

POTTERIC CARR NESTBOX MONITORING SCHEME

Description of the Scheme

The nestbox monitoring scheme at Potteric Carr has been carried out every year since 1992. The data obtained is contributed to the national Nest Record Scheme which has been organised by the British Trust for Ornithology for over 70 years and from data largely gathered by volunteers over the whole of the country. The scheme has built up a massive database of information about a wide range of birds and their nesting habits, including egg sizes, clutch sizes, nesting times, fledging rates, predation and much more. The data from the scheme is used in the BTO's "Bird Facts" website www.bto.org/birdfacts/

At Potteric Carr, the scheme concerns a number of nestboxes, primarily Great Tits and Blue Tits, in a largely undisturbed part of the Reserve to which access by the general public is restricted. Since its inception, up to around 30 nestboxes have been monitored each year. However, it isn't possible to compare the results over the whole period of the study since the number and positions of the nestboxes has changed over time as some have rotted, the trees supporting them have fallen or the boxes have been destroyed (sometimes by

woodpeckers!). It is generally possible, however, to compare one year with the next when the same boxes have been used.

The scheme has produced a large amount of data about these two species in particular, although nestboxes are sometimes taken over by other species, e.g. Wrens, and sometimes by insects such as bees or wasps.

Carrying Out the Survey

Early in the year, the nestboxes are inspected and cleaned out and any renovations/replacements made prior to the anticipated first nesting date (usually April). Visits are made at intervals during the spring and early summer. It is important that these are kept to the minimum necessary to limit disturbance but to ensure sufficient data is obtained, i.e. first egg laying dates, clutch size and hatching and fledging success. Regular visits will not only danger the nests themselves and may even cause the birds to desert, but may result in the outcomes being biased.

On the last visit at the end of the season, the old nest and any contents are removed from the box leaving it clean. Some boxes are used as winter roosts and some occasionally remain as roosts.



Great Tit © John Lintin Smith



Blue Tit © John Lintin Smith

THE BTO NEST RECORD SCHEME

The Nest Record Scheme (NRS) gathers vital information on the productivity of the UK's birds, using simple, standardised techniques.

NRS data are analysed annually and the results are published in the 'Breeding Birds in the Wider Countryside' report along with information on species' abundance obtained through other BTO monitoring schemes. Nest record data are also used to investigate the causes of species-specific trends in breeding success.

A population size of a species is dependent on survival rates, movements of individuals and levels of productivity. The NRS is able to provide the vital evidence needed to confirm whether a species in decline is encountering problems at the nesting stage

Nest recording is one of the simplest BTO projects to take part in, so it is accessible to everyone. It provides an ideal opportunity to participate in the conservation of Britain's birds. For further details go to www.bto.org/survey/nest_records/index.htm

RESULTS FROM THE 2008 SEASON

During 2008, a total of thirty nestboxes were included in the scheme. Thirteen were located along Loversall Bank (LB), which included two boxes erected in the maintenance compound, four near Loversall Delph (LD), and thirteen in Young Eaa Wood (W).

Tables 1 and 2 show the breeding results for 2008, with the figures for 2007 for comparison. Unlike 2007, when the weather was a factor, it did not appear to have any particular effect of the fortunes of the birds in 2008. However, it did affect the monitoring of them. On 7th May, floodwater in Young Eaa hampered the

was noted that there was half a nest formed on the 7th May and this remained the same until it was checked again on the 20th May.

Predation

Predation of nests is something that happens throughout the bird population. In 2006, however, it was realized there was extensive predation of the boxes by Great Spotted Woodpeckers which are capable of breaking through the box, particularly by enlarging the entrance holes, to gain access to the chicks – it is significant that the

Nestbox	Species	eggs laid	eggs	eggs	young	failed	Results and comments
LB3	Blue Tit	8	8	-	8	-	8 chicks fledged
LB4	Blue tit	9	6	3	6	-	6 chicks fledged
LB6	Great Tit	6	6	-	6	-	6 chicks fledged
LB7	Blue Tit	9	8	1	-	8	4 dead chicks others may have been removed earlier
LB8	Great Tit	7	7	-	7	-	7 chicks fledged
LB10	Great Tit	5	5	-	5	-	5 chicks fledged
LB11	Great Tit	7	7	-	7	-	7 chicks fledged
LB13	Blue tit	10	10	-	-	10	10 chicks ¼ pin dead in nest
LD1	Great Tit	7	5	2	5	-	5 chicks fledged
LD2	Blue Tit	10	9	1	9	-	9 chicks fledged
LD3	Great Tit	8	6	2	6	-	6 chicks fledged
LD4	Great Tit	8	8	-	-	8	5 chicks ¼ pin dead in nest
W1	Great Tit	7	7	-	7	-	7 chicks fledged
W3	Blue Tit	9	8	1	6	2	6 chicks fledged, 2 half grown chicks dead
W6	Great Tit	1	-	1	-	-	only a single egg laid was part incubated
W8	Blue Tit	10	9	1	6	3	6 chicks fledged remains of 3 chicks
W9	Great Tit	5	-	5	-	-	eggs cold in nest
W10	Blue Tit	8	7	1	6	1	6 chicks fledged, remains of 1 small chick and 1 egg
W12	Great Tit	4	4	-	4	-	4 chicks fledged – a late nest
Totals	19	138	120	18	88	32	
2007 Results		149	133	16	92	41	

Table 1: Overall Results 2008

Species	Pairs		Eggs laid		Eggs hatched		Young fledged		Fledging success rate			
	2008	2007	2008	2007	2008	2007	2008	2007	from eggs laid		from eggs hatched	
									2008	2007	2008	2007
Blue tit	8	9	73	81	65	74	41	45	56.16%	55.56%	63.08%	60.81%
Great tit	11	11	65	68	55	59	47	47	72.31%	69.12%	85.45%	79.66%
Totals	19	20	138	149	120	133	88	92	63.77%	61.74%	73.33%	69.17%

Table 2: Overall results by species with results from 2007 for comparison

examination of some boxes; some were reached by means of half submerged trees (it felt like being in the Everglades!).

Of the thirty boxes, seven were not used (apart from as roosts), four nests were started to varying degrees but didn't proceed, five failed and fourteen were successful. This sort of result is typical of the experience in other years.

The survey always produces some interesting occurrences. For instance, during a final check on the boxes on the 19th June, a pair of Great Tits were found to have 4 small young in one box. When the box was inspected on 2nd July, the young had fledged making it the latest date for a nestbox in the scheme. The eggs must have been laid very late during the first week of June. By this time, the adult birds are normally busy gathering food for their growing young, egg laying usually having been completed in late April or early May. On checking the record for this particular box, it

to be fitted to the holes in the nestboxes. These were fitted to the majority of the boxes prior to the 2008 season in the hope of confounding the woodpeckers. These have been very successful, though woodpeckers did try to gain access through other parts of the boxes though, fortunately, no young birds were lost this year through predation by woodpeckers, though others were lost due to other circumstances.

With the help of a volunteer, Peter Wilson, a number of aluminium plates were produced in two sizes

Conclusion

Although the data is based on a relatively small sample, the results, taken over the full duration of the survey at Potteric Carr, have provide some useful information about the perceived need for nestboxes. The fact that the boxes are well used would indicate a shortage of natural nest sites for these species. It also demonstrates the desirability of monitoring closely any nestboxes that are erected.

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