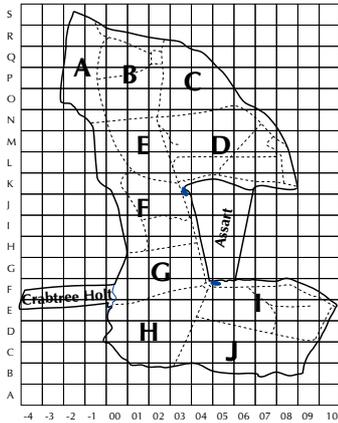


# TWITTER

2020/1

Number 126



Treswell Wood - Information To Tell Every Recorder

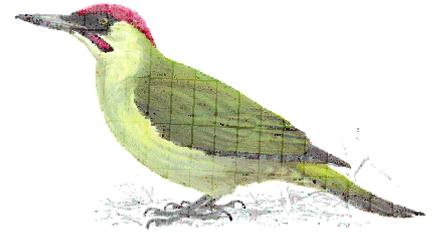
**March 2020 Treswell Wood IPM Group**  
(Integrated Population Monitoring)

**Project leaders:**

**CBC** Pat Quinn-Catling

**Nest Records** Chris du Feu

**Ringing** John Clark



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You may have turned to TWITTER with the hope of avoiding any mention of coronavirus, but no newsletter would be complete at the moment without reference to it as a major disruption. Because of the largely solitary nature of the CBC and nestbox work, we had hoped that it would not be affected at all (except perhaps by the weather). We had also hoped to continue the constant effort ringing without putting anyone at risk by taking sensible precautions - using our own kit, distancing ourselves and hand cleaning. This we did on March 22nd although had, reluctantly, decided that we could not support trainees at the moment as teaching inevitably involves close proximity and some contact. This is particularly frustrating as we have several keen new starters. From March 24th matters have been taken out of our hands by the strict measures imposed by the government to control the spread of corona virus. Until further notice, all our programmes must be suspended. We can but hope that the control measures are followed by the British public, that they work and that they are eased sooner rather than later.

The coronavirus problem comes on top of a difficult start to the year. Storms Ciara, Dennis and Jorge gave us a lot of trouble during February, which we have now learnt was the wettest on record. The strong and persistent winds that came with the storms made it too dangerous to go into the wood, and we needed two visits on rare calm mid-week days to be able to complete the standard site visits. Such weather-related disruption is unprecedented. The only time when we have not completed all the visits in the first interval of the year was during the Foot and Mouth disease outbreak in 2001 when the wood was closed because of the presence of pigs.

In spite of the problems, the total standard site catch for the interval has been good - 120. This is the fourth highest total for this period since we began the standard site system in 1978. The higher three (1989, 2006, 2008) were only marginally higher with capture numbers of 124, 128 and 125 respectively. This year's catch has seen the welcome return of Long-tailed Tits, a Green Woodpecker, a Redwing and the first Chiffchaff of the year.

Thanks to all of you who have been supportive and we hope that this very long standing monitoring operation can continue after this unprecedented break.

## Notes from the Treswell Wood Conference, 29<sup>th</sup> February 2020 - Lynne Barnett

The purpose of the conference was to bring together the many teams of species recorders and share knowledge, experiences and uses for the long-term biodiversity records of Treswell Wood. As a PhD researcher and ringer using some of those long-term data in my degree dissertation and again in my thesis, I was keen to learn more about the work at Treswell Wood, so leapt at the chance to attend the conference. The conference venue at the Idle Valley Rural Learning Centre & Nature Reserve was a stunning location. These former gravel pits have been restored to a nature reserve and is a wetland site of special scientific interest (SSSI) managed by the Nottinghamshire Wildlife Trust. Shoveler swam in the lake outside the window and flocks of Lapwing and gulls took to the air from the central islands.

Representatives from the Nottinghamshire Wildlife Trust began proceedings outlining the importance of long-term monitoring in Treswell Wood in relation to the site management. In order to preserve its ancient woodland character, the woodland management strategy is by coppicing of hazel with ash standards. Coupes are coppiced on 7 and 21-year rotation largely for the benefit of the understorey. Some reintroductions had been tried, such as those of the ancient woodland indicator plant herb Paris and the hazel dormouse. Where trees do not achieve maturity, for whatever reason, natural regeneration is preferred. Where replacement is necessary seeds and saplings of local provenance are used.

John Clark told us how the data sets were used to show changes in diversity over time. Diversity indices produced from the group's long term data sets showed the downward trend in the number and abundance of species present. However the absence, arrival and establishment of other species such as Buzzard could also be tracked. John spoke about projects that were on-going. These included the ageing of Treecreepers using the spots on the primary

coverts and alula, and an examination of crown cover in juvenile woodpeckers.

Paul Eady from University of Lincoln spoke about creating and using data and the benefits of consistency in approach. For example, Treswell Wood uses the Common Bird Census (CBC) rather than the replacement and less intensive but broader Breeding Bird Survey (BBS). He talked us through the CBC methodology of data gathering with the same volunteers surveying the same plots, using the same methods every year. There are usually eight to 10 visits each year spread from March to July. Volunteers record all contacts with birds on a map of 'their patch' using codes to describe each bird's activities. Territory maps can then be compiled that give the number of breeding territories and, in addition, can be related to habitat types. Using the CBC long-term data sets, changes in species territories can be related to changes in habitat over time, which can help inform management decisions.

Chris du Feu addressed the subjects of nest box productivity and frass (caterpillar excrement) and showed graphically how the timing of tit clutches were synchronised to the availability of nestling food supply. This was achieved by counting the number of clutches and number of nestlings then correlating these to the presence of caterpillars. We noted with amusement that the presence of caterpillars was measured by collecting and weighing frass - a task for winter evenings perhaps. Frass (collected every five days) showed a close positive relationship to tit productivity, which is an interesting result requiring further probing. Chris remarked that coppicing was not good for providing nesting cavities or night roosting in winter.

Michael Walker (NWT) talked about the dormouse reintroduction programmes that had taken place. The first, some years ago may have stalled because of the presence of pigs. Dormice hibernate on the ground and foraging pigs are thought to have eaten some of them. A more recent attempt has had considerable success and added genetic diversity. Birds using dormouse nest boxes had been an issue which is now resolved with modifications to the dormouse box design to the benefit of birds, dormice and nestbox inspectors alike.

Lunch and a rather damp tree planting were followed by a presentation about The Assart. This new land purchase added a strip back to the original woodland and its natural regeneration is being closely monitored. In the first years of regeneration the dominant species appearing was ash. However as ash die-back has considerably reduced ash numbers other species are appearing. This heterogenic regrowth is better for biodiversity.

Charles Deeming also from the University of Lincoln highlighted some of the uses to which the long-term data sets, results and materials are used in their research. Research papers produced covered questions concerning the effect of coppicing, density dependent territory sizes, nest box spatial separation, nest materials, insulation, construction and much more. Charles asked that if volunteers have questions that can be answered by the data sets, he would be happy to take them for his students to investigate. For example, data from Treswell Wood CBC territories (1976 - 2015) showed increases and decreases in bird species. Was this due to coppicing? Well maybe but some of those increases and decreases were also identified in the BTO national index for species abundance - so maybe not coppicing after all. Long-term data sets from multiple sources were valuable in establishing this. Nests collected by the Treswell Wood group contributed to research into aspects of nest function, construction and composition.

Formal presentations were concluded by Amy Offland who hopes to PIT-tag Marsh Tits in the Wood. RFID (radio frequency identification) technology will identify and track each bird visiting the RFID readers which will be placed at the feeding station and elsewhere. The conference finished with an open forum discussion between the members present, after which I headed home. I have some great memories of energetic and enthusiastic presentations which added to my knowledge of the long-term monitoring at Treswell Wood and the use and potential uses for the data collected by this dedicated body of volunteers over many years. Long may it continue.

*Thanks to Lynne for these notes. Congratulations too on the BTO research grant award for her project 'Effects of extreme weather on breeding productivity of Blue Tits and Great Tits' in her PhD work at Northampton University.*

## **Why monitor bird populations?**

The conference dominated our thoughts during February (after the weather), and while putting together the presentation about bird ringing I looked at the DEFRA report, 'Wild Bird Populations in the UK, 1970 to 2018', published in December. It had what I thought was a very good reminder of one of the reasons for project ringing:

*Bird populations have long been considered to provide a good indication of the broad state of wildlife in the UK. This is because they occupy a wide range of habitats and respond to environmental pressures that also operate on other groups of wildlife. In addition, there are considerable long-term data on trends in bird populations, allowing for comparison between the short term and long term. Because they are a well-studied taxonomic group, drivers of change for birds are better understood than for other species groups, which enable better interpretation of any observed changes. Birds also have huge cultural importance and are highly valued as a part of the UK's natural environment by the general public.*

Our data set mirrored the gradual decline in the national woodland bird index, the only obvious difference being for the Marsh Tit. It is in both short and long-term decline nationally, whereas the Treswell Wood population is flourishing. We hope the planned PIT tagging project will help us to understand more about their success.

## More on Blue Tit post juvenile moult

The national project looking at Blue Tit post-juvenile (p-j) moult detailed in Twitter issues 2019/1 and 2019/5 is a very good example of getting more from something many ringers are doing anyway - catching Blue Tits in winter. It is also a good way of encouraging us to look at these birds more closely and thereby hone our skills. So it is no surprise that ringers at Treswell Wood and many other sites around the country were keen to take part in this study.

As detailed previously, this study was about how many (or few) feathers juvenile Blue Tits replace in their p-j moult. Being able to tell old juvenile feathers from new post-juvenile ones is the way we age many species and we all know that sometimes this is relatively straightforward, sometimes decidedly less so. Blue Tit was chosen as the species for this pilot study because 'In most individuals, it is relatively easy to see the extent of p-j moult' (Leech, D & Norman, D. Lifecycle autumn 2018 pages 4-5). I believe we all thought we did a reasonable job with our moult recording for this study but, inevitably, there will have been at least a few mistakes - to err is to be human.

Obviously, with any bird we only captured once during the study period, there is no way of knowing how accurate our assessment was of which feathers were still juvenile and which had been replaced. With birds we captured more than once, we can compare records: if we recorded similar moult on each occasion then it is not unreasonable to think we were right. On the other hand, since p-j moult occurs in the late summer and autumn meaning the replacement of feathers during the winter is unusual, any difference in the moult recorded between captures during the study period (November and February) suggests we were wrong on at least one of those occasions.

Mark Dadds (one my fellow ringers at Littleton Brick Pits in South Gloucestershire) had an initial look at our data and was a little shocked to discover that, of the 10 birds we captured more than once during the study, we only recorded the moult identically for five of them. A 50% error rate is pretty appalling and not exactly what we would class as having done 'a reasonable job'.

Before concluding we either needed to up our game or give up altogether, I had a look at similar data for Chew Valley Ringing Station (a well known, well respected and long established ringing site south of Bristol) and Treswell Wood (somewhat similar though further north and with more trees).

To my horror, of the birds captured more than once during the study period (8 at Chew and 6 at Treswell) only **one** bird from each site had identical moult details recorded for each capture. Combining all 3 sites, of the 24 birds captured more than once only 7 had identical moult details recorded on each occasion. Not at all what I expected to find.

However, it's very easy and tempting to jump to disheartening conclusions when what you should actually do is dig a little deeper. Splitting up the moult data from these 24 multiple captures according to feather tract: greater coverts, alula, tail and tertials reveals a more interesting and much less depressing picture:

### Blue Tit Moult Recording Differences on Subsequent Recapture

Difference in feathers	Number of Birds	Same Score	Differ by 1	Differ by 2	Differ by 3	Differ by 4	Differ by 5	Total	% error
Greater coverts	24	17	4	2	0	1	0	7	29%
Alula	22	17	4	0	1	-	-	5	23%
Tail	22	15	3	0	0	3	1	7	32%
Tertials	23	12	5	2	4	-	-	11	48%

For greater coverts and alula, the error rate is around 25% and in the majority of cases the error is only of one feather which was thought to be new on one occasion and old on the other. Since we have no way of knowing which (if any) of the records for a particular bird is accurate we cannot tell the relative rates of mistaking new feathers for old or old for new.

For tail feathers, the error rate is a little higher but, in all cases of more than one feather difference between captures, all feathers were thought to be old on one occasion and some new on the other. So the error here was mistaking the age of a group of feathers rather than a single one.

The error rate for tertials is higher still at around 50%. There is no apparent pattern to this with examples of all possible differences between captures represented.

There is no reason to think that the error rate in birds caught several times would be any different from that of birds only caught once so these error rates may well be typical of all moult recorded during the study. The next step (if it has not already been done) could be to look at this using all the data collected nationally and see if that much larger sample shows the same pattern.

If that proves to be the case, might it at least partially explain the equivocal results? Might it also suggest that

assessing moult in greater coverts and alula is not perhaps as straightforward as we thought and that tail and tertial moult is harder still? That being the case, does the future of this work lie more with greater coverts and alula and less with tail and tertials particularly in species where it is more difficult to tell new and old feathers apart?

Also, would it be worth looking at error rates in the February cohort compared to the November one as feathers are more worn by then possibly making old and new ones harder to differentiate? Finally, it has been suggested that extending the recording period to cover the whole of the winter (even if only those birds encountered in November and February are used in the actual study) might reduce the error rate by giving ringers more practice at telling new feathers from old.

Thanks are due to ringers at all three sites for allowing their data to be subjected to this potentially embarrassing scrutiny. There is no implied or actual criticism meant by this analysis either of ringers or the study. Rather it comes from a desire to help make the most of our ringing and enhance the value of the data we gather.

**Peter Kirmond (kirmies@aol.com)**

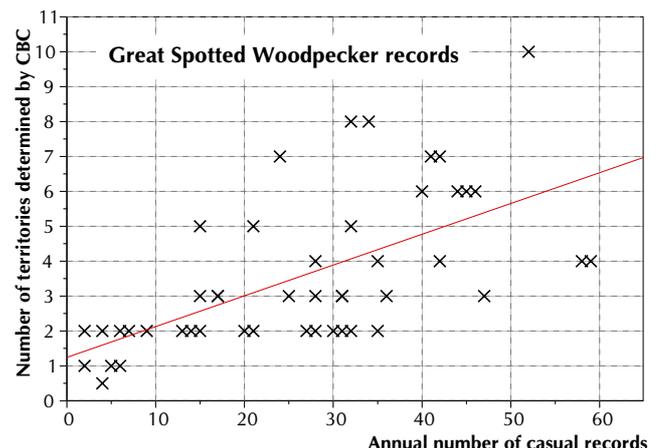
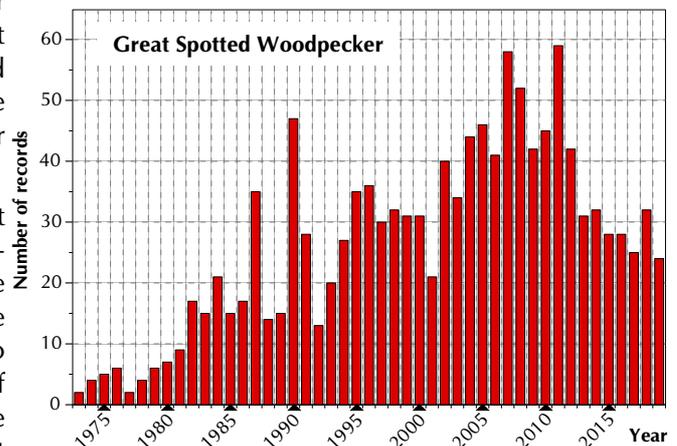
Thanks to Peter (who began his ringing career with John McMeeking a long time ago in Treswell Wood). We had already taken action over this - Peter's analysis has given considerable weight to our gut-feelings. First we had noted, with the bird in the hand, that tertials and tail feathers were neither quick nor easy to assess. We had decided not to proceed with further recording of them. However, greater coverts and alula we look at anyway in order to age birds and so have been in the habit of recording at least the number of old greater coverts where it is critical to ageing. With a slight adjustment to the computer data entry system, recording of these data is now much more rapid and makes comparison of differences easier to spot. Peter suggests we record these at all times - not just in that pilot study period of November and February - we agree. We should also record it on species other than Blue Tits provided we can do it without taking overlong to process the bird and provided the species is not problematic (Dunnock and Chaffinch for example). Apart from giving a better data set it will also give us practice in this important technique. incidentally, in no case was there a discrepancy in ageing of the birds - a relief!

## Noteworthy Encounters

Species	Age/sex	Ring	Date	Grid
<b>Great Spotted Woodpecker</b>	<b>5F</b>	<b>LK39094</b>	<b>08/03/2009</b>	<b>Q03</b>

This is the first of Great Spotted Woodpecker we have caught this year and it was unringed. We have heard this species calling and drumming but somewhat less frequently than usual for the time of year. The species is normally very sedentary and can be long-lived, so we would expect recaptures of known individuals rather than of new birds. The CBC recorded seven territories in 2019 - higher than for most recent years. However, last year we caught only five juveniles and five adults, only one of which had a previous history within the wood. It does seem as if the woodland population has had a complete renewal over the last two years.

General woodland mist-netting is probably not an efficient way of monitoring Great Spotted Woodpecker numbers - they spend too much time high above mist net level in the tree canopy (though our captures, over the years, at the feeding stations have allowed us to understand how to age, or not age, the birds). We do make casual records of the birds we hear or see when ringing. These clearly are not as systematic as our standard site ringing records but do show how abundance of the species has changed over the years. The graph shows the number of ringing days, each year, on which we have heard or seen them and does show a rise and recent decline. But does this accumulation of unsystematic records tell us anything? CBC will be more reliable as a measure of abundance because of the unmistakable sounds of the birds and their fairly rigid territory structure. This means we can compare our casual encounters with the number of CBC territories each year. The second graph shows that these casual records do coincide well with the systematic CBC results. Yes, it is definitely worth recording these casual observations.



**Green Woodpecker            5F            DK98440            23/02/2020            B03**

This is a very annoying species. We hear them calling almost every time we are in the wood. Yet captures are few and far between. We have only ever ringed five full grown birds and two nestlings. Of these only two have been re-encountered. One was a nestling-ringed bird, curiously not in the wood but controlled by Peter Cobb at Darlton some 7km to the south. The other, a juvenile ringed in 1995 was retrapped later in the wood - also by Peter Cobb. The last Green Woodpecker we caught was in 2012 - a very long wait since then but a spectacular bird in the hand. We hope we do not have to wait as long for the next.

**Blue Tit                            5            AVC1859            05/01/2020            Q04**

This is one of five of the 2019 cohort of Blue Tit nestlings caught on 5<sup>th</sup> January. Of the 233 Blue Tits which fledged from nestboxes last year, so far we have only retrapped 25, some more than once. Typically, though, on a mist netting visit we will catch only one or two from the cohort. To catch 5 on day is exceptional.

**Great Tit                            6F            D309675            05/01/2020            R00**

This is the 39<sup>th</sup> capture of this individual and it is our Great Tit with the highest number of captures. It has achieved this in under 5 years while still four years short of our internal age record and nearly six years short of the national record. Its capture history includes captures in standard site nets, at the feeding station, roosting in winter and nesting in boxes. All its captures have been in the north west quarter of the wood - much less of a wanderer than many of this species. Although it holds the record for number of captures, it comes in second place to J033269 which provided 71 encounters - most of these were sight or sound records during the Nottingham University study of the 1990s rather than encounters 'in the hand'.

Also caught on same day was Great Tit D309148. At 6y 120d since ringing it is our 12<sup>th</sup> oldest out of 7,719 individuals ringed.

**Great Tit                            5F            L525423            05/01/2020            Q03**

Each spring brings an influx of Great and Blue Tits to the wood. It usually begins in February. This bird is rather earlier but clearly an immigrant. It was ringed as a recently fledged juvenile in my garden in Beckingham in June 2019. Some birds in the influx move on without finding a breeding territory and we never retrap them. This one looks to be a remainder - we have encountered it twice more, on 19<sup>th</sup> January and 8<sup>th</sup> March.

This is only the third Beckingham bird to be encountered in Treswell Wood (the other two being a Blue Tit and a Greenfinch). In exchange I have caught three Treswell Wood birds in the garden - Blue Tit, Coal Tit and Chaffinch. Overall about one movement to or from the wood every six years. Not a common event at all.

**Chiffchaff                            4            JTE602            16/03/2020            H04**

The first of year and rather earlier than usual. Apart from one bird caught on January 1st 1999 (and you cannot be earlier in the year than that) which was probably an overwintering bird, our earliest record is 12<sup>th</sup> March 1995. In 1997 and 2014 we also had a first date of 16<sup>th</sup> March. This was an unringed bird but followed the week after by two retraps from 2019.

**Chiffchaff                            4            JTE402            22/03/2020            R-1**

The first retrap Chiffchaff of the year - strictly speaking just at the start of our second 10-week standard effort cycle, but still quite an early bird. It was ringed in April 2019 as a breeding male and retrapped, still in the wood in mid September. Also caught, at the same time, was JTE461 which we had ringed as a juvenile in July 2019 - good to see it back as juveniles tend to disperse whereas adults are much more site-faithful.

**Goldcrest                            4F            JTE311            02/02/2020            N06**

We rarely retrap Goldcrests in a winter subsequent to their first capture. This is because they are short-lived birds and are usually winter visitors which may not winter in the same place in two successive years, even if they do survive that long. This is a survivor which has come back - it was ringed in September of 2018 and has been retrapped four times since then.

But it is even better than that. We also ringed Goldcrest JTE313, a male, at the same time, caught in the same net. That makes two survivors from 2018, both caught together again in October 2018 and today caught within half an hour of each other about 50 metres apart.

**Wren                                    6            AXD430            03/03/2020            N02**

We ring, on average, fewer than 20 nestling Wrens each year. The number varies considerably between years and 2018 did not shine with only nine nestlings ringed that year. Because Wrens are generally short lived, we retrap very few after the following year. This Wren is an exception. It is one of the small 2018 cohort and it had, until today, eluded recapture. It was caught in a standard site net where we have set nets nine times since it fledged. Because Wrens are very sedentary we might expect to have caught it previously. But it was caught in the end of a

long net run. Perhaps its range only just reaches that end of the net run?

Our overall retrap rate for nestling-ringed Wrens is 17% - but the remarkable 2018 cohort has now achieved a 55% retrap rate.

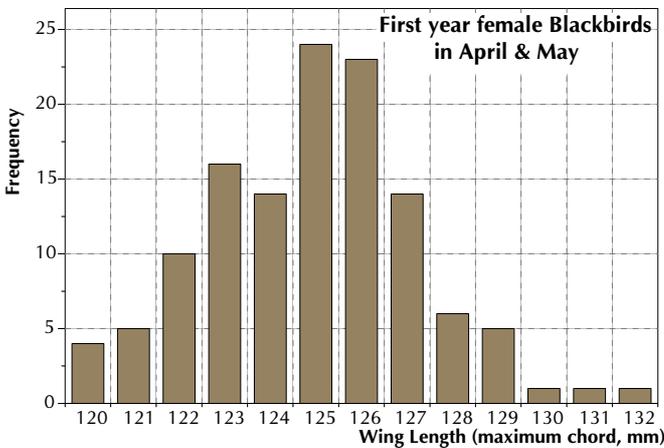
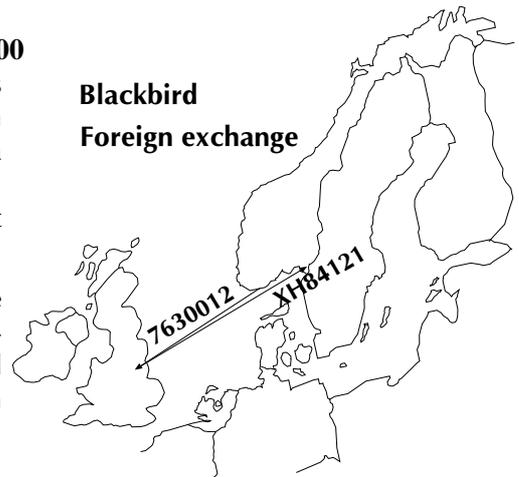
**Treecreeper 6 JTE188 19/01/2020 K00**

Treecreepers normally range widely within either the northern or southern parts of the wood but rarely stray beyond 'their' chosen half. This one, unusually, has only been encountered in exactly the same grid square - that is all its captures within 70 metres of each other. As usual we have taken pictures of its primary coverts in the hope of, eventually, working out how to separate adults from young birds reliably. This was illustrated at the conference with a slide showing (what we believe) to be typical adult and juvenile covert patterns adjacent to each other. By chance both images also showed the pale patch on the tip of the large alula feather and there appeared to be a difference between their shapes. Charles and Paul from Lincoln University noted this and suggested that software they used for shape categorisation might be useful in determining whether there were really two quantifiably different shapes of this covert. The plan now is to give them our collection of Treecreeper wing pictures together with capture histories of these birds. Watch this space.

**Blackbird 5F NOS.7630012 19/01/2020 K00**

Many Blackbirds from Scandinavia winter in Britain and we know this is one of them. Thanks to efficient computerisation of data in both Britain and Norway we already have its ringing details. It was ringed as a juvenile in Monsøya, a small island off the south coast in July 2019. That seems a little early for it to have begun its autumn migration so it may have been a locally bred bird rather than a passage migrant.

This is the first Norwegian-ringed Blackbird we have encountered in the wood (we are likely to have encountered many more Norwegian-unringed birds, of course). It makes a fair exchange for a Blackbird XH84121 which we ringed in February 1983 and was controlled south of Oslo in April of that year.

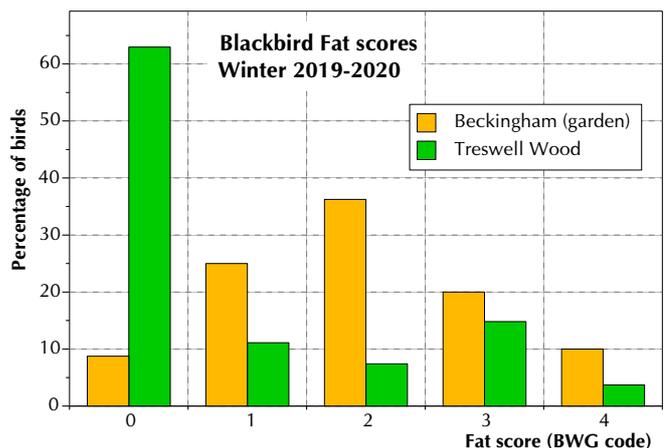


Incidentally it is common knowledge that Scandinavian birds are larger, on average, than British birds. However, common knowledge about the average is not always translated into facts about individuals. This bird had a wing length of 127mm. The graph shows the distribution of wing lengths of first year birds in the wood in April and May - by which time Scandinavian migrants will have vanished. Although it is clear that this wing is rather above average for breeding Blackbirds, such a wing length cannot be used to state with any degree of confidence that the individual bird was of Scandinavian origin.

**Blackbird 6M LK39034**

A capture of a breeding bird from 2019 - one that has remained for the winter rather than, as many, migrating south with migrants from Scandinavia taking their place. It is interesting to compare the conditions of Blackbirds in the wood and elsewhere where feeding and other conditions are different. We have recorded the fat carried on several of the Blackbirds this winter. Contrast these with the fat carried on birds examined in my garden in Beckingham, some 10 miles north as the Blackbird flies. The garden Blackbirds clearly carry more fat. But why? The Treswell Wood Blackbirds could easily visit the gardens just across the road to the north of the wood (and we know birds are fed there). It has been a generally mild winter so the birds do not need large stores of fat to see them through freezing nights. Excess

**02/02/2020 O05**





## 10-Week Summary: 2020 Interval 1, Captures in Standard Sites

	New Birds			Recaptures			Total
	Adult	5	3	Adult	5	3	
Green Woodpecker	.	1	.	.	.	.	1
Coal Tit	.	.	.	.	1	.	1
Marsh Tit	.	.	.	3	.	.	3
Blue Tit	.	2	.	7	10	.	19
Great Tit	.	3	.	11	2	.	16
Long-tailed Tit	3	.	.	6	.	.	9
Chiffchaff	1	.	.	.	.	.	1
Goldcrest	.	2	.	3	2	.	7
Wren	.	4	.	2	4	.	10
Treecreeper	1	2	.	3	2	.	8
Blackbird	1	9	.	10	.	.	20
Redwing	1	.	.	.	.	.	1
Robin	.	5	.	3	6	.	14
Dunnock	.	2	.	1	1	.	4
Chaffinch	3	1	.	.	.	.	4
Bullfinch	.	1	.	1	.	.	2
<b>Totals</b>	<b>10</b>	<b>32</b>	.	<b>50</b>	<b>28</b>	.	<b>120</b>

Year	1	2	3	4	5	Total
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
2013	76	90	89	100	157	512
2014	83	132	181	123	120	639
2015	105	123	136	137	158	659
2016	102	185	193	109	109	698
2017	106	198	163	<b>150</b>	163	780
2018	95	108	182	184	119	688
2019	113	131	170	152	129	695