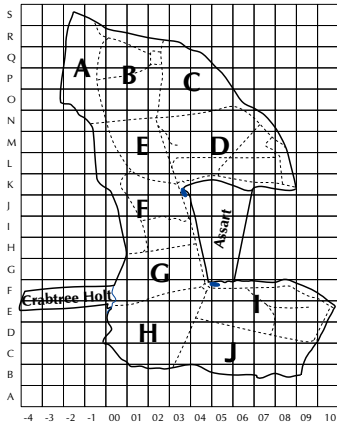


TWITTER



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

Ringling John Clark



2018/5 Number 120

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Thanks are due to all who have helped in this 46th 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 18th. 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 through 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.	New Birds			Retraps		Sight	Recvs.	Othr.	Total
		Adult	Juvnl	Pulli	Rt	SDR				
Sparrowhawk	.	2	.	.	2	.	.	.	4	
Stock Dove	.	2	.	7	1	.	.	.	10	
Tawny Owl	.	.	.	1	.	.	1	.	2	
Great Spotted Woodpecker	.	3	1	.	7	1	.	.	12	
Wren	.	24	53	6	33	13	.	.	129	
Dunnock	.	15	13	.	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	.	.	.	.	.	.	2
Lesser Whitethroat	.	1	.	.	.	.	.	.	1
Blackcap	.	38	31	.	11	4	.	.	84	
Chiffchaff	.	22	18	.	8	6	.	1	55	
Willow Warbler	.	1	1	.	.	.	.	.	2
Goldcrest	.	14	18	.	13	1	.	.	46	
Spotted Flycatcher	.	3	.	.	.	.	.	.	3
Long-tailed Tit	.	20	.	.	18	2	.	.	40	
Marsh Tit	.	1	17	6	93	12	.	.	129	
Willow Tit	.	.	.	.	2	.	.	.	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	801	
Nuthatch	.	9	5	.	22	.	.	.	36	
Treecreeper	.	3	15	.	29	7	.	.	54	
Jay	.	.	.	.	2	.	.	.	2
House Sparrow	.	3	8	.	2	.	.	.	13	
Chaffinch	.	25	41	.	32	5	.	1	104	
Greenfinch	.	4	2	.	2	.	.	.	8	
Goldfinch	1	4	4	.	.	.	.	.	9
Bullfinch	.	12	18	.	21	2	.	.	53	
Totals	10	367	502	547	1398	208	.	5	45	3082
Totals in recent years:										
2017	4	446	447	418	1279	254	.	1	31	2880
2016	15	542	470	329	1286	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:

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.

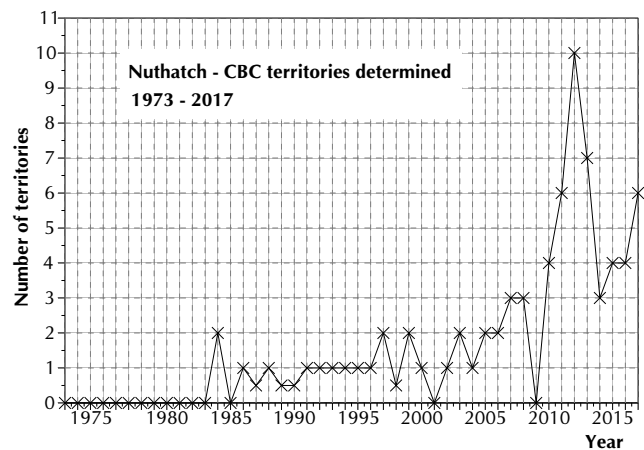
Great Spotted Woodpecker	2F	LE35404	18/11/2018	E02
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We have not captured many of this species this year - a poor year for them (but, on the other hand, a better year for nestbox using tits which have suffered no predation from them this year). It was 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.

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	177	864
Minimum	57	33	89	66	59	364
Mean	91	113	160	131	125	615

10-year Averages since standard site netting began 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