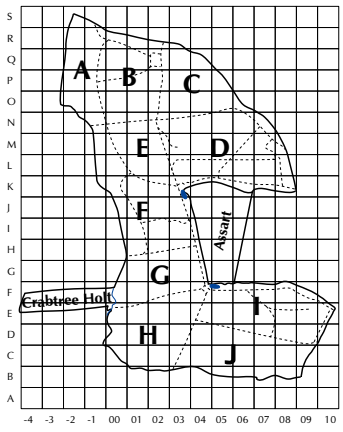

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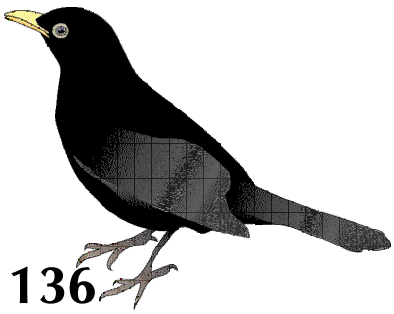

Treswell **W**ood - **I**nformation **T**o **T**ell **E**very **R**ecorder

March 2022 Treswell Wood IPM Group

(Integrated Population Monitoring)

2022/1

Number 136

Project leaders:

CBC Ellen Marshall

Nest Records Chris du Feu

Ringing John Clark

www.treswellwoodipmg.org

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Easing of covid related restrictions promised an easier start to the year than last year - although we did suffer some absentees through covid or contacts with covid cases. January went very well with little rain or wind. February brought persistent strong winds making mist netting impossible for three consecutive weekends. Strong wind always prevented mist netting because of the dangers it brought to birds. Excess wind is now even more of a concern with branches being shed from the many trees affected by Ash dieback. Rain returned at the end of February, but pools by the main ride that we have had in recent years are not in evidence, and ditches not as full as usual. This may be a problem for any frogs.

The first visit of March brought welcome signs of spring with the first Chiffchaff heard on the 6th with Great Spotted Woodpeckers drumming in several places, much bird song and the usual spring influx of unringed tits. We also recorded the first primrose and coltsfoot in bloom on the same day.

We were delighted to be able to run a successful ringing demonstration, during one of our standard site visits, as part of the NWT's opening of their Ancient Woodland appeal. Easing restrictions has also allowed us to host visits from potential trainees for the first time for two years - a step back to normality, whatever that may be.

Winter CES

In the previous issue of TWITTER we described the BTO's trial Winter Constant Effort Scheme (WCES) which aimed to complement the breeding season CES which has been running from 1983 and is now a vital part of the BTO's national bird monitoring operation. The breeding season operation yields information about adult abundance, productivity and age-specific survival rates. Survival rates are a crucial part of the mathematical models which the BTO uses to understand how and why populations change in order to know when population declines are serious in the long term. Because adult and juvenile survival rates are usually different it is important to be able to separate these - hence the age-specific survival rates.

Although the feeding station operations were not standardised, a run of 40 years should iron out problems related to varied catch effort. Our preliminary examination of the 40 year data set, which we hope to publish in full once we have fine-tuned some of the analyses, showed several matters which will impact on a national project.

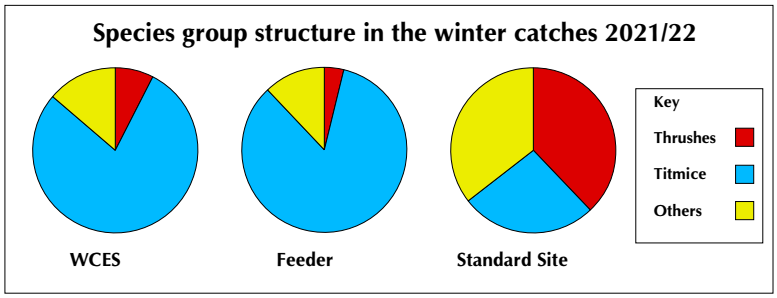
First are the capture rates - nets with no artificially provided attractants (i.e. food) have a catching rate well under a tenth of the rate of nets at feeding stations. It could be difficult to find enough ringers willing to spend much effort for little immediate reward so artificial attractants seem to be necessary. But how will this affect the catches?

We found that the balance of species was very different at feeders and in standard sites with tits being massively over-represented at the feeders. Even when we took the numbers of individuals caught rather than the total numbers of captures, tits were still over-represented at feeders. Within species we looked at the age structure where this was possible and, again, the age structures were different (although the direction of difference varied between species). For some species it was not possible because their post-juvenile plumage is identical to the adult plumage so the ages cannot be separated. The non-ageability of some species also presents a major obstacle for analysing age-specific survival. Even where we do have extensive recapture histories and can assign an age to individuals from previous captures there are still many, probably mostly young birds, which we catch for the first time after their post juvenile moult and are unageable.

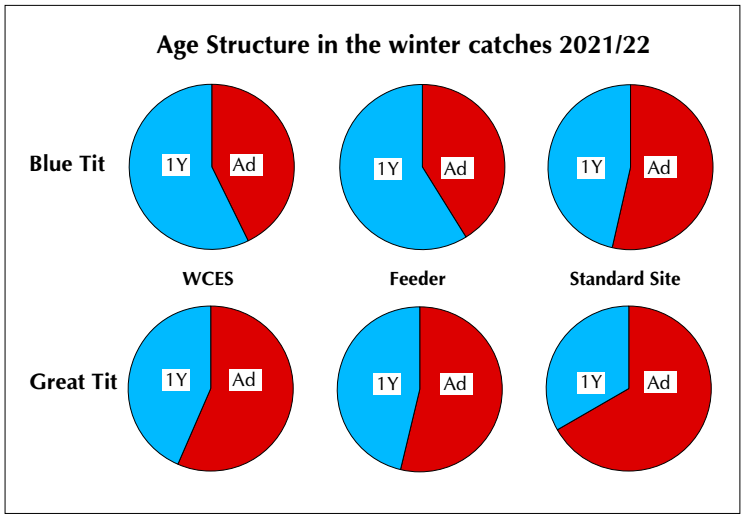
Survival rates require some high level statistical approach in order to separate mortality from emigration. In the last half of winter there is much movement of birds searching for a place to settle in the breeding season. First winter birds tend to travel more widely because they have less knowledge than adults about potential breeding sites. Adults have a greater tendency to return to old haunts. This means that survival calculations will have to take into account a higher level of emigration than for the summer CES with this greater level different for different age classes and age classes unknowable for some species.

The movement in late winter poses another problem. We tried to examine within-winter survival for species where we can determine the age. We expected that there would be proportionally fewer first winter birds in the second half of winter as the more experienced adult would survive better. It may be true that first winter birds overall survive less well but the proportion of individuals we catch in the second half of winter is higher than in the first half - adults appearing to survive less well. The possible reason? Mobility of juveniles. Whereas the catchment area of adults is likely to be the wood and a relatively small surrounding area, the catchment area of juveniles becomes increasingly larger as the spring approaches.

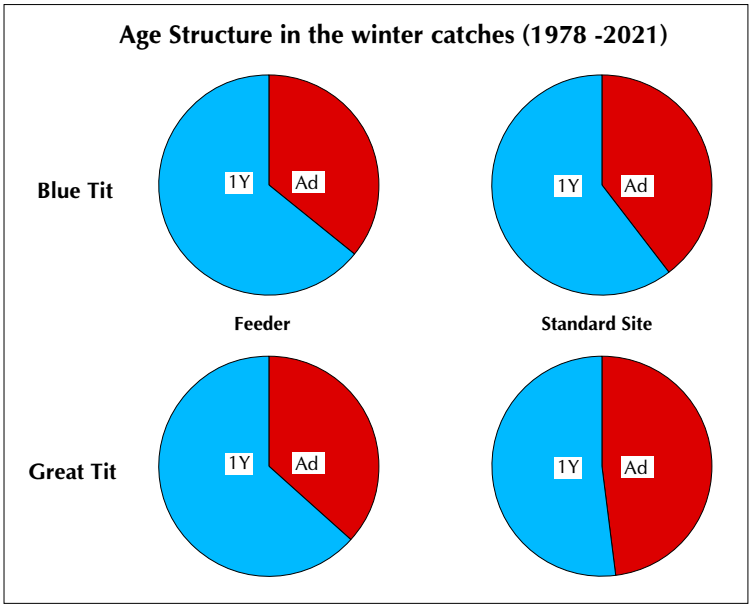
What about this winter's catches? We dedicated a site within the wood to the BTO trial last winter but could not complete the winter's programme because of the second covid lockdown. This winter we have taken part and managed to complete the necessary visits in spite of all the weather had to throw at us. We also managed rather more. We knew from the preliminary analyses of the 40 year data set how different are catches around bird feeders compared to those in the wood at large with no artificially provided attractants. Our WCES patch differs from the permanent feeding station in that it is a straight run of 60 metres of mist netting with two bird feeders sited by the netting. The permanent station has a cluster of feeders surrounded by a triangle of netting of total length 45 metres. The difference between the sites seems to be that at the feeder we are likely to catch birds coming specifically for the food whereas the WCES site we would also catch birds moving through the woodland along this 60 metre transect. In order to compare the two sites we managed to do the necessary visits to both sites, almost always on the same day using very strict adherence to the BTO protocols. That gave one year's worth of standardised paired visit data. The results await a full analysis but, essentially, the 'feeder only' nets and WCES nets give broadly similar results. Both differ considerably from the standard site netting in the winter months.



The chart above illustrates this. Species have been broken into three coherent groups - Thrushes (i.e. Song Thrush, Blackbird, Robin), Titmice (which does not include Long-tailed Tit) and Others. Both sites with feeders attract far more titmice and far fewer of all other species. The standard sites have a fairly even breakdown between these three categories.



We have looked at the age structure of the two species which we can age and catch in sufficient numbers - Blue Tit and Great Tit. It is no surprise again to see that the WCES and feeder sites give similar results which differ from the standard sites. The feeders have a higher proportion of young birds than the standard site with no feeders. Presumably this is because adults are better able to find food in natural situations having survived at least one previous winter. Perhaps what is surprising is that the proportions of first winter birds at feeders are the opposite way round in these two species with Great Tits having fewer first winter birds in all three situations. That is different from what we found for the combined data for the previous 40 years as seen in the third chart. It seems to be a result of Great Tits having a poor breeding season last year followed by apparently high post-fledging mortality. As far as this species is concerned it does appear that 2021 was a very different season.



The Great Tit data highlight the problem of drawing conclusions from a single experiment - even one as tightly controlled as we have managed this winter. The strength of the Treswell Wood data set lies in its length and comparing this

winter with all previous winters does point out the unusual nature of the year. The strength of any BTO WCES operation will lie with two features - one will be the eventual long-term data set. The second is that data will come from many sites, not just a single one.

What about implications for our plans next winter? Overall it seems that the two operations - feeders only or WCES - give very similar results. If this proves to be the case after a fuller analysis then next winter we have the choice of operating our traditional feeder in a standardised way and using that as our WCES site or else running the new WCES site and only catching birds at the feeder when we have the time and opportunity to do so.

PIT tagging

The PIT tagging operation is now running smoothly. We have two feeders incorporating readers - one in the north and one in the south of the wood. We have, so far, tagged 12 birds. The study species is the Marsh Tit but initially we also tagged six Blue and Great Tits which were frequent visitors to the feeder. This was to ensure that some birds came to the tag reading stations to test the system. As it turns out we need not have worried as the Marsh Tits have been diligent consumers of the food at the first station and have shown the system works. That is true, at least, for the northern feeder. We tagged two more Blue Tits which were frequently found as roosting birds in the area near the southern station. They, we were sure, would visit the feeder and show it was working. No such luck, it has been left to the one Great Tit which seems to have moved suddenly from the north to the south. We have not yet been able to tag any Marsh Tits in the south of the wood. Because this species is very sedentary and 'northern' birds rarely travel to the south of the wood, we are not surprised that the four tagged 'northern' Marsh TIts have not yet seen fit to test the southern feeder.

For the time being we will submit to the BTO the first record for each tagged individual on each day it is recorded. To date we have submitted 190 daily records from seven out of the 12 tagged birds. Of the five tagged birds which we have not recorded at a feeding station, three have been retrapped again. Thus we know they are present but just not visiting the feeding station. Altogether we have amassed nearly 1,600 records of these individuals at the feeder. This full list of records will be used to look at various things including time spent at the feeder, number of visits per day, times of day when feeding and possible interactions between individuals.

Battery life is a problem. It has lasted five days through the colder weather and we hope that, with warmer weather, it will soon last a full week before a recharge is needed. The food reservoir size has also been increased in the hope it too will last the full week.

Data in the 'Cloud'

In the previous issue of TWITTER we noted that we would be using cloud storage for a backup of the entire TWIG data set. Amy, John and Chris have spent some time and thought over the project and we are now seeing the cloud storage, not as backup, but as the definitive copy of TWIG data. We are gradually reviewing all our computerised information - everything from ringing data files and nest records to digital images and scans of important letters and other documents. As this is being done, section by section, we are assembling a catalogue of our holdings. Whereas access to the data set will be by invitation, we think the catalogue would be best on open access, probably from the web site. This could be a good way of promoting more use of the long-term, systematic and varied data set.

Noteworthy Encounters

Species	Age/sex	Ring	Date	Grid
Sparrowhawk	**5M**	**DT21912**	**30/1/2022**	**N00**

This is the 77th Sparrowhawk we have captured excluding the few nestlings we have ringed. As so often it is a young male. We suspect the preponderance of males is because the larger females can escape from mist nets more easily and may not hunt so much in denser woodland where the mist nets are usually set. We also recapture males at a faster rate with only 2/23 females having been retrapped compared to 14/54 of the males. The age structure of the sexes is rather different too with 38% of male encounters being of birds in their first year compared to only 30% of the females.

Great Spotted Woodpecker	**5**	**LK39232**	**6/3/2022**	**E06**

This autumn and winter we have seen several Great Spotted Woodpeckers which it has been possible to age as in their first year. This one was as easy as can be wished for with a clear contrast between the black inner, forward wing coverts and the grey outer, rearmost coverts. It appears that last summer was not one in which favoured very full moults of juveniles of this species (and also is giving us considerably more difficulty with Great Tits and Robins). But there was a problem with this bird. Males have a bright red band across the nape, females do not. This one had a very faint band only, barely visible from some angles. A male with not enough red or a female with just a suggestion of red? If it survives, moults this summer and we retrap it after the moult we may know.

Jay **6** **DK98424** **19/2/2022** **M03**

An excellent last bird of the day on the penultimate WCES visit. This Jay was ringed 9 years and 9 months previously in 2012 and recaptured only in 2015. It beats our previous internal Jay longevity record by two years but is still seven years short of the national record.

Marsh Tit **6** **ANA7378** **30/01/2022** **M02**

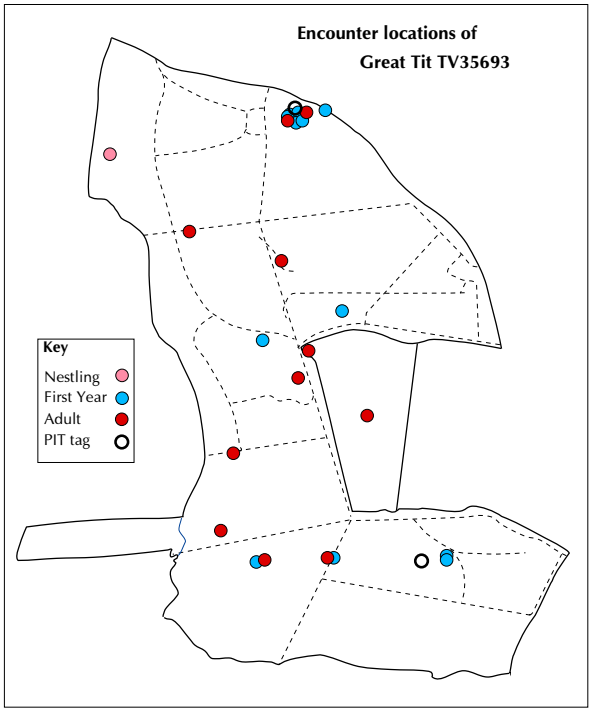
A fine contributor to the WCES project with four captures at the site this winter. We have caught it frequently since it was ringed as a juvenile in 2018 and now that it wears a PIT tag we are gaining even more records of its visits to the northern feeder. So far it has been recorded there on 37 separate days.

Blue Tit **6** **S078963** **03/03/2022** **F10** **Roost**

This is one of our 'serial roosters'. It is so reliably found roosting over the last four years that we decided to award it a PIT tag. Surely it had to find the feeder and PIT tag reader around 100 metres away from its usual roost box. That would test the new tag reader was working. Needless to say the bird has not obliged.

Great Tit **6F** **TV35693** **23/1/2022** **K03**

This is our finest system-testing bird. It was recorded at the northern reader on the first day of operation and continued to be recorded there for the following seven weeks. This capture of 23/01 was in the centre of the wood, well away from the northern feeder. Its last capture at that feeder was on 13/2 and two days later it was recorded at the newly set feeder in the south of the wood - and there it continues to be found having not returned to the northern feeder again.

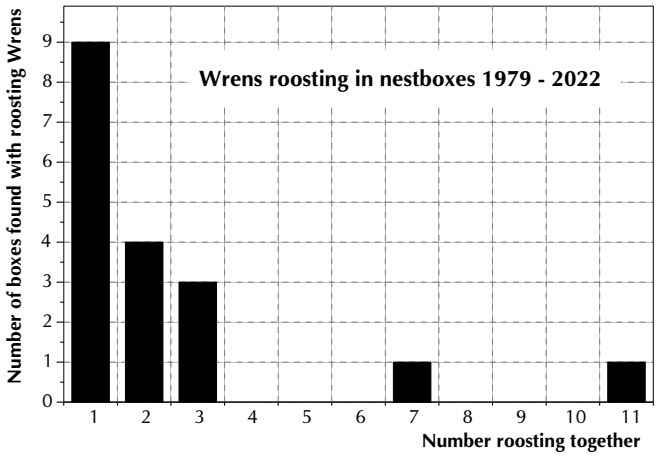


Normally tits are fairly sedentary resulting in most captures being fairly closely distributed. This bird is far more of a wanderer as the map of its capture positions shows. Unusually it seems to be roving as widely as an adult (red circles) as it did in its first year (blue circles). Its multiple PIT tag records are represented by two the two open circles. It has, so far, registered 27 encounters at the northern site and 15 at the southern site.

Apart from being an excellent system tester, this Great Tit has never caused us any problems at all as far as ageing and sexing is concerned. Would that all Great Tits were as straightforward. This winter we have encountered more than usual where ageing has been very difficult indeed. We suspect that the conditions when they moulted were not good enough to allow them to grow the brightly contrasting adult feather that we normally see.

Wren **4** **CRD901** **26/1/2022** **F-2** **Roosting**

This is one of three Wrens found roosting together in a nestbox and is the first we have found roosting since 2017. It is common knowledge that Wrens will congregate in their dozens to roost in small holes during the winter. Unfortunately common knowledge is not the complete truth. Roosts of up to about 50 birds have been found in very cold weather. However under normal conditions these gatherings are rarely more than 10 and in most cases the birds roost singly or two or three together. We have never found a large roost but this might be because we do not inspect the boxes for roosting birds in very cold weather.The distribution of numbers we have found roosting together is given in the graph. The gatherings of seven and 11 were exceptional and both in early 1996.



Wren **6** **AXD477** **05/01/2022** **M03**

This is a nestling-ringed Wren, one of the relatively few that we retrap. This is its first capture since being ringed in 2020. It was caught in the WCES nets - a place we rarely net in at other times. Since the species is so sedentary this will explain why we have not caught it before - last winter's lockdown prevented us from netting here.

Long-tailed Tit 4 JTE600 30/01/2022 N00

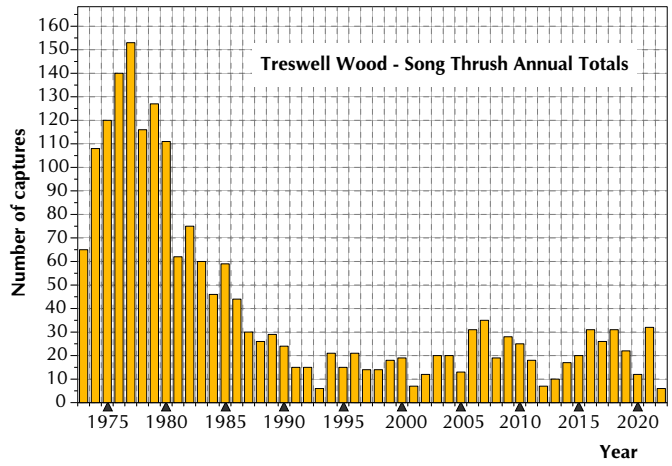
In the first two months of this year we have caught 10 Long-tailed Tits. Last year lockdown prevented us from ringing until March but even then the tenth bird of the year was not caught until November. By the end of the year the total was 21 individuals caught. It seems now that our worst fears of local population extinction have not been realised. This bird was ringed in 2020 and, despite obviously being alive throughout 2021, was not caught by us.

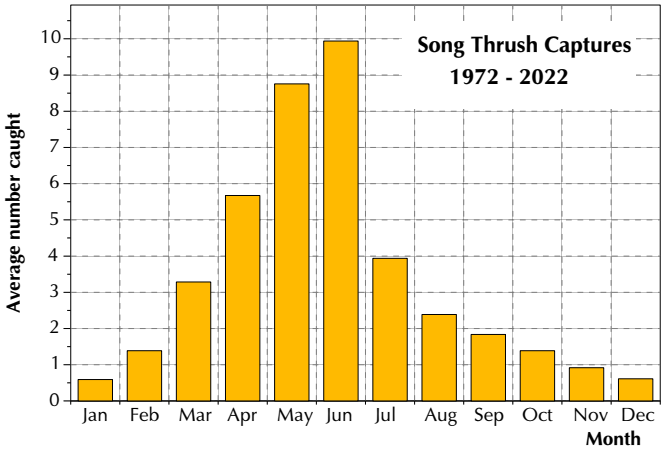
Blackbird 6M LK39207 2/1/2022 R00

This was one of seven new Blackbirds caught on the day and making a big contribution to the larger than usual 10-week total of 24 Blackbirds. We might expect Blackbirds at this time of year to include some wintering continental birds - particularly as they were all unringed. It seems not so, their wing lengths were not large - if anything rather lower than average for local birds. All but one of the birds were males and none have been retrapped. It seems like a wandering group just passing through the wood.

Song Thrush 6 RX91279 10/2/2022 M03

This was the fifth Song Thrush to be caught this year. A total of five in January and February has only been exceeded twice - 11 captures in both 1975 and 1976. The first chart shows the large decline in captures until the early 1990s when numbers stabilised (although they could not have dropped much further). Since then there has been a slow creeping upwards but still with only about 25% of the numbers typically caught in the 1970s. The 2022 bar is very low - but there 10 more months to go; 2020 and 2021 numbers are also low because of missed visits during lockdowns. The second graph shows how the annual catches are distributed with numbers very low in the first and last two months of the year. British Song Thrushes may migrate southwards - perhaps locally or maybe as far as Iberia. Our winter recoveries over the years do show this varied pattern of migration - two in France, one in Germany, four in other English counties (Cheshire, Essex, Staffordshire, Lincolnshire) and one 2km away in Woodbeck. John McMeeking once suggested, a little tongue in cheek, that the Treswell Wood Song Thrushes are summer visitors. There was, as ever, a good deal of truth in his comment.





10-Week Summary: 2022 Interval 1, Captures in Standard Sites

	New Birds			Recaptures			Total
	Adult	**5**	**3**	**Adult**	**5**	**3**	
Sparrowhawk	.	1	.	.	.	.	1
Blue Tit	.	2	.	7	8	.	17
Great Tit	.	1	.	3	2	.	6
Long-tailed Tit	.	.	.	1	.	.	1
Goldcrest	.	1	.	1	.	.	2
Wren	1	1	.	2	1	.	5
Treecreeper	.	1	.	1	.	.	2
Blackbird	10	10	.	4	.	.	24
Song Thrush	.	.	.	2	.	.	2
Robin	1	2	.	7	4	.	14
Dunnock	1	2	.	1	1	.	5
Bullfinch	1	2	.	.	1	.	4
Totals	**14**	**23**	**.**	**29**	**17**	**.**	**83**