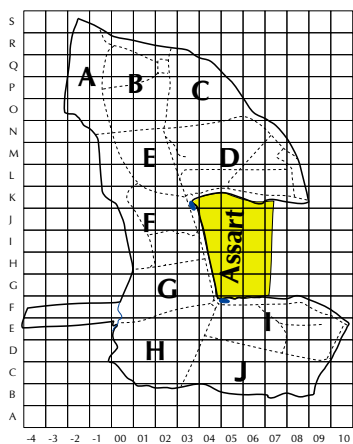


# TWITTER



Treswell Wood - Information To Tell Every Recorder

## August 2013 Treswell Wood IPM Group (Integrated Population Monitoring)

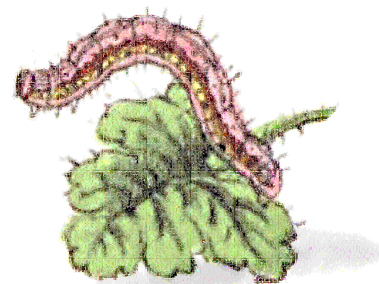
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### Project leaders:

**CBC** Pat Quinn-Catling

**Nest Records** Chris du Feu

**Ringing** John Clark



## 2013/3 Number 93

Our total captures in the standard site nets have been the lowest ever for the third interval in any year since we began the standard site netting in 1978. The reasons for this must include the initial low populations caused by the hard winter and previous poor breeding seasons. Summer migrants were delayed by the cold, prevailing headwinds and this will give less time for second broods of Blackcaps and Chiffchaffs. Long-tailed Tits - usually the first species to produce juveniles - have been in short supply with only one juvenile captured this year. We have captured large numbers of birds - Great Tits in particular - at the feeding station but not in the standard nets which we use as a proxy measure of abundance. It might be suggested that the feeding station attracts birds away from other areas, including the standard site nets. However, were that to be the case, we would expect that Blue Tits - absent from the standard site table - should also be caught in abundance at the feeding station. That is not so with only a very small fraction of the fledged birds recaptured there compared to the vast number of Great Tits.

### 10-Week Summary: 2013 Interval 3, Captures in Standard Sites

	New Birds			Recaptures			Total
	Adult	5	3	Adult	5	3	
Woodpigeon	1	.	.	.	.	.	1
Wren	.	4	4	4	2	.	14
Dunnock	2	.	1	2	1	.	6
Robin	2	1	4	1	1	.	9
Blackbird	.	5	3	4	2	.	14
Song Thrush	.	2	.	.	.	.	2
Blackcap	7	4	.	2	.	.	13
Chiffchaff	7	.	.	2	.	.	9
Marsh Tit	.	.	.	4	.	.	4
Coal Tit	.	.	.	1	1	.	2
Great Tit	.	.	.	.	.	1	1
Treecreeper	.	.	1	2	.	.	3
Chaffinch	.	.	1	5	.	.	6
Bullfinch	3	.	.	2	.	.	5
<b>Totals</b>	<b>22</b>	<b>16</b>	<b>14</b>	<b>29</b>	<b>7</b>	<b>1</b>	<b>89</b>

The tit nests in boxes have done relatively well but the total number of nests was small so that relatively high nesting success has not fully compensated for low initial numbers of breeding pairs. A fuller analysis of all nest records will appear in the next issue of Twitter - as usual we cannot give a final table of events because the Stock Doves are still nesting.

Will populations recover? Examination of the complete table of standard site recaptures (which is given at the end of this issue) shows a very poor third interval every dozen or so years. So this may be one of these one-offs. Not every cold winter is followed by a late, cold spring and the low numbers of birds may be influenced by the combination of these two events very much more than by either one on its own.

On the bright side - congratulations are due to Steph Harris for gaining a first class honours degree in Biology at Nottingham University, assisted by a very good project (which was described in the previous issue of Twitter). Congratulations are also due to Richard Anderton on gaining his C ringing permit.

## Events in Nestboxes - Treswell Wood, 2013

Species	Nests		Eggs laid	Adults caught on nests	Birds		% Success Rate	
	Recorded	Successful			Nestlings fledged	Nestlings recaptured (to Aug. 18 <sup>th</sup> )	Nests	Eggs
Stock Dove*	11	2	18	.	4	0	18	22
Tawny Owl	1	0	3	.	.	.	0	0
<i>Blackbird</i>	2	1	8	.	3	.	50	38
<i>Mistle Thrush</i>	1	1	4	.	3	.	100	75
<i>Song Thrush</i>	2	0	9	.	0	.	0	0
Coal Tit	1	1	11	1	11	1	100	100
Marsh Tit	2	2	17	.	17	3	100	100
Blue Tit	21	15	166	17	119	7	71	72
Great Tit	37	29	240	8	157	65	78	65
<i>Chaffinch</i>	2	0	8	.	.	.	0	0
<b>Totals</b>	<b>80</b>	<b>51</b>	<b>484</b>	<b>26</b>	<b>314</b>	<b>76</b>	<b>64</b>	<b>65</b>
2012	112	50	670	28	219	35	45	33
2011	111	62	796	32	310	29	56	39
2010	112	80	778	25	539	146	71	69
2009	118	54	648	26	300	38	46	46
2008	108	29	589	22	139	17	27	24
2007	129	64	922	52	313	35	50	34
2006	175	37	885	31	225	33	21	25
2005	153	49	852	47	245	22	32	29
2004	141	94	917	41	538	41	67	59
2003	133	41	769	29	213	17	31	28

**Notes:** Nests of species in italics were open nests found incidentally during the nestbox rounds.

The numbers of nests recorded, for all species, exclude nests which were abandoned before any eggs were laid.

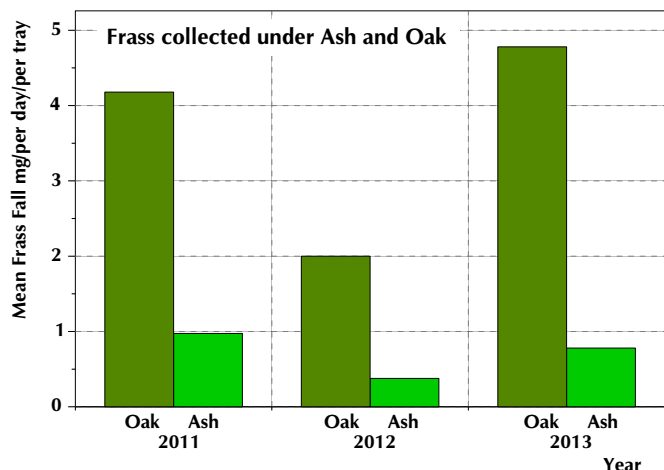
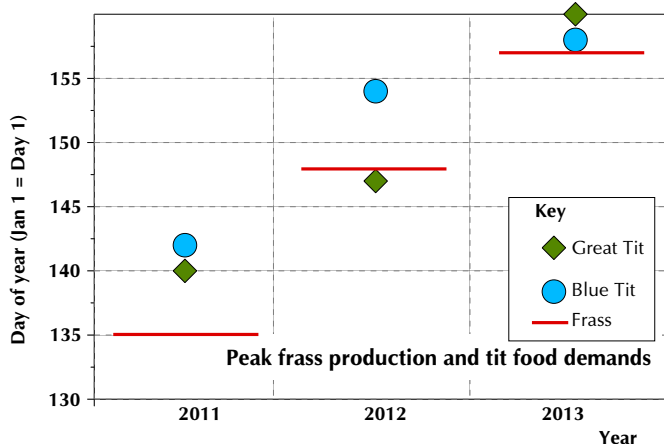
\* Some Stock Dove nests are still active.

## Frass

We have, as in the last two years, made regular collections of frass in the collection stations under some ash and oak trees. Ken Smith has worked through the 48 individual collection sheets, separating frass from dross and weighing the frass. Our efforts will contribute towards a larger study of frass in relation to timing of tit nesting. A paper on this will be presented by Ken and Malcolm Burgess at the European Ornithological Union conference at the University of East Anglia at the end of August.

Although the nesting season this year was very late indeed, it was matched by much later leafing and consequent frass fall. This meant that the nesting tit food demands were more closely matched to the peak frass (and therefore caterpillar abundance) than in the past two years. The first figure below illustrates this with Great Tit demand peaking only three days after the frass and the Blue Tit peak coinciding almost exactly with the frass.

Treswell Wood is the only mixed woodland from which Ken has data - the others have oak only. Once again, this year the frass from oak is vastly greater than that under ash. Ken has noted that ash leaves do not often seem to be seriously attacked by caterpillars - the reason for this is unknown. The frass fall from Treswell Wood oaks (in mg per square metre) is less than from oaks in other study woodlands. We now wonder whether the frass under ash is,



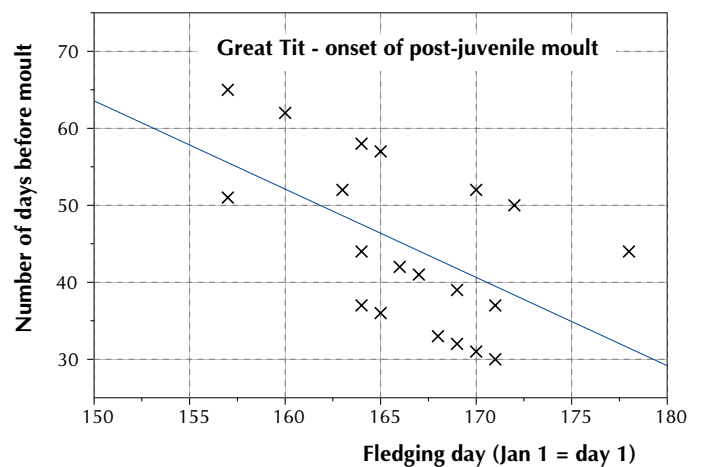
in fact, mainly frass wind blown from nearby oak. This would result in less than representative frass under oak and more than representative frass under ash. It might also explain the lower quantity under oak in Treswell Wood than in the other study woodlands.

There are a great many unknowns and many opportunities for investigations in both field and laboratory. It is not known which species (could be singular or plural) of caterpillar is, or are, involved. Clipping some twigs with leaves and caterpillars, allowing caterpillars to develop until they were large enough to identify would be useful. It is not known if caterpillars feed at the same rate throughout the day, or if feeding depends on temperature, or if they feed at night. These could all form the basis of straightforward, but ground-breaking projects.

## Recaptures of nestling-ringed tits

For some reason, it seems that Great Tits frequent the feeding stations in much greater numbers than do Blue Tits. This has given us, over the years, a great deal of detailed information about relationships between nesting and post-fledging activity. Steph Harris' project on moult is one example of how we can use these data. Great Tits are recaptured in large numbers compared to the other tit species, as is shown in the table of this year's nest activity. We have no idea why.

With so many Great Tit nests and nestlings, it is possible to do some meaningful statistical calculations. Steph's work showed that the timing of the nest affected the prospects of the fledgelings. The estimated fledging date is taken as the measure of timing for each nest. There is no correlation between the fledging date and the number of days before the first nestling from the brood was retrapped. This is reasonable - fledgelings will remain close to the nest with their parents for some days before becoming independent and wandering more widely and becoming more liable to be caught by the ringers. Perhaps more surprisingly, there was no evidence of connection between the fledging date and proportion of nestlings retrapped from the brood - it might be expected that later broods would have lower success even in the immediate post-fledging period. There was a correlation between the fledging date and the date on which the first member of the brood was found to be in post-juvenile moult. Later fledging birds have less time before they must start moulting - this shows an advantage of early nesting.



## The thoughts of David Parkin

In some early issues of Twitter we often had a section 'The thoughts of Chairman John'. In this, some of John McMeeking's wealth of worthwhile questions to examine with our data were listed. Here we have more in a similar style from David Parkin who has done some initial analyses on our Blue and Great Tit nesting data.

*I have data up to 2008 and things look interesting. I have done an analysis using three components of fitness: clutch size, hatching success and fledging success (ie. % of eggs that fledge, rather than hatchlings). I used Year, Box number and first egg date (FED) as variables, treating FED as a co-variate, and the other two as factors. Clearly, box number in itself is meaningless, and years are perhaps best treated as independent rather than a time series?*

*Blue Tits: There are significant differences among years in all three fitness variables but we already knew that. Some years are better than others.*

*There is a significant effect of FED on clutch size and fledging success with early broods doing better. But hatch rate is not affected by date. I am not sure if this is surprising. Hatch depends on fertility and incubation. No reason why fertility should vary with date, but a case could be made for incubation to be affected? Any thoughts?*

*There is significant variation in fledging success among boxes. Box number does not affect clutch size or hatching rate. Maybe some boxes are in 'better' territories so have more food available? Or maybe older (more experienced) birds get the better territories - and this is reflected through box number? Needs more thought.*

*Great Tits: Same as Blue Tits in that all three fitness variables vary among years. Again, some years are better than others. Hatching rate is not affected by date, but clutch size and fledging rate both decline through the season. Fledging rate varies among years and boxes, and declines (a bit) with date.*

*It now occurs to me that I should add clutch size as a co-variate in the analysis of hatching success. What about*

the number of hatchlings in the analysis of fledging? Also, maybe I should use % fledge of hatchlings rather than clutch size - otherwise, %hatch and %fledge are not independent?

But, it is late and I have been up since six.

David Parkin

## Nest lining - more thoughts

In the same vein as the thoughts of David Parkin, Mike Hansell, curator of the National Nest Reference Collection makes the following observation.

*A very interesting point about whether territory boundaries are ignored when birds are foraging for nest material. How is the territory owner to know that the intruder's intention is not food gathering? Perhaps intruders are secretive when gathering material. It would be interesting to see a map of territorial boundaries with nest material collection sites mapped onto it. I do not know of any such published study.*

Mike Hansell

## Noteworthy Encounters

Species	Age/sex	Ring	Date	Grid
<b>Sparrowhawk</b>	<b>5F</b>	<b>EL87473</b>	<b>18/8/2013</b>	<b>M00</b>

This is the first Sparrowhawk we have caught this year. We have noted before that most of those we catch are males and the reason for this could be that females are larger and can escape from nets more easily, or that female hunt less often in dense woodland or various other reasons. Of the 62 birds we have captured, only 16 have been female. Of these, this is our first ever female to be recaptured. It was ringed in December 2012.

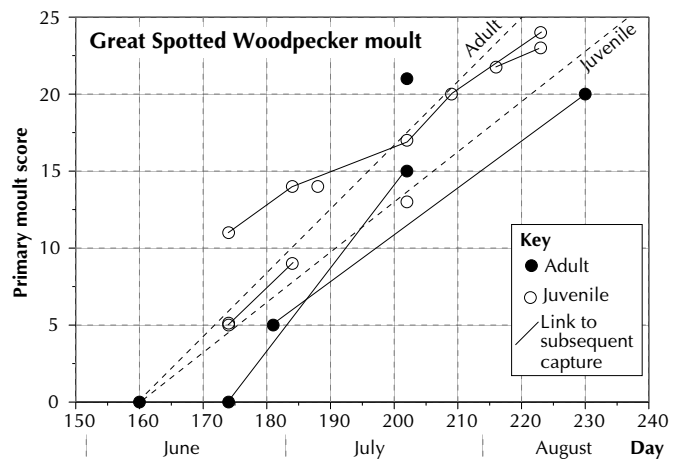
<b>Woodpigeon</b>	<b>4</b>	<b>FH22058</b>	<b>30/6/2013</b>	<b>E02</b>
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We catch a small number of this non-passerine species but the number has not increased to match the dramatic increase of this pest species in gardens. However, it is an excellent bird for the trainee - too big to hold in the standard ringer's grip, it gives practice with a larger ring size and, for some reason, more experienced members of the team are happy to let others handle them.

<b>Great Spotted Woodpecker</b>	<b>3</b>	<b>LE35065</b>	<b>4/8/2013</b>	<b>F-1</b>
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This is one of six juveniles we have ringed this season. We have taken detailed measurements of all of them including the extent of the red in the crown. We wonder whether we can determine sex of a juvenile on the basis of the extent of the red in the crown - with males having a much greater extent than females. Our problem is that it is easy to measure the red crown on the juveniles but we have to wait, optimistically, to catch them after they have moulted into adult plumage before we know their sex. We visited the skin collection at the Natural History Museum in Tring. The curator warned us that sexing of juveniles might not be very reliable and, in any case, many had not been sexed when the skin was prepared. To add to the difficulty, the bird's skull is damaged during the skin-making process and this may have affected the apparent length of the crown. Nevertheless, there did seem to be great variation in the amount of red in the crown with a strong suggestion of bimodality of lengths - that, at least, was promising. We will be making an appeal to other ringers to look at this feature in the hope of, eventually, knowing if we can sex juveniles in this way. Sexing using DNA would be very useful to us - with one fragment of feather we could identify the sex of any bird.

Some woodpeckers have been trapped more than once in the season and this has provided good opportunities for making detailed records of the rate of moult of these birds. The graph illustrates the progress of their moult. The two dotted lines show the average moult score expected through the season, taken from the BTO moult guide. Juveniles typically moult a little more slowly than adults. The Treswell Wood birds we have recorded this year have been very close to this national pattern, both in timing and rate of moult. It is, perhaps, a measure of the relative lateness of the season that, in spite of the BTO moult guide depending on data collected some 40 years ago, that the timing of this year's moult is so very close to that given in the guide.



**Dunnock**                      **3J**            **L731991**            **9/6/2013**            **Q02**

The first juvenile of any species to be captured this year. We have never had a later 'first juvenile date' although 1991 had an equally late date (and also provided very low third interval captures in the standard site nets). This is only the third time that a Dunnock has been the first juvenile of the year.

**Robin**                        **4M**            **X497541**            **14/7/2013**            **D09**

Robins are reputed to make short migrations to their winter quarters and to be winter-site faithful. This one has demonstrated this behaviour. It was ringed in Treswell village in February 2009 and retrapped there exactly a year later. This year it appears in the wood as a breeding adult. Can we expect another capture in the village next February?

**Blackbird**                      **5F**            **CT84479**            **14/7/2013**            **D08**

The first recapture of this bird since being ringed as a nestling in 2012. Post natal survival can be very low so it is pleasing that this is the second bird to be recaptured from the four we ringed in this nest.

**Blackcap**                      **4F**            **X649624**            **3/7/2013**            **Q02**

We ringed this bird as a juvenile in June 2010. It was retrapped in Maumhill Wood (5 km NNE) five weeks later. This is typical behaviour for a juvenile with local wanderings, familiarising itself with the area before its autumn migration. Now, three years later it is back in Treswell Wood as a breeding female.

**Goldcrest**                      **5F**            **CXN869**            **23/6/2013**            **Q04**

This was caught a few minutes before a juvenile Goldcrest. It is very rare to find evidence of this species breeding in the wood - the last time we trapped an adult in the breeding season was in 1990. With the associated juvenile capture it is very strong evidence for breeding although the birds were caught on the wood edge, opposite wood house which does have conifers in its garden. It may be that the bird's territory was centred on that garden rather than being strictly within the wood. The CBC team has not recorded a breeding territory in the wood since 2004.

**Marsh Tit**                      **4**            **V666916**            **28/7/2013**            **O06**

Nestling ringed birds are always good to recapture, particularly if they have a long history. This one has now survived four breeding seasons, having been ringed in 2009. It has behaved in line with the typical pattern for the species. It was reared in the south of the wood and retrapped there soon after fledging. Thereafter it has moved to the north of the wood and never again been retrapped south of the invisible dividing line across the middle of the narrow central part of the wood.

**Great Tit**                      **3J**            **TT49078**            **3/7/2013**            **Q02**

This is one of a brood of six. Its nestbox was attacked by a Great Spotted Woodpecker and, on subsequent inspection, it was not clear if the well-grown, ringed young had escaped or turned into juvenile woodpecker fodder. Happily for them, they all escaped and all six fledgelings from this nest have been retrapped.

**Great Tit**                      **6F**            **TJ49843**            **4/6/2013**            **M04 On nest**

A wide variety of capture circumstances for this bird. It was ringed as a nestling in May 2009 and retrapped as a juvenile in the autumn. In 2010 it was one of the few Great Tits we trapped on her nest as a breeding female. She was found roosting in boxes in each of the three subsequent winters and, this year, on the nest again.

**Great Tit**                      **3J**            **TT49403**            **3/7/2013**            **Q02**

This was the first recapture of this tiny bird - a wing length of 67 mm is shorter than that of some Blue Tits. With a weight of 12.4 g it appeared to have not long to live. Indeed, had it not already been carrying a ring after being ringed as a nestling, we probably would have released it unringed. IPMR queried the weight - but we had checked it. To our surprise it has survived, and at its most recent capture on 11<sup>th</sup> August its wing seemed to be fully grown at 68 mm, its weight was still a very low 13.0 g and it was well into post-juvenile moult. One of its two siblings, TT49402, was just as small but has not been recaptured since 23<sup>rd</sup> June. The other sibling, TT49401, was of normal size and weight (76 mm, 18.4 g). The two smaller birds are the smallest Great Tits we have ever captured. This is one of two nests this year from which all individuals have been recaptured.

**Great Tit**                      **3J**            **TT49470**            **11/8/2013**            **Q02**

Another Great Tit which caused a little head-scratching. As I entered the data I noted it was still in full juvenile plumage - other Great Tits were well into post-juvenile moult. A recording error, I wondered? No, it is correct. Unusually we had a very late brood of Great Tits, possibly a late replacement nest, fledging some three weeks after the last of the main batch. Like sibling TT49469 which we trapped later in the day, this bird had not been out of the nest long enough to start its moult.

**Long-tailed Tit                    3J            CXN884            31/7/2013            B09**

The only capture of a juvenile Long-tailed Tit so far this year. The long, cold spring seems to have been very bad for this early-nesting species.

**Chaffinch                            6M            L731310            23/6/2013            Q02**

We have often noted Chaffinches which reappear two or three years after being ringed and we wonder where they travel to. In this case we do have one intermediate point. We ringed the bird in September 2011 and it was trapped in Treswell village in June 2012, to be back here today.

**Goldfinch                            3J            D309012            23/6/2013            P05**

We have caught 14 Goldfinches this year, but none of them since April. This is only the seventh Goldfinch we have ever caught still in juvenile plumage (out of a total of 113 of the species caught).

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

<b>Year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Total</b>
1978	101	130	243	223	131	828
1979	97	115	211	109	123	655
1980	86	102	210	147	170	715
1981	102	110	288	187	177	864
1982	66	113	165	89	110	543
1983	82	139	143	185	128	677
1984	91	114	110	82	106	503
1985	103	88	135	118	88	532
1986	77	104	153	68	141	543
1987	95	112	196	209	124	736
1988	92	143	180	137	119	671
1989	124	137	282	145	103	791
1990	99	145	204	130	175	753
1991	65	57	98	74	127	421
1992	64	64	115	224	159	626
1993	81	70	112	158	126	547
1994	88	110	212	155	157	722
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	117	608
2003	117	116	146	104	114	597
2004	103	128	126	165	132	654
2005	107	140	150	88	133	618
2006	128	98	185	125	166	702
2007	107	110	138	73	92	520
2008	125	130	151	86	100	592
2009	57	130	156	85	80	508
2010	94	100	144	119	143	600
2011	96	112	120	105	101	534
2012	69	125	132	66	72	464
<b>2013</b>	<b>76</b>	<b>90</b>	<b>89</b>			

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

<b>Maximum</b>	128	145	288	253	177	864
<b>Minimum</b>	57	33	89	66	59	364
<b>Mean</b>	90	108	158	131	123	609

**10-year Averages** since standard site netting began in 1978:

<b>1978 - 1987</b>	90	113	182	140	130	655
<b>1988 - 1997</b>	86	107	170	149	127	637
<b>1998 - 2007</b>	95	100	134	120	125	574