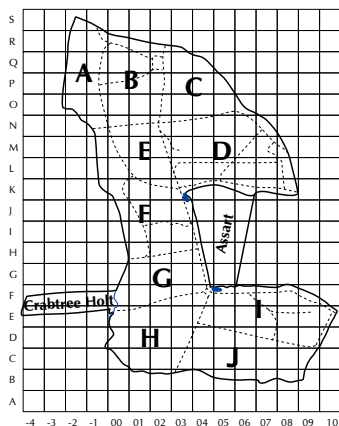


# TWITTER



Treswell Wood - Information To Tell Every Recorder

## October 2023 Treswell Wood IPM Group

(Integrated Population Monitoring)

**Project leaders:**

**CBC** Ellen Marshall

**Nest Records** Chris du Feu

**Ringling** John Clark

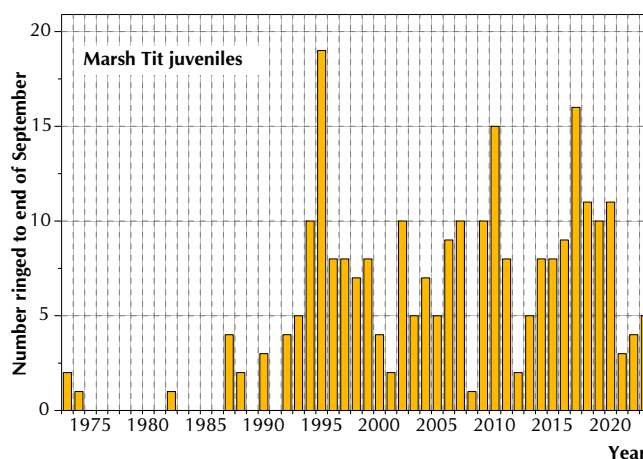
**2023/4**

**Number 144**

[www.treswellwoodipmg.org](http://www.treswellwoodipmg.org)



The mild and calm weather lasting into September has been very helpful for us, and enabled us to complete both the BTO CES and our own constant effort period 4 without using the 'reserve' weeks. Catches at our standard sites felt low, and this was borne out by the catch for period 4 being well below the mean. Numbers of young Blackcaps were lower than usual, as shown by the standard site catches, and this will have affected the overall numbers. The proportion of nestbox-ringed tits in the captures of juveniles was lower than usual - for Great Tits 28% rather than the usual 47% and for Blue Tits 15% rather than 31%. This may result partly from the lack of visits to the feeding station in the first weeks after birds have fledged. It is at that time we normally catch local birds (i.e. many of our nestbox ringed birds) before the juvenile tits start to disperse more widely. We have caught five juvenile Marsh Tits - this is average for all years since we began ringing, slightly higher than the last two years but lower than the preceding seven years. The graph shows how the numbers of Marsh Tit juveniles captured has fluctuated over the years.



The deer fences round the newly coppiced blocks adjacent to Norman's Ride have had a positive effect, and the new shoots are now a couple of metres high and looking very healthy. Unfortunately the weather has also been very suitable for bramble and briar growth, and it has been hard work to keep the nestbox rounds and rides away from the public paths open. Ash die-back gets more visible at this time of year, and is affecting nearly all the mature trees to varying degrees. Good news is that the Himalayan Balsam invasion just off Dam Ride seems to have been stopped - there has been no sign of it this year.

Ringers and Nest Recorders will now have received their summer copy of the newsletter 'Life Cycle' This issue has a 50<sup>th</sup> anniversary celebratory article about Treswell Wood. Thanks to all ringers and recorders, past and present, who have made the project so long running.

## Events in Nestboxes - Treswell Wood, 2023

Species	Nests		Eggs laid	Adults caught on nests	Birds		% Success Rate	
	Recorded	Successful			Nestlings fledged	Nestlings recaptured (to Oct 10 <sup>th</sup> )	Nests	Eggs
Stock Dove	19	8	35	1	17	.	.	.
Tawny Owl	2	2	3	1	3	.	.	.
Coal Tit	2	2	21	2	18	1	100	86
Blue Tit	60	36	549	38	263	9	44	48
Great Tit	29	20	199	2	117	20	69	59
Wren	8	1	43	.	3	.	12	7
Robin		1	1	4	0	4	.	.
<b>Totals</b>	<b>120</b>	<b>70</b>	<b>851</b>	<b>48</b>	<b>421</b>	<b>34</b>	<b>58</b>	<b>49</b>

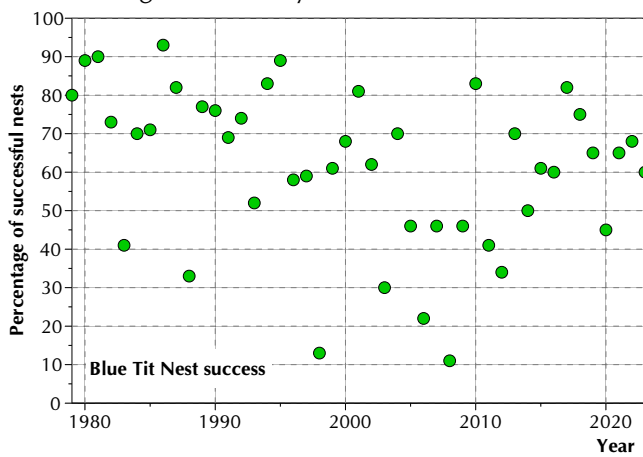
## The 2023 nesting season

We have remarked, before, several times, that immediate impressions can over-ride long-term experience. That is why we need data from the past. Each time we visit a nestbox and find cold, deserted eggs or remains of nestlings attacked by a weasel, it feels as if the season is a failure. This is particularly so if it is the last few nests of the round that have suffered. The memory of the season is often coloured mostly by memories of these failures leaving an overall feeling of a 'bad season'. Of course, the aim of the nest recording is to record what goes on so each nest record. Whether a nest succeeded or failed, its recording is a success.

To know if the season is successful we need to be able to compare it with past seasons. However, this is not always easy because the total number of birds fledged - an obvious measure of success - depends to some extent on the number of boxes and spread of boxes within the wood. Nest failure comes from many directions - weather, predation, lack of food, adults dying, undue disturbance, etc.

So what of 2023? A disappointing feature is that we did not record any Marsh Tits nests in boxes. We think they have bred in the wood but in natural sites. Coal Tits managed two nests, both successful. This is the highest number since 2014. Likewise Tawny Owls had two nests, both successful although between them they produced just two fledged young. Stock Doves have continued nesting well into October (and could go into November) so the final numbers are not yet known. They appear to be on a par with recent years. The number of Wren nests in boxes was about typical but overall fledging success derisory - predation being the major cause.

That leaves the two most abundant nesting species - Blue and Great Tits. In both cases the numbers of nests and numbers fledged were very much in line with other recent years.

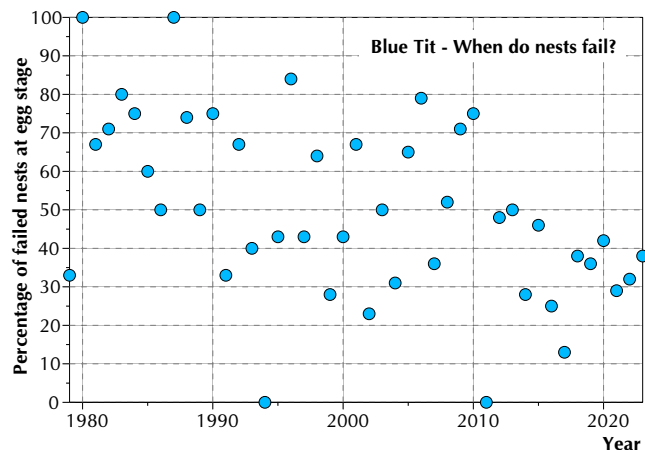


What about nest success rates? The graph shows the proportion of Blue Tit nests which have succeeded (i.e. at least one nestling fledged). This year the figure is exactly average - 60%. For Great Tits it is above average 69% against an average of 52%. Look at the scatter of the Blue Tit success rate - the most striking thing about our record of nest success is its unpredictability.

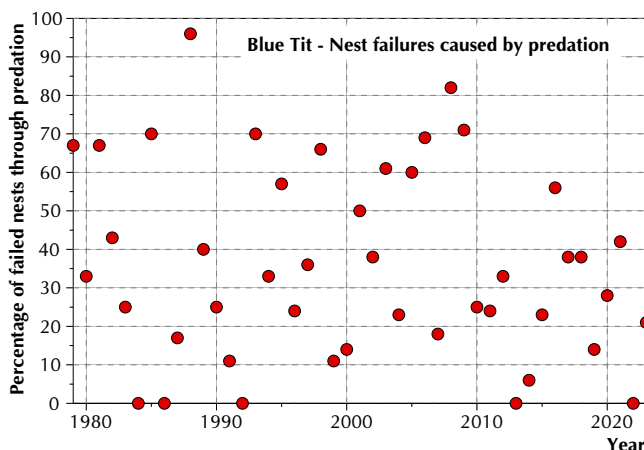
Nests can fail at the egg stage (laying/incubation) or nestling stage. Here we do have a surprise. For Great Tits there is no trend in the proportion of failures that happen at egg stage, just a remarkable scatter. Blue Tits, on the other hand do show a consistent trend with fewer nests failing at the egg stage with time. It is no surprise that the

two species are different. Great Tit nestlings are far noisier and attract the attention of predators more than do Blue Tits. But why Blue Tits seem to be changing with time but Great Tits are not seems unclear.

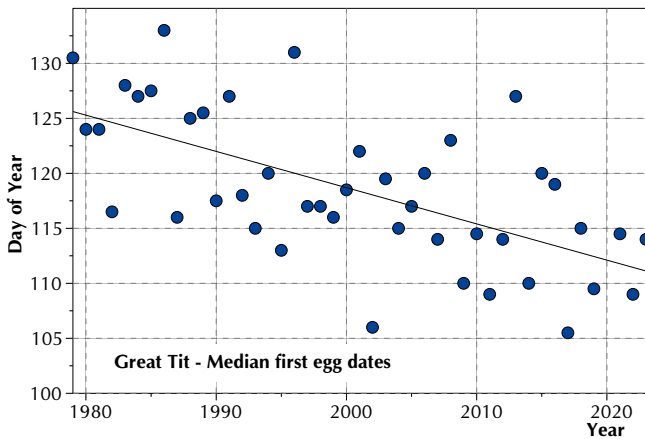
Predation is a major cause of nest failure. Grey squirrels, weasels, Great Spotted Woodpeckers and wood mice appear to be the main offenders. Predator populations fluctuate over longer or shorter time scales. Wood Mice may be scarce one year but abundant the next year if breeding is successful. Woodpecker populations take longer to grow or fall. The extent of predation depends on the numbers of predators and any interactions with other species. Low mouse numbers can lead weasels to take more nestlings unless rabbits are abundant, for



example. We wondered how predation, as a cause of failure, varied through the years and was there a pattern? The graph shows the proportion of failed Blue Tit nests where predation was the cause. Again, the striking feature is the variation with 95% of the Blue Tit nest failures in 1988 being through predation but in five separate years predation was not the cause of any nest failure. The 1988 nestbox report notes massive predation by wood mice at the egg stage followed by weasels taking more of those where eggs did hatch. Overall there is no marked trend.

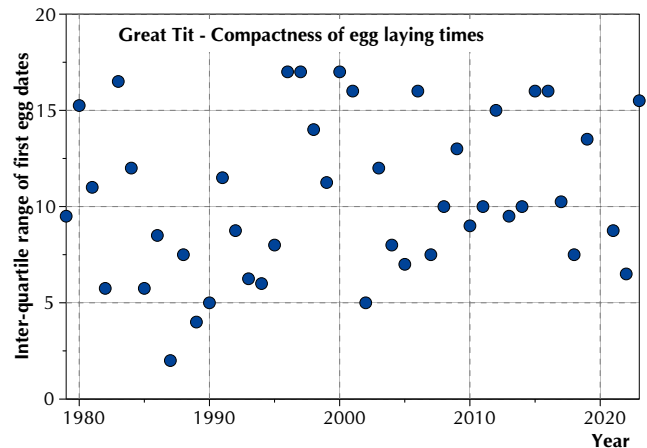


The same is true for Great Tits



With 45 years of nest records from the wood we can look at various trends. We know that nesting dates are becoming earlier. The change in median first egg dates for Great Tits since we installed nestboxes in 1979 is illustrated. (The first egg date is the day of the year on which the first egg is laid in a nest and the median is the first egg date of the middle nest of the year). Although there is a great deal of change from one year to the next, there is a significant overall trend with laying becoming one day earlier every three years. Blue Tits are also nesting earlier but at about half the rate of Great Tits.

Other things too might change with the changing climate. We looked at the length of the nesting season by using the inter-quartile range of the first egg dates (that is the number of days in which the middle half of the first egg dates fall). For both Blue and Great Tits there is no overall trend. The most obvious feature, for both species, is the amount of scatter. The Great Tit data are illustrated. In the most compact year (1987) half the egg laying started within a span of only two days, at the other extreme the period was just over two weeks. In spite of earlier laying, the duration of the start of egg laying remains the same.



## Ringling data, CES and Environmental Monitoring

We have received feedback from the BTO on our CES 2022 captures. As usual our capture rates fall well below the national average. This is simply because woodland sites, with high tree canopies, necessarily suffer far lower capture densities than do scrubland or reedbed sites. It would be very interesting to see a breakdown of results by type of site.

Nevertheless the national CES makes an important contribution to environmental monitoring and the BTO data are also fed into a European-wide constant effort monitoring operation which is overseen by EURING.

With support from the European Food Safety Authority, EURING has been able to initiate a 'Bird Flu Radar' application. This is a predictive tool which uses data from ringing schemes giving maps showing the probabilities of outbreaks of avian influenza throughout Europe to a resolution of 50km. At present this relies on data for a small number of waterbird species (which we do not come across in the wood) but the plan is to extend the scope and power of the operation. The application can be found at <https://euring.org/migration-mapping/bird-flu-radar> and it is freely useable.

Euro CES and the 'Bird Flu Radar' are parts of an important part of European-wide environmental and disease monitoring and reporting system. Without the efforts of us ordinary ringers, such operations would not be possible. EURING's president, Stephen Baillie of the BTO, thanks all ringers who have provided, and will continue to, provide the vital data.

## Great Tit Moul

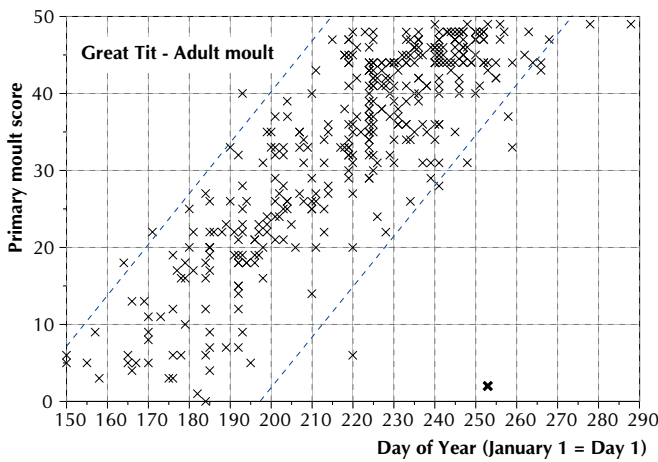
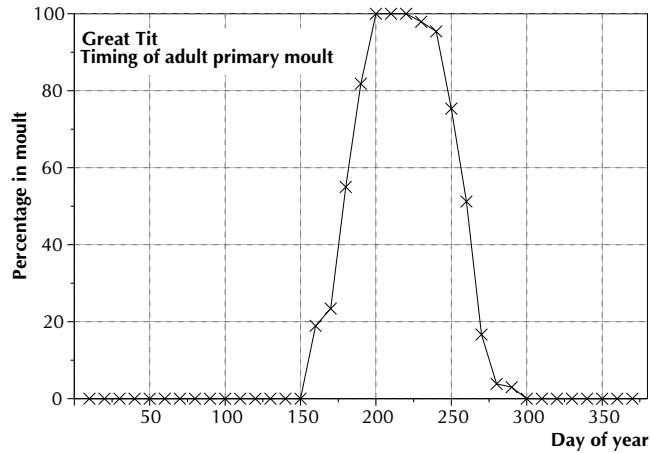
Most of our woodland passerines undergo a full adult moul each year, replacing worn feathers with new. For tits, moul generally starts once breeding is over. The start is staggered because some birds can moul early if their nest fails and it is too late to have a second attempt. That gives them more time to moul, allowing better quality feathers to grow, giving them better chances of over-winter survival than those which moul later.

Moul begins with the inner primaries dropping. Once they have started to grow the next outermost primary will drop and this pattern continues until the outermost primary has regrown. At some point during this process, other feather tracts begin to moul. Primary moul finishes well before the other feather tracts. To measure the progress of moul, each of the 10 primary feathers is given a score in the range 0-5 (0 for old and 5 for fully grown). The primary score is the sum of these ten individual scores. Thus scores range from zero before moul has begun to 50 when primary moul is completed.

The unusually late start of moul noted by Olly (see AEZ3501 in Noteworthy Captures) provoked a look into the

timing of primary moult of Great Tits. We have never looked at the timing of adult moult. The only thing we have looked at in detail is the extent of post-juvenile tail moult (TWITTER 139, October 2022). The notes below relate just to full moult of adult Great Tits. There are other species for which we hold large data sets waiting to be examined.

Several things are of interest. The first graph shows the proportion of Great Tits recorded with active primary feather moult throughout the year, tabulated in 10-day intervals. It is no surprise that there are none throughout most of the year. Moult starts rapidly around day 150 (beginning of June) with the last birds recorded in moult around day 300 (end of October). From day 200 (July 19<sup>th</sup>) for a month, all adult birds have been recorded in active moult. Moult is certainly a far more compact and synchronised part of the birds' annual cycle than is the often protracted business of nesting.



This second graph shows the rate of progress through the moulting season with data for all years from 1973 onwards. The earliest birds in moult have been recorded on day 150 (May 31<sup>st</sup>) and the last on day 279 (October 6<sup>th</sup>). The two dotted lines on the graph are taken from the BTO moult guide showing the main moulting season for all UK Great Tits in the 1960s when the BTO 'Moult Enquiry' was carried out. Our records fit neatly within those parallels with just a few, expected, outliers. The one real exception, plotted in bold, is AEZ3501. A non-conformist if there ever was one.

But what about the timing of moult? Has it become earlier because nesting is earlier and birds could, therefore, start earlier, moult more slowly and grow better quality feathers to see them through the winter and subsequent breeding season. Thanks to the wonders of a statistical package we have the answer.  $P = -30.54 + 0.420d - 0.014y$  where  $P$  is the primary moult score expected on day  $d$  of year  $y$ . The 0.042, which is statistically significant, indicates that the expected moult score recorded on Great Tits typically increases by 0.42 per day. The 0.014 year coefficient is not statistically significant and indicates the effect (or lack of it) of the year: negligible. This means that the timing of moult is not becoming earlier with the years, in spite of the spring becoming earlier and autumn later. Jenni & Winkler (Biology of Molt in Birds, HELM 2020) note that onset of moult is primarily governed by photo-period - i.e. day length. Happily, our lack of change in timing of moult is in line with this. Further evidence for lack of change is that our data fit so closely to the data from the moult studies of the 1960s

## Noteworthy Captures

Species	Age/Sex	Ring	Date	Grid
Tawny Owl	5	GM40969	27/08/2023	N00

This is the second mist-netted Tawny Owl this year. On average we only catch one every two years (apart from those caught in nestboxes). Until 2010 we had never caught more than one in any year. Since then we have caught two in three separate years and in 2011 our total was four birds (one juvenile and three adults).

Blue Tit	4	Z782798	20/08/2023	E07
----------	---	---------	------------	-----

The oldest recently captured Blue Tit, 6years 78days since being ringed as a juvenile in 2017. It was recaptured later in 2017 and again in 2019, with no subsequent captures until late 2022 followed by this one almost a year later. We wonder whether the lack of captures between late 2019 and late 2022 results, at least partly, from reduced ringing visits during the times of covid-related restrictions. It is the 15<sup>th</sup> oldest Blue Tit we have caught but still is two years short of the oldest. However 15<sup>th</sup> out of 13,537 is very near the top.

Marsh Tit	3	AEZ3491	03/09/2023	E06
-----------	---	---------	------------	-----

Sadly we did not record any Marsh Tit nests in boxes this year but we have caught five juveniles. Because Marsh Tits are very sedentary and require large woodland areas for breeding it seems most likely that those we have caught this summer and autumn have been reared within the wood.

**Great Tit                      4F            Z782706            27/08/2023            M03**

Another tit ringed in 2017 but this fledged a year earlier than Blue Tit Z782798. It has been captured more frequently but, like the Blue Tit, was not seen in 2021 and only once in late 2020 when covid restrictions had been (temporarily) eased. By chance it is also the 15th oldest bird out of the 8,435 Great Tits we have caught but well over two years short of our oldest. The Blue Tit Z782798, being 15<sup>th</sup> out of a much large number really is the winner.

**Great Tit                      4            AEZ3501            10/9/2023            E06 The Non-conformist**

This bird had, at some point, lost one leg. The wound had healed so it was not recent. However the plumage was not as well looked after as normal. This is not surprising. Much preening is normally done by standing one one leg and working the feathers with the opposite foot. No so easy with only one leg. The plumage was in such a poor state of repair that it was not even possible to determine its sex which is normally fairly straightforward with this species. However, what was most surprising was that the bird had only just started its full moult, with just the first inner primary feathers regrowing. This is not just a late start for moult: it is very late indeed. It provoked the productive look into the timing of Great Tits moult. When you have examined the timing of Great Tit moult, you will appreciate that this bird was not a statistical outlier. It was far, far beyond that.

**Goldcrest                      3M            DRA379            17/9/2023            Q03**

We had not caught any Goldcrests since May. That bird was a recapture from late December 2022 so seemed to be a late-departing wintering bird. After such a long gap between captures it seems this bird it was the first of the winter arrivals. It was followed on the next visit by four more birds with seven more the next week. It does seem that the winter influx has begun. We only heard them calling in the wood twice in June and once in August. It will be interesting to see whether the CBC detected any signs of breeding birds.

**Chaffinch                      3JM            AEZ3467            27/08/2023            Q03**

What is noteworthy about a juvenile Chaffinch capture? In the past it would have been a very ordinary capture indeed. It is one of Britain's most common species, this was a new bird so had no interesting recapture history. Since May we have caught only four juvenile Chaffinches and no adults. The only bright side of this dismal picture for such a formerly common species is that all these few that we have caught have been healthy with no trace of either scaly leg mite or Trichomonosis.

**10-Week Summary: 2023 Interval 4, Captures in Standard Sites**

	New Birds			Recaptures			Total
	Adult	5	3	Adult	5	3	
Stock Dove	.	.	.	1	.	.	1
Tawny Owl	.	1	.	.	.	.	1
Blue Tit	.	.	.	3	.	3	6
Great Tit	.	.	2	1	.	1	4
Chiffchaff	1	.	3	.	.	.	4
Blackcap	.	.	5	1	.	.	6
Wren	1	.	19	.	2	2	24
Treecreeper	.	.	3	2	.	.	5
Blackbird	2	.	5	.	.	.	7
Song Thrush	1	.	2	1	.	.	4
Robin	.	.	19	.	.	.	19
Duncock	.	.	4	2	.	.	6
Bullfinch	.	1	.	1	2	.	4
<b>Totals</b>	<b>5</b>	<b>2</b>	<b>62</b>	<b>12</b>	<b>4</b>	<b>6</b>	<b>91</b>

**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
<b>Maximum</b>	128	198	288	253	177	864
<b>Minimum</b>	57	33	89	66	59	364
<b>Mean</b>	92	115	159	130	126	611



## Standard Site Totals in 10-week periods - 10-year Averages

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

## Previous years' nest records

Year	Nests		Eggs laid	Birds			% Success Rate	
	Recorded	Successful		Adults caught	Nestlings fledged	Nestlings recaptured	Nests	Eggs
2023	120	70	851	48	421	34	58	49
2022	132	92	824	52	493	80	70	60
2021	142	81	723	51	331	38	62	46
2020	126	67	725	42	326	30	53	45
2019	125	77	939	67	473	54	62	50
2018	120	81	910	78	545	124	68	60
2017	105	75	747	38	416	94	71	56
2016	91	54	626	38	324	85	59	51
2015	102	59	633	41	283	66	58	45
2014	119	65	791	31	330	57	55	42
2013	80	51	484	26	314	105	64	65
2012	112	50	670	28	219	46	45	33
2011	111	62	796	32	310	53	56	39
2010	112	80	778	25	539	185	71	69
2009	118	54	648	26	300	53	46	46
2008	108	29	589	22	139	30	27	24
2007	129	64	922	52	313	47	50	34
2006	175	37	885	31	225	60	21	25
2005	153	49	852	47	245	48	32	29
2004	141	94	917	41	538	67	67	59
2003	133	41	769	29	213	52	31	28
2002	101	67	733	42	415	76	66	57
2001	83	48	587	37	332	34	58	57
2000	97	53	682	37	274	51	55	40
1999	107	75	756	40	425	73	70	56
1998	127	27	767	53	130	17	21	17
1997	133	80	939	75	425	86	60	45
1996	118	62	773	57	335	90	53	43
1995	129	106	983	58	742	85	82	75
1994	60	37	461	32	230	53	62	50
1993	50	21	306	28	156	25	42	51
1992	47	33	367	26	248	29	70	68
1991	46	29	358	29	172	24	63	48
1990	64	37	483	40	229	33	58	47
1989	95	59	720	63	416	78	62	58
1988	87	30	598	49	202	63	34	34
1987	76	59	662	48	478	118	78	72
1986	84	61	592	45	432	61	73	73
1985	74	51	612	56	334	97	69	55
1984	81	53	512	39	313	48	65	61
1983	81	35	557	41	219	59	43	39
1982	52	39	405	34	280	62	75	69
1981	119	71	711	46	421	109	60	59
1980	139	97	818	32	540	126	70	66
1979	104	75	554	17	367	88	72	66

Note that numbers of recaptures from the 2023 cohort will increase noticeable. Numbers for cohorts from the previous two or three years may creep up a little as time goes on.