Morton Lochs CES: The First Four Years 1997-2000

Les Hatton , Edenvale, Lydox Cottages, Dairsie, Fife KY15 4RN
Shirley Millar, Edenvale, Lydox Cottages, Dairsie, Fife KY15 4RN

A total of 1419 birds of 34 species were caught over the four-year period. The key species for the site is Willow Warbler, and the aviafauna is relatively restricted both in terms of numbers and diversity. Since 1997 there has been a general decline in numbers of most species, although many are now showing some signs of recovery.

Introduction

The avifauna of the Morton Lochs National Nature Reserve (NNR) is relatively under - recorded, in particular there has been little recent information of the importance of the site in terms of its breeding birds. In an effort to address this issue it was agreed with Scottish Natural Heritage that the area be monitored during the breeding season using the British Trust for Ornithology's Constant Effort Site methodology. This report outlines the results of this monitoring over the past four years. Reference is made to the term New For Year (NFY). These are birds recorded for the first time that year on the CES site and they may be unringed, re-traps from a previous year, or controls.

Study Site: South Loch

Morton Lochs NNR is a 24 hectare site dominated by two large artificial water bodies, surrounded by woodland (predominately willow and alder scrub) and marshland, with some more open areas of grassland. The CES site was established at the South Loch, primarily due to difficulties with Highland Cattle on the North Loch (horned beasts and mist nets proved an expensive combination). The South Loch is the smaller of the two water-bodies, being fairly shallow and somewhat encroached upon by emergent vegetation. Alder and mature willow scrub dominate the surrounding vegetation, with some conifer plantation primarily on the outskirts of the reserve. Cleared areas of sandy grassland occur, although Gorse and Bracken dominate some areas. The area contains relatively few berry-bearing shrubs, although there is a large stand of *Buddleja* sp. It is well sheltered, which assisted the important process of achieving all twelve CES visits in three of the four years covered by this study.

Results

1997: This was the first year of operation and was somewhat experimental. Only ten of the twelve possible visits were achieved due to poor weather. One net site was discontinued due to the unacceptable damage caused to vegetation and the length of time added to net rounds in reaching it. This net may have played a part in elevating the totals for that year, which were 474 birds of 26 species, with an average catch rate of 47.4 per visit. However, Willow Warbler generated a very significant part of the high numbers in 1997, and this net was not associated with this species, although it did catch a large party of Long-tailed Tits. It does appear that 1997 was genuinely a better year than those that followed, even allowing for the effect of the additional net. Highlights included a mist netted Common Buzzard, two Eurasian Jays and a Wood Warbler.

1998: A total of 319 New For Year were caught of 23 species and, with subsequent re-traps, this gave an average catch rate of 33.4. It was clear that even allowing for the loss of one of the net sites many species suffered badly in the cold wet spring. Most notable declines included all of the tits and Willow Warbler. Insectivores such as Winter Wren, Hedge Accentor and European Robin seemed less affected, and large thrushes actually seemed to do better with the wet weather. Species variety was low with highlights being good numbers of breeding Common Chiffchaff, a Yellowhammer and another couple of Eurasian Jays (the last we were to catch on the site). Common Quail called from the adjacent cereal field throughout the season, but didn't appear in the net other than in more lurid daydreams as rain spattered off the car roof. Surely it couldn't get worse?

1999: Full of hope, we set nets on visit one to see what the year would bring. It brought 309 NFY birds of 26 species with an average catch rate of 32.8 per visit. Whilst the steep decline of 1998 seemed to have levelled off, this was still very much a case of bumping along the bottom. Willow Warblers did continue to decline, as did Coal Tits and Great Tit, but Blue Tits made a modest recovery after their massive plummet in 1998. Common Quail, Eurasian Woodcock and Common Crossbill were all seen or heard but non e graced the nets. Ringing highlights included Eurasian Sparrowhawk, Great Spotted Woodpecker, and breeding Spotted Flycatcher.

2000: The year saw a modest improvement overall, with a total of 317 NFY birds of 24 species and an average catch per visit of 34.6. In contrast to the previous years it was the small, low-level feeding insectivores such Winter Wren, European Robin and Hedge Accentor that declined in numbers. Canopy feeders such as Goldcrest, Long-tailed and Blue Tit showed the best improvement in numbers, although both Coal and Great Tit stubbornly resisted this upward trend. Highlights included Common Linnet breeding on the site for the first time (both parents and young obliged us by getting caught). Two Mistle Thrushes were caught (thus avoiding a nasty scene amongst the troops) and there was a significant increase in the number of Sedge Warbler territories in the area that translated into improved catches of this species.

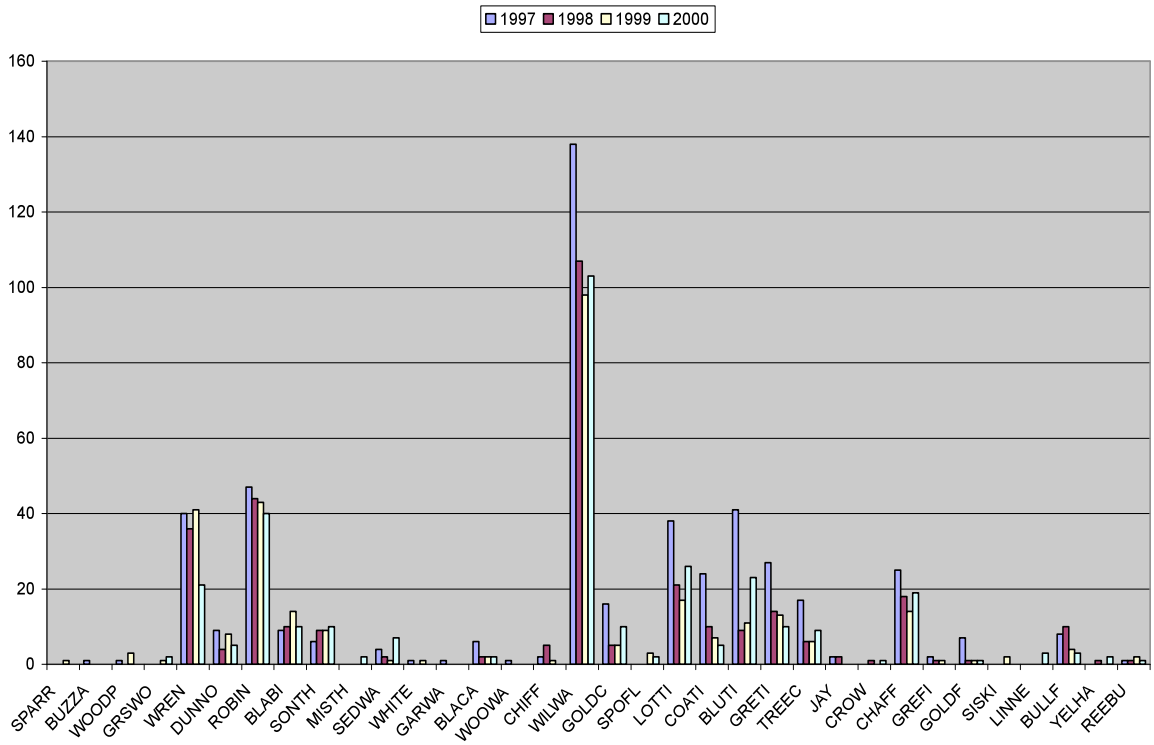
The total NFY birds caught during the four-year period is detailed in table 1 below and illustrated in graph form in figure 1.

Table 1: Morton Loch NFY Totals 1997-2000

	1997	1998	1999	2000	
SPARR	0	0	1	0	1
BUZZA	1	0	0	0	1
WOODP	1	0	3	0	4
GRSWO	0	0	1	2	3
WREN	40	36	41	21	138
DUNNO	9	4	8	5	26
ROBIN	47	44	43	40	174
BLABI	9	10	14	10	43
SONTH	6	9	9	10	34
MISTH	0	0	0	2	2
SEDWA	4	2	1	7	14
WHITE	1	0	1	0	2
GARWA	1	0	0	0	1
BLACA	6	2	2	2	12
WOOWA	1	0	0	0	1
CHIFF	2	5	1	0	8
WILWA	138	107	98	103	446
GOLDC	16	5	5	10	36
SPOFL	0	0	3	2	5
LOTTI	38	21	17	26	102
COATI	24	10	7	5	46
BLUTI	41	9	11	23	84
GRETI	27	14	13	10	64
TREEC	17	6	6	9	38
JAY	2	2	0	0	4
CROW	0	1	0	1	2
CHAFF	25	18	14	19	76
GREFI	2	1	1	0	4
GOLDF	7	1	1	1	10

	1997	1998	1999	2000	
SISKI	0	0	2	0	2
LINNE	0	0	0	3	3
BULLF	8	10	4	3	25
YELHA	0	1	0	2	3
REEBU	1	1	2	1	5
TOTALS	474	319	309	317	1419

Fig.1: Morton Loch NFY Totals 1997-2000



Recoveries

A total of 3 recoveries and 2 controls have been generated at Morton. The latter were both Willow Warblers, one from South Walney (ringed 13/8/97) and one from Landguard point (ringed 22/8/86), both controlled at Morton in May '98. There was one long distance recovery: a juvenile Willow Warbler ringed at Morton on 18/7/97 and recovered at Icklesham (where else?) 37 days later. A Jay ringed at Morton (7/8/98) turned up dead the following January on the local estate (having travelled 4km). Perhaps the most interesting recovery was a Bullfinch ringed at Morton as a second-year male on 10/5/98 that was subsequently controlled by Jim Cobb, 19 kilometres away near Crail on the 7/7/98. The overall recovery rate for the site is 0.3%.

Discussion

Despite being an NNR, Morton has proved to have a relatively impoverished aviafauna, both in terms of numbers and diversity. To date 1419 NFY birds of 34 species have been ringed.

Only 7 species recorded a catch over 20 sometime during the four year period,

these were Willow Warbler, European Robin, Wren, Long-tailed Tit, Blue Tit, Common Chaffinch, Great Tit and Coal Tit. With the exception of Common Chaffinch, Finches and Buntings were poorly represented on the site, although a small, but very fragile, population of Common Bullfinch breeds there. The fact that the majority of the Common Chaffinch caught were adults, early on in the season, suggests they are a passage population and there is little evidence of local breeding. With the exception of Willow Warbler, which is by far the most significant breeding species for the site, surprisingly few other warblers are present.

It is clear that once Willow Warblers have finished breeding and the majority have left or passed through the site very few birds remain. Those that do, rapidly form a large, roving flock dominated by titmice. Late in the season, sanity and peace amongst trainees is only guaranteed if this flock is intercepted, otherwise things can be pretty grim. Given the proximity to the coast it is surprising how few migrants are picked up, particularly late in the season.

So why do we do it? Firstly, like CBC, and WBS, all long-term intensive studies bring significant pleasure in getting to know a particular patch very intimately. In addition there is the warm glow of knowing one is contributing to a large national database which is one of the key monitoring systems for Britain's birds. It is highly interesting to see how national, regional and local trends diverge (even within Fife differences can be surprisingly large). Finally, providing people can stand the occasional dull days, CES provides excellent training opportunities, as it allows ringers to follow birds through the whole cycle of breeding and moult. Certainly we are already looking forward to next season to see if we can hang onto those Common Linnets, and to see if Sedge Warbler numbers will continue to increase on 'our patch', as memories of reading the back of WD40 cans between blank net rounds fade.

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