



**MERSEYSIDE
RINGING
GROUP**



**Annual Report
2016**

MERSEYSIDE RINGING GROUP

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Report Editor: Peter Coffey



Cover: a White-crowned Sparrow *Zonotrichia leucophrys gambelii*, caught and ringed at Woolston on 30 April 2016. It has been accepted by British Birds Rarities Committee as belonging to the subspecies *gambelii*, a new subspecies for Britain, and is only the second White-crowned Sparrow to be ringed in the UK. (Photo: D Bowman)

Acknowledgements

Merseyside Ringing Group receives vital co-operation from many landowners, farmers and gamekeepers in Merseyside, Cheshire and north Wales. They permit group members to work on their property and without their generous help, much of the work of the group would be impossible. The Group also receives considerable support from local authority countryside and ranger teams, local Wildlife Trusts and private individuals. Thank you all for your support.

Maps showing the distribution of controls and recoveries have been produced using DMAP.

Merseyside Ringing Group operate under the auspices of the BTO Ringing Scheme which is funded by a partnership of the British Trust for Ornithology, the Joint Nature Conservation Committee (on behalf of: Natural England, Natural Resources Wales, Scottish Natural Heritage and the Department of the Environment Northern Ireland), The National Parks and Wildlife Service (Ireland) and the ringers themselves. Data from the BTO Ringing Scheme has been used in several articles in this report and we acknowledge the use of this valuable resource.

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WHITE-CROWNED SPARROW *Zonotrichia leucophrys gambelii* WOOLSTON EYES 30 APRIL 2016

Michael Miles

Saturday 30 April was a routine ringing session on No.3 bed at Woolston with nets opened in the usual places from 06.00 onwards. On a normal Saturday morning our first capture, a male Grasshopper Warbler, the first of the season, would have been the high point of the day. Just after 08.30 I went to check a net set 30 metres from our ringing table. This net had been quiet all morning and as I approached it I could see that it contained just two birds. I removed the first, a Great Spotted Woodpecker and moved towards the second. Even from a distance the head pattern was distinctive. For three years around the turn of the century I lived, birded and banded in central New Jersey and the thought passed through my mind “if I was still in Princeton I would say that was a White-crowned Sparrow”, a regular but not plentiful visitor there. As I lifted it from the pocket of the net it was clear that it was indeed a White-crowned Sparrow but this was so unlikely that my brain struggled to accept the evidence of my eyes. I placed the bird in one of the soft cotton bags used to transport birds and took it back to the ringing table. I showed it to my ringing colleague Kieran Foster who has also handled this species in North America. With admirable calmness, he said “That’s a White-crowned Sparrow”.

Not surprisingly White-crowned Sparrow does not occur in the list of ring sizes in the BTO app on my iphone since only one previous bird has been ringed in Britain, on Fair Isle in 1977. Accordingly, callipers were used to measure the diameter of the tarsus confirming B as the correct ring. A ring was fitted and standard biometrics taken. Wing measurements were maximum chord 76.5mm, relaxed 74.5mm and the weight was 30.9gm. The bird was in exceptionally good condition with well developed breast muscles (score 2 on the 3-point scale) and fat filling the tracheal pit and a pad of fat on the abdomen (score 4 on the ESF scale).

Several characteristics were used to age the bird. Retained brown juvenile feathers in the hind crown (see photo 1) show the bird to be a second year (Euring code 5) bird coming to the end



1: Head, showing retained brown juvenile feathers in the hind crown, yellow lower mandible and absence of black in the lores.

of its partial spring moult (“pre-nuptial” in American terminology) which replaces the brown and tan juvenile head pattern with the familiar black and white. The brown abraded primary coverts lacking pale edging also indicates a bird in its second calendar year (photo 2)



2: Wing showing brown abraded primary coverts.

Other features are shown below. White-crowned Sparrows have twelve retrices; nine are visible in photo 3 (the other three are hidden by the hand) and they show fading and abrasion as might be expected of a bird that forages on the ground. The upperparts of the bird are predominantly brown heavily streaked with grey (photo 4)



3: Retrices showing extensive wear



4: Upperparts heavily streaked grey

During processing, photos were sent to Chris Batty, MRG country member and a member of British Birds Rarities Committee, who suggested that the bird showed characteristics of the Western Taiga (Gambel's) race *gambelii*. There are five subspecies of White-crowned Sparrow:

- Eastern Taiga (Eastern) *Z. l. leucophrys*
- Western Taiga (Gambel's) *Z. l. gambelii*
- Interior West (Mountain) *Z. l. oriantha*
- Pacific group (Nuttall's) *Z. l. nuttalli* group (includes Nuttall's *Z. l. nuttalli* and Puget Sound *Z. l. pugetensis* subspecies)

Reference sources: Identification Guide to North American Birds (Peter Pyle); Field Guide to the Birds of North America (National Geographic); The Sibley Guide to Birds (David Allen Sibley) and Banders Information Resource Data Manual (Eastern Bird Banders Association).

The bill appeared small against my memory of the birds I handled in New Jersey which would have been of the race *leucophrys*. Gambel's White-crowned Sparrow, which breeds from Alaska eastwards to Hudson's Bay, are distinguished primarily by the small bill, the yellow-orange colour of the lower mandible and the whitish area above the lores. The photographs were sent to Marshall Iliff and Christopher Wood at the Cornell Lab of Ornithology. Marshall Iliff commented "Personally, I'd call this a Gambel's without too much hedging. The bill looks yellower than some (less orange), but I think the back has enough gray (sic) to rule out the extremely unlikely *nuttalli/pugetensis* option. I'd like to see the full bird without a hand around it to really be sure. But I'd be confident this is not *oriantha* or *leucophrys* and plumage, bill color (sic) and probability (whether ship-assisted or not!) weigh strongly for Gambel's". Christopher Wood agrees with Iliff's conclusions and both have some differences of opinion with Sibley's online guide (<http://www.sibleyguides.com/bird-info/white-crowned-sparrow/>).

What is a bird that breeds in north-western North America doing in Woolston? Whilst not the most obvious candidate for transatlantic relocation, the taiga races of White-crowned Sparrow have very large migration ranges and birds of this race have previously made autumn and winter appearances in eastern Canada (<https://birdtherock.com/2013/02/09/apparent-gambels-white-crowned-sparrows-in-newfoundland/>) and one made an appearance at Corvo in the Azores (<http://birdingcorvo2013.blogspot.co.uk/2013/10/white-crowned-sparrow-still-on-show.html>).

In North America all races of this species except *nuttalli* 'Nuttall's White-crowned Sparrow' would be undertaking migration at this time of year and this individual could have been engaged in a "parallel" and, of course, pointless migration when it arrived at Woolston. Its body condition certainly suggests it was migrating and that it had been feeding well for some time. Given the position of Woolston beside the Manchester Ship Canal and some 30 kilometres from the Port of Liverpool, the possibility exists that the bird was ship assisted but this implies it was receiving food on the ship or that it had been on land long enough to recover its condition.

The bird was released 09.00, approximately 30 minutes after capture. Information was released on Rare Bird Alert and a steady stream of visitors had reasonable views before it moved into deeper cover, the last sighting being at 11.45am.

The bird is the sixth record of White-crowned Sparrow of any form and just the second to be ringed after a bird on Fair Isle in 1977. The record has been accepted by the British Birds Rarities Committee as a White-crowned Sparrow and accepted as being of the subspecies *gambelii*. As this is a new subspecies for Britain, it must also be considered by the British Ornithologists' Union Records Committee before being accepted to the British List; that decision is awaited.

Acknowledgements

Special thanks to David Bowman, Vice-Chairman of the Woolston Eyes Conservation Group, who took all photographs used in this report and managed the process of granting access to the normally gated reserve for visitors wishing to see the rarity.

DIFFERENCES IN THE TIMING OF BREEDING BLUE TITS AND GREAT TITS BETWEEN FIVE LOCAL NESTBOX SITES

A.J. Garner, P. Coffey, R. Harris, M.R. Miles and D. Norman

Summary

Five sites in Cheshire and north Wales with nest boxes occupied by Blue Tits and Great Tits, studied over a 13-year period (2003-15), showed consistent differences between the sites in the timing of breeding of the two species. They all vary more or less in parallel – early years are early years and late years are late years; and the sites are usually in the same order – an 'early site' is an early site and a 'late site' is a late site. Reasons for these differences have not been analysed but they are presumably related to the local habitats and emergence of their preferred caterpillar diet with which to feed their chicks. We found no effect of latitude or altitude.

Introduction

Blue Tits are thought to synchronise their breeding to coincide with the maximum availability of suitable food for their chicks. In broadleaved woodland, the main prey is defoliating caterpillars in the tree canopy, especially Winter Moth. The same applies to Great Tits, although to a lesser extent as they have a more catholic diet. For both species, the adult birds are able to use a subtle combination of clues such as tree bud-burst in their local environment, and can vary the timing of their breeding by three weeks or more from one season to another (Perrins 1979).

As well as the year-to-year differences, the timing is reported to vary with latitude (e.g. Fargallo 2004; Phillimore *et al* 2016) and altitude (e.g. Wilkin *et al* 2007). However, within the relatively small geographical area covered by Merseyside Ringing Group, we knew, through informal discussions, that some of our nest box sites tended to be earlier or later than others, apparently consistently. This paper presents and analyses the data from five of our nest box sites, within 60km of each other, over a 13-year period (2003-15) to test the hypotheses for variation in timing of breeding of Blue Tits and Great Tits.

Methods and sites

The main characteristics of our five study sites are summarised in the table:

Site	Grid reference	Altitude (mAOD)	Woodland type	Years of data	Number of occupied boxes (mean; range)	
					Blue Tit	Great Tit
Prion	SJ0661	80-205	Mixed deciduous, predominantly Oak	2003-15	21; 8-37	14; 7-21
Glyn Arthur	SJ1365	150-305	Mixed deciduous: Sycamore, Ash, Oak, Birch	2007-15	19; 4-37	15;10-33
Delamere Forest	SJ5271	65-80	Oak/ Beech/ Sweet Chestnut/ Birch, Corsican Pine/ Scots Pine	2003-15	12; 2-19	7; 3-16
Northwich Woodlands	SJ6575	15-30	Mixed deciduous, predominantly Turkey Oak, Birch, Lime and Horse Chestnut, plus Corsican Pine	2003-08	25;16-35	40;35-46
Woolston Eyes	SJ6588	10-15	Oak/ Birch/ mixed-aged coppiced Willow	2010-15	6; 3-9	12; 7-14

Bueno-Enciso *et al.* (2016) showed that various aspects of the breeding performance of Blue Tits and Great Tits vary between different types of nest box material; this is not a complicating factor for our sites as four of them had exclusively wooden boxes. Only in the Northwich

Woodlands were there some woodcrete boxes. The orientation and height of the boxes varied between the sites and some were changed over the years.

All occupied nest boxes were visited and data submitted to the BTO's Nest Records Scheme. The main focus, at least for some members, is ringing the pulli and not all nests were seen with eggs. So for this analysis of the timing of breeding we use hatching dates rather than laying dates. As argued by Tomás (2015), this is perhaps ecologically more sensible: after laying, to some extent birds can adjust the start of incubation and the length of the incubation period to fine-tune their response to environmental variables. In our case it is also practically sensible as not all boxes were seen with eggs. This does mean that clutches that failed before hatching are not included in this analysis but we have no reason to expect that this biases our comparison between sites.

The hatching date for each nest was calculated according to the state of growth of the chicks:

Chick code		Age
NA/ BL	Naked/ blind	3 days
EY	Eyes open	5 days
IP	Feathers in pin	6 days
FS	Feathers small	9 days
FM	Feathers medium	12 days

Both species, in all years of our study, were single-brooded.

Two of the sites, Delamere Forest and Prion, were studied in every year of our 13-year study period (2003-15), with at least one, and often two, of the other sites contributing in other years so that our data cover three or four sites in every year.

Results

It is not self-evident what measure to take of the average date each year. Some of the date distributions appear to be skewed. As a test of this, we have compared the median and the mean dates, using all our data for every site and year.

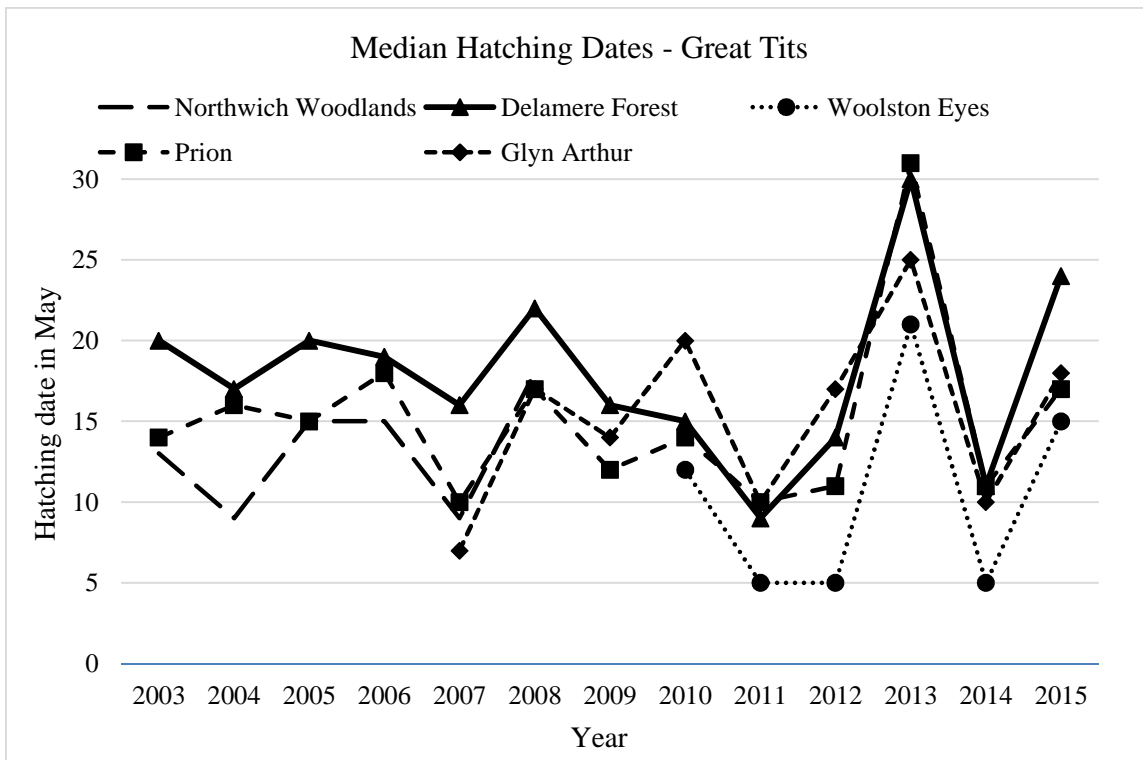
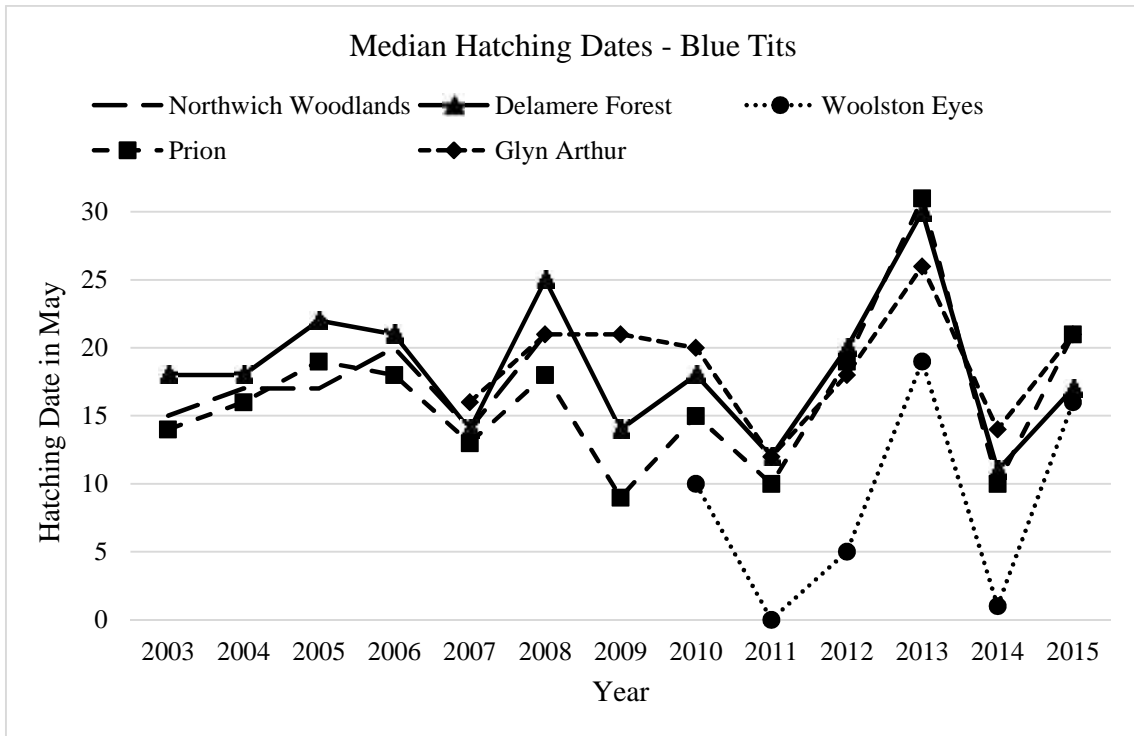
Mean compared to median (days)	+3	+2	+1	0	-1	-2	-3	-4
Blue Tit		3	14	13	14	2	1	
Great Tit	1	3	11	17	11	2	1	1

These calculations show that, for Blue Tit, the mean and median date were within one day of each other for 41 out of 47 (87%) of our site-year comparisons, and the spread was uniform. For Great Tit, the mean and median date were within one day of each other for 39 out of 47 (83%) of our site-year comparisons, and the spread was uniform. These data indicate that there is no systematic skew to early or late dates, so we are justified in using the median as a measure of the dates at each site and year.

These data are shown in the two plots below. There is some 'noise' but, in general, most of our sites fluctuate in parallel. For Blue Tit, 2007, 2011 and 2014 were 'early' years across all sites, with 2008 and 2013 as 'late' years. The Great Tit data show more variation, but again those five years stand out.

The difference between sites for the earliest and latest median hatching dates in each year over the 13 years varied from 2 to 15 days for Blue Tit, with a mean of 7.9 days; for Great Tit, the figures are 4 to 12 days, with a mean of 7.1.

Looking at our sites, Delamere Forest was the latest in 8 of the 13 years for Blue Tit, and 9 out of 13 for Great Tit. For Blue Tit in 2003-09, Prion was the earliest in six of the seven years. For the last six years of our study period, when data from Woolston were available, this was consistently the earliest site for both species.



Discussion

Most previous studies have found that Blue Tits and Great Tits nesting farther north lay later, with the corollary that birds in sites close to each other would have similar timing. Similarly, birds at higher altitudes tend to nest later than at lower-lying sites. Our data confound both of these expectations. All of our sites are at similar latitudes (within 0°14' latitude) yet their breeding varies between sites by a mean of 7.9 days for Blue Tits and 7.1 days for Great Tits. Our two sites at higher altitudes (Prion and Glyn Arthur), up to 300m in the Welsh hills, are not noticeably later than the other three lower-lying sites in Cheshire; there is no obvious effect of altitude.

Fargallo (2004) amassed data from the literature covering 87 studies of Blue Tits from North Africa to Scandinavia, reporting that laying date was later in evergreen than in deciduous habitats, was positively correlated with altitude and showed a quadratic relationship with latitude. The data covered various dates from 1947 to 1995 and thus might have included varying, but unknown, effects of climate change.

Within Britain, Phillimore *et al* (2016) recently used the BTO's Nest Record data to analyse the breeding of four species including Blue Tit and Great Tit, reporting that they showed significant geographic trends with first egg date delayed as latitude increases. They found that first egg dates are earliest in the southeast and there is a significant interaction between latitude and longitude, such that the latitudinal gradient in first egg date is steeper in the east than the west of Britain. This could be explained by the effect of altitude, not mentioned in their paper, as the west of Britain tends to be higher than the east.

Perhaps the closest published example to our findings is that of Blondel *et al* (1999). They reported that several populations of Blue Tits in the Mediterranean region, nesting at similar latitudes and altitudes, differ in timing of breeding by up to one month. The authors attributed this to local habitat differences, particularly in the spring development of foliage and the emergence of leaf-eating caterpillars. We have not recorded these features but expect that similar effects will explain our data.

Acknowledgements

We thank the landowners for access to the sites and other members of MRG who helped with nest-visiting and ringing.

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A REVIEW OF THE STATUS OF PIED FLYCATCHERS AT PRION, DENBIGHSHIRE 1986-2016

Peter Coffey

Summary

After changes to nest box management at Prion, including a significant increase in the number of nest boxes and replacement of old boxes in 2007, the breeding performance of the local Pied Flycatcher population has been analysed. Clutch size remains unchanged even though first egg dates have advanced but hatching success has dipped slightly. Chick deaths were relatively high between 1998-2011 and the number of fledglings per nest has been consistently lower than the UK average. A recent revival in the fortunes of the local population, based on three consecutive years of good reproductive success, would not have been achievable – and would not have been recorded – if changes to the nest box management had not been implemented.

Introduction

Looking back at a review of my first twenty years ringing at Prion (Coffey 2005), the outlook was gloomy:

“There is no escaping the fact that the Pied Flycatcher population at Prion is struggling. Large declines in the size of the breeding population coupled with declining proportions of chicks that fledge do not bode well. More alarmingly, the population in the upper valley fell sharply in 2003-05, at a time when the lower valley population increased slightly. The egg/fledged young survival rate has been below 50% for each of the last four years. Such consistently poor performance has not been recorded before in either section of the valley.”

This trend had mirrored a national decline. During the period of study, the Population Status of Birds in Wales report changed the classification for Pied Flycatcher from green list (in 2002) to red list (Johnstone & Thorpe 2010) because of a decline of at least 50% in the breeding population over the 25 years 1981-2006. The latest report, Birds of Conservation Concern in Wales 3 (Johnstone & Bladwell 2016), confirms the red list classification. Across the UK, Pied Flycatcher had been on the amber list in BoCC3 (Eaton *et al* 2009) and is now on the BoCC4 red list (Eaton *et al* 2015).



1: A pair of Pied Flycatchers feeding young at Prion (Photo: L Coffey)

The potential causes for the decline could be any or all of the following: a deterioration in the environment in their wintering quarters in West Africa; destruction of habitat along their migration routes, particularly in key stopover areas such as the cork oak groves in Portugal; and changing conditions in breeding areas. An analysis of long-term UK Pied Flycatcher population trends using BTO data finds little evidence to suggest the decline in UK Pied Flycatchers is the result of change in the breeding habitat or per capita reproductive success (Wright *et al* 2004). This article reviews the performance of the local Pied Flycatcher population between 2006-16 and explores local environmental factors that may have led to the identified changes.

The site

The study area is located in a 2.3 km section of a deep valley running approximately west to east towards the Vale of Clwyd. The habitat changes from open, exposed hillsides in the upper valley to narrow, steeply sloping, sheltered valleys in the lower section. The woodland is predominantly sessile oak although there are areas of mixed deciduous woodland and some areas of coniferous trees. Parts of the upper valley are grazed. Most woodland has low ground cover – predominantly grasses, brambles, bluebells and other woodland flowers – but holly, rhododendron and laurel colonise some areas (see photos 2-5).



2-5: predominantly oak woodland (clockwise from top left): on steeply sloping hillside grazed by sheep; on gently sloping land occasionally grazed by cattle; enclosed with no grazing and limited understorey in upper valley; enclosed in lower valley with no grazing on steeply sloping hillside with occasional stands of holly, laurel and rhododendron. (Photos: P Coffey)

The total area of woodland in which nest boxes are situated is 14 hectares. Altitude varies from 80-205m above ordinance datum (AOD). Almost all nest boxes are located on the south side of the valley; a group of four boxes are sited on the north side of the stream in the lower valley and eight boxes are on the crest of the hill facing west in the upper valley.

Changes to the nest box management in 2007

The number of boxes in 1986 started at 54, rose to a peak of 76 in 1995 and then fell to 68 in 2006; the deterioration in the condition of retained boxes left a lot to be desired. My MRG colleague, John Birch, advised me when I first took on the Prion site that numbers of Pied Flycatchers would fall after a few years unless new boxes were provided, advice confirmed in later studies (Lundberg & Alatalo 1992; Vilka 2003). The latter identified the internal light condition of boxes as a key factor for Pied Flycatcher in nest selection and recommended changing boxes every four years.

After a review of the nest boxes, the following decisions were made:

- the area of woodland covered by the study would remain unchanged
- the policy of leaving boxes unblocked, allowing unrestricted access to all species of hole-nesting birds, would remain unchanged
- the number of boxes would be increased significantly. An initial increase to 100 was made in 2007 and then incrementally to 117 by 2010 and 129 by 2016
- old boxes in locations preferred by Pied Flycatchers would be replaced with new boxes
- old boxes preferred by tits would be left unchanged
- the use and condition of boxes would be monitored, with all boxes used by Pied Flycatchers replaced at least every seven years.

Monitoring of Pied Flycatcher nests was increased, with the target of accurate recording of first egg dates and the capture of all adult birds in addition to standard nest recording and pulling. All nest record data were submitted to the BTO's Nest Records Scheme, and information on captured adults, backdated to the start of the study, has been submitted to the BTO's Retrapping Adults for Survival scheme (RAS).

Results

With the exception of figure 1, analysis in this section excludes data from 1986-87 whilst the study was being set up and no data is available for 2001 because the site was not visited during the foot-and-mouth outbreak. Figure 1 shows the occupancy of nest boxes at Prion. In the early years of the study, 21-23 breeding pairs used nest boxes. In 1992 the number of boxes and area of woodland covered were expanded. The number of breeding pairs increased to an average of 32 in 1992-1998 but this was followed by a collapse in 1999 to just 18 pairs. A partial recovery in 2000-06 resulted in the average rising to 22, still far short of the previous level. In 2007, when the number of boxes was increased substantially and old boxes replaced with new, breeding pairs rose to 31 but that proved to be a short-lived spike. Pied Flycatcher nests fell back gradually,

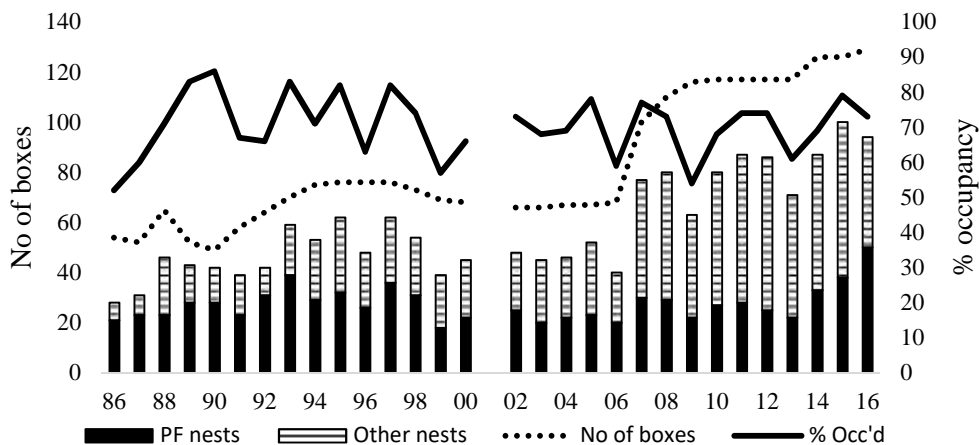


Figure 1: Nest box numbers and occupancy at Prion, 1986-2016

dropping to 22 by 2013 even though 17 more boxes were added. Since then, 33 breeding pairs were recorded in 2014, 38 in 2015 and 50 in 2016, a 127% increase in three years. During this three-year period, 12 boxes were added, an increase of 10%, and the overall increase in boxes since 2006 is 90%.

Competition for nest sites from other species, predominantly tits, is one potential cause cited for the decline of Pied Flycatchers. Most Great Tits and Blue Tits will be defending nest boxes when the Pied Flycatchers start prospecting and, from my observations over the years, both will drive away Pied Flycatchers. The number of boxes occupied by tits and other species remained remarkably consistent between 1992 and 2006, averaging 24 nests per year, but more than doubled in response to the provision of additional boxes, averaging 52 nests per year between 2007-16. Overall occupancy for the whole study period has ranged from 54% to 86% but ten-year averages between 1997-2006 and 2007-2016 are remarkably consistent at 69% and 70% respectively.

The availability of boxes may have been a limiting factor (see Discussion below) but other factors, such as the advancement of spring, levels of predation and weather-related nest failures may have a bigger impact on the overall status of the local population and are examined below.

Advancement of egg-laying

The advancement of seasonal events in spring over the last few decades is a widely-recognised phenomenon. Pied Flycatchers are long-distance migrants so the timing of their departure for breeding grounds is triggered by day-length rather than conditions in the breeding area (Both and Visser 2001). Their arrival may be delayed if they encounter adverse weather conditions but once they arrive here local conditions such as temperature, stage of leaf-burst and availability of prey items will influence the timing of breeding. In a mild spring when leaf-burst and caterpillar emergence may occur early, birds will need to start breeding relatively quickly if they are to benefit from the peak availability of food.

Evidence suggests that Pied Flycatchers have responded by laying their eggs earlier. No records of egg-laying in April occurred until 2002 and then in the period 2002-10 a total of eleven first eggs were recorded in April, all laid on 29/30. More recently there has been a rapid acceleration, with 34 records of first eggs in April between 2011-14, the earliest on 24 April in both 2011 and 2014. And in 2011, more than half of all Pied Flycatcher nests at Prion were started in April. For comparison, the Glyn Arthur site in Denbighshire at higher altitude (150-305m AOD) did not record its first egg in April until 2008 and has only recorded five in total.

The cumulative effect at Prion in the period 1988-2016 has been the advancement of the earliest first egg dates by approximately 4.0 days and median first egg dates by 2.5 days (see Figure 2).

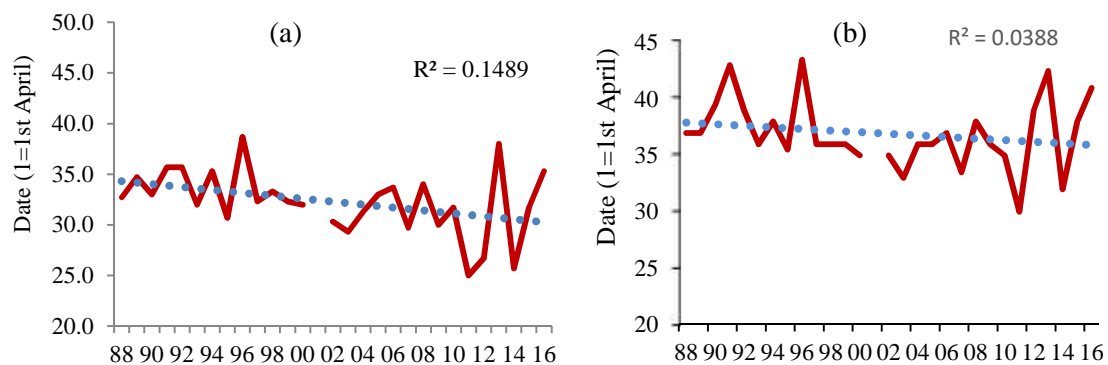


Figure 2: Advancement of first egg dates 1988-2016: (a) Earliest first egg dates (based on the average of the three first eggs for each year); (b) Median first egg dates.

Nationally, first egg dates have advanced by ten days in the period 1967-2014 (Robinson R.A *et al*, 2016). However a glance at the last four years shows how volatile nesting dates can be, with first egg dates in 2014 ten days earlier than in 2016.

Egg productivity

The average size of clutches has remained stable over the study period (see figure 3(a)), suggesting that the fitness for breeding of females has not deteriorated despite the shorter period for recuperation on arrival in Welsh woods in early-nesting years. The trendline for the proportion of eggs that hatch shows only marginal change (figure 3(b)) but that masks two catastrophic years in 2002 and 2012 when hatching success rates were a meagre 64% and 65% respectively. The number of hatched young per nest has fluctuated over the study period (excluding 2002 and 2012) between 5.50 and 6.76. The average for the last four years is 6.46.

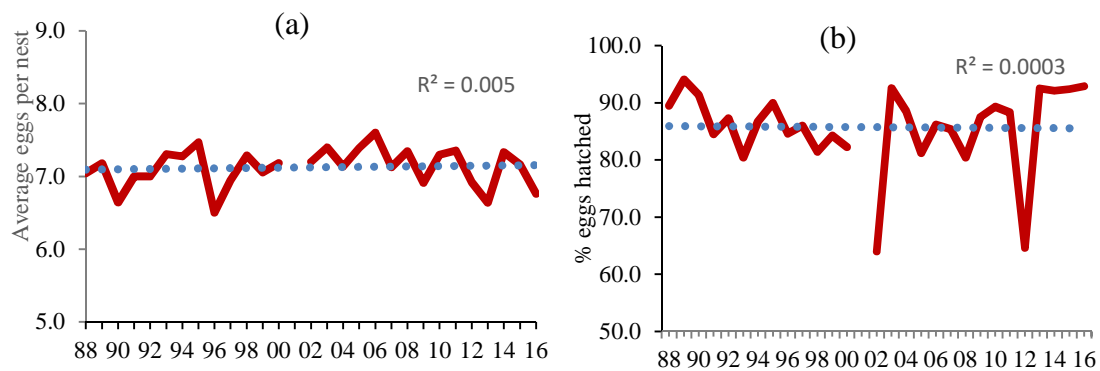
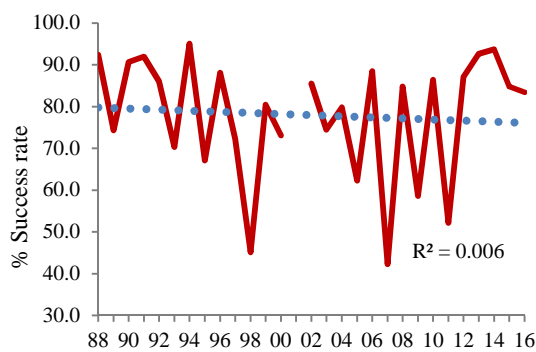


Figure 3: Egg productivity 1988-2016: (a) Average size of clutches per year; (b) Proportion of eggs that hatched each year.

Fledging rates

It is a very different story for fledged young. Looking at the proportion of chicks that manage to fledge, the overall trendline has fallen by 5% and, as figure 4 shows, the period between 1998 and 2011 was very volatile, with success rates of less than 50% on two occasions. So what has caused this decline?



Several factors can lead to the death of chicks. Nests may be predated by weasel, stoat, grey squirrel, wood mouse or great-spotted woodpecker, an event that usually results in the total loss of a brood. The incidence of direct predation of chicks is unpredictable; it accounted for less than 7.5% of chick deaths but spikes in predator activity in some years could cause up to 25% of deaths. There is no discernible trend over the study period.

Figure 4: Success rates of chick fledging, 1988-2016

The commonest cause of chick death is starvation or sickness, averaging 14.6% but with wide variation between years: maximum and minimum values are 52.2% in 2007 and 2.1% in 1988 and the average during the period 1998-2011 was 23.5%. The abundance of the caterpillar crop is one of the key factors; in years of high abundance most adult Pied Flycatchers will find enough food to feed their chicks but in poor years they will struggle. Weather is another factor; periods of wet cold weather can temporarily make it harder for parents to find food even in good years. Conditions in the nest box can become cold and damp and whole broods in the first few

days of life, weakened by a lack of food, often perish. Prolonged spells of wet weather may cause the death of older chicks, even those close to fledging. Third, but least common, the death or absence of a parent leads to reduced provisioning of growing chicks. If the female dies, the male initially continues to feed chicks but invariably fails to provide enough food, leading to the total failure of the brood. Females cope much better with the absence of a male and can raise a full brood successfully but more commonly have partial success with one or more runts dying.

An example of the latter occurred in 2015. Two nests approximately 80m apart, at the edge of a wood, had identical first egg dates, number of eggs and hatching date. At one nest, with an attentive male assisting the female, all seven chicks fledged; at the second, with an absent male, only four chicks fledged (see table 1). The lone female copes initially but as the chicks develop, they become underweight relative to the norm for their age, and the runts successively perish.

Nest	Hatching date	Adults feeding	Day 7		Day 11		Day 13		Fledged young
			Average chick weight	Live chicks	Average chick weight	Live chicks	Average chick weight	Live chicks	
PLV101	31 May	F+M	10.89	7	14.04	7	14.10	7	7
PLV104	31 May	F	10.09	7	9.70	6	11.02	5	4

Table 1: Comparison of chick-rearing between one nest with the male assisting and a second without male support.

Breeding success rates

Analysis of breeding success rates, represented by the average number of fledglings per nest, for the UK compared to Prion shows that Prion performs below the national average in 21 out of 27 years (see figure 5). In the period 1988-2015, the number of fledglings per nest fell below 5.0 in four years for the UK population but in 16 out of 27 years at Prion. Readings below 4.0 fledglings per nest were recorded in seven years at Prion but none for the UK. Clearly, Prion's stable clutch sizes and hatching rates are overshadowed by the larger decline in chick fledging rates.

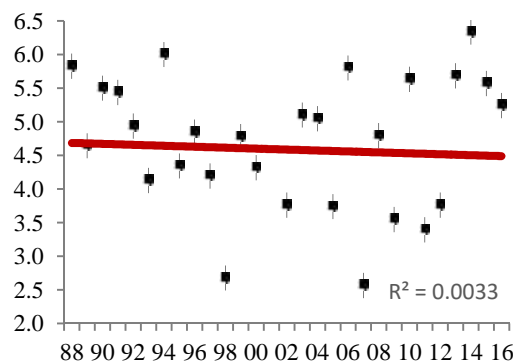
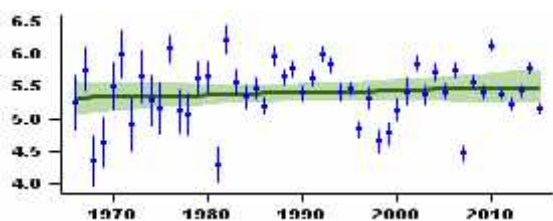


Figure 5: Fledglings per nest; UK figures for 1964-2015 (left) and Prion figures 1988-2016 (right). Source for UK figures: Robinson *et al* 2016. <http://www.bto.org/birdtrends>

2013-15 account for three of the years when Prion's fledglings per nest were above the national average. The 2013 breeding season got off to a very late start with the earliest first egg date of 8 May and median first egg date of 13 May. The late start meant clutch sizes were smaller (6.6 eggs per nest) but thankfully conditions were perfect: no predation, abundant caterpillar crop and no adverse weather, resulting in a fledging rate of 5.7 chicks per nest. This success was followed by a surge in the number of breeding pairs in 2014 to 33 and in 2015 to 38, laying the foundations for the 2016 season and the record-breaking 50 Pied Flycatcher nests. The total of 50 nests broke the previous record, 39 nests in 1993, by a considerable margin. The season started relatively late, suppressing the average clutch size (6.76 eggs), but breeding success (egg/fledged young) was high, with the total of 262 fledged young comfortably beating the previous record of 209. Is this a one-off event or is there evidence of a more sustained growth in the local population?

Discussion

The poor performance of Prion relative to the UK Pied Flycatcher population seems to contradict the assertion made by Wright *et al* (2004) that little evidence exists to suggest the decline in UK Pied Flycatchers is the result of change in breeding habitat or per capita reproductive success (ie fledglings per nest). Prion failed to deliver 5.0 fledglings per nest for 59% of the study period compared to 14% nationally.

On most occasions when the success rate dropped below 4.7 the breeding population fell in the subsequent year. For example, a very poor season in 1998, with only 2.7 fledglings per nest, was followed by the collapse to just 18 breeding pairs in 1999, the lowest total recorded. The alternative has also been experienced – a high breeding success rate in 2006 (5.8 fledglings per nest) was followed by a surge in the number of breeding pairs (31) in 2007. The apparent connection between the number of chicks fledged one year and the number of nests in the next year is intriguing, and would suggest a closed breeding population. However, the recruitment of fledglings into the breeding population is extremely low. For the whole study period only 1.74% of pulli have returned to breed; in the last ten years, as more adults, particularly males, have been caught, the figure has risen to 3.20% but that is still a tiny fraction. Additionally, the number of new adults joining the population each year exceeds the number of returning adults.

Fluctuations in fledging rates were also checked against adult survival in the following year. In poor years with high chick mortality, it may be expected that adults, under great strain trying to raise their young, may become exhausted and even die, either at the breeding site or on the arduous migration to their winter quarters. However, checks using the adult survival rate provided through the RAS study shows there is no correlation.

If it is not a closed population, could Prion draw on a metapopulation based on the Welsh marches/ Shropshire and Herefordshire? Controls of ringed birds show 79 out of 86 movements are between those areas; it is also noticeable that not a single control has been received from west Wales.

Within such a metapopulation, will there be variation in performance between sites each year? The number of Pied Flycatcher nests at Prion between 2008-16 has been compared with totals for Pandy and Glyn Arthur, two other Merseyside Ringing Group sites with Pied Flycatcher populations (figure 6). All three sites suffered losses between 2008-13, although annually there was no uniformity of change with one or two sites increasing each year until 2013. Since 2013, Pandy has recovered to its 2008 nest total whilst Glyn Arthur has increased only marginally on the 2013 nest count and, compared to 2008, has seen the number of nests fall by 47%. In this context, Prion's increases of 127% since 2013 and 72% since 2008 are exceptional.

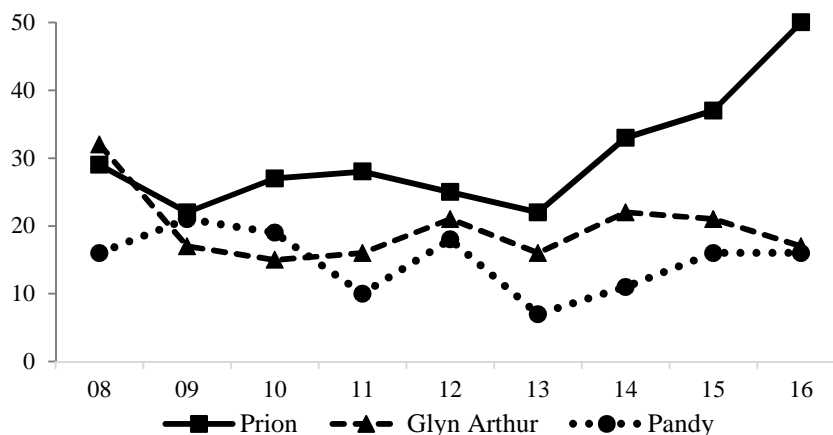


Figure 6: Number of Pied Flycatcher nests recorded between 2008-16 at three MRG sites.

Returning to Prion’s past performance, the below-average per capita reproductive success might be explained by the presence of a high proportion of yearling breeders. Various studies, summarised in Lundberg and Alatalo 1992, showed the average clutch size of yearling females was from 0.5 to 0.9 eggs smaller than that of older females, although in a study in Cumbria the difference was only 0.3 eggs and it disappeared if clutch sizes were standardised by the laying date. The smaller clutch sizes may reflect the avoidance of high reproductive costs at an early age or the capacity of inexperienced yearling birds to raise offspring. At Prion a sample analysis of breeding adults in the ten-year period 2007-2016 appears to show a weighting in favour of mature breeders (table 2), suggesting the composition of the population should not be a key factor affecting reproductive success.

	2+ years	Yearlings	Not aged
Females	177 (60%)	112 (38%)	6 (2%)
Males	142 (62%)	82 (36%)	5 (2%)

Table 2: Age of breeding adult Pied Flycatchers caught at Prion between 2007-2016

A significant proportion of Pied Flycatchers of both sexes do not breed in their first season (Lundberg and Alatalo 1992; Both *et al* 2017). Using the known age at first breeding of returning pulli at Prion as a proxy, 56% of females and 45% of males bred in their first year. Analysis of birds ringed elsewhere as pulli and controlled at Prion shows 52% of females but only 22% of males bred in their first year. However the delayed start to breeding does not impact on breeding performance in later years.

There is no evidence to indicate that habitat change has influenced breeding success. The habitat shows little sign of deterioration; the grazing regime in the upper valley remains unchanged and forestry management, including the retention of dead trees, has been consistent throughout the study period. Plotting the distribution of nest boxes most often used by Pied Flycatchers at Prion clearly demonstrates a preference for woodland with low ground-cover plants. In part that may reflect a foraging strategy which includes up to 15% of prey caught on the ground (Edington and Edington 1972). Competition from tit species for nest boxes in areas with shrub cover may also reduce their presence in those areas. The colonisation of the understorey in the lower valley by shrubs, particularly holly and laurel, is patchy and understorey with only low ground-cover plants is available throughout the wood.

Natural factors appear to be the driving force. Adults appear to have adapted well to the impact of climate change, maintaining both clutch size and hatching success rates, but an early start is not a guarantee of success. For example in 2011, the only year in which the median first egg date fell in April (30), the breeding success (fledglings per nest) was 3.4, the third-lowest for the study.

Chick death is the key factor, particularly starvation/sickness which averaged 23.5% during the period 1998-2011. The two years with the lowest rates of breeding success (1998 and 2007) coincide with very wet weather at a crucial time in the season. Thirty years of monitoring at Prion has also demonstrated the very localised nature of weather-related impacts. For example, in 2007, prolonged rainfall over a three-day period 26-28 May, combined with daytime maximum temperatures below 15°C, had a devastating effect. Chick mortality attributed to weather-related deaths was 37.9% in the upper valley compared to 63.6% in the lower valley (Coffey 2007) whilst at Pandy, 29km away, less than 7% died.

A run of three good breeding seasons, plus an adequate supply of nest-boxes in good condition, enabled the record 50 Pied Flycatcher nests to be achieved in 2016. Only since 2007 has Prion had enough nest boxes in the right condition and location to sustain an expanding local population. The fact that the size of the breeding population continued to decline after more boxes were erected demonstrates the significance of natural factors affecting chick mortality.

However if the boxes had not been added, the recovery of the Pied Flycatcher population since 2013 could not have been accommodated – and, worryingly, would never have been recorded. It is impossible to gauge how many more pairs of Pied Flycatchers might have used extra boxes in earlier years, possibly leading to stronger recoveries similar to that observed from 2014-16. It also raises the question, at sites where the Pied Flycatcher population is declining, of whether the availability of nest boxes, in good condition, is a significant limiting factor. The study by Vilka (2003) demonstrated at long-running nest box sites that replacement of old boxes for new led to an increase in nesting.

The study has demonstrated how a few poor breeding seasons can lead to a significant collapse in the local population but also how quickly the population can rebuild if the infrastructure is in place. The larger population may be sustained, albeit with plenty of bumps along the way, but much more analysis of the dynamics of local Pied Flycatcher populations is required.

Acknowledgements

I am greatly indebted to the owners of the woods, the Williams family of Llewesog Estate who have allowed Merseyside Ringing Group to use the woods in the valley since 1968. Their continued interest and support is invaluable. Thanks also to Bob Harris and Nicky Edmonds for sharing data on Glyn Arthur and Pandy.

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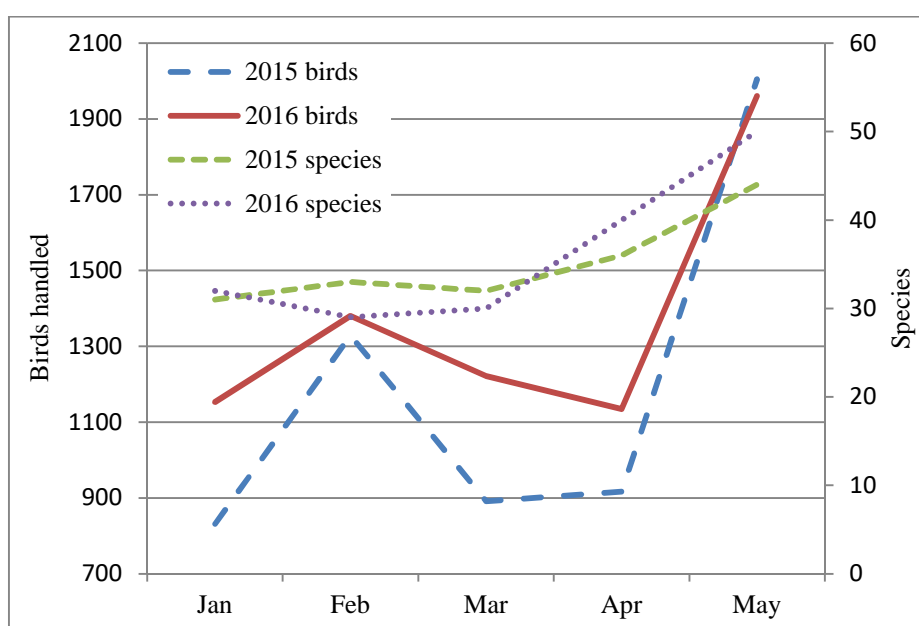
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RECORDS SECRETARY'S REPORT

Bob Harris

The year began with a welter of Christian names – Gertrude, Henry, Imogen, Jake and Katie. Not new group trainees but storms which swept the country from January to April. This resulted in many areas receiving above-average rainfall, which was countered by above-average sunshine. In March unseasonably high temperatures were recorded while in April a flurry of sleet, snow and sharp frosts resulted in low mean temperatures. May and June were both changeable with periods of settled 'normal' weather and then unsettled atypical weather, and so the year, and breeding season, witnessed a varied start.

One might assume, given the inclement weather, that group totals may have been reduced in the early part of the year: far from it (see graph). For the first five months of the year the number of birds handled was up by approximately 25% while the number of species handled was almost the same. Clearly the weather was not interfering with field sessions compared to 2015.



During this period the duck-trap at Woolston came into its own, responsible for nearly all of the Group's wildfowl in this time. Seventy-six Teal (one later shot in Norfolk), five Mallard and two Coot were caught, as was a female Gadwall (9 January), the first bird of this species caught since 1995. Unfortunately the male that accompanied it resolutely stayed outside the trap. Another welcome return to the Group's ringing list at this time were the five Raven pulli ringed from sixty feet up a Scot's Pine tree at Burwardsley in April, the first since 2009.

Very few winter migrants were captured during these months with no Fieldfare and only three Redwing (most Redwing being caught in the second winter period). Interestingly Blackcap were caught in all months demonstrating their now, almost accepted, winter presence; and a surprising capture was that of a male Barn Owl caught in a mist-net on Woolston No 1 bed on 28 January.

May witnessed increased activity in all areas with the number of birds handled rising to c2000 (compared to c1100 the month before), with the number of species caught now being inflated by arriving summer migrants.

Pulli ringing provided some interesting outcomes. The seven Hobby ringed from three sites were the best annual figures ever, increasing the Group total for this species by 44%. Ringed

Plover had a good year with ten chicks ringed and Little Tern at the same site had an exceptional year with 155 pulli ringed. The number of Black-headed Gull chicks continued to rise with 533 pulli ringed this year compared to 430 in 2015, all at the Shotton colony. Interestingly two birds ringed as chicks in July were reported from Dublin in August and September respectively. At the other end of the scale Kestrel pulli ringed were down at 56 (compared to 70 in 2015 and 99 in 2014), possibly reflecting the national decline of this species.

In addition to Cotebrook a new Group site for Swift was added this year, be it temporarily, when a grounded fledgling was caught, by hand, and ringed and released at Pandy. Further, following successes with tape lures for terns elsewhere in the country (by others) a couple of night-time attempts on the Wirral resulted in eight Common Tern being captured (four as controls, one from Warwickshire), and one Sandwich Tern – the first since 1979.

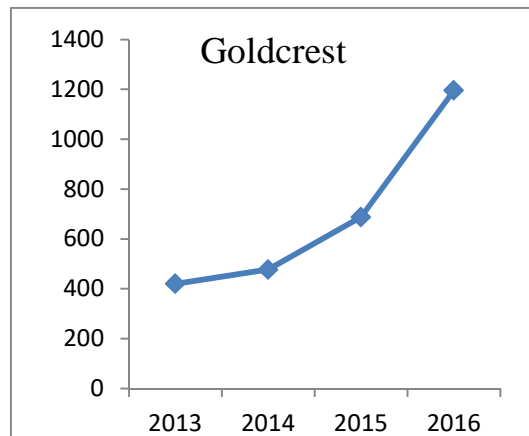
The Group’s first Cetti’s Warbler was ringed in 1984 with the next in 1998. Numbers remained low until 2009 when thirteen were ringed. Numbers then returned to low single figures but, over the last four years, numbers have increased steadily – four ringed in 2013, 18 in 2014, 20 in 2015 and 24 in 2016. These numbers reflect continued national expansion of this species.



Another interesting species this year is Yellow-browed Warbler. The Group’s first bird was ringed in 1985 with the next in 1989, two in 1998 and then one in 2002. Further singles were added in 2007 and 2012 making seven in total. On 23 September at Flamborough Head, East Yorkshire, 139 were counted on a single day. As the year moved on many of these birds were caught as they moved west. MRG members caught six in a four-day period between 7 – 10 October, nearly doubling the Group’s total. This included four at Woolston No 1 Bed, three of them in the same net round. Another was caught at Glan Conwy and a glade at Shotton, seriously trampled by tree-clearance work, held little hope of catching any birds but delivered a Yellow-browed Warbler on the first net round.

Yellow-browed Warbler ringed at Shotton
9 October 2016 (Photo: R Birch)

Goldcrest also had an interesting year. Since 2013 the number of new individuals caught has significantly increased. This year 1196 were caught mainly from three sites: Woolston No 1 Bed, Norton Priory and Bidston, closely followed by Woolston No 3 Bed and Oxmoor Wood. If we then add recaptures the figures rise to 1346 birds handled. Clearly milder winters are assisting the increase in this species.



Although most ringing is of typical species it is enhanced when a new or unusual species is caught. This year we had one of each. From the 'new' category we have the Group's 201st species, that of White-crowned Sparrow (see separate article pp 3-5) and, from the 'other', we had what we believe was a probable Goldfinch x Siskin cross. It is thought this bird was an escaped captive-bred individual (which will not appear in ringing totals).

Cumulative annual ringing totals for the following species broached significant thresholds this year: Great Tit (50,000), Pied Flycatcher (25,000), Reed Warbler (20,000) and Goldcrest (10,000). At the other end of the scale Green Sandpiper reached 30 ringed, Tawny Owl 500, Jay 1,000, Willow Tit 1,500 and Barn Owl 4,000.

Three species to note from this year's numbers compared to previous years are Nuthatch, down from 91 to 43, Tree Sparrow, with only one ringed in 2016, and Starling, up from 123 to 329.

The Top Ten this year accounted for 55.1% of birds ringed, compared to 58.1% for 2015 and 57.9% for 2014. Reed Warbler and Common Tern dropped out of the table to make way for Swallow (7th) and Chaffinch (10th). The biggest mover was Goldcrest from 8th last year (688 ringed) to 3rd this year with 1196 ringed. Chiffchaff moved from 3rd to 6th even though c830 were ringed each year. Blackcap and Pied Flycatcher both fell two places.

Selected controls and recoveries for the year encompass 127 records from 36 species. MRG ringed birds were recorded in five European countries and Africa (Senegal, a Common Tern) while foreign-ringed birds controlled by MRG were originally ringed in eleven countries in Europe, from Scandinavia to Spain and Iceland to Lithuania.

Selected retraps and local movements are presented for 36 species. A female Reed Bunting in her tenth year and a Chiffchaff retrapped more than five years after it was ringed at Oxmoor Wood break MRG longevity records for their species, although some way behind BTO records. The capture of a Green Sandpiper for the second time illustrates of the value of retrap data.



A 5M Lesser Whitethroat caught on 23 May 2016 at Oxmoor Wood (Photo: D Norman)

GRAND TOTALS 2016

<u>Species</u>	<u>Adult</u>	<u>Pullus</u>	<u>Total</u>
91	14918	3845	18763

GRAND TOTALS SINCE 1954

<u>Species</u>	<u>Total</u>
201	823812

NEW SPECIES IN 2016

White-crowned Sparrow

TOP TEN SPECIES RINGED IN 2016

Species	Number ringed	% of yearly total
Blue Tit	2267	12.1
Great Tit	1223	6.5
Goldcrest	1196	6.4
Greenfinch	1041	5.5
Goldfinch	883	4.7
Chiffchaff	836	4.5
Swallow	826	4.4
Blackcap	802	4.3
Pied Flycatcher	638	3.4
Chaffinch	623	3.3
Totals	10335	55.1

RINGING TOTALS 2016

Nomenclature and taxonomy based on BTO Ringing reports

Species	Adult	Pullus	Total	Total since 1954
Mute Swan	6		6	774
Whooper Swan				1
Greylag Goose				2
Canada Goose				164
Shelduck				75
Mandarin Duck				10
Gadwall	1		1	8
Teal	97		97	1890
Mallard	6		6	1232
Pintail				40
Garganey				6
Shoveler				8
Tufted Duck				5
Red-legged Partridge				1
Grey Partridge				13
Common Pheasant				1
Fulmar				2
Manx Shearwater				1
Storm Petrel				21
Cormorant				228
Shag				109
Grey Heron				1693
Little Grebe				17
Great Crested Grebe				3
Marsh Harrier		2	2	18
Hen Harrier				1
Goshawk				3
Sparrowhawk	11	5	16	1584
Buzzard	2	14	16	287
Rough-legged Buzzard				1
Quail				1
Water Rail	2		2	160
Spotted Crake				4
Corncrake				1
Moorhen	15		15	988
Coot	2		2	69
Avocet				6
Oystercatcher		4	4	2693
Golden Plover				186
Grey Plover				31
Lapwing				2885
Little Ringed Plover				175
Ringed Plover		10	10	1328
Whimbrel				6
Curlew				354
Black-tailed Godwit				19
Bar-tailed Godwit				193
Turnstone				1127
Knot				5490

Species	Adult	Pullus	Total	Total since 1954
Ruff				77
Curlew Sandpiper				44
Sanderling				3974
Dunlin				22632
Purple Sandpiper				1
Little Stint				111
Buff-breasted Sandpiper				1
Pectoral Sandpiper				4
Common Sandpiper	2		2	133
Green Sandpiper	7		7	30
Spotted Redshank				1
Greenshank				13
Wood Sandpiper				7
Redshank				4134
Jack Snipe				108
Woodcock	1		1	14
Snipe				637
Puffin				42
Razorbill				57
Guillemot				242
Little Tern	2	155	157	1354
Black Tern				3
Sandwich Tern	1		1	38
Common Tern	7	422	429	19023
Roseate Tern				1376
Arctic Tern				1583
Kittiwake				276
Black-headed Gull	1	533	534	7266
Little Gull				1
Common Gull				79
Lesser Black-backed Gull				1620
Herring Gull				5912
Yellow-legged Gull				2
Iceland Gull				1
Great Black-backed Gull				287
Stock Dove	13	26	39	478
Woodpigeon	17	132	149	3426
Collared Dove	38	8	46	1094
Turtle Dove				13
Cuckoo				38
Barn Owl	25	220	245	4067
Little Owl	5	7	12	273
Tawny Owl	3	19	22	501
Long-eared Owl				53
Short-eared Owl				8
Nightjar				5
Swift	1		1	7759
Kingfisher	18		18	286
Hoopoe				1
Green Woodpecker				44
Great Spotted Woodpecker	54		54	1398
Lesser Spotted Woodpecker				21

Species	Adult	Pullus	Total	Total since 1954
Kestrel	5	51	56	1677
Merlin				12
Hobby		7	7	16
Peregrine		5	5	92
Woodchat Shrike				1
Magpie	29	6	35	1280
Jay	28		28	1013
Jackdaw	27	23	50	604
Rook				615
Carrion Crow	1	1	2	439
Raven		5	5	36
Goldcrest	1196		1196	10386
Firecrest	7		7	92
Blue Tit	1562	705	2267	93347
Great Tit	796	427	1223	50309
Coal Tit	184	17	201	7209
Willow Tit	42		42	1504
Marsh Tit				179
Bearded Tit				42
Woodlark				1
Skylark				835
Shore /Horned Lark				1
Sand Martin	54		54	19078
Swallow	618	208	826	79635
House Martin	77		77	3091
Cetti's Warbler	24		24	97
Long-tailed Tit	446		446	13204
Arctic Warbler				1
Pallas's Leaf Warbler				2
Yellow-browed Warbler	6		6	13
Western Bonelli's Warbler				1
Wood Warbler				460
Chiffchaff	835	1	836	13777
Willow Warbler	237	11	248	19152
Blackcap	802		802	17235
Garden Warbler	44		44	1617
Barred Warbler				1
Lesser Whitethroat	9		9	731
Whitethroat	150		150	9269
Grasshopper Warbler	3		3	584
Icterine Warbler				1
Aquatic Warbler				3
Sedge Warbler	161		161	14275
Blyth's Reed Warbler				1
Marsh Warbler				5
Reed Warbler	612	6	618	20576
Waxwing	6		6	92
Nuthatch	26	17	43	2208
Treecreeper	31		31	1221
Wren	335	1	336	13456
Starling	329		329	18391
Dipper		6	6	547

Species	Adult	Pullus	Total	Total since 1954
Ring Ouzel				54
Blackbird	323	29	352	31360
Fieldfare	2		2	1524
Song Thrush	88	18	106	7122
Redwing	296		296	6601
Mistle Thrush	2		2	872
Spotted Flycatcher	1	10	11	604
Robin	472	28	500	16809
Nightingale				2
Bluethroat				3
Red-breasted Flycatcher				2
Pied Flycatcher	71	567	638	25063
Black Redstart				1
Redstart	4	58	62	1458
Whinchat				1695
Stonechat				293
Wheatear				1696
Dunnock	267	5	272	14231
House Sparrow	174	47	221	3984
Tree Sparrow	1		1	6293
Yellow Wagtail				1881
Grey Wagtail	67	10	77	1129
Pied/White Wagtail	3	5	8	2585
Tree Pipit	11		11	144
Meadow Pipit	137		137	3200
Rock Pipit				116
Water Pipit				1
Brambling	121		121	7970
Chaffinch	623		623	29952
Hawfinch				1
Bullfinch	350	5	355	6808
Greenfinch	1039	2	1041	52687
Linnet	7		7	12017
Twite				86
Lesser Redpoll	154		154	2332
Common Redpoll	2		2	10
Redpoll sp.				3411
Arctic Redpoll				1
Common Crossbill				36
Goldfinch	877	6	883	14049
Serin				1
Siskin	587		587	10866
Snow Bunting				37
White-crowned Sparrow	1		1	1
Yellowhammer	10		10	1271
Little Bunting				1
Reed Bunting	209	1	210	20372
Corn Bunting				304
Totals	14918	3845	18763	823812

SELECTED CONTROLS AND RECOVERIES 2016

Peter Coffey

A selection of 127 records from 36 species is shown below. As last year, more foreign-ringed birds were reported here than MRG-ringed birds abroad and totals for both were higher. Twenty-one foreign-ringed birds from nine species were ringed in eleven countries: France (5), Norway (4), Denmark (2), Germany (2), Poland (2), Finland, Iceland, Lithuania, Netherlands, Portugal and Spain. Ten MRG-ringed birds of seven species were recorded from six countries: France (4), Ireland (2), Belgium, Germany, Netherlands and Senegal. Black-headed Gull again topped the charts with nine foreign-ringed birds from six different countries and two MRG-ringed birds to Ireland. Sedge Warbler, Reed Warbler and Siskin also had both foreign-ringed caught here and MRG-ringed birds reported abroad. Three old records notified to the Group in the last twelve months included a Grey Heron from 2005, a Buzzard from 2013 and an updated Herring Gull record from 2013. Also included is a Reed Warbler omitted in error last year – it's nice that some members diligently read their reports and alert me to any errors.

The symbols and conventions used are given below:

Sex: M = Male F = Female

Age when ringed (Euring Code):

- 1 Pullus (nestling or chick)
- 2 Fully grown – year of hatching unknown
- 3 Definitely hatched during the calendar year of ringing
- 3J Definitely hatched during the calendar year of ringing and still completely or partially in juvenile body plumage
- 4 Hatched before current calendar year – exact year unknown
- 5 Definitely hatched during the previous calendar year
- 6 Hatched before last calendar year – exact year unknown
- 7 Definitely hatched two years before year of ringing
- 8 Hatched more than two calendar years before year of ringing

Condition at recovery:

- X found dead
- XF found freshly dead or dying
- XL found dead – not recent
- + shot or intentionally killed by man
- +F shot or intentionally killed by man – fresh
- SR sick or injured – released with ring
- V alive and probably healthy, caught and released but not by a ringer
- VV alive and probably healthy, ring or colour marks read in the field but not by ringer
- R caught and released by ringer
- B caught and released by ringer – nesting
- RR alive and probably healthy, ring or colour marks read in the field by ringer
- // condition on finding totally unknown
- © bird caught at breeding colony
- ® bird caught at roost

Abbreviations used for foreign ringing schemes:

- | | | | | | |
|-----|---------------------|-----|------------------------|-----|----------------|
| DEH | Germany, Hiddensee | DEW | Germany, Wilhelmshaven | | |
| DKC | Denmark, Copenhagen | ESI | Spain, Madrid | FRP | France, Paris |
| ISR | Iceland, Reykjayik | NLA | Netherlands, Arnhem | NOO | Norway, Oslo |
| NOS | Norway, Stavanger | LIK | Lithuania, Kaunas | PLG | Poland, Gdansk |
| POL | Portugal, Lisbon | SFH | Finland, Helsinki | | |

Mute Swan

U1615	5M RR	06.03.1994 01.04.2016	River Dee, Chester, Cheshire (8062 days) Christleton Pool, Chester, Cheshire	5km 91°
W28851 GW (CAF9)	5M VV	02.08.2010 26.07.2016	Acre Dell Pools, near Congleton, Cheshire No.3 bed Woolston Eyes, Warrington	30km 320°

Teal

EZ03657	5M +F	20.02.2016 22.12.2016	No.3 bed Woolston Eyes, Warrington Dam Hill, Edgefield, Norfolk	248km 103°
EZ03581	5M +F	14.03.2015 25.11.2016	No.3 bed Woolston Eyes, Warrington Uxem 51°01'N 2°28'E Nord, FRANCE	431km 128°

Tufted Duck

FH57055	4M +F	12.04.2014 29.01.2016	No.3 bed, Woolston Eyes, Warrington Near Welney, Cambridgeshire	210km 119°
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Grey Heron

1287374	1 (1/1) X	29.03.2002 10.03.2005	Budworth Mere, Cheshire near Southport, Lancashire	49km 324°
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Railway casualty.

Buzzard

HT61977	1 (1/1) X	26.06.2011 17.02.2013	Brimstage, Wirral Castlethorpe, Milton Keynes	260km 145°
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Black-tailed Godwit

ISR 635323	1 VV	10.07.2015 22.08.2016	Kaldadarnes, Floi, Arnes 63°55'N 21°10'W Árnessýsla, ICELAND No.3 bed Woolston Eyes, Warrington	1586km 138°
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North-west England is becoming a favoured location for immature Black-tailed Godwits to spend the summer rather than returning to Iceland.

Common Tern

SR25826	1 R	14.06.2006 15.08.2016	Kingsbury Water Park, Warwickshire West Kirby, Merseyside	134km 312°
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Very few adult Common Terns are caught by the Group; this control was a welcome bonus for this late-night session.

SR42326	1 VV	18.06.2006 17.05.2016	Shotton Steel Works, Flintshire The Skerries, Isle of Anglesey	107km 283°
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SV82272	1 VV	22.07.2001 21.05.2016	Shotton Steel Works, Flintshire The Skerries, Isle of Anglesey	107km 283°
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SR50958	1 VV	01.07.2007 21.05.2016	Shotton Steel Works, Flintshire The Skerries, Isle of Anglesey	107km 283°
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SV82967	1 XF	22.06.2003 13.07.2016	Shotton Steel Works, Flintshire Saltholme, Port Clarence, Stockton-on-Tees	195km 38°
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This adult was found dead on a nesting island.

SV92708	1 R	20.06.2004 04.04.2016	Shotton Steel Works, Flintshire La Somone 14°28'N 17°04'W SENEGAL	4481km 197°
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The following eleven birds were ringed as chicks at Shotton Steel Works, Flintshire and had their rings read in the field at Preston Docks/ Marina, 63km 19°

	Date ringed	-----Dates re-sighted-----		
SR24552	26.06.2005			03.07.2016
SR24562	26.06.2005			19.06.2016
SR24922	26.06.2005	27.07.2014	22.05.2015	12.06.2016
SR42466	25.06.2006			14.07.2016
SR42486	25.06.2006			03.07.2016
SR65103	08.07.2007	21.07.2013	03.08.2014	10.07.2015
SR65129	08.07.2007			24.07.2016
SR65509	29.06.2008			31.07.2016
SR65524	29.06.2008			24.07.2016
SR65644	29.06.2008	29.06.2014	14.06.2015	26.06.2016
SR80276	09.07.2014			02.07.2016
				19.06.2016

The following three birds were ringed as chicks at Shotton, Flintshire and had their rings read in the field at Seaforth Nature Reserve, Bootle, Merseyside, 28km 3°:

SR80144	06.07.2014			14.08.2016
SR80413	20.07.2014			14.08.2016
SR80467	09.08.2014			14.08.2016

As the Common Tern colony in Preston Docks has developed, the number of Shotton birds sighted there has increased. The development of that colony, together with the Seaforth site, is beneficial for the Liverpool Bay metapopulation, providing alternative breeding sites so that the population can withstand future disasters at a local site (eg Shotton in 2009-12). Forty Shotton birds have now been sighted at Preston since 2009.

It is also interesting to note that four non-breeding two-year-old birds were reported in 2016, three at Seaforth and one at Preston. First-years tend to spend their time off the West African coast, second-years wander further north and may visit nesting colonies but generally birds do not attempt breeding until their third year.

Mediterranean Gull

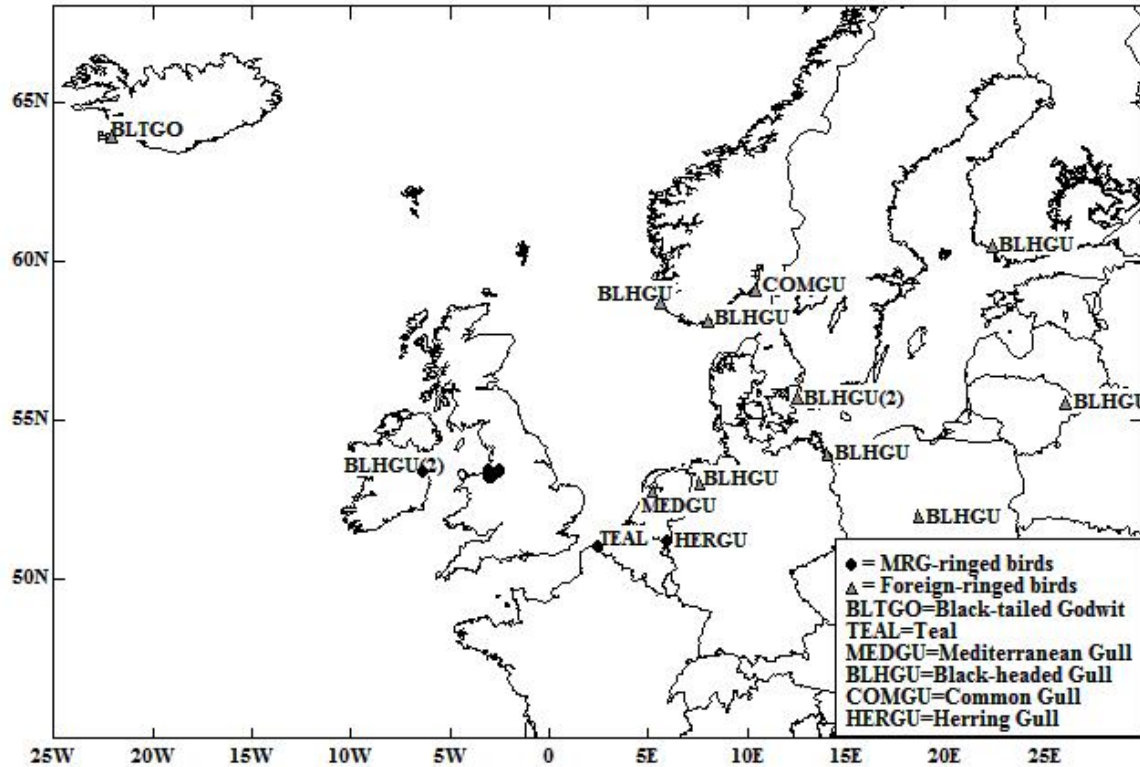
NLA 3725713 (White E718)	1	21.06.2012	De Kreupel, 52°46'N 5°13'E Noord-Holland, NETHERLANDS
	VV	20.08.2012	Damp, Schleswig-Holstein, 54°35'N 9°59'E, GERMANY
	VV	24.08.2012	Damp, Schleswig-Holstein, 54°35'N 9°59'E, GERMANY
	VV	15.02.2014	Bray Harbour, Dublin, 53°12'N 6°06'W, EIRE
	VV	06.03.2014	Sandymouth Strand, Co Dublin, 53°19'N 6°11'W, EIRE
	VV	21.01.2016	Bray harbour, Wicklow, 53°02'N 6°01'W, EIRE
	VV	19.04.2016	No.3 bed Woolston Eyes, Warrington 522km 278°
PLG FS15592 (Red PRY6)	1	20.06.2015	Zbiornik Mietkowski, Domanice, Mietkow 50°57'N 16°36'E, Dolnoslaskie, POLAND
	VV	19.04.2016	No.3 bed Woolston Eyes, Warrington 1331km 282°

Black-headed Gull

SFH ST259694	4	06.04.2007	Turku, 60°29'N 22°21'E, Turku-Pori, FINLAND
	RR	05.11.2015	New Brighton, Wirral, Merseyside (also on 28.11)
	R	08.01.2016	New Brighton, Wirral, Merseyside 1721km 243°
	R	26.11.2016	New Brighton, Wirral, Merseyside 1721km 243°

NOS 6153697	8	11.03.2004	Gjestehavna, Kristiansand 58°08'N 8°00'E Vest-Agder, NORWAY	
(White J40K)		RR	08.01.2016	New Brighton, Wirral, Merseyside 864km 233°
NOS 6161649	6	30.03.2012	Molledammen, Time 58°43'N 5°37'E Rogaland, NORWAY	
(White J4U8)		RR	28.07.2016	River Dee, Chester, Cheshire 813km 221°

Foreign non-passerine controls/recoveries 2016 (excludes Common Tern to Senegal)



LIK HA28764	1	15.06.2014	Kreutuono ez. Didzioli sala 55°13'N 26°04'E Svencioniu, LITHUANIA	
		R	02.02.2016	New Brighton, Wirral, Merseyside 896km 264°
DKC 6J5040	8M	28.03.2015	Utterslev Torv, 55°43'N 12°31'E Copenhagen DENMARK	
(White 4HM)		RR	12.01.2016	New Brighton, Wirral, Merseyside
		VV	05.03.2016	New Brighton, Wirral, Merseyside 1036km 262°
DKC 6J5055	8M	29.03.2015	Damhussoen, Sydost 55°40'N 12°28'E Copenhagen, DENMARK	
(White 5HP)		RR	01.11.2015	Near New Brighton, Wirral, Merseyside 1031km 257°
		RR	12.01.2016	New Brighton, Wirral, Merseyside 1029km 257°
DEH IA153115	4	11.06.2014	Inseln Böhmke und Werder 53°57'N 14°02'E Mecklenburg-Vorpommern, GERMANY	
		R	08.01.2016	New Brighton, Wirral, Merseyside 1125km 268°
DEW 5426140	1	11.06.2014	Esterweger Dose 53°01'N 7°35'E Weser-Ems, GERMANY	
		RR	02.02.2016	New Brighton, Wirral, Merseyside 709km 274°

PLG FN90736 (White T4R0)	1	12.06.2010	Zbiornik Przykona, Radyczyny 52°00'N 18°38'E Przykona, Wielkopolskie, POLAND	
	RR	28.07.2016	River Dee, Chester, Cheshire	
	RR	01.12.2016	River Dee, Chester, Cheshire	1461km 276°
EZ34204	1	17.07.2016	Shotton Steel Works, Flintshire	
	XF	18.08.2016	Phoenix Park, Dublin 53°21'N 6°19'W EIRE	218km 274°
EL65898	1	03.07.2016	Shotton Steel Works, Flintshire	
	VV	01.09.2016	Sean Walsh Park, Dublin 53°16'N 6°22'W EIRE	222km 272°
ES95942	1	21.06.1997	No.3 bed, Woolston Eyes, Warrington	
	VV	17.03.2016	Old Moor, Barnsley, South Yorkshire	79km 80°
ER78053	8	13.03.1993	Rixton, Warrington (8348 days)	
	VV	20.01.2016	Haydock, Merseyside	15 km 293°

Common Gull

NOO MA24598 (White JOAK)	8	08.06.2015	Budal, Tjome, 59°07'N 10°23'E Vestfold, NORWAY	
	RR	10.12.2015	New Brighton, Wirral, Merseyside	
	RR	28.01.2016	New Brighton, Wirral, Merseyside	1040km 233°

Herring Gull

GF20964	9	09.03.1996	Moss Side Farm, Risley, Warrington, Cheshire	
	VV	12.02.2012	Roermond 51°12'N 5°58'E Limburg, NETHERLANDS	628km 114°
	VV	12.02.2013	Barneveld 52°10'N 5°35'E Gelderland, NETHERLANDS	564km 105°

This record, the second MRG-ringed Herring Gull to the Netherlands, was first shown in the 2015 Annual Report but has been amended to include the Limburg record.

Woodpigeon

FH57375	1 (2/2)	03.08.2014	Sefton Park, Merseyside	
	+F	27.02.2016	Smallshaw Farm, Parbold, Lancashire	29km 26°

Barn Owl

GN48424	1 (4/4)	19.06.2005	Bostock Green, Cheshire (4043 days)	
	B (=F)	14.07.2016	Dorrington, near Woore, Shropshire	29km 169°

GC14678	1 (5/7)	18.05.2007	Puddington, near Chester, Cheshire	
	R (=F)	09.07.2016	Near Hoylake, Merseyside	18km 330°

Both these females show good survival and, hopefully, have successfully bred over the years. GN48424 is now the oldest recorded MRG-ringed Barn Owl (11 years 25 days).

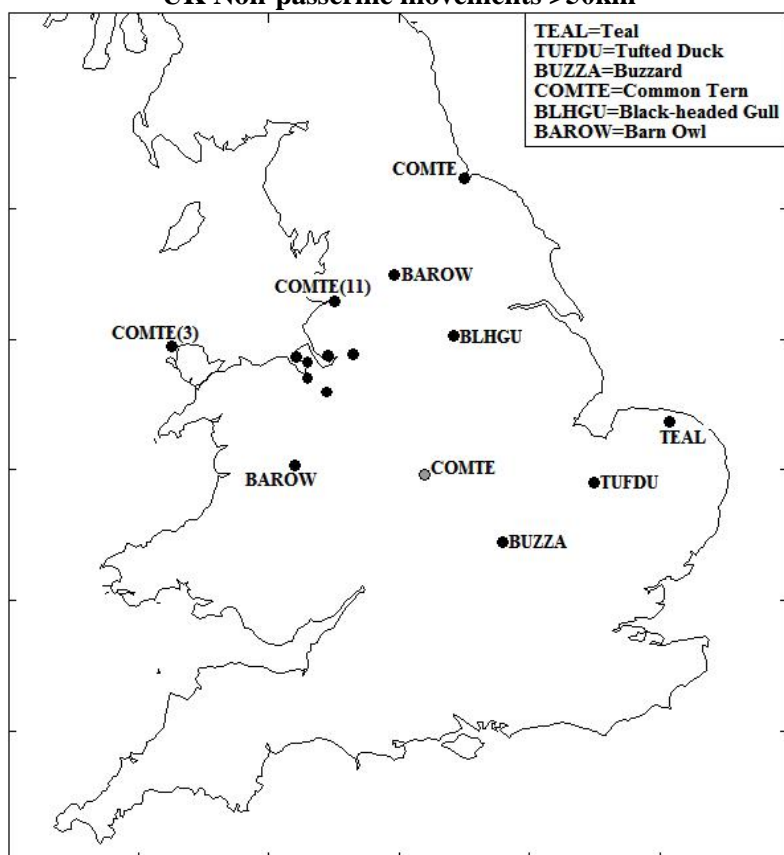
GR72934	1 (3/3)	20.06.2014	Tarbock Green, Merseyside	
	X	02.03.2016	Carleton-in-Craven, North Yorkshire	80km 40°

GR54815	1 (4/4)	26.06.2014	Golborne Hall, Cheshire	
	X	09.04.2016	Near Belan, Powys	61km 204°

GR72733	1F (5/5)	12.06.2014	Tan House Farm, Cheshire	
	R	18.06.2016	Fields Farm, near Alderley Edge, Cheshire	28km 87°

Seven other records in 2016 involved birds moving 10km. Five birds ringed as pulli were found dead within two years of their date of ringing and an adult female was found dead only three months after being ringed. There was better news of a chick ringed in 2013; it was controlled as a male in October 2016 three kilometres away.

UK Non-passerine movements >50km



Kestrel

ET63078	1 (3/3)	02.06.2006	Meols, Wirral, Merseyside	
	X	15.04.2016	Caldy Golf Course, Caldy, Merseyside	4km 181°

Goldcrest

JCP859	3M	08.10.2016	Lake Vyrnwy, Powys	
	R	23.11.2016	No.1 bed Woolston Eyes, Warrington	94km 42°
HRT881	3M	09.10.2016	near North Somercotes, Lincolnshire	
	R	30.11.2016	Bidston, Wirral, Merseyside	215km 269°
HTD566	4F	26.10.2016	Sandwich Bay Estate, Kent	
	R	07.11.2016	No.1 bed Woolston Eyes, Warrington	355km 312°

HRT881 and HTD566 were ringed on the east coast, presumably part of the influx of continental birds in October 2016, and then moved west and north west respectively. JCP859 was ringed and controlled in the same period but moved east.

JHX056	3F	01.11.2016	Bidston, Wirral, Merseyside	
	XF	10.11.2016	Between Woburn and Daventry, Northants	182km 135°

Road casualty/vehicle assisted movement. The bird was impaled in front grille of car.

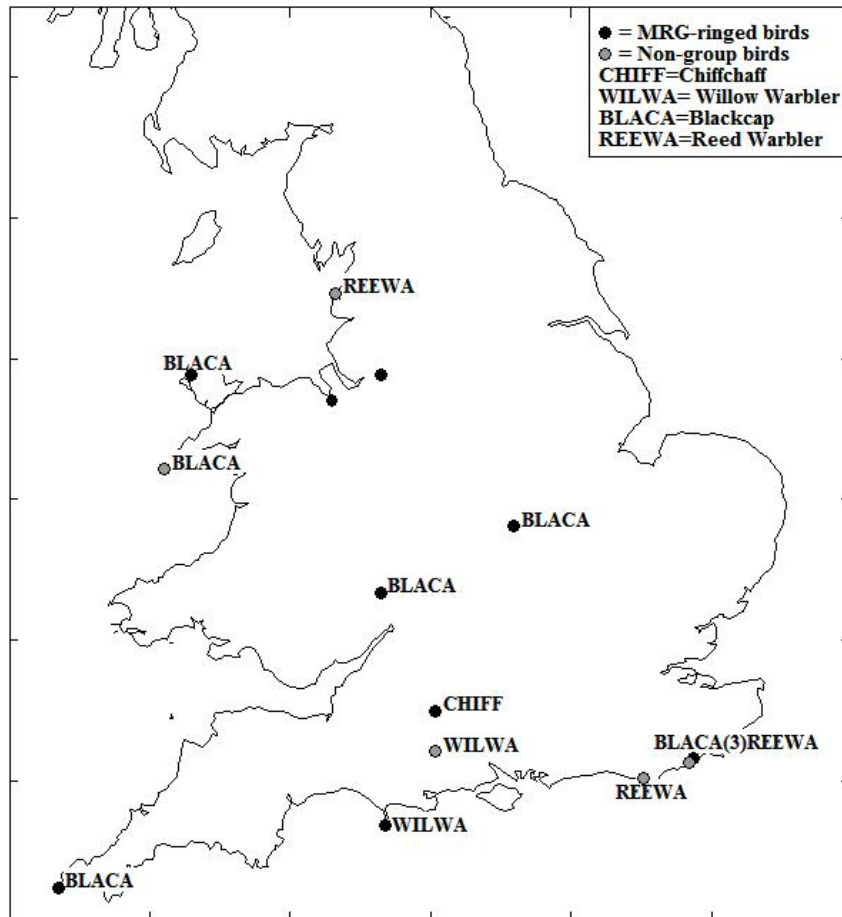
Blue Tit

L406788	3F	08.10.2015	No.1 Bed, Woolston Eyes, Warrington	
	R	12.06.2016	Backford Cross, Cheshire	32km 238°
Z431053	3J	26.08.2015	Birchwood, Warrington	
	R	24.01.2016	Mere Sands Wood, Rufford, Lancashire (also on 06.03)	
	R	09.10.2016	Mere Sands Wood, Rufford, Lancashire	32km 316°

Great Tit				
TV10423	5M	26.02.2016	Burton, Wirral, Cheshire	
	R	30.12.2016	Brigstock, Northamptonshire	184km 119°
Coal Tit				
D031015	5	30.03.2013	Burton, Wirral, Cheshire	
	VV	17.01.2016	Lake Vyrnwy, Powys	64km 209°
Sand Martin				
D813937	3	26.07.2014	Kilnsea Clays, East Riding of Yorkshire	
	R (=M)	18.06.2016	No.1 bed Woolston Eyes, Warrington	176km 263°
Swallow				
D940554	1 (3/3)	11.08.2015	Great Warford, Cheshire	
	R (=F)	05.09.2016	No.1 bed Woolston Eyes, Warrington	19km 301°
S159537	1 (4/4)	11.06.2016	Broadoak Farm, Mobberley, Cheshire	
	R	02.08.2016	Oxmoor Wood, near Runcorn, Cheshire	23km 280°
Cetti's Warbler				
Z296371	2	04.11.2014	Leighton Moss, near Silverdale, Lancashire	
	R (=M)	17.04.2015	No.1 bed Woolston Eyes, Warrington	
	R (=M)	08.04.2016	No.1 bed Woolston Eyes, Warrington (also 20.05 and 18.06)	
	R (=M)	07.10.2016	No.1 bed Woolston Eyes, Warrington	89km 169°
Long-tailed Tit				
EJX843	2	29.09.2013	Frodsham Marsh, Cheshire	
	XF	07.05.2016	Irlam, Greater Manchester	28km 53°
Chiffchaff				
HDK678	3J	30.06.2016	No.3 bed Woolston Eyes, Warrington	
	R	03.10.2016	Westdown Plantation, Wiltshire	243km 171°
FRP RB0298	3	01.11.2014	Mars-Ouest, Sant-Philbert-de-Grand-Lieu 47°07'N 1°40'W Loire-Atlantique, FRANCE	
	R	03.09.2016	No.3 bed Woolston Eyes, Warrington	699km 356°
Willow Warbler				
HDJ230	4F	10.07.2015	No.1 bed Woolston Eyes, Warrington	
	R	21.04.2016	Portland Bill, Dorset	319km 179°
HJP277	3J	01.08.2015	Martin Down, Hampshire	
	R (=F)	06.06.2016	No.1 bed Woolston Eyes, Warrington	272km 352°
Blackcap				
Z499636	3J	27.07.2016	Brockholes Quarry, Lancashire	
	R (=M)	07.09.2016	No.1 bed Woolston Eyes, Warrington	44km 172°
X309253	3M	28.09.2015	No.1 bed, Woolston Eyes, Warrington	
	R	24.04.2016	Grugmor, Isle of Anglesey	134km 270°
Z265414	5M	12.05.2016	Bardsey Island, Gwynedd	
	R	13.09.2016	No.3 bed Woolston Eyes, Warrington	167km 66°
S266337	3J	30.08.2016	No.1 bed Woolston Eyes, Warrington	
	R (=F)	11.10.2016	Stanford Reservoir, Northamptonshire	144km 139°

S266898	4M	21.09.2016	No.1 bed Woolston Eyes, Warrington (1 day)	
	R (=3)	22.09.2016	Much Marcle, Herefordshire	154km 180°
This bird, ringed at 10.55 on 21 September with a weight of 22.0g, was controlled the next day at 12.30, weight 19.4g				
Z431299	3JM	02.09.2016	Birchwood, Warrington	
	R	16.09.2016	Icklesham, Sussex, East Sussex	356km 143°
S024799	3M	10.09.2016	No.3 bed Woolston Eyes, Warrington	
	R	17.09.2016	Icklesham, East Sussex	352km 142°
S024876	3M	17.09.2016	No.3 bed Woolston Eyes, Warrington	
	R	14.10.2016	Icklesham, Sussex, East Sussex	352km 142°
S024761	3M	10.09.2016	No 3 Bed, Woolston Eyes, Warrington	
	R	26.10.2016	Nanjizal, Land's End, Cornwall	430km 211°
FRP 7739642	3M	14.09.2015	Dunes du Fort Vert, Marck 50°58'N 1°55'E Pas-de-Calais, FRANCE	
	R	27.08.2016	No.1 bed Woolston Eyes, Warrington	405km 312°

UK Warbler movements >50km



Sedge Warbler

FRP 2129479	4	15.08.2001	Livery, Guérande 47°17'N 2°25'W Loire-Atlantique, FRANCE	
	R	27.04.2002	Woolston Eyes, Warrington	676km 360°
A very late record, notified to MRG in 2016.				

D328399	3J	18.07.2014	Frodsham Marsh, Cheshire	
	R	01.08.2016	Tour aux Moutons, Donges 47°19'N 2°04'W Loire-Atlantique, FRANCE	667km 176°

Reed Warbler

S094880	3	16.08.2016	Fleetwood, Lancashire	
	R	07.09.2016	No.3 bed Woolston Eyes, Warrington	
	R	10.09.2016	No.3 bed Woolston Eyes, Warrington	66km 151°

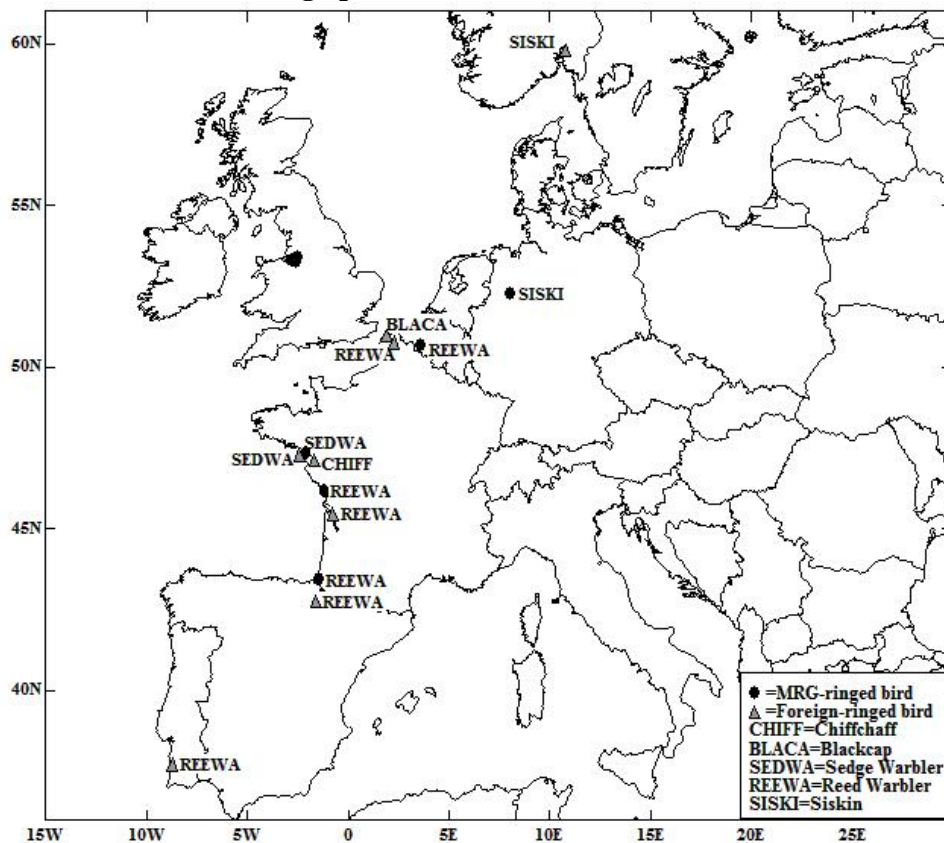
D971093	3	17.09.2014	Litlington, East Sussex	
	R	08.05.2016	Shotton Steel Works, Flintshire	348km 322°

S024692	3	03.09.2016	No.3 bed Woolston Eyes, Warrington	
	R	21.09.2016	Icklesham, East Sussex	352km 142°

Z211544	3J	18.08.2015	Oxmoor Wood, near Runcorn, Cheshire	
	R	29.08.2015	Frasnes-lez-Anvaing 50°40'N 3°36'E Hainaut, BELGIUM	523km 125°

This record was omitted in error from 2015 report.

Foreign passerine controls/recoveries 2016

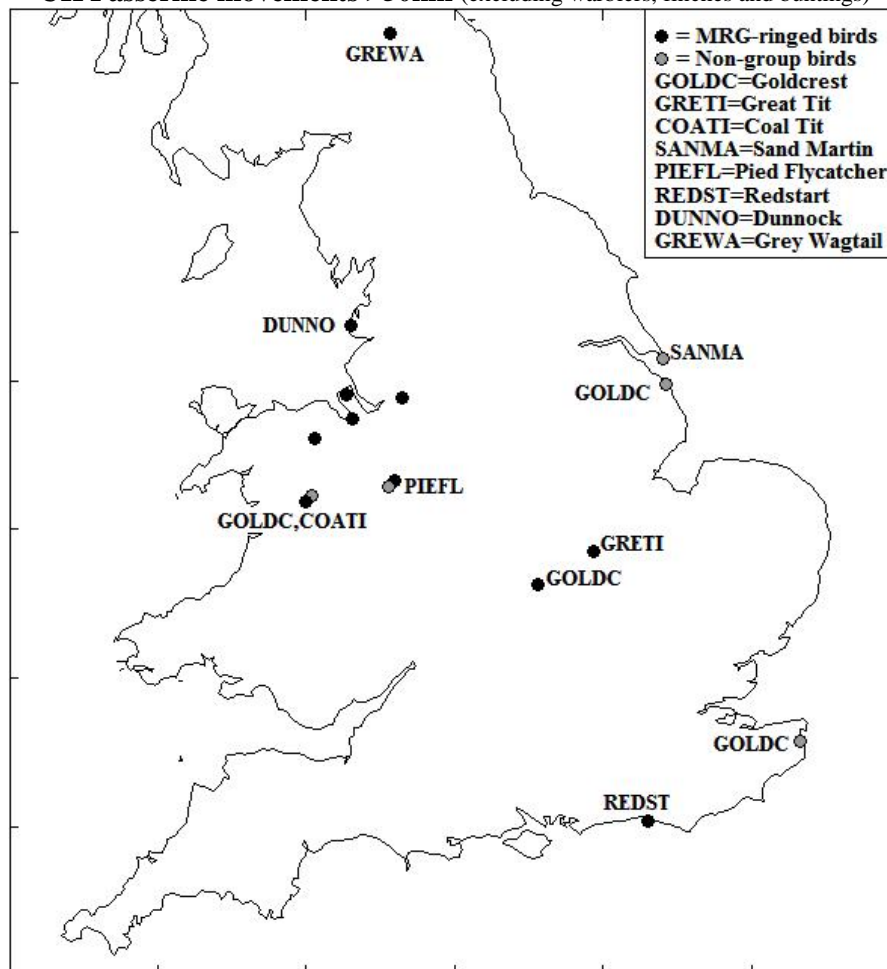


FRP 6333645	3	25.08.2010	Fauquet, Clairmarais, 50°46'N 2°16'E Pas-de-Calais, FRANCE	
	R	15.07.2016	No.1 bed Woolston Eyes, Warrington	439km 312°

FRP 7697595	3	20.08.2015	Conchemarche, Mortagne-sur-Gironde, 45°28'N 0°46'W Charente-Maritime, FRANCE	
	R (=M)	04.06.2016	No.3 bed Woolston Eyes, Warrington (also 02.07 and 03.08)	
	R	10.08.2016	No.3 bed Woolston Eyes, Warrington	887km 352°

D328388	4	18.07.2014	Frodsham Marsh, Cheshire	
	R (=F)	10.09.2016	Borda Nassa, Bassussarry 43°25'N 1°28'W Pyrénées-Atlantiques, FRANCE	1101km 176°
S024238	4	30.07.2016	No.3 bed Woolston Eyes, Warrington	
	R	16.08.2016	Marais de Pampin, La Rochelle 46°10'N 1°10'W Charente-Maritime, FRANCE	806km 174°
ESI 4L44116	3	20.09.2015	Noain, 42°45'N 1°37'W Navarra, SPAIN	
	R	17.08.2016	No.1 bed Woolston Eyes, Warrington	1184km 357°
POL A388099	4	19.08.2015	Herdade dos Forninhos 37°43'N 8°43'W Beja, PORTUGAL	
	R	04.05.2016	No.1 bed Woolston Eyes, Warrington	1804km 16°

UK Passerine movements >50km (excluding warblers, finches and buntings)



Pied Flycatcher

L409165	6F	08.05.2011	Llewesog Hall, Prion, Denbighshire	
	B	17.05.2014	Brynhyfryd, Dinbren Isaf, Denbighshire	23km 140°
	B	20.05.2015	Hendre, Llangollen, Denbighshire	21km 136°
	B	22.05.2016	Rock Farm, Eglwyseg, Denbighshire	21km 136°

This female was ringed as an adult so in the latest recovery must be at least 6 years old. Very few adult females move significant distances once they have settled in an area for breeding – only five cases have been recorded at Prion in 30 years. This particular female had the misfortune of its nest being predated in 2011 – and it was never recorded at Prion again.

Z215215	1 (5/5) B (=F)	12.06.2015 22.05.2016	Lake Vyrnwy, Powys Pandy, near Glyn Ceiriog, Wrexham	25km 48°
Y381950	1 (7/7) B (=F)	02.06.2012 04.06.2016	Llewesog Hall, Prion, Denbighshire Hawkstone Park, Weston-under-Redcastle.	61km 122°
D221324	1 (7/7) N (=F)	01.06.2014 24.05.2016	Hawkstone Park, Weston-under-Redcastle, Shropshire Llewesog Hall, Prion, Denbighshire	61km 302°

Redstart

D028238	1 (6/6) XF	08.06.2013 23.08.2016	Llewesog Hall, Prion, Denbighshire Brighton, Sussex	341km 140°
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Dunnock

TV10236	3J XF	06.08.2015 31.03.2016	No.3 bed, Woolston Eyes, Warrington Queenstown, Blackpool	59km 325°
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British Dunnocks are considered to be sedentary, with median dispersal of juveniles being <1km and only 6% of breeding adults moving >20km. TV10236 is the third MRG capture of Dunnocks moving significant distances. A bird ringed as a breeding adult in 2001 at Llyn Helig, Clwyd was controlled in October 2004 at Shotton (21km) and a first-year bird ringed on Lundy Island in October 2010 was controlled at Meols in April 2011, having moved 267km.

Grey Wagtail

D948661	3 X	29.09.2014 19.04.2016	No.1 bed, Woolston Eyes, Warrington Melrose, Scottish Borders	245km 358°
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Chaffinch

D327766	4F XF	17.12.2013 13.03.2016	No.3 bed, Woolston Eyes, Warrington Horwich, Greater Manchester	25km 355°
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D324032	3F R	01.12.2013 09.10.2016	Bidston, Wirral, Merseyside Nanjizal, Land's End, Cornwall	414km 206°
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Greenfinch

TT82410	4F XF	30.10.2014 15.05.2016	No.1 bed, Woolston Eyes, Warrington Brockhole, Lake Windermere, Cumbria	117km 347°
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TT81507	4M XF	28.12.2013 30.01.2016	No.3 bed, Woolston Eyes, Warrington Buxton, Derbyshire	43km 111°
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Siskin

NOS HF10001	3 R (=F)	28.05.2015 22.02.2016	Sofiemyr, Oppedgard, 59°48'N 10°48'E Akershus, NORWAY Sandiway, Cheshire	1099km 229°
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Z635765	5M R	01.03.2016 24.03.2016	Sandiway, Cheshire (21 days) Osnabruck 52°16'N 8°03'E Weser-Ems, GERMANY	725km 99°
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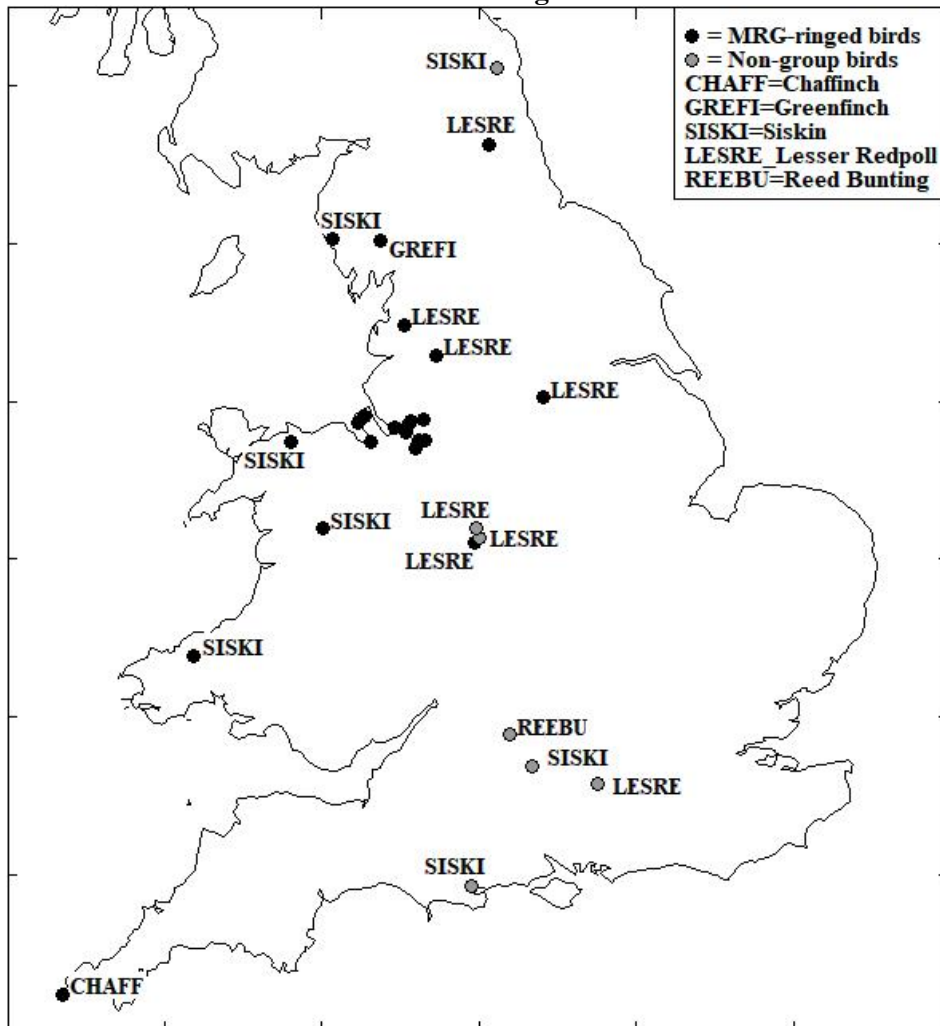
The Norwegian-ringed bird is the second controlled by MRG and one MRG-ringed Siskin has been controlled in Norway. Z635765 is the first record for MRG of Siskin movement to or from Germany.

Z166552	3J R (=M)	04.07.2014 23.02.2016	Shebster, Highland Hale, Widnes, Halton	583km 175°
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Z635362	5M R	16.04.2016 04.05.2016	Bidston, Wirral, Merseyside Drummond, Inverness, Highland	458km 351°
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Z635622	5M R	18.02.2016 16.03.2016	Saltersford Locks, near Barnton, Cheshire Cnoc, Argyll and Bute	354km 338°
Z635642	5M R	20.02.2016 28.03.2016	Sandiway, Cheshire Callander, Stirling	351km 343°
Z635379	5F R	17.04.2016 20.04.2016	Bidston, Wirral, Merseyside (3 days) Glebe Farm, Salsburgh, North Lanarkshire	278km 350°
Z397284	4M R	26.09.2015 16.04.2016	Lemington Hall, Alnwick, Northumberland Bidston, Wirral, Merseyside	237km 201°
Z433754	5F R	29.02.2016 24.04.2016	Sutton Weaver, Runcorn, Cheshire Gosforth, Cumbria	132km 339°
Z433769	5F R R	03.03.2016 08.04.2016 10.04.2016	Sutton Weaver, Runcorn, Cheshire Tal Goed Nursery, Conwy Pentrefelin, Conwy	74km 265° 74km 265°

UK Finches and Reed Bunting movements >50km



D648579	6F R	28.02.2014 10.03.2016	Sandiway, Cheshire Lake Vyrnwy, Powys	78km 229°
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D647020	5M R	03.04.2014 03.04.2016	Burton, Wirral, Cheshire Cartref, Boncath, Pembrokeshire	176km 219°
L272363	5M R	14.02.2016 29.02.2016	Kingsley, Staffordshire Sandiway, Cheshire	47km 299°
Z731275	5M R	29.02.2016 17.04.2016	Harvey's Meadow, near Hungerford, West Berks Bidston, Wirral, Merseyside	245km 335°
Z408887	6F R (=5)	04.03.2016 04.04.2016	Lytchett Bay, Poole Harbour, Dorset Bidston, Wirral, Merseyside	305km 347°
Lesser Redpoll				
D323551	5M R	04.04.2016 15.04.2016	Newton, Wirral, Merseyside Mickley Square, Prudhoe, Northumberland	195km 26°
Y155779	5 R (=M)	22.03.2012 09.04.2016	No.1 bed, Woolston Eyes, Warrington Petre Crescent, Rishton, Lancashire	42km 11°
D948673	3 R (=F)	29.09.2014 20.04.2016	No.1 bed Woolston Eyes, Warrington Barnacre Reservoir, Lancashire	61km 349°
Z209913	3 R (=M)	13.12.2015 30.04.2016	Marston, Cheshire Petre Crescent, Rishton, Lancashire	55km 8°
Z209910	3 R	13.12.2015 25.10.2016	Marston, Cheshire Old Moor Farm, South Yorkshire	81km 70°
D027928	5M R R	21.04.2013 17.04.2016 04.05.2016	Sutton Weaver, Runcorn, Cheshire Hednesford Hills, Staffordshire Hednesford Hills, Staffordshire	83km 147°
Z985454	6M R	30.04.2016 29.10.2016	Hednesford Hills, Staffordshire Oxmoor Wood, near Runcorn, Cheshire	86km 328°
Y791180	5F R	05.04.2016 06.05.2016	Lichfield Block, Cannock Chase, Staffordshire Bidston, Wirral, Merseyside	99km 314°
Z465618	4M R	06.12.2014 06.05.2016	Hazeley Heath, Hampshire Bidston, Wirral, Merseyside	275km 328°
Reed Bunting				
Z357549	5M R	22.02.2015 16.03.2016	Nightingale Wood, Swindon Great Sankey, Warrington	208km 343°

SELECTED RETRAPS AND LOCAL MOVEMENTS 2016

Peter Coffey

Each year the Group recaptures up to 5,000 birds already wearing MRG rings, at or near the ringing site, usually involving movements of 5 km but for some species (eg Barn Owl) 10km. These are crucial for calculations of annual survival/mortality and can be amongst the most valuable for showing longevity, site fidelity and local movements. This report details a small selection of the 'oldest' retraps for 2016, with summaries for many species. Note that the term 'oldest' refers to the elapsed time between ringing and last recapture: except in a few cases where birds were ringed as nestlings, the period shown on the right does not refer to the age of the bird. For birds that were handled many times, only a selection of recapture dates is given.

Local movements are in italics and appear after the retraps for each species. Most movements are greater than 5 km distance referred to above but some short distance movements showing interchange between sites are included. Codes used are: C=control and R=retrap.

Eurasian Teal

EY43995	2F	29.11.2014	Woolston Eyes No 3 Bed, Warrington	
	R	07.03.2015	Woolston Eyes No 3 Bed, (+21.03, 28.03.2015)	
	R	27.02.2016	Woolston Eyes No 3 Bed	1yr 90 days

A total of ten Teal were retrapped at the Woolston duck trap in successive winters.

Green Sandpiper

NV38166	3	16.08.2015	Woolston Eyes No 3 Bed, Warrington	
	R	03.08.2016	Woolston Eyes No 3 Bed, Warrington	353days

The first Green Sandpiper retrapped by MRG in a later season, suggesting that the bird may deliberately target Woolston as a stop-over site.

Tawny Owl

GH80280	10F	26.02.2011	Woolston Eyes No 3 Bed, Warrington	
	R	21.01.2012	Woolston Eyes No 3 Bed, Warrington	
	R	04.01.2014	Woolston Eyes No 3 Bed, Warrington	
	R	07.05.2016	Woolston Eyes No 3 Bed, Warrington	5yrs 71days

Swift

SA76027	6F	13.07.2009	Cotebrook, Cheshire	
	R	15.07.2016	Cotebrook, Cheshire	7yrs 2days

This female has been recaptured in seven successive seasons and SB06760, a second female at the colony, has been recaptured in six successive seasons.

Kestrel

EY00108	4F	22.05.2013	Brimstage, Wirral, Merseyside	
	R	05.06.2016	Brimstage, Wirral, Merseyside	3yrs 14days

Jay

DB80498	3J	28.08.2011	Woolston Eyes No 3 Bed, Warrington	
	R	30.01.2016	Woolston Eyes No 3 Bed, Warrington	4yrs 155days

This bird had been recaptured previously in 2012 (twice) and 2013 (once).

Goldcrest

EJX445	3JF	12.10.2013	Norton Priory, Runcorn, Halton	
	R	10.10.2014	Norton Priory, Runcorn, Halton (also on 18.02.2014)	
	R	17.12.2016	Norton Priory, Runcorn, Halton	3yrs 66days

One Goldcrest ringed in 2014 was recaptured in 2016. Of the 27 birds ringed in 2015 and recaptured in 2016, 24 were in the same "winter" (eg October 2015 – February 2016) and only three were in later seasons (eg autumn 2015 to autumn 2016).

Blue Tit

Birds recaptured in 2016 at the place of ringing had been ringed in:

2009	2010	2011	2012	2013	2014	2015
2	8	8	18	39	104	187

X061178 3J 28.07.2009 Woolston Eyes No 3 Bed, Warrington
R(=F) 07.05.2016 Woolston Eyes No 3 Bed, Warrington 6yrs 284days

This Blue Tit has been recaptured five times. By contrast, a second Blue Tit, X066596 caught on Woolston Eyes No 1 Bed on 21.08.2009, has been recaptured twenty times over a period of 6yrs 223days.

Three Blue Tits had made local movements in 2016, two between Nos 1 and 3 beds at Woolston, and one between ringing stations in Delamere Forest.

Great Tit

Birds recaptured in 2016 at the place of ringing had been ringed in:

2009	2010	2011	2012	2013	2014	2015
5	5	9	12	22	55	100

X306821 3M 20.09.2009 Birchwood, Warrington
R 04.11.2016 Birchwood, Warrington 7yrs 45days

This bird has been recaptured six times.

Coal Tit

Birds recaptured in 2016 at the place of ringing had been ringed in:

2010	2011	2012	2013	2014	2015
1	0	0	4	3	26

X929547 5 03.01.2010 Fox Howl, Delamere Forest, Cheshire
R 18.02.2016 Fox Howl, Delamere Forest, Cheshire 6yrs 46days

This bird has been recaptured six times.

Willow Tit

Birds recaptured in 2016 at the place of ringing had been ringed in:

2009	2010	2011	2012	2013	2014	2015
1	1	0	1	2	6	10

X066557 3J 14.08.2009 Woolston Eyes No 1 Bed, Warrington
R(=M) 20.04.2016 Woolston Eyes No 1 Bed, Warrington 6yrs 250days

This bird has been recaptured on four occasions.

Swallow

D646956 3 19.08.2014 Woolston Eyes No 3 Bed, Warrington
R 29.07.2016 Woolston Eyes No 1 Bed, Warrington 1yr 345days

L636501 4M 05.06.2013 Willaston, South Wirral, Cheshire
R 15.06.2015 Willaston, South Wirral, Cheshire
R 20.07.2016 Willaston, South Wirral, Cheshire 3yrs 45days

D646956 is an example of a bird recaptured at a roost whilst L636501 is a breeding male returning to its favoured territory.

D327068 3 27.08.2013 Woolston Eyes No 3 Bed, Warrington
C=M 24.08.2016 Oxmoor Wood, near Runcorn, Halton 11km WSW 2yrs 363days

D327148 3 31.08.2013 Woolston Eyes No 3 Bed, Warrington
C=M 29.04.2016 Hapsford, Cheshire 22km SW 2yrs 242days

House Martin

D325691 4M 12.05.2014 Hapsford, Cheshire
R 11.07.2016 Hapsford, Cheshire 2yrs 60days

A second male, D325742, ringed at Hapsford on 29.05.2014 was also recaptured on 11.07.2016.

Cetti's Warbler

D030199	2F	10.11.2013	Shotton, Flintshire (also on 08.12.2013)	
	R	05.10.2014	Shotton, Flintshire	
	R	20.03.2016	Shotton, Flintshire	2yrs 131days
Z208191	3JM	29.09.2014	Oxmoor Wood, near Runcorn, Halton	
	R	15.04.2015	Oxmoor Wood, near Runcorn, Halton (+15.04,13.05 &23.05.15)	
	R	24.05.2016	Oxmoor Wood, near Runcorn, Halton	1yr 238days
Z432898	3F	15.10.2015	Frodsham Marsh, Cheshire	
	C	30.05.2016	Oxmoor Wood, near Runcorn, Halton (+04.06.2016)	
	C	21.07.2016	Oxmoor Wood, near Runcorn, Halton	8km, NE, 280days

D030199 has been caught in three different years but has not been caught in a breeding season. Z208191 has been caught in two successive seasons with proven breeding at the site. Z432898 was controlled as a breeding female at Oxmoor Wood, 8km from where it was ringed as a juvenile. Five other Cetti's Warblers ringed in 2015 were retrapped in 2016, underlining the increasing size of the local population.

Long-tailed Tit

Birds recaptured in 2016 at the place of ringing had been ringed in:

2009	2010	2011	2012	2013	2014	2015
1	3	4	4	15	16	32

BHJ186	2	15.10.2009	Salterford Locks, Cheshire	
	R	31.03.2016	Salterford Locks, Cheshire	6yrs 168days

This bird has been recaptured ten times during that period.

EBJ071	2	24.11.2012	West Kirby, Wirral, Merseyside	
	R	23.01.2016	Newton, Wirral, Merseyside (+23.12.2015) 3km, E, 3yrs 60days	

Chiffchaff

Birds recaptured in 2016 at the place of ringing had been ringed in:

2011	2012	2013	2014	2015
1	1	4	3	29

DJT163	3JF	23.07.2011	Oxmoor Wood, near Runcorn, Halton	
	R	20.08.2015	Oxmoor Wood, near Runcorn, Halton	
	R	25.08.2016	Oxmoor Wood, near Runcorn, Halton	5yrs 33days

This is a longevity record for Chiffchaff ringed by MRG but the BTO record is 7yrs 240days.

Willow Warbler

Birds recaptured in 2016 at the place of ringing had been ringed in:

2012	2013	2014	2015
1	2	4	12

DJV707	4M	24.05.2012	Woolston Eyes No 1 Bed, Warrington	
	R	17.05.2016	Woolston Eyes No 1 Bed, Warrington	3yrs 359days

This bird was also recaptured in the 2013 and 2015 seasons.

Blackcap

Birds recaptured in 2016 at the place of ringing had been ringed in:

2009	2010	2011	2012	2013	2014	2015
1	0	0	1	5	7	5

V852841	4F	04.06.2009	Woolston Eyes No 3 Bed, Warrington	
	R	18.06.2011	Woolston Eyes No 3 Bed, Warrington	
	R	04.06.2016	Woolston Eyes No 3 Bed, Warrington	7yrs 0days

Z434621	3J	15.07.2016	Woolston Eyes No 1 Bed, Warrington	
	R=M	03.09.2016	Oxmoor Wood, near Runcorn, Halton	11km, WSW, 50days

Garden Warbler

Y383878 4 07.05.2013 Woolston Eyes No 1 Bed, Warrington (+10.07.2013)
 R 19.05.2016 Woolston Eyes No 1 Bed, Warrington 3yrs 12days

The Group seldom recaptures Garden Warblers in later seasons.

Whitethroat

Two Whitethroats were recaptured in 2016, both ringed in 2015 at Oxmoor Wood and retrapped there.

Sedge Warbler

Z211159 4F 27.06.2015 Oxmoor Wood, near Runcorn, Halton (+06.08, 07.08.2015)
 R 14.05.2016 Oxmoor Wood, near Runcorn, Halton 322 days

This breeding female was recaptured the following season. The only other Sedge Warbler recaptured in 2016 was a male on Woolston Eyes No 1 Bed.

Reed Warbler

Birds recaptured in 2016 at the place of ringing had been ringed in:

2008	2009	2010	2011	2012	2013	2014	2015
1	0	5	2	2	10	14	35

V654945 3 28.07.2008 Woolston Eyes No 1 Bed, Warrington
 R 17.06.2016 Woolston Eyes No 1 Bed, Warrington 7yrs 324days

This bird had not been recaptured previously.

D327249 3J 07.09.2013 Woolston Eyes No 3 Bed, Warrington
 C=M 20.07.2014 Oxmoor Wood, near Runcorn, Halton
 C=M 04.06.2016 Oxmoor Wood, near Runcorn, Halton 11km, WSW, 2yrs271days

D645974 3J 04.08.2014 Oxmoor Wood, near Runcorn, Halton
 C=M 10.05.2016 Woolston Eyes No 1 Bed, Warrington 11km, ENE, 1yr 280days

Other movements between Woolston No 3 Bed and Oxmoor Wood include a juvenile(D950682) ringed at no 3 Bed in August 2015 being recaptured in May 2016, a juvenile (S024644) ringed on 31 August 2016 being recaptured 15 days later at Oxmoor and a juvenile (Z636206) ringed at Oxmoor on 6 August 2016 and recaptured 15 days later at Woolston No 1 Bed.

Nuthatch

Birds recaptured in 2016 at the place of ringing had been ringed in:

2012	2013	2014	2015
1	1	5	6

TP83879 5M 11.02.2012 Delamere Forest, Cheshire (+23.02.2013)
 R 01.01.2016 Delamere Forest, Cheshire 3yrs 324days

Wren

Birds recaptured in 2016 at the place of ringing had been ringed in:

2012	2013	2014	2015
1	5	11	30

EBH812 3J 20.08.2012 Oxmoor Wood, near Runcorn, Halton
 R 29.10.2016 Oxmoor Wood, near Runcorn, Halton 4yrs 70days

This bird has been recaptured five times.

Starling

Birds recaptured in 2016 at the place of ringing had been ringed in:

2011	2012	2013	2014	2015
1	1	0	8	7

LB92854 6F 07.03.2011 Sutton Weaver, Runcorn, Halton
 R 13.05.2016 Sutton Weaver, Runcorn, Halton 5yrs 67days

This breeding female was also recaptured in 2013 and 2014.

LH19751 3J 01.06.2016 *Saltersford Lock, Cheshire*
 R=M 30.11.2016 *Sutton Weaver, Runcorn, Halton* 10km, NW, 182days

Blackbird

Birds recaptured in 2016 at the place of ringing had been ringed in:

2009	2010	2011	2012	2013	2014	2015
1	3	2	2	11	10	22

LA53385 3M 28.11.2009 Norton Priory, Runcorn, Halton
 R 04.05.2016 Norton Priory, Runcorn, Halton 6yrs 158days

Song Thrush

RT60172 3J 10.07.2011 Woolston Eyes No 1 Bed, Warrington
 R=M 13.05.2016 Woolston Eyes No 1 Bed, Warrington 4yrs 308days

Only two other Song Thrushes were recaptured in 2016, both ringed in 2014.

Robin

Birds recaptured in 2016 at the place of ringing had been ringed in:

2010	2011	2012	2013	2014	2015
1	1	10	16	20	43

X573578 3J 11.06.2010 Woolston Eyes No 1 Bed, Warrington
 R 03.03.2016 Woolston Eyes No 1 Bed, Warrington 5yrs 266days

Pied Flycatcher

Birds recaptured in 2016 at the place of ringing had been ringed in:

2011	2012	2013	2014	2015
2	1	12	32	30

L869159 4M 06.06.2011 Ddol-hir, Near Pandy, Wrexham
 R 06.06.2016 Ddol-hir, Near Pandy, Wrexham 5yrs 0days

This male was recaptured each year except 2014.

Y672172 1 14.06.2013 *Pandy, near Glyn Ceiriog, Wrexham*
 R=F 30.05.2015 *Llwynmawr, Wrexham* 3km,NE,1yr 350days
 R=F 06.06.2016 *Ddol-hir, Near Pandy, Wrexham* 2km,NNE,2yrs358days

L638613 1 31.05.2014 *Glyn Arthur, Denbighshire*
 C=M 03.06.2016 *Prion, Denbighshire* 8km, WSW, 2yrs 3days

Two other birds ringed as chicks at Llwynmawr in 2014 were recaptured at Pandy in 2016 as males and two chicks ringed in 2015 were recaptured in 2016 as breeding females having moved, one in each direction, between Glyn Arthur and Prion.

Grey Wagtail

Z208561 3 28.11.2014 Sutton Weaver, Runcorn, Halton
 R=F 12.03.2016 Sutton Weaver, Runcorn, Halton 1yr 105days

Chaffinch

Birds recaptured in 2016 at the place of ringing had been ringed in:

2008	2009	2010	2011	2012	2013	2014	2015
1	1	1	1	1	12	11	24

V214694 5M 09.05.2008 Woolston Eyes, Warrington
 R 13.06.2016 Woolston Eyes No 1 Bed, Warrington 8yrs 35days

This male Chaffinch has been recaptured four times.

X573256 3M 27.11.2009 Woolston Eyes No 1 Bed, Warrington
 R 30.04.2016 Woolston Eyes No 3 Bed, Warrington 6yrs 155days

Bullfinch

Birds recaptured in 2016 at the place of ringing had been ringed in:

2009	2010	2011	2012	2013	2014	2015
1	1	0	4	10	30	107

X928135 3M 21.11.2009 Woolston Eyes No 3 Bed, Warrington (+10.07.2010)
R 20.02.2016 Woolston Eyes No 3 Bed, Warrington 6yrs 91days

Eleven Bullfinches have been recorded moving between beds at Woolston, seven from No 1 Bed to No 3 Bed, three moving in the opposite direction and one, shown below, moving both ways.

Z212775 3JM 14.09.2015 Woolston Eyes No 1 Bed, Warrington (+ 4 retraps)
R 21.05.2016 Woolston Eyes No 3 Bed, Warrington
R 02.12.2016 Woolston Eyes No 1 Bed, Warrington 1yr 79 days

Greenfinch

Birds recaptured in 2016 at the place of ringing had been ringed in:

2011	2012	2013	2014	2015
2	2	7	12	56

TR05011 4M 19.03.2011 Birchwood, Warrington
C 17.05.2016 Woolston Eyes No 1 Bed, Warrington 6km, S, 5yrs 59days

TV09475 5F 06.02.2016 Woolston Eyes No 3 Bed, Warrington
C 13.03.2016 Hale, Widnes, Halton 19km, WSW, 36days

Forty-six Greenfinches have been recorded moving between beds at Woolston, 17 from No 1 Bed to No 3 Bed, 25 moving in the opposite direction and four moving both ways.

TV10185 3M 28.11.2014 Woolston Eyes No 3 Bed, Warrington
R 25.04.2016 Woolston Eyes No 1 Bed, Warrington
R 18.07.2016 Woolston Eyes No 3 Bed, Warrington 1yr 233days

Goldfinch

Birds recaptured in 2016 at the place of ringing had been ringed in:

2012	2013	2014	2015
1	2	8	17

Y383056 5M 21.02.2012 Sandiway, Cheshire
R 05.01.2016 Sandiway, Cheshire 3yrs 318days

Siskin

Y381369 6M 14.02.2012 Sandiway, Cheshire
C 03.04.2016 Bidston, Wirral, Merseyside 38km, WNW, 4yrs 49days

Reed Bunting

Birds recaptured in 2016 at the place of ringing had been ringed in:

2007	2008	2009	2010	2011	2012	2013	2014	2015
1	0	1	3	6	9	8	13	16

V215531 5F 13.04.2007 Woolston Eyes No 1 Bed, Warrington
R 10.06.2016 Woolston Eyes No 1 Bed, Warrington 9yrs 58days

This female, aged as a 5 when ringed, was in her tenth year when recaptured for the seventh time. She now holds the MRG longevity record but is fourth on the BTO list, the oldest being 9yrs 352days.

Z208072 3M 23.09.2014 Oxmoor Wood, near Runcorn, Halton
R 17.03.2016 Great Sankey, Warrington 4km, NNE, 1yr 176days

Z208324, a 4M Reed Bunting ringed at Oxmoor on 11.10.2014, was caught at Great Sankey on the same day as Z208072.

Four Reed Buntings moved between No 1 and 3 beds at Woolston, two in each direction.

NEST RECORDS 2016

David Norman

MRG members submitted 798 nest records of 50 species. The drop from 921 in 2015 meant that the Group fell one place to become the fourth-highest contributor to the BTO's national scheme.

Our top five species for 2016 were the same as usual, with a slight change in order: Blue Tit, Great Tit, Pied Flycatcher, Swallow and Barn Owl. All records were sent to the BTO by 31 October 2016 for inclusion in their analyses of laying dates and breeding success – clutch size, brood size, egg stage survival, chick survival and number of fledglings produced (see <http://www.bto.org/volunteer-surveys/nrs/results/nrs-preliminary-results-2016>). Summary data for the Welsh records were also provided to the North East Wales Bird Report.

Using the *Birds of Conservation Concern 4*, published in December 2015, 37% of our total of nest records was from species listed, 125 on the **Red List** and 171 on the *Amber List*. Of the year's records, 344 were of cavity-nesting passerines, with 169 from open-nesting passerines, the latter a category for which the Nest Record Scheme is keen to encourage more submissions.

Nest record cards submitted in 2016

<i>Mute Swan</i>	1	Little Owl	4	Wren	14
Canada Goose	2	<i>Tawny Owl</i>	12	<i>Dipper</i>	5
Pheasant	1	<i>Kestrel</i>	16	Blackbird	20
<i>Marsh Harrier</i>	1	Hobby	6	Song Thrush	8
Goshawk	5	Peregrine	1	Spot'd Flycatcher	4
Sparrowhawk	3	Jackdaw	10	Robin	6
Buzzard	7	Raven	3	Pied Flycatcher	89
Moorhen	1	Blue Tit	130	<i>Redstart</i>	10
Coot	3	Great Tit	91	Stonechat	2
<i>Oystercatcher</i>	1	Coal Tit	2	<i>Dunnock</i>	3
Ringed Plover	2	Swallow	86	House Sparrow	19
<i>Little Tern</i>	66	Long-tailed Tit	5	Grey Wagtail	2
<i>Black-headed Gull</i>	21	Wood Warbler	1	Pied Wagtail	1
<i>Stock Dove</i>	30	<i>Willow Warbler</i>	2	Chaffinch	1
Woodpigeon	5	Blackcap	1	Goldfinch	1
Collared Dove	6	Reed Warbler	1	<i>Bullfinch</i>	3
Barn Owl	81	Nuthatch	3	TOTAL	798

The Gronant Little Tern colony had an exceptional year with an estimated 141 pairs laying 381 eggs (including re-lays), of which 284 hatched and an estimated 170 fledged. Despite careful monitoring by Denbighshire County Council wardens and volunteers, high tides caused the loss of some nests, and foxes predated some chicks outside the protective electric fencing. The Group ringed two adults and 155 chicks - the highest since MRG started ringing at the colony in 1983 - with 113 of them originally ringed in or near their nest, allowing our completion of 66 nest records.

REVIEW OF TERN AND GULL BREEDING AT SHOTTON IN 2016

Peter Coffey

Introduction

The three islands at Shotton Lagoons and Reedbed SSSI were constructed to encourage the development of the Common Tern *Sterna hirundo* colony and maintain it at sustainable levels, as specified in the Dee Estuary SPA documentation. Terns failed to breed in 2009-12, bred in 2013 but fox predation destroyed most of the colony, and successfully bred in 2014-2016.

Black-headed Gull *Chroicocephalus ridibundus* had nested previously in the SSSI on the bunds, not the islands. They also failed to breed in 2009. When they attempted breeding, from 2013 onwards, they chose to nest on the islands. Their first breeding success was in 2014.

Competition for nesting territory on the islands was assessed after the 2015 breeding season, the results suggesting increased gull numbers appear to have a negative effect on tern breeding. This article has two purposes:

1. to re-examine, using 2016 data, the relationship between nesting Common Terns and Black-headed Gulls to check the validity of the findings made in 2015; and
2. to assess the impact of the licensed removal of nests and eggs of Black-headed Gull.

Analysis of breeding at Shotton, 2016

Data relating to both species are presented in the table below:

	<i>Common Tern</i>			<i>Black-headed Gull</i>		
	2014	2015	2016	2014	2015	2016
<i>Apparently occupied nests</i>	N/A	344	348	N/A	163	368 ²
<i>Estimated breeding pairs</i>	224±20	348-354	346-352	N/A	163-170	356-375 ²
<i>Ave clutch size</i>	c2.5	2.70	2.75	N/A	2.64	2.51
<i>Chicks hatched</i>	550	778	667	128	431	577
<i>Chicks fledged</i>	445	565	353	118	416	520
<i>Productivity¹</i>	1.8	1.6	1.0	N/A	2.55	1.52

¹ Productivity = Fledged chicks per breeding pair. ² Black-headed Gull nest/breeding pair totals include all nests within the compartments plus nests on the concrete apron around the islands. Nests on the bund (minimum of 61) are not included.

Common Tern

The number of breeding pairs was unchanged from 2015. Although the colony is still rebuilding after the collapse in 2009, a static population is not unexpected at this stage. The population of adults that bred at Shotton pre-2009 is slowly declining and evidence from the expanding colony in Preston Docks shows that Shotton adults that moved there to breed between 2009-13 have continued to use that site. Young birds raised at Shotton in 2014 will not be recruited to the breeding population until 2017.

Average clutch size increased slightly in 2016 but productivity fell significantly compared to 2014-15. Whilst still very healthy compared to national figures from JNCC Seabird Monitoring of 0.35–0.80 fledged young per breeding pair, productivity in 2016 was below the threshold of 1.38 fledged young per breeding pair specified in the Dee Estuary SPA to achieve “favourable condition” and the number of fledged young fell by 38%. Weather was a contributory factor, causing high mortality of recently hatched chicks, but the proportion of eggs that hatched was also much lower in 2016 (70% compared to 84% in 2015).

Black-headed Gull

The number of breeding pairs on the islands increased by 126%. A further 61 pairs (minimum) nested on one of the bunds but predation by fox destroyed those nests. It appeared that some of those displaced pairs re-nested on the islands, particularly on the concrete apron around the exterior of the islands.

Average clutch size fell slightly, from 2.64 to 2.51. Given the licensed programme of nest and egg removal, a larger fall in clutch size might have been expected. Productivity also fell, from 2.55 chicks per nest in 2015 to 1.52 in 2016. Chick mortality (9.9%) was not a significant factor but the proportion of eggs that hatched was much lower in 2016 (67% compared to 96% in 2015). The number of fledged young increased by 25%.

The relationship between nesting Common Terns and Black-headed Gulls

An analysis of data in 2015 indicated that increased gull numbers appear to have a negative effect on tern breeding in the following ways:

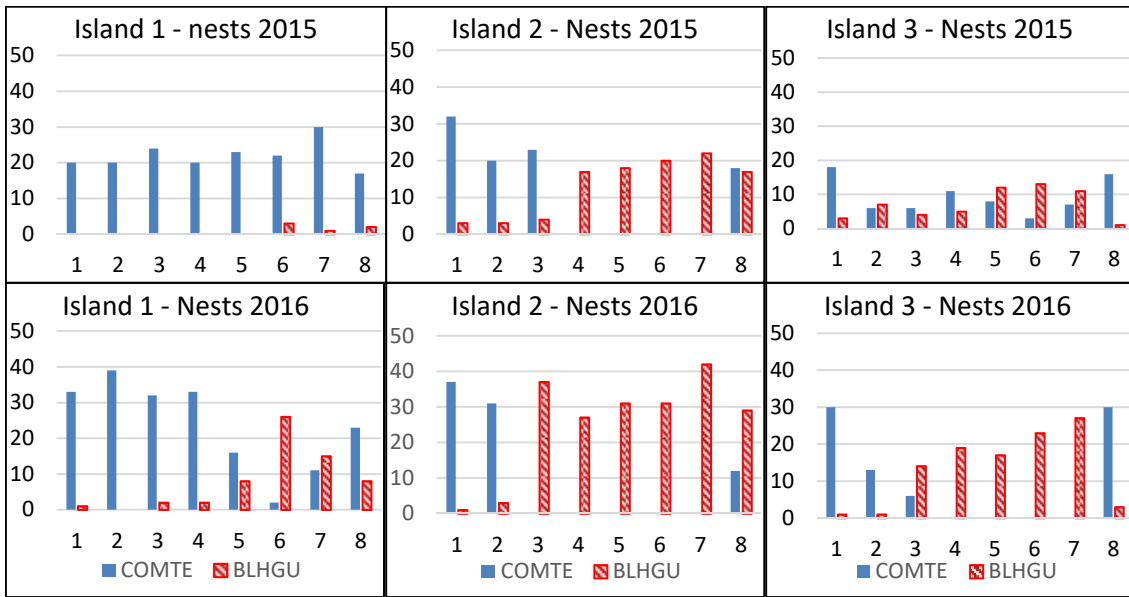
- tern numbers decline as gull numbers increase and tern breeding stops completely when numbers of gull chicks exceed 40 per compartment (except end compartments);
- gulls appear to have similar breeding site preferences to terns and tend to displace them from their core areas; and
- the risk of newly-fledged terns being attacked and killed if they stray into the wrong compartment increases as gull numbers increase.

A second measure of gull density, nests per compartment, was introduced in 2016. Observations suggest that it is the presence of nesting adult gulls that deters the terns.

The distribution of nests and chicks in 2016 (shown in Figures 1 and 2 respectively) confirms and strengthens the first two impacts. The key facts are:

- Terns did not breed in 9 of the 24 compartments in 2016 (compared to 4 in 2015).
- Terns did not breed in compartments with 15 or more gull nests, except for compartments no.6 on island 1 and no.8 on island 2.
- Terns did not breed in compartments with 40 or more gull chicks except for the end compartment (no.8) on island 2.
- Terns did not even breed in compartments with less than 40 gull chicks where neighbouring compartments had 40 or more chicks (compartments 4 and 5 on island 2 and 3 respectively).
- Gulls dominated the central compartments of islands 2 and 3, the core areas favoured by the terns before gull numbers rose.
- In response to pressure from the gulls, tern nesting densities in favoured compartments increased; compartments 1-4 on island 1 had 39% of tern nests which produced 40% of the tern chicks. Compartments 1 and 2 produced 95 and 87 chicks respectively, far higher than the maximum in 2014-15 of 72.

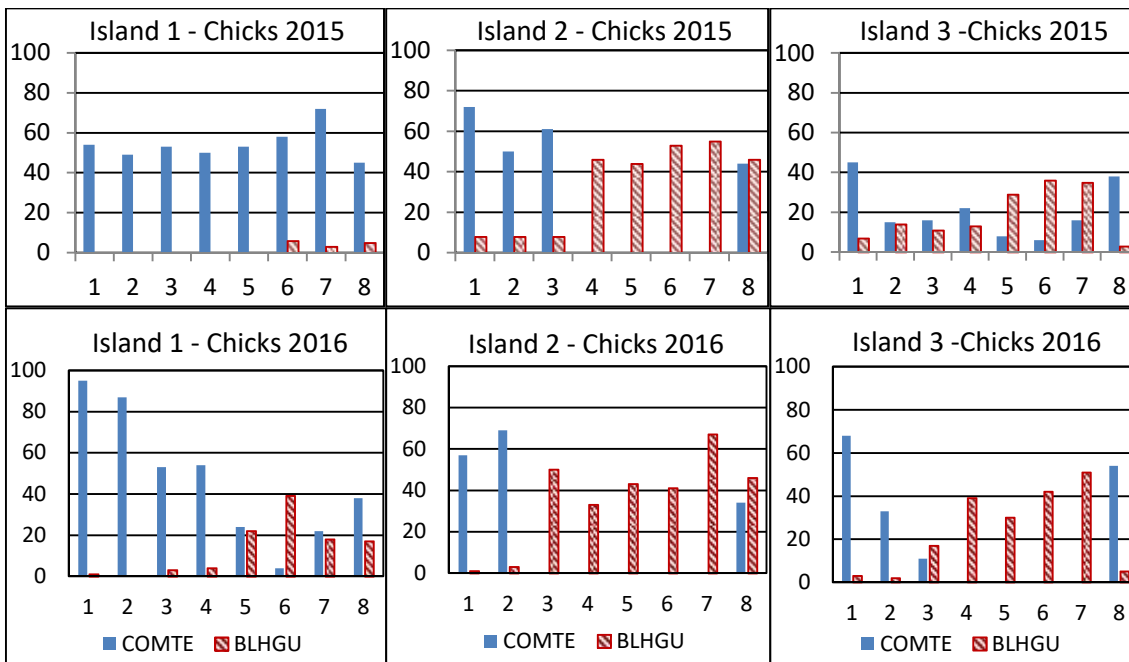
Figure 1: Distribution of nests of both species by compartment, 2015 and 2016



The third impact, mortality of newly-fledged terns straying into gull-dominated compartments, showed a marked worsening: 46 dead terns were recovered from compartments that did not have tern nests, compared to 12 in 2015. The final toll may be even worse – it is not unreasonable to assume that further tern chick deaths may occur in shared breeding areas. Reports of terns being intercepted by gulls and being forced to drop their food also increased.

In conclusion, the threat of nesting Common Terns being displaced by nesting Black-headed Gulls is more severe than anticipated in 2015. Tern chick mortality caused by gull activity may be relatively small compared to weather-related mortality but is an indicator of more stress on the tern population.

Figure 2: Distribution of chicks of both species by compartment, 2015 and 2016



The effectiveness of control measures applied to nesting Black-headed Gulls.

A management plan to control nesting Black-headed Gulls, agreed with Natural Resources Wales for 2016, involved:

- Actions not requiring a licence:
 - use of coloured tapes to deter gull nesting on the islands prior to the arrival in late April of Common Terns, and
 - creation of an alternative nesting area for gulls on one of the bunds.
- Actions requiring a licence:
 - removal of gull nests and eggs, except four nests and eggs in each compartment, from the commencement of nesting by the gulls to the commencement of nesting by the terns and at the end of May/first week of June when the count of “apparently occupied nests” for Common Terns is conducted.

The coloured tapes did not deter the gulls. Tape was not used on island 1 to facilitate maintenance work but the gulls stayed by their preferred territories on islands 2 and 3 where they dropped down between the tapes with no apparent inconvenience.

The creation of an alternative nesting area was more successful: the first gull nest on the bund was started on the same day as the first nest on the islands and 61 nests with 157 eggs were counted in mid-May. Fox-deterrent fencing had been erected but, regrettably, a fox scaled it and caused the abandonment of the bund.

The licensed activity, removal of nests and eggs, proved to be a harder challenge. Twelve visits to the islands were made between 12 April and 4 May. Scrapes were detected on 12 April and nest material on 14 April. The first nests were removed on 17 April. Nest replacement was rapid. For example, between the removal of nests and eggs on 25 April and a visit 48 hours later, on 27 April, 168 new nests were started and 164 eggs laid, many in the new nests. Nest numbers appeared to peak at 247 on 27 April but an influx of pairs displaced from the bund, coupled with a 25-day period with no nest or egg removal, saw the total of nests soar to 281 on 29 May. Removal of 191 nests on that day did not deter the gulls; a count on 19 June indicated 368 nests and 860 eggs. No nests or eggs were removed after 29 May.

Egg removal started on 22 April and continued through to 4 May when 201 gull eggs were retained on the reserve, 116 on the new nesting area on the bund and 85 on the islands. Tern nesting started a few days later and no further visits were made to check gull nests and eggs until the count of “apparently occupied nests” on 29 May when 663 gull eggs were counted on the islands. Although 428 eggs were removed, on 19 June the gull egg count had risen to 860.

The 2016 season demonstrated the persistence of the gulls. The first nest-building started on 12 April – scrapes had been formed and 135 had nesting material two days later – and continued into June. It is estimated that each breeding pair made an average of five attempts at nesting.

In conclusion, the measures used to control Black-headed Gull breeding failed. The pre-season deterrence measures were ineffective, the scale and persistence of breeding attempts on the islands were difficult to manage and became impossible once the terns had started nesting, and the alternative nesting area suffered fox predation. The one positive feature is that 61 pairs nested on the bund which could become an alternative nesting area if anti-predator measures are strengthened.

SHOTTON 2016

Peter Coffey*

** Peter Coffey on behalf of the Shotton team: John Birch, Rob Cockbain, Graham Thomason, Paul Triggs, Kenny McNiffe, John Parkinson and Richard Birch who assiduously log birds recorded on the reserve and ring species where possible.*

Tree clearance

The Shotton reserve is a designated SSSI – Shotton Lagoons and Reedbeds SSSI – but the natural processes of reedbeds drying out and being invaded by trees and scrub has led to serious degeneration, with the reedbed becoming fragmented.



1: View showing encroachment of willow, birch and alder into the reedbed

As part of the landscape reparation related to the laying of power transmission cables adjacent to the reserve, the contractors awarded a grant of £4285 which, facilitated by Tata, was paid to MRG specifically for the removal of trees in the SSSI. Phase 1 of the tree removal occurred in September-October 2016.



2 and 3: Dense stands of birch trees established at the edge of the reedbed and the view from the tower showing the cleared area after Phase 1 works.



4 and 5: The central bund before and after removal of birch saplings

Six days of hard work by the contractors (and, believe me, they did work hard) has demonstrated the potential of the site restoration works but also highlights the scale of the undertaking required and the continuous management that will be needed to ensure the trees do not re-establish themselves. Tata UK/Natural Resources Wales have agreed in principle raising the water level in the main reedbed to assist reed growth.

Nesting on the islands

Details of nesting on the islands are contained in a separate report (A review of tern and gull breeding at Shotton 2016 (pp 47-50). Oystercatchers also bred. A brood of three chicks struggled to survive with one dying after a few days; the remaining two developed to the stage where they could be ringed but then failed to fledge.

Ringling Highlights

The total number of birds captured in 2016 was 1185 birds. Excluding Common Tern, Black-headed Gull and Oystercatcher chicks, 206 newly-ringed birds of 23 species were caught. Twenty-one birds were re-trapped, having been ringed at Shotton in 2015 or earlier, and one was controlled at Shotton. Numbers were down on 2015 (1469 birds captured, 367 newly-ringed juveniles/adults) partly as a result of reduced ringling effort in the first quarter of the year and partly because of the temporary disruption caused by the removal of trees and saplings in the last quarter.

The controlled bird was a Reed Warbler ringed as a juvenile at Litlington, East Sussex on 17 September 2014. Shotton-ringed Common Terns and Black-headed Gulls have been reported from elsewhere. A twelve-year old Common Tern was controlled in Senegal. Other reports include a bird found dead at a colony in Teeside, three controlled at The Skerries, Anglesey, three at Seaforth and eleven at Preston Docks, bringing the total of Shotton-ringed birds sighted there since 2009 to forty. Two Black-headed Gull chicks ringed at Shotton in 2016 were reported from Dublin within two months of being ringed. (See “Selected controls and recoveries” pp 28- 31 for more details.)

The ringling highlight was a Yellow-browed Warbler caught on 9 October, part of a large influx of this species during the strong fall of eastern migrants in that month. Cetti’s Warblers made a strong showing with a female ringed in 2013 being re-trapped, a second female, ringed on 15 May, being regularly re-trapped during the season, and juveniles being caught in July.

Table 1: Birds ringed/caught at Shotton 2016

Species	Adult	Pullus	Control/retrap ¹	Total
Oystercatcher		2		2
Common Tern		533		533
Black-headed Gull		422		422
Gt Sp Woodpecker	2			2
Goldcrest	8			8
Blue Tit	26		3	29
Great Tit	12		1	13
Cetti's Warbler	6		1	7
Long-tailed Tit	22			22
Yellow-browed Warbler	1			1
Chiffchaff	13		3	16
Willow Warbler	2			2
Blackcap	21			21
Sedge Warbler	5			5
Reed Warbler	28		5	33
Wren	18		6	24
Blackbird	7			7
Song Thrush	5			5
Robin	9		2	11
Dunnock	6		1	7
Chaffinch	7			7
Bullfinch	3			3
Greenfinch	2			2
Goldfinch	2			2
Reed Bunting	1			1
Total (23 species)	206	957	22	1185

¹Retraps of birds ringed in 2016 have been excluded.

Sightings at Shotton

Many other species are recorded at Shotton but not ringed (see Table 2). Up to four Mute Swans were present with one pair successfully breeding; four cygnets were seen on 12 June but only one was surviving by 3 July and that eventually disappeared. On 4 September two adults were present on the pools and five others flew over the reserve. Canada Geese are ever-present, with a maximum count of 26 birds in May. Skeins of Pink-footed Geese are now regularly sighted in the autumn, with 300 counted flying south-east on 11 December. Counts of Gadwall fluctuated between 6-8 birds, a far cry from the 46 observed on 6 September 2015. Teal numbers built up in autumn with counts of 15 on 2 October and 22 on 6 November. Two female Goldeneye were reported on 30 October and a single on 4 December, two Shovelers were reported on 16 October and six on 16 November. Mallard and Tufted Duck are present in good numbers for most of the year with maxima of 40 on 31 July and 28 on 8 May respectively. Both species bred.

Cormorants are occasionally seen at the reserve; singles were observed several times, six flew over on 30 October and three flew over on 6 November. Two Grey Herons were seen on 17 April and 12 June. Little Grebe were calling from March onwards and two pairs were observed in May. On 3 July one adult was observed with two young, a second adult had three young, and a juvenile was also observed.

Sparrowhawk, Buzzard and Kestrel are resident at Shotton, although the latter is not regularly logged over the main reserve. Other raptors observed were two Peregrines on 6 November and a Hobby on 12 June.

Water Rail was seen (or heard) in September-December. Both Coot and Moorhen were present throughout the year and bred successfully and Coot numbers built up to a peak of 50 on 31 July. Seven species of wader were recorded on the reserve, with Oystercatcher was the only wader to breed. Adult and juvenile Lapwings congregate on the exposed mud and rocks in the northern lagoon in late summer/autumn but numbers were much lower than in 2015 (maxima of 17 and 62 respectively). A Whimbrel flew over on 8 May, four Black-tailed Godwits were seen on 12 June, a Common Sandpiper was flushed from the lagoon on 27 April, six Redshank were observed resting on the concrete apron of island 2 on 22 April and Snipe were present on 2 October (2) and 30 October (4).

The first Common Tern was sighted on 17 April, with numbers building steadily to the beginning of May, and first eggs were laid on 3 May. The colony was visited by single Sandwich Terns on 15 May and 3 July and a Black Tern on 11/12 May. Two adult Mediterranean Gulls were present on 17 April, a second-year bird was flying around the islands on 8 May and two adults were observed going down on island 2 on 12 June. This latter pair stayed in the same area for several days but did not breed. A Common Gull was present on 8 May, small movements of Lesser Black-backed Gulls and Herring Gulls flew over the reserve during spring migration and in July, and a Great Black-backed Gull flew over on 15 May.

Swifts first appeared on 8 May, with a peak count of 10 birds on 12 June. A Kingfisher was spotted on 2 October. Jay, Magpie and Carrion Crow live on the reserve and parties of Jackdaw are occasionally observed flying over. Ravens flew over the reserve on four dates.

Skylarks flew over the reserve on autumn passage, with 10 counted moving west on 30 October. Swallows were recorded regularly between 17 April and 4 September, with a maximum of 75 on the latter. Three House Martins were reported on 24 April, the only record for the year, and small groups of Sand Martins were feeding over the pools on 24 April (5) and 15 May (6).

As in 2015, Grasshopper Warbler and Garden Warbler were absent but a Lesser Whitethroat was reported on 12 May. Resident Blackbirds and Song Thrushes were supplemented by visiting thrushes, most notably small parties of Redwing moving through on 30 October (10) and 4 December (30+) and a small flock of Fieldfare calling at first light on 30 October.

Pied Wagtails were present in small numbers throughout the year and a Grey Wagtail roost peaked at 14 on 30 October and was still active in December. Small numbers of Meadow Pipit flew over on 2 October.

Six species of finch were recorded but there were no Brambling or Siskin. A Lesser Redpoll was seen flying over on 2 October. A male Greenfinch was displaying on 8 May and a pair of Goldfinches raised a brood of four young. Chaffinch number peaked at 20 on 11 November and a flock of 40+ Linnets were observed feeding on 14 August.

Mammals reported on the reserve included Stoat, Rat, Water Vole, Rabbit and Red Fox. The latter continues to pose a threat to the nesting birds; one destroyed, in a single night, 61 Black-headed Gull nests on the far bund. A Slow Worm was sighted on 17 July. Butterflies included Dingy Skipper, Green-veined White, Orange Tip, Small Skipper, Meadow Brown and Gatekeeper. A Brown Hawker was seen on 17 July.

Table 2: Additional species recorded but not ringed at Shotton, 2016

Species	Species	Species
Mute Swan	Black-tailed Godwit	Peregrine
Pink-footed Goose	Whimbrel	Jay
Canada Goose	Common Sandpiper	Jackdaw
Gadwall	Redshank	Carrion Crow
Teal	Snipe	Raven
Mallard	Black Tern	Skylark
Shoveler	Sandwich Tern	Sand Martin
Tufted Duck	Mediterranean Gull	Swallow
Goldeneye	Common Gull	House Martin
Cormorant	Lesser Black-backed Gull	Lesser Whitethroat
Grey Heron	Herring Gull	Starling
Little Grebe	Great Black-backed Gull	Fieldfare
Sparrowhawk	Stock Dove	Redwing
Buzzard	Woodpigeon	Grey Wagtail
Water Rail	Swift	Pied Wagtail
Moorhen	Kingfisher	Meadow Pipit
Coot	Kestrel	Redpoll
Lapwing	Hobby	

Acknowledgements

Our ringing activity at Shotton benefits from the continued support and understanding of Tata Steel UK, especially the work of Steve Hughes and Peter Shephard. The Dee Wildfowlers and Wetland Management Club also provided tremendous support at work parties on the islands.



6: Day 1 of tree removal, 28 September 2016

RINGING AT PANDY, NEAR GLYN CEIRIOG, 2015-16

By Nicola Edmonds

Both 2015 and 2016 saw ups and downs, though 2016 was definitely the poorer of the two. They were both less productive than 2014, though overall numbers were up for the nest boxes due to the addition of a nearby site to the area totals. Including this site, 155 nests from 23 species were recorded in 2015, and 137 nests from 21 species in 2016. In total 535 birds from 22 species were ringed in 2015 (31 full-grown and 504 pulli) and 526 birds from 17 species were ringed in 2016 (29 full-grown and 497 pulli). The grand total for ringing passed 9000 in 2015, and by 2016's end stood at 9872 birds, of which 1576 were full grown and 8296 pulli. Other milestones reached were the 100th Nuthatch in 2015, the 800th Swallow in 2016, and the 8000th pullus in the same year. All totals are recorded by species for both years in table 2.

There were some nice finds in both years and 2015 saw record numbers of nests recorded, but high failure rates – particularly in the nest boxes – led to an inevitable dip in numbers the following year, which also saw high failure rates. Both years had mixed weather conditions, hot and sunny some days but with prolonged and heavy downpours on others, the latter probably being a contributing factor to poor productivity.

The additional site is not a new one for the valley; it had been monitored by Alan Robinson but he could no longer manage it due to the steep terrain. This site (“Ddol-hir”) is a semi-natural, regenerating broadleaf woodland situated below a managed conifer plantation. It contains 48 standard boxes, plus an owl box, situated roughly in three sections divided by access tracks. One section is mainly young oaks and rowan with bramble, the second has mature oak trees and little undergrowth, and the third is a mix of trees of a variety of ages alongside a stream and on boggy ground. The whole site is located almost directly across the river from one of the Pandy subsites, and crossover of Pandy birds to Ddol-hir is frequent due to the close proximity. Indeed, though currently classed as a separate site, it falls within the area covered by the grid squares for Pandy and is now regarded much as a subsite rather than a separate place. However, its addition will have to be taken into account in future comparisons of long-term productivity.

Discounting Ddol-hir, ringing totals only reached 498 birds for 2015 (23 full grown and 475 pullus) and 436 for 2016 (25 full grown and 411 pullus). Compared to 2014's 509 birds (17 full grown and 492 pulli), which was the second highest total in the last 10 years, the dip is not quite so drastic as in some years. Even without Ddol-hir, the 155 nests recorded in 2015 smashed through 2014's 130 nests from 20 species. However poor productivity from the 2015 nests led to a sharp drop again in 2016, with only 122 nests recorded.

Survival rates for all three main nest box species – Pied Flycatchers, Great Tits, and Blue Tits – were all below average in both years (see table 1). In 2016 Pied Flycatchers in Pandy had their lowest survival rate in the last 12 years, at only 42.9%. Great Tits had their second lowest recorded survival in 2015, at 37.6% (24% in 2012), but rebounded somewhat in 2016. Blue Tits came just below average in both years, but their nest counts were well above. So whilst 2015 started out promisingly, and certainly up in numbers of nests and species recorded, failure rates for nests pushed productivity right down. Interestingly, in 2016 Ddol-hir's Pied Flycatchers performed more than 50% better than those in Pandy, at 91.2% egg/fledge survival. Whether this was simply a result of statistics and chance (less nests sampled) or that the aspect and habitats of the site were better is unclear at this point. In 2015 Ddol-hir Pied Flycatchers only performed marginally better at 56.3% compared to 55.1% for Pandy.

Table 1. Nest count and survival for Pandy nest boxes.

	Year	Blue Tit	Great Tit	Pied Flycatcher
Number of nests	2015	21	26	16
	2016	20	19	16
	Average (2005-16)	13.7	24.5	14.3
Egg/fledge survival (%)	2015	54.4	37.6	55.1
	2016	52.3	54.5	42.9
	Average (2005-16)	55.7	62.9	65.0

For Pied Flycatchers, signs of a slow recovery were, thankfully, still present. As remarked in 2014's report only seven pairs were recorded in 2013 and 11 in 2014, so 16 pairs recorded in both 2015 and 2016 is at least better than another decline. Not all adults were trapped and ringed. In 2015, of the 25 adults captured in Pandy (out of potentially 32 if no polygyny assumed), eight were retraps and two were non-group birds. One, originally ringed in Northumberland (236km away) as a pullus in 2012, was trapped as a sitting female. Unfortunately, a further check two weeks later found her on her nest, apparently starved to death. In 2016 there were 24 adults trapped, of which half were new birds and one was non-group.

The species count for 2015's nests were much higher than normal thanks in part to a few lucky finds. A Willow Warbler nest of seven young, painstakingly watched over several days in an attempt to locate it, gave me my first of that species since Andy Madden ringed in the valley over 12 years ago. My first Garden Warbler nest since 2007 was also an exciting find, having almost given up ever finding one again! No Tawny Owls have been ringed at Pandy since 2009, but in this year they nested in a natural site – a hollow tree – as all the Pandy owl boxes are in disrepair. That plus another pair at Ddol-hir meant three chicks were added to the ringing totals. Another rarely-recorded nest was found in this year too – Bullfinch, with a single nest that regrettably was predated. Two Stock Dove nests, both of which failed, indicate a worrying decline in this species in the valley, but Woodpigeons are on the up and four nests were recorded simultaneously in the same church yard. Only two chicks were ringed, however.

All three Dipper sites were active in 2015, and two had two nesting attempts each, creating five nest records (four in 2014), and in the Jackdaw colony a whopping 13 nests were monitored – though not all were accessible for ringing. Almost every nook and cranny in the colony seemed to have begging chicks, but only 25 were ringed in the end (the same total as in 2014).

Unfortunately, 2016 did not yield any surprises as far as nest finds go, and numbers of many of the usually-recorded species sawdips across the board. Only seven Jackdaw nests were recorded, with many of the previous year's nest holes unoccupied, but 19 chicks were ringed from the accessible ones. Five Dipper nests from all three sites were again monitored but failure rate at egg stage was extraordinary at one nest site, which had three successive nesting attempts. More than one pair may have tried to use the nest, as each time close to hatching the eggs would disappear and a short time later another clutch appeared. As predation usually puts off a second attempt, it is assumed that the eggs (or young) were thrown out of the nest by competing adults. After the third attempt the nest was finally abandoned.

Despite the lack of warblers in 2016, thrush nests at least were in abundance – with eight Blackbird and four Song Thrush nests monitored. There were also six Redstarts, some in nest boxes and some in cavities in walls, that yielded a total of 12 chicks ringed. And whilst there were no Nuthatches in 2016 (a single brood of seven were ringed in 2015), the nest boxes attracted a pair of Coal Tits which fledged six young. Another good find of two Bullfinch nests meant that, although one nest failed due to predation, Bullfinch chicks were actually ringed for the first time since 2007 – and the four chicks fledged.

The Tawny Owls also had another go in the same hollow tree, but their single egg was deserted, and there was only the one Woodpigeon nest in the same church yard as the previous year, which thankfully fledged its two young (another Woodpigeon recorded elsewhere was predated). Pied Wagtails – which seem to be recorded less and less – had a single nest in both years, but whereas the one in 2015 was wholly successful, the one in 2016 completely failed at chick stage. There were 17 Swallow nests recorded, down on 2015's 20 nests (and down on 2014's record 23 nests), and survival rates dropped too, at 60% compared to 85% in 2015. There seemed to be some hope when three Spotted Flycatcher nests were found (only one in 2015) with a total of 12 eggs laid, but alas only five chicks fledged (41.7%), continuing the concern for this species' long-term survival in the valley.

Whilst 2016 yielded no new species for me on the nest-recording side, a personal first was ringed: a single fledgling Swift, which did not have the most successful exit from its nest. It caused much excitement with several attempts to get it into the air, and ultimately added to the grand total of only nine ever ringed at Pandy.

So overall there were ups and downs for both years. It is hoped that 2017 will see a pickup in numbers rather than trending towards a decline, and with the addition of Ddol-hir to the site hopefully it will continue to provide an interesting comparison for the nest boxes long term.

As always, my thanks to all landowners for their continued support over the years. Sadly, one of the longest associations came to an end in 2016 with the passing of Alastair Gilchrist. He always showed a keen interest in what was happening with the birds on his land, and with nearly 30 of the nest boxes plus owl box around his fields and woodland, there was always plenty to talk about. Alastair will be greatly missed by many in the valley.



The two Tawny Owl chicks ringed at Ddol-hir in 2015, the first since 2009.
Photo: Nicola Edmonds.

Table 2. Ringing totals for 2015 and 2016 by species. Using the *Birds of Conservation Concern in Wales 3* (BoCCW3), published in 2016, species' status is shown as **red-listed** and *amber-listed*.

Species	2015			2016			Grand total		
	Fledged	Pullus	Total	Fledged	Pullus	Total	Fledged	Pullus	Total
Kestrel							0	1	1
Curlew							0	2	2
Stock Dove							2	24	26
Woodpigeon	0	2	2	0	2	2	0	7	7
Tawny Owl	0	3	3				0	29	29
<i>Swift</i>				1	0	1	2	7	9
Great Spotted Woodpecker							10	0	10
Magpie							1	0	1
Jackdaw	0	25	25	0	19	19	0	266	266
Goldcrest							28	0	28
Blue Tit	6	103	109	11	139	150	490	1282	1772
Great Tit	3	107	110	2	93	95	241	1973	2214
Coal Tit				1	6	7	44	19	63
Marsh Tit							3	0	3
<i>Skylark</i>							0	5	5
Swallow	0	67	67	0	53	53	3	826	829
House Martin							2	0	2
<i>Long-tailed Tit</i>							25	0	25
Wood Warbler							0	10	10
Chiffchaff							6	6	12
Willow Warbler	0	7	7				41	118	159
Blackcap							5	12	17
Garden Warbler	0	5	5				10	72	82
Lesser Whitethroat							1	0	1
Whitethroat							1	0	1

Species	2015			2016			Grand total		
	Fledged	Pullus	Total	Fledged	Pullus	Total	Fledged	Pullus	Total
Nuthatch	0	7	7				27	76	103
Treecreeper	0	4	4				3	10	13
Wren	0	11	11				27	67	94
Dipper	0	11	11	0	6	6	12	187	199
Blackbird	0	1	1	0	11	11	23	193	216
<i>Song Thrush</i>	0	5	5	0	15	15	9	119	128
<i>Mistle Thrush</i>							3	10	13
Spotted Flycatcher	0	5	5	0	7	7	0	244	244
Robin							37	150	187
Pied Flycatcher	21	87	108	14	98	112	293	1685	1978
Redstart	1	12	13	0	20	20	2	181	183
Whinchat							0	63	63
Dunnock							28	58	86
<i>House Sparrow</i>	0	23	23	0	9	9	2	68	70
<i>Grey Wagtail</i>	0	5	5	0	10	10	11	178	189
Pied Wagtail	0	6	6	0	5	5	2	84	86
<i>Meadow Pipit</i>							0	13	13
Chaffinch	0	7	7				135	160	295
<i>Greenfinch</i>							32	8	40
Goldfinch	0	1	1				2	28	30
Siskin							4	0	4
Linnet							0	7	7
Bullfinch				0	4	4	7	32	39
Yellowhammer							2	16	18
TOTALS	31	504	535	29	497	526	1576	8296	9872

GLYN ARTHUR 2016.

Bob Harris

The one major feature that affected this year, in terms of both breeding output and the collection of data, was the weather; particularly the cold and the wet. Visits were postponed, and in some cases cancelled or cut-short due to changeable and unpredictable conditions.

The first visit at the beginning of April was 'cold' but dry and already birds were showing signs of breeding with four boxes all containing new fresh moss (all on the south-facing slope). Chiffchaff were in and singing and the first swallow of the year was seen. The following week witnessed two nights of frost and falls of snow, especially on the hills, so the visit on the 17th April was a day of 4°C but which was much colder due to the wind from the north-west. Despite the conditions migrants had arrived - Willow Warbler had now joined Chiffchaff, Blackcaps were on site, as were Redstart (three males) and Pied Flycatcher (twelve in total). Twenty-two boxes showed signs of activity, which was well down on the 54 active at this time last year. Saturday of the following weekend was warm and sunny with light winds so I was looking forward to a good visit the following day.

What a difference twenty-four hours made. As I was driving over the Welsh hills were covered in low cloud and, as I passed Moel Arthur on the way to the farm, I was driving through settling snow. Dropping down the other side of the hill visibility improved somewhat but there was a biting wind from Snowdonia in the north-west. I started and finished the day in four-layers of clothes and full waterproofs, and even then I ending up dodging incoming snow/hail/sleet showers. At one point I had to shelter for 15 minutes as it was so persistent and heavy.



Photo 1: Winter weather on Moel Arthur on 24 April 2016

Although all this weather was slowing birds down, they had not stopped. There were 37 tit nests, five with eggs, a lined Redstart nest ready for eggs and four Pied Flycatchers building. A Long-tailed tit was found building a nest near the pond, a Blackbird was disturbed off three eggs and the first Cuckoo was heard.

The cold weather persisted for the following week so the next visit, now the first weekend in May, was not much different from the previous. There were still only 37 tit nests active with only three more getting eggs, and those already with eggs getting more. All eggs were still cold and covered, except for two Great Tit who appeared to have started incubating. The one Redstart nest now had six eggs, and another nest had been built, and the Pied Flycatchers had progressed to nine nests, none with eggs.

Passing thunder-storms marked the next week but the temperatures had increased significantly. The visit on the 9th May was sunny with a cloudless sky and a temperature that reached 25°C. As a consequence things had moved on apace, especially for the tits. From eight nests with 35 eggs last week there were now 22 nests with a total of 68 eggs. The Redstart was now incubating its eggs and another three Redstart nests had been started. Pied Flycatchers were still slow but were gaining momentum. The nine nests and no eggs from last week had moved to 24 nests and four eggs (in four nests). Even though the weather had been extremely unpleasant till now back calculation for the flycatchers indicated a first egg date of 8th May, not much different from previous years (see table).

Concentrating now on the Pied Flycatchers, I was getting ready to lift females (with the usual measurements, weights and photographs) as well as preparing to collect chick faecal samples as part of a project with Cardiff University – they are going to extract DNA from the samples and, through some nice but routine analysis, undertake molecular studies to work out what the chicks had been eating.



Photo 2: Brood of the first Pied Flycatcher nest.

The next couple of visits were monitoring nests and, between showers, I was able to lift 11 female Flycatchers of which, unusually, all were new breeding birds to Glyn Arthur. Six of these birds were adults and the others first-years, hatched elsewhere, including one from Prion. Twenty-five Redstart chicks were ringed as were eight Coal Tit.

The latter part of May and the beginning of June were marked by a string of postponed and shortened visits. Cold and rain and putting the welfare of the birds first, meant that it was inappropriate to be adding to the stresses of adults trying to feed chicks under these conditions. Frustratingly, it was becoming difficult to monitor nesting effectively.

Towards the middle of July it was turning into a case of just trying to rescue something from the season. It was getting so bad I was fearful of not ringing any chicks. In the end only eight male flycatchers were trapped - one of which was a bird returning for a second year, and another a bird that was returning for its fourth year in succession. All the rest were new breeding birds to Glyn Arthur. Seventy-six chicks were ringed eventually, of which two died before fledging, and two clutches were deserted – possibly as a consequence of the bad weather. At one box, because it was so late, chicks were actually leaving the nest-box as I was arriving so, from a brood of six I just managed to ring the last one.



Photo 3: typical ‘toilet use’ of the nestbox corners as the chicks get older

The table below shows Pied Flycatcher figures from the end of season. Nest numbers were down, the numbers of adults caught was poor, and the number of fledged young was less than 2015, and much less than 2014.

Pied Flycatcher seasonal data

Year	Nests	Adults caught	Pulli fledged	First Egg
2014	22	27	129	2 May
2015	21	29	90	6 May
2016	17	19	74	8 May

Although disappointing, I was able to collect a range of flycatcher chick faecal samples and, at the end of the season, all of the flycatcher nests were collected and sent to Leicester University as part of another (nation-wide) project looking at nest composition.

Blue Tits and Great Tits also had poor breeding seasons at Glyn Arthur, as they appear to have had nationally. Blue Tit nests, and pulli fledged, were down by 50% and 40% respectively, while for Great Tit the figures were approx. 25% for both.

Blue Tit seasonal data

Year	Nests	Pulli fledged	First Egg
2014	37	296	11 Apr
2015	41	201	18 Apr
2016	20	82	25 Apr

Great Tit seasonal data

Year	Nests	Pulli fledged	First Egg
2014	16	110	9 Apr
2015	15	60	21 Apr
2016	11	45	24 Apr

Acknowledgements.

To Peter Williams and his family for their continued permission to access their land for this study to continue.

WOOLSTON EYES RINGING REPORT 2016

Michael Miles*

*On behalf of the ringing team (Jason Atkinson, John Blundell, Evalin Casson, George Dunbar, Kieran Foster, Phil Guest, Margaret Rawlins and David Riley)

John Blundell and David Riley, the two “pensioners”, were ringing on No.1 bed on 146 days in 2016. Some visits involved a single net opened for just two hours whilst chores were undertaken but nevertheless this is probably the highest level of ringing effort in a single year ever to be achieved on the bed. On No.3 bed, ringing effort returned to a more normal 82 ringing days (2014 – 89 ringing days) after a combination of theft, vandalism and illness reduced ringing to 56 days in 2015. Against this background the grand total of 6,787 birds of 66 species newly-ringed across the reserve was a 42% increase on the 4,793 birds of 57 species ringed in 2015 and just ten birds more than ringed in 2014. However, 2014 was an exceptional breeding season whilst 2016 appears to be an average breeding season with totals increased by high levels of ringing effort. The diversity of species encountered was good and the total of 66 species ringed is the highest ever in a single year, the previous highest being 61 species in 2008.

The Fixed Duck Trap on No.3 bed caught a female Gadwall on 9 January, the seventh to be ringed at Woolston, the other six having been ringed in 1996. The trap also caught 97 Teal and five Mallard. The number of Teal ringed would have been higher had the need for reed cutting not kept water levels too low to operate the trap until the middle of December. As a result, just one trapping session took place in the second winter period. Seven Teal that had originally been ringed in 2014 were retrapped, and ten from 2015, demonstrating the winter site fidelity of these birds and the importance of Woolston as a safe winter feeding site. Three more Woolston-ringed Teal were reported as shot during the year (see Selected Controls and Recoveries, p 28, for the long-distance movements). Following on from the recovery in Devon in 2015, the spread of sites gives an indication of how widely these birds wander.

Woolston’s first free-flying Buzzard was ringed on No.1 bed on 17 June. Previously just two chicks had been ringed in 2014. Five Sparrowhawks were ringed, all juvenile males which are small and more likely to stay in the net. Whilst No.1 bed had an average year with four captures, just a single bird was caught on No.3 bed.

Two Water Rails were ringed during the year, one on each bed. An adult male was caught at the feeding station on No.1 bed on 30 August and a juvenile female entered a walk-in trap on No.3 bed the next day. On No. 3 bed 15 Moorhens and two Coots were ringed during the year. The Coots entered the Duck Trap in January, repeating the pattern from 2015. Five of the Moorhens were caught in the mist net set for Green Sandpipers and the other ten appeared together in the Duck Trap on Christmas Eve.

No.3 bed’s seasonal net across the channel by the Duck Trap was deployed on 13 occasions making 38 captures including Green Sandpipers, Common Sandpipers, Kingfishers, Grey Wagtails and, less predictably, three Meadow Pipits. As explained in last year’s report the seven Green Sandpipers were colour-ringed as part of a national scheme but we swiftly appreciated that the bird’s habit of feeding in the soft muddy edges of the bed make the rings hard to identify in the field. Hopefully other sites have more conducive conditions. In 2015, just 44 Green Sandpipers were ringed in Britain and Ireland and Woolston contributed 11 birds to that total. The most interesting bird was NV38166, originally ringed as a juvenile on 16 August 2015 and retrapped on 3 August, our first “across years” recapture of a Green Sandpiper, implying that birds deliberately target Woolston as a refuelling stopover. At Woolston, at least, Common Sandpipers are not as common and just two were ringed.

Twelve Stock Doves were ringed in 2016, the same as in 2015 and the highest single year figure achieved at Woolston. Six birds were caught at the usual site by the feeders on No.3 bed whilst on No.1 bed the provision of nest boxes for Barn Owls has proved a boon for Stock Doves. Whilst a Tawny Owl nest on No.3 bed failed at the egg stage, a single chick was ringed on No.4 bed. After Woolston's first ringed Barn Owls in 2015, roosting adults were ringed on both No.1 bed and No.3 bed.

It was a very good year for Kingfishers with 11 birds ringed. The seven on No.1 bed were the first since 2011 and the four on No. 3 bed was a record for the bed. All 11 were juveniles implying that successful breeding took place somewhere locally. Great Spotted Woodpeckers had a very poor year in 2015 but they bounced back in 2016 with 18 ringed of which 16 were juveniles. Food supplies must have improved, a deduction supported by the virtual absence of Woodpecker damage to the nest boxes on No.3 bed after much damage in 2015.

Three ringed Magpies represented an average year but the situation with Jays was unusual. On No.1 bed, the nine birds ringed was the most since 2005 but despite catching 8 birds in breeding condition not a single juvenile was caught. By contrast the ten birds ringed on No.3 bed included six juveniles. On 12 April ringers on No.1 bed caught a Carrion Crow, the first for the bed and the first at Woolston since 2012.

It was a record year for Goldcrests with 502 new birds ringed. The previous highest number was 213 in 2005 and as recently as 2013 just 47 were ringed. As in previous years small numbers, including juveniles, were caught in the summer and were probably local but most were caught from September onwards and were a mixture of British birds and continental migrants which must have arrived in large numbers. One Firecrest was ringed on each bed, the first on No.1 bed since 2012 and on No.3 bed since 2009. With so many Goldcrests at Woolston it would have been disappointing if Firecrest had not figured in our catches.

It was another average breeding season for Blue Tits and Great Tits. In the nest boxes on No.3 bed a total of 131 pulli were ringed, the same number as in the previous year. All 14 Coal Tits ringed were caught on No.1 bed where an autumn passage was evident, although not as marked as in 2015 when 30 birds were ringed. After a poor year in 2015 catches of Willow Tits returned to the ten-year average and 35 were ringed of which 28 were juveniles. Seven adults were ringed and 17 ringed in previous years were re-trapped. These 24 adults encountered are probably around half of the total Woolston population. Fifty faecal samples were collected and forwarded to the R.S.P.B. where a project to study the diet of this species is underway.

A good-sized hirundine roost formed on No.1 bed in August and the ringers sampled it regularly, ringing 50 Sand Martins and 490 Swallows – both record totals for the bed. By contrast on No.3 bed no significant roost formed and just two Sand Martins and 79 Swallows were ringed. House Martins roost on the wing and tend not to be caught at roost with other hirundines. A record 23 House Martins, all first-year birds, were ringed on No.1 bed in a three-week period from 17 August to 6 September.

After 2015's poor year, 126 Long-tailed Tits ringed represented a return to the ten-year average of 122. However 76 of these were ringed on No.1 bed and, discounting the high ringing effort, it seems likely that the long-term decline of this species at Woolston is continuing.

A total of 2,009 warblers of eleven species were ringed in 2016. This is an increase of 28% on the 1,567 new birds of ten species ringed in 2015, a result of greater ringing effort. The ten-year average is 1,982 new warblers ringed and by this measure 2016 achieved an average total with above average effort and must be considered a moderate breeding season at best. Numbers of Cetti's Warblers continue to increase at Woolston and the 17 ringed was a new record. Breeding probably took place on both No.1 and No.3 beds with five females in breeding condition caught on the former and a recently fledged juvenile male on the latter.

Significant variations in ringing effort mean that it is not possible to draw detailed conclusions about individual species. All warbler species showed an increase in catches and those species caught predominantly on No.1 bed, such as Chiffchaff and Willow Warbler, showed a greater increase than those caught predominantly on No.3 bed, such as Blackcap and Reed Warbler. Amongst the less frequently caught warblers, numbers of Garden Warblers increased from 16 to 32 and whilst the five Lesser Whitethroats ringed is a modest number it is the highest since 2009. Grasshopper Warblers continue to hang on by their claws in the ringing totals with just two birds ringed for the second year running, both on No.3 bed. One of the notable migration events of the autumn of 2016 was the very large national influx of Yellow-browed Warblers and four were ringed on No.1 bed in October, three of them in the same net round. Only two Yellow-browed Warblers had previously been ringed at Woolston. The influx of migrant birds also brought seven Siberian Chiffchaffs on 13 November (see picture below)



This Siberian Chiffchaff was caught on 13 November (Photo: K Foster)

Breeding success derives, in part, from the timing of the adult's return and the prevailing weather which must facilitate their achieving breeding condition. In the case of our migrant warblers the following table of "first juvenile" dates indicates that the breeding season for most of them started two to three weeks earlier than in 2015.

	<u>Ringing date of first juvenile</u>			
	2016	2015	2014	2013
Chiffchaff	04-Jun	27-Jun	31-May	22-Jun
Blackcap	25-May	11-Jul	08-Jun	30-Jun
Whitethroat	25-Jun	11-Jul	21-Jun	22-Jun
Reed Warbler	02-Jul	11-Jul	14-Jun	07-Jul

One feature that 2016 had in common with the previous year is that well into October birds were being caught that have not completed their post-juvenile moult, indicating that they fledged from late broods.

The cold spring that delayed the onset of breeding for a number of species in 2015 was not evident in the results of 2016 which, with the exception of Wren, are closer to those for 2014 as can be shown by the following first ringing dates for juvenile birds of some of our resident ground feeders on No.3 bed. It should be noted that in 2015 the first juvenile Dunnock was caught on the relatively early date of 6th June but it was 27th July before another was caught.

Ringling date of first juvenile

	2016	2015	2014	2013
Robin	07-May	30-May	03-May	01-Jun
Wren	25-Jun	27-Jun	14-Jun	30-Jun
Dunnock	04-Jun	06-Jun	31-May	22-Jun
Bullfinch	28-May	06-Jun	31-May	30-Jun

Wrens, Dunnocks and Robins were all ringed in numbers significantly above the ten-year average, reflecting the level of ringing effort, but Blackbirds and Song Thrushes were ringed in average numbers implying perhaps that the autumn influx was not particularly pronounced in 2016. The same cannot be said for Redwings which were caught in record numbers, with 217 birds ringed. A notable feature was that whilst October and November would normally be the peak months as flocks arrive and disperse, Redwings remained at Woolston in good numbers right through to the year end. A single Fieldfare was ringed on No.1 bed, the first since 2009.

Transitory migrants were represented by a single Redstart ringed on No.1 bed on 7 September, the fourth year running that this species has been ringed on the bed. A juvenile Spotted Flycatcher ringed on No.3 bed on 31 August was just the seventh to be ringed at Woolston. For the fourth year running there was a strong autumn passage of Meadow Pipits across No.1 bed and the 91 new birds ringed was the second highest total ever at Woolston, surpassed only in 2014. Only four Meadow Pipits were ringed on No.3 bed which lacks the open countryside surrounding No.1 bed that must be important to the flight lines chosen by these pipits. Five Tree Pipits were ringed, all between the 6 -17 August. Unusually, two of these were ringed on no.3 bed. Whilst the Tree Pipit passage appears to be concentrated in a short period, the Grey Wagtail passage is more protracted. A record 30 new Grey Wagtails were ringed. To put this into context just 28 had been ringed in the previous thirty-six years. On No.1 bed 21 passage birds were ringed whilst on No.3 bed nine birds, all juveniles, were caught in the net set for Green Sandpipers. All 30 were caught between 6 August and 24 September.

It was a moderate year for finches. Chaffinches and Greenfinches were ringed in average numbers but it was a record year for Bramblings, 110 new birds ringed exceeding the 96 in 2013. All were caught in the first winter period through to late April and catches were concentrated on No.1 bed. After catches in the second winter period in 2015 this represents a reversion to the “norm” with no catches late in the year. After something of an influx in 2015, just five Siskins were ringed. The single bird ringed on No.3 bed was the fifth since 2004. Another irruptive finch at Woolston is Lesser Redpoll and 77 new birds ringed is in line with the ten-year average of 87. A first-year Common Redpoll was caught on No.1 bed on 26 October. Bullfinches were ringed in very high numbers again with 236 new birds ringed, second only to 262 in 2015. The figure of 174 Reed Buntings ringed is the best since 2010; the sacrificial crop on No.3 bed attracted large numbers and 92 were ringed there between 3 September and 19 November. Just ten Reed Buntings were ringed on the bed in the rest of the year. The increase in catches on No.1 bed from 37 in 2015 to 72 in 2016 will have been influenced by the increase in ringing effort so it is not clear if the underlying decline of this species at Woolston has been halted. Ten Yellowhammers were ringed on No.1 bed, the first since 2010. All ten were caught between 13 April and 4 July and appeared to be visiting the feeders from a breeding area on the south side of the Manchester Ship Canal.

The star bird of the year was a White-crowned Sparrow that appeared in a net near the feeders on No.3 bed on 30th April. (See the separate article on pp 3-5 for more details). It showed characteristics of the sub-species *gambelii* (Gambel’s White-crowned Sparrow) and the British Birds Rarities Committee has accepted it is *gambelii*, the first record in Britain. In any event, it was the sixth record of White-crowned Sparrow of any form and just the second to be ringed after a bird on Fair Isle in 1977. This was the only new species to be ringed at Woolston in 2016 and brings the cumulative total of species ringed to 110.

It was a big year for individual species milestones. In descending order, these were the 14,000th Greenfinch, 13,000th Swallow, 10,000th Blue Tit, 3000th Bullfinch, 2000th Goldcrest, 2000th Lesser Redpoll, 500th Brambling, 300th Great Spotted Woodpecker, 100th House Martin and 50th Cetti's Warbler.

SPECIES	No.1	No.3	Reserve Total 2016	Grand Total 1980-2016
Gadwall		1	1	7
Teal		97	97	287
Mallard		5	5	84
Buzzard	1		1	3
Sparrowhawk	4	1	5	117
Water Rail	1	1	2	90
Moorhen		15	15	264
Coot		2	2	28
Common Sandpiper		2	2	9
Green Sandpiper		7	7	24
Stock Dove	6	6	12	53
Woodpigeon		7	7	121
Tawny Owl*			1	16
Barn Owl	1	1	2	6
Kingfisher	7	4	11	97
Gt Sp Woodpecker	7	11	18	305
Magpie	2	1	3	137
Jay	9	10	19	344
Carrion Crow	1		1	17
Goldcrest	410	92	502	2328
Firecrest	1	1	2	12
Blue Tit	199	184	383	10210
Great Tit	128	157	285	6441
Coal Tit	14		14	156
Willow Tit	15	20	35	771
Sand Martin	50	2	52	1208
Swallow	490	79	569	13431
House Martin	23		23	106
Cetti's Warbler	7	10	17	50
Long-tailed Tit	76	50	126	3784
Yellow-browed War.	4		4	6
Chiffchaff	394	192	586	7791
Willow Warbler	126	50	176	7903
Blackcap	276	254	530	10607
Garden Warbler	25	7	32	889
Lesser Whitethroat	3	2	5	258
Whitethroat	52	34	86	4992
Grasshopper Warbler		2	2	193
Sedge Warbler	43	63	106	5249

SPECIES	No.1	No.3	Reserve Total	Grand Total
			2016	1980-2016
Reed Warbler	216	249	465	10913
Nuthatch	1		1	9
Treecreeper	9	9	18	219
Wren	76	99	175	5888
Blackbird	40	35	75	2654
Fieldfare	1		1	41
Song Thrush	25	18	43	1248
Redwing	174	43	217	828
Spotted Flycatcher		1	1	7
Robin**	78	101	184	4540
Redstart	1		1	29
Dunnock	28	70	98	3783
Grey Wagtail	21	9	30	58
Tree Pipit	3	2	5	37
Meadow Pipit	91	4	95	915
Chaffinch	120	167	287	5288
Brambling	91	19	110	518
Greenfinch	405	306	711	14341
Goldfinch	8	8	16	716
Siskin	3	1	4	79
Linnet	4	1	5	1106
Lesser Redpoll	57	20	77	2021
Common Redpoll	1		1	8
Bullfinch	94	142	236	3024
Yellowhammer	10		10	86
Reed Bunting	72	102	174	6997
White-crowned Sparrow		1	1	1
Others (43 species)				1630
Totals	4004	2777	6787	145378

Notes

* The Tawny Owl was ringed on No.4 bed

** A brood of five Robin pulli was ringed on No.4 bed

OBITUARY: Ray Eades (1945-2016)

Peter Coffey

Ray was a regular birdwatcher in Wirral when he met Rob Cockbain and Graham Thomason, founders of the Merseyside Ringing Group (MRG) at Neston Reedbed in 1962. He became a “helper” before training to become a fully qualified ringer, obtaining his A permit from the British Trust for Ornithology (BTO) in 1973. He ringed with MRG at sites all over Merseyside, north Cheshire and north Wales, but he also ringed on the Wash, Morecambe Bay and Fair Isle in the UK and participated in bird-ringing expeditions abroad to the Netherlands, Spain, the Seine Estuary in France and once to Senegal, West Africa.

Ray was always an advocate for not just ringing birds but writing about them. His careful analysis invariably ended with him suggesting more research. Perhaps the most important were several papers on the waders of the Dee, written in collaboration with Dave Okill. MRG was among the pioneers of wader-catching, by mist- and cannon-netting, and those early papers in 1972-77 were seminal works. It all seems obvious now – different races of Dunlin and Ringed Plover, weight gains to fuel long migratory flights, moult sites, etc – but it wasn't then!

He studied the Reed Buntings wintering in the marl pits between Gayton and Heswall, discovering that some of these birds had migrated there from the east coast in the autumn, and others moved south as far as Devon. In an article on Blackcaps ringed on Merseyside he had already identified the fact that we were now seeing two populations, those that bred here and migrated south for winter, and those that arrived in the autumn having bred elsewhere. That was in 1982, long before it became a widely accepted migration strategy.

Ray was always keen to develop new skills, whether it was techniques for catching Collared Doves or new Dutch methods for catching pipits using tape lures, many years before the use of MP3 players and smartphones to play bird calls became commonplace. And, of course, he would write them up. Altogether Ray contributed more than twenty articles to various publications including *Bird Study*, *Ringing and Migration*, *Wader Study Group Bulletin*, *Seabird Group Bulletin* and many MRG Annual Reports.

It was typical that, in his later years, he embraced BirdTrack, entering not only his day-to-day records from 2010 onwards, but also his old records from his notebooks. BTO records, supplied by Dawn Balmer, show that he had entered 123,539 individual records of 252 species, using 8844 complete lists from 699 different locations.

On a personal note, Ray was my trainer when I joined MRG in 1981 and from the first session, a small winter roost in a garden in Heswall, I was hooked. His enthusiasm, skill and totally relaxed style made training very easy and enjoyable. He introduced me to sites that I'm still working thirty-six years later. Most of all, he was always interesting company whether we were talking about birds, insects, life as a river pilot, local politics, “Frod-henge” (as he nicknamed the windfarm) and lots more. And I remember him telling me that, not long before he went into hospital for major surgery, he had heard terns calling off the shore at West Kirby and wondered if he'd ever hear them again. He did but, sadly, not for long.

GROUP MEMBERS IN 2016

In 2016 the group had 42 ringers (22 A permit holders, 16 C permit holders and 4 trainees). Evalin Casson progressed to C permit, Naiara O'Mahoney joined as a C permit holder and Joe Cooper, George Dunbar and Hannah Greetham joined the Group as trainees.

MRG Patron: F Bairlein. **MRG Officers:** Chairman – D Norman; Treasurer – P Coffey; Records Secretary – R Harris; Membership Secretary – K Foster; Health and Safety Advisor – M Baron; Group Archivist – A Ormond.

List of members

Full members

J Atkinson	Cheadle
M Baron	Glan Conwy
S Binney	Higher Bebington
J E Birch	Shotton
J Blundell	Bolton
E Casson	Westhoughton
R P Cockbain	Hale
P Coffey	Little Sutton
D P Cross	West Kirby
A Davies	Salford
N Edmonds	Pensby
J Elliott	Heswall
D Faulkner	Pantymwyn
K Foster	St Helens
A Garner	Sandiway
P Guest	Warrington
D Harazny	Northwich
R Harris	Whixall, Shrops
J Hill	Chowley, Cheshire
A Hitchmough	West Kirby
R Leigh	Higher Marston
A M McCreary	Tarvin
K McNiffe	Eastham
S Menzie	London
M R Miles	Alderley Edge
D Norman	Sutton Weaver
N O'Mahoney	Chester
A Ormond	Bidston
H Pulsford	Great Warford
M Rawlins	Oldham
R D Riley	Great Sankey
E Samuels	Bromborough
P Slater	Speke
G E Thomason	Widnes
L Warvill	Liverpool
M Whiteside	Burwardsley
C J Williams	Hoylake

Full members (cont)

L Wolstencroft	Thingwall, Wirral
B W Wright	Broxton

Trainees

J Cooper	Willaston, Nantwich
G Dunbar	Warrington
H Greetham	Liverpool
C Piner	Preston

Country Members

C Batty	Poulton-le-Fylde
C Benson	Co. Galway, Eire
D Bowman	Lymm
J Clarke	Warrington
T Cleeves	Huddersfield
A Davis	Atherton
P Fearon	Crosby
Z Houghton	Sandbach
A Jones	St Albans
H Jones	Mellor, Lancs
T Lowe	Liverpool
C Lynch	Anglesey
P Morgan	Cardiff
B Murray	New Romney, Kent
D Okill	Shetland
S Piner	Preston
H Rowland	Cambridge
L Ryan	Montrose
J Stein	Norway
R Taylor	Huddersfield
P Thompson	Wilmslow
T Westhead	Chorley
H Williams	Devon

Honorary Member

I G Main	Cheltenham
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Merseyside Ringing Group maintained links with national organisations, including David Norman on BTO Ringing Committee and the Rare Breeding Birds Panel and Chris Batty on the British Birds Rarities Committee. Group members also contributed to local conservation organisations including Mersey Estuary Conservation Group, Woolston Eyes Conservation Group, Cheshire Wildlife Trust and Dee Estuary Conservation Group.