

# **TWITTER**

Treswell Wood - Information To Tell Every Recorder

### **December 2018 Treswell Wood IPM Group**

(Integrated Population Monitoring)

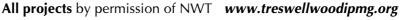
**Project leaders:** 

**CBC** Pat Quinn-Catling

Nest Records Chris du Feu

**Ringing** John Clark

2018/5 Number 120



Thanks are due to all who have helped in this 46<sup>th</sup> year of the Treswell Wood operation. The year ended with a handful fewer birds mist netted than in the previous year. However, the total number of bird encounters was higher than any year since 2010 because of the very large number of nestlings ringed. The total mist-netting captures do not tell the full story because of variation in catch effort - had we been able to make just one visit between Christmas and the New Year the mist-netting total would, most likely, have been greater than in 2017. The figures that do relate to bird abundance are the standard site totals. In 2018 the numbers of birds caught were just above average except for the period October - December. Adults of some species really suffered in the bad weather of February and March but the survivors seemed to produce prolifically in an exceptionally compact breeding season. Blue Tits were much more abundant than usual but Long-tailed Tits much scarcer. In summary then, an unusual year which gave, overall an average number of captures.

We have continued to record various species other than the birds we catch. There are now over 10,000 records stretching back to the end of 1972. We hope to make a full submission to the NWT this spring once various data cleaning operations have been carried out. Some records may not appear surprising - for instance the presence of hazel. However such records may hold other information such as 'catkins becoming yellow' on November 18<sup>th</sup>. With comparable records from earlier years, it will build a picture of the changing phenology.

The **Common Birds Census** analysis is being carried out by Ellen and we expect to give the territory numbers in the next issue of Twitter. Whilst looking back at 2018 we must also look forward to 2019 - not long now to the breeding season. Please would all CBC observers confirm with Pat or Chris that they will be carrying out the survey, as usual, in 2019. Many thanks to all who are involved in this important aspect of the integrated population monitoring effort.

**Frass**: Ken Smith has worked though our samples and returned the data. The next issue of Twitter will include more details of the 2018 results. We have previously noted that one paper has been published using frass data from various sites in Britain including Treswell Wood. This paper examined the timing of frass in relation to the timing of chick rearing. Ken is now working towards an analysis which compares abundance (rather than timing) of frass with other breeding parameters such as clutch/brood size, fledging success, maybe even post-fledging survival. He hopes to use data from a few sites where, like Treswell Wood, there are full nest records and frass data.

One thing that we did which was new in 2018 was to site an extra frass trap under ash in an area as far from any oak trees as we could manage. This was to test whether the frass under ash was, as we suspect, boosted by drift from nearby oaks. We were not surprised that Ken found no frass in that trap on all but one of the 5-day sampling periods. There was only a very small amount in that one sample and it is easily possible that it could have been carried by the wind the 40 metres from the nearest tall oak. It does seem, therefore, that ash is not very useful in providing caterpillars for breeding tits

# Analyses waiting to be done

In the previous issue of Twitter we noted several analyses which would be well worth attacking with the Treswell Wood data set. In sorting through old papers, another crop has appeared.

Wintering Robins. Male Robins are reputed to hold on to their breeding territories in winter more strongly than do females. Neil Taylor had done a preliminary piece of work trying to see whether breeding male Robins were more likely to overwinter in the wood than breeding females. He did this by looking at any Robins which had been present in the wood in two successive breeding seasons and sexed on brood patch or cloaca, He then looked to see which of these birds had been retrapped during the intervening winter. Results were inconclusive with only a relatively small sample size. That was many years ago (the original paper I found was a faxed copy rather than emailed). We have many more Robin records since then and numbers of territories recorded by the CBC team have been generally higher in recent years. In addition, it would be worth looking at movements of the two sexes within the wood between the breeding season and winter.

Annual Summary - All ringing records 2018										
	Ctrl.	Nev Adult	w Birds Juvnl	Pulli	Ret Rt	traps SDR	Sight	Recvs.	Othr.	Total
Sparrowhawk		2	juviii	ı uııı	2	SDK				4
Stock Dove	•	2	•	7	1	•	•	•		10
Tawny Owl	•	_	•	1		•	•	1		2
Great Spotted Woodp	ecker	3	1	•	7	1	•			12
Wren	ceker.	24	53	6	33	13	•	•		129
Dunnock	•	15	13	Ü	17	5	•	•		50
Robin	•	20	53	3	72	26	•	1		175
Blackbird	1	39	25	4	53	9	•		7	138
Song Thrush	•	9	15	•	7	2	•	•		33
Redwing	•	2	13	•	,	_	•	•		2
Lesser Whitethroat	•	1	•	•	•	•	•	•		1
Blackcap	•	38	31	•	11	4	•	•	•	84
Chiffchaff	•	22	18	•	8	6	•	•	1	55
Willow Warbler	•	1	1	•		O	•	•		2
Goldcrest	•	14	18	•	13	1	•	•	•	46
Spotted Flycatcher	•	3		•		'	•	•	•	3
Long-tailed Tit	•	20	•	•	18	2	•	•	•	40
Marsh Tit	•	1	1 <i>7</i>	6	93	12	•	•	•	129
Willow Tit	•	'	17	U	2	12	•	•	•	2
Coal Tit	•	5	12	•	33	1	•	•	•	51
Blue Tit	3	47	96	347	462	44	•	•	35	1034
Great Tit	5	39	56	173	456	68	•	2	2	801
Nuthatch	3	9	5	173	22		•	۷		36
Treecreeper	•	3	15	•	29	7	•	•	•	54
Jay	•	,	13	•	2	,	•	•	•	2
House Sparrow	•	3	8	•	2	•	•	•	•	13
Chaffinch	•	25	41	•	32	5	•	1	•	104
Greenfinch	•	4	2	•	2	3	•	Į.	•	8
Goldfinch	1	4	4	•		•	•	•	•	9
Bullfinch	ı	12	18	•	21	2	•	•	•	53
Totals	10	367	<b>502</b>	547	1398	208	•	5	45	3082
Totals in recent years		] 307	302	347	1330	200	•	3	43	3002
2017	4	446	447	418	1279	254		1	31	2880
2016	15	542	470	329	1275	198	•	6	34	2880
2015	15	443	425	286	1143	224	•	5	46	2587
2014	12	328	470	328	934	135	•	3	36	2246
2013	11	352	439	316	1203	222	•	1	11	2555
2012	27	408	326	221	1149	182	. 0	7	35	2355
2011	12	462	357	331	1097	160	1	8	38	2466
2010	14	437	499	544	1655	243	1	6	13	3412
Key:	17	+3/	<del>1</del> 33	J <del>11</del>	1000	<b>∠</b> <del>1</del> J	1	U	13	

**Ctrl** - Birds ringed elsewhere and caught in Treswell Wood including all birds from Hillcrest Farm. **Juvnl** - juveniles. **Pulli** - birds ringed as nestlings. **Rt** - ordinary recaptures. **SDR** - same day recaptures. **Sight** - observations of ringed birds. **Recvs**. - recoveries, i.e. our own ringed birds found dead in Treswell Wood. **Othr**. - most in this table are pulli which were ringed but died before fledging; they are not included in the Pulli column.

**Roosting Blue Tits.** As a result of last winter's catches of roosting birds we looked at the composition of captures under various circumstances (Twitter 115). It appeared that Blue Tits found roosting were not a random subset of all birds captured. Rather they were generally dedicated box roosters. We wonder whether roosting in boxes confers any advantages. Does it allow earlier securing of a nesting site? Do box-roosting birds have higher survival rates than others?

**Moult timing.** We know that patterns of post-juvenile moult have changed over the years. Almost all Great Tits now moult their tail feathers; in the early years they did not. We have now found birds of many species moulting some, or all, of their tail feathers. Moult is, quite rightly, now being seen as important to study (and the BTO partial post-juvenile moult project is evidence of this). We have never looked at the timing of moult for either juveniles or

adults. We would expect to see that the time of onset of moult had changed (but earlier because breeding is now earlier or later because the autumn is now longer?). We could look at the timing of moult in relation to weather, to calendar date or timing of the breeding season. We could examine whether early moulting birds had better survival rates than later moulters.

Movements within the wood. All our captures, from the very start at the end of 1972, have been recorded on the 63m metre grid system in the wood. (This gives each square an area of one acre which is, happily, the area of a Wren territory in a year when the wood is full to capacity with them.) After a few ringing sessions, John McMeeking noticed that birds did not move very much. In the early 1980s when the PET microcomputer arrived, we started looking at these movements. We did various things, including looking at movements between breeding seasons; to or from feeding stations; between winters; from 3J ringing location to first adult breeding season captures and more. Many things were obvious (e.g. 3J to 3J movements were greater than Adult-Adult movements).

The next thing was to describe the movement patterns for different species. This meant fitting some distribution to the frequency distribution of movements for each species/category. Success here. The Weibull distribution gave a very good match indeed. If you do know this distribution you will not be surprised by that. If you do not then you will be disappointed to learn that it fits so well because it is a fairly universal distribution and it is not so easy to find a data set which Weibull does not fit. So what is the point?

Out of the distribution matching comes the two Weibull parameters. The first, a, describes something to do with central tendency and the second, b, describes the overall shape. This allowed us to categorise the movement patterns of different species. For example, we found that Blue Tits had a low mean but a long tail whereas Willow Tits had a higher mean but little tail. In other words most Blue Tits did not move much within the wood but a noticeable few made quite long movements. Willow Tits, on the other hand, moved very widely over a large part of the wood but no further than that (which could be something to do with winter group territories).

That is almost where we left it because all it did was to describe to movement patterns rather than investigate why they were as they were or what impact they had on demography (not that we knew what demography was in those days). We did have one conversation about it with Raymond O'Connor (then director of the BTO). He suggested we compare movements of juvenile Dunnocks which we caught at least once at a feeder with those that we had never caught at a feeder. The 'feeder aware' birds were more mobile and also had greater over-winter survival than the others. It seems likely that greater mobility brings greater knowledge of the area with, consequently, more chance of knowing good places for food, shelter and protection in hard times.

All this movement work did not progress any further. We had drafted a paper for R&M which the editor, annoyingly, sent to referees immediately even though we had asked him for advice rather than offering it as a paper ready for refereeing. The referees were not kind, pointing out that it did nothing more than calculations on bird movements. I think that unkind severity of these comments, rather than the constructive advice we had asked for, was the prime factor in suspending operations. A little bit of it did surface in our paper on Wrens and Treecreepers but nothing else.

It has occurred to me recently that we now have much more data, we have much more computing power and much more awareness of the need to investigate things to do with survival and things which impact on it. With what was shown with just a few years' worth of juvenile Dunnock data, I think that a vastly longer data set will hold truths about how mobility can relate to survival. There are 110,000 encounter records waiting to be examined for such relationships.

## **Noteworthy Encounters**

Species Age/sex Ring Date Grid Great Spotted Woodpecker 2M CT95945 21/10/2018 Q03

This is the second oldest woodpecker on record in the wood. At 8 years and 8 months since being ringed, it still has another three years to go before equalling the record holder, CT84206. We have not retrapped that old bird for a year and it seems likely it is no longer alive. Today's bird has usually been trapped in the south of the wood but on this occasion had made a foray to the feeding station in the far north.

#### Great Spotted Woodpecker 2F LE35404 18/11/2018 E02

We have not captured many of this species this year - a poor year for them (but, on the other hand, a better year for nestbox using tits which have suffered no predation from them this year). It was ringed a year less a day earlier. As so often it was caught at a feeding station but, unusually, had moved from its previous capture place in the north of the wood, well to the south of the wood. Quite a long movement for such a sedentary species and in the opposite direction to CT95945.

#### Wren 4 AVL402 28/10/2018 M00

It is always pleasing to retrap a nestling-ringed Wren. We ring relatively few and retrap even fewer - such small birds suffer very high post-fledging and winter mortality. This one has lasted longer than most having fledged in 2016 in O06. It has been retrapped three times since then; the other two capture positions within 100 m of today's location. This is a typical dispersal movement for the species - perhaps a only a few hundred metres to a breeding territory and then very little movement thereafter.

Also pleasing was capture of AVL422 at the same time but in a different net - one of the 2017 nestling-ringed cohort. With AXD432 (below) we have captures of at least one from each of the last three breeding seasons.

#### Wren 3 AXD432 18/11/2018 D03

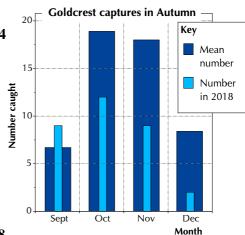
We only ringed nestlings in one nest this year from which six fledged. This is the only one, so far, to be retrapped. It has moved from its natal site in M07 to D03, some 600 metres - again a typical dispersal distance.

#### Blackbird 4M LE35430 16/12/2018 O04

After a distinct lack of Blackbird captures in recent weeks, like proverbial London buses, they arrive in packs. We caught six on this day of which all but this one were new to the wood - it had been ringed as a breeding male in April. With the mild autumn weather, it seems Blackbirds have been able to find adequate food in the hedgerows and have been less frequent in the wood (and in gardens too). Any colder weather is likely to bring them to different places in search of shelter and food.

Goldcrest 3F JTE311 16/12/2018 Q04

This is the third capture of a first winter Goldcrest which we ringed in September. Numbers have been rather lower than typical this autumn after a promising start in October. The graph gives the average numbers of individuals caught in each of the last four months of the year since ringing began in 1972. Highest numbers occur in October and November, with fewer in December. Whether this is through mortality as the autumn turns to winter or else further southerly movement to milder areas we do not know. Why we should have relatively more than usual at the start of the autumn followed by much lower numbers at the end of the year is not at all clear.



Blue Tit 4 AVC1661 4/11/2018 D08

One of the 2018 nestling-ringed Blue Tits already with a history. It was caught at Hillcrest Farm in Treswell village in late August and then caught back in the wood in early November. We retrapped it again in the wood two weeks later. Has it decided Treswell Wood is the place to be? We cannot disagree with it.

#### Blue Tit 4 D808330 4/11/2018 D09

This tit was ringed as a nestling in May 2016 and was retrapped twice in 2017 roosting in boxes. Nothing notable about today's capture except that it was in a small party of tits which included D808331 - a sibling which we had not retrapped before.

#### Blue Tit 4 L327780 19/12/2018 N01 Roosting

This is one of several of the tits that are frequently found roosting in nestboxes. He was ringed as a nestling in 2013. Since then he has been found roosting 12 times, using four boxes all within 100m of each other. He has been caught twice in mist nets during breeding seasons and, again, both captures have been near these boxes.

#### Blue Tit 3 AVC1669 14/11/2018 J02 Roosting

The BTO has initiated a project examining aspects of post-juvenile moult in Blue Tits. Ringers have been asked to record the extent of post-juvenile moult of greater coverts, alula, flight and tail feathers. This was to be done in November and again in February. The aim of the project was to see if the amount of post-juvenile moult was related to over-winter survival. This will be done by looking at the average amount of moult seen in November-caught birds and comparing it with that in the February cohort. If replacing more juvenile feathers with the more robust adult type feathers assists in survival, as is expected, then the February birds should, on average, have undergone a more extensive post-juvenile moult.

Blue Tits are ideal for this pilot study. They are caught in large numbers across the country and the adult and juvenile feathers are usually very easy to distinguish. If the protocol works well with this species it could be used on other species in future. In addition, it will be possible to look at differences in moult across the country.

Moult is one of the major events in the avian annual cycle. Replacement of much, or all, of the plumage makes great demands on the bird and may be as big an obstacle to survival as breeding or migrating. However, moult is

very much under-studied in relation to the other big events. This project is very welcome indeed.

For the record, this bird has made its contribution. It was ringed as nestling in May. On this recapture occasion it had replaced all its juvenile greater coverts but the two larger alula feathers were both old.

#### Marsh Tit 4 D309487 21/10/2018 Q03

This is the oldest Marsh Tit we have recaptured recently but, at 4 years and 3 months since being ringed, it is only half as old as our record holder and ranks as 12<sup>th</sup> out of 557 Marsh Tits we have ever encountered. In a previous issue of Twitter we called 2017 the 'Year of the Marsh Tit'. By that standard 2018 is also a Marsh Tit year. In 2018 we encountered 44 individuals including 6 nestlings. In 2017 although we encountered 49 individuals, 29 of these were nestlings. Perhaps a better comparison is between the number of full-grown birds mist-netted in the two years. Here 2018 wins by 39:33.

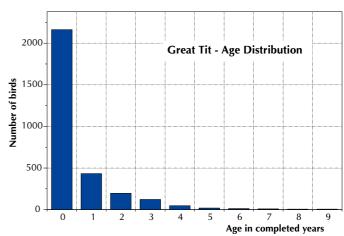
Blue Tits are far more abundant than Marsh Tits. Even so, on 11/11/2018 Blue Tits were little in evidence and we caught more Marsh Tits (8) than Blue tits (5). This may be unprecedented in the wood.

Great Tit 4F D309148 21/10/2018 R00

Our oldest recent capture of a Great Tit - 5 years and 1 month since being ringed as a juvenile in September 2013. As with the old Marsh Tit, D309487, this bird has some way to go to break the 9 year and 8 month Treswell Wood Great Tit age record. It ranks 30/2994, just at the border of the top percentile. The graph shows the age distribution of all Great Tts we have captured. (Note the last four bars are slightly enlarged to aid visibility and represent frequencies of 8, 4, 1, 1 respectively.)

Great Tit 3M NZ88140 21/10/2018 Q03

Dave Fogg ringed this bird at Cottam Power Station in a brood of four nestlings in May 2018. We now



have records of 13 nestling-ringed Great Tits coming into the wood. Eight have been fairly local - this one, one from Sturton-le-Steeple and six from Hillcrest Farm in Treswell village. The other five have been from further afield - two from the Lincolnshire wolds, one from Birklands in Nottinghamshire, one from Pitsford Reservoir in Northamptonshire and one moving as far as 110 km from Telford.

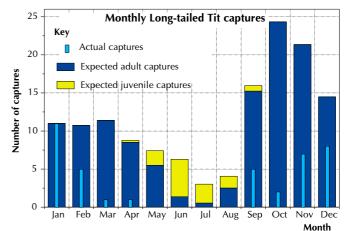
#### Great Tit 4 ANA7017 18/11/2018 E02

Great Tits are often regarded as being easy to age and sex. Our mistake is to retrap them. Inconsistencies in ageing and sexing then come to light. However, what is interesting is to look at the individuals which are inconsistently aged or sexed. When this bird was first caught in post-juvenile plumage there was a note on the field sheet 'hard to sex'. That means we had a good look at it and discussed it. Thereafter it was sexed consistently as a male although a subsequent note said the belly was rather grey. On this occasion, after its first full adult moult it again caused problems. Most Great Tits are not a problem to age or sex; it is just a few individuals such as this one that really do cause problems.

#### Long-tailed Tit 2 EYD513 11/11/2018 N00

In the previous issue of Twitter we lamented the lack of Long-tailed Tits through much of the year. The graph here is the completion for the last three months of the year. We have caught some but, again, the numbers caught are far below typical. Of the three which we retrapped this autumn only this one has a capture history extending back before October 2018. It was ringed just over three years previously. The other 13 birds were all unringed.

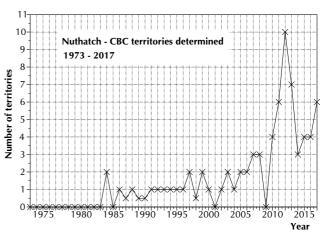
Interestingly Dave Fogg made comparisons with his annual pattern of captures at nearby Cottam Power Station. This pattern is broadly similar to that in Treswell Wood. However, 2018 was very different from normal with lower numbers than expected in February and March (probably because of the adverse weather) but with a recovery in April, lower numbers in June (when



we would expect juveniles to be captured) but higher numbers from August onwards. Dave suggests the presence of warm water at the power station will probably help survival. Treswell Wood does not enjoy the delights of a warm microclimate associated with power stations and the Long-tailed Tits may be telling us so.

Nuthatch 2M TT49364 28/10/2018 K02

Numbers of Nuthatches caught have recovered to the peak levels around 2012 after a noticeable drop (which was mirrored by the CBC territories recorded as shown by the graph). Of the 22 individuals we have encountered this year (compared to the maximum annual total ever of 26 in 2012), 11 were adults and five in juvenile plumage. The other six were likely to have been juveniles but, after the post juvenile moult most birds cannot be aged with any degree of certainty. This bird is one ringed as a juvenile in the summer and retrapped today, unageable by its plumage.



House Sparrow 2M TT49285 16/12/2018 Q04

We do not often catch this species - this is one of six caught on the northern edge of the wood. All except this one were unringed. A retrap House Sparrow is something of a rarity. Until the publication of the ageing and sexing guide by Demongin, other guides had stated that House Sparrows could not be aged after their complete post-juvenile moult. Demongin, we were delighted to see, gave advice on ageing males. We were very happy with this for a time but it seemed that all the (admittedly few) males we caught were juveniles. This one was clearly also to be aged as a young bird. Again, we have seen the problem with retrapping birds - it increases the likelihood of detecting inconsistent ageing or sexing. This 'young' bird had been ringed two years previously yet still exactly fits the ageing criterion for a first winter bird. We have, of course, for the record taken photographs of the offending wing feathers.

## 10-Week Summary: 2018 Interval 5, Captures in Standard Sites

		New Birds			Recaptures		Total
	Adult	5	3	Adult	5	3	
Wren	1		8	4		2	15
Dunnock			1	1			2
Robin			5	3		6	14
Blackbird	5		1	4		1	11
Goldcrest	3		1			3	7
Long tailed Tit	12		•	2			14
Marsh Tit			2	5		4	11
Blue Tit		•	6	11	•	5	22
Great Tit			1	4		10	15
Treecreeper			3	2		1	6
Chaffinch		•	•		•	1	1
Bullfinch			1				1
Totals	21	•	29	36	•	33	119

## Treswell Wood Standard Site Totals in 10-week periods - Summary table

**Summary Data** since standard site netting began in 1978:

Interval	1	2	3	4	5	Total
Maximum	128	198	288	253	1 <i>77</i>	864
Minimum	57	33	89	66	59	364
Mean	91	113	160	131	125	615
10-year Averages s	ince stan	dard site netting begar	n in 1978:			
1978 - 1987	90	113	182	140	130	655
1988 - 1997	86	107	170	149	127	637
1998 - 2007	95	100	134	120	125	574
2008 - 2017	93	133	150	109	120	605