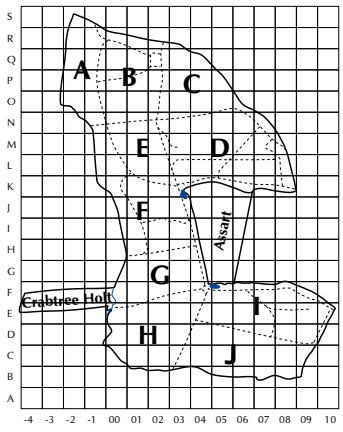

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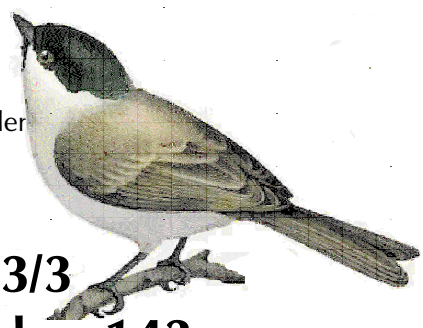

Treswell **W**ood - **I**nformation **T**o **T**ell **E**very **R**ecorder

August 2023 Treswell Wood IPM Group

(Integrated Population Monitoring)

Project leaders:

CBC Ellen Marshall

Nest Records Chris du Feu

Ringing John Clark

www.treswellwoodipmg.org

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2023/3

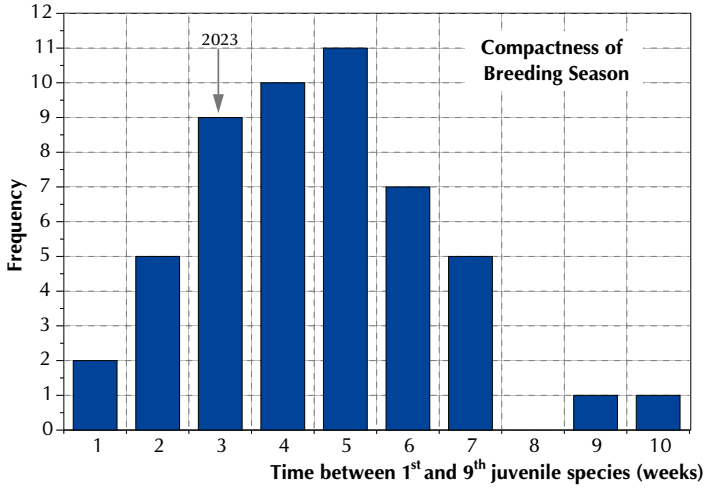
Number 143

The last three months have proved difficult. Weather or, sometimes rather frustratingly, weather forecasts have led to some missed weekends. After the dryness earlier in the year, the wood had become wetter with Nightingale Ride still just workable in walking boots at the beginning of July. By the end of July we had seen days with water across the main ride in places. Various domestic, health or work circumstances have led to 'staff' shortages. With most members in full-time employment it is difficult to make a full weekday visit to make up for a lost weekend. We have just managed to complete the full number of standard site visits with no weeks to spare. We have not been able to put up extra nets at the feeding stations or elsewhere as often as normal. This resulted, for the first time in many years, of us not making large catches of recently fledged nestling-ringed tits. This will not show in our standard site data but will mean we cannot have as strong a picture as usual of timing of the onset of post-juvenile moult, amongst other things.

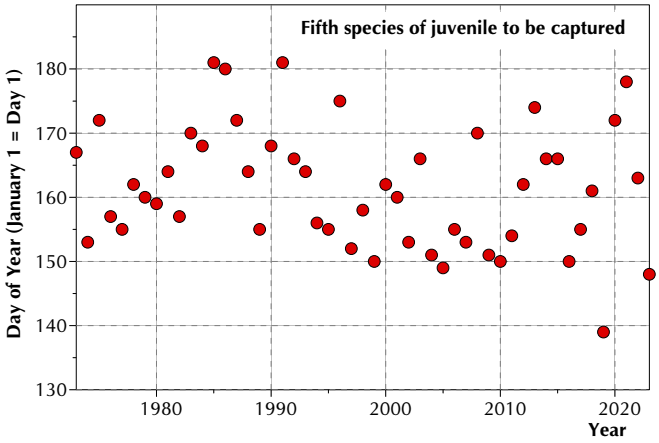
Captures in the standard sites have been above average. Robins, Blackcaps and Wrens comprised 40% of the total but the breakdown within these species was very different. Blackcaps and Robins produced only one recapture each - surprising for a migrant which is so site faithful and a resident which is so sedentary. However, two thirds of the early-breeding Robin captures were of juveniles whereas only a quarter of the Blackcaps were juveniles. Wrens fell in between these with a third of the captures being juveniles but they did do better on the recaptures - six compared to the singletons of the other two species. Song Thrushes have seemed more common than recently and after so many years of low captures, their numbers this time have (just) exceeded those of Blackbirds. At the other end of the capture spectrum is the Chaffinch - just one caught, which is a worryingly low number for this formerly very common woodland bird.

The nesting season has all but ended. It is just the Stock Doves which, as usual, may carry on into the early autumn. The full results will appear in the next issue of TWITTER when they have been finalised. However for our main nestbox species it has been a year of above average success. Blue Tits achieved their 5th highest number of fledgelings (264). Coal Tits fledged 18 young - the highest number for a decade whilst Great Tits managed to fledge 118. This is far higher than in the early years of the nestbox project but somewhat lower than in the early years of the century when Great Tits predominated the tit fauna in the wood. Sadly no Marsh Tits nested in boxes. Numbers of Blue and Great Tits would have been higher but for more than usual predation by grey squirrels. Worryingly this predation was widespread in the wood rather than, as sometimes, predation in a restricted area, presumably by a rogue individual.

The nesting season appeared to have started well but the early spell of warm weather did not last with some early birds suspending nesting for a while. The first juvenile capture in the year is always seen as significant event. This year it appeared that juveniles of different species were arriving much more rapidly than usual. The supposition was that most species had been delayed by the early colder spell. That led to earlier species beginning to nest at the same time as the normally later species, making for an overall 'compact' nesting season. How can this be measured? By the end of July juveniles will be starting to disperse, so any caught may not be products of the wood. We can then look just at captures to the end of July. For all years the minimum number of species for which we have caught juveniles by the end of July is nine. One approach is then to look at the time span between the first juvenile capture and the ninth in each year.



The graph shows the distribution of these time spans over all years. Yes, it was a compact season: 21 days against a mean of 31 and only nine previous years having a shorter span. Happily gut feeling is supported by evidence.



What about the timing of the season? An obvious thing to do is to look at the earliest capture of a juvenile but this is probably not very reliable. The first capture depends on too many factors. It is better to take a later date which does not depend on just a single species. The graph shows the day of the year on which we caught the fifth juvenile species in the year (five is a bit arbitrary but is half way between 1 and the 9 species caught in the worst year.) As expected there is a trend towards earlier captures with time and 2023, in spite of the delayed start, is still the second earliest.

PIT tagging Marsh Tits

There is little point in fitting PIT tags to birds which are unlikely to come to one of the tag-reading feeding stations. How can we know whether to tag a bird or not? Marsh Tits are rather more sedentary than our other species. Once they arrive in the wood, they tend to remain. Even juveniles reared in the wood generally move from their natal area in the southern part of the wood to adulthood in the north, or vice versa. The major loss of Marsh Tits in the wood will be from post fledgeing mortality rather than emigration. Is it worth tagging them as newly fledged juveniles knowing that their lives may be very short?

It gives a pretty good feeling to us when we encounter an individual with a long history, but short histories can be very revealing. If we record a tagged juvenile a few times and then, suddenly, it stops being recorded that gives (in the specific case of Marsh Tits) a strong indication of juvenile mortality. Thus, by tagging juveniles, we can throw light onto the timing of post-fledgeing mortality. At what point does the very high, immediate post-fledgeing mortality decline to a workable and economical level. (PIT tags cost just under £4 a bird.) Fifty years of data should tell us something.

The table shows the numbers of individual juvenile Marsh Tits mist-netted in the summer and autumn in all years combined and also shows the numbers of those subsequently retrapped at least once (at any age). The answer is quite clear; even the birds captured in June have a fair chance of at least one re-encounter but from July onwards there is over a 90% chance of a subsequent encounter and this chance seems to remain fairly constant.

Captures of juvenile Marsh Tits 1974 to 2022

Captured in	Number	Re-encountered	% re-encountered
June	75	47	63%
July	92	85	92%
August	99	92	93%
September	133	125	94%

Given that these figures are for recaptures in mist nets, the chances of remote PIT tag re-encounters are even higher. That tells us what we need to know. Start tagging juveniles in July and that is what we have done.

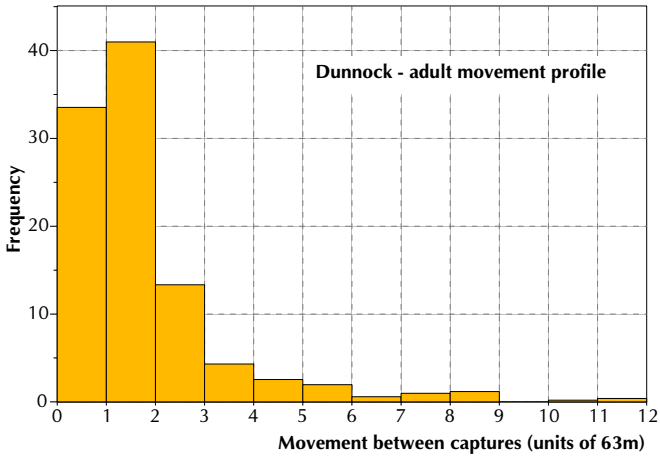
Habitat Change Analysis - a Potential Study

A consequence of summer warmth and plenty of water is the very strong growth of vegetation, notably brambles. The change in the appearance of the wood from month to month (sometimes even week to week) is remarkable. We do have a record of this with fixed point photographs taken at each standard site visit. This record goes back to 2012. The initial aim was to document changes between years - and that is done well. We did not anticipate how great a contrast it would show between seasons within a year. Traditionally fixed-point photographs have been used simply as a means of keeping a record of how things have changed in time. That in itself is worthwhile. However digital images can be processed with appropriate software. It should be possible to relate some measure of habitat (as revealed in the images) to bird abundance as measured by bird captures in that site on the day. There is a project for someone.

Movements of birds within the wood - a Potential Study.

We often mention that particular movements of some individuals are unusual in some way. You might wonder where our notion of usual comes from. Regrettably it is from a very long time ago. In the early 1980s we had access to a PET microcomputer with its 32K RAM, 100K floppy disk storage and not-very-fast 6502 processor. We

also then had data for just over 10 years. It was then possible to write software which would look at recapture histories (one species to a floppy disk) and calculate movements of birds between one capture and the next. These movements were, of course, in McMeeking grid square units of 63 metres and we called the pattern the 'Movement profile'.



Because we knew that juveniles and adults would have different movement patterns we tabulated these separately. Likewise we could separate movements to and from feeders from other movements. We could also compare movements within or between seasons or years. The results were much as expected with juveniles moving more than adults, movements to and from feeders generally greater than other movements etc. More interesting was that the various distributions fitted the Weibull statistical distribution. That in itself was not surprising, that distribution fits almost any moderately well behaved pattern. What was interesting is that the distribution is described by two parameters and these characterise the average movement and shape of distribution. When we compared, for example, Blue Tit and Treecreeper adult movements we found Blue Tits had a higher average movement but Treecreepers had a much wider, flatter shape within a very limited upper reach.

The old PET microcomputer became obsolete and our data transferred to the BBC microcomputer. That took some effort but the increased flexibility of the BBC machine allowed us to computerise much more of our background data. All that was time consuming and the movement study was put to one side, used just for the paper on Wren and Treecreepers.

We now have data for 50 years of movements. Computer power is vastly increased. It would be very interesting to repeat and expand the study. We could see if patterns remain the same or not in the face of habitat development and changing timing of the seasons. With computerised coppice age data there is great potential for further investigation.

Situations vacant

In any long-term project there will inevitably be a turnover in people involved. Over the years we have been fortunate in that people have appeared to fill vacancies. Whereas we always welcome people interested in taking part in the project, we know that there is a need to have people trained and ready to do nest recording and breeding territory mapping. The 'training' has to be done in the field. As with any voluntary project there is no pension scheme, but the benefits of being out in the open air in a nature reserve are legion. If you are interested either contact the group via the web www.treswellwoodipmg.org or reply directly to Chris if you receive TWITTER by email.

TWITTER

When the electronic upstart hi-jacked the title 'Twitter' this newsletter was already 11 years old. Elon Musk has obviously realised that he cannot compete and so has changed the name of his upstart to 'X'. Readers will be reassured to know that it is only the electronic Twitter that has been renamed. We remain the only TWITTER. We have no intention of following Elon Musk. Finding meaningful words to match the very short acronym X is too much of a challenge.

Noteworthy Encounters

Species	Age/sex	Ring	Date	Grid
Stock Dove	**4**	**EY42343**	**9/7/2023**	**D03 On nest**

Stock Doves are found, by some people, to be sensitive to disturbance at the nest. We have not found this with Treswell Wood birds. This bird is our finest. She has now been captured on a nest 10 times including her first capture in 2019. Stock Doves often alternate nest sites between broods (this allows their rather foul nest to dry before being used by a later brood). This bird has only been found on a different box once and seems to be happy rearing successive broods in the same box. She is exceptionally tolerant of disturbance, allowing herself to be lifted off the nest while it is inspected and then is happy to be put back on the nest where she remains sitting tight. We have not caught her on every nest in that box but, from what we know, she has produced at least 15 fledged young so far. Quite impressive for a bird laying only two eggs per clutch.

Tawny Owl 8 GM40966 28/05/2023 K00
Most captures of adult Tawny Owls are birds caught on the nest. This is one of the less common mist-net captures. It was a new bird. We have enjoyed two successful Tawny Owl nests this year - an improvement on recent, very thin, years. This adult was netted about half way between the two nests so could have been associated with either or, maybe, neither nest.

Great Spotted Woodpecker 3 LK39335 30/07/2023 Q03
Our ninth Great Spotted Woodpecker caught this year and the first juvenile. Until 1995 we had caught a maximum of four in any year. From then on numbers of captures increased to a peak of around 30 in the early 2000s. They have declined again but are still well above their numbers before the turn of the century.

We aim to measure the bill length and depth on woodpeckers (partly because Ken Smith suggested that could be useful in understanding differences in bill shape between British and continental birds and partly because it gives us practice in these measuring techniques). We also aim to record the moult. This particularly interesting in this species because they begin to moult their primary feathers whilst they are still in the nest (you might wonder why, and so do we). For juveniles we also measure the length of the red crown feathers in the hope of retrapping the bird when it has moulted into adult plumage. Then we might be able to see if the length of the red crown is related to the sex of the bird. We think it is, but do need to catch and retrap more before we can be certain. This bird has contributed to all these studies.

Jay 6 DS75981 25/06/2023 D03
This is the 96th Jay we have recorded but the only Jay we have trapped so far this year. Of these 96 birds, a third have a recapture history and this is one of them. It was ringed in its first breeding season in 2021 and this is its first recapture. It was in moult. Being a large bird it is much easier to see which feather is which and so, apart from adding to the BTO archive of moult data, provided excellent experience for training ringers.

Marsh Tit 3J AEZ3364 03/07/2023 D08
One of our first juvenile Marsh Tits to be PIT tagged this year. It is also the first juvenile of any species recorded this year which had started moulting its tail as part of post-juvenile moult. This is a warning to us about ageing Marsh Tits. The central tail feathers of juveniles are fairly pointed, those of adults obviously rounded at the end. 'Adult' tail shape for most species is not as reliable an indicator of age as it was 30 years ago before so many species began moulting tail feathers as part of partial post-juvenile moult (a consequence of earlier breeding and a longer autumn, we think). Marsh Tits had been our most reliable species for ageing using tail shape. However, we cannot now rely on the rounded tail shape indicating adulthood; we can only rely on the pointed tail shape indicating a bird in its first year.

Blue Tit 4 AJN3943 27/3/2023 I03
The breeding season puts birds under a great deal of stress and we sometimes find one which has died in the nestbox. Mostly it seems to be females, probably because they spend more time on the nest than do males. This one was a male, dying early in the season. There were no signs of injury or disease so perhaps a death brought on by a cold night after an exhausting day fending off territorial rivals. Like the vast majority of Blue Tits, this one has died before its first breeding season and will not pass on any of his genes.

Blue Tit 3J ALY9705 30/07/2023 Q03
The first nestbox juvenile recapture, followed just a few minutes later by Great Tit PL95036. Normally we expect to catch Great Tits in numbers earlier, with Blue Tits coming later in smaller numbers. The difference this year is simply because we have not had opportunity to set nets at the feeding station until now.

Blue Tit 6 ANA74665 11/06/2023 N07
We routinely check birds for moult, even though for most of the year we find no active moult. However, without recording the absence of moult we cannot reliably know when moulting starts, the proportion of birds in moult, the length of the season. This bird is the first we have recorded in moult this year - at a time when most Blue Tits are still very busy tending nests or young. Starting moult early is advantageous - feathers can be grown more slowly thereby being better quality to last through the winter and next breeding season. However the energetic cost of moult prevents most tits from starting until the pressure of feeding young is over. Early moulting tits, like this one, are probably failed breeders which are now free to maximise their fitness with a hope of doing better next season.

Blue Tit 6F S078587 09/05/2023 E05 On Nest
Our oldest nesting Blue Tit this year. She was ringed almost seven years ago in a nest just 200 metres from this nest. It is the fourth year in which we have found her on a nest, and have also found her roosting in this same box. Of our eight encounters with her, all but two have been associated with a nestbox.

Most Blue Tits fail to produce any fledged young, either through death or nest failure. This one has done far better, fledgeing 20 young that we know about, of which five have survived at least through their first critical winter. Sadly we have not yet found any of them on a nest so do not know how many grandchildren she has produced.

Chiffchaff 4M JTE746 28/05/2023 M00

This is our only between-year recapture of the species this year. The total number caught so far, 17, is about average for the last 25 years but nearly double that for the previous 25 years. There are usually more between year retraps with a maximum recorded of seven and an average for of three for the last 25 years. In 2021 and 2022 it was, as this year, just one returner. Perhaps we are still suffering from missed visits during the pandemic.

Blackcap 3J AEZ3314 21/05/2023 R00

The runner up, by a gnat's whisker, in the First Juvenile race. It may seem surprising that a summer visitor produces juveniles as early as a early nesting resident. In fact, Blackcaps have been first in three previous years (see below).

Wren 6M CRD902 04/06/2023 E00

Wrens do roost in winter in holes and there are accounts of mass roosts of dozens of birds roosting a single nestbox on a cold winter night. In the wood, however, we have never found such a roost and the Wrens we do very occasionally find roosting are either alone or with only one or two other birds. Overall we have recorded just 45 Wrens roosting in boxes since 1979. Of these 26 have previous or subsequent encounters in the wood. This bird is one of three found roosting together in January 2022. Remarkably, all three now have been recaptured at least once and all these recaptures being within 150 metres of the roosting site.

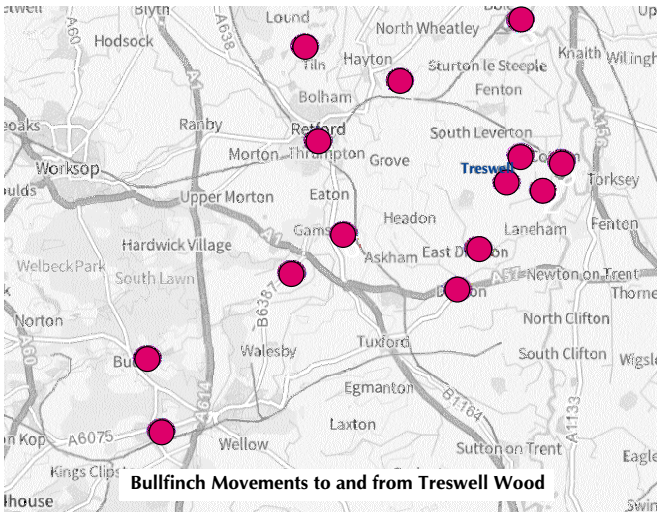
Treecreeper 5 DRA206 03/07/2023 D08

Treecreepers, like Wrens, are sedentary. However, because their territories are so large, typically about 20 times as large as those of Wrens, they do rove widely but strictly within perhaps an area of 10 hectares. This bird's capture history is much more like that of a Wren, or Blackcap in the breeding season, with all its six captures through the winter and breeding season being somewhere within 75 metres of the centre of Nightingale Ride.

Bullfinch 6M AKP5787 11/06/2023 D05

Over the years we have recorded 23 Bullfinch movements to or from the wood. Most of these involve nearby sites Rampton, Cottam and West Burton power stations, Retford, Darlton etc. Just three have involved more distant sites - Edwinstowe, Bevercotes and (this one) from Carburton, all of which are in the Dukeries. Glen Thomas ringed this bird as a juvenile in August 2021 and the movement is 15km ENE.

Nationally Bullfinch movements of over 20km are very uncommon, the direction and timing of movements seems largely random. Our Bullfinch movements are entirely in line with this.

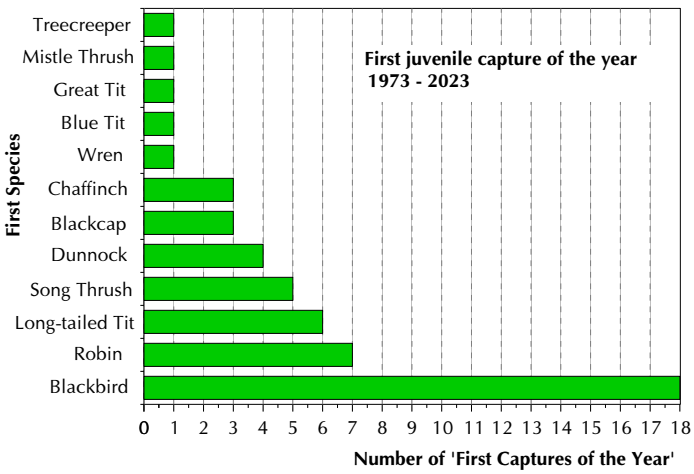


Bullfinch Movements to and from Treswell Wood

Song Thrush 3J RF28811 21/05/2023 R-1

The first equal juvenile of the year, but very closely (within minutes) followed by a Blackcap.

The graph shows how many times each species has provided the first juvenile capture of the year. We might expect the early-nesting Long-tailed Tits to be first fairly often but it is Blackbirds that appear first three times as often, with Robins coming a not-very close second, just ahead of the Long-tailed Tits. Mistle Thrushes nest very early but perhaps the most surprising thing about them is that they appear at all in the table. They are not abundant in the wood and we capture very few indeed. Apart from the Blackcap, all the other species are residents. Even the Chiffchaff, usually the first migrant to return, does not feature in the list.



Robin **4** **24/07/2023** **H04**

Robins typically wander freely in the wood until they begin to establish a more permanent area to live in. That final area is often far removed from where they were found as juveniles. This season we seem to have found a number of birds which, like the Treecreeper DRA206, are non-conformists. We ringed and retrapped this bird as a juvenile in 2021 always within 40 metres of today's capture location which is on one of the standard sites. Any adult capture might be expected to be elsewhere but we did not see it again anywhere for two years in spite of setting nets there at least ten times. Where has it been?

10-Week Summary: 2023 Interval 3, Captures in Standard Sites

	New Birds			Recaptures			Total
	Adult	**5**	**3**	**Adult**	**5**	**3**	
Tawny Owl	1	.	.	.	.	.	1
Jay	.	.	.	1	.	.	1
Marsh Tit	.	.	2	.	.	.	2
Blue Tit	.	.	.	5	1	.	6
Great Tit	.	.	2	5	2	.	9
Chiffchaff	9	.	3	3	.	.	15
Blackcap	17	1	6	1	.	.	25
Goldcrest	.	.	.	.	1	.	1
Wren	5	6	8	4	2	.	25
Nuthatch	.	.	.	3	.	.	3
Treecreeper	.	1	1	2	2	.	6
Blackbird	5	2	1	6	2	.	16
Song Thrush	5	3	4	5	.	.	17
Robin	.	8	17	1	.	.	26
Dunnock	3	2	2	6	1	.	14
Chaffinch	.	.	1	.	.	.	1
Bullfinch	2	8	.	2	1	.	13
Totals	**47**	**31**	**47**	**44**	**12**	**.**	**181**

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	92	115	159	130	126	611

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	151	109	120	606

Recent years

2010	94	100	144	119	143	600
2011	96	112	120	105	101	534
2012	69	125	132	66	72	464
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	150	163	780
2018	95	108	182	184	119	695
2020	120	---	---	93	174	(387)
2021	...	163	129	90	109	(491)
2022	83	120	175	99	131	608
2023	106	118	181			