

# **Buccleuch Estates Pied Flycatcher**

## **Ringling Report 2019**

This report summarises my results from the 24th year of field work into the Pied Flycatcher breeding population in the four study site woodlands to the east of Sanquhar/Menock. The aims of the project are to provide nest boxes then to count the breeding population and monitor their breeding success annually. The birds are all ringed under licence by the British Trust for Ornithology, and the data generated is held and analysed by, professional ornithologists working for the BTO.

We made two visits to the woodlands in 2019, on the 1st and 9<sup>th</sup> June.

As is normal we started at Alymerbank wood at 9.00am, it was a warm but moderately windy day and the woods were fairly quiet overall. Some birds were in song but not as many as we would have expected.

Unlike last year, when there were very few Pied Flycatchers about, one pair and two single males, the woods held no less than 7 active Pied Flycatcher nests! This is a record number for this part of the woodland.

So a great start to the season and we were able to get a few adults on late eggs and newly hatched chicks. There were also two active Redstart and seven broods of Great Tits, so not only did the migrant flycatchers and Redstarts have a good winter so did the local tits.

Ardoch was similar in that good numbers of Pied Flycatchers had returned again the total here increasing by two pairs to 10 all in.

We managed to get to Lime Cleugh as well, (well some of us did) and finished the day at 7pm with even more pairs located, the increases were smaller but very happy with 7 nests one up on 2018.

Quite a few of the boxes had fallen down over the winter, not surprising given their ages now, I always take a few replacements each year but we will have to replace most of them in Lime Cleugh and a few in the first two woods in 2020.

The return visit on the 9<sup>th</sup> was, as always, a shorter visit, as we only have to target the active boxes. With most of the birds being at the same stage this year we got most of the successful

broods ringed over the two trips. It would appear the good weather had been favourable for the caterpillars the birds feed on, as the late eggs and small chicks of both the Flycatchers and the Redstarts had grown very quickly during the week and were all large chicks now and big enough to ring.

The next three photos show the development of flycatcher chicks from hatching to near ready to fly, in 10 days!



Overall the Pied Flycatcher population had increased from 15 to 24 active nests and increase of 60%, bringing the population back up to its highest level since 2008 (24 nests) only beaten by 28 in 2007 and 29 in 1998. It would be good if this was the start of a recovery for the whole UK population, but only time will tell. The mean number over the last ten years is 15.1 nests.

### **Pied Flycatcher Population 2019.**

**Table 1.**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Wood										
Alymerbank	2	3	1	1(2)	5	6	4	2	1	<b>7</b>
Ardoch	6	7	7	6	4	7	11	8	8	<b>10</b>
Lime Cleuch	1	6	3	0	3	4	3	1	4	<b>5</b>
Lime Cleu.A	1	1	1	1?	3	2	2	1	2	<b>2</b>
Totals	10	17	12	7(9)	15	19	20	12	15	<b>24</b>

## **Ringling Totals Pied Flycatcher**

In total we ringed 108 chicks and caught 26 adults, of these 11 were new birds and 15 were ringed birds from previous years. This catch of adults is our highest ever and increases the accuracy of the survival data analysed by BTO over the winter. (Results are late this year due to the Covid-19 pandemic)

## **Returning adults**

For me this is the most interesting part of the project. This year we caught a record number of adults so there is plenty of data to have a look at. We always catch more females than males, for a number of reasons; the females will let us take them off small chicks and will safely return to the nest and remain, males won't. Females are more bonded to their clutches and chicks than the male's who will often go off and try to have second or third females to breed with so appear to be less bonded often leaving the females alone to raise the brood. However as we all know nature is never consistent and some males will remain at the boxes until the chicks have fledged and will continue to feed the chicks until independent. Most years we will find a box with two or even three males helping out; this may be due to the females having several mates as well.

Overall this year we caught 11 males and 15 females. When we look at their ages things get more interesting.

Birds in their first breeding year, year after hatching, normally make up a very small proportion of the population and when the population was falling there were less than 10% in this category. This year the rise in numbers is down to many more juveniles surviving the winter and returning to breed with exactly 50% of the birds caught being first years.

When we look at the sexes again in relation to age there is a very marked difference, with 81% of males being two years or older, three of these birds were hatched in 2015. Only two of the 15 females were two years or more giving us a total of 86% as first years, the exact opposite to the males.

How these differences come about is unknown, it may be down to different wintering areas for males and females, or timing of migration, so typically adult males come back first and first year females last, so perhaps the weather in the middle of the arrival period was poor and took a higher toll on those individuals migrating at that time.

Every year we see ringed adults we are unable to catch, this may be down to them remembering being caught before so avoiding the small trap doors but as the study goes on we

do catch birds in later years which may have been seen but not caught for a while. This year we caught a number like this, adult males Z444406, 461, 467, were all ringed as adults in 2016 and had never been re-captured since.

D234241 was ringed as a chick in 2015, and was caught as a breeding male in 2018 and 2019. D234259 was also ringed as a chick in 2015 and caught as an adult male in 2017, 18 and 19 so who knows!

The only adult female we re-caught was one we had ringed last year as an adult.

The origins of the new birds arriving in the woods are mainly from outwith our study area but are typically hatched within 15-30km of here. Only rarely do we get reports of birds from well outside our site/s. Of the two ringed birds we caught this year that were not ours, S885799 a first year female, had been ringed as a chick on the RSPB reserve at Geltsdale in Cumbria, NX5655 in 2018 a 94km movement, the other was more typical being ringed as a chick in 2016 at Closeburn, Dumfries 18km away.

The returning chicks we have ringed come back to this area but can breed in any of the three sections we cover. Of the five first year females we re-caught three were from Ardoch in 2018 with one breeding in each section, Alymerbank, Ardoch and Lime Cleugh. Two were from Alymerbank and both bred in Lime Cleugh.

The single first year male had hatched in 2018 in Ardoch and moved to Alymerbank to breed.

Adults are usually site faithful but adult male D234241, ringed as a chick in 2015 at Alymerbank was caught breeding in 2018 at Lime Cleugh A, and then in Ardoch in 2019; this is our first experience of an adult male changing breeding site.

Ageing of the adults in the hand is notoriously difficult in Pied Flycatchers, esp in females but we are fortunate as we catch many birds of known age. The following photos show the subtle differences in wear on tail feathers. First year birds will often moult (replace) some but not all tail feathers over the winter, adult bird's undergo a complete moult of all feathers, starting here late in the season and before migration.

They replace some body and wing covert feathers before Spring migration as well, picture 3 shows that some don't read the books!

1.



2.



1. First year female, has replaced the 2<sup>nd</sup> outermost tail feather on RHS, over the winter, the rest are still juvenile i.e. these are the feathers grown in the nest in 2018, and been with the bird since. They show heavy wear and bleaching from the African sunshine.

2. Adult female having undergone full moult in autumn 2018, the feathers are fresher, more dense and more rounded at the tips.



3. Adult male, left hand side are adult feather replaced in the autumn 2018 (as in 2.) but he has then replaced the whole right and side before migration. This could be abnormal moult or he had them pulled out by a potential predator in Africa!

### Nest Outcomes.

Number of clutches 19, range 4-9, mean 6.4.

Number of broods 19, range 2-8, mean 6.0

The mean clutch and brood sizes were down slightly on the last two years, this often happens when the population is higher, presumably due to competition for food.

Of the other five nests, two were predated at the egg stage, one brood were dead in the nest, one brood was too small to ring and the other was still laying. This could have been a late arriving pair or a replacement clutch from a different site.

### Table 2. Other species.

As we go through the woods checking the nest boxes we also record all other species we see or hear singing thus recording the breeding populations. As we only visit twice it is likely that these figures will be an underestimate of the population.

Species	Alymerbank	Ardoch	Lime Cleuch	Lime Cleuch A
Redstart	7>	6=	2<	1=
Garden Warbler	0<			
Tree Pipit	4=	4>>	4>>	
Willow Warbler	5>>	8>>	5>	
Spotted Fly.	2>	1=		
Starling	1=			
Mistle Thrush	0<	0<		
Blackbird	0<	1=		
Great Spot.Wpkr	2=	3>	1<	
Nuthatch	3>	2<		
Siskin				
Song Thrush	1>	1>	3>>	
Bullfinch				
Lesser Redpoll			2>	
Chaffinch	3<	6>>	2=	
Wren	3>	3>	3>	3>
Treecreeper	1=	3>>		
Coal Tit	1>	1>	0<	
Great Tit	7=	3=	2=	
Blue Tit	3>	3>		
Robin	5>>	1=	1>	

<b>Blackcap</b>	<b>0&lt;</b>	<b>1&gt;</b>	<b>1&gt;</b>	
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For “other species” this year I have shown the trend compared to 2018, > increased, >> significantly increased population, <decreased and = unchanged.

As always these data are minimums, many of these species would require several visits earlier in the year to census them accurately, our visits are normally consistent between years which makes them of some use.

Many species were stable, including Redstart and Great Tits, Blue Tit numbers were up slightly. Species that don't use boxes were also counted as usual; two trans-Saharan showing significant increases were Tree Pipit and Willow Warblers this year.

Less common birds (for the woodlands) recorded this year included a pair of Swallows back in the old shed at Alymerbank, a family party of Long Tailed Tits and a pair of Wood Warblers at Ardoch. Once again we located the nest but they were in eggs initially and only tiny chicks on the second visit.

Other species ringed included, Redstart 2 adults and 22 chicks, Great Tit 14 chicks.

Photos show adult male Redstart (wing coverts all uniform grey edged) and a half grown brood. The nest can be similar to Pied Flycatchers but they never have feathers in the nest.



### **Acknowledgements.**

I am very grateful to the Buccleuch Estates and to the tenant farmers for permission to carry out this project and would like to be able to continue this in the summer of 2020. Thanks also to the other ringers that assisted with the field work without their help this project would not be possible.

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