

Treswell Wood

Nestbox Report -1980

1980 Season

This year has been much busier than last with a greatly increased number of nestlings ringed and of nest boxes used. The reasons for this include a higher woodland population and better siting of boxes. Details of numbers are given in Table 1. Small open-fronted and wedge boxes are still underused and further adjustment of box types and locations is needed. Large boxes have attracted only two bird species, but grey squirrels have unfortunately occupied at least three boxes.

Table 1. Summary of events 1980

Species	1979 fledged	1980 nests	successful broods	young ringed	died before fledging	birds retrapped 1979	1980
<i>Moorhen</i>	–	2	2	–	–	–	–
Tawny Owl	–	2	1	2	–	–	–
Stock Dove	2	1	–	–	–	–	–
<i>Wood Pigeon</i>	–	5	–	–	–	–	–
<i>Turtle Dove</i>	–	1	–	–	–	–	–
Swallow	6	1	1	4	–	–	–
Skylark	–	1	1	3	–	–	–
Song Thrush	33	10	3	10	–	–	–
Blackbird	14	5	3	9	–	–	4
Robin	6	2	1	5	–	1	2
Spotted Flycatcher	12	3	1	5	–	2	–
Wren	–	2	2	10	–	1	–
Starling	1	3	1	3	–	–	–
<i>Blackcap</i>	5	–	–	–	–	–	–
Blue Tit	101	27	24	240	–	47	64
Great Tit	65	8	7	57	4 ¹	5	33
<i>Chaffinch</i>	–	1	1	4	–	–	–
<i>Linnet</i>	–	1	1	3	–	–	–
<i>Redpoll</i>	–	1	–	–	–	–	–
House Sparrow	11	3	3	9	–	–	–
Tree Sparrow	116	64	50	195	7 ²	8	10
Total	372	143	102	559	11	64	120

Notes: Italicised names show species not nesting in boxes.

Probable causes of death - ¹ weasel, ² wet weather.

Recapture figures correct to 17/09/1980

Species notes

Tawny Owl

One pair has used at least three boxes for roosting or nesting and has provided most valuable information. The first clutch of one egg was abnormally small and eventually taken, probably by a squirrel. A replacement clutch of two eggs was laid in a second box. This is unusual for Tawny Owls. This later clutch was made on top of the sad remains of the only Stock Dove nest of the year. It is probable that at least one of the Stock Dove pair was eaten by an owl which appeared to have a particular liking for birds. Both the owl eggs hatched and the young fledged about a month later than the normal time for these birds.

During the season some effort has been made to find owl pellets and the used nest has been examined for

identifiable prey remains. Table 2 lists all prey found. The general lack of mammals is unusual, as is the presence of the mole. The 11 rings found, particularly those of the Tree Sparrows, make a significant contribution to national records. Analysis of the information shows that these owls, not surprisingly, take juvenile rather than adult birds; and that they take young Tree Sparrows rather than young Blue Tits. The reasons for the relatively large number of birds are not clear. Since the nest was late in the season the adults may have been forced to hunt more by daylight than is normal. Fewer mammals and more birds are then available. On the other hand, it is quite possible that these owls just have unusual eating habits.

Table 2. Prey items found in Tawny Owl nest and pellets

Species	Scientific name	Number
Common Shrew	<i>Sorex araneus</i>	3
Mole	<i>Talpa europaea</i>	1
Bank Vole	<i>Clethrionomys glareolus</i>	1
Short-tailed Vole	<i>Microtus agrestis</i>	2
Woodpigeon		1
Blackbird		2
Willow Tit		1
Blue Tit		4 (2)
Great Tit		1 (1)
Tree Sparrow		5 (5)

Note: Numbers of 1980 nestlings are given in brackets

Spotted Flycatcher

Again we have had three clutches but this year only one succeeded. Wet weather and an unknown predator caused the failures. All the nests were in the same boxes as last year. There is still scope for attracting more of this species to the boxes. Two juveniles were trapped together in late August, about a month after fledging. Spotted Flycatcher retraps are very unusual in the wood, these two being our second and third ever.

Starling

Three clutches of four eggs were laid but only two birds fledged in all. The others were victims of the long dry spell when the ground became too hard for the parents to be able to extract sufficient food. Two of the nests were in experimental boxes intended to attract Little Owls.

Blue Tit

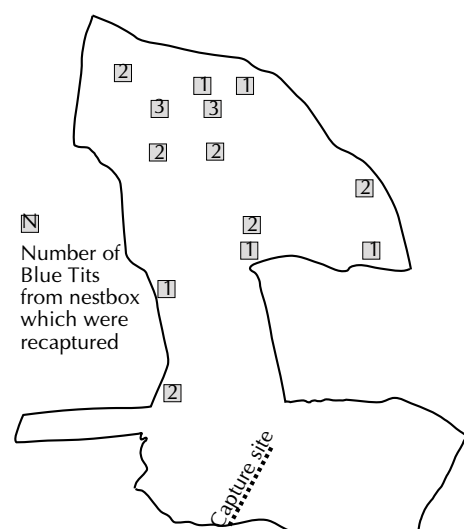


Figure 1. Natal sites of Blue Tits captured in mist-nets on 12 July 1980

The spectacular increase in numbers is in part a result of better siting of boxes. There were several unusual nests. Box 23 held one egg with no nest material. It was abandoned. A nearby box held a nest with no eggs but it is unlikely that a bird became confused between two similar boxes as far apart as 20 m.

Two nests were found in one box. Remarkably both hens were ringed - one was the occupier of the territory in 1979 and the other was a first year bird originally ringed in Retford. The older resident was ousted by the young intruder and the larger of the two clutches (of 3 & 13 eggs) was incubated successfully. We cannot be sure, of course, whether the young bird was incubating her own eggs or the older managed to produce young by the efforts of the younger. The older bird has been retrapped recently. Nothing is known of any male birds involved.

Box 13 held two consecutive successful broods. Unfortunately the hen was not found sitting on the first nest so her identity is uncertain. The hen of the second brood was eventually found to be the bird which had occupied the box in 1979. Confirmed second broods are almost unknown in Britain, but the evidence suggests that this is such a brood rather than a late first brood by a second pair of tits. The hen is an

experienced individual known to have been in that area for at least three seasons. In 1979 she raised 15 in one brood so that this year's first brood of 11 may not have exhausted her completely. There was no great pressure on nest sites in this area because boxes nearby were vacant and the hen probably knew of other sites from her pre-1979 experience. The hens of both broods shared the unusual and annoying habit of leaving the nest and calling from a tree as a human drew near, rather than sitting tight like most Blue Tits. When the hen was, at last, found on the site she was in poor condition consistent with her having been working hard over an earlier brood.

No other female Blue Tits were trapped in the area during the season.

Figure 1 is included to demonstrate the flocking behaviour of young Blue Tits. It shows the natal sites of all the ringed individuals trapped in a large mixed party in mid-July.

Great Tit

1980 has been less successful than 1979 mainly because of competition from Tree Sparrows. These sparrows may select nesting holes the autumn before nesting. Thus many boxes were erected too late for use by sparrows in 1979 but because the boxes were left in place throughout the year sparrows were able to select them for 1980. This forced the Great Tits to look elsewhere. Several boxes which had held Great Tits were taken over. In box 54, both species began building a nest and the tit laid one egg amongst the five of the sparrow before being driven off. Great Tits used two large boxes intended for owls. Whereas last year's evidence suggested that the larger the nest hole, the larger would be the number fledged, these very large boxes seem to have been exceptions. They were taken by tits late in the season which would tend to reduce clutch size, and they are accessible to squirrels. It is not certain if either of the broods were successful. Blue Tits have not suffered in the same way as they can use entrance holes too small for Tree Sparrows.

One design of box appears to be suitable for Great Tits whilst remaining unattractive to Tree Sparrows and squirrel proof. Out of the three boxes of this type two were used last year and all three this year. An average of 11 young were fledged from these boxes but all other types gave an average of only 5.5. These boxes seem to be too deep for Tree Sparrows which build a domed nest completely filling the nest cavity. Fig. 2. shows the design of the box. More of these will be produced for 1981.

One pair attempted a second brood but it was abandoned before incubation was completed. In Britain, Great Tit second broods are recorded in most years.

Wren

Two boxes have been used this year. Both boxes were in place last year so this suggests that the Wren population is increasing after its low level of 1979. One nestling was retrapped a month after fledging within just 10 m of the nest site.

Tree Sparrow

Tree Sparrows are relatively common, but shy, birds. They are difficult to observe closely and seem to be quick to learn to avoid capture. 32 adult Blue Tits, but only two Tree Sparrows, were found sitting on nests. The others left the nest as they heard footsteps approach. Very little effort is made nationally to study this species so our contribution forms a good proportion of the national effort.

The recoveries of rings from this year's nestlings has already been of value. Five rings have been found in the Tawny Owl pellets or nest. One was recovered within a week of fledging, the others within one month. The life spans of birds involved will have been less than these times because the nest was not examined for rings until after the owls had fledged.

One other recovery is of interest. A bird was found dead in a nest box which had, the week before, held unfledged young. The dead bird came from a box about 200 m away and had been flying for about a month. Presumably it died while roosting at night. The box was soon used for another brood of Tree Sparrows. If the habit of roosting is common in young Tree Sparrows, then the Tawny Owl probably did some hunting before nightfall in order to catch so many of this species.

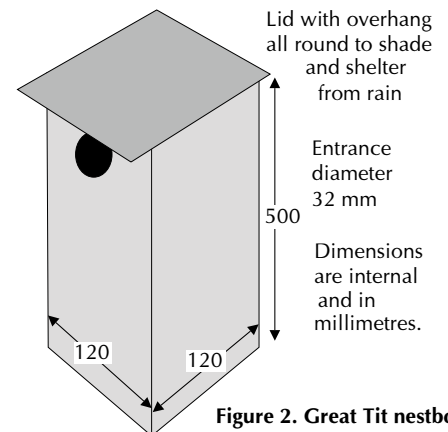


Figure 2. Great Tit nestbox.

Table 3. Recoveries of 1980 nestlings

Ring	Species	Box	Cause of death
NH49636	Tree Sparrow	63	Tawny Owl
NH49640	Tree Sparrow	34	Tawny Owl
NH49645	Tree Sparrow	33	Tawny Owl
NH49954	Tree Sparrow	64	Tawny Owl
NH49976	Tree Sparrow	27	Died at roost
NH52031	Tree Sparrow	54	Tawny Owl
NJ02622	Tree Sparrow	F2	Found dying
NH52010	Great Tit	92	Tawny Owl
A213575	Blue Tit	25	Tawny Owl
A213939	Blue Tit	45	Tawny Owl
A213901	Blue Tit	60	Dead on road

1979 Nestlings

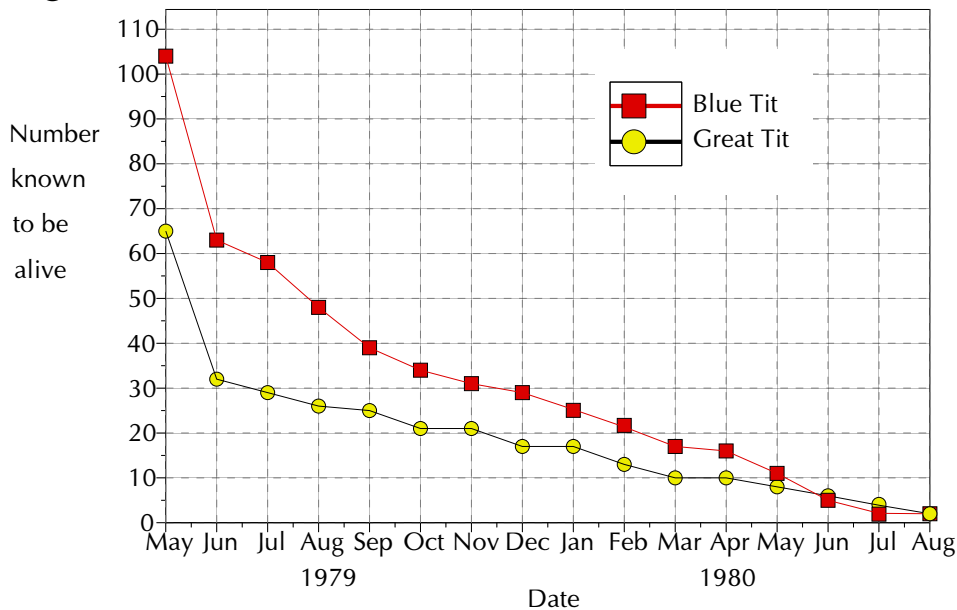


Figure 3. Survival of Great Tits and Blue Tits ringed as nestlings in 1979.

Good numbers of Blue and Great Tits have been retrapped over the last year and several have been controlled (trapped by other ringers) in the Retford area. Two Great Tits were trapped together in Clarborough on 18/11/79. One of these was from a late brood in box 81 and the other from a normal brood in box 53. Two birds have been controlled and subsequently found back again in Treswell Wood. The first, a Great Tit, was trapped at a bird feeder in Woodbeck. The second, a Blue Tit, was trapped in Gamston Wood before being found nesting in Treswell Wood box 95.

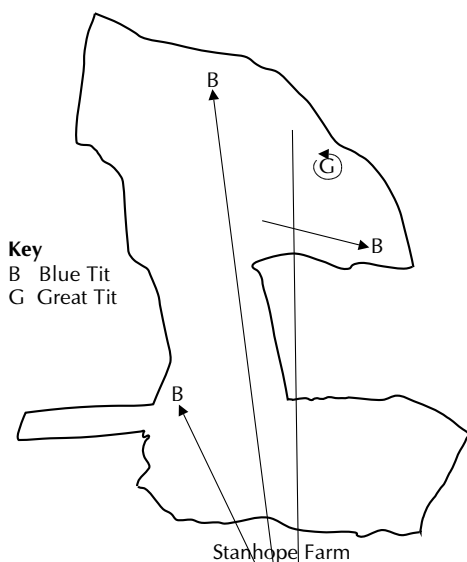


Figure 4. Nesting sites of 1979 nestling-ringed Tits.

Survival of Great and Blue Tits has been good, probably because of the low 1979 population and the mild winter of 1979/80. The minimum survival rates are illustrated in Figure 3. They almost certainly underestimate the actual survival rates because only birds which are retrapped at any time are known to be alive up to that point. It is almost certain that other tits are alive and in the wood but have not been retrapped recently, and that others are living outside the wood in places where they are unlikely to be trapped by ringers.

Some tits have been found nesting in boxes this year. Figure 4 shows the natal and breeding sites of these birds. This gives some idea of the area in which the birds may spend their entire lives. The Great Tit from box 51 nested in her natal box. When the mobility of these birds is taken into account, these areas seem remarkably small.

Tree Sparrows tend to disperse from their natal colony to neighbouring colonies. As expected, a few Tree Sparrows were trapped at the Pheasant feeders during the winter but they included only two of the 1979 nestlings. None of the 1979 nestlings have been controlled. It is likely that several of our birds are now living in areas adjacent to the wood.

Table 4. Recaptures and controls of 1979 nestlings

Species	Treswell Wood	Rampton Hospital	Clarborough	Gamston Wood	Retford
Robin	2	–	–	–	–
Blue Tit	60	–	1	2	1
Great Tit	29	1	2	–	1
Tree Sparrow	10	–	–	–	–

Plans for 1981

Some relocation of the boxes is necessary this autumn. It is intended to improve the balance of types of box. Wedge and small open-fronted boxes are little used. Blue Tits have nested in the wedges but in general these boxes give too little room for large broods of Blue Tits and it will be better to provide more boxes specifically for them. The wedge and small open-fronted boxes will be reduced in numbers and replaced by boxes for the tits. Events over the last two years have demonstrated that the wood has the capacity to support more breeding pairs of tits if sufficient nesting sites are provided. More attempts will be made to attract Coal Tits. This year, again, Tree Sparrows have thwarted their efforts. Larger boxes, for Owls, will be spread over a wider area but inspected less frequently. Because larger birds take more time to hatch and fledge, no broods should be missed through the less frequent inspections. The total number of boxes will remain at about 100 - as much as time will allow.

Bird Fleas

The Treswell Wood used nests are all sent to Malcolm Greenwood at Loughborough University for his flea research. Using the abundant harvest of our fleas, he is conducting preliminary experiments into flea ecology. The results of these experiments are enabling him to plan more controlled and objective fieldwork. While maintaining the prime object of conservation, it will still be possible to carry out these experiments. Two have been planned to date.

About half of our boxes will be replaced by new and clean boxes. The used nests from new and old boxes will be kept apart and examined for fleas. The aim will be to discover if the old boxes harbour more fleas than do the new. This seems probable because Blue Tits are known to prefer new holes to old, although the reasons for this are not fully explained.

The second experiment concerns Tree Sparrows. Their nests are much dirtier than those of Blue Tits. This seems surprising because it would appear to be in the sparrows' interests to keep clean nests for second and third broods. Tits usually have only one brood but keep their nests almost spotless. The fouled nest of a Tree Sparrow would seem to be an ideal breeding ground for parasites. In spite of this, later broods of Tree Sparrows are no less successful than earlier broods. To test the level of flea population at various stages of the season, some Tree Sparrow nests will be removed once the first brood has fledged, others will be left until the end of the season before removal. The clearing of the box after a first brood will have no effect on the bird because they normally build a complete second nest on the squashed remains of the first.

Although these experiments seem simple, any positive results will provide new insights in a little known field. *Gnathoncus buyssoni*, the uncommon beetle found last year, seems to have turned up again. We are awaiting confirmation that the specimens found are indeed of this species.

Acknowledgements

Thanks are due to:

Dock Tyre Co., Gainsborough and E.C. Walton, Sutton-on-Trent for supplies of materials.

Philip Wain who did the hard work of transcribing the original 1980 report to a desk-top publisher.

This edition has been corrected, but the text content is otherwise unchanged. The original document front cover held a low-quality, hand-drawn sketch of a nestbox and was printed under the name of *Nottinghamshire Trust for Nature Conservation, Treswell Wood Nestbox Report No.2*. It was distributed to various trust officials, members of the Treswell Wood Management Committee, sponsors of nestboxes, ringers and CBC recorders involved in the Treswell Wood operations.

This edition has been prepared using Techwriter on the Lyonix RISC OS computer and converted to a PDF document using RiScript.

Chris du Feu, April 2000

