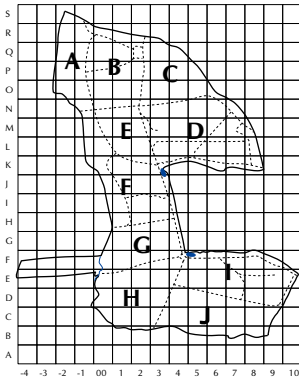


TWITTER



Treswell Wood - Information To Tell Every Recorder

October 2002 Treswell Wood IPM Group

(Integrated Population Monitoring)

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Project leaders:

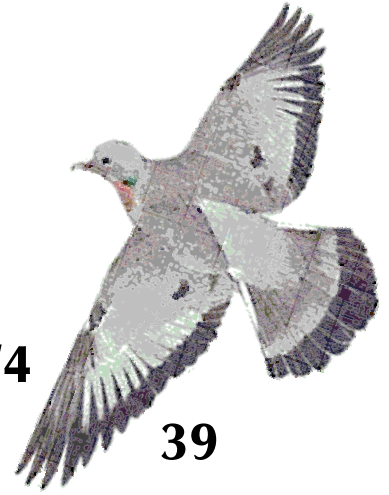
CBC Margaret Price

Nest Records Chris du Feu

Ringling John McMeeking

2002/4

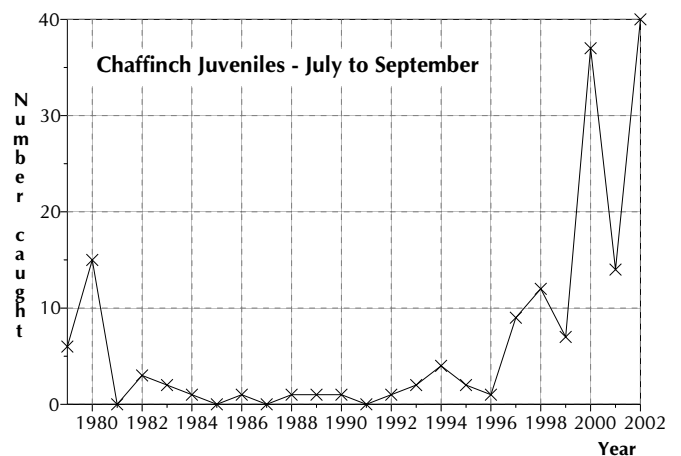
Number 39



The late summer and early autumn of 2002 will be ones to remember. After some heavy rain in early August, the rest of the month was dry and warm. The ground in Treswell Wood, being of heavy clay, retained its moisture and remained damp through most of the month. A night's heavy rain in early September replenished the water in the soil and the rest of September was dry and warm. The warmth and water available allowed rampant growth, particularly of brambles. A mid-September walk around the nestboxes, to clean and check them before the winter, was made very difficult in places where neck-high brambles obscured what had been well worn paths only six weeks earlier. Towards the end of September, the dryness was beginning to affect the trees. The first browned leaves fell into our mist nets on September 22nd. Heavy showers in mid October heralded the beginning of autumnal weather and the first frost in the area struck on the night of the 18th October.

Our birds seem to have done rather better than usual with numbers in the constant effort nets higher than average for the time of year and the highest since the bumper year of 1995. Numbers ringed as nestlings are higher than in recent years too. Although some catches have been small, we have enjoyed some where there have been mass captures of flocking juveniles and others where the birds have (with much more thought for the ringers) flowed into the nets steadily through the morning.

Juvenile Blue Tits, which had been only captured infrequently earlier in the season, have become more frequent in recent weeks. The first Goldcrest was caught on 8th August and numbers since then have been well up to average. We have trapped a large number of juvenile Chaffinches at the feeder and elsewhere. The graph shows the numbers of individuals captured from July to the end of September each year. About three quarters of these birds have been trapped at the feeders, but even so the remaining captures are greater in number than the totals caught in any but the last six years. The 1980 peak was caused by the capture of a single party of juveniles.

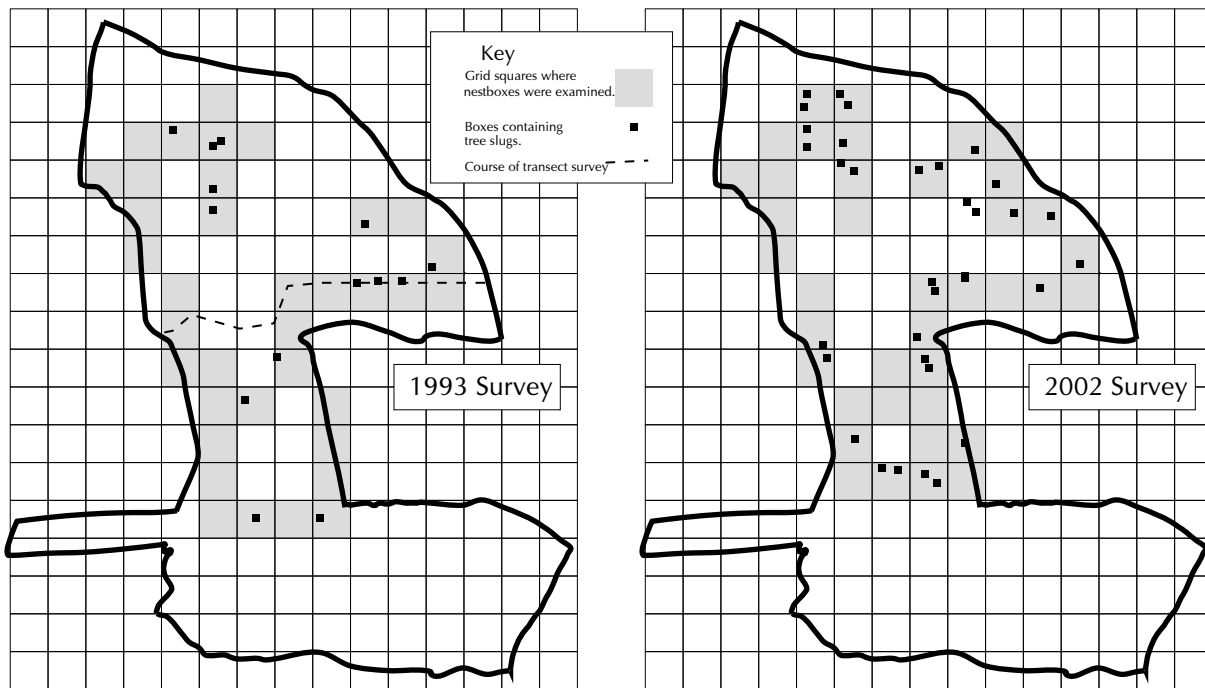


The nestboxes have again provided evidence for survival of the dormouse population. On the late season nestbox check, one box was found with a nest complete with dormouse thereon. Many of our birds seem to be quite unable to follow simple instructions given in the moult or nestboxes guides. I am afraid the dormice seem to be no better. This one was nesting in a conventional tit box with the hole in the dormouse-unfriendly front of the box; there was little hazel in the area of the nest, only thick bramble cover; the coppice regrowth is not sufficiently dense for the dormice to leap from branch to branch without coming down to ground level; and it was in an area where the dormice had not been released. Overall, a pretty low score. But it was there and alive. In this last respect it differed from our previous dormouse sighting, found in a Tawny Owl nest and documented in Twitter 37.

Tree slugs

In the autumn of 1993, we carried out a study of the occurrence of tree slugs *Lehmannia marginata* in the wood. Two types of counts were taken – first an east-west transect through the centre of the wood, second an inspection of all the nestboxes. The results were published in the Conchologists' Newsletter and an account of the work (which was part of an A level Statistics project by Francine Pilcher) was published in Teaching Statistics. The transect showed that these slugs were not present at the edge of the wood. They seemed to need to be at least 50 metres from the edge. My explanation for this is that they lose moisture through evaporation when they climb high

in the trees. Here, in the east Midlands, we are at the edge of their comfortable range and they can only exist in a very restricted number of habitats. In the wetter, western side of Britain they can be found in almost any habitat which has hard, vertical surfaces on which they graze. They are present in the wood partly because it is an ancient wood, where there has been a population since time immemorial, and partly because it is a big wood with plenty of sheltered interior. The slug seems to be absent from small woods in this area. We have not made any detailed measurement of their recent occurrence in the wood but it seems that they are seen sometimes nearer the edge of the wood than a decade ago. This has coincided with what seems to have been much wetter weather than formerly. Below are two maps showing where the slugs were found. In both 1993 and this year, all the boxes were checked for slugs. The boxes have remained more-or-less the same in number with only small changes in location. It does seem that the species is doing rather well this year although part of the exposed western edge of the wood remains a poor area for them. The largest congregation of slugs in any one box this year was about 30, rather more than the usual handful which may often be seen together in one box.



Events in nestboxes 2002

The nestbox season finally ground to a halt with the end of the last two Stock Dove nests. One brood fledged successfully. The other, slightly later, brood died soon after hatching. This makes it the longest nestbox inspection season ever, lasting from April 4th, by which time some tits had already started building, to September 29th.

Species	Nests		Eggs laid	Birds			% Success rate	
	Recorded	Successful		Adults on nests	Nestlings fledged	Nestlings recaptured	Nests	Eggs
Stock Dove	14	11	27	-	19	-	78	70
Tawny Owl	2	2	6	-	5	-	100	83
Wren	10	5	53	-	27	4	50	50
Robin	3	2	14	-	8	2	66	57
Blackbird	1	1	4	-	4	1	100	100
Song Thrush	4	2	16	-	8	0	50	50
Marsh Tit	3	2	27	3	17	3	66	62
Coal Tit	6	6	59	4	58	10	100	98
Blue Tit	33	21	338	31	173	10	63	51
Great Tit	23	15	184	3	96	27	65	52
Chaffinch	1	0	5	-	0	-	0	0
Totals	100	67	733	41	415	57	67	56

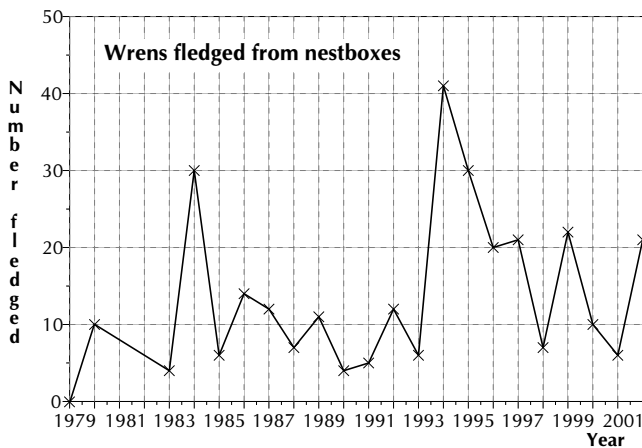
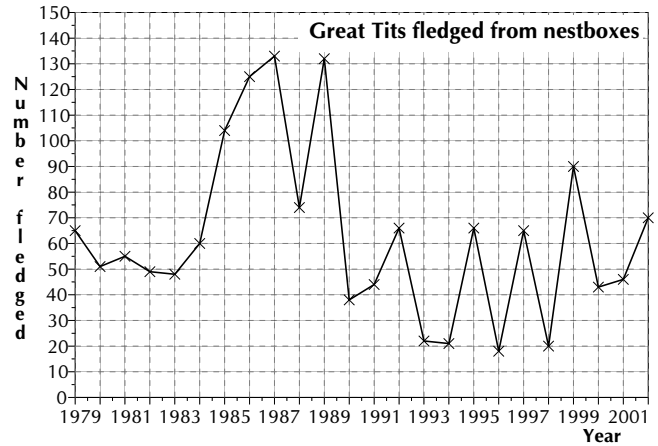
Notes: Nests of Blackbird, Song Thrush and Chaffinch were open nests found incidentally during the nestbox rounds. The numbers of nests recorded, for all species, excludes nests which were abandoned before any eggs were laid. Nestlings 'recaptured' includes any recoveries.

How does this compare with previous years? Stock Doves have had their best season ever. Twitter 34 noted their complete history to 2001. This year, the total of 19 birds fledged far exceeds last year's paltry record of 4 birds. One reason for the increased number is the larger number of pairs nesting - five rather than last year's four pairs. In addition, there has been a higher average number of broods per pair and predation has been lower.

Tawny Owls have had a good year too. The only other year in which we have enjoyed two successful nests was 1981, but then only one bird fledged from each nest. In fact, we have never had more than a total of two birds fledging. Has it been a good year elsewhere too?

Comparisons of nesting success for other species are complicated by the fact that, until 1995, there were only nestboxes in the northern two-thirds of the wood. Thereafter there were boxes for dormice in the southern part of the wood. Birds nest in some of these boxes, so the numbers from 1995 onwards have been boosted by these extra boxes. In order to be able to make valid comparisons from year to year, only data for the traditional nestboxes are included in the analyses below.

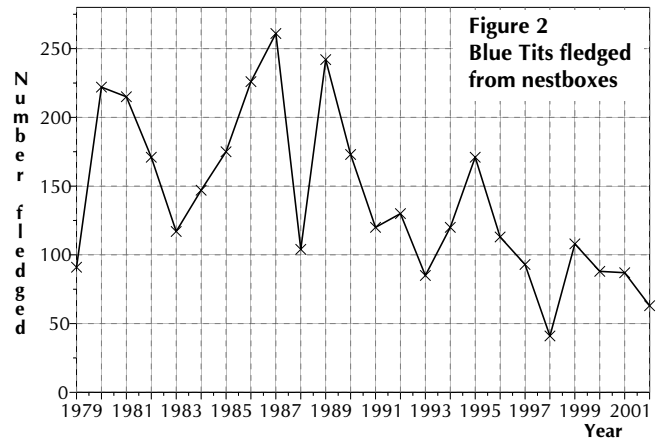
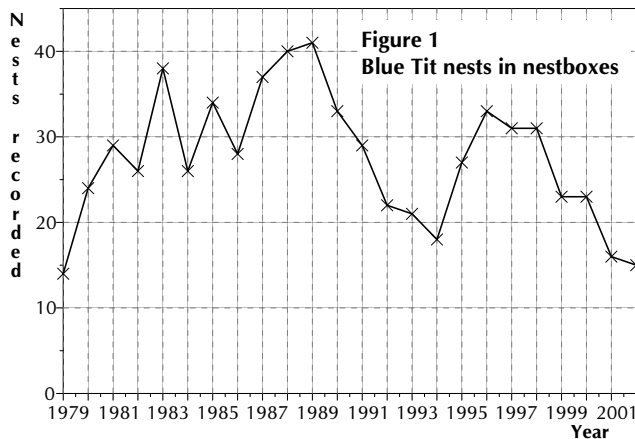
Coal and Marsh Tits are doing well. Twitters 35 and 38 described how Coal Tits have increased in numbers in all the surveys carried out in the wood. Marsh Tits did not nest in boxes last year but this year they are back in strength. This is pleasing for a species which is on the Birds of Conservation Concern Red List (species which have suffered over 50% decline over the last 25 years). Twitter 32/33 gave details of Marsh Tit nests in Treswell Wood up to and including the 2001 season.



Great Tits are doing relatively well - in the first decade of nestboxes in the wood they suffered some misfortune annually - competition from Tree Sparrows, predation by grey squirrels or weasels, vandalism etc. Although they have not recovered to the peak of the late 1980s, their numbers seem to be holding up well.

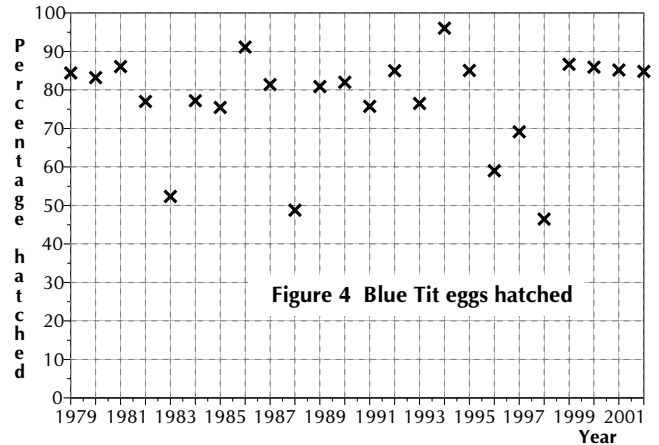
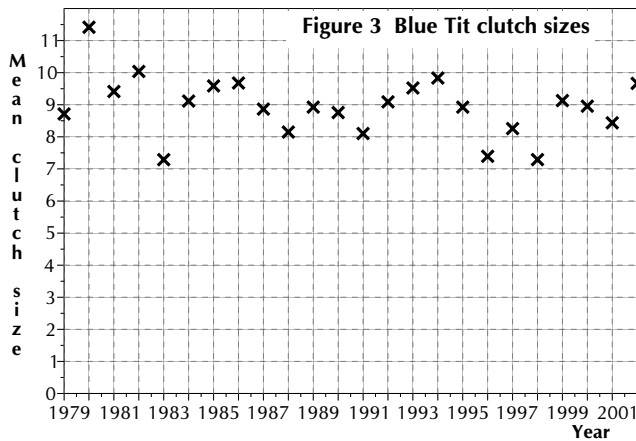
Wrens have bounced up again. However, with the fairly small number of Wren nests in boxes, it does not take many nest failures or successes to make a very big difference to the year's outcome relative to other years. For instance, this year they have suffered fairly high predation, mostly from small mammals. Had even one of the failed nests survived, the numbers of Wrens fledging could have been among the highest ever.

Blue Tits, unlike the other tits, seem to be in a long-term decline after their peak in the late 1980s. The various figures below document features of this decline.



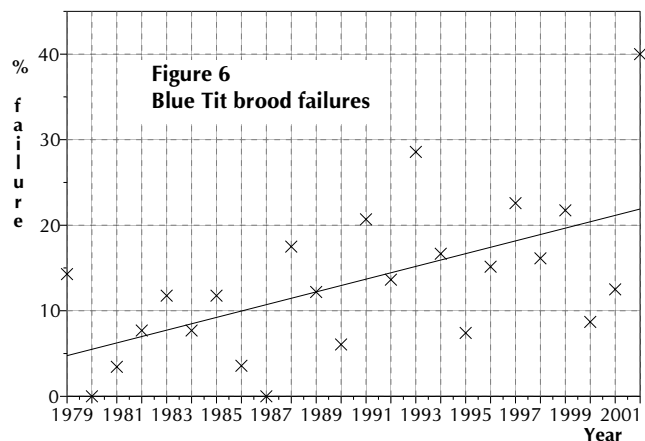
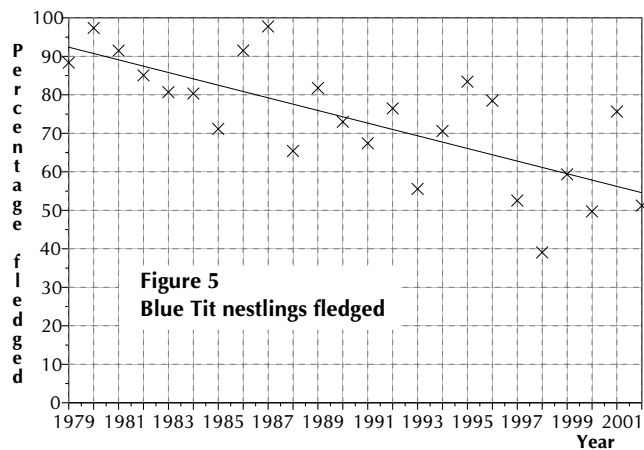
The **number of nests** (Fig 1) has declined after the fairly steady rise during the 1980s and subsequent lower peak of the mid 1990s. But this decline in nests is not sufficient to explain the lower number of **birds fledging** (Fig 2). This year, for instance, with slightly more nests than in 1979 we have fewer fledged. The next thing to examine is average clutch size. One or two years stand out, but there is no clear temporal trend.

It might be expected that average **clutch size** will increase as the number of nests decreases. With fewer territories each pair should have more resources available to them and be able to rear larger broods. This does not seem to be happening here (Fig 3).



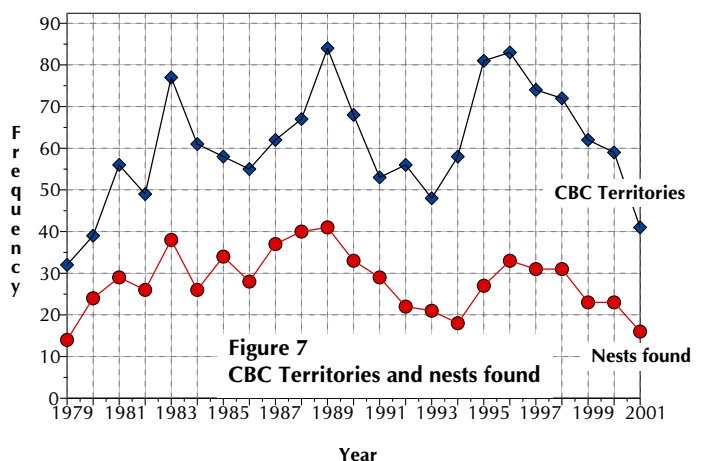
Once the eggs are laid, they may fail to hatch for a number of reasons - for example infertility, predation or weather. Again there is no trend in the **hatching success** (Fig 4). There were four outstandingly poor years. 1983 suffered from vandalism. In 1988 there was heavy predation by wood mice resulting from a high mouse population after a very mild winter. The 1996 season began late and this was followed by low clutch sizes and high desertion rates. 1998 suffered particularly heavy predation coupled with wet weather.

After nestlings have hatched, they face increased dangers as the noise of hungry chicks can attract predators. They are also more vulnerable to wet weather, or reduction in food supply, than they were when still in the egg. Here, at last, we have a marked decline in **fledging success** (Fig 5). To discover what is causing this required examination of the details of all the nest histories. This shows that there is higher predation coupled with higher weather-related mortality resulting from the heavy rains which have arrived in late May of recent years. The proportions of weather and predator related failures vary from year to year, although overall it can be seen that the **total failure** (as a percentage of all nests in which eggs have been laid) is increasing (Fig 6). Failures at the nestling stage are almost exclusively through predation or weather. Coal Tits and Marsh Tits are not suffering the same failure rates. This may be because they nest a little earlier and their young fledge before the predators have learnt about the food



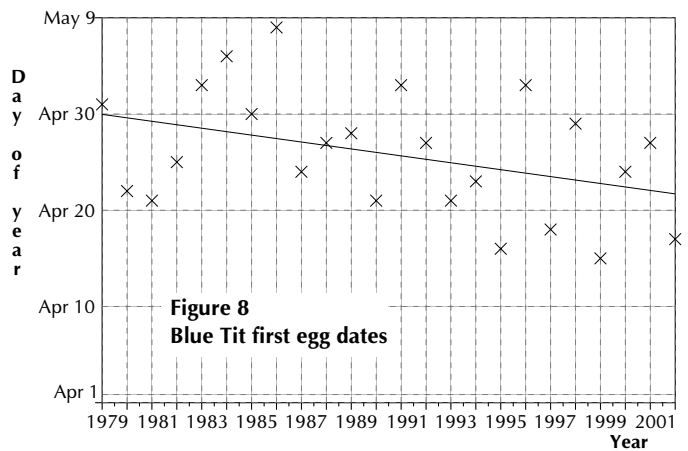
value of nestboxes and before the rains begin. Incidentally, the Coal Tits seem to be laying earlier too although the small number of nests we have recorded makes it hard to draw firm conclusions.

It is interesting to examine whether the declining Blue Tit numbers in nestboxes are also associated with declining numbers of territories recorded by the CBC team. In figure 7, nestbox data are only for the northern part of the wood, CBC data for the whole wood. If there is any discrepancy it would indicate either a change in Blue Tit nesting behaviour, with fewer using boxes, or else that CBC and nest numbers were not both equally strongly related to population size. There is a very strong degree



of correlation between the number of CBC territories and number of nests found in boxes ($r=0.717$, $n=23$, $p<0.01$). A little caution must be attached to this correlation because the two data sets are not completely independent - nestbox data are used in the construction of CBC territory maps. Each nest must indicate one territory. There seems to be an increase in the number of territories recorded relative to the number of nests found from 1995 onwards. This could be either because the many Blue Tit nests found in dormouse boxes have led to an increase in the CBC estimates, or because the Blue Tit population in the south of the wood did indeed increase when more nesting opportunities became available. On an IPM site, we may have the information to tease out the truth in the future.

Other things, too, are changing in the breeding of our Blue Tits. As with many species, not just birds, the tits are responding to the warming climate by breeding earlier. The date on which the first egg is laid in a typical (median) nest is moving about a third of a day each year. This means that, over the 24 years since nestboxes were installed, the season has become 8 days earlier (Fig 8). This is in line with many other species that have been examined nationally and is a frightening indication of the rapidity of the climatic change for which it seems that humankind is responsible.



Noteworthy Captures

Species	Age/sex	Ring	Date	Grid
Robin	4	N305975	18/8/2002	N07

We ringed this Robin in July 1998 as a juvenile, just beginning its post-juvenile moult. It was caught in H01, on the west side of the wood. A month later we retrapped it in N07, by which time it had completed its moult and was in adult plumage. Since then we have caught it 5 more times, always close to this place. This demonstrates Robin behaviour at its best. First a rapid post-juvenile dispersive movement - we know it moved at least from H01 to N07 and it may have moved a much greater distance from the nest to where we first trapped it. Once a good site is found, the bird has no need to move on. By the end of August this bird had already secured its niche in the wood. Thereafter movements are very restricted - we are capturing it along a run of nets only about 75 m long.

Great Tit	4M	K463714	18/8/2002	O06
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A golden oldie - one ringed by Ulli in 1997 and twice given a bill trimming by her since then. Since 1998, when it last had its over-long mandibles trimmed, it has not regrown them. We wonder what would have been his fate had the growth been unchecked. As it is, he is living to a ripe old age. Most of his 17 captures have been at the feeders, but today's was at Treswell End - probably where his breeding territories lies.

Nuthatch	2	VR78711	22/9/2002	N02
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One of two Nuthatches trapped recently after some months without any captures - although they have been heard very frequently in the wood. This individual was retrapped three weeks later in L05. According to the identification guides it is straightforward to age and sex this species. Indeed, if you have a handful of them, the differences between the sharply demarcated chestnut flanks and those where the chestnut intergrades gently into the buff of the belly, are clear. Unfortunately, as the old proverb goes, a bird in the hand is worse to age and sex than two caught together.

Garden Warbler	3J	R123942	11/8/2002	K00
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Sadly, our only Garden Warbler capture this season. Is it a bad year nationally, locally or just in the wood?

Goldcrest	3J	5Z1484	11/8/2002	K00
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Our first Goldcrest of the autumn, still in its post-juvenile moult. This makes it unlikely to be a visitor from very far afield. However, it was the herald of good things to come. To the middle of October we had ringed 25 making the season, so far, well above average for this tiny winter visitor. Twitter 14 gave details of Goldcrest ringing up to October 1997.

Controls and recoveries

Species	Age/sex	Ring	Date	Grid
Willow Tit	2	R017107	8/9/2002	Q02 Feeder

The Migration Atlas notes that adult Willow Tits do not travel very far at all. Only 22% of movements recorded are over 5 km and, of these, the vast majority are dispersive movements of juveniles in the late summer or early autumn. Peter Cobb ringed this bird on 23/6/2002 as a breeding adult female in the Darlton willow fields. Given

the normal behaviour of our adult Willow Tits - where a movement from north to south of the wood or vice versa is almost unheard of, this movement of about 6 km, is most unusual in both a national and a local context. Incidentally, in spite of its name, the Willow Tit is not particularly associated with willow plantations.

10 Week Summary - Captures in Standard Sites

2002 Interval 4. Visits 1557, 1559, 1558, 1554, 1561, 1555, 1560

	New Birds			Recaptures			Total
	Adult	5	3	Adult	5	3	
Woodpigeon	1	.	.	.	.	.	1
Wren	4	1	15	1	.	2	23
Dunnock	1	.	8	1	.	2	12
Robin	.	.	10	2	.	3	15
Blackbird	1	1	6	.	.	1	9
Song Thrush	.	.	.	1	.	.	1
Garden Warbler	.	.	1	.	.	.	1
Blackcap	2	1	16	.	.	1	20
Chiffchaff	.	.	3	1	.	.	4
Willow Warbler	.	.	2	.	.	.	2
Goldcrest	.	.	5	.	.	.	5
Long-tailed Tit	7	.	.	2	.	.	9
Marsh Tit	.	.	4	1	.	2	7
Willow Tit	1	.	2	.	.	5	8
Coal Tit	.	.	.	.	.	4	4
Blue Tit	2	.	10	4	.	6	22
Great Tit	.	.	.	2	.	4	6
Nuthatch	1	.	.	.	.	.	1
Treecreeper	.	.	7	7	.	3	17
Chaffinch	4	.	2	.	.	.	6
Bullfinch	.	.	2	1	.	.	3
Totals	24	3	93	23	.	33	176

Treswell Wood Standard Site Totals in 10-week Periods

Year	1	2	3	4	5	Total
Averages						
1978/9	98	123	212	157	127	718
1980/4	85	116	179	138	138	656
1985/9	98	117	189	135	115	655
Annual data						
1990	99	145	204	130	175	753
1991	65	57	99	74	127	422
1992	64	64	115	223	159	625
1993	81	70	112	158	126	547
1994	88	109	209	155	157	718
1995	91	124	240	253	104	812
1996	95	121	128	116	97	557
1997	59	99	126	98	98	480
1998	78	84	116	80	106	464
1999	88	96	140	113	163	600
2000	75	106	106	159	170	616
2001	(57)	(33)	94	121	59	(364)
2002	85	89	141	176	---	(491)

Note: Bracketed numbers represent incomplete data sets and are not included in summary figures below. Incomplete data sets in 2001 result from foot and mouth restrictions.

Summary data 1978 - 2002

Minimum	59	57	94	68	59	422
Mean	87	107	164	142	127	634
Maximum	124	145	288	253	177	865