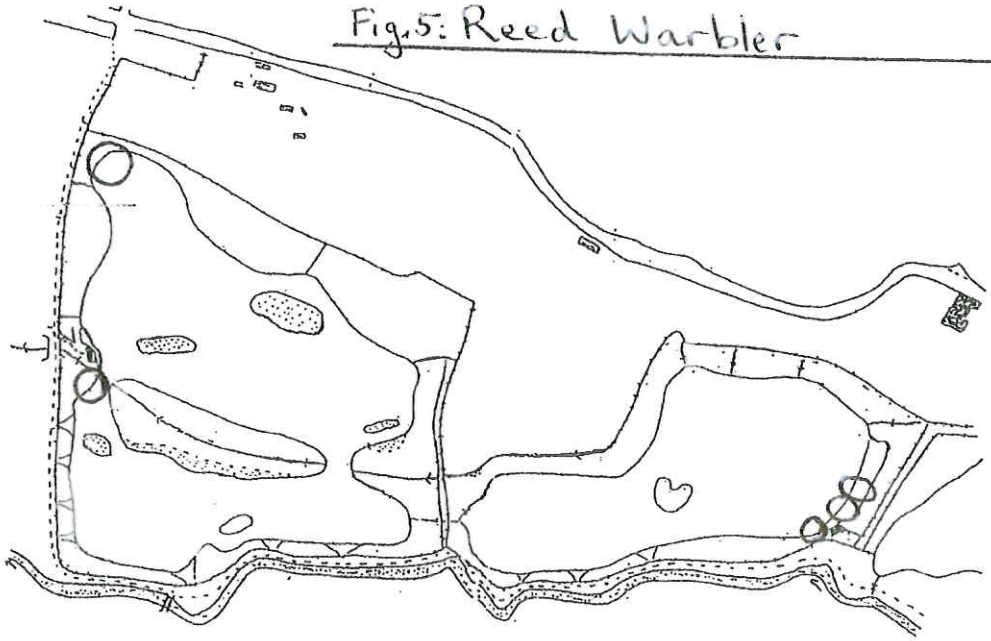


Fig6: Common Whitethroat

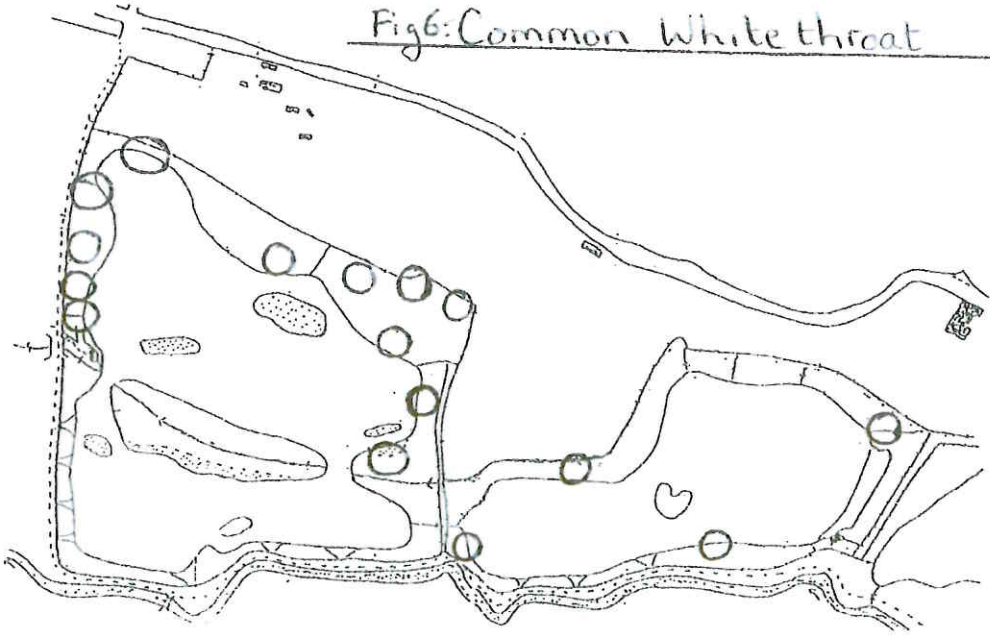


Fig. 7: Garden Warbler

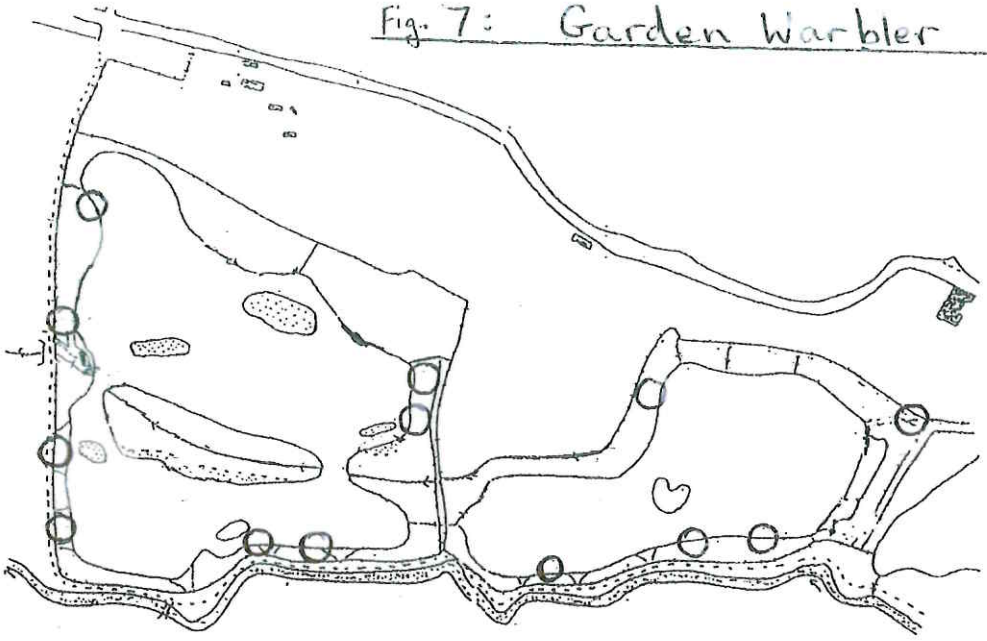


Fig. 8: Blackcap

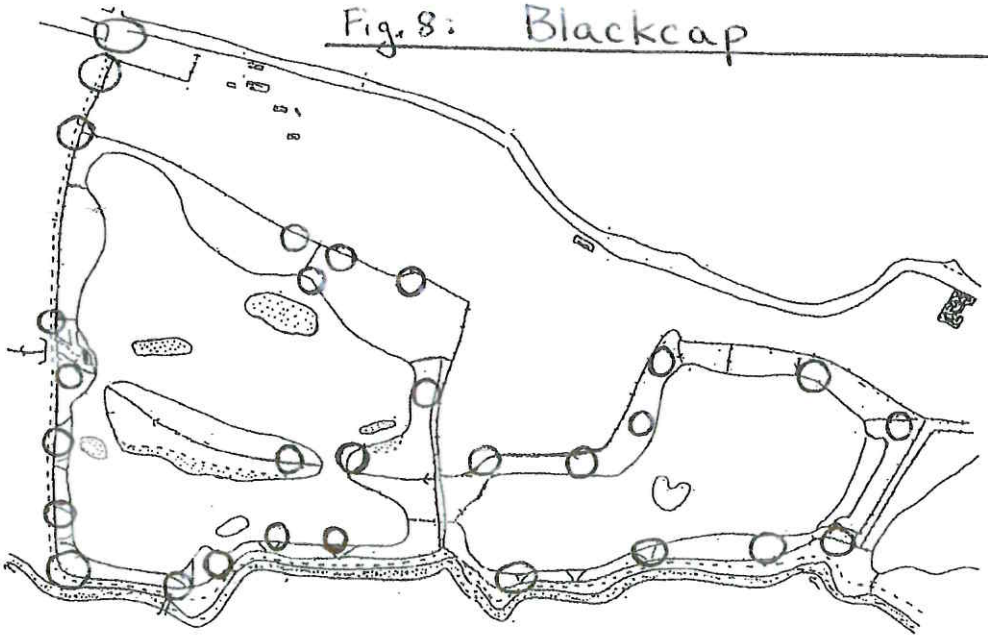


Fig 9: Chiffchaff

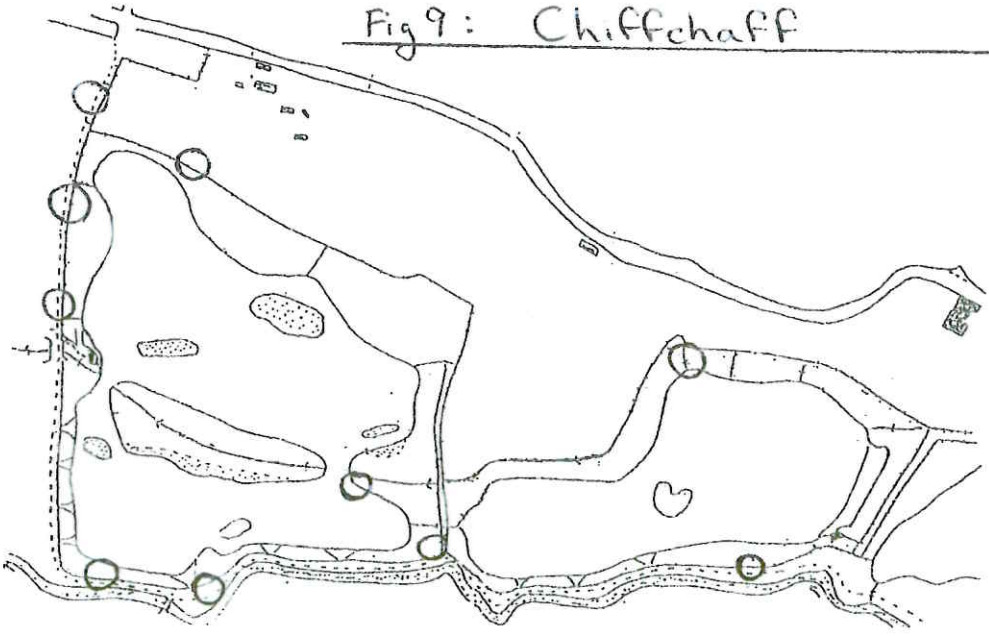


Fig. 10: Willow Warbler

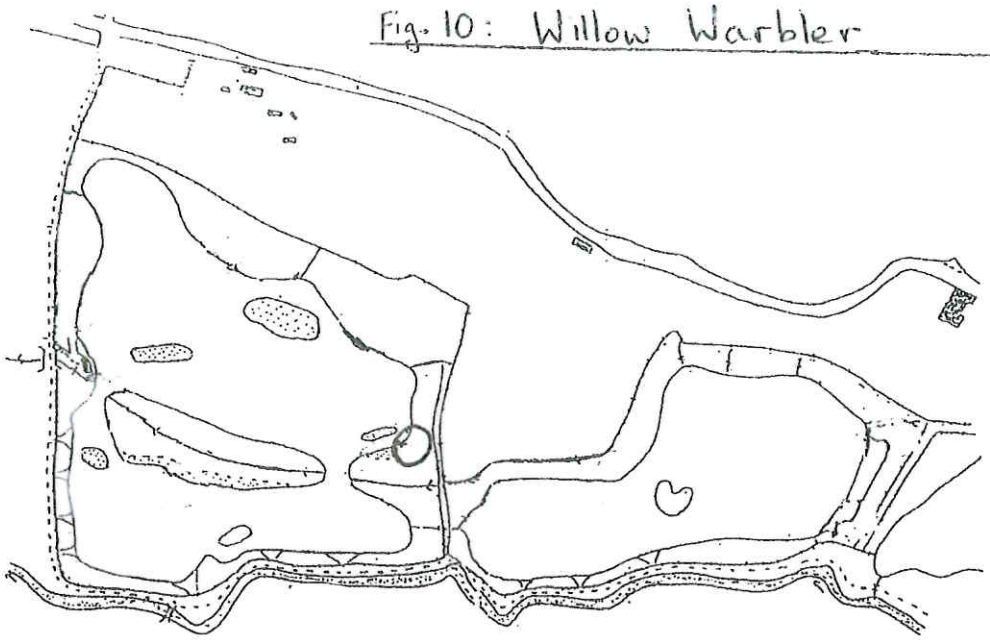
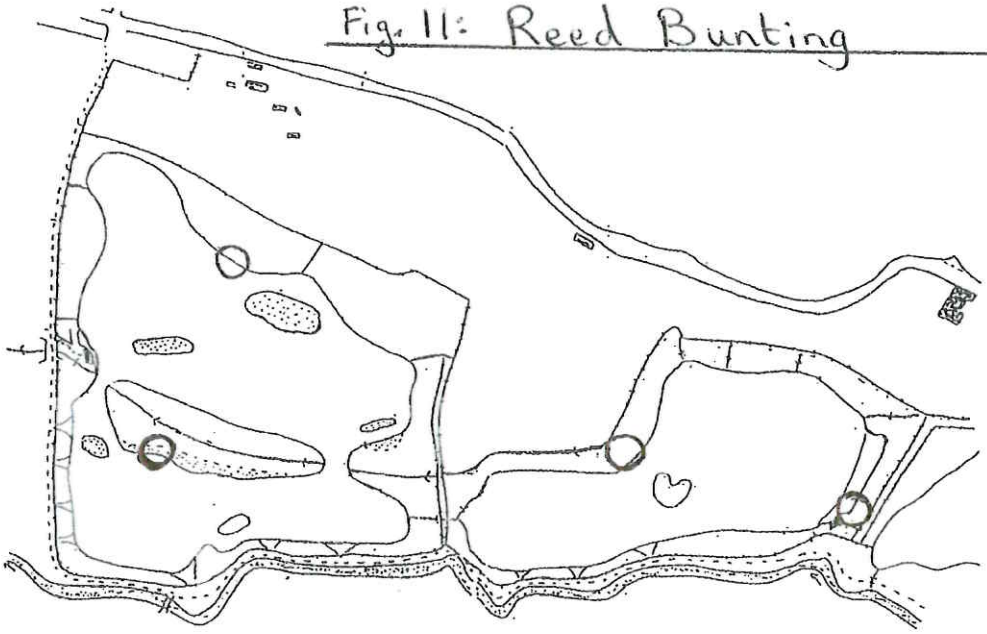
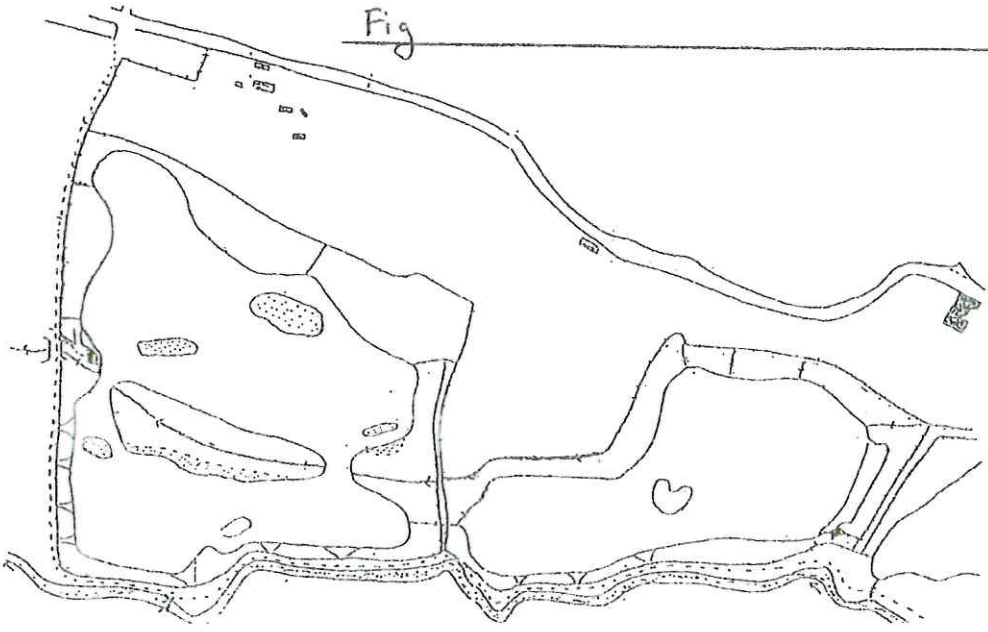


Fig. 11: Reed Bunting



Fig



APPENDIX II: List of suggested target species

MOOR GREEN LAKES RESERVE 2012 BIRD SURVEY

SUGGESTED TARGET SPECIES OF RELEVANCE TO THE OBJECTIVES OF THE RESERVE

Species		2000	2006
A. Waterside Species			
Mute Swan		1pr	1pr
Great Crested Grebe			3prs
Grey Heron			nil
Kingfisher			(?)
Sand Martin			nil
B. Wildfowl			
Mandarin	NB		8prs
Wigeon			nil
Gadwall			3prs
Teal			nil
Shoveller			nil
Tufted Duck			(?)
C. Raptors			
Kestrel			nil
D. Waders			
Little Ringed Plover			3prs
Lapwing*		11	13
Snipe			nil
Redshank			3prs
E. Gulls and Terns			
Black-headed Gull			
Common Tern		5prs	

F. Scrub/Woodland Species

Stock Dove	NB		4brds
Song Thrush*		6	9
Mistle Thrush		3	2
Starling*		1	nil
Redstart			nil
Spotted Flycatcher*		1	nil
Bullfinch*		2	2

G. Open Area Species

Cuckoo*			nil
Barn Owl	NB		
Skylark*		1	nil
Pied Wagtail		4	3
Linnet*		1pr	3pr
Yellowhammer*			

H. Warblers/Wetland Scrub

Sedge Warbler		
Reed Warbler		3prs
Lesser Whitethroat		1pr
Common Whitethroat		
Garden Warbler		
Willow Warbler	5	7sm
Reed Bunting	9	9

Survey options
- All species in a section of the reserve
- All species over the whole reserve (as in 2006)
- Selected species over the whole reserve
- Selected species in a section of the reserve
- Selected habitat for whole of the reserve
- Selected habitat for a section of the reserve

(volunteer preferences?)

Methodology: As for 2006 survey by KBB.

NB = Nest box species

* = Red-Listed Species at 2012

APPENDIX III: Comments from Scientific Adviser on 2012 Survey Findings

COMMENTS ON RESULTS OF 2012 BREEDING BIRD SURVEY

SPECIES

Lapwing

The decline in the number of breeding Lapwing is of concern as this is one of the reserve's target species. Although there has been a national decline the identification of habitat change within the reserve as a factor looks right with predation the cause of failure to rear young.

Linnet

As a Red List species the apparent loss of Linnet is concerning and we need to consider what if anything can be done to improve the prospect of its return as a breeding species.

Sedge Warbler

Also a target species for the reserve but against a national decline less easy to see what changes in reserve management could be made to increase the population. Interestingly if the survey results for all warblers are combined their total population remains about the same, 70 in 2006 and 69 in 2012, in spite of quite wide changes in the number of individual species.

Reed Bunting

As a target reserve species the significant decline is a matter for concern as habitat change appears an important factor.

RESERVE MANAGEMENT

a. The Islands

Identification of failure to meet some of the recommended management proposals in the 2006 Bird Survey Report does appear to underlie the reason for the decline in Lapwing and Reed Bunting and possibly Sedge Warbler. I fully support the conclusion that priority in the current management regime should be given to clearance of Sandpiper Island and Plover Island and that work on the clearance of Long Island needs to continue. What to do about Grove Island (which has lost both Lapwing and Sedge Warbler) is more problematical as access is not as easy as it is now for Long Island. I would favour concentrating first on the Colebrook Lakes islands before considering what might be done to improve Grove Island for our target species.

b. The Mainland

I would support a review of the management regime for the north side of Colebrook Lake North to see what could be done to improve it for breeding Reed Bunting and Linnet. Recommendations in

the 2006 Survey included rotational cutting of encroaching scrub for Reed Bunting and planting and management of more gorse for Linnet.

c. The Scrapes

Grove scrape in 2006 was able to support Lapwing, Sedge Warbler and Reed Bunting all target species subject to decline and which were not present in 2012. I suggest this is significant enough to trigger a discussion of what management possibilities exist for attracting these species back to the scrape.

PREDATION

This is already under active consideration in the wider context of reserve management. From the perspective of the management suggestions arising from the bird survey, consideration might need to be given, when clearing vegetation from islands, to what protection/cover could be provided for recently fledged young in the form of remnant patches of vegetation or artificial hiding places e.g pieces of pipe.

Peter Standley, Scientific Adviser to MGL Management Committee

21.3.13