The Woolston Eyes Conservation Group



Annual Report
2018

Colin Woolf Fine Art



Wildlife as a work of art . . .

Colin Woolf has a gift for portraying birds and animals in their natural habitat. His paintings reveal the rich colour and detail of plumage as well as the ever-changing light of the landscape

The cover of this report is from an original watercolour painting

Please contact Colin for more details



Original Paintings

Limited Edition Prints, Pure Silk Scarves, Books Christmas & Greetings Cards

available by mail order

Commissions accepted of most subjects and landscapes



Coli World.

Colin Woolf The Studio Kennels Cottage Lunga PA31 8UU

01852 500232

www.wildart.co.uk

CONTENTS

		Page
Chairman's Report	B. Ankers	2
Weather	B. Martin	3
Birds: Systematic List	J. Blundell D. Bowman D. Hackett B. Martin D. Spencer	5
WeBS Counts	B. Martin	69
Ringing Report	M. Miles	71
Recoveries and Controls	M. Miles	76
Migration Watch	D. Steel	86
Breeding Willow Tit Report	A. Rustell	90
Butterfly Report	D. Hackett	92
Dragonfly Report	B. Baird	105
Beetle Recording at Woolston Eyes	C. Washington	114
Woolston Eyes Bird List	D Spencer	116
Fish Biodiversity at Woolston Weir	J. Perkins et al	126
Editor's Acknowledgments	D. Bowman	128
Officers of Woolston Eyes Conservation Group		129

 $^{\ ^{\}circ}$ No part of this report may be reproduced in any way without the prior permission of the Editor.

CHAIRMAN'S REPORT

It is now forty years since, in 1979, Woolston Eyes was officially recognised as a conservation area. The whole process started in 1977 when I was walking round the east side of No.4 bed. In those days the bed had good stands of Phragmites-reed and few trees and you can imagine my delight when I came across nine Bearded Tits, fairly close at hand. In an instant I realised that this area had great potential as a nature reserve (ironically very few Bearded Tits have been seen since). I then had meetings with two Environmental Officers from Warrington New Town and other relevant people. We then formulated a strategy to present to the Board of the Manchester Ship Canal, to convince them of the importance of conserving the area for wildlife. Many thanks must go to the then Managing Director, Julian Taylor, who agreed to our requests and Woolston Eyes Nature Reserve was born.

With the hard work and dedication of all the voluntary wardens since then, the Reserve has flourished to become the fantastic wildlife haven it is today.

Our income, which is used to enhance the Reserve, is primarily from the sale of permits plus occasional grants, so can I take this opportunity of thanking you all for your continued support. We are going from strength to strength and with the proposed wetland development on No.4 bed the Reserve will be greatly enhanced for generations to come. For this, all our thanks must go to Peel Holdings and Peel Ports for their continued and unstinting support.

You will see the wonderful sketch of Shoveler on the cover of this Report, which was done for us by the renowned wildlife artist Colin Woolf. The original is for sale, on a first come first served basis. I would recommend that you look at his website, which is featured on the inside of the front cover, to see the marvellous work he does.

Daniel Gornall is our new RSPB warden and he would be pleased to show you round the Reserve as his schedule allows and to answer any questions you may have, so please make yourself known to him.

This beautifully presented Report is entirely down to David Bowman and his editorial team who have all put in hours of work to produce such a professional piece of work, so I do hope you enjoy dipping into it.

Brian Ankers

The Weather 2018

The weather in 2018 will be long remembered for two main events: the 'Beast from the East' in late February and early March, and the dry hot weather in June and July which brought back memories of the long hot summer of 1976. This resulted in rapidly falling water levels on the Reserve, which were only replenished in the final two months of the year. The total rainfall recorded was 772mm, well down on the 2017 total of 1012mm. Very little snow fell during the year.

<u>January</u>, with 113mm, was the wettest month in 2018. It began very windy and wet, with 14mm recorded in the first four days, thanks to Storm Eleanor. By the 6th the weather turned very cold as high pressure built, with hard frosts that froze over much of No.3 bed. It was milder by the 10th, but a deep depression on the 16th brought severe gales and heavy rain. The 18th was an awful day, with heavy rain and storm force winds. Over 28mm of rain fell on the 18th and 19th, leaving the paths on No.3 bed awash and water levels high. The 21st was another bad day but at least milder with 9° C on the 22nd and a balmy 14°C on the 23rd, which was the first totally dry day of the month. The final week was one of sunshine and showers, but the 31st was bitterly cold with hail and snow showers.

February was a relatively dry month with just 49mm recorded. The 1st was windy, but the 2nd was the best day for weeks with cloudless skies, no wind and a temperature of 7°C. The following day it was back to square one with heavy rain and very cold conditions, the temperature down to -4°C overnight. The 8th -13th was unsettled with most of the monthly rainfall total recorded (over 30mm). This was accompanied by cold north-west winds. In contrast the 15th - 20th were mild, but the remainder of the month was largely dry and increasingly cold as the wind shifted to the east and introduced the so-called 'Beast from the East' – the bitterly cold weather from Russia and beyond. Temperatures were now freezing during the day, but with the increasing wind chill it felt more like minus 10°C. There were frequent snow showers in the final two days.

<u>March</u>, with 67mm of rain, saw the appalling weather continue and it was made worse on the 2^{nd} when the 'Beast from the East' met Storm Emma arriving from the southwest. The gale force east wind produced some of the coldest weather on the Eyes for many years. Most of No.3 bed was frozen and although there were some snow flurries the Warrington area missed the snow drifts that built up further south. By the 3^{rd} the east wind finally abated. By the 7^{th} the temperature rose and although it remained mild very unsettled conditions returned, with over 30mm of rain from the 8^{th} to the 13^{th} . The $14^{th} - 22^{nd}$ saw the wind go back to the east, but the final week was dry.

April, with 93mm was the fourth wettest month. The 1st was dry but the next six days were very wet. On the 3rd 15°C was recorded with the first Swallow and a few Sand Martins arriving on the Reserve. After a few cold days the wind became southerly and on the 6th a Willow Warbler was in song, and five Black-necked Grebes had returned`. The warm weather continued until the 9th, with more migrants returning. A brief cold spell brought a return to raw conditions, but a remarkable change on the 13th saw temperatures rise dramatically from 17°C on the 14th to 24°C on the 19th as very warm air from southern Spain arrived. On the 25th it became cooler, although still mild, and the month ended dry but cool.

<u>May</u> was the second driest month of the year, with a third of the 27mm total falling on the 2nd and 3rd. The following week was dry with the temperature rising daily to 24°C on the 6th and a record May Bank Holiday high of 25°C on the 7th. Cooler weather followed for a few days, but with warm weather returning on the 12th many butterflies were on the wing and Swifts were back at their local breeding

sites. No rain was recorded until the 25th when 7mm fell and at 15°C it felt cool after nearly two weeks of warm weather. Several dry days followed but on the 28th the warm weather returned.

<u>June</u> with only 3mm recorded was the driest month of the year, and the driest since records began at Woolston. High pressure was very much in charge, with temperatures in the mid-twenties centigrade for much of the month. The only exception was on the 13th when Storm Hector moved in from the Atlantic with strong winds. The Reserve avoided the heavy rain that fell in other parts of the north, with little more than a light shower. The only other rain recorded in June was 2mm on the 18th/19th. In the warm settled conditions the Black-necked Grebes thrived, with ten broods seen. As the month went on it became warmer and warmer with 30°C exceeded on several days in the final week.

<u>July</u> The hot weather continued into July and water levels began to fall significantly. The first recorded rain fell on the 12th and 13th (10mm) but the hot weather returned for a few days. Heavy rain on the 16th led to localised flooding, but the hot dry conditions quickly returned and temperatures soared once again to the high 20s centigrade as very warm air from southern Europe and north Africa arrived. The 28th and 29th saw a change to cooler weather – just 19°C! – with heavy rain. The monthly total of 45mm was well below average.

<u>August</u> was quite a wet month (69mm) but began warm and dry with no rain recorded until the 10th. Much rain fell on the 12th and 13th (25mm), and a similar amount between 18th and 25th. The final few days were dry as high pressure became established and temperatures rose.

September was the third wettest month, with 110mm recorded. It was, however, dry for the first six days. Temperatures were about average, with 15-18°C noted most days. The 11th and 12th were particularly wet, but it was the 18th that saw a major change, with a drop in temperature as first Storm Ali and then Storm Bronagh raced in from the Atlantic. These were followed by much cooler weather and even a slight frost on the morning of the 24th. The final week was dry and cool.

October With only 44mm October was another dry month, with over half the rainfall in two days, the 1st and the 12th. The middle of the month was very mild, with the temperatures peaking at 23°C on the 10th. It was apparently the warmest mid-October on record. Storm Callum brought strong winds and heavy rain on the 12th and 13th, but later high pressure built and the last ten days were cold with frosts, particularly in the final four days.

<u>November</u> Well below average rainfall (39mm) fell and the water levels remained low. Just 18mm was recorded in the first three weeks and for much of the time it was mild with 15°C exceeded on several days. At times it felt more like late April, with many fine sunrises and sunsets. Ex-Hurricane Oscar brought strong winds on the 3rd. High pressure from the 17th introduced cold air from the east for a time with a low of -2°C on the 22nd. The 27th saw 10mm of rain, with strong south-west winds and a return to mild air and a temperature of 15°C on the 29th.

<u>December</u> was the second wettest month of the year, with 112mm recorded. This helped raise water levels on the Eyes to an acceptable level. The first two days were mild, but became colder after the 3^{rd} , with frosts at night. The amount of rain in the first ten days (63mm) made it one of the wettest periods of the year: paths on No.3 bed became very muddy. The middle of the month was mild, but the arrival of yet another named storm, Deidre, brought strong winds and more heavy rain from $15^{th} - 17^{th}$. On the 18^{th} gusts in excess of 50mph were recorded and 35mm of rain fell between the 19^{th} and 24^{th} . Apart from one cold day the final week was dry and mild.

Brian Martin

BIRDS: SYSTEMATIC LIST

Mute Swan Cygnus olor

Amber listed

The high numbers present in 2017 were maintained and there was an increase in breeding pairs. The early year peak was 49 on 20th January and remarkably a pair observed nest building at Latchford Locks on 28th January. Fewer were recorded in February, with 27 noted during a spell of very cold weather on the 7th.

By late March two pairs were present on No.3 bed and shortly after a third pair took up residence on the Oxbow below No.3, one wearing a green Darvic CHX6. They soon built a nest in a vulnerable position on the water's edge below the footbridge and by 11th April the nest held four eggs, increasing to six on the 21st. All appeared to be going well until 8th May when the nest was deserted and pulled apart. With no sign of the eggs it had clearly been predated. Two weeks later the pair was back at the nest but soon left and was not seen again. Meanwhile, on No.3 bed a pair appeared with four newly hatched young, all of which subsequently fledged and left on 24th September, one of the young noticeably smaller than the other three.

During early May three nests were found on the Mersey from Woolston Weir to the east of the M6, all with incubating birds. All three hatched young, one brood of five, one of one and the other, by the Weir, of two. The latter are believed not to have survived. A pair also bred on the Loop of No.4 bed, hatching and fledging four young, and a pair did attempt to breed at Latchford Locks, but the nest was abandoned. Three other broods were noted on the Mersey and Ship Canal late in the season but are likely to have bred away from the Eyes. In all, there were seven breeding attempts on the Reserve, five of which produced young, an improvement on the three pairs in 2017.

Later in the year numbers were a little down on last year, with a maximum of 40 on the Reserve on 19th December.

A cygnet present on No.3 on 12th November was wearing a green Darvic CLX6, and had been ringed on 22nd October 2018 at Spike Island, Widnes.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
49	27	45	27	18	36	25	34	31	13	18	40

Whooper Swan Cygnus cygnus

Amber listed

A scarce visitor to Woolston, there were a number of sightings this year. On 17th February 11 flew north over No.1 bed, while on 26th October three flew on to No.3 bed, but only stayed for a short time. A single bird flew north the following day. Two adults and a juvenile flew east over No.1 bed on 12th November and four flew west over No.3 bed the next day.



Whooper Swan on No.3 bed

David Spencer

Pink-footed Goose

Anser brachyrhynchus

Amber listed

The usual over-flying skeins were recorded in both winter periods, most in the second half of the year. There was, however, one record of birds on the ground.

The only submissions at the beginning of the year were of sightings on 6th January. Two observers reported 300 flying west and north-west while a third record on that date was of 150 flying north-west.

Very many records were received for the autumn and late winter, beginning with 15 flying low to the south-west on 15th September. Seven flew east over No.1 bed on 28th September, while on 13th October WeBS Count 34 were seen on fields just to the south of the Ship Canal near Bollin Point, a rare occurrence. Some large numbers passed through on 25th October, when observers on a Migration Watch on No.1 bed recorded a total of 2400 moving east in many skeins over a six hour period. Two days later 100 flew south-east over No.1 bed and a further 180 over No.3 bed.

In November 300 flew south-east over No.1 bed on the 2nd and 139 in two skeins on the 24th. A further 190 flew east in two skeins of 40 and 150 on the 26th, but these were overshadowed by the total of 1250 that passed through on another Migration Watch on 8th December.

The final record of the year was of 42 over No.4 bed on 29th December.

Greylag Goose Anser anser

Amber listed

Recorded in every month except November, with some large counts in September. As always, a few pairs bred and although many young soon disappeared a small number did fledge, which is unusual. Twenty-four at Bollin Point on 8th February and 16 on No.3 bed on 21st March were the highest numbers submitted in the first three months when, as in 2017, one was paired with a Canada Goose.

The first brood (seven young) appeared on No.3 bed on 20th April and was followed by at least three others on that bed, and finally a brood of six young was seen at Bollin Point on 29th May. A pair found on the Loop of No.4 bed on 14th April during a wildfowl breeding survey was not subsequently seen. Many young were soon lost, but two broods with well-grown young were found on the Mersey below No.3 bed on 29th May and 6th June; it is likely that they fledged. It is not clear whether these were broods that had moved on to the river from No.3, but certainly a minimum of five pairs bred, and possibly as many as seven.

After the breeding season good numbers were reported in August and September, peak counts being 300 (most birds at Bollin Point) on 12th September and 126 on No.3 bed on 27th September. In the final months few were seen, 19 on 25th October being one of only four records.

Canada Goose Branta canadensis

Large flocks were present on the Eyes, notably in late summer and early autumn, but fewer pairs bred than in recent years.

In January, 26 on the 10th was the peak count and few were seen during a cold spell in early February when No.3 bed was frozen for a time. Shortly after numbers increased, with 64 present on 17th February and an early year maximum of 140 on 17th March WeBS Count. On 25th March one was paired with a Greylag Goose on the Loop of No.4 bed, for the second year in succession, announcing their presence with very noisy calls.

On No.3 bed 40 on 7th March were mostly paired, while on the Loop of No.4 bed on 14th March a breeding wildfowl survey found three pairs, including one bird on a nest. The first brood, of 4 young, appeared on No.3 bed on 2nd May and was joined by a second and third three days later. In all seven

pairs bred and produced young on No.3 bed, while on the Loop is it likely that two, possibly three, pairs bred, a slight reduction on the 12 broods in 2017.

As with Greylag Goose numbers peaked in late August and September, with maxima of 160 on 30thAugust, 275 on 6th September and a Reserve total of 300 on 12th September. Thereafter, apart from 179 on 19th September and 92 on the 13th October WeBS Count, 38 on 30th November was the highest count at the end of the year.

Monthly maxima:

J	F	M	A	M	J	J	Α	S	O	N	D
26	64	140	65	38	90	46	160	300	92	38	17

Shelduck Tadorna tadorna

Amber listed

Fewer Shelduck were present compared to 2017, but more pairs bred.

During January and February no more than 19 were present, half the peak count of last year. Despite the freezing conditions brought by the 'Beast from the East' double-figure numbers were maintained. On 14th April a pair was found near to former breeding holes, but there was no evidence that breeding occurred. The first brood was seen on No.3 bed on 22nd June, followed by a second brood of eight young three days later. Seven young were lost from both broods, but by the 17th July three females were on No.3 bed with broods, one with three fully fledged young. On 24th July a crèche of four adults with nine young was observed on No.3 and it is believed that at least five of the young fledged.

During the autumn only small numbers were reported, but the annual late influx saw 11 on No.3 bed on 29th November and 14 on 27th December.

Wigeon Anas penelope

Amber listed

Always scarce at Woolston, there was nevertheless a high count in February (as in 2017) of 33 on the 22nd. Ten were still present the following day, after which there were no records until the autumn when two were seen on 3rd September. Small numbers were regularly present throughout September, reaching a maximum of eight on the 29th, while in October 12 on the 23rd and 10 the next day were the only double-figure counts submitted.

Gadwall Anas strepera

Amber listed

Numbers of international importance were present in August, while the number of broods seen was a little higher than in 2017.

In the first four months more Gadwall were present on the Eyes than last year, with a maximum of 50 on 20th January, 70 on 17th February, 136 on 7th March – 119 of which were on the Loop of No.4 bed, 87 on 14th April WeBS Count and 64 on 29th May.

The Loop of No.4 bed continued to attract Gadwall, with ten pairs there on 25th March and eight pairs, plus others, found during a breeding wildfowl survey on 14th April. On 21st April nine pairs were located on No.3 bed. This suggested that a good breeding season was in prospect, but as the rest of April and May passed without any broods seen concerns were raised, especially as there were many adults still present.

Finally, on 6th June a brood of six young appeared on No.3 bed, with another of four young two days later. On 9th June four broods were on the water with a fifth on 21st June, and on the same date two new broods of five and six young were found on the Mersey. One brood of eight was found on the Loop of No.4 bed on 4th July and two other new broods on No.3 bed in late July. In all, it is considered that a minimum of ten pairs bred, a small improvement on the eight in 2017.

The now annual build-up of adults in the summer began in early June, increasing rapidly to 401 on the evening of 29th June, 534 on 30th July and the peak count of 638 on 1st August. Where these birds come from is not known, but with counts in the day being much smaller the highest counts at dusk suggests that birds are flighting in to roost. However, no such arrivals have ever been observed! On 6th August 403 were still present and 300 at the end of the month. Many at this time were feeding on the alien weed Azolla, along with Coot, but as the amount of this decreased so did the numbers of Gadwall. The last three-figure counts were in early September, after which numbers returned to much lower levels.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
50	70	136	87	64	401	534	638	219	32	50	57

Teal Anas crecca

Amber listed

Numbers were much lower than in recent years, with no four-figure counts recorded. Although some were present in the late spring and summer there was no evidence of breeding.

Many Teal were frozen out of cover in January and February, with a maximum count of 793 on 20th January WeBS Count and 700 still present in early February. As always the vast majority wintered on No.3 bed, with 40-50 regularly seen on the Loop of No.4 bed. The last significant count early in the year was 320 on 21st March, and 61 were present on the 14th April WeBS.

On 16th April six pairs were found in the undisturbed north-east pools on No.3, with display observed, but thereafter very few were seen. The double-figure counts in late June were almost certainly the first of the returning birds, or failed breeders from elsewhere. It is a few years since breeding was proved at Woolston.

An unexpected arrival in late July coincided with dredgings being deposited on No.2 bed, with 180 increasing to 250 on the 30th. Numbers remained at this level into September, when 300 were reported on two dates. On 23rd October 340 were present across the Eyes and it was not until late November that more Teal arrived, with 450 present on the 29th. The highest counts of the year were 800 on the 14th and 29th December.

An interesting observation on 6th December was of a Stoat attempting to catch a Teal from a small flock in front of the Morgan hide, by swimming in and out of nearby reeds.

The ringers on No.3 bed handled 296 Teal caught in a duck trap on that bed, including 114 new birds that they ringed. Owing to low water levels after the hot dry summer the duck trap could not be operated in the second half of the year. Re-traps from previous years included four birds first ringed in January and February 2017, eight from 2016, eight from 2015 and three from 2014. The ringing team on No.3 bed report that "Woolston accounts for a large proportion of the Teal that are re-trapped by the BTO ringing scheme with many birds caught on a regular basis"

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
793	700	320	61	n/c	34	250	200	300	340	450	800

Mallard Anas platyrhynchos

Amber listed

More Mallard were on the Eyes than for several years, notably in the second winter period, and it was also a successful breeding season.

The year began with 119 present on 3rd January and 122 on 17th February WeBS Count.

The first brood was reported on 22^{nd} April, with many others widely distributed across the site; the last new brood appearing on No.3 bed on 19^{th} June. In total 36 broods were reported: 15 on No.3 bed, eight on the Mersey, seven on the Loop of No.4 bed and six on the Ship Canal. This represents the best breeding season since the 44 broods in 2011.

Mallard were particularly numerous in the autumn, with peak counts of 168 on 8^{th} September and a year maximum of 188 on 13^{th} October. High numbers remained into December.

Two were ringed on No.3 bed by the ringing team on 14th April, an adult male and female, but because of low water levels in the second half of the year the duck trap could not be set.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
119	122	101	56	62	85	46	110	168	188	100	144

Pintail Anas acuta

Amber listed

A very scarce but regular visitor to the Eyes, there were only six records in the early months, with a maximum of three on 17th March. The next sighting was not until 24th September when two were on No.3 bed. There were then many records, mostly of one or two birds, with the peak count being of four females on No.3 bed on 17th October. None were seen after 20th November.



Garganey on No.3 bed David Spencer

Garganey Anas querquedula

Amber listed

There were more records than usual this year, beginning with a drake on No.3 bed on 9th May. It remained for much of May, with a second drake seen to fly on to the Loop of No.4 bed from high up on 12th May. There were then a further seven May records of single drakes, all but one on No.3 bed, with the last sighting on the 31st.

In August there were many reports, beginning with three (thought to be a female and two juveniles) on No.3 on the 8th and 9th. Up to two were present on many dates until the end of August with the last sighting on 1st September. There is no indication that breeding took place, but one cannot rule it out.

Shoveler Anas clypeata

Amber listed

An improved showing with numbers well up on 2017, notably on spring and autumn passage, but once again no broods were seen.

Many records were submitted of this attractive duck, although no more than 35 were present in January. An arrival in early February saw 70 on No.3 bed at a time when much of the water was frozen and most of the wildfowl concentrated in a small area of open water. From a peak of 82 on 24th February more arrived with 131 present on 24th March WeBS Count, the first three-figure gathering since March 2014.

Despite a total of 53 on 14th April WeBS Count most soon moved on with just a few pairs noted from late April into mid-June. There was no evidence of breeding on the Reserve and this has become a familiar pattern in recent years. Conditions on the Eyes appear to be ideal, but maybe the build-up in the spring is of birds *en route* to breeding sites further north, possibly in Iceland.

There was only a handful of records in June and July before the autumn arrivals in late August and September saw 118 on 8th September and 140 on the 19th, the highest numbers recorded at Woolston since the autumn of 2011. Many remained throughout October and November with 69 on No.3 on 10th November.

Monthly maxima:

J	F	M	Α	M	J	J	Α	S	O	N	D
36	82	131	53	6	3	28	50	140	91	69	33

Red-crested PochardNetta rufina

A pair flew on to No.3 bed on 4th April and was seen by two observers. This was the only record of this scarce visitor to the Eyes.

Pochard Aythya ferina

Red listed

The rapid decline in the numbers of this once very numerous duck, not just at Woolston, has been well documented although not fully understood. More were seen this year than in 2017 but numbers were still a fraction of those that used to winter at the Eyes as recently as 15-20 years ago. Many broods were reported but fewer than the very successful breeding season of last year.

During January the maximum count was 21 on the 13th. February is traditionally the month with the highest numbers and this year was no exception, with 63 on No.3 bed on the 2nd, and the year's maximum of 90 on the 12th, most of these on the Mersey at Woolston Weir. Over the following few days up to 81 were reported and there were still 63 on 26th February. Numbers fell for a time during

March, before 67 were present on the 21st and 62 on the 28th. This was to be the last significant count of the year.

During the breeding season birds were present on No.3 and the Loop of No.4 bed, the latter site with two pairs - seven drakes and a single female on 10th May, while nine drakes and four females were on No.3 bed on 15th May. The first brood, (five young), appeared on No.3 on 19th May and more were seen over the next six weeks. In all 11 broods were reported, eight on No.3 bed and three on the Loop. Although well down on the 19 broods of 2017, it is still an impressive showing given the huge fall in Pochard numbers in recent years. Fledging success is not easy to judge, but one brood of six full grown young was still present and thriving on No.3 bed on 3rd August.

Nearly three months passed before the next record of a Pochard at Woolston – one on the Mersey on 27th October. Two drakes were on No.3 on 17th November and the only other sightings were of two single drakes on two dates in December.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
21	90	67	28	22	18	5	6	n/c	1	2	1

Tufted DuckAythya fuligula

Despite high numbers present in the first three months the breeding season was, by Woolston's standards, very disappointing, and was followed by well below average numbers in the final months of the year.

The big gatherings of December 2017 continued into 2018, with peak counts of 535 in January, 663 in February and 587 in March. During those months there were a number of very cold spells, including the notorious 'Beast from the East', which always results in large numbers of Tufted Duck arriving at Woolston and concentrating mainly on the unfrozen Weir Basin and Ship Canal at Bollin Point. Many remained well into the spring with all the indications of another good breeding season. Sixteen pairs were present on No.3 bed on 5th May, with others found on the Loop of No.4 bed during a breeding wildfowl count.

What happened next was surprising. Tufted Duck are late breeders, but first broods appear in June, followed by the majority in July. At that time in 2018 the long hot summer had arrived and with it rapidly falling water levels. The first broods, two, were seen on the Loop of No.4 on 30th June, but none appeared on No.3 bed until 15th July. It was clear that many Tufted Duck had departed during the searing temperatures of late June and early July. In all, 11 broods were reported, seven on No.3 bed, two on the Loop of No.4 bed and two on the Oxbow below No.3 bed (c.f. the very high 28 broods in 2017).

There were no significant arrivals in the second winter period, which was relatively mild.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
535	663	587	280	178	62	13	10	63	220	229	241

Common Scoter Melanitta nigra

A drake was found by Woolston Weir on 9th April. This follows one on the Ship Canal on 2nd December 2017, which was the first record at Woolston since November 1996.



Common Scoter on the Weir Basin

David Spencer

Bucephala clangula

Goldeneye

Amber listed

Much less numerous than they used to be at Woolston; many records were submitted, but it is now a few years since any double-figure counts have been made.

In the first winter five on 11th January was the maximum number seen, while later in the year five on 8th December was also the highest count received.

The majority of sightings came from the Woolston Weir Pool.

Goosander Mergus merganser

A scarce but annual visitor to Woolston, with most birds seen on the Ship Canal. Just 19 records were received. There was no repeat of the 2017 breeding.

One was found on the Ship Canal on 13th January, and a 'redhead' was also on the Canal on 13th March. The next sighting was on No.3 bed on 16th August, then none until late October when two females were on the Canal, with up to two present on four dates in November. Finally, there were ten records in December, when many observers saw up to five on the Ship Canal between the Reserve car park and the Penny Ferry 400m to the west.



Goosander on the Ship Canal

David Bowman

Ruddy Duck Oxyura jamaicensis

There was only one bird reported in 2018, a female, between 21st April and 21st June. There were many weeks without any sightings in May and June and very few, if any, Ruddy Duck must now be left.

Grey Partridge Perdix perdix

Red listed

This species has become a rarity in recent years, so it was encouraging to receive three sightings. One was flushed from the top of Butchersfield Tip on 7th August and another was in the same location on the 22nd of the month. The other record was of a small bird, possibly a juvenile, on the south meadow of No.3 bed on 16th August. This raises the possibility of breeding having taken place on the Reserve for the first time since 2006.

Pheasant Phasianus colchicus

Numbers of this resident species are often under-recorded as it is ignored by many observers. There were no records until March when eight were on No.4 bed. Common Bird Surveys of the northern section of No.4 bed produced totals of between five and seven between April and June. At least 15 were present across the Reserve during June and a chick was seen on the north bank of No.2 bed on the 21st. On 11th July a brood of at least three was on No.3 bed and on the 21st of the month a female with five well-grown young was reported from the same bed. A brood of four half-grown young was flushed from the north meadow on 27th August and it would appear that a minimum of three broods were produced. This is more than in 2017 when only one brood was seen but it would be premature to confirm an upturn in this species' fortunes. It seems reasonable to assume a maximum Reserve total of 20. The Migration Watch on 6th September produced eight while there were reports of six and ten from No.3 bed on 29th September and 7th October respectively.

Cormorant Phalacrocorax carbo

As always, reported in every month, with early year maxima of 16 on 20th January and 15 on the WeBS Count of 17th February. The highest number was 27 on No.3 bed on 10th October.

Little Egret Egretta garzetta

An infrequent visitor to the Eyes, Little Egrets appear to be becoming scarcer. In 2018 there were only 11 records submitted (c.f. 14 in 2017 and 21 in 2016). Apart from two on 28th August all other sightings were of single birds.

Great White Egret Ardea alba

Only three reports were received, single birds on 1st September and 19th September and two on 20th October.



Great White Egret on No.3 bed

David Steel

Grey Heron Ardea cinerea

Noted throughout the year on all parts of the Eyes, with peak counts in the autumn. The only double-figure reports were of ten on 30th August and 11 on 17th October. Birds from the heronry at Parr's Wood in Grappenhall regularly feed on the Reserve.

Little Grebe Tachybaptus ruficollis

Another good breeding season for this grebe at its main Cheshire site. Numbers in the spring were down on 2017, but more were seen later in the year.

Eight were on the Reserve on 20th January with the first trilling bird heard on the same day on a small fishing pool alongside the Mersey north of No.1 bed. Two pairs had returned to No.3 bed on 21st February, but Little Grebes were scarce during the so-called 'Beast from the East' when many of the waters were frozen.

By the end of March birds were more widespread, being found on the Loop of No.4 bed (five) and No.3 bed (up to nine), as well as on No.1 bed. The first brood, of two small young, was found on No.3 bed on 26th May, and another on No.1 bed on 28th May, while two broods were on the Loop of No.4 bed on 3rd June. It is almost certain that the brood on No.1 bed had hatched earlier in May as when found on the 3rd June the two young were reported to be well grown. With more broods appearing in June and

July, and a late one on No.1 bed on 22nd August, records suggest an overall breeding population of 11 pairs, five on No.3 bed, two on the Loop of No.4 bed, three on No.1 bed and one on the Mersey by No.1 bed. This is exactly the same as in 2017.

Some large counts were submitted later in the year, including 16 on 11th August, of which four were large young begging for food, 26 on 1st September and 23 on the WeBS Count a week later. Fourteen on 13th October was the last double-figure count, with Little Grebes in the final two months resorting largely to the river and Ship Canal.



Great Crested Grebe with young

Andy Weir

Great Crested Grebe

Podiceps cristatus

The numbers present throughout the year were about average, but fewer broods were reported than in 2017.

Up to seven were present in January, but the number of returning birds reached 16 on 17th February, increasing to the year's maximum of 21 on 17th March and 14th April. On 1st April single sitting birds were on nests on No.3 bed and at Woolston Weir, with another pair at a possible nest on the river between beds 3 and 4. By 20th May four birds were on nests on No.3 bed. The first brood appeared on No.3 on 24th May, with three further broods seen there during June. Three of the four broods were of single young, with the other with two young. The pair at Woolston Weir made two breeding attempts but failed, as they usually do, when their nests were washed away, while the outcome of the nest on the Mersey is unknown. Thus six pairs were present in the breeding season from which just three young are known to have fledged. A poor showing compared to last year when 11 broods were seen.

Following the breeding season the maximum count was eight on 10th November WeBS.



Black-necked Grebe with young

Andy Weir

Black-necked Grebe

Podiceps nigricollis

Amber listed

This was another successful breeding season, with the population stable at about ten pairs. The warm dry summer resulted in many young fledging.

The first bird returned on 13th March, but there were no further sightings until ten days later. A pair was seen mating on No.3 bed on 24th March, but no more than three were noted until five on 6th April, increasing to eight on the 7th, two of which were still in winter plumage. A further arrival resulted in 14 on 16th April with numbers remaining at that level into mid-May. Given counts of adults and broods later in the summer it is clear that up to 20 adults must have summered.

The first brood (3 young) appeared on No.3 bed on 15th May, after which new broods were seen on a daily basis with totals of two on 19th May, three on the 24th, four on the 25th and five on the 26th, including a new brood of three tiny young. On 29th May a thorough count found 16 adults and 15 young in eight broods. It was hard to keep track of what was happening, with Black-necked Grebes seemingly everywhere on No.3 bed. Another survey on 2nd June revealed 18 adults with 17 young in nine broods, with a tenth brood seen on 9th June. By this time many of the young were independent (they can be in as little as 21 days). Nineteen adults with young were present on 15th June. On 19th June 14 large independent young were seen on No.3 bed when others had already left.

Given the hot, dry weather breeding conditions were ideal, with good populations of aquatic invertebrates. It was therefore not surprising that all adults had left by early July, with the last juvenile seen on 31st July. Overall it is considered that ten pairs bred, fledging an impressive 17 young.

Some interesting observations in the breeding season included two pairs fighting over a favoured reed island during June, and what appeared to be a crèche of four young of different ages being fed by two adults, something never seen before at Woolston.

Red Kite Milvus milvus

Although still a rare visitor, there have been sightings in each of the last five years. The first of three records was of one from No.3 bed on 1st July. A further report from the same bed was on 14th July when one was seen soaring over the north bank before drifting northeast. The final sighting was of one moving south over No.3 bed on 2nd September.



Marsh Harrier on No.3 bed Andy Weir

Marsh Harrier Circus aeruginosus

Amber listed

This species is usually reported during spring but this year there were also a number of sightings in the second half of the year. The first was a female on No.3 bed on 21st February and there were further reports of the same bird over the following five days. In March there were sightings from both No.3 bed and the Loop of No.4 bed as a female moved regularly between the two. On 9th March one took a

Teal on No.3 bed but dropped it into the water and it escaped! Two were present on No.3 bed on 21st March. On 1st and 3rd April a female with missing secondaries was noted on No.3 bed but none were then reported until 25th April. A further sighting was of one on No.3 bed on 15th May and what was presumably the same bird, was reported from No.1 bed the following day. One was on No.3 bed on 1st June but there were no further records until 28th July when one was again on No.3 bed. There were almost daily reports of a female/immature bird until 18th August and there was then a gap until 29th August. Further sightings continued with one on No.3 bed on 3rd, 19th and 26th September. The next record was on 19th October and one was present almost daily from then until the 27th of that month. The only subsequent sighting was of a female/immature bird on No.3 bed on 14th and 17th December. This was an above average year for this species with 66 records submitted.

Hen Harrier Circus cyaneus

Red listed

Following a blank year in 2017 there was one sighting. On 10th November a "ring-tail" flew east across the northern reed-bed of No.3 bed shortly after dawn heading towards the east bank where it appeared to drop in. It was not seen again, however.

Sparrowhawk Accipiter nisus

This resident species was recorded throughout the year except for a gap between 12th May and 14th July with the majority of reports from the well-watched No.3 bed. The first was on 6th January when two were present and there were regular reports in the early months of the year. One was seen on No.4 bed on 24th March and one on No.1 bed on 16th April. On 10th May one was noted carrying prey onto No.2 bed. A nest containing three eggs was discovered on No.4 bed but was predated at the egg stage. It was suspected that Grey Squirrels were responsible. Although birds were certainly present during the breeding season the next record was not until 14th July. On 25th August four were on No.3 bed and the same number was recorded on three dates in September and October. The Migration Watch on 3rd November produced five and there were reports of one or two until the year end.

Two new males were ringed on No.1 bed, both in August. One was a first year and the other a second year whilst a third bird was re-trapped later in the year. Three were ringed on No.3 bed, a female on 10th February and two males on 15th April and 15th September.

Buzzard Buteo buteo

There were slightly fewer records of this species this year, perhaps, paradoxically, because it has become more common and is no longer seen as noteworthy by many observers. It was reported in every month of the year and from all parts of the Reserve. The year began with four at Bollin Point on 6th January when two more were present on other beds. Similar counts were made on 9th January and 7th February. Numbers increased during March, with six on No.3 bed and two on the Loop of No.4 bed on the 25th. Two were seen mating on a dead Birch on the north bank of No.3 bed on 31st March and again on 4th April. Twelve were over No.1 bed on 6th April and on the 14th a Reserve total of 15 was recorded. Mating was again noted on the north bank of No.3 bed on 28th April and counts of nine and ten were

reported around this time. A nest was found in the centre of No.2 bed but it was not possible to monitor it due to the presence of Giant Hogweed. A second in the centre of No.4 bed was presumed to have been successful.

Most subsequent records were in single figures, with the exception of the Migration Watches carried out at the eastern end of the Reserve. On 25th October a total of 25 included 20 which spent much of the morning in a field of winter wheat to the north of Butchersfield Tip. Watches in November and December produced counts of 15 and 11 respectively but not all of these would be directly over the Reserve. A count of ten from No.3 bed completed the year's records.

On No.3 bed the ringing team captured a female in a mist net on 28th April. This was the second free-flying bird to be ringed on the bed in two years; the only others ringed were two young in a nest in 2014.

Osprey Pandion haliaetus

Amber listed

A single record was submitted. On 26th March one flew north over No.3 bed. This species has become more frequent in the past few years and there were two records in 2017.

Kestrel Falco tinnunculus

Amber listed

There were significantly fewer records this year - 40 as opposed to 60 in 2017 – but it is unclear whether this indicates a decline in numbers. Records were submitted for every month of the year, mainly from No.3 bed, although there were reports from all areas of the Reserve. Only singles were noted until 17th and 19th March when two were on No.3 bed. Three there on 24th April included a pair. With singles on both Nos.1 and 4 beds, it would appear that five were then present across the Reserve, the highest count of the year. Only one was sighted between 10th May and 10th July and this is similar to the previous year when there were no reports between 17th June and 15th July. The significance or otherwise of this gap is uncertain. On 21st July two were seen, including one carrying prey towards the north-east corner of No.3 bed. This was the only indication of possible breeding. There were no further reports of significance apart from one seen carrying a mouse over the John Morgan Hide on 13th November.

Four were ringed this year: on No.1 bed a young bird was captured on 8th October, the first since 2014 whilst on No.3 bed two males were ringed, an adult on 9th June and a juvenile on 27th October. In the past two years four have been ringed on No.3 bed which is exceptional given that prior to 2017 there had been none for five years and prior to that none for 11 years.



Kestrel from the John Morgan Hide

David Bowman

Merlin Falco columbarius

Red listed

This was a good year for this winter visitor with seven records from September to the end of November. All were of singles including a juvenile on 6th November which took a Greenfinch in flight on No.3 bed. A further sighting the following day was probably the same individual. One flew east along the Canal on No.2 bed on 10th November whilst on 16th November a female chased a Reed Bunting on No.1 bed before leaving to the south. The final report of the year was of a female, again on No.1 bed, on 26th November.

Hobby Falco subbuteo

A fairly typical year started with one on No.3 bed on 26th April. All except three sightings were from No.3 bed, the others being from No.1 bed and the Loop of No.4 bed. Nearly all records submitted were of singles apart from on 28th August when two were on No.3 bed. There were two April reports and one in May. The next sighting was on 7th July when one was seen mobbing two Peregrine Falcons over the east bank of No.3 bed. There was then a series of records until the last of the year on 19th September, including one hunting Swifts on 17th July and one perched in a Silver Birch on the north bank of No.3 bed on 29th August.

On No.1 bed a second-year male was caught and ringed at the Swallow roost on 31st July, only the second ever to be ringed on that bed.



Hobby over No.3 bed David Bowman

Peregrine Falco peregrinus

For the eleventh consecutive year a pair bred on the Thelwall Viaduct and there were reports throughout the year. On 13th January a pair was on No.3 bed one of which took a Pigeon. At the end of the month (31st) two were at the Viaduct nest site. The male flew in with a fairly large item of prey and passed it to the female. A male was seen chasing a flock of Golden Plover on 28th February and on 21st March at least two and possibly three were on the Viaduct. Successful breeding was confirmed when the pair was seen with two well-grown young at the nest site on 9th June. Two large juveniles were reported from under the Viaduct on 23rd June. In July two were seen soaring over the east bank of No.3 bed pursued by a Hobby and there were a number of records of two juveniles, a male and a female, hunting over No.3 bed. On 7th August an adult and the two juveniles were observed soaring over No.3 bed and two days later the juvenile female was seen stooping at waders on the same bed. The two young were present on No.3 bed regularly until 23rd August. In the autumn, three were found on the October WeBS count and on 20th November a male flushed a flock of Teal on No.3 bed. A juvenile was on the Viaduct on 24th November and the year ended with a report of two being mobbed by two Ravens on No.3 bed. It seems that two young fledged successfully, the same as in 2017.

Water Rail Rallus aquaticus

As usual, the majority of records were from Nos.1 and 3 beds and there were sightings throughout the year. The highest counts in the first few months were from No.1 bed with three on 19th January and four on 2nd February. Only one or two were reported from No.3 bed at this time but given the elusive nature of this species this may not be significant. On 24th March one was found on the Loop of No.4 bed, the only record from this area of the Reserve. April produced totals of four and five from No.1 bed on the 6th and 11th respectively. A survey of the perimeter of No.3 bed reed bed on 24th April identified six territories. Breeding was confirmed on No.3 bed but not on No.1 bed. On 7th July an adult and a juvenile were seen from the Frank Linley Hide and there were sightings of one young on 17th July and two adults and two young on 21st July, both in front of the south screen. Three adults were on No.3 bed on 14th July. The two broods reported were less than the four confirmed in 2017. A further survey on No.3 bed found six adults on 11th August. One was noted on the Migration Watch on 6th September and three were present on the WeBS count of 13th October.

Two were ringed on No.3 bed in the first winter period.

Moorhen Gallinula chloropus

This common resident is often under-recorded, but the indications are that this was not a particularly successful year. Fourteen were present on 3rd January and numbers gradually increased to 40 on the 17th February. The first brood was found on 29th May, a little later than usual. A minimum of eleven broods were reported, six on No.3 bed, two on No.1 bed, two on the Sandpit Ponds and one on the Loop of No.4 bed. This was a disappointing breeding season compared with the past three years in which totals of 28, 19 and 20 broods were recorded. On 27th August up to 20 gathered in front of the John Morgan Hide where they were attracted to the seed under the feeders. The WeBS count of 8th September resulted in a total of 37 and the year maximum of 49 occurred on 16th November, again during a WeBS count.

The ringing team on No.3 bed caught two in the first winter period, both of which had hatched in 2017.

Coot Fulica atra

Whilst overall numbers and broods were less than in 2017, this was a reasonable year. The first count of note was of 30 on No.3 bed, with a further ten on the Weir Basin on 9th January. A total of 93 was recorded on 7th February, at a time when many waters were frozen over. No.3 bed held 105 on 3rd March and the WeBS count of 69 on 14th April included three pairs and eight singles on the Loop of No.4 bed. Breeding was successful although less so than in 2017 when an exceptionally high number of broods was reported. Careful analysis of the records submitted would indicate that a minimum of 35 broods were produced with the distribution as follows: three on No.1 bed, 12 on No.3 bed, 18 on the Loop of No.4 bed, one on the Sandpit Pond and one at the Fish Refuge. The number of broods on the Loop of No.4 bed was particularly encouraging. Post breeding flocks included 90 on the islands in front of the John Morgan Hide on 18th June and a year maximum of 156 feeding on Azolla with Gadwall on 28th July. By 23rd September 48 were still attracted to No.3 bed by Azolla but thereafter numbers decreased and the highest count towards the year end was of 30 on the WeBS count of 8th December.

Two were ringed on No.3 bed on 17th March, both having been caught in the duck trap.

Avocet Recurvirostra avosetta

Amber listed

After a blank year in 2017 it was encouraging to receive four records of this elegant wader, all from No.3 bed. Three were in front of the John Morgan Hide on 30th March and there were further reports from the same area on 21st May and 2nd June, both of two birds. The final record was of three on 13th June.



Avocet on No.3 bed David Bowman

Oystercatcher

Haematopus ostralegus

Amber listed

Although numbers were about average there were some unusually early records; one on a raft on No.3 bed on 31st January and seven sightings during February, including a pair mating on No.3 bed on the 22nd. There were nine March reports of one or two, all on No.3 bed, including a pair displaying and mating on the 24th. The five April records were all of singles on No.3 bed apart from one seen flying west over Butchersfield Tip. A further sighting from the eastern end of the Reserve was of one flying

west over No.1 bed on 11th May as birds continued to be reported in ones and twos on the favoured No.3 bed. The nine June records were all of one or two on No.3 bed although a sighting of one at Latchford Locks on the 18th was unusual. As three were on No.3 bed on that day it seems probable that four were present across the Reserve. The final report was of one, again on No.3 bed, on 7th July.

Golden Plover Pluvialis apricaria

On 28th February a flock of 19 flew south over No.2 bed pursued by a Peregrine. This is the highest count since 2015. The other two records were of singles; on 13th April one flew north over No.1 bed calling and on 25th August one was seen in flight over No.3 bed. This represents an increase in sightings compared with the past two years.



Lapwing from the John Morgan hide

Andy Weir

Lapwing Vanellus vanellus

Red listed

Most of the reports in the first few months of the year related to birds over-flying the Reserve and these included 180 moving west over No.2 bed on 3rd January and 550 flying west over No.3 bed on 27th January. On 19th January 200 were on fields to the north of No.1 bed. With the approach of the breeding season a male was found in front of the John Morgan Hide on 21st February and a pair was observed displaying on Vikki's Island on 7th March. The male was seen on many occasions but failed to attract a female. Meanwhile a pair was seen displaying on an island on the Loop of No.4 bed on 24th March and a territorial pair was on No.1 bed on the 31st. There were further sightings of singles on the northern

section of No.1 bed on 12th and 26th April and three were found there on 2nd May. A nest was discovered on No.1 bed on 17th April containing four eggs and at least two young fledged. On 9th May the male that had been in front of the John Morgan Hide for some time was eventually joined by a female; mating was observed and on 16th May three eggs were seen in a nest there. Around this time a pair appeared to have settled on one of the islands on the Loop of No.4 bed. Unfortunately, the nest on No.3 bed was predated during the night of 27/28th May together with all the Black-headed Gull nests. While this event was not observed it seems likely that either Badgers or Foxes were responsible. The pair of Lapwings re-laid and an egg was seen on 2nd June; however two days later it too had been taken. On No.1 bed it seems possible that a second pair attempted to breed but no nest was found.

The post-breeding flock began to assemble on No.3 bed from 27th June when 50 were present. Between 150 and 180 were regularly counted from then until the end of August when numbers rose to 200. Birds were also to be found on the Loop of No.4 bed with 82 reported on 1st August. The flock on No.3 bed peaked at 350 on 11th September, slightly lower than in 2017. The maximum count of the year was on 23rd October when 400 were on fields to the north of No.1 bed. The only other significant totals were 616 on the Migration Watch on 25th October and 260 over-flying on 1st December.



Little Ringed Plover on No.3 bed

Keith Gallie

Little Ringed Plover

Charadrius dubius

In recent years this species has become an annual visitor with about three to four pairs breeding. This pattern was again in evidence and the first sighting was on 31st March when singles were reported from Nos.1 and 3 beds. By 21st April pairs were present on both these beds and there were regular reports throughout April and May. The first evidence of breeding was on 7th June when a juvenile was on the

scrape in front of the John Morgan Hide. When two single birds were found in different areas of No.1 bed it was suspected that two pairs were nesting and this was confirmed two days later. On this date one pair was seen showing distraction display indicative of young being present and in another area four fully grown young were discovered. On both 26th June and 2nd July an adult and a juvenile were reported from No.3 bed. It seems that three pairs bred. The final sighting was on 14th July.

Ringed Plover Charadrius hiaticula

Red listed

Following a blank year in 2017 there was just a single record this year when one flew west over No.3 bed on 25th August. This has become a rare visitor in recent years and this year's sighting was fairly typical.

Curlew Numenius arquata

Red listed

There were just eight records of this infrequent visitor and, typically, all involved birds over-flying. Singles were seen on 17thMarch, 3rdApril, 9th May and 18th June, most from No.3 bed but in the case of the May record, from No.1 bed. The highest count of the year was of four flying west over No.2 bed on 24th July and there were two sightings in August from Nos.1 and 3 beds. The final report was of one flying west over No.3 bed and 22nd October.

Black-tailed Godwit Limosa limosa

Red listed

This attractive wader is now a regular visitor to Woolston and well over a hundred records were submitted with sightings in every month except February. Two early records of singles on No.3 bed on 12th January and 13th March were the forerunners of another excellent season. Twelve flew south-east over No.3 bed on 14th April and there were reports of a single on 25thApril, six on 13th May and 23 on 26th June. All this year's sightings were from No.3 bed. From 6th July onwards there were regular reports in single figures with a maximum of nine on 21st and 28th July. Numbers then increased to 47 on 7th August and the year maximum of 75 on 11th August. This is slightly lower than the count of 85 in 2017. Although there was then a decline, numbers remained at around fifty until the end of August. September saw regular reports of up to thirty, and 50 on the evening of the 17th. Another high count of 61 on 6th October was followed by sightings of 46 and 47 on the 10th and 11th. Thirty-four were present on 13th and 16th October but there were no further counts in excess of twenty. The WeBS count on 10th November produced a total of twelve but there were no further reports in double figures until the last of the year, a single on 8th December.



Black-tailed Godwit on No.3 bed

Andy Weir

Dunlin Calidris alpina

Amber listed

There were seven reports of this infrequent visitor, very similar to the previous year although there were no spring records this year. All sightings were from No.3 bed between August and November. Seven were reported on 11th August, the first of the year, and all the others were singles. On 9th September one with only one leg was found but it seemed to be coping with this disability.

Common Sandpiper

Actitis hypoleucos

Amber listed

This was a poor year with just six records submitted, all from No.3 bed. The first was a single on the scrape on 16th April and the only other spring sighting was of one on 4th May. Autumn passage began with one on 14th July and four on the 18th. The final reports were of a single on 8th and 9th September.

Green Sandpiper

Tringa ochropus

Amber listed

In recent years this has become the most commonly recorded Sandpiper and this year was no exception with 68 sightings submitted. One was on No.3 bed on 10th March but no more were seen until the end

of June. A single was on No.3 bed on 29th and 30th June and there were further reports from that bed on a number of dates in July with two present on the 28th. Three were found on 7thAugust, two of which were colour-ringed. One of these, with a red colour ring, was still present on 9th August. The No.3 bed ringing team's colour-ringing project continued this year and four were ringed, three on 7th August and one on 11th August. Three of the four were juveniles. Throughout August one or two were reported on No.3 bed until an increase in numbers from the 20th onwards. Three were found that evening and between three and five were regularly reported until the end of August. Two were on the Loop of No.4 bed on 5th September and three on No.3 bed on 13th September. There was a series of late records of a single, initially from the No.1 bed pools on 17th and 23rd October, then three November sightings from No.3 bed and a final report from the west pool on No.1 bed where water levels were very low. When this pool filled with water after this date the bird disappeared but there was a final record from the Loop of No.4 bed on 19th December. Whether these sightings relate to the same bird is uncertain but it seems likely.



Greenshank on No.3 bed David Bowman

Greenshank Tringa nebularia

Amber listed

Normally an infrequent visitor, this was an excellent year for this elegant wader with 35 records submitted, nearly all from No.3 bed. A spring record of one on No.1 bed on 9th May was unusual and no more were seen until return passage which commenced on 10th July with one on No.3 bed. One was present on 9th August and from the 21st to 25th there was a series of exceptional sightings; eight on 21st August, four on the 22nd and 23rd, and seven on the 25th, all on No.3 bed. These are the highest

counts since 2006 when ten were reported circling No.3 bed. There followed almost daily reports of one or two until 9th September, and one was on the Loop of No.4 bed on 12th and 15th September. Sightings of one or two continued on No.3 bed until 23rd September.

Wood Sandpiper Tringa glareola

Amber listed

For the fourth successive year there was a sighting of this rare passage migrant. One was on No.3 bed on 21st April where it was seen by a number of observers.

Redshank Tringa totanus

Amber listed

The 21 records submitted, all from No.3 bed, were indicative of an above average year. Singles were found on 27thMarch, 4th, 13th and 23rd April. There was then a gap until the next sighting on 2nd June. Birds were reported on three June dates including two on the 19th. A single July record of one on the 23rd was followed by no less than ten on 28th August. Four were seen on 8th September and there was an October record of one on the 16th. A successful year ended with a series of reports of up to five on 22nd, 23rd and 24th November, late dates for this species.

Jack Snipe Lymnocryptes minimus

As in 2017 there were three records of this often-elusive species, all in the early months of the year. Two were on No.1 bed on 2nd February and two were in the Car Park on the 7th. The only other report was of one, thought to have been of this species, seen briefly on No.1 bed on 27th March.

Woodcock Scolopax rusticola

Red listed

Although fewer records were submitted this year, this does not necessarily imply a reduction in actual numbers given the elusive nature of this species. In the first winter period between January and March there were three reports from No.1 bed, three from No.3 bed and one from No.2 bed. These were of one or two birds, with a maximum of three on the WeBS count on 17th March. There were no further sightings until 21st October when one was seen in flight over the ringing station on No.3 bed. On 6th November one was flushed from the path around the North Meadow, again on No.3 bed. Two were on the main track on No.2 bed on 10th December and the last and highest count was of four on No.4 bed on 29th December. A single bird was ringed on No.1 bed on 9th November, the first on that bed since 1999.

Snipe Gallinago gallinago

Amber listed

This species is normally only present outside the breeding season and this year's records followed that pattern with sightings from January to the end of May and from July onwards. In the first winter period records were largely confined to Nos.1 and 3 beds although one or two were reported from the Loop of No.4 bed during March. Six were on No.1 bed on 19th January and the highest count was of 18 on No.3 bed on 27th January. No more than two were reported between March and May except for a record of three on No.1 bed on 23rd April. One was seen on the South Pool of No.3 bed on six dates in May until the 29th.

The first returning bird was seen on No.3 bed on 4th July whilst on the 13th seven were in front of the John Morgan Hide. Small numbers were present on No.3 bed until 7th August when 14 were found. From that date there was an increase in numbers building to a maximum of 35 on 8th September. Nearly all the autumn records were from No.3 bed except for one on No.1 bed on 31st August and 24th September and the Migration Watches on 6th September and 3rd November when six and one respectively were noted.

Three were ringed on No.3 bed; one on each of 29th September, 17th and 24th November.



Snipe in front of the John Morgan Hide

Hazel Rothwell

Black Tern Chlidonias niger

A rare but almost annual spring visitor, with most records occurring in April or May. This year there was a single record of one on No.3 bed on 25th May.



Black Tern on No.3 bed David Spencer

Common Tern Sterna hirundo

Amber listed

There were 24 records, exactly the same as in 2017 and very similar to 2016. All were from No.3 bed and occurred between 4th April and 21st August. There was just one April sighting when one flew north on the 4th, and two May records. A single bird was reported on three dates in June but the majority of this year's records were in July with two present on four dates, including the 28th when both were seen with fish, displaying on one of the rafts. Two were on a raft again on 1st August and there were further reports of singles on the 15th and 21st. Although this species is thought to breed nearby there was no suggestion of attempted breeding here.

Arctic Tern Sterna paradisaea

Amber listed

Just two records were received, both from No.3 bed. One was present throughout the morning of 21st April and three were seen on 5th May. This is probably about average for a species which remains an infrequent passage migrant.

Amber listed

The year started with a Reserve-wide count of 400 on 3rd January, of which 280 were on the Canal. Later that month 520 flew east as birds began to return to the breeding colony on No.3 bed. On 28th January 140 were on the water, building to 420 on 21st February and 1500 on 24th March. This is the highest total recorded since 2009 and raised hopes of a successful breeding season. By early April nestbuilding was noted on Vikki's island in front of the John Morgan Hide and the colony held about 1000 at this time. The first young were seen on one of the rafts on 8th May and by mid-May about 78 pairs were on nests. Unfortunately, on 28th May all the nests on the scrape and Vikki's island were found to have been predated overnight and Foxes or Badgers were the suspected culprits. On 2nd June only low numbers were seen and many breeding birds had departed, presumably due to their nests having been lost. On 8th June just four young were seen and on the 13th a total of 175 adults included 25 still sitting on nests. Unsurprisingly only small numbers of young were reported with 17 juveniles on 20th June and 223 adults and 24 young the following day. A count on 23rd July found 50 adults and 19 juveniles whilst on 2nd August a pair with two small young was on one of the nest rafts. A total of 600, mostly on the Canal and river, was recorded on 14th August and this was the highest post-breeding count of the year. There were several counts between two and three hundred and the year ended with 200 on the Canal on 30th December. In order to prevent further mammalian predation an electric fence has been erected between the John Morgan Hide and the islands and it will be interesting to discover whether this will result in more young hatching successfully.



Black-headed Gull with young

David Spencer

Little Gull Hydrocoloeus minutus

As in 2017 there was just one record. One was seen on No.3 bed on 15th April, a typical date for this species which passes through the Reserve in spring in small numbers.

Mediterranean Gull

Larus melanocephalus

Amber listed

This species is seen annually in spring and early summer when it can sometimes be difficult to pick out amongst the hundreds of Black-headed Gulls. All this year's records were from No.3 bed, the first sighting being on 16th March when two were found. From 24th March to the end of that month there were almost daily reports; seven were seen on 27th March and five on the 28th and 30th. The latter comprised two pairs of adult birds and a second summer individual. On 7th April two adults were seen around a possible nest site but there was no further evidence of attempted breeding. One or two were present on at least 14 days during April, with four on the 20th and three on the 27th and 28th. May saw three records of one or two and the final sighting of an average year was of one on 1st June.



Mediterranean Gull from the John Morgan hide

Hazel Rothwell

Common Gull Larus canus

Amber listed

Numbers have been declining in recent years and this trend continued in 2018. There were reports from January to April and from November to December. The only sighting during the summer months was

of one flying west over No.1 bed on 23rd July. Most sightings were from Latchford Locks and No.3 bed with counts of five on 28th January and seven on 4th March at the first location. A series of records from No.3 bed in March and early April peaked at four on 10th April. The last spring sighting was on 13th April. Birds were late to return after the breeding season and the first report was of two at Latchford Locks on 18th November. There were four subsequent records including one from the Migration Watch on 8th December and three at the Locks on the 30th.

Lesser Black-backed Gull

Larus fuscus

Amber listed

There were records throughout the year but no more than three were reported during January and February, mostly from Latchford Locks and No.3 bed. March saw an increase in numbers with six on the 3rd and a Reserve total of eight on the March WeBS count. Three were on the Loop of No.4 bed on 25th March and five in the river basin on the 28th. On 14th April the WeBS count produced a Reserve total of 14 and on the 26th the Loop of No.4 bed held 17. On 22nd April an adult took a duckling on No.3 bed; however the only other confirmed record of predation by this aggressive species was on 19th May when one took a Canada Goose chick on No.3 bed. Early May saw an increase; on the 7th 32 were in the basin with 15 still present on the 15th. Five were on the Loop of No.4 bed on 29th May and a Reserve total of 21 was recorded on 6th June. Early July saw six juveniles on the basin and on the 23rd about a hundred appeared over No.3 bed from the north and 13 juveniles were reported from the basin. This increased to 85 on 27th July and 44 were in the same location on 7th August, the majority being juveniles. This is the second successive year that this post-breeding assembly has occurred at Woolston, a previously unknown phenomenon probably resulting from the nearby breeding colony. On 29th July 2017 140, mostly juveniles, were present. Apart from the Migration Watch counts of 66 on 6th September and 13 on 8th December there were no further double-figure totals.

Herring Gull

Larus argentatus

Although recorded in every month of the year except April, only small numbers were seen and from July to October there were only four sightings, one in each month. On 19th January five flew west over No.1 bed whilst in February three were on No.3 bed on the 14th and 28th. There was a slight increase in March with four at Latchford Locks on the 17th and five on the water on No.3 bed on the 19th. Later that month three were at the basin on the 28th. There were reports of over-flying birds from No.1 bed on 11th and 16th May involving three and two respectively. Eight were reported from No.3 bed on 20th November but the only large totals towards the end of the year came from the Migration Watches on 3rd November and 8th December with counts of 40 and 46. This species is rarely seen in large numbers at Woolston and this year was probably about average.

Great Black-backed Gull

Larus marinus

Amber listed

This species is becoming much more common in recent years and although there were fewer records than in the last three years this trend continues. Two were on No.3 bed on 27th January but there were no further reports until 17th May when one was on No.3 bed. Singles were found on three occasions

during June and July at the basin and on No.3 bed but there were no further sightings until 10th November when two were on No.3 bed. December saw four on the WeBS count on the 8th, and four on No.4 bed on the 29th. The year ended with two at Latchford Locks the following day.

Rock Dove/Feral Pigeon

Columba livia

Feral Pigeons can regularly be seen overflying the Reserve but perhaps not surprisingly few observers submit records. There is a large population in the Latchford Locks area which breed on the old railway bridge; 250 were reported here on 30th December. It is notable that there are fewer records from the Thelwall Viaduct, a traditional nesting site; perhaps put off by the local Peregrines!



Stock Dove David Bowman

Stock Dove Columba oenas

Amber listed

Thought to breed in small numbers on all four beds and is mostly commonly encountered by the John Morgan hide feeders. Most sightings are of one or two birds and the most seen on No.3 bed was six on 25th August. As usual the highest counts were recorded at the eastern end of the Reserve, where birds from the surrounding farmlands can be observed. On No.1 bed 23 were seen on 30th June and the peak counts were made on the Butchersfield Tip with 70 on 25th October and 77 on 3rd November.

On No.1 bed just one was ringed during the year, a pullus from a breeding pair in one of the owl boxes.

On No.3 bed, five were ringed during the year and a further two were retrapped. These were all caught during May, June and July (typical dates). As is usual all these birds were adult. We are yet to catch a young bird on the bed and they have never been found in any of the owl boxes on the bed. The total this year is down on the record 11 from last year but is still above average (3.3 new birds).

Woodpigeon Columba palumbus

A common and widespread resident. The Common Birds Surveys recorded 80 on No.1 bed on 6th April,14 on No.2 bed and eight on No.3 bed on 19th May and 41 on No.4 bed on 10th May. The first autumn arrivals were noted on 29th September when ca.100 flew south over No.3 bed. The maximum count in the year was of 1000 leaving a roost at dawn on the north bank of No.3 bed

The only one to be ringed on No.1 bed during the year was an adult female with a brood patch caught on 13th June. On No.3 bed six new birds (all adult) were ringed during the year. This is a typical total.

Collared Dove Streptopelia decaocto

Collared Doves breed in the housing areas surrounding the Reserve but are relatively infrequent visitors with only 19 records in the year. Most records were from the Weir Basin and Butchersfield Tip with a peak count of five on 30th January at the former site. On No.3 bed, all records were of over-flying birds, mostly singles and a maximum of three.

Cuculus canorus

Red listed

The first arrived on 4th May, a male calling on No.1 bed. There were then five records on No.3 bed; the first on 7th May and final sighting was a female giving its bubbling call early in the morning of 7th June. No juveniles were seen.

Barn Owl Tyto alba

Barn Owls do not breed on the Reserve but in most years individuals are recorded in the autumn and winter periods. 2018 was no exception with several sightings on No.1 bed during January and February. There was one further sighting on No.1 bed on 22nd September. On No.3 bed, in the second winter period, one regularly roosted under the John Morgan hide and numerous pellets were found in several of the hides; it is presumed the bird was feeding well on Starlings which were roosting on the bed in large numbers in December.

For the fourth year in succession this species was ringed when a male was found roosting on 8th January, on No.1 bed, in one of the specially provided nest boxes.

Tawny Owl Strix aluco

Amber listed

Tawny Owls are thought to breed on all four beds and this year birds were recorded calling on Nos.1, 2 and 3 beds. The lack of records from No.4 probably reflects the under-recording of this area at dawn or dusk rather than the absence of birds. On No.3 bed a nest was located in a Kestrel box. Unfortunately, the breeding was not successful and when the box was checked at the end of the breeding season two infertile eggs were found.

Long-eared Owl Asio otus

Again, there were no records. The last record was in 2015 and sadly there have been no confirmed breeding records this century.



Swift investigating nest boxes on the John Morgan hide

David Bowman

Swift Apus apus

Amber listed

The first arrived on 24th April, when one was seen over the east bank of No.3 bed. However, numbers were then slow to build, further arrivals being delayed by poor weather further south. There were only

occasional sightings until 8th May when the main arrival started; 10 were seen that day, followed by 40 on the 10th and 60 on the 11th. The peak count in May was 80 on the 25th feeding low over No.3 bed in cool, damp conditions. Other notable counts in the summer included 190 on No.3 bed on 30th June and 100 on the Loop of No.4 bed on the same day. There were no large post breeding gatherings, as has occurred in previous years, the maximum was 120 on No.3 bed on 17th July. However, there were encouraging signs that the nest boxes installed on the side of the John Morgan hide may be used in the future. The call system attracted several pairs in July, and they could be seen bumping up against the side of the boxes; it is thought these could be immature birds exploring possible nest sites for next year.

In the Warrington area it appears to be have been a successful breeding season, presumably helped by the hot summer weather. Activity around the nest sites in Grappenhall and Westy was limited until well into May but once the very warm weather came, screaming flocks were higher than for many years; -up to 15 birds when 8-10 had been the norm in recent years. Breeding was good with young raised in five nests in Albert Road, Grappenhall and two nests on a house near the Bridgewater Canal 400 metres away. An indicator of a good breeding season was flocks of up to 27 birds above Albert Road on several evenings in July.

Numbers declined in August as birds migrated south and the last sighting was on No.3 bed when five were feeding low over the water in the evening of 29th August.

KingfisherAlcedo atthis

Amber listed

Kingfishers were recorded in all months of the year but were scarce, as is typical, in the winter months when birds move closer to coastal areas to avoid freezing conditions. Birds started to be recorded regularly, mostly from No.3 bed, from mid-May onwards. No breeding sites were found this year but it is very likely that at least one pair bred along the Ship Canal as an adult and two juveniles were observed on No.3 bed on 1st August.

The ringers on No.1 bed had a record year for this species with 13 ringed between 30th March and 17th August, with the majority caught in July and the first juvenile on 4th of that month. Only the spring one was an adult while the only one to be retrapped was on 10th December, a juvenile from August.

Three birds were ringed on the No.3 bed (all juveniles) in August. Three other birds were retrapped that had been previously ringed on No.1 bed.

Green Woodpecker Picus viridis

A poor year for this species with only two records of birds heard calling, one on 28th February near the North Meadow on No.3 bed and the second on 16th October calling south of the Ship Canal by the No.3 bed car park. There were no records from the eastern end of the Reserve which is where most sightings usually originate. This perhaps signifies a decline in the breeding population in the surrounding areas.

Great Spotted Woodpecker

Dendrocopos major

The Reserve's commonest woodpecker. Most sightings not surprisingly came from No.3 bed where they were regularly observed at the John Morgan hide feeders. There were few records from other beds but this is thought to be due to under-recording rather than the absence of birds. Evidence of breeding came from birds heard drumming on both No.3 and 4 beds, as well as two juveniles observed at the feeders on 24th July.

The ringers on No.1 bed had a record year with 15 ringed which was surprising given that 2017 was a poor year for this species. Two others were caught that had been ringed in previous years, one from 2013 and one from 2016. One, a male, was caught in breeding condition and the first juvenile was ringed on 20th June.

On No.3 bed 12 new birds were ringed during the year. This is slightly above the average of 10 but is down on the record 19 from last year.

Lesser Spotted Woodpecker

Dendrocopos minor

Red listed

A disappointing year for this species with only one sighting of a bird in trees by the gates to No.2 bed in spring; the exact date is unknown. One was also heard calling on the South bank of No.3 bed on 31st March. The lack of sightings may indicate the male bird, first reported on No.3 bed in November 2011 and regularly seen in the last three years, has died.

Magpie Pica pica

A common resident, although as there were only 17 records submitted, very much under-recorded. The highest count in the year was a Reserve wide total of 25 on 17th October.

On No.3 bed two birds were ringed during the year. This is below the average of three per year. The low total reflects that they are clever birds and are rarely caught in mist nets!

Jay Garrulus glandarius

A common resident although its secretive nature can lead to it being under recorded. In the Common Bird Surveys only one was observed on No.3 bed and two on No.4 bed. The maximum count in the year was 10 on No.1 bed on 28th September, thought to be mainly local birds but including one flying South, high over the bed.

It was an average year for the ringers on No.1 bed with five ringed, a further one caught was originally ringed in 2017. Only one juvenile was caught, on 20th July.

On No.3 bed, similarly to 2017, it was a poor year with just five new birds ringed. The average since 2004 is 11 new birds. Just two were juveniles.



Magpie David Bowman

Jackdaw Corvus monedula

Although they do not breed on the Reserve, they are a fairly common sight flying over. In some years, post breeding, small parties feed on the Reserve but this year there were no such reports; all observations were of birds flying over. As is typical the largest numbers were seen from the eastern end of the Reserve where they feed on the surrounding farmlands. The peak count was 110 from Butchersfield Tip on 3rd November. On No.3 bed most counts were in in single figures and the maximum was 24 on 2nd February.

Rook Corvus frugilegus

There were only six records submitted, all fly-overs and five of which were from the eastern end of the Reserve. The maximum was 12 seen flying South on 12th February. The only record from No.3 bed was of a single bird on 3rd November.

Carrion Crow Corvus corone

A common resident thought to breed on all four beds. Common Bird Surveys recorded seven on No.1 bed, three on No.2 bed, 12 on No.3 bed and eight on No.4 bed. Thirty were seen on the Maher's tip on No.1 bed on 1st October and the peak count was 70 seen from Butchersfield Tip on 6th September.

Raven Corvus corax

The number of sightings continues to increase and what was once a scarce visitor to the Reserve is now seen regularly. In 2016 there were eight sightings, 33 in 2017 and 46 in 2018. There were records in all months of the year except for July. The birds were also seen regularly during their breeding period of mid-February to mid-April suggesting, perhaps, breeding close by. Most sightings were of one or two birds but five were seen on No.3 bed on 3rd November.

Goldcrest Regulus regulus

There were only 15 sightings this year, most in the winter periods and just one sighting in the breeding season on No.3 bed on 23rd June. The maximum count was six recorded between No.3 bed and Bollin Point on 17th November.

The ringing data presents a more encouraging picture. On No.1 bed although the total for the year was quite a bit lower than the previous two years, it was still the third highest total for the bed since 1995 with 256 ringed. The first of the year was caught on 12th January and was the only re-trap from a previous year, 2017, while the only bird of the spring was on 14th March. There was an excellent juvenile dispersal noted during June after the first on the 11th, 16 were caught during the month with a further eight in July, mostly presumed to have been bred locally, possibly Butchersfield. August was a quieter month with only four ringed while movement started in earnest from 4th September with reasonable numbers present on all days visited until the final one on 30th November.

On No.3 bed 58 new birds were ringed during the year. This is above the average of 42 new birds since 2004. The first young bird was ringed on the 23rd June. This is nearly 3 weeks later than in 2017.

Firecrest Regulus ignicapilla

A scarce visitor with one or two sightings in most years. This year was typical with, for the third year in succession, a first-year male caught on No.1 bed on 12th November. There was also a "probable" seen and heard by the No.3 bed carpark on 2nd February.

Blue Tit Cyanistes caeruleus

A common resident. The Common Bird Surveys recorded the following, eight on No.1 bed (one singing and seven in suitable breeding habitat), 10 on No.2 bed, in suitable breeding habitat, six on No.3 bed including three singing males and eight on No.4 bed three of which were singing.

The ringers on No.1 bed had another record year with 291 ringed, including 68 pulli from the nest boxes, with 27 of these being captured after fledging. A further 99 were caught during the year that had been ringed in previous years, the oldest from 1st July 2011, also there were birds from 2012 (1), 2013 (2), 2014 (6), 2015 (9), 2016 (29) and the remainder from 2017. Away from the nest boxes, eight adults were caught in breeding condition, five males and three females.

The ringers on No.3 bed also had a record year with 351 new birds ringed during the year. The average since 2004 is 174 new birds. The first pulli were ringed on 25th May, almost three weeks later than 2017. A total of 85 pulli was ringed in the boxes. A further 245 new birds were juveniles not ringed in the boxes. Birds were retrapped from 2017 (31), 2016 (17), 2015 (7), 2014 (5), 2013 (3), 2012 (2) and 2011 (1).

Great Tit Parus major

Another common resident. Surveys revealed three singing males on No.1 bed, four in song on No.2 bed, five all in song on No.3 bed and six on No.4 bed including one singing.

As with the previous species, it was a record year for the ringing team on No.1 bed with 232 ringed, including 35 pulli from the nest boxes, with 17 of these being captured after fledging. A further 65 were caught that had been ringed in previous years, the oldest from 3rd September 2010. There were also birds from 2011 (2), 2012 (2), 2013 (3), 2014 (4), 2015 (6), 2016 (14) with the remainder from 2017. Sixteen were caught in breeding condition, five females and 11 males.

On No.3 bed a total of 260 were ringed during the year. This exceeds last year's record of 226 new birds. The first pulli were ringed in the boxes on the 25th May. A total of 74 pulli were ringed. In addition to this, a further 161 birds ringed were juveniles. Re-traps from previous years include: 2017 (27), 2016 (16) 2015 (6), 2014 (5), 2013 (2) and 2012 (2). In total the ringing team handled 316 different Great Tits during the year a total of 946 times.

Coal Tit Periparus ater

The least common of the tits to be encountered on the Reserve and only recorded this year on No.3 bed and the No.1 bed/Butchersfield Tip area. Most sightings from No.3 bed were from July onwards supporting the belief they do not breed on the bed but close by in the surrounding housing estates. The maximum count on No.3 bed was three very vocal birds on 31st October. Breeding is probable on No.1 bed given the ringing team caught four in the first winter/early spring period, including the only one in breeding condition, a female with a brood patch.

The ringing team on No.1 bed had a record year with 36 ringed. As usual, the first juveniles appeared on 8th June and it was a surprisingly good month for them with a further 10 caught. Apart from a late summer bird on 29th August there were no further captures until the regular autumn movement began on 22nd October; it proved to be an excellent period with 21 caught. Apart from the spring records, all others were first years. The last of the year was a re-trap on 10th December, originally ringed on 19th June 2017.

On No.3 bed a total of six new birds were ringed during the year, four of which were juveniles. The average is just 2.7 new birds.

Willow Tit Poecile montana

Red listed

Willow Tits are considered to be one of the Reserves most important breeding species given their national decline. The BTO Breeding Bird Surveys have shown a 77% fall, nationally, in their numbers between 1994 and 2007 and the Reserve's estimated breeding population of 30 pairs is considered of national importance. A report by Allan Rustell, on the Reserve's Willow Tit population can be found towards the end of this Report. It proved a poor year for locating nests, only nine nests were found compared to 15 in 2017; three were found on No.1 bed, one on No.3 and five on No.4 bed (No.2 bed was not surveyed). Given how difficult nests can be to locate the poor results do not necessarily indicate a poor breeding season and the ringing summary below suggests a better breeding season than the nest finding would indicate. One highlight in Allan's report is the first instance of Willow Tits on the Reserve successfully using a nest box.

On No.1 bed it was a record year for this species with 24 ringed, including, unusually, three adults in the spring. There were five caught in breeding condition, four males and one female with the first juvenile caught on 20th June in what appears to be a good breeding season for the species with 21 juveniles ringed in total. A further nine were caught during the year that were ringed in previous years, the oldest from 23rd July 2014, others were from 2015 (2), 2016 (3) and the remainder from 2017.

On No.3 bed, 17 were ringed during the year. This is the average total since 2004. Sixteen of the new birds ringed were juveniles. The first juvenile was ringed on 22nd June. This is nearly three weeks later than in 2017.

Birds from previous years included 2017 (2) 2016 (1) and 2015 (1). This meant that there were five adults handled during the year.

Skylark Alauda arvensis

Red listed

Skylarks breed on the farmlands surrounding No.1 bed and Butchersfield Tip and can regularly be seen overflying that part of the Reserve, most frequently in the autumn and winter periods. Peak counts were 22 in fields to the south of Butchersfield on 18th February including two on territory singing, 32 seen on 25th October from Butchersfield Tip and 20 flying south over No.1 bed on 5th November. There were six reports from No.3 bed including five moving south on 16th October and 13 on 3rd November. In 2017 a bird was recorded singing over No.1 bed in May and this year on 10th May a bird was flushed from the ground in the same area suggesting possible nesting. The last confirmed breeding on the Reserve was in 2003.

Sand Martin Riparia riparia

The first record was of two seen briefly on No.3 bed on 17th March but the poor weather conditions meant there were no further sightings until 27th March when three were on the same bed. This was the start of the main arrival, with 15 present the next day. Peak counts in the spring were 22 on 7th April, 100 on the evening of 23rd April and 40 on 26th April. In the summer months, numbers were low with most records being of one or two birds and only a few counts in double figures (10 on the Loop of No.4

bed on 12th June and 14 on 17th July on No.3 bed). No colonies were found breeding along the Canal although the ability to survey the canal banks is limited and so nesting may have occurred unobserved. The only significant post breeding flock was 50 seen on No.3 bed on the evening of 13th August. The last sighting was of four on No.3 bed on 8th September.

On No.1 bed the ringers had a reasonably successful year with 17 ringed with the first on 6th July and the final one on 4th September. A high proportion of the birds were adults with eight caught.

On No.3 bed just nine were ringed (half of the average total since 2004). These were all ringed at the small roost of hirundines in late July and August and three were adults.

Swallow Hirundo rustica

The first sighting on 3rd April of six was the start of a steady passage in April with peak counts of 29 on the 7th, 100 on the 24th and 85 on the 27th In the summer months pairs were seen by the Viaduct and pumphouse on No.2 bed, both traditional breeding sites and on 23rd June four juveniles were seen being fed by parents on a dead tree in the Ship Canal by the entrance to No.2 bed. On 3rd July the first significant post breeding flock was noted when 30 juveniles were hawking insects over the centre of No.3 bed in the late afternoon. The usual roost on No.1 bed developed in July and August with a peak count of 400 on 23rd July. There was a steady passage of birds during the migration period with 631 seen during a Migration Watch on Butchersfield Tip on 6th September and 150 flying South over No.1 bed on 17th September. The last sighting was of a single bird on No.3 bed on 16th October

On No.1 bed fewer were ringed than in the previous two years, but it was still a reasonable year with 311 newly ringed. The first was caught on 19th July and good numbers were roosting until 2nd August, when the roost quickly diminished until there were none present until the 22nd when they were noted roosting again. Reasonable numbers were then present until the final one of the year on 5th September. The percentage of adults caught was quite a bit lower than the previous two years 7% (22 individuals) compared to 12% (2017) and 13% (2016), of these six had brood patches and five were sexed as males.

On No.3 bed the ringers had the best year since 2014, ringing 118, but this was still below the average of 193. The number of Swallows using the reedbed on No.3 bed has declined quite considerably during the last few years. We are not sure whether this is down to lower numbers of birds generally, the reedbed being less attractive for roosting due to the water level being dropped in August, or the birds using some other roosting sites (such as maize).

House Martin Delichon urbicum

Amber listed

The first sighting of the year was of six on No.3 bed on 3rd April, the same day as the first Swallows arrived. Small numbers continued to be seen in the first half of April and it was not until late April that significant numbers arrived with 20 on the 22nd and 51 on the 24th. In the summer months numbers were very low, reflecting the large decline in the local breeding populations. Most sightings were of just one or two birds and the peak count was of 12 hawking insects above the copse in the centre of No.3 bed on 29th June. In August numbers increased, 20 flew south over No.1 bed on the 8th and 100

were feeding over No.3 bed on the evening of the 13th. The largest count in the year, 151, was seen during a Migration Watch on 6th September.

The first (2) since 2016 were ringed on 29th August on No.1 bed.

Cetti's Warbler Cettia cetti

Cetti's Warblers are now well established at Woolston with sightings and song throughout the year and across all the four individual beds. The first report was on 9th January and the last on 30th December, both single individuals on No.3 bed.

Low single digit counts were recorded of singing males on a regular basis, a selection of reports were: three on the WeBs count on No.3 bed on 17th February, three on No.3 bed on 7th April, three on No.1 bed on 21st April, (two singing males and a bird in suitable breeding habitat), three on No.2 bed on 28th April, four on No.3 bed on 28th November and two on No.1 bed on 30th November. The highest count was of 14 males in song on 14th April on a walk of the Reserve, excluding No.4 bed, which was reported as: six on No.3, one on No.2, four on No.1 and three at Bollin Point.

A record total of 28 Cetti's Warblers, more than double last year's previous Reserve record of 10 birds were ringed with No.3 bed providing all the increase in numbers, from four in 2017 to 22 this year. October and November have been the peak catching time for this species as dispersing birds would turn up and this year six were ringed in that period. No.1 bed duplicated their 2017 catch of six birds again; with four juveniles in June and July and two adults, one a male caught in breeding condition on 4th May. The first juvenile was ringed in June on No.1 bed and on 14th July on No.3 bed when three were ringed. Two retrapped birds were caught on No.1 bed having been handled in previous year. The first was originally caught on the bed on 19th June 2017, as an adult male, while the second was ringed at Leighton Moss in November 2014, initially recaptured on 17th April 2015 has been caught several times since and been resident on No.1 bed for four years now.

This species suffered badly from the "Beast from the East" in the reed beds of Norfolk and Suffolk, but thankfully for the birds at Woolston it never got too cold for too long and the species has fared much better and hopefully will continue to thrive on the Reserve.

Long-tailed Tit Aegithalos caudatus

A common resident across the Reserve but tends to be under reported. The highest counts of the year occur outside of the breeding season when family and foraging groups form, examples being 15 on No.3 bed on 10thJanuary, 20 on No.4 bed on 15th September, 19 on No.3 bed on 23rd October and 22 on 29th November on No.3 bed. Counts of 22, 16 and three were recorded on the Migration Watches from Butchersfield on 25th October, 3rd November and 8th December respectively.

In total, 152 "Lotti's", as they are coded by the ringers, were ringed in 2018, 92 on No.1 bed (the third best total since 1995) and 60 (an average number) on No.3 bed. The first juveniles were ringed on 31st May and 1st June at opposite ends of the Reserve. In total 46 further birds were caught which had been ringed in previous years, the majority, 85% (39) represented birds ringed in 2017, 2016 and 2015 with 9% (4) ringed in 2014 and 6% (3) ringed in 2013. There was also one caught that had been ringed at

Betley Mere, Staffordshire, 42 km south-south-east of Woolston. No.1 bed also reported 13 caught in breeding condition, eight females and five males.

Yellow-browed Warbler

Phylloscopus inornatus

Only a single bird was ringed on the Reserve, on No.3 bed, on a typical date of 21st October. Although previously ringed on No.1 bed at the eastern end of the Reserve this was the first of this species to be ringed on No.3 bed and was the only record of the species reported this year.



Yellow-browed Warbler ringed on No.3 bed

David Spencer

Chiffchaff

Phylloscopus collybita

Two over-wintering individuals were reported, one on No.1 bed on 2nd February and one on No.3 bed on 10th February. The first returning migrant was reported on 13th March on No.3 bed after which numbers increased significantly. A Reserve walk on 4th April which did not include No.4 bed recorded 30 individuals and Common Bird Surveys in April provided the highest count of 56 singing males: 12 on No.1 bed, 12 on No.2 bed, 11 on No.3 bed and 21 on No.4 bed. The Migration Watch of 6th September recorded 26 individuals from Butchersfield and the last records of the year were one each from Butchersfield and No.3 bed on 25th October, one on No.1 bed on 31st October, a late bird on No.3 bed on 17th November and an over-wintering individual was recorded on No.1 bed on 10th December.

Although 411 new birds ringed appears a high total it was a disappointing year for this species compared with the 2017 total of 699 new birds ringed. The first returning migrant was caught on 16th March on No.1 bed and the first juvenile was ringed on 2nd June on No.3 bed. The final capture of the year within the average migration window was ringed on 14th October with four over-wintering birds, three on No.3 bed and one on No.1 bed ringed between 17th November and 29th December. A dozen retrapped individuals from previous years ringing were caught, one from 2014, three from 2015 and four from 2016 and 2017. No.1 bed reported 18 birds caught in breeding condition, nine females and nine males. There were no birds of the race "*Tristis*" caught this year.



Chiffchaff Keith Gallie

Willow Warbler

Phylloscopus trochilus

Amber listed

Returning slightly later than the Chiffchaff the first Willow Warbler was reported on 6th April on No.1 bed and 7th April on No.3 bed. Spring survey high counts of singing males were: 13 on No.3 bed on 14th April, 17 on No.1 bed on 21st April, eight on the northern transect of No.4 bed on 10th May and six on No.2 bed on 19th May. The last reported sighting was of four individuals on No.3 bed on 3rd June.

A total of 226 new Willow Warblers was ringed across the Reserve, 172 on No.1 bed and 54, an above average total, on No.3 bed. The first returning birds ringed were three males on 9th April on No.1 bed, with the bed's first female on 18th April. Eight previous years ringed birds were recaptured, the oldest being ringed on 16th July 2015. Analysis of No.1 bed captures identified 19 individuals in breeding condition, 11 females and eight males. The first juveniles were ringed on 15th June on No.1 bed and 23rd June on No.3 bed and the last birds were caught in September, the 4th and 9th for the two beds.

Blackcap Sylvia atricapilla

The start of April harbingers the return of this richly musical warbler. The first report of the year, fitting this pattern was of a single male in song on No.3 bed on 3rd April. Spring common Bird Surveys for singing males recorded high counts of: four on No.1 bed on 21st April, five on No.3 bed on 19th May, 19 on No.2 bed on 20th May and 17 on the northern transect of No.4 bed on 2nd June. The last recorded migrant was on 26th September on No.2 bed, but the last report was of an over-wintering male on No.3 bed on 1st December.

It was a record year for this species for the ringing teams with a combined total of 1003 new birds ringed, 354 on No.1 bed and 649 (a record total against a ten year average of 343 and the second highest total in 2010 of 515) on No.3 bed. The first returning migrant was a male ringed on 4th April on No.1 bed. Eight further males were caught before the first female was caught on 23rd April. The first juvenile was ringed on No.3 bed on 2nd June and the last of the migrant birds was ringed on 21st October, a typical date, whilst two birds caught on No.1 bed in November and one on the 1st December on No.3 bed, already ringed from a site in the UK, were presumed over-wintering birds. There were 17 retrapped from previous years: 15 from 2017, five from 2016 and one each from 2015, 2014 and 2013. Three were recaptured ringed from other sites in the UK, inclusive of the December bird above. No.1 bed analysis identified 37 Blackcaps caught in breeding condition, 19 females and 18 males.

Garden Warbler Sylvia borin

A secretive warbler that often sings from cover and sounds very similar to the more common Blackcap, which adds to the difficulty of identification of the species. It is however widespread around the Reserve in small numbers. The first of the year was identified on No.3 bed on 3rd May and before the end of the month birds had been reported on all four beds. Never recorded in numbers the peak counts were two individuals on both No.2 and No.1 beds on 19th and 29th May respectively. A review of the reports for the species suggests there were perhaps 14 to 20 individuals identified across the Reserve.

It was an exceptional year for the ringing teams on the Reserve with 72 new Garden Warblers ringed, a typical total of 23 on No.1 bed and a significant 49 on No.3 bed, well above the average (since 2004) of 18 and a previous highest total ever of 38.

The first bird ringed on No.3 bed was an adult on 12^{th} May, unusual in that the bed does not normally catch this species this early in the year. It is the second earliest date on record. Two birds were caught on 22^{nd} September, the third latest date on record and the best month was August with 38 ringed including 25 between the 5^{th} and 11^{th} .

On No.1 bed, an average year, the first ringed was on 20th April (10th May in 2017), there was also an adult female, originally ringed on 5th July 2017, that had returned and was the only bird caught in breeding condition. The first juvenile was ringed on 9th July (3rd July in 2017) and the last of the year was on 31st August.



Sylvia curruca

Lesser Whitethroat

There were 11 reports of this delightful warbler between May and July all of single individuals. The majority, nine, of the records related to a singing male on the Canal track near the second barrier by the ramp gate to No.4 bed from 2nd May to 3rd June which suggests a breeding attempt although we have no definitive evidence of success. The only other sightings were of singles on two dates, a month apart, from No.1 bed on 23rd June and 24th July which given the presence of a breeding female (see ringing summary below) on 6th July may have been related.

A reasonable year with five individuals ringed, four from No.1 bed, the first on 2nd July and the last on 8th August. Three of these were juveniles with the fourth being an adult female with a brood patch which, in view of the date 6th July, was breeding locally. No.3 bed caught a single bird which was ringed on 16th August. The ten year average for this bed is 1.7 birds per year, confirming its scarcity there.

Whitethroat Sylvia communis

The scratchy song of the Whitethroat was first heard on 16th April on No.3 bed this year. Numbers increased through April culminating with high counts of singing males from the Common Bird Surveys undertaken in May. Results were as follows: five on No.3 bed on the 4th, 17 on the northern transect of No.4 bed on the 10th, 11 on No.2 bed on the 19th. A second survey of the north of No.4 bed on 2nd June

recorded the highest count of 18. The last reported sighting of the year was on 9th September on No.3 bed.

A total of 132 new Whitethroats was ringed during the year, 90 on No.3 bed and 42 on No.1 bed, a much better year than 2017. The first returning bird was ringed on 21st April (8 days earlier than 2017). The first juveniles were ringed in June, on the 20th and 23rd on No.1 and No.3 beds respectively. Seven individuals were caught that had been ringed in previous years on the Reserve, the oldest from 4th June 2015. Nine of the 42 birds ringed on No.1 bed were in breeding condition, five females and four males and the last capture of the year was on 12th September, two days later than in 2017.



Whitethroat David Bowman

Grasshopper Warbler

Locustella naevia

Red listed

Just seven records of this skulking warbler were received during the season, all of single birds and all bar one during April. Two reports from No.3 bed on the 14th may have related to the same individual, whilst two reports of "reeling" males on the 21st and the 25th on No.1 bed were probably separate individuals. A single "reeling" male was found on the Common Bird Survey on No.2 bed on the 28th and the only record outside of April was on 18th August on No.3 bed.

Four birds were caught by the ringing teams, two each on beds No.1 and No.3. The first, on 21st April on No.3 bed, was one which had been ringed as a juvenile on the 31st July 2016 at Squire's Down, Dorset. This is the first time the ringers have recaptured a Grasshopper Warbler, ringed from another site in the UK; although the ringers have retrapped their own ringed birds in subsequent years. The second No.3 bed bird was a juvenile, ringed on 18th August which was probably a migrant moving through. The first of the year on No.1 bed was a male, caught on 5th May and subsequently retrapped on 18th June when it was in breeding condition, another, this time a juvenile was caught on 16th July suggesting local breeding success.

Sedge Warbler

Acrocephalus schoenobaenus

The first returning bird was reported on 14th April on No.3 bed. Common but not abundant sightings became more frequent as April progressed. Common Bird Survey counts were single digit numbers with three each on No.1 and No.3 beds on 25th April and 1st May respectively. The northern transect of No.4 bed recorded two singing males. The last sighting of the year was on 9th August on No.3 bed.

A total of 104 Sedge Warblers was ringed during the year with mixed fortunes on the two ringing beds. No.3 bed's total of 79 ringed was 14% above their average but the 25 total for No.1 bed was a poor year and may be attributed to the continuing loss of suitable habitat in that area with the continuing landfill operation. The first birds were ringed in April, on the 21st and 25th and the last on 31st August and 2nd September, comparable to 2017 for both of the two beds. The first juveniles were ringed on the early date of 30th June on No.3 bed and a typical date on No.1 bed of 11th July. Only four of the 25 birds caught on No.1 bed were in breeding condition, two males and two females.

Reed Warbler

Acrocephalus scirpaceus

Always a welcome return to the Reserve reedbeds the first Reed Warbler's long churring song was reported on 14th April on both No.1 and No.3 beds. More numerous than the Sedge Warbler population the Common Bird Survey counts of singing males were respectively higher with 10 on No.1 bed on 25th April, a single on No.2 bed on 28th April, six on No.3 bed on 1st May and two on the northern transect of No.4 bed on 10th May. The single highest count was of 14 birds on No.1 bed on 30th June and the last sighting was on 8th September on No.3 bed.

A total of 638 Reed Warblers was ringed during the year with good numbers on both ringing beds. The 361 on No.3 bed was 16% above the average total since 2004. On No.1 bed, the 277 was the second-best year total since the 292 in 2009.

The first birds ringed were in late April, on the 28th and the 30th on the two beds, almost three weeks later than in 2017. The last birds ringed were on the 14th and 28th September, comparable to 2017. First juveniles were ringed June, on the 18th and 23rd, earlier than in 2017 and 2016. A total of 72 birds were recaptured from previous years ringing efforts with three ringed in 2010, four ringed in 2013, three from 2015, 15 from 2016 and 48 ringed in 2017, providing a guide to the natural longevity of the species. Five of the recaptured birds from No.1 bed were originally ringed at nearby Rostherne Mere and 64 of the bed's 277 total were caught in breeding condition (compared to 51 birds in 2017), 31 females and 33 males.

Waxwing Bombycilla garrulus

There was a single unexpected record of this rather smart plumaged winter visitor on 10th December. A single bird was feeding in the hedgerow which borders the north side of the River Mersey adjacent to Edward Gardens in the late morning. The bird flew off north and was not relocated.



Waxwing near Woolston Weir

David Spencer

Nuthatch Sitta europaea

There were three sightings in both June and July on No.3 bed which were concentrated around the footbridge area and centre of the bed. There were further reports of single birds on the 5th, 12th and 15th September, again around the footbridge area of No.3 bed. A calling bird was then located around the Tower Hide on 21st October, with another on No.3 bed on 21st December. The Butchersfield area provided three single sightings on 23rd October, 3rd November and 8th December Migration Watches and another single bird located on the farm lane beyond Rixton Paddocks. Three records of single individuals came from the wooded area across the river from the north bank of No.1 bed, the first on 23rd October followed by two in December on the 12th and 27th.

No.1 bed has been the historical site for ringing Nuthatch with usually one and on occasion two annually. There was no change on that bed with a single bird ringed (the 11th to be ringed there), of an

adult female with brood patch caught on 22^{nd} June. There was however a massive change on No.3 bed where five individuals were ringed against a ten year average of less than one.

Treecreeper Certhia familiaris

There were nine records of single birds of this diminutive but active member of the *Certhiidae* family, four from No.3 bed starting on 28th February then 23rd June and 19th and 30th November, two from Butchersfield on the Migration Watches of 6th September and 8th December and one each from No.1 bed on 17th November and No.2 bed on 24th December. Three of these sightings were around the footbridge/copse area between No.3 and No.2 beds.

It was a record year for ringing this species with 27 birds ringed, 13, the highest ever total on No.1 bed and 14, equal to the previous highest total and twice the ten year average of seven birds ringed on No.3 bed. Two birds ringed on No.1 bed were in breeding condition, both males, whilst all but a spring bird ringed on No.3 bed were juveniles ringed between June and October. The first juveniles on the two beds were ringed a day apart on 22^{nd} and 23^{rd} June.

Wren Troglodytes troglodytes

A common resident species across the Reserve overlooked in everyday reporting but always recorded on Common Bird Surveys and Migration Watches which again provided the majority of the records. The highest early count was of 17 singing males on No.1 bed on 31st March followed by a count of 35 singing males (highest of the year) on No.3 bed on 7th April, 24 singing males on No.2 bed on 19th May and 20 on the northern transect of No.4 bed on 2nd June.

It was another fairly successful year for this species with 167 ringed, 74 on No.1 bed and 93 on No.3 bed. A further 34 individuals were retrapped from previous years ringing with the oldest having been ringed in 2014. The first juveniles were caught on similar dates as 2017, 11th June on No.3 bed. Analysis of the 74 No.1 bed captures identified 19 in breeding condition, eight females and 11 males.

Starling Sturnus vulgaris

Red listed

Apart from a handful of records of small to medium numbers flying over or feeding on adjacent farmland, most reports are associated with roosting activity in the autumn and winter when large murmurations can occur. The largest counts this year were of 4500 and 4000 on No.3 bed, on the 3rd and 7th November respectively, while the year's highest count was of 5168 during the Migration Watch of 3rd November on Butchersfield.

The No.1 bed ringing team caught the only Starlings of the year, the first of this species to be ringed on the bed since 2007, when seven were caught in a high net as they left a roost in the eastern pool reedbed on 26th February.

Blackbird Turdus merula

A common resident breeding species across the whole Reserve. High counts from Common Bird Surveys in spring identified: nine on No.4 bed on 29th March, 24 on 7th April on No.3 bed with six in song, 13 on No.3 bed on 28th April of which two were singing males. The highest single count was of 49 birds on 24th November on a walk from No.4 bed to Rixton Paddocks where 30 were feeding in the Hawthorn hedges.

A total of 81 birds were ringed during the year, 47 on No.1 bed, including four nestlings from two nests, making the total the second best since 2006 and 38 on No.3 bed, a figure below their ten-year average of 46. The date of the first fledged juveniles also varied with No.1 bed ringed on 11th June and No.3 bed over a month later on 14th July, slightly earlier than in 2017, but still one of the latest dates since 2004. Only ten juveniles were definitely born in 2018, birds likely to have hatched locally.

Fieldfare Turdus pilaris

Red listed

It was February before more than single digit numbers of Fieldfares were reported when 35 were seen leaving a roost on No.3 bed on the 7th followed by a flock of 160 flying east over No.3 bed on the 12th. The fields to the north of No.1 bed regularly held good numbers with 50 reported there on the 15th and a count of 90 birds was again recorded leaving a roost from the north bank of No.3 bed at dawn on 28th. The last sightings before the birds return migration north was of 10 feeding in the fields north of No1 bed on 1st March and three feeding on No.2 bed on 3rd March. Finally, 33 were at Bollin Point on 17th March.

The first autumn migrants were reported on 20th October when four were found feeding in Hawthorn on No.3 bed. Larger flocks were noted within days with 80 flying east over No.3 bed on 21st October and 100 over No.1 bed on 6th November, followed by a larger group of 350 flying south over the same bed on 16th November. Numerous groups of between 15 and 90 birds were reported up to year end.

For the third year in succession one was caught and ringed on No.1 bed, a first year male on 31st October which was the eighth since 2002.

Song Thrush Turdus philomelos

Red listed

This delightful songster is common across the Reserve and a resident breeding species. Birds were in song as early as 26th January and 10 were in song on a walk of the Reserve on 15th February. High counts from the spring Common Bird Surveys were: nine singing males on the northern transect of No.4 bed on 29th March, five on No.3 bed, three singing males and a pair on 7th April and nine singing males on No.2 bed on 19th May. Five individuals were recorded twice on No.1 bed on 21st April of four males in song and another bird in suitable breeding habitat and on 30th June, two of which were carrying food.

It was mixed fortunes for the ringing teams with the best year since 2009 on No.1 bed with 23 ringed but just 17 ringed on No.3 bed, their lowest total against a ten year average of 26, and evidence of probably only two locally hatched birds. The first juveniles were ringed in late June on both beds, on the 25th and 30th.

RedwingTurdus iliacus

Red listed

Early in the year low single digit numbers of this migrant thrush were reported feeding in hedgerows with the first larger group of 35 recorded on No.3 bed on 6th January followed by a group of 65 around the Weir Basin from No.2 bed. A roost of 110 was recorded leaving the north bank of No.3 bed on 28th February and the last of the winter/spring period were two birds on No.1 bed flying north on 11th April.

The first returning migrants were observed on 8th October with seven on No.1 bed and eight on No.3 bed. As October progressed flocks became larger and more frequent with one of 68 reported on the 25th. The Migration Watch of 3rd November recorded 213 over Butchersfield during the morning vigil and a large group of ca. 200 was observed flying south over No.1 bed on 5th November. The larger groups were breaking up as December arrived and numbers dropped with three on No.3 bed on 1st December, 11 reported on the 8th December Migration Watch on Butchersfield, a group of 20 on No.1 bed on the 12th, 10 on the same bed on 14th December and finally 15 on No.3 bed on 21st December.

Mistle Thrush Turdus viscivorus

Red listed

Mistle Thrushes are frequent on the Reserve but not common, records therefore generally refer to single digit number observations. Five were seen along the south bank of No.3 bed on 5th January, with three at Bollin Point and Rixton Paddocks and seven, the highest count on No.3 bed, on 6th January. A solitary male was singing on No.1 bed on 31st March, 9th April and again in late May and four birds were seen in the same area on 6th June. The Migration Watch of 6th September reported 16 flying over Butchersfield and seven were observed feeding in ploughed fields across the river from the north bank of No.1 bed.

There were no Mistle Thrushes ringed during the year.

Spotted Flycatcher Muscicapa striata

Red listed

This species is far from an annual visitor but both No.1 and No.3 beds ringed single individuals this year. The No.3 bed bird was caught and ringed during spring passage on 12th May and was the second to be caught on the bed since 2004. A juvenile ringed during autumn passage on 29th August was the fourth of the species to be ringed on No.1 bed and ninth to be ringed on the Reserve as a whole.

Robin Erithacus rubecula

A very common resident breeding species across the whole Reserve. January Reserve walks provided total counts of 20, 44 and 32 on the 10th, 20th and 31st. Another "whole" Reserve walk reported a total of 57 birds including 50 singing males on 7th March. High counts for the individual beds on the spring Common Bird Surveys identified: 26 singing males on the northern transect of No.4 bed on 29th March, 11 singing males and two in suitable breeding habitat on No.1 bed on 31st March, 30 singing males on No.3 bed on 7th April and 14 singing males on No.2 bed on 28th April. The highest count of the year was of 78 on a walk of the whole Reserve on 17th October.

An average year for the ringing teams with a combined total of 172 Robins ringed, 76 on No.1 bed and 96 on No.3 bed. The first juveniles were ringed on typical dates on 25th and 30th May for the two beds. Analysis of No.1 bed captures identified 20 Robins were re-caught from previous years ringing, the oldest was originally ringed on 10th June 2011. Fourteen were caught in breeding condition, two females and 12 males.



Spotted Flycatcher ringed on No.3 bed

David Spencer

Stonechat Saxicola rubicola

The only record of this uncommon, passage/winter visitor year was of a male in front of the John Morgan Hide, on No.3 bed, on 20th October.

Dunnock Prunella modularis

Amber listed

Dunnocks are reasonably common, if inconspicuous, resident breeders. Analysis of the Breeding Bird Surveys suggests a population of between 20 and 30 "pairs" – Dunnocks have notoriously complex breeding relationships! On 7th March 20 were present across the Reserve, of which 15 were singing males. On subsequent survey dates four were in song on No.1 bed, six in song on No.2 bed, 20 present with four in song on No.4 bed, while No.3 bed, which was not surveyed this year, also holds a stable breeding population. The highest post-breeding counts were of 11 around Butchersfield Tip during the Migration Watch on 6th September and 10 between Nos.2 and 3 beds on 24th November.

The 152 ringed during the year was an increase on the 135 from 2017, an excellent total. On No.1 bed it was the best year since 2005 and the second-best year since 1995, with 45 ringed. A further four were caught that had been ringed in previous years, the oldest from as recently as 2nd November 2016. Eight were caught in breeding condition (11 in 2017), two females and six males, while the first juvenile was ringed on 6th June (3rd June 2017). A total of 107 was ringed on No.3 bed during the year, compared with an average of 74. The first juvenile was ringed on 8th June, nearly a month later than in 2017. Fortunately, this comparatively late start did not negatively impact breeding success this year.

House Sparrow Passer domesticus

Red listed

Most records come from the small breeding populations in the housing estates adjacent to Nos.2 and 4 beds. Typical were counts from Weir lane of up to 14 in January and February. One had strayed into No.2 bed during the Breeding Bird Survey of 19th May. Less usual were the eight which turned up in No.3 bed on 29th May and the one which arrived on No.1 bed on 23rd July. Post-breeding counts from the Weir Basin area included 20 on 25th July and 30 on 4th August, while 25 were feeding at the side of the Canal Track, near No.4 bed, on 7th August.

Yellow Wagtail Motacilla flava

Red listed

There was a noticeable increase in sightings of this scarce passage visitor to the Reserve, with six records received. The first was to the north of No.1 bed on 25th July, while on the last day of the month one was perched on one of the No.3 bed nest rafts and another flew south. On 1st August one was again on one of the nest rafts, among a small flock of eight Pied Wagtails. Singles were again noted on No.3 bed on 6th and 7th August before the final two appeared, an adult accompanied by a juvenile, again on the nest rafts, on 18th August.

Grey Wagtail Motacilla cinerea

Red listed

This attractive, resident wagtail occasionally breeds and there is evidence, from the ringing teams, of an increase in numbers passing through during autumn passage. One or two could be found across the Reserve in all months in suitable habitat. Breeding was proved on 23^{rd} June when a pair was present under Thelwall Viaduct, carrying food into a suitable nest-site. Return passage was observed from late August onwards, with maxima of four on 5^{th} September, five on the 6^{th} and five on the 19^{th} of the month, all from the eastern end of the Reserve.

Twenty were ringed during the year, which is typical since the adoption of tape lures by the ringing teams during the autumn. On No.1 bed it was the third best year since 1995, with 11 ringed. All were birds of the year and were caught between 10th and 17th September. The nine ringed on No.3 bed were all caught between 30th August (5) and the 29th September, which is above the average for the bed.

Pied Wagtail Motacilla alba

This is our commonest wagtail, which is present year-round, occasionally breeds and sometimes forms sizeable autumn/winter roosts. While odd ones could be seen across the Reserve during the first winter period, the only notable count was of 12 leaving a roost in No.3 bed on 3rd February. The only suggestion of breeding came on 16th May, when one was observed entering a suitable nest-hole under a stanchion below Thelwall Viaduct. The usual post-breeding increase was noted from late July onwards, with maxima of 10 on 15th August and 15 on several dates later in the month, all on No.3 bed. The same bed was then used as a late autumn roosting site, with 50 entering the roost at dusk on 10th October. On 3rd November a particular effort was made to count the numbers going in to roost and at least 270 dropped in, with others possibly missed, as they were flying in from all points of the compass.

Tree Pipit Anthus trivialis

Red listed

All records were from the No.1 bed ringing team, with the total of six equalling 2015 as the best year yet for the species. All were caught between 17th and 28th August and were first-year birds.

Meadow Pipit Anthus pratensis

Amber listed

This passage and winter visitor is mainly observed at the eastern end of the Reserve, either as part of the general movement south from its upland breeding grounds or in local feeding movements between wintering areas on arable land. One on No.1 bed on 26th January was the only sighting during the first winter period. Five, on 5th September on No.1 bed, was the first sign of return passage, with 50 there the following day and 10 the next day. Another 50 then passed over No.1 bed on 19th September. The 22nd September, however, produced an unprecedented broad-front movement over the whole Reserve. On No.1 bed, the 150 flying south was pretty typical. At the western end of the Reserve, however, Meadow Pipits are rarely seen and observers in No.3 bed were taken aback when just over

400 were counted during the morning. Of these, 115 were observed tracking west over No.2 bed, while the remaining 290 passed over the centre of No.3 bed. Other counts of note were of: 50 over No.1 bed on 24th September, 58 over Butchersfield Tip during the Migration Watch on 25th October, with 43 over No.3 bed on the same date.

From a ringing perspective it was a good year, with 92 ringed compared with 26 in 2017. On No.1 bed it was the third best year ever, with 83 ringed. Unusually, a good number (16) were caught in spring, between 9th March and 6th April. The remainder was caught from 12th September to 17th October. Low numbers of adults (9) were caught in the autumn for the second year in succession. The No.3 bed team caught a total of nine during the autumn, an excellent total for the bed, reflecting the unusual level of passage this year.

Chaffinch Fringilla coelebs

Chaffinches are common residents, breeding on all four beds, with post-breeding/wintering flocks regularly visiting the three feeding stations and the No.3 bed seed crop. Maxima from the first three months of the year, all from No.3 bed, were of 45 on 27thJanuary, 70 on 21st February and 100 on 1st March. The Breeding Bird Survey found 19 present, 16 of which were males in song. They were distributed as follows: No.1 bed four, including one in song; No.2 bed four in song; No.3 bed four in song and; No.4 bed seven in song. During the second half of the year most sizeable counts came from No.3 bed, where the regular flock had built up to at least 100 by the end of November, before slowly declining as seed stocks in the sacrificial crop were exhausted.

Three hundred were ringed, a substantial reduction from the exceptional 535 in 2017. On No.1 bed it was an average year with 106 ringed and a further 13 re-trapped, the oldest from 11th December 2012. There were seven captured in breeding condition, two females and five males and the first juvenile was ringed on 6th June. There were 48 captures in the first three months of the year, 28 in the following six months and 43 in the final quarter. On No.3 bed, the total of 194 ringed was well below the 394 from 2017. The average is 186 so it was a typical year. The winter seed crop was badly affected by the invasive Himalayan Balsam and seemed less productive for the visiting finches. The first juvenile was ringed on 22nd June, almost a month later than in 2017.

Brambling

Fringilla montifringilla

This colourful finch is a passage migrant and winter visitor, with peak numbers usually occurring in March. As is usual, the vast majority of sightings were from No.3 bed, where the combination of two feeding stations and a winter seed crop proves particularly attractive. Counting the flocks on No.3 bed can be tricky, however, as they can be dispersed between the three feeding sites. The maximum counts for each of the first three months was around 50, with a slow decline in numbers noted from 17th March onwards. The last spring sighting was from No.3 bed on 1st May, when three were present. Away from No.3 bed, during the first half of the year, sightings were limited to 35 visiting the No.1 bed feeding station on 19th March, with 25 there on 13th April. As is usual, numbers were much smaller during autumn passage and the first winter period, with only single-figure counts received. The first autumn record was of one on 25th October, during the Migration Watch from Butchersfield Tip. Thereafter, one or two were regularly seen on No.3 bed, with peak counts of six on that bed on 1st December and six on No.4 bed on the 29th of the month.

The record ringing total of 251 was outstanding. On No.1 bed it was a record year with 121 ringed. A further nine were caught that had originally been ringed on No.3 bed, and two were caught that had been ringed in Europe. The first of the year was on 1st January, with no others until 19th February and the last of the Spring on 23rd April. The majority of new birds (78) were caught in April and a further two were caught at the end of the year, on 27th October and 26th November. It was also a record year on No.3 bed, with 130 ringed during the year. Just four of these came in the second winter period between 12th and 22nd December. The peak time for this lovely finch is between March and April, as birds move back north and 91 of the 130 birds ringed were from that period.

Greenfinch Chloris chloris

Greenfinches are residents which breed in reasonable numbers and outside the breeding season, provide one of Woolston's more spectacular sights, as large flocks swarm around the Morgan Hide feeding station. Three figure counts were regular on No.3 bed during the first quarter of the year, reaching 200 on 13th January and with 100 still present in early March. The Breeding Bird Surveys located 25 across the Reserve, distributed as follows: five, including three in song, on No.1 bed, eight in song on No.2 bed, four in song on No.3 bed and eight, including one in song, on No.4 bed. One successful nest, with four eggs, was discovered in Gorse on No.1 bed. Counts from the autumn/winter periods were similar to those from earlier in the year, with numerous three figure counts, a maximum of 200 on 9th August and 150 still visiting the Morgan Hide feeders in December.

Though well below the 1,074 ringed in 2017, this year's 844 ringed was still well above the average. On No.1 bed, however, it was the worst year since 2011, with 236 ringed, with a further 33 re-trapped from previous years. For a species that used to be so numerous at the No.1 bed winter feeding stations it proved to be elusive during the final two months of the year, with only seven caught during that period and only one in December, compared to 15 in December 2017, 34 in 2016, 32 in 2015 and even further back - 86 in 2005! Twenty-five were caught in breeding condition, 12 females and 13 males while the first juvenile was ringed on 14th May. In comparison, it was another excellent year on No.3 bed, with 608 ringed, compared with 636 in 2017 against an annual average, since 2004, of 322. The record year for the bed remains 2003, when a staggering 1099 were ringed. The first juveniles were ringed on the early date of 19th May and numbers really picked up in July (165) and August (225).

Goldfinch Carduelis carduelis

Goldfinches are common residents, with the odd pair breeding and post-breeding flocks forming across all four beds. Maxima from the early part of the year were of 40 around the Weir Basin on No.2 bed, on 9th January and 15 on No.3 bed on 3rd February. Twelve were located during the Breeding Bird Survey, with: eight on No.1 bed, including five in song, one on No.3 bed and three on No.4 bed, including one in song. The highest autumn/winter counts were of: 45 on No.3 bed on 31st July, 65 on No.4 bed on 1st August, 150 on No.4 bed on 30th August and 40 on No.1 bed on 26th September.

The good numbers present around the Reserve were reflected in the ringing total of 43, which is double the annual average. For No.1 bed it was the best year since 2010 with 15 ringed, though there were no captures from previous years. Three were caught in breeding condition, two females and one male, while the first juvenile was ringed on 9th. For No.3 bed, it was a record year, with 28 newly ringed,

against an average of just 7.8. The first ringed was a pair, caught together in breeding condition on 5th May. The first juvenile for the bed was caught on 2nd June and the best month was July with 17 ringed.



Goldfinch David Bowman

Siskin Carduelis spinus

This small finch is an uncommon passage migrant and winter visitor to the Reserve. There were five single-figure records from the first winter period, with a maximum of five on No.3 bed on 28th February. The only sign of spring passage was of two on No.3 bed on 4th April, while return passage was first noted on 30th August, when three flew south over the centre of No.3 bed. There were nine single-figure counts from the remainder of the year, with a peak of 18 during the Migration Watch from Butchersfield Tip, on 25th October.

Linnet Carduelis cannabina

Red listed

Linnets are a breeding resident, usually using stands of Gorse for nest-sites and forming moderately sized post-breeding flocks and roosts. In recent years they have been regular visitors to the No.3 bed seed crop in autumn/winter. During the first winter period a flock was regularly observed moving between Nos.3 and 4 beds, with a maximum of 60 noted leaving a roost on No.3 bed on 21st February.

The Breeding Birds Surveys located a total of 34 in suitable habitat, distributed as follows: four on No.1 bed, 22 on No.2 bed, four on No.3 bed and four on No.4 bed. On 25th May a nest with five eggs was found near the Old Pumphouse on No.4 bed, with the young subsequently fledging successfully. The first notable count of the autumn was of 80 leaving a roost at dawn on No.1 bed, on 26th September. Seventy were then feeding on a recently ploughed field to the north of No.1 bed on 8th October. A flock of around 30 then regularly visited the No.3 bed seed crop during October, with 60 there by early December.

The nine ringed during the year was pretty typical, six of these were from No.3 bed and the remainder from No.1 bed.

Lesser Redpoll Carduelis cabaret

Red listed

This small finch is a passage migrant and winter visitor in small numbers. During the first half of the year there were only single-figure counts, with a maximum of six at Bollin Point on 12th February. The last sighting during spring passage was of three on No.3 bed on 24th April. Return passage was first noted on No.1 bed on 24th September, with just one passing over. Small flocks then appeared on Nos.3 and 1 beds, with 20 on each on 22nd and 26th November respectively, the latter observed leaving a roost at dawn. Similar numbers were again noted on both beds in December, with 17 on No.3 bed on the 6th.

The 63 ringed across the Reserve this year was about average, as was the total of 43 for No.1 bed. One was also re-trapped on that bed, having been first ringed on 2nd December 2016. Another two were caught that had been ringed elsewhere in Britain. Intriguingly, a female in breeding condition was trapped on 18th July. This breeding female was an exception to the rule for this species, being caught in summer, as there is normally a light spring passage over the bed before the main autumn passage starts in early October. The 20 ringed on No.3 bed was slightly below the average for the bed.

Bullfinch Pyrrhula pyrrhula

Amber listed

While steadily declining nationally, this shy finch is surprisingly common at Woolston. There were some excellent counts from the early part of the year, with a maximum of 34 in small parties around the perimeter of No.3 bed on 27th January, with 22 also there on 3rd February. Always tricky to locate when breeding, the Breeding Bird Survey significantly underestimates our population, with just 10 noted: four on No.2 bed, four on No.3 bed and two on No.4 bed. The only notable count from the second half of the year was of 11, around Butchersfield Tip during the Migration Watch of 8th December.

The total of 234 ringed was back to more normal levels after the remarkable 442 of 2017. On No.1 bed it was considered another excellent year, with 123 ringed and a further 42 re-trapped from previous years. The oldest of these was from 19th April 2013. Forty of those caught were in breeding condition, 14 females and 26 males, giving some idea of the local breeding population and the first juvenile was ringed on 11th June.



Common Crossbill Loxia curvirostra

This irruptive species is a scarce visitor, usually occurring during autumn passage. This year was typical, with three flying west over No.2 bed on 10^{th} November.

Yellowhammer Emberiza citrinella

Red listed

Small numbers breed adjacent to the eastern end of the Reserve and Yellowhammers are rarely sighted to the west of Thelwall Viaduct. A male on No.1 bed on 11th April was followed by another in song, to the south of No.1 bed, on the 21st. Three, two males and a female, flew over No.1 bed on 30th June and there were no further sightings till two appeared on the same bed on 8th October. The Migration Watches from the top of Butchersfield Tip can usually be guaranteed to produce a sighting or two and on 25th October four flew over, with another five on 3rd November. The last two records were of one on No.1 bed on 17th November and six in the lane beyond Rixton Paddocks on 24th November.

Three were ringed on No.1 bed during the year, all on 16th April. A further three were re-trapped, two from 2016 and one from 2017. Two males caught in breeding condition, though there was no suggestion of breeding on the bed and no juveniles were caught during the year.

Reed Bunting Emberiza schoeniclus

Amber listed

Once again, records indicate a continuing decline in breeding numbers of this attractive bunting, which can be found in small numbers throughout the year but with a sizeable autumn/winter roost forming in some years. A few could regularly be found feeding in the No.3 bed seed crop during January and February, though the only notable counts received were of five on 3rd February and 10 on the 28th. A male was also in song near the No.3 bed car park on the early date of 7th February. The spring breeding bird surveys produced just six singing males, two on No.1 bed (plus three present in suitable habitat), and two in song on each on Nos.2 and 3 beds, compared with 16 in 2017 and 18 in 2016. Hopefully, this is due to a glitch in the conduct of this year's survey, rather than a genuine, rapid decline. All significant counts from the autumn/winter periods related to either the roost on No.1 bed or smaller numbers taking advantage of the seed crop on No.3 bed. Counts from the former included 60 on the morning of 8th October, 100 on 11th October, 80 on 12th November and 30 on 12th December, while the latter regularly held around a dozen throughout November and December.

As ever, the ringing data, provides a more accurate perspective on status, with the 178 ringed comparing well with 148 in 2017 and 174 in 2016. On No.1 bed it was another good year with 95 ringed and a further 24 caught which had been ringed in a previous year. The oldest of these was from 14th August 2013. Some reassurance about the breeding population on the bed came from the 17 adults caught that were in breeding condition, six females and 11 males, with the first juvenile ringed on 18th June. For No.3 bed it was a much better year, with 83 ringed, compared with an average of 53. As is typical with the species, most came from the net on the north meadow near the winter feed crop. A fair number also came from a net in the phragmites near to a roost site. The first juvenile was ringed on 9th June. A month earlier than in 2017.

Escapes

Black Swan Cygnus atratus

One was present from 14th to 17th November and was mainly seen on the Oxbow of the Mersey to the east of No.3 bed. This was the third sighting for the Reserve, of this southern hemisphere feral species, the previous ones being in 1984 and 2000. Black Swans are aggressive to other wildfowl and will sometimes hybridise with Mute Swans. Nationally they seem to be on the verge of establishing a self-sustaining breeding population.



Black Swan on the ox-bow David Spencer

WeBS COUNTS 2018

The Wetland Bird Survey (WeBS) is organised jointly by the British Trust for Ornithology (BTO), the Wildfowl and Wetlands Trust (WWT), the Royal Society for the Protection of Birds (RSPB) and the Joint Nature Conservation Committee (JNCC). WECG has been contributing data to this survey since 1978. Counts from over five hundred sites are analysed by the BTO and used to assess species' trends and to aid in habitat conservation. The WeBS counts were critical in establishing the Reserve's status as a Site of Special Scientific Interest (SSSI).

	Jan	Feb	Mar	Apr	Sept	Oct	Nov	Dec
Little Grebe	8	5	2	13	23	14	6	4
Great Crested Grebe	7	16	21	21	3	0	8	4
Black-necked Grebe	0	0	0	9	0	0	0	0
Cormorant	16	15	10	11	20	8	11	7
Grey Heron	6	1	2	3	9	5	8	5
Mute Swan	49	10	25	20	31	12	14	15
Shelduck	15	12	14	19	0	0	5	7
Pink-footed Goose	0	0	0	0	0	34	0	0
Greylag Goose	2	9	1	8	74	0	8	0
Canada Goose	23	64	140	65	212	92	8	17
Wigeon	2	0	0	0	2	3	0	0
Gadwall	50	70	32	87	187	14	50	57
Teal	753	464	250	61	180	265	152	592
Mallard	103	122	79	56	168	188	77	144
Pintail	0	0	3	0	0	3	1	0
Shoveler	35	36	131	53	118	91	69	33
Pochard	19	52	24	20	0	0	0	0
Tufted Duck	528	558	372	280	63	89	227	228
Goldeneye	5	2	1	0	0	0	1	5
Goosander	0	0	0	0	0	0	0	4
Water Rail	1	2	1	3	1	3	2	0
Moorhen	38	40	22	20	37	22	49	41
Coot	50	64	73	69	9	13	23	30
Kingfisher	1	0	0	0	1	1	1	0
Oystercatcher	0	0	0	1	0	0	0	0
Lapwing	0	0	1	3	130	220	0	150
Curlew	0	0	1	0	0	0	0	0
Black-tailed Godwit	0	0	0	12	18	34	12	1
Dunlin	0	0	0	0	1	0	0	0
Common Sandpiper	0	0	0	0	1	0	0	0
Green Sandpiper	0	0	0	0	1	0	0	0
Greenshank	0	0	0	0	2	0	0	0
Redshank	0	0	0	0	4	0	0	0

Woodcock	0	0	3	0	0	0	0	0
Snipe	0	0	0	2	35	4	4	0
Black-headed Gull	180	117	700	818	26	50	128	66
Mediterranean Gull	0	0	0	1	0	0	0	0
Common Gull	0	0	1	0	0	0	0	0
Lesser Black-backed Gull	1	2	8	14	2	0	1	0
Herring Gull	2	0	4	0	0	0	0	0
Great Black-backed Gull	0	0	0	0	0	0	0	4

WOOLSTON EYES RINGING REPORT 2018

Ringing operations in 2018 were carried out in two areas of the Reserve: the east end of No.1 bed and the centre of No.3 bed.

After the record year in 2017 when 8,578 birds of 60 species were ringed, 2018 experienced a modest decline of 8.8% with 7,824 birds of 63 species ringed. Totals were very similar to 2017 until the end of September but the Goldcrest passage was significantly lighter than in 2017, Redwings did not arrive in large numbers and the finches did not arrive at Woolston in anything like the numbers that had appeared in late 2017. As a result, in the last quarter of 2018 some 669 fewer birds were ringed than had been the case in the previous year. It is likely that benign conditions on the continent allowed birds to "short-stop" their normal winter movements.

On No.1 bed John Blundell and David Riley were, between them, ringing on 140 days in 2018. On some of these visits they were assisted by Phil Guest. This is remarkably consistent as in 2017 the equivalent figure was 143 days and in 2016 it was 146 days. On No.3 bed some ringing took place on 105 days compared with 121 days in 2017. More ringing sessions were thwarted or curtailed by adverse weather than was the case in the previous year.

It was only possible to operate the fixed duck trap on No.3 Bed during the first winter period because water levels in the latter part of the year never reached the height necessary to operate the trap. The last day of operation was April 16th. Against this background 114 Teal and two Mallards were ringed. The equivalent figures for the first winter period of 2017 were 115 Teal and one Mallard but a further 33 Teal were ringed in the second winter period of 2017. Although this represents a significant proportion of the Teal ringed in the U.K. the particular value of the trap is the subsequent recapture of previously ringed birds. There were 182 of these in 2018 involving 66 different birds. Woolston is, by some margin, the most prolific recapture site for Teal in the U.K. It is from such recaptures that survival estimates can be calculated. Three Teal were trapped for their fifth consecutive winter. Added to a single "fifth winter returner" in 2016/2017 these four site-faithful birds were all females. This may be a coincidence, or it may be that females are more site faithful or, indeed, live longer. It is a very small sample but it will be interesting to watch the data set of "multi-year returners" as it develops. Last year I wrote "We await a recovery on the breeding grounds (somewhere in arctic Russia) to give a clue as to where "our" birds breed." On 22nd April 2018 a male Teal, ringed at Woolston, was shot beside the Oka River in Lukhovitsky district, south-east of Moscow in the Russian Federation. It is likely that this bird was still on migration when shot. Other Woolston birds were shot in Norfolk and in Perth and Kinross. Coots do not enter the trap very often and just two birds were ringed. Moorhens are far more tolerant and 16 were ringed, a good total if a little down on the record of 21 birds ringed in 2017. After a blank year in 2017 an increase in trapping effort led to the ringing of four Water Rails, two on each bed.

Woolston's third free flying Common Buzzard was ringed on No.3 bed on 28th April, after one in 2017 and one on No.1 Bed in 2016.Last year I wrote" We would like to think this would become an annual occurrence but in truth a bird as large and powerful as a Buzzard very rarely "sticks" in a mist net", but it may be a case of "never say never". After a record twelve Sparrowhawks ringed in 2017 a more average five birds were ringed in 2018, two on No.1 Bed and three on No.3. Last year eleven of the twelve were birds of the year and in 2018 three of the five captures were also hatched in 2017 indicating that it must have been a very good breeding year but that maybe 2018 was poor. It was another good

year for Kestrels with three birds ringed including two juveniles and Woolston's third Hobby was trapped on No.1 bed on 31st July whilst hunting a Swallow roost.

On No.3 bed the seasonal net across the channel by the duck trap was deployed on eight occasions making 16 captures including Green Sandpipers, Kingfishers and singles of Reed Warbler, Wren, Moorhen, Teal, Blackbird, Robin, Sedge Warbler, Blue Tit and, for the second year running, a Dunnock that must have been well outside its "comfort zone". The notable absentee, again for the second year running, was Common Sandpiper. Although only four Green Sandpipers were ringed during a moderate autumn passage it was encouraging to find that three of these were juvenile birds. To complete the wader picture three Common Snipe were ringed on No.3 bed, the best total since 2012.

For the third year running there were seven Woodpigeons ringed and the ten-year average is 7.8. After three good years the six Stock Doves ringed compared to a ten-year average of 6.8. For the second year running a "squab" was ringed in an owl box on No.1 bed. Neither of these species is targeted and these results simply demonstrate that fairly constant effort will produce consistent results over time. After a record year in 2017 with 17 Kingfishers ringed, it was another excellent year with 16 birds ringed. As with last year, all but one of these was a juvenile implying successful breeding somewhere in the banks of the Manchester Ship Canal or River Mersey. For the fourth year running a Barn Owl was ringed on No.1 bed. After the very poor breeding season in 2015, Great Spotted Woodpeckers have bounced back and a record 27 were ringed. Unlike the case in 2017 catches were divided fairly equally between the beds. Two Magpies were ringed which is fairly typical. Although the ten Jays ringed was a little better than the eight in 2017 it is still well below the ten-year average of 15 and it does seem that this species has declined at Woolston.

In 39 years of ringing at Woolston something over three thousand Goldcrests have been ringed and half of these in the last five years. The driver of this step change has been the arrival of large numbers of continental migrants in autumn. Although not on a par with the record years of 2016 and 2017 the 314 Goldcrests ringed in 2018 make it the third best year on record. The year followed the established pattern with a number of presumed locally bred birds caught in June and July and a sizeable autumn passage sampled from September onwards. For the third year in succession a Firecrest was ringed on No.1 Bed.

Both Blue Tits and Great Tits enjoyed a second successive excellent breeding season in the nest boxes on the Reserve with 163 chicks ringed on No.3 Bed and 103 on No.1 bed. The comparative figures for 2017 were 161 and 83 respectively. A measure of the degree of post-juvenile dispersal in these species can be gleaned from the comparison that whilst 163 chicks were ringed from the boxes on No.3 bed a further 406 juveniles were ringed that must have fledged from natural sites or nest boxes in the surrounding gardens. Coal Tits continue their advance at Woolston. The 42 birds ringed is a record. The ten-year average is 16, the five year average is 21 and the average of the last two years is 35 so the trend is very clear and is a result of the changing habitat at the Eyes. It was another solid year for Willow Tits with 41 ringed compared with a ten-year average of 36. Juveniles accounted for 37 of the birds that were newly ringed compared with 27 in the previous year and 2018 would appear to have been a good breeding season for this species. The two ringing teams combined handled 54 different Willow Tits in 2018.

The hirundines roost on No.1 Bed was not as reliable as it had been in the two previous years. A total of 17 Sand Martins and 311 Swallows was ringed. The comparative figures for the previous year were 35 and 456. On No.3 Bed catches were stable with nine Sand Martins and 118 Swallows ringed (2017-

24 and 112) but these numbers are well below those of a few years ago. After a blank year in 2017 two House Martins were caught on No.1 bed. House Martins sleep on the wing so they do not appear in roosts and catching them at Woolston has always been a matter of chance.

A total of 2,624 warblers of eleven species was ringed in 2018. This is just a 4% increase over the 2,517 of ten species ringed in 2017. This makes 2018 the second-best year ever for warblers at Woolston, beaten only by the 2,684 warblers ringed in 2010. With the establishment of Cetti's Warbler as a breeding bird at Woolston the ringers can be reasonably confident of ringing ten species in a season but to exceed this total requires something unusual and in 2018 species number eleven was a Yellowbrowed Warbler trapped on No.3 Bed on 21st October, the first for this bed. The 152 Long-tailed Tits ringed was below the 176 ringed in 2017 but remains above the ten year average (133). It was a very good year for Sylvia warblers. The 1,003 Blackcaps ringed was a record for Woolston and also the first occasion when 1,000 warblers of any species have been ringed in a single season. The total of 72 Garden Warblers ringed was also a record and 132 Common Whitethroats constituted the highest total since 2014. The picture was mixed for Acrocephalus Warblers with the 638 Reed Warblers ringed being the best total since 2010 but with Sedge Warblers having an apparently poor season, the 104 ringed being significantly below 173 in 2017 and below the ten year average of 120. It was the same story for Phylloscopus warblers. Willow Warblers were ringed in the highest numbers (226) since 2011 whilst the 412 Chiffchaffs ringed was the lowest total since 2012. Five Lesser Whitethroats and three Grasshopper Warblers complete the picture for warblers and these numbers are typical of recent years.

In the case of migrants 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 timing of the breeding season for most of them was very much in line with the two previous years.

Ringing date of first juvenile

	2018	2017	2016	2015
Chiffchaff	13-Jun	03-Jun	04-Jun	27-Jun
Blackcap	02-Jun	03-Jun	25-May	11-Jul
Whitethroat	23-Jun	17-Jun	25-Jun	11-Jul
Reed Warbler	23-jun	02-Jul	02-Jul	11-Jul

The cold spring of 2015 is reflected starkly in this table.

For resident species the timing of their breeding season was fairly typical with the exception of Bullfinch where the first juvenile appeared a good three weeks later that the "norm".

Ringing date of first juvenile

	2018	2017	2016	2015
Robin	26-May	28-May	07-May	30-May
Wren	22-Jun	11-Jun	25-Jun	27-Jun

Dunnock	08-Jun	06-May	04-Jun	06-Jun
Bullfinch	29-Jun	11-Jun	28-May	06-Jun

Wrens and Robins were ringed in numbers consistent with the ten-year average. The 152 new Dunnocks ringed was the best year since 2009, surpassing 135 ringed in 2017 and it may be that increasing amounts of scrub are beneficial for this species. Whilst on the theme of changing habitat, six Nuthatches and 27 Treecreepers both constitute record annual ringing totals at Woolston and reflect the increasing maturity of the patches of woodland on the site. The first Starlings to be ringed at Woolston since 2009 were trapped leaving a roost on No.1 Bed and seven were ringed.

The total of 85 Blackbirds ringed was in line with the ten-year average as was the total of 40 Song Thrushes. This number represents something of a recovery after only 30 were ringed in 2017. Whilst catches of Redwings were well below the really exceptional year of 2017 the 132 ringed was above the ten-year average of 98. Arrival of Redwings varies greatly from year to year and the ringing totals across that ten-year period vary from five up to 376. For the third year running a single Fieldfare was ringed on No.1 bed.

The autumn passage of Meadow Pipits across No.1 bed returned to something like the "norm" after a very quiet 2017 and 83 were ringed. The passage on No.3 Bed is always lighter and the nine birds ringed represented a very good year after just a single in 2017. Six Tree Pipits were ringed on No.1 bed, all between the 17th and 28th August. The audio lure of which I have written in previous years continued to work its magic and 20 Grey Wagtails were ringed. This total is a reduction from 28 in 2017 and 30 in 2016 and it may be that the passage was lighter. To complete the suite of passage migrants a Spotted Flycatcher was caught on each bed, the first year with more than a single since 1988. A spring adult was caught on No.3 Bed and an autumn juvenile on No.1.

It was a mixed year for the eight species of finch that appear regularly in the Woolston ringing report. The autumn influx of Chaffinches was not as strong as was the case in 2017 but the 300 ringed was close to the ten-year average of 311. Conversely it was a tremendous first winter period for Brambling with 245 ringed. A further six birds were ringed in the second winter period. This makes 2018 Woolston's record year for Brambling by a wide margin, the previous highest total being 110 in 2016. Greenfinches appear to have enjoyed another good breeding season with 844 birds ringed, the fifth highest annual total at Woolston. As has been the case in previous years there was very little evidence of trichomonosis at Woolston despite the feeders being under observation on almost a daily basis. Siskins are never caught in numbers at Woolston and 2018 was a blank year. Another irruptive finch at Woolston is Lesser Redpoll and the 63 new birds ringed was a little below the ten-year average of 84. Goldfinches are being encountered more regularly and the 43 new birds ringed is the highest total since 2005 and compares with a ten-year average of 20. 2017 was a truly exceptional year for Bullfinches at Woolston and 2018 was never going to replicate that but the 234 ringed was a sharp decline from the 442 ringed in that year. However, to put 2018 into perspective the ten-year average is 218. The year on year decline was very marked on No.3 Bed but No.1 Bed had a good year. Nine Linnets were ringed with six of these caught beside the sacrificial crop on No.3 Bed. After a number of blank years, the last three years have shown Yellowhammers present in small numbers on No.1 Bed. In 2018 three were ringed and three were re-trapped. It was a good year for Reed Buntings with 178 ringed. The ten-year average is 137. The improvement was most marked on No.3 bed where 2017 had been poor. On No.1 Bed many of the captures are local breeders and 52 out of 95 birds ringed were caught by the end of August. On No.3 Bed only 17 out of 83 birds ringed were caught by the end of August and a high proportion of captures are autumn or winter birds around the sacrificial crop or in a reed bed roost. Thus, although the ringing totals for the two beds are very similar the populations being sampled may be quite different.

No new species were ringed at Woolston in 2018 and the cumulative total of species ringed remains at 110. Yet again it was a very big year for individual species milestones. In descending order these were the 16,000th Greenfinch, 14,000th Swallow, 12,000th Blackcap and 12,000th Reed Warbler. It is notable that Blackcap has overtaken Reed Warbler as the most ringed Warbler at Woolston which probably reflects changes to the overall habitat mix on the Reserve. Continuing, we also ringed the 11,000th Blue Tit, 7,000th Great Tit, 6,000th Chaffinch, 4,000th Dunnock, 4,000th Long-tailed Tit and 3,000th Goldcrest. Milestones amongst species ringed in lower numbers included the 1,000th Garden Warbler and 1,000th Meadow Pipit over 400 of which have been ringed in the last six years as the autumn passage on No.1 bed has been sampled. Finally, amongst the comparative scarcities, we ringed our 500th Teal, 300th Moorhen, 200th Grasshopper Warbler, 200th Coal Tit and 100th Grey Wagtail. This last total has been accrued almost entirely in the last five years since the discovery that Woolston had a broad front autumn passage of this species.

All birds are ringed by members of Merseyside Ringing Group, licensed under the Wildlife & Countryside Act 1981 by the BTO (British Trust for Ornithology). Ringing in Britain is supported by the JNCC (Joint Nature Conservation Committee) on behalf of the government's nature conservation agencies including Natural England. Data on all birds ringed and retrapped are computerised and submitted to the BTO for incorporation into the national database and large-scale analyses. Readers wanting to know more of the technical aspects of ageing and sexing birds can find many photographic examples of Woolston birds on the Merseyside Ringing Group website [www.merseysiderg.org.uk].

Michael Miles on behalf of the ringing team (John Blundell, Noelia Dominguez-Alvarez, George Dunbar, Kieran Foster, Phil Guest, Margaret Rawlins and David Riley)

RINGING TOTALS 2018

			Reserve Total	Grand Total
SPECIES	No.1	No.3	2018	1980-2018
Teal		114	114	549
Mallard		2	2	87
Buzzard		1	1	5
Sparrowhawk	2	3	5	134
Kestrel	1	2	3	39
Hobby	1		1	3
Water Rail	2	2	4	94
Moorhen		16	16	301
Coot		2	2	31
Green Sandpiper		4	4	32
Woodcock	1		1	4
Common Snipe		3	3	59
Stock Dove	1	5	6	74
Woodpigeon	1	6	7	135
Barn Owl	1		1	8
Kingfisher	13	3	16	130
Great Spotted Woodpecker	15	12	27	355
Magpie		2	2	141
Jay	5	5	10	362
Goldcrest	256	58	314	3159
Firecrest	1		1	15
Blue Tit	291	351	642	11381
Great Tit	232	260	492	7353
Coal Tit	36	6	42	227
Willow Tit	24	17	41	849
Sand Martin	17	9	26	1293
Swallow	311	118	429	14428
House Martin	2		2	108
Cetti's Warbler	6	22	28	95
Long-tailed Tit	92	60	152	4109
Chiffchaff	270	142	412	8902
Willow Warbler	172	54	226	8332
Yellow-browed Warbler		1	1	7
Blackcap	354	649	1003	12306
Garden Warbler	23	49	72	1010
Lesser Whitethroat	4	1	5	269
Whitethroat	42	90	132	5214
Grasshopper Warbler	2	1	3	202
Sedge Warbler	25	79	104	5526
Reed Warbler	277	361	638	12129
Nuthatch	1	5	6	18
Treecreeper	13	14	27	272

Wren	74	93	167	6246
Starling	7		7	83
Blackbird	47	38	85	2847
Fieldfare	1		1	43
Song Thrush	23	17	40	1318
Redwing	83	49	132	1336
Spotted Flycatcher	1	1	2	9
Robin	76	96	172	4888
Dunnock	45	107	152	4070
Grey Wagtail	11	9	20	106
Tree Pipit	6		6	47
Meadow Pipit	83	9	92	1033
Chaffinch	106	194	300	6123
Brambling	121	130	251	809
Greenfinch	236	608	844	16259
Goldfinch	15	28	43	786
Linnet	3	6	9	1128
Lesser Redpoll	43	20	63	2152
Bullfinch	123	111	234	3700
Yellowhammer	3		3	90
Reed Bunting	95	83	178	7323
Others (47 species)				1637
Totals	3696	4128	7814	161780

SELECTED RECOVERIES AND CONTROLS

This section lists some of the Woolston-ringed birds that were reported from elsewhere ('recoveries') and birds caught at Woolston already wearing rings ('controls'). In addition to these birds, numerous birds ringed at Woolston were caught again ('re-trapped') on the Reserve this year, some of them having undertaken long journeys in between ringing and recapture, and these all add to our knowledge of migration, survival/ mortality and longevity, habitat use and so on.

The age when ringed and method of finding are coded as follows:

- 1 Pullus (nestling or chick)
- 1J Fledged, but flying so weakly that it is obviously incapable of having flown far from nest.
- 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 calendar year of ringing exact year unknown
- 5 Definitely hatched during previous calendar year
- 6 Hatched before last calendar year exact year unknown

Sex, when determined at time of ringing or finding:

M Male

F Female

Circumstances of finding:

- R Caught and released by a ringer
- B Breeding
- RR Alive and probably healthy, ring or colour marks read in the field by ringer
- VV Alive and probably healthy, ring or colour marks read in the field by non-ringer
- SR Sick or injured released with ring
- S Sick or injured not known to have been released
- X Found dead
- XF Found freshly dead or dying
- // Circumstances of finding unknown
- +F Shot

Teal

EZ69695 4M 17.02.2018 No.3 bed Woolston Eyes, Warrington SJ6588 +F 22.04.2018 Matyra, Lukhovitsky district 54°57′N 38°53′E Moscow Oblast, Russian Federation

+F 22.04.2018 Matyra, Lukhovitsky district 54°57′N 38°53′E Moscow Oblast, Russian Federation 2701km 87°

Teal

EZ03618 3F 29.08.2015 No.3 bed Woolston Eyes, Warrington SJ6588 +F 22.09.2018 Matlaske, Norfolk TG1435 255km 104°

Teal

EZ69684 5M 10.02.2018 No.3 bed Woolston Eyes, Warrington SJ6588 +F 01.12.2018 Perth, Perth & Kinross NO1123 339km 351°

The activities of wildfowlers continue to add to the web of connectivity of Woolston ringed Teal. EZ69695 is the first of these to be recovered in the Russian Federation.

Coot

GR25182 3 24.11.2010 Pennington Flash, Leigh, Greater Manchester SJ6498 VV 07.02.2018 No.3 bed Woolston Eyes, Warrington SJ6588 12km 175°

Coot

GR53419 4 29.10.2016 Whalley Range, Manchester, Greater Manchester SJ8394 VV 07.02.2018 No.3 bed Woolston Eyes, Warrington SJ6588 20km 254°

Coot

GK32183 6F 30.01.2018 Brockholes Quarry, Lancashire SD5830 VV 19.03.2018 No.3 bed Woolston Eyes, Warrington SJ6588 44km 172°

These three Coots are part of a large colour ringing project carried out under the auspices of the Wildfowl and Wetland Trust that has shed new light on how much and how far this species moves between sites.

Mediterranean Gull

FS00411 1 13.06.2015 Zb. Nysa, Wojcice 50°25′N 17°13′E Opolskie, Poland VV 25.03.2018 No.3 bed Woolston Eyes, Warrington SJ6588 1392km 284° The colour rings of this bird were read from the Morgan Hide.

Goldcrest

KHR025 3J 23.09.2017 No.3 bed Woolston Eyes, Warrington SJ6588 XF (=M) 05.06.2018 Latchford, Warrington, Cheshire SJ6287 3km 270° (Drowned in garden water feature)

Goldcrest

KHR100 3F 07.10.2017 No.3 bed Woolston Eyes, Warrington SJ6588 R (=3) 16.10.2018 Moor Green Lakes, Wokingham SU8062 254km 153° KHR 025 was probably a locally bred bird whereas the dates for KHR100 indicate the likelihood that this bird was a continental migrant.

Blue Tit

AAA1149 3 09.10.2017 No.3 bed Woolston Eyes, Warrington SJ6588 R 19.02.2018 Elton Reservoir, Greater Manchester SD7809 26km 31°

Blue Tit

S267564 3J 30.07.2017 No.3 bed Woolston Eyes, Warrington SJ6588 XF 23.04.2018 Stockton Heath, Warrington SJ6286 3km 231°

Blue Tit

AXC0076 1 (6/6) 26.05.2018 No.3 bed Woolston Eyes, Warrington SJ6588 X 30.07.2018 Woolston, Warrington SJ6490 2km 0°

Great Tit

NY04353 3F 16.10.2017 No.1 bed Woolston Eyes, Warrington SJ6588 R 27.08.2018 Llanforda Woods, Shropshire SJ2528 71km 213°

Great Tits are ringed in large numbers (59,188 in Great Britain and Ireland in 2017) but only 60 movements over 50km were reported in 2017 (the last year for which figures are available).

Swallow

ACB7277 3 23.07.2018 Worsley, Greater Manchester ® SD7500 R 31.07.2018 No.1 bed Woolston Eyes, Warrington SJ6588 17km 218°

Swallow

S911863 1 (5/5) 12.06.2018 Mitford, Northumberland NZ1786 R 30.08.2018 No.1 bed Woolston Eyes, Warrington SJ6588 205km 195°

Cetti's Warbler

Z296371 2 04.11.2014 Leighton Moss, near Silverdale, Lancashire SD4875

R (=M) 17.04.2015 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

R (=M) 08.04.2016 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

R (=M) 20.05.2016 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

R (=M) 18.06.2016 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

R (=M) 07.10.2016 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

R (=M) 28.04.2017 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

R (=M) 03.07.2017 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

R (=M) 20.04.2018 No.1 bed Woolston Eyes, Warrington SJ6588 89km 169°

This species is now well established at Woolston.

Long-tailed Tit

JKH493 2 10.08.2018 Betley Mere, Betley, Staffordshire SJ7447 R 12.11.2018 No.1 bed Woolston Eyes, Warrington SJ6588 42km 348°

Chiffchaff

KHR866 3J 22.06.2018 No.1 bed Woolston Eyes, Warrington SJ6588 R 17.10.2018 Plaisance, Saint-Froult 45°53′N 1°04′W Charente-Maritime, France 839km 173°

Willow Warbler

KEN096 4 25.08.2018 Kinneil Lagoon, Falkirk NS9781

R (=3) 09.09.2018 No.3 bed Woolston Eyes, Warrington SJ6588 300km 167°

This Scottish breeding bird was refuelling at Woolston at the start of a migration that will take it south of the Sahara Desert.

Blackcap

S691353 3J 25.08.2017 No.1 bed Woolston Eyes, Warrington SJ6588 R (=M) 19.04.2018 Brockholes Quarry, Lancashire SD5830 44km 352

Blackcap

S691077 3JM 21.08.2017 No.1 bed Woolston Eyes, Warrington SJ6588 R 14.07.2018 Leighton Moss, near Silverdale, Lancashire SD4875 89km 349°

Blackcap

AXC0531 3J 14.07.2018 No.3 bed Woolston Eyes, Warrington SJ6588

R (=M) 17.09.2018 near Hollesley Heath, Suffolk TM3545 306km 120°

This Blackcap was probably undergoing its autumn migration to southern Europe or North Africa when trapped at Woolston.

Blackcap

ARB4298 3M 15.10.2018 Heysham Harbour, Heysham, Lancashire SD4060

R 01.12.2018 No.3 bed Woolston Eyes, Warrington SJ6588 77km 161°

In contrast this Blackcap had a strategy of wintering in North-west England and may have arrived here from continental Europe.

Blackcap

AEB8583 5F 03.05.2018 Portland Bill, Dorset SY6868

R 08.06.2018 No.1 bed Woolston Eyes, Warrington SJ6588 319km 359°

R 11.07.2018 No.1 bed Woolston Eyes, Warrington SJ6588 319km 359°

A Woolston breeding bird ringed during spring migration.

Blackcap

ATD0635 3M 02.09.2018 No.3 bed Woolston Eyes, Warrington SJ6588 R 15.09.2018 Uskmouth, Newport ST3382 208km 189°

Grasshopper Warbler

Z352003 3 31.07.2016 Squire's Down, Dorset ST7418

R 21.04.2018 No.3 bed Woolston Eyes, Warrington SJ6588 269km 358°

Grasshopper Warblers are rarely re-trapped away from the site where they were ringed. Only five such "controls" were reported in Britain and Ireland in 2017, the latest year for which figures are available.

Sedge Warbler

S024532 3 24.08.2016 No.3 bed Woolston Eyes, Warrington SJ6588

R 16.05.2018 St. John's Pool, Caithness, Highland ND2272 568km 356°

R 03.06.2018 St. John's Pool, Caithness, Highland ND2272 568km 356°

Many of the Sedge Warblers caught at Woolston in the autumn are moving south from breeding areas further north.

Sedge Warbler

S687367 3 15.08.2017 No.3 bed Woolston Eyes, Warrington SJ6588

R 01.08.2018 Broad Hinton, Wiltshire SU1176 217km 168°

Sedge Warbler

S687518 3 22.07.2017 No.3 bed Woolston Eyes, Warrington SJ6588

R (=F) 24.07.2018 Titchfield Haven National Nature Reserve, Hampshire SU5302 299km 163°

Sedge Warbler

S687367 3 15.08.2017 No.3 bed Woolston Eyes, Warrington SJ6588

R 06.08.2018 Reserve du Massereau, Frossay, 47°13'N 1°55'W Loire-Atlantique, France 685km 177°

Reed Warbler

S706512 4F 31.05.2017 Rostherne Mere, Knutsford, Cheshire SJ7484 R 07.05.2018 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Warbler

S706549 4F 01.07.2017 Rostherne Mere, Knutsford, Cheshire SJ7484 R 09.05.2018 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Warbler

S706529 4F 14.06.2017 Rostherne Mere, Knutsford, Cheshire SJ7484 R 12.05.2018 No.3 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Warbler

AAA4390 4 01.06.2018 No.1 bed Woolston Eyes, Warrington SJ6588 B = F 29.06.2018 Rostherne Mere, Knutsford, Cheshire SJ7484 11km 111°

Reed Warbler

AZB7502 4 04.05.2018 Rostherne Mere, Knutsford, Cheshire SJ7484 R (=M) 09.07.2018 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Warbler

S706630 3J 16.08.2017 Rostherne Mere, Knutsford, Cheshire SJ7484 R 13.07.2018 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291° R 24.07.2018 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Warbler

AXC0161 4M 23.06.2018 No.3 bed Woolston Eyes, Warrington SJ6588 R 01.07.2018 Knutsford Moor (RS), Cheshire SJ7578 15km 130° Seven examples demonstrating the interchange of Reed Warblers between local sites.

Reed Warbler

AXC0441 3J 07.07.2018 No.3 bed Woolston Eyes, Warrington SJ6588 R 01.08.2018 Icklesham, Sussex, East Sussex TQ8815 352km 142°

Reed Warbler

AXC0629 3J 17.07.2018 No.3 bed Woolston Eyes, Warrington SJ6588 R 07.08.2018 Titchfield Haven National Nature Reserve, Hampshire SU5302 299km 163°

Reed Warbler

AAA4582 3J 04.07.2018 No.1 bed Woolston Eyes, Warrington SJ6588 R 10.08.2018 Sandwich Bay Estate, Kent TR3557 355km 132°

Reed Warbler

AXC4502 3 31.08.2018 No.1 bed Woolston Eyes, Warrington SJ6588 R 15.09.2018 Oxwich Marsh, Swansea SS5087 231km 209° Reed Warblers that breed at or pass through Woolston move south across a very broad front.

Reed Warbler

AAA4555 4M 29.06.2018 No.1 bed Woolston Eyes, Warrington SJ6588 R 24.07.2018 Anglers Country Park, Wakefield, West Yorkshire SE3715 78km 70°

Reed Warbler

AXC4164 3J 01.08.2018 No.1 bed Woolston Eyes, Warrington SJ6588 R 29.08.2018 Woodvale Airfield, near Formby, Merseyside SD3009 40km 301° Some birds disperse in what would appear to be unsuitable directions before heading south.

Reed Warbler

A388099 4 19.08.2015 Herdade dos Forninhos 37°43′N 8°43′W Beja, Portugal R 30.05.2018 No.1 bed Woolston Eyes, Warrington SJ6588 1804km 16°

Reed Warbler

S902661 3 22.07.2017 East of Aqualate Mere, Newport, Staffordshire SJ7820 R 30.06.2018 No.3 bed Woolston Eyes, Warrington SJ6588 68km 349°

Reed Warbler

S524723 4F 25.07.2017 Scotman's Flash, Wigan, Greater Manchester SD5803 R 30.06.2018 No.3 bed Woolston Eyes, Warrington SJ6588 17km 156°

Reed Warbler

S505923 3 15.07.2017 Betley Mere, Betley, Staffordshire SJ7447 R (=F) 24.07.2018 No.3 bed Woolston Eyes, Warrington SJ6588 42km 347°

Blackbird

LA53159 5M 06.06.2018 No.1 bed Woolston Eyes, Warrington SJ6588 XF 19.06.2018 Lymm, Warrington SJ6987 5km 91°

Redwing

RL13073 3 08.11.2014 No.3 bed Woolston Eyes, Warrington SJ6588 XF 07.04.2018 Freesen, Mecklenburg 54°28'N 13°13'E Vorpommern, Germany 1039km 84°

Chaffinch

D948604 3M 18.09.2014 No.1 bed Woolston Eyes, Warrington SJ6588 XF 18.04.2018 Lymm, Warrington SJ6787 3km 91°

Chaffinch

S267054 3M 29.10.2016 No.3 bed Woolston Eyes, Warrington SJ6588 XF 25.03.2018 Rixton, Warrington SJ6890 4km 61°

Chaffinch

AAA1179 4F 14.10.2017 No.3 bed Woolston Eyes, Warrington SJ6588 XF 10.06.2018 Padgate, Warrington SJ6389 3km 330°

Chaffinch

ATD0772 3F 11.09.2018 No.3 bed Woolston Eyes, Warrington SJ6588 X 26.10.2018 Appleton, Warrington SJ6185 4km 241°

Brambling

AAA1634 5F 04.01.2018 No.3 bed Woolston Eyes, Warrington SJ6588 R 21.02.2018 Little Heatley, Nr Dunham Woodhouses, Cheshire SJ7187 7km 91° This Brambling was controlled by South Manchester Ringing Group in a farmland conservation crop.

Brambling

NOS EJ59515 3M 22.10.2017 Haland, Tysvaer 59°19'N 5°30'E Rogaland, Norway R 26.03.2018 No.1 bed Woolston Eyes, Warrington SJ6588 823km 217° This bird follows the capture of another Norwegian ringed Brambling on No.3 bed in November 2017.

Greenfinch

NZ56572 3JF 25.05.2018 No.3 bed Woolston Eyes, Warrington SJ6588 R 07.10.2018 Lostock, Nr Woodford, Cheshire SJ9083 26km 99° Another example of a Woolston ringed bird controlled by South Manchester Ringing Group. In addition, Woolston-ringed Greenfinches were found dead locally in Warrington (four), Lymm (three), Birchwood (two) and Culcheth (one).

Lesser Redpoll

Z634607 5 16.01.2016 No.3 bed Woolston Eyes, Warrington SJ6588 R (=F) 25.04.2017 Peebles, Scottish Borders NT2540 256km 351° R 04.03.2018 Hazeley Heath, Hampshire SU7657 257km 155° This Scottish breeder wintered in North-west England in 2015/2016 but moved farther south for the winter of 2017/2018.

Lesser Redpoll

Z985408 6F 17.04.2016 Hednesford Hills, Staffordshire SK0012 R (=M) 02.11.2018 No.1 bed Woolston Eyes, Warrington SJ6588 84km 335°

Lesser Redpoll

AAA1315 3 01.11.2017 No.3 bed Woolston Eyes, Warrington SJ6588 R 01.04.2018 Petre Crescent, Rishton, Lancashire SD7329 42km 11°

Bullfinch

S268706 3J 28.07.2017 No.1 bed Woolston Eyes, Warrington SJ6588 X (=M) 23.04.2018 Lymm, near Warrington, Warrington SJ6887 4km 91°

Bullfinch

S268339 3J 30.06.2017 No.1 bed Woolston Eyes, Warrington SJ6588 R (=M) 05.08.2018 Knutsford Moor (RS), Cheshire SJ7578 15km 130°

Reed Bunting

S264142 3M 03.12.2016 Little Heatley, Nr Dunham Woodhouses, Cheshire SJ7187 R 13.04.2018 No.1 bed Woolston Eyes, Warrington SJ6588 7km 270°

Reed Bunting

AXC4879 3F 17.10.2018 No.1 bed Woolston Eyes, Warrington SJ6588 R 12.12.2018 Little Heatley, Nr Dunham Woodhouses, Cheshire SJ7187 7km 91°

Reed Bunting

AXC6131 4M 15.11.2018 No.3 bed Woolston Eyes, Warrington SJ6588 R 26.12.2018 Little Heatley, Nr Dunham Woodhouses, Cheshire SJ7187 7km 91° Here are three exchanges between Woolston and a South Manchester Ringing Group Site four miles east of The Eyes.

Reed Bunting

Z825435 5F 08.01.2017 Llangorse Area, Powys SO1427 R 09.06.2018 No.3 bed Woolston Eyes, Warrington SJ6588 169km 17° Probably a Woolston breeding bird, this Reed Bunting had moved south-west for the winter.

Migration Watch 2018

Visit 1

Participants: David Bowman, Dave Steel, Les Jones, Dave Spencer and Sue Haddock

Day: Thursday

Date: 06/09/18 **Time:** 0630-1200

Weather: bright dry start then a mix of rain/drizzle/mizzle and dry!

Highlights: noting over six hundred Swallows which was a relief as this year, locally, these have

been down in number. **Total:** 2,158 birds noted.

Visit 2

Participants: David Bowman, Helen Allan and Dave Steel

Day: Saturday

Date: 06/10/18 **Time:** 0700-1200

Weather: light rain soon cleared to a cool and bright morning.

Highlights: doing a bonus migration watch from the comfort of the John Morgan hide on No.3 bed!

Total: 1,703 birds noted.

Visit 3

Participants: David Bowman, David Spencer and Dave Steel

Day: Thursday

Date: 25/10/18 **Time:** 0700-1200

Weather: Grey and cool with some brightness creeping in by late morning.

Highlights: a relief to note nearly four thousand Starlings, which are continuing to decline in the UK

plus the pleasure of finding an overwintering Chiffchaff.

Total: 8,359 birds noted.

Visit 4

Participants: David Bowman, David Spencer, Dave Steel, Alan Warford and Helen Allan

Day: Saturday

Date: 03/11/18 **Time:** 0700-1200

Weather Grey dawn then bright cool and breezy

Highlights A decent count of over two hundred Redwings, which have been in short supply this

autumn.

Total: 6,943 birds noted.

Visit 5

Participants: David Bowman, David Spencer and Dave Steel

Day: Saturday

Date: 08/12/18 **Time:** 0700-1200

Weather: a mix of grey, bright and breezy conditions

Highlights: reaching the top of the Tip with a sigh, no more migration watches until next year. Ignoring the weatherman who had predicted dire conditions. Feeling part of nature's pulse of time as over a thousand Pink-Footed Geese flew east as they have done for centuries.

Total: 2,639 birds noted

Dave Steel

Migration Watches 2018

	Date	06/09/18	06/10/18	25/10/18	3/11/18	8/12/18
	Time	0615-1200	0700-1200	0730-1200	0700-1200	0700-1200
	Species					
1	Mute Swan	3	0	4	3	6
2	Pink-footed Goose	0	140	2408	0	1250
3	Greylag Goose	52	200	19	0	0
4	Canada Goose	275	69	12	1	0
5	Gadwall	0	9	2	4	1
6	Teal	3	54	35	1	2
7	Mallard	47	226	173	33	53
8	Northern Pintail	0	1	0	0	0
9	Shoveler	0	81	0	0	0
10	Tufted Duck	13	10	81	40	45
11	Goldeneye	0	0	2	0	1
12	Goosander	0	0	2	0	0
13	Pheasant	8	2	3	0	1
14	Great Crested Grebe	6	0	2	2	2
15	Little Grebe	0	2	0	1	1
16	Cormorant	6	8	15	6	14
17	Grey Heron	6	4	5	1	0
18	Sparrowhawk	0	1	2	5	2
19	Common Buzzard	2	3	25	15	11
20	Kestrel	1	2	1	2	1
21	Peregrine Falcon	0	0	1	2	2
22	Water Rail	1	4	0	0	0
23	Moorhen	2	6	4	0	2
24	Coot	0	6	0	0	1
25	Lapwing	334	285	616	299	158
26	Common Snipe	6	12	0	1	0
27	Black-Tailed Godwit	0	61	0	0	0

28	Black Headed Gull	23	21	215	111	80
29	Common Gull	0	0	0	0	1
30	Lesser Black-backed Gull	66	9	4	3	13
31	Herring Gull	5	0	5	40	46
31	Great Black-backed	3	U	3	40	40
32	Gull	0	0	0	0	3
33	Feral Pigeon	9	0	0	0	10
34	Stock Dove	1	0	59	77	35
35	Woodpigeon	114	194	537	477	305
36	Collared Dove	1	0	0	2	0
37	Tawny Owl	0	2	0	0	2
38	Kingfisher	1	0	2	0	0
39	Great Spotted Woodpecker	2	2	1	4	0
40	Skylark	2	2	32	12	7
41	Swallow	631	3	0	0	0
42	House Martin	141	0	0	0	0
43	Meadow Pipit	50	3	58	10	1
44	Grey Wagtail	5	2	4	0	0
45	White/Pied Wagtail	9	4	1	10	0
46	Wren	6	4	10	3	4
47	Dunnock	11	7	7	1	9
48	Robin	21	2	19	2	3
49	Common Blackbird	8	1	20	40	17
50	Fieldfare	0	0	41	52	30
51		2		2	8	0
	Song Thrush		1			
52	Redwing	0	2	74	213	11
53	Mistle Thrush	16	0	2	0	0
54	Cetti's Warbler	0	5	0	1	0
55	Blackcap	6	0	0	0	0
56	Common Whitethroat	1	0	0	0	0
57	Chiffchaff	26	0	1	0	0
58	Goldcrest	2	0	1	4	0
59	Long Tailed Tit	39	14	22	16	3
60	Blue Tit	22	2	8	7	5
61	Great Tit	14	3	5	3	2
62	Coal Tit	2	0	0	1	0

63	Willow Tit	0	2	0	2	0
64	Nuthatch	2	0	1	1	1
65	Treecreeper	1	0	0	0	1
66	Jay	8	9	1	2	4
67	Magpie	2	11	4	5	6
68	Jackdaw	29	49	2	110	70
69	Rook	0	0	0	2	0
70	Carrion Crow	70	5	28	15	32
71	Raven	2	0	3	4	4
72	Starling	16	0	3695	5168	315
73	Chaffinch	9	3	31	63	23
74	Brambling	0	0	1	2	0
75	Greenfinch	3	80	1	0	5
76	Goldfinch	7	23	13	37	20
77	Siskin	0	0	18	3	2
78	Linnet	1	30	2	5	4
79	Lesser Redpoll	0	2	0	1	1
80	Bullfinch	5	2	9	5	11
81	Yellowhammer	0	0	4	5	0
82	Reed Bunting	2	18	4	0	0

REPORT ON BREEDING WILLOW TITS: ALLAN RUSTELL

2018 proved a poor year for locating nests. The following is a synopsis of nests found.

No.1 Bed

Nest 1

11th April. A pair was excavating a cavity 13cm deep, at the Viaduct pools, which contained nest lining on 21st April. The nest held seven eggs on 12th May and contained feathered young on 25th May. When inspected on 2nd June the nest had been drilled by a woodpecker and the lining pulled out. It is hoped this predation happened post fledging.

Nest 2

11th April. An excavation was found 1.6 metres high and 8cm deep in a willow stump to the east of the bed. This had progressed to 15cm on 21st April and the pair was scolding nearby. The cavity was then usurped by a Blue Tit which was sitting on both 3rd and 12th May. The nest contained chicks 'in-pin' on 25th May and at least four feathered Blue Tit chicks on 2nd June. It is worth noting that at least two previous nests found in the vicinity of this site have been interfered with by Blue Tits.

Nest 3

21st April. A nest box erected during the winter was found to contain nest material and the female was sitting on 3rd May. On 12th May the nest held five - six eggs and a newly-hatched chick. By the 26th the nest contained feathered young and was empty and intact on 2nd June. This is the first known instance of Willow Tit successfully using a nest box on the reserve and a real triumph. This nest was only 70 meters from the usurped Nest 2. Careful observation showed that there were definitely two separate pairs and is another example of Willow Tits nesting in relative proximity to each other.

No.3 Bed

Nest 4

21st April. A cavity was located 20cm deep in a willow stump at the west side of the bed. This was one of three excavations in the same stump, the first of which was found on 14th March. The deep cavity was used and the female was incubating seven eggs on 5th May. Unfortunately, this nest was not checked again until 22nd May, when there were two eggs remaining in the nest. It is uncertain whether there was a partially successful fledge. Whilst there was no apparent woodpecker damage, it is feasible that the nest could have been attacked by a rodent or mustelid.

No.4 Bed

Nest 5

22nd April. A cavity was located about four metres high in a willow to the west of the bed, with an adult scolding in the vicinity. On 26th April lining could be seen in the nest chamber. By 1st May the female was sitting tight in the cavity and on the 8th, the nest held nine eggs. On 23rd May the nest contained chicks 'in pin' and by 6th June the nest was empty, intact and presumed to have been successful.

Nest 6

5th May. A nest close to the centre track, 1.9 metres high, in a decrepit stump, held eight eggs. By 12th May the female was incubating and the male was scolding in the vicinity. On the last day of May the nest held at least four feathered young. On 6th June the nest was empty, intact, presumed a successful fledge.

Nest 7

5th May. After several frustrating searches in an obvious territory, at the south of the Bed, a nest was found with the female incubating eight eggs. By 12th May the female was still incubating with the male

calling in the vicinity. Subsequently at least four half-grown chicks could be discerned in the nest chamber and by 31st May the nest was empty and intact, so presumed to have fledged successfully.

Nest 8

26th April. An excavation was found 1.5 metres high in a stump on the north bank. On 5th May the cavity was unlined but the pair was calling in the vicinity. By 27th May there was no further progress, but the pair was still calling, and an occupied nest was found 40 metres away. This was in a Willow at a height of over 3 metres and contained at least five large, feathered chicks. On 31st May the pair was in the vicinity carrying food and on 6th June the site was empty and intact, so presumed to be a successful fledge.

Nest 9

In late April a pair was found excavating a cavity just off the western boundary of the Reserve. By 26th April the chamber had been opened up by a woodpecker, but it is doubtful that nesting had commenced. Subsequently, trial borings were found in the vicinity and birds heard but no further nest was located.

SUMMARY

Unfortunately, I was indisposed during a crucial period of the breeding season and am indebted to Mike Lloyd for his invaluable help in locating territories and nest sites. Also, to John Blundell who brought my attention to an excavation. The number of nests found was significantly down on last year. It was a late breeding season, spring song appeared to be suppressed and fewer territories were located. As usual the Giant Hogweed curtailed monitoring activities.

Of the nine nests found, five fledged, three were predated (although of these, two could have part-fledged) and one was usurped by Blue Tits. One successful nest was made in a specially constructed nest box erected by Mike Lloyd and is the first known record for the Reserve. Again, some nests and borings were found at a height of around 2 metres and above, which shows that Willow Tits regularly nest at height and these nests can often be difficult to locate.

No.1 Bed: besides the nests found, birds were heard singing around the west pool, in the central flooded areas and along the Ship Canal. No visits were made to the north bank and so the bed could easily hold 6-8 pairs.

No.2 Bed: because of time constraints and the nature of the hogweed this bed was not monitored, although a bird was heard singing in scrub adjacent to the viaduct. However, because of the size of the bed 4-5 pairs is not an unreasonable estimate.

No.3 Bed: Results were disappointing, with just one nest located and only two or three singing males were regularly heard from the west of the bed and near the Linley Hide. The north and east banks were not monitored. There could be a reduction in numbers to just 3-5 pairs.

No.4 Bed: Results were also disappointing compared with 2017, but this is a vast bed and many areas are difficult to monitor because of the menace of the Hogweed. In addition to the nests found, birds were seen and heard in several areas including the south, south-west, west bank and east of the Loop. Again, it is perhaps not unreasonable to assume there are 8-10 pairs in vicinity of the bed and adjacent woodland to the west.

Anecdotally, because of lack of song and difficulty in finding nests, it could be deduced that there may have been a reduction in numbers compared to the previous year. However, I would again emphasise that this can be a notoriously unobtrusive species during the breeding season. Over the years many nests have been found in locations that had been visited several times before a hint of the birds' presence had been noticed. Even in a bad year the general area of the Eyes could hold a population of 20 - 25 pairs. Furthermore, birds have been recorded at nearby localities including the 'Twiggeries' and Padgate proving that the Warrington area is still a major stronghold for the species.

BUTTERFLY REPORT

The year was characterised by periods of extreme weather, from the "Beast from the East" and high rainfall in spring to the prolonged heat wave and drought of the summer months. This inevitably had a marked effect on butterflies and the plants on which they depend.

The exceptionally cold early spring meant that most butterflies were late to emerge; the first Small Tortoiseshell was seen on 23rd March, followed by Brimstone two days later. April saw Peacock (3rd), Red Admiral (9th), Comma (16th), Orange Tip and Small White(19th), and Holly Blue (21st). The first Green-veined White and Speckled Wood were found on the 26th. In most cases these dates were significantly later than normal.

By the end of April temperatures were back to normal but as spring turned to summer the heat wave and drought set in. This resulted in many species appearing earlier than usual and Purple Hairstreak and Gatekeeper were reported on their earliest ever dates. Some species fared well in spite of, or perhaps because of the hot weather including Purple Hairstreak, Common Blue, Small and Large Whites. Grassland butterflies fared less well and these included both Large and Small Skipper, Gatekeeper and Meadow Brown. Species which favour damp conditions had a very poor season; Green-veined Whites were few in number and there were no sightings of Ringlet.

Small Tortoiseshell had its worst year on record and Peacock was also disappointing.

More encouraging was a marked increase in numbers of Small Copper and three sightings of Dark Green Fritillary, a rare visitor to the Reserve.

The drought had a marked effect on vegetation which died off in the heat, resulting in a foreshortened season for butterflies such as Skippers and Meadow Brown. The temperatures returned to normal in late summer and autumn but it remained very dry. The autumn was unspectacular although Small Copper was reported until 20th October. The only November records were a Red Admiral on the 13th and a late Peacock on the 30th. The year ended with a very late sighting of Red Admiral on 19th December.

It will be interesting to see the effects of this year's drought on next year's butterflies. There is evidence that numbers often decline markedly following a long hot and dry summer and this was certainly the case in 1976.

Away from the Reserve a significant arrival in Cheshire was the Essex Skipper which was recorded for the first time as it continues to extend its range northwards. It is difficult to identify in the field as the only difference to the similar Small Skipper is that the tips of its antennae are black as opposed to orange in the latter species. For this reason photographic evidence is normally required before records can be accepted and this applies to any species which is not usually found locally.

The Butterfly Transect is now in its 13th year and was monitored every week except for one in early April when the temperature failed to meet the required minimum of 13 degrees. As always thanks are due to Les Jones who is prepared to cover for my absence due to holidays.

Woolston's records need to be seen in context and information from the Cheshire Branch of Butterfly Conservation is essential in facilitating this. The Reserve recorded the highest totals in Cheshire for three species; Small White, Common Blue and Speckled Wood.

The information on which this report is based comes from fellow wardens and permit holders and without this it would be incomplete given the size of the site and its varied habitats. All visitors are requested to enter sightings in the book in the John Morgan Hide or by contacting me directly. Details of numbers and locations are invaluable in order to avoid the risk of double counting. I am, as always, grateful for any records submitted, even of common species such as Small White which is ignored by most observers.

BUTTERFLIES: SPECIES ACCOUNTS

Small Skipper

Thymelicus sylvestris

The first were found on 21st June with one on No.1 and two on No.2 bed. Six were present on the 27th and one was in the centre of No.4 bed on the 30th. The last sighting was on 4th July, by far the earliest ever final date. The curtailed season was no doubt due to the effect of the drought on the grasses on which this species depends. An analysis of the records indicates that a maximum of nine were present which is the joint lowest ever total recorded at Woolston. As stated in the introduction to this report the very similar Essex Skipper has now been recorded in Cheshire for the first time and observers are asked to be on the lookout for what would be an exciting addition to our list of species.

Large Skipper Ochlodes sylvanus

Only three records were received between 6th and 12th June. One was on No.2 bed, one on No.3 bed and three on the northern section of No.1 bed. A total of five represented a very poor year for a species that is never seen in large numbers

Brimstone Gonepteryx rhamni

This is one of the first species to emerge from hibernation and the first record was on 25th March when two were on No.3 bed. There were further sightings of singles on this bed on 18th April, 14th and 19th May and the only other report was of one on Butchersfield Tip on 27th June. All the butterflies recorded were males and there were no sightings of the second brood which is always less numerous than the first.

Large White Pieris brassicae

The first records were of singles on Butchersfield Tip, No.2 bed and the river to the north of No.1 bed on 10th May, the same date as the first sightings in 2017. A total of four on 29th May was the only other notable spring count. Odd ones were seen during June and the second brood emerged at the beginning of July when exceptionally high numbers were present. A series of visits in the first half of the month produced a total of 62 which is the second highest since systematic recording began in 2003. The

highest count in Cheshire this year was of 76. No less than 33 were on Butchersfield Tip with nine on No.2 bed and ten on both No.3 and No.4 beds. Surveys of the Butterfly Transect on 10th and 19th July found 15 on both occasions. It is rare for numbers to exceed about twelve at Woolston and there had been no double-figure counts since 2013. Very few were seen after mid-July with a maximum of three on 2nd August and the same number on the northern section of No.1 bed on 2nd September. These were the final sightings of the year, a very early date in a year when the flight period of many species was curtailed.



Large White Dave Hackett

Small White Pieris rapae

For a variety of reasons this species is under-recorded and even ignored by many observers. Possible reasons for this are the fact that it is one of our most common and least spectacular butterflies, the difficulties in distinguishing it from other "Whites" and female Orange Tip, and the fact that it is often seen in flight and/or at a distance. However, the Small White is a fascinating species which appears in very variable numbers. There are two broods, the first emerging at the end of March or, more commonly, in April. The second brood appears at the end of June or early July although butterflies are usually present throughout the summer. There are subtle differences in appearance between the two broods and also between males and females.

This year butterflies were late to emerge and it was not until 19th April that the first were noted. About ten were present on 10th May and 17 on the 29th. Small numbers remained into June and the second brood emerged towards the end of the month when about 50 were counted. Numbers peaked in July and a Reserve total of 413 was the second highest ever and by far the highest in Cheshire where no other site exceeded 200 this year. Of the Woolston total, 82 were on the northern section of No.1 bed and nine on the remainder of that bed. Butchersfield Tip held 66, No.2 bed 108, No.3 bed 61 and No.4 bed 87. High numbers continued into August with 175 on the 1st declining to about 30 by the month

end. Very few were seen in September and the highest counts were of eight on the 5th and 12th, seven on the northern section of No.1 bed on the 15th and the final record of four on the Canal Track on the 17th.

Green-veined White Pieris napi

Although similar to Small White in appearance its preference for damp grassland resulted in a huge contrast in fortunes with the former species. This proved to be a poor year as the hot dry conditions were definitely not to its liking. The first record was on 18th April, the same date as in 2017, when two were on No.3 bed. By early May about ten were on the Butterfly Transect but there were no further double-figure counts and only small numbers were found in June. The second brood emerged in early July but again only in small numbers. Six were noted at the eastern end of the Reserve on 7th August and about ten on the 22nd. Numbers increased at the beginning of September with the end of the heatwave and it was then that the highest counts of the year occurred. On 2nd September 21 "whites" on the northern section of No.1 bed were all thought to be Green-veined, as were a further seven on the south bank of No.2 bed. It seems that about 30 were present in total. Eight were on No.3 bed on 5th September and these were the last of a disappointing year. It is interesting to compare this year with 2013 when a cold spring was followed by a long hot summer; in that year Small White peaked at a record 709 whilst only 25 Green-veined White were found.



Green-veined White Hazel Rothwell

Orange Tip Anthocharis cardamines

In common with other species spring emergence was late and none were found until 18th April when one was on No.3 bed. By 26th April seven were present including five on the Transect and one on the river. The highest count occurred around 10th May when a total of 15 included five on the Transect and two on the river. This is about average but much lower than the record 36 present in 2017. No further Reserve-wide surveys were carried out due to holidays but six and five were on the Transect alone on 14th and 23rd May respectively. The final sightings were on 29th May when two were on No.2 bed and one on No.4. This was the final record of what was a fairly unspectacular year.

Purple Hairstreak Favonius quercus

This is an elusive butterfly which lives in the canopy of mature Oaks where it feeds on honeydew and is best searched for in early evenings in sunny and calm conditions in July and August when it flitters about, often in groups of two or three. Two on 26th June were the first ever records in that month and three days later a total of 17 was counted along the Canal Track and the South Bank of No.3 bed. Numbers continued to increase into July and 23 were present on the 2nd. Careful analysis of the records indicates an overall total of 25 at this time and these included two in Oaks at the entrance to the North Meadow area of No.3 bed, the first time butterflies had been seen in this part of the bed. No further surveys were carried out until the evening of 23rd July when in very warm but cloudy conditions none were found. A total of ten was present on 30th July and the last record of the season was of 14 on the evening of 6th August when two were still present in the North Meadow Oaks. By studying the precise locations of all this year's sightings it appears that the overall total was an impressive 27, just short of the highest ever count of 30 in 2013, a summer noted for hot weather during the flight season. The discovery of this species in the North Meadow area was a surprise and could indicate that it is expanding its range on the Reserve where it was previously limited to the Canal Track and the South Bank of No.3 bed. There remains the possibility of as yet undiscovered colonies in other parts of the Reserve although searches of Oaks on Nos.1 and 2 beds in 2017 failed to locate any.

Small Copper Lycaena phlaeas

After four years in which this attractive butterfly had all but disappeared from the Reserve there was a dramatic comeback in 2018. The maximum counts for the previous four years had been two and three in 2014 and 2015 and only one in each of the last two years. However, this species is known for its cyclical nature with regular declines and upsurges in population. There were no spring sightings and the first were found on 25th July with one on No.1 bed and a second on Butchersfield Tip. August saw a number of records from No.3 bed and the Canal Track, all of singles but there was a further emergence at the end of that month when three were on No.1 bed on the 25th. Numbers then increased dramatically and a survey on 5th September produced seven on No.1 bed, two on Butchersfield Tip and a tenth butterfly on No.3 bed. Regular reports continued with up to four being seen regularly on No.1 bed and a single sighting from No.4 bed on 12th September. Analysis of the records submitted indicates that 17 or 18 were present at this time. This is one of the highest ever totals for Woolston and there have only been five years since 2003 in which double-figure counts have been recorded. The final sighting was of a single on No.1 bed on 29th October, the second latest ever record. It was also of interest to receive a report of two butterflies on Michaelmas Daisies at Grappenhall Library on 9th October, the first ever record in that area since at least 1976!



Small Copper David Bowman

Common Blue Polyommatus icarus

The first record was not until the evening of 28th May but as no surveys had been carried out in the preceding two weeks due to holidays it seems certain that butterflies were on the wing at an earlier date. This was confirmed when the first Reserve-wide search the following day found a total of 32. By 10th June no less than 46 were on the northern section of No.1 bed and a further 23 in the remainder of the Reserve two days later made an overall total of 69 which was higher than the year maximum for 2017. Numbers declined thereafter and the last of the first brood was seen on 27th June. The second brood normally appears in mid-July but no comprehensive surveys were completed until the 25th when 29 were present. A rapid increase then followed and peak numbers occurred from early August. The first really high count was on 5th August when a detailed survey of the northern section of No.1 bed revealed an excellent total of 185. Visits to other areas over the next week produced an additional 59 and a grand total of 244 which is the third highest ever maximum for Woolston. The maximum count in the rest of Cheshire was 65. The distribution was as follows: 195 on No.1 bed, 25 on Butchersfield Tip, 11 on No.2 bed, two on No.3 bed, six on No.4 bed and five on the Canal Track. Of interest was the first ever sighting of one on the west bank of No.2 bed and several in the centre of No.4 bed. Numbers remained reasonably high during the second half of August and 60 were still present between the 21st and 25th. The northern section of No.1 bed held 15 on 2nd September and the final records were of three on the 5^{th} and four on the 15^{th} . This is one of the latest ever dates for this species at Woolston. In summary

this was an excellent year for this attractive butterfly whose numbers are often under-recorded due to the inaccessibility of its favourite habitat, namely the recently re-established vegetation on the northern section of No.1 bed.



Common Blue Dave Hackett

Holly Blue Celastrina argiolus

For the second year in succession there was an April record when one was seen on No.3 bed on the 21st. Two records during May were of singles on the Canal Track on the 4th and one on No.3 bed on the 14th. Typically, there were no reports in June and the first of the second brood appeared on 24th July, again on No.3 bed. There followed reports of one on the Canal Track of No.2 bed on 1st August, one on the Canal track of No.3 bed the next day and one on Butchersfield Tip on 7th August. It seems likely that these were all different butterflies and if that was indeed the case a total of three were present during the first week of August. The only other record was of a single on No,1 bed on 5th September, the second latest ever sighting. The total of eight reports was similar to 2017.

Red Admiral Vanessa atalanta

There was no repeat of the record numbers present in 2017, and a more typical year started with an early sighting of one on No.1 bed on 9th April. The next reports were of singles on the Butterfly Transect on 10th June and 4th July. Two were in the same area on 10th July and five on the 19th. July ended with two on the Transect and a further one on Butchersfield Tip on the 25th. Five August sightings included a maximum of four butterflies on the 1st when two were found on No.4 bed. Peak numbers occurred

during September with six on the 17th and ten on the 27th nearly all on the Transect where they were attracted to Buddleias on the south bank of No.3 bed. The year maximum around mid-September was 15 which is about average. One was at Latchford Locks on 20th October and the last of a fairly average year were one on 13th November and a very late sighting of one on the river on 19th December. A migrant species, numbers vary considerably from year to year.

Painted Lady Vanessa cardui

None were reported until 24th July and from then onwards there were a further six sightings, all of singles. Butterflies were seen in all parts of the Reserve apart from No.2 bed and it seems likely that the records related to five different individuals. There were three August reports, including two on Buddleia on the south bank of No.3 bed, and a further three in September, the final sighting being on the 10th. This migrant species appears in very variable numbers and this year was about average for Woolston.

Small Tortoiseshell Aglais urticae

The decline of this once numerous species shows no sign of being reversed and this year was the worst since systematic recording began 16 years ago. A single on 23^{rd} March was the first of any species this year and there were two further March reports. Two were found on 6^{th} April and a total of eleven on the 19^{th} proved to be the highest of a very disappointing year. Very few were seen until the last of the first brood on 29^{th} May. The next reports were on 21^{st} June when six were on the river to the north of Nos.1 and 2 beds and one on No.4 bed. The second brood peaked at eight on 4^{th} July, but apart from four on the river on 25^{th} July, there were only infrequent reports of one or two until the last of a very poor year on 5^{th} September. The decline of this attractive butterfly has been attributed at least in part to a parasitic wasp (*sturmia bella*) but in a year when the Peacock was also seen in very small numbers other factors are probably at play.

Peacock Aglais io

Unusually there were no March records and this is certainly due to the exceptionally cold weather at this time which resulted in delayed emergence for a number of species. A single on No.3 bed on 3rd April was the first of the year. Numbers rapidly increased and a Reserve total of 34 on 19th April and similar count on 12th May raised hopes of a successful season. In total about 47 were present around this time. However, the spring counts proved to be the highest of the year with the last of the first brood noted on 29th May. The second brood is normally more numerous but that was not the case this year. Three on No.2 bed on 4th July marked the emergence of the second brood which peaked around the middle of the month when surveys of the Butterfly Transect alone produced totals of 17 and 19 on the 10th and 19th respectively. Unfortunately, no surveys of the rest of the Reserve were carried out at this time due to holidays but it seems likely that many more butterflies were present. A visit on 25th July found seven on Butchersfield Tip and an overall total of 27. There were only three August sightings and a single on the 25th seemed to be the last of a disappointing year. It was a major surprise therefore when one was found on No.3 bed on the late date of 30th November. This butterfly appeared to be searching for a suitable place to hibernate as it flew about near the ringers' hut in the centre of the bed before disappearing. Given the promising numbers in spring it would seem that the hot dry conditions

during mid-summer were not to its liking and the flight season was, in common with that of other species, curtailed.

Comma Polygonia c-album

A single on 14th April was the first of the year and there were two other sightings that month with three seen on the 19th. The only other spring record was of one on 4th May and this was the last report until the emergence of the summer brood on 17th June. Seven were present on 21st June building to ten on 4th July. Towards the end of the month about 16 were found across the whole Reserve. Very few were seen during August with a maximum of four on the 22nd. Numbers increased in early September as another brood emerged and it was at this time that the highest counts of the year occurred. A series of visits produced an overall total of twenty which is probably about average for this species after an excellent year in 2017 when over fifty were reported. The final record was on 16th October when one was on nettles on No.3 bed.



Comma Keith Gallie

Dark Green Fritillary

Argynnis aglaja

There had been only one previous record of this species in 2013 so it was surprising to have no less than three reports this year. The first was at the eastern end of No.1 bed on 12th June and there were further sightings on 27th June and 23rd July, all within a small area of No.1 bed which may indicate that the same butterfly was seen on three occasions. On one date it flew into one of the ringers' nets but managed to extricate itself without assistance! The appearance of this species at Woolston was clearly

related to the extreme hot and dry weather at this time. It does not breed locally but is a strong flier and its appearance was almost certainly the result of dispersal from its nearest breeding area in the Pennine foothills to the east. There were an unusually high number of sightings in Cheshire this year and it is believed that this was due to the failure of its food plant, the Dog Violet.

Speckled Wood Parage aegeria

None were seen until 26th April, the second latest ever date. This was just one of the species whose emergence was delayed as a result of the cold spring. By 10th May a Reserve-wide search found a total of eleven plus two on the river. On 6th June this had increased to 22 which included four on the river. There were no further double-figure counts until 19th July when ten were on the Butterfly Transect alone. The following week 31 were recorded and further increases during the first half of August peaked at 83 around the 22nd of that month. This was the highest in Cheshire this year, the next highest count being 50. Although butterflies were found in suitable habitat across the Reserve, Nos.2 and 4 beds and Butchersfield Tip were particularly productive. On 5th September 41 were still present, with 23 the following week. There were three sightings in October, the final record being of one on the south bank of No.3 bed on the late date of the 21st. In recent years numbers have averaged over a hundred but prior to 2012 maximum totals were lower so this year's figures are probably about average.



Speckled Wood Hazel Rothwell

Gatekeeper Pyronia tithonus

A sighting on 20th June was the earliest ever at Woolston by three days and the early emergence was the result of the exceptionally hot conditions at that time. Numbers soon increased and by 30th June 35 were on No.4 bed alone. The maximum counts occurred between 4th and 10th July when 183 were present across the Reserve. Although this was an improvement on the previous year's maximum of 133 it was still the second lowest maximum ever recorded. After this unusually early peak, numbers soon declined as the drought took its toll on the grasses on which this species depends. By the beginning of August only 31 remained and there were no further double-figure counts. A disappointing season ended with two on Butchersfield Tip on 22nd August

Meadow Brown Maniola jurtina

As with the previous species butterflies emerged early and three on No.1 bed on 6th June were the earliest ever sightings. On 10th June 37 were on the northern section of No.1 bed alone and numbers continued to build throughout the month. Peak counts occurred between 24th and 27th June when 50 were on Butchersfield Tip and 61 on the northern section of No.1 bed. A Reserve total of 141 was the highest of the year and the vast majority were found in the above areas, the remainder comprising 17 on No.4 bed, eight on No.3 bed, four on No.2 bed and one on the rest of No.1 bed. Although this was an improvement on both the 2016 and 2017 figures, it was still well below the average for the last fifteen years. Numbers declined during July and August when the highest totals were 42 and 37 respectively, but perhaps surprisingly sightings continued into September with the final record on the late date of the 18th. As can be seen from the distribution breakdown this species is largely confined to the eastern end of the Reserve where the grassland habitat suits its needs.

Ringlet

Aphantopus hyperantus

This species is spreading north and west across Cheshire and was first recorded here in 2014. It has been seen in very small numbers each year subsequently, although there was only one record in 2017. It prefers cool, moist conditions during its flight period which is more or less restricted to July, and this summer was certainly not to its liking! It is not surprising therefore that there were no records this year. It seems likely however that a return to more normal summer weather will see the return of this attractive butterfly to Woolston.

Dave Hackett

DRAGONFLY REPORT

The warm and sunny weather during late spring and the early summer months resulted in increased numbers being recorded, for many of our species during the season. Altogether sixteen species were recorded, consisting of seven damselflies and nine dragonflies. It was not all good news, as there were disappointing figures for a few species. However, it was promising to note that both egg-laying and probable breeding activity was observed, for around half of the total recorded. The highest numbers were present from mid-May until late July, after which they decreased fairly quickly. Since there were no records in the late autumn period, the season closed earlier than usual, at the end of September.

The first Azure, Blue-tailed and Large Red Damselflies were seen on 7th May, which turned out to be an exceptionally warm Bank Holiday Monday. Common Blue Damselflies followed on 15th May and two days later, the first Four-spotted Chasers were reported. On No.3 bed a number of Broad-bodied Chasers were present on 19th May whilst on 26th May the first Red-eyed Damselflies appeared, along the south bank of the bed. Also on No.3 bed the first Black-tailed Skimmers were reported by the end of May. There were two records of Banded Demoiselles at the beginning of June, but sadly there were no further sightings this year. On 6th June the first few Emperor Dragonflies were spotted on No.1 bed. By the 18th June, Brown Hawkers and a single Southern Hawker were reported on No.3 bed. On 23rd June, the first Common Darter was present on No.1 bed and the following day a solitary Emerald Damselfly, was found on this bed. On 4th July, the first of a small number of Ruddy Darters, which appeared along the south bank of No.3 bed, was a surprising find. The last species to appear was a Migrant Hawker on 25th July, which coincidently was a similar date to the previous year.

Azure Damselflies, which were present until the end of June, were the most numerous species. Both the Common Blue and Blue-tailed Damselflies were recorded in relatively good numbers until mid-August. At the beginning of the season, several Large Red Damselflies were found on No.1 bed. This year Red-eyed Damselflies were recorded in above average numbers, although this may have resulted from extra survey coverage along the south bank of No.3 bed. On the other hand, it was a comparatively poor year for records of both Banded Demoiselles and Emerald Damselflies.

Although Brown Hawker numbers remained steady, there were more sightings of both Migrant and Southern Hawkers this year. Four-spotted Chaser numbers were about average but there was a small increase in the number of Broad-bodied Chasers. It was also a better year for records of Emperor Dragonflies, especially on No.1 bed, whilst increased numbers of Black-tailed Skimmers were seen on No.3 bed. Ruddy Darters were again present on No.1 bed, but unusually a small number were also found along the south bank of No.3 bed. The number of Common Darters recorded at Woolston have declined over the past few seasons and sadly this trend continued again this year.

Our continued involvement with the Carbon Landscape Citizen Science Project ensured that regular structured surveys were conducted during the season at the New Pool on No.1 bed and on No.3 bed, where another Dragonfly Transect was marked out in the spring. Also in co-operation with Steve Atkins, from the Citizen Science Project, a Dragonfly ID Workshop for aspiring Recorders, was held on No.3 bed in July and seemed to be well received by all those who attended.

As always, I would like to thank all those who assisted with surveys, contributed records personally or submitted reports and photographs to the Group website.

DRAGONFLIES: SPECIES ACCOUNTS

Emerald Damselfly

Lestes sponsa

This attractive metallic-green damselfly, which appears later in the summer, occurs at shallow ponds with plenty of emergent vegetation. It habitually perches with its wings half-spread amongst the surrounding sedges, grasses and rushes, but can be very inconspicuous. In recent years it has been recorded in single-figure numbers at the pools on No.1 bed. However, it was disappointing that there was just one record this year on 24th June, when a single male was found at the New Pool. Despite subsequent searches at this pool and elsewhere during the following months, no more were discovered.



Emerald Damselfly Brian Baird

Banded Demoiselle

Calopteryx splendens

The majority of our records of this large butterfly-like damselfly have usually come from the Weir Basin area, where they are occasionally found perched on vegetation, along the south-facing banks of the River Mersey. There have also been odd sightings of wandering males on the Reserve, but none were reported this year. Although the species is recorded in very small numbers at Woolston, it was nevertheless a poor year, as there were just two records. On 3rd June, a single male was found at the edge of the river, adjacent to Weir Cottage. A few days later on 6th June, three males and a female were observed from the Weir footbridge, as they rested on the brambles along the riverbank.



Banded Demoiselle Brian Baird

Azure Damselfly Coenagrion puella

A single at the New Pool on 7th May, was the first of what turned out to be a good year for records of this common species. On 15th May, seven were found at the Loop of No.4 bed. However, on a further visit to the New Pool on 17th May, numbers had increased here to 159 and on the same day 36 were present on No.3 bed. During the rest of May there were three counts of 50 plus on No.3 bed. Meanwhile during a survey at the New Pool on 22nd May, a count of 89 was recorded. In cool and overcast weather on 3rd June, only four were found along the west path of No.2 bed. In warmer conditions on 6th June, a minimum of 25 was present on No.1 bed and several couples were ovipositing in tandem at the New Pool. The first survey along the south bank of No.3 bed on 7th June produced an excellent count of 132 and again several tandem pairs were noted. During another survey at the New Pool on 13th June, in overcast conditions, 71 were recorded. Numbers decreased after this, resulting in 20 being recorded on No.3 bed on 16th June and 29 at the New Pool on 24th June. The final records were both on No.3 bed, where six were noted on 26th June and just two on 30th June.

Common Blue Damselfly

Enallagma cyathigerum

Although there were records from all four beds this year the numbers recorded were below average and there was a shorter flight period. The first two were found at the Loop of No.4 bed on 15th May. A week later at the New Pool on No.1 bed, 11 were recorded during a survey on 22nd May. By the end of May just four had been spotted on No.3 bed. A single was at the Weir Basin on 3rd June and two were

found on No.2 bed. When a survey was completed on 7th June, 12 were found, along the south bank of No.3 bed. Meanwhile at the New Pool on 13th June, during another survey, a maximum count of 43 was obtained. On 24th June, just 14 were recorded at the New Pool and during the following two weeks only single-figure numbers were present on No.3 bed. A peak count of 15 was recorded on No.3 bed, when another survey was undertaken on 11th July. A similar number were present at the New Pool on 18th July and later on 25th July, 24 were recorded at the pool. After this there were just one or two present on No.3 bed and the final record was on 11th August, when four were found at the New Pool.



Azure Damselfly Brian Baird

Red-eyed Damselfly Erythromma najas

There was a significant improvement in the numbers recorded for this less widespread damselfly, which favours the slow-moving river along the south of No.3 bed. During the season 134 were counted compared with 84 in 2017. The higher figures may well be due to the increased number of visits made to this area of No.3 bed, following the creation of a new Dragonfly Transect in the spring. The first three were seen from the footbridge on to the bed on 26th May. Five were present here on 30th May, but a single which was found at the north east corner of No.3 bed was more unusual. At the Weir Basin on 3rd June, there was a good count of 10, which were perching on floating leaves and debris. These last two sightings may indicate an element of range extension for this species. When the first survey was completed along the No.3 bed Transect on 7th June, there was a record count of 34. During the rest of June there were four single-figure counts here, which was more typical. On 21st June, another single was present at the north east corner of No.3 bed. On 4th July, at least 12 were present along the south of No.3 bed. When the next survey was completed on 11th July, this number had increased to 19.

However, a few days later on 14th July, only four were found and during the last two weeks of the month there were just two singles noted. On 4th August four were present on No.3 bed, including a pair in tandem. The final record of the season was on 7th August, when eight were counted during another survey along the No.3 bed Transect.



Red-eyed Damselfly Brian Baird

Blue-tailed Damselfly Ishnura elegans

This common and widespread species was recorded on 25 dates this year, beginning with a single at the New Pool on No.1 bed on 7th May. On an isolated visit to the Loop of No.4 bed on 15th May another single was found. Two days later on 17th May, 16 were reported on No.3 bed and a similar number was present at the New Pool on No.1 bed. During the first survey on No.1 bed on 22nd May a total of 20 was recorded in the area surrounding the New Pool. Towards the end of May and the beginning of June there were several single-figure counts across the Reserve. During the initial survey along the south bank of No.3 bed on 7th June, 19 were recorded. When another survey was conducted at the New Pool on 13th June, 30 were recorded, despite the cloudy conditions and two were also spotted on No.2 bed. In blustery weather on 21st June, around 50 were discovered perching low in the vegetation, along the east bank of No.3 bed. After this peak, numbers declined, resulting in only 13 being recorded at the New Pool on 24th June. Throughout July and the first half of August all of the remaining records on both beds were in single figures. The last record this year was on 18th August, when a single was found on No.3 bed.

Pyrrhosoma nymphula

Large Red Damselfly

There were four records this year of this distinctive red and black damselfly, which emerges early in the spring. All of these sightings were at the New Pool on No.1 bed, where the first two were found on 7th May. On 17th May there was a peak count of 29, the majority of which were perched on trees surrounding the pool. On 22nd May, 13 were counted during a survey at the pool. The final sighting was on 13th June, when a single was noted at the New Pool.

Southern Hawker Aeshna cyanea

It was a typical year for sightings of this large apple-green and blue dragonfly. This is a solitary species which is usually encountered along the paths and in the wooded areas of the Reserve. There were eight records this year, commencing on 18th June when a single was present on No.3 bed. On the south side of No.3 bed, three more singles were recorded on the 7th, 10th and 11th July, all of which may have been of the same individual. On 18th July, two were fairly close together along the north path of No.2 bed. There were two further sightings of singles on No.3 bed on 5th July and 4th August. The last record was on 13th September, when another single was found along the Canal track on No.2 bed.

Brown Hawker Aeshna grandis

The aptly named Brown Hawker was recorded on fourteen dates during the summer and early autumn period. Most of the records came from No.3 bed, where the first five were spotted on 18th June. Two were noted on No.1 bed on 23rd June and the following day a single was found on No.2 bed. Four were present on the south bank of No.3 bed on 26th June. On 30th June, two were spotted on this bed and a single was patrolling along the Canal track by the Viaduct. At the beginning of July there were several records from No.3 bed, where five were present on the 4th, eight on the 7th and 10 on the 11th when a survey was conducted. On 14th July, nine were present on No.3 bed. On 18th July, an ovipositing female was spotted at the New Pool on No.1 bed. Numbers reached a peak on 25th July, when 24 were recorded on Nos.1, 2 and 3 beds, including 13 during a survey around the New Pool, where another egg-laying female was seen. Numbers plummeted after this and unusually there was just one record during August. This was on 4th August, when three were patrolling along the south bank of No.3 bed. The final records were also on No.3 bed, where singles were noted on 1st and 27th September.

Common Hawker Aeshna juncea

Once again there were no records of this infrequent visitor.

Migrant Hawker Aeshna mixta

The smaller Migrant Hawker occurs from late summer and is often present well into the autumn period. Our first record this year was on 25th July, which was similar to the previous year. On 7th August, three were recorded during a survey along the No.3 bed Transect. On 11th August, a single was noted at the New Pool on No.1 bed, when a survey was completed there. Four were present along the south bank of No.3 bed on 18th August. Also on No.3 bed on 29th August, an experienced Bird Ringer successfully

managed to extract an individual from a mist net. On 1st September, there were six present on No.3 bed and later two were reported here on 5th September. At the New Pool on 13th September, four were counted and two more were patrolling along the Canal track on No.2 bed. Two were observed from the footbridge on to No.3 bed on 15th September. The last records were all on 27th September, when 13 were recorded on No.1 bed, 12 on No.3 bed plus a single, which was patrolling along the Canal track by the Car Park.



Migrant Hawker Brian Baird

Emperor Dragonfly

Anax imperator

It was a much better year for sightings of this majestic hawker with over twenty being recorded, compared to seven in 2017. The majority of records were from the New Pool on No.1 bed, where the first three were noted on 6th June, including an ovipositing female. On 13th June, four males were recorded during a survey at the New Pool. In overcast and breezy conditions on 23rd June, two males were present at this pool. The following day, in more favourable weather, three males were recorded at the pool, when another survey was conducted. Away from the water, two singles were found in different locations on No.1 bed on 30th June. Unusually there was only one record from No.3 bed this year which was on 7th July, when a male was patrolling along the south bank. At the New Pool on 18th July, three males and an ovipositing female were present. The last record was on 25th July, when six were reported at the New Pool, including three ovipositing females.



Emperor Dragonfly Brian Baird

Broad-bodied Chaser Libellula depressa

This medium–sized species is one of the first of the dragonflies to appear in the spring. It breeds in shallow still-water habitats and is usually recorded in very small numbers at Woolston. The first record this year was on 19th May, when a single was seen by several observers, as it perched on a tree in the early morning sunshine on No.3 bed. That same morning, another seven were counted on a walk around the meadows on the bed. On 3rd June, a single was spotted along the central path of No.4 bed. The final sightings were both on 7th June, when two were seen on No.3 bed and a single was recorded during the first survey along the Transect.

Four-spotted Chaser

Libellula quadrimaculata

This dragonfly which also emerges in early spring is always more numerous on the Reserve than the previous species. The first record this year was on 17th May when two were reported on No.3 bed. On No.1 bed, eight were counted during a survey at the New Pool on 22nd May. At the same pool on 6th June, six were present. A single was recorded on 7th June, when the No.3 bed Transect was surveyed. At the New Pool on 13th June just a single was present, however on 23rd June numbers had increased here to seven, and an ovipositing female was observed. When the New Pool was visited again on 24th June numbers had peaked at 11, including another ovipositing female, together with a male in close attendance. Two were present along the south bank of No.3 bed on 26th June. The last record was also on No.3 bed, where a single was found on 4th July.



Broad-bodied Chaser Brian Baird



Four-spotted Chaser Brian Baird

Black-tailed Skimmer Orthetrum cancellatum

After two poor years there was a good increase in the numbers recorded for this species, particularly on No.3 bed. It was at the north east corner of this bed where the first two were reported on 29th May. Also on No.3 bed on 7th June, a single was recorded during the survey along the south bank Transect and three males were reported on the website. Two were noted at the New Pool on No.1 bed when a survey was completed on 13th June. Singles were on No.3 bed on 21st and 23rd June and another was recorded at the New Pool on 24th June. On the south bank area of No.3 bed, two were present on 26th June, increasing to four here on 30th June and a single was reported on No.2 bed. The last records were again from No.3 bed, where two were present on 4th July and three on the 7th July. Unusually, there were no records in August this year.

Black Darter Sympetrum danae

It was disappointing that there were no records of this small dragonfly after a single had been reported on No.1 bed last year. Prior to this the most recent record was also on No.1 bed in 2013.



Ruddy Darter David Bowman

Ruddy Darter

Sympetrum sanguineum

This small red coloured dragonfly is not a widespread species but small numbers have been recorded recently on No.1 bed. This year however, it was also recorded along the south bank Transect on No.3 bed, where the first single was spotted on 4th July. A few days later on 7th July, a tandem couple were

present in the same area. Three were recorded when a survey was conducted along the Transect on 11th July. By 14th July numbers had increased here to five, which included two mating couples. Around the New Pool on No.1 bed, five were found resting low on vegetation on 18th July. A week later on 25th July, seven were recorded during a survey at this pool and three were also reported on the website. On 4th August a single was present on No.3 bed and finally another single was recorded, when the New Pool was surveyed on 11th August.

Common Darter

Sympetrum striolatum

It was a disappointing year for records of this common and widespread species, continuing the recent decline. During the season 34 were recorded, compared to 64 in 2017, 77 in 2016 and 100 the previous year. Once again the majority of records came from No.1 bed, beginning with a single on 23^{rd} June. Three were found at the New Pool, during a survey on 24^{th} June and two days later three were noted on No.3 bed, where a single was also seen on 30^{th} June. During July there were just two records from the New Pool, where two were present on the 18^{th} and four on 25^{th} July. The only double-figure count was on 11^{th} August when 10 were recorded at the New Pool. On 1^{st} September two were present on the south bank of No.3 bed. On 13^{th} September six were observed on No.1 bed, including a tandem couple, seemingly egg-laying in a puddle, along the Viaduct Path. The final record was on 27^{th} September, when two were noted during the last survey of the season at the New Pool.

Brian Baird

BEETLE RECORDING IN 2018

Beetle recording has continued at Woolston in 2018, although only three significant visits were made during the year, on 1st June, 6th June, and 17th December. Despite this, a number of interesting records resulted. A further 44 species were found that were new to the Reserve, bringing the site total to 334 species. Many of these were the smaller, more elusive species that are not located by casual recording. These were found using an extractor, a simple device which is somewhat akin to a Berlese funnel but rather simpler to construct. The target habitat (which is generally ground litter, decaying timber, etc.) is sieved to remove large objects, then filled into a mesh basket (a chip basket ex Wilko works well). This is then placed over a suitable bucket, covered, and left for a few hours. The active invertebrates move through the basket and eventually fall into the bucket, from where they can be readily recovered and identified. This simple technique reveals an enormous variety of invertebrates, such as woodlice, centipedes, millipedes, spiders, mites, and springtails, that would otherwise be largely unobserved. It is not unusual for an extractor to double the number of species found on a visit, and in winter, very little will be found by any other method.

Using extractors (which I now do routinely) has produced some interesting observations at Woolston this year. In the early part of the year, a pair of Swans constructed a nest on the banks of the Mersey Oxbow, but abandoned it after a few weeks. When it was quite clear that it had been abandoned, I sieved part of the nest material, put the sievings into an extractor, and among other beetles found a single specimen of the water beetle *Cercyon bifenestratus*. This turned out to be new to Cheshire, being previously known largely from East Anglia and the Midlands. This discovery was published as a short note in The Coleopterist (Washington 2018). In passing I should mention that several of the beetles found at Woolston are probably new to Cheshire, but records are scattered, so that this cannot be easily confirmed. In the case of water beetles there is a robust national recording scheme.

A further visit in December also produced a couple of interesting records of beetles lurking among ground litter. The first was the Azolla weevil, *Stenopelmus rufinasus*. This is an introduced species which is used to control the water fern *Azolla filiculoides* which is proving so troublesome nationally. There have been a number of deliberate releases of *S. rufinasus*, but it can self-disperse (I had one in my moth trap in 2017 so it can evidently fly!) and is probably a welcome visitor to the Reserve if it helps manage Azolla.

The second beetle of interest in December was a single specimen of *Litargus balteatus* (sometimes called the Stored Grain Fungus Beetle). This is primarily an American species which is found only very rarely in the UK (there are only 14 records on the NBN database). Occasional scattered records over the last ten years have led to speculation that it might be established in the wild in the UK rather than as a stored grain passenger. However, I would suggest an alternative explanation. Grain and seeds are widely used at Woolston – in bird feeders, attracting birds for ringing, and sown to provide feed crops. Last year I proposed that the seed beetle *Bruchidius varius* may have been introduced to the site in this way. It is possible that *L. balteatus* had a similar origin. Whether or not such introduced species then go on to produce viable populations is unknown. It is improbable that they would become a problem. This observation has also been submitted for publication in The Coleopterist and should appear in 2019 (Washington in press 2019).

References

Washington 2018 *Cercyon bifenestratus* Kuster (Hydrophilidae) new to Cheshire VC58. The Coleopterist 27(2) 54.

Washington in press 2019 A record of *Litargus balteatus* Le Conte (Mycetophagidae) in Cheshire VC58. Submitted to The Coleopterist.

Clive Washington.

WOOLSTON EYES BIRD LIST

The table lists all those species recorded on the Reserve since it was established in 1978 together with a summary of their status. In relation to scarcities and rarities, only those records accepted by the county and national rarity committees have been included. The list includes historic records where known but such data is limited and not comprehensive.

1.	Mute Swan	Common Resident	
2.	Bewick's Swan	Rare Winter Visitor	Recorded in most years between 1980 and 1995 but not since.
3.	Whooper Swan	Scarce Winter Visitor	Annual in 1980s and 1990s, now an irregular visitor.
4.	Pink Footed Goose	Winter Visitor	Regularly seen overflying the Reserve in the Autumn and Winter months.
	White-fronted Goose	Rare Winter Visitor	Recorded on 6/12/1987 and 27/11/1993. Also historic records from the 1946/47 winter.
6.	Greylag Goose	Common Resident	First bred in 2008.
	Canada Goose	Common Resident	
8.	Barnacle Goose	Scarce Winter Visitor	more recent sightings relating to feral birds. Recorded on 14 occasions, the last sighting in 2017.
9.	Brent Goose	Rare Winter Visitor	Recorded in 1986, 1988 and 1993.
10.	Egyptian Goose	Rare Visitor	Recorded in 1988, 2014, 2015 and 2017.
	Ruddy Shelduck	Rare Visitor	All sightings presumed to be of feral birds. Recorded in 1979, 1985 and 1995.
12.	Shelduck	Resident and Common Visitor	Has bred in most recent years.
13.	Mandarin	Rare Visitor	Recorded in 1985, 1989, 2010, 2013, 2014 and 2016.
14.	Wigeon	Regular Visitor	
	Gadwall	Common Resident	In recent years a large influx of birds has occurred in late summer with numbers of international importance.
16.	Teal	Common Winter Visitor and Resident	Breeds in small numbers.
17.	Green-winged Teal	Rare Vagrant	Recorded in 1984, 1987 and 2016.
18.	Mallard	Common Resident	
19.	Pintail	Winter Visitor	Now only occurs in small numbers; in the 1980s and 1990s large numbers occurred with a peak count of 782 in 1982.
20.	Garganey	Scarce Passage Migrant	Occasional breeding may have occurred but has not been proved.
21.	Shoveler	Common Resident and Passage Migrant	Scarce breeder, several pairs over summer but young are rarely seen.
1	Red-crested Pochard	Scarce Visitor	Previously rare but becoming more regular. Most sightings probably relate to feral birds. Recorded in 1981, 1987, 1988, 1991, 1993, 1994, 2013, 2014, 2016 and 2018.
	Pochard	Common Resident and Winter Visitor	Wintering numbers have declined significantly in recent years (49 in 2017 compared to 1716 in 1986).
24.	Ring-necked Duck	Rare Visitor	Recorded in 1984, 1985, 1986, 1991, 1994 and 2011.

25. Ferruginous Duck	Rare Visitor	Recorded in 1984, 1986, 1987, 1993, 1995, 2000 and 2007.
26. Tufted Duck	Common Resident and Winter Visitor	Typically, c.25 pairs breed
27. Scaup	Scarce Winter Visitor	Previously an annual winter visitor in small numbers, now scarce.
28. Long-tailed Duck	Rare Winter Visitor	Recorded in 1979, 1981, 1987, 1988 and 2013.
29. Common Scoter	Rare Winter Visitor	Recorded in 1985, 1986, 1990, 1986, 2017 and 2018.
30. Goldeneye	Winter Visitor	Most sightings are at the weir basin.
31. Smew	Rare Winter Visitor	Recorded on 10 occasions between 1984 and 2003 but not since.
32. Red-breasted Merganser	Rare Visitor	Recorded in 1984, 1985, 1986, 1990, 1996, and 2003.
33. Goosander	Winter Visitor	Winters in small numbers on the Ship Canal; thought to have bred on or close to reserve in 2017.
34. Ruddy Duck	Scarce Visitor	Previously a common breeder (maximum 20 pairs in 1999) with large autumn flocks (max 179 in 1985). Now only occasional non-breeding birds recorded.
35. Quail	Rare Summer Visitor	Recorded in 1986 and 1999; breeding confirmed in 1999.
36. Red-legged Partridge	Scarce Visitor	Scarce visitor from surrounding farmlands all records from the eastern end of the reserve.
37. Grey Partridge	Scarce Visitor	Previously (up to 2004) a resident breeder; now an increasingly scarce visitor from surrounding farmlands.
38. Pheasant	Common Resident	
39. Red-throated Diver	Rare Visitor	Recorded in 1978, 1995 and 2014.
40. Fulmar	Rare Vagrant	One record 15/5/1988.
41. Storm Petrel	Rare Vagrant	One record 14/9/1980.
42. Leach's Petrel	Rare Vagrant	One record 30/9/1978.
43. Gannet	Historic Record	One was seen over the deposit grounds and along the canal during a spell of high winds on 25/9/1954.
44. Cormorant	Common Visitor	
45. Shag,	Rare Visitor	Recorded in 1996, 2000, 2001 and 2002.
46. Bittern	Rare Visitor	Recorded in 1997, 2004, 2011, 2012, 2015 and 2016.
47. Night Heron,	Rare Vagrant	One record 26/5/1987.
48. Little Egret	Scarce Visitor	First recorded in 2000 now regular but uncommon visitor.
49. Great White Egret	Scarce Visitor	First recorded in 2006; since 2014 has been recorded annually.
50. Grey Heron	Common Visitor	Common visitor and two pairs bred in 1998 and 2000.
51. Spoonbill	Rare Visitor	Two records 26/4 & 27/4/1987 and 27/5/2010
52. Little Grebe	Common Resident	

53. Great Crested Grebe	Common Resident	
54. Red-necked Grebe	Rare Winter Visitor	Recorded in 1982, 1984, 1996, 2010 and 2011.
55. Slavonian Grebe	Rare Visitor	Two records 2/2/1986 and 4/5/2001.
56. Black-necked	Summer Visitor	First bred in 1987 and the reserve now holds
Grebe	Summer visitor	c.25% of the UK breeding population.
57. Honey Buzzard	Rare Spring Passage	Recorded in 1986, 1999, 2001 and 2003.
	Migrant	
58. Red Kite	Scarce Visitor	Previously rare but now one or two sightings in most years.
59. Marsh Harrier	Regular Visitor	Previously scarce but now a regular visitor to the reserve with individuals and occasionally pairs taking up temporary residence although no breeding has occurred.
60. Hen Harrier	Scarce Winter Visitor;	An increasingly scarce visitor with only 7 records this century.
61. Montagu's Harrier	Rare Vagrant	One record on 13/5/1993.
62. Goshawk	Scarce Winter Visitor	One or two sightings in most years.
63. Sparrowhawk	Common Resident	8 8
64. Buzzard	Common Resident	Once a scarce visitor is now a common resident.
65. Rough-legged Buzzard	Rare Vagrant	Records on 4/12/1984 and 18/3/2005.
66. Osprey	Scarce Passage Migrant	A scarce but increasingly regular passage migrant; now recorded annually mostly in spring.
67. Kestrel	Resident	Breeding numbers are in decline.
68. Merlin	Scarce Winter Visitor	
69. Hobby	Summer Visitor	Is not thought to have bred on the Reserve but must breed close by given the regular sightings in Spring and Summer.
70. Peregrine	Resident	Has bred annually since 2008.
71. Water Rail	Resident	
72. Spotted Crake	Rare Passage Migrant	Recorded regularly between 1985 and 2005 but no sightings since.
73. Little Crake		
74. Corncrake	Rare Passage Migrant	Two records on 11/6/1999 and 18/9/2001. Historic records show in the early part of the last century they were regular breeders.
75. Moorhen	Common Resident	
76. Coot	Common Resident	
77. Common Crane	Rare Visitor	Two records of overflying birds on 19/4/2005 and 3/4/2012.
78. Black-winged Stilt	Historic Record	The first Cheshire record was of a male shot at Latchford in the 1850s.
79. Avocet	Scarce Passage Migrant	Until 2013 there were only two records but now recorded annually during Spring passage.
80. Oystercatcher	Regular visitor	Mostly in Spring and Summer months. No recent breeding but is known to have bred on No.2 bed in the 1940s.
81. Golden Plover	Scare Winter Visitor	Once common with a maximum count of 2000 in 1984 but now only occasional seen

		overflying the reserve or on surrounding farmland.
82. Grey Plover	Rare Passage Migrant	Regular in small numbers in the 1980s but just three records since 1990, in 2002, 2005 and 2016.
83. Lapwing	Resident	Breeds in small numbers. Common autumn and winter visitor.
84. Little Ringed Plover	Summer Visitor and Passage Migrant	Breeds in small numbers.
85. Ringed Plover	Scarce Passage Migrant	Recorded annually in the 1980s and 1990s but now irregular.
86. Whimbrel	Scarce Spring Passage	Recorded in most years overflying the Reserve, rarely landing.
87. Curlew	Passage Migrant	In recent years most records are of overflying birds, rarely landing.
88. Black-tailed Godwit	Passage Migrant	Once a scarce visitor, No.3 bed is now a regular autumn stop off point for up to 250 birds with some lingering until December.
89. Bar-tailed Godwit	Rare Passage Migrant	Recorded regularly in the 1980s but now rare with only 3 records since 1991 on 21/7/2000, 30/5/2008 and 6/5/2011.
90. Turnstone	Rare Passage Migrant	Recorded regularly in the 1980s but only two records since 1991 on 10/5 to 11/5/2016 and 2/7/2016.
91. Knot	Rare Passage Migrant	Recorded in 1979, 1981, 1984, 1985, 1986 and 1987.
92. Ruff	Scarce Passage Migrant	Up to 70 present in the early 1970s and 1980s. Increasingly scarce and mostly recorded in the autumn.
93. Curlew Sandpiper	Rare Passage Migrant	Only one record since 1993 on 14/6/2001, more regular in 1980s and early 1990s.
94. Temminck's Stint	Rare Passage Migrant	Two records on 30/6/1986 and 20/8 to 22/8/1989.
95. Sanderling	Rare Passage Migrant	Two records since 1990 on 19/8/1998 and 18/5/2015; a more regular in the 1980s.
96. Dunlin	Passage Migrant	In the 1980s a common passage migrant with a peak count of 304. Now occurs annually in small numbers but increasingly scarce.
97. Little Stint	Rare Passage Migrant	Only one record since 1993 on 17/8/1998, more regular in 1980s and early 1990s.
98. White-rumped Sandpiper	Rare Vagrant	One record on 31/7/1984.
99. Buff-breasted Sandpiper	Rare Vagrant	One record 1/8/1984 to 4/8/1984.
100. Pectoral Sandpiper	Rare Vagrant	Two records on 3/9 to 9/9/1989 and 10/9/1994.
101. Wilson's Phalarope	Rare Vagrant	One record 19/10/1991 to 4/11/91.
102. Red-necked Phalarope	Rare Passage Migrant	Three records: 5/7/1985, 18/11/1987 and 10/6/2016.
103. Common Sandpiper	Passage Migrant	Recorded annually, mostly during Spring Passage. A pair bred and fledged one young on No.1 bed in 1986.

104. Green Sandpiper Passage Migrant Common during autumn passage a individuals occasionally over-win	ter. e records) and the return only 000, tury.
Regular in the 1980s but only thre since 1992 on 2/8/2001, 16/8/2010 27/8/2014.	e records) and the return only)000, tury.
since 1992 on 2/8/2001, 16/8/2010 27/8/2014. 106. Greenshank Passage Migrant Recorded in most years usually or passage. 107. Wood Sandpiper Scarce Passage Migrant Although previously scarcer and or recorded in seven years prior to 20 recorded in most years in this cent are passage. 108. Redshank Passage Migrant Bred in 2000. 109. Jack Snipe Scarce Winter Visitor 110. Woodcock Winter Visitor 111. Snipe Winter Visitor and Passage Migrant Three records on 26/8/1986, 11/10 17/10/1998. 112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10 17/10/1998. 113. Great Skua Rare Vagrant One record on 20/10/1984. 114. Little Tern Rare Migrant Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	on the return only 000, cury.
27/8/2014. 106. Greenshank Passage Migrant Recorded in most years usually or passage. 107. Wood Sandpiper Scarce Passage Migrant Although previously scarcer and or recorded in seven years prior to 20 recorded in most years in this cent of the recorded in most years in this cent of the recorded in most years in this cent of the recorded in most years in this cent of the recorded in most years in this cent of the recorded in most years in this cent of the recorded in most years in this cent of the recorded in most years prior to 20 recorded in most years prior to 20 recorded in most years usually or passage. 108. Redshank Passage Migrant Bred in 2000. Bred in 2000. 109.	only 000, cury.
106. Greenshank Passage Migrant Recorded in most years usually or passage.	only 000, aury.
passage. 107. Wood Sandpiper Scarce Passage Migrant 108. Redshank Passage Migrant 109. Jack Snipe Scarce Winter Visitor 110. Woodcock Winter Visitor 111. Snipe Winter Visitor and Passage Migrant Passage Migrant Three records on 26/8/1986, 11/10 17/10/1998. 112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10 17/10/1998. 113. Great Skua Rare Vagrant Rare Migrant Rare Migrant Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Scarce Passage Migrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant Rare Vagrant One record on 13/7/1986.	only 000, aury.
107. Wood Sandpiper Scarce Passage Migrant Although previously scarcer and or recorded in seven years prior to 20 recorded in most years in this cent 108. Redshank Passage Migrant Bred in 2000. Bred in 2000. Scarce Winter Visitor 110. Woodcock Winter Visitor Winter Visitor and Passage Migrant Three records on 26/8/1986, 11/10 17/10/1998. 112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10 17/10/1998. 113. Great Skua Rare Vagrant Rare Migrant Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	000, aury.
recorded in seven years prior to 20 recorded in most years in this cent 108. Redshank Passage Migrant Bred in 2000. Bred in 2000. Bred in 2000. Bred in 2000. Last proven breeding was in 1985. Winter Visitor Last proven breeding was in 1985. Passage Migrant Three records on 26/8/1986, 11/10/1998. Rare Vagrant Rare Vagrant Passage Migrant Cone record on 20/10/1984. Rare Migrant Rare Migrant Rare Vagrant Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. Rare Vagrant Scarce Passage Migrant An irregular visitor. On 2nd May was an unprecedented influx of 10 latch Tern Rare Vagrant Rare Vagrant One record on 13/7/1986.	000, aury.
recorded in most years in this cent 108. Redshank Passage Migrant Bred in 2000. 109. Jack Snipe Scarce Winter Visitor 110. Woodcock Winter Visitor 111. Snipe Winter Visitor and Passage Migrant 112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10 17/10/1998. 113. Great Skua Rare Vagrant One record on 20/10/1984. 114. Little Tern Rare Migrant Rare Wagrant Two records 12/6/1983 and 19/5/2 115. Whiskered Tern Scarce Passage Migrant An irregular visitor. On 2nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	oury. .)/1991 and
108. RedshankPassage MigrantBred in 2000.109. Jack SnipeScarce Winter Visitor110. WoodcockWinter Visitor and Passage MigrantLast proven breeding was in 1985112. Arctic SkuaRare VagrantThree records on 26/8/1986, 11/10/17/10/1998.113. Great SkuaRare VagrantOne record on 20/10/1984.114. Little TernRare MigrantRecorded in 1984, 1988, 2001, 20/2017.115. Whiskered TernRare VagrantTwo records 12/6/1983 and 19/5/20/21ter sighting was of four birds.116. Black TernScarce Passage MigrantAn irregular visitor. On 2nd May was an unprecedented influx of 10/17.117. White-winged Black TernRare VagrantOne record on 13/7/1986.)/1991 and
108. RedshankPassage MigrantBred in 2000.109. Jack SnipeScarce Winter Visitor110. WoodcockWinter Visitor and Passage MigrantLast proven breeding was in 1985112. Arctic SkuaRare VagrantThree records on 26/8/1986, 11/10/17/10/1998.113. Great SkuaRare VagrantOne record on 20/10/1984.114. Little TernRare MigrantRecorded in 1984, 1988, 2001, 20/2017.115. Whiskered TernRare VagrantTwo records 12/6/1983 and 19/5/20/21ter sighting was of four birds.116. Black TernScarce Passage MigrantAn irregular visitor. On 2nd May was an unprecedented influx of 10/17.117. White-winged Black TernRare VagrantOne record on 13/7/1986.)/1991 and
109. Jack SnipeScarce Winter Visitor110. WoodcockWinter Visitor111. SnipeWinter Visitor and Passage MigrantLast proven breeding was in 1985112. Arctic SkuaRare VagrantThree records on 26/8/1986, 11/10/1998.113. Great SkuaRare VagrantOne record on 20/10/1984.114. Little TernRare MigrantRecorded in 1984, 1988, 2001, 20/2017.115. Whiskered TernRare VagrantTwo records 12/6/1983 and 19/5/20/2017.116. Black TernScarce Passage MigrantAn irregular visitor. On 2nd May was an unprecedented influx of 10/2017.117. White-winged Black TernRare VagrantOne record on 13/7/1986.	0/1991 and
110. Woodcock 111. Snipe Winter Visitor and Passage Migrant 112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10/1998. 113. Great Skua Rare Vagrant Rare Migrant Rare Migrant Rare Migrant Rare Vagrant Rare Vagrant Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Rare Vagrant Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	0/1991 and
111. Snipe Winter Visitor and Passage Migrant 112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10/17/10/1998. 113. Great Skua Rare Vagrant One record on 20/10/1984. 114. Little Tern Rare Migrant Recorded in 1984, 1988, 2001, 20/2017. 115. Whiskered Tern Rare Vagrant Two records 12/6/1983 and 19/5/2/1atter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2nd May was an unprecedented influx of 10/11. White-winged Black Tern One record on 13/7/1986.	0/1991 and
Passage Migrant 112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10 17/10/1998. 113. Great Skua Rare Vagrant One record on 20/10/1984. Rare Migrant Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	0/1991 and
112. Arctic Skua Rare Vagrant Three records on 26/8/1986, 11/10/1998. 113. Great Skua Rare Vagrant One record on 20/10/1984. Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	
17/10/1998. 113. Great Skua Rare Vagrant One record on 20/10/1984. 114. Little Tern Rare Migrant Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern One record on 13/7/1986.	
113. Great SkuaRare VagrantOne record on 20/10/1984.114. Little TernRare MigrantRecorded in 1984, 1988, 2001, 20 2017.115. Whiskered TernRare VagrantTwo records 12/6/1983 and 19/5/2 latter sighting was of four birds.116. Black TernScarce Passage MigrantAn irregular visitor. On 2nd May was an unprecedented influx of 10117. White-winged Black TernRare VagrantOne record on 13/7/1986.	
114. Little Tern Rare Migrant Recorded in 1984, 1988, 2001, 20 2017. 115. Whiskered Tern Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	
2017. 115. Whiskered Tern Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 latter. White-winged Black Tern One record on 13/7/1986.	
115. Whiskered Tern Rare Vagrant Two records 12/6/1983 and 19/5/2 latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 latter. White-winged Black Tern One record on 13/7/1986.	15 and
latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	
latter sighting was of four birds. 116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	2005. The
116. Black Tern Scarce Passage Migrant An irregular visitor. On 2 nd May was an unprecedented influx of 10 117. White-winged Black Tern Rare Vagrant One record on 13/7/1986.	
was an unprecedented influx of 10 117. White-winged Rare Vagrant One record on 13/7/1986. Black Tern	990 there
117. White-winged Rare Vagrant One record on 13/7/1986. Black Tern	
Black Tern	z onus.
IIV Sandsvich Torn Sagras Mismont Dasardad in 1001 1004 1007 10	0.5. 100.5
2001,2006, 2008, 2009, and 2010.	
119. Common Tern Passage Migrant Regularly seen on Spring and Aut	umn
passage.	
120. Arctic Tern Passage Migrant Recorded most years on Spring pa	ssage.
121. Kittiwake Scarce Passage Migrant Recorded regularly in the 1980s at	nd 1990s
but this century has only been seen	
2016 and 2017.	,
122. Black-headed Common Resident Has bred most years since at least	1928
Gull	1,20.
123. Little Gull Scarce Passage Migrant Recorded in small numbers in most	et vears
usually during Spring passage.	n years,
	1/11/1005
124. Laughing Gull, Rare Vagrant Two records of the same bird on 2	1/11/1985
and 30/11/1985.	
125. Mediterranean Passage Migrant An increasing regular Spring Visit	
Gull have been seen nest building but r	o breeding
has occurred to date.	
126. Common Gull Passage Migrant	·
127. Ring-billed Gull Rare Vagrant Recorded in 1983, 1987, 1998, 20	
	00, 2003
and 2005.	00, 2003
	•
128. Lesser Black- Common Visitor In recent years a breeding colony	has
128. Lesser Black- Common Visitor In recent years a breeding colony established itself on the industrial	has
128. Lesser Black- backed Gull Common Visitor In recent years a breeding colony established itself on the industrial of the Reserve.	has
128. Lesser Black- backed Gull Common Visitor In recent years a breeding colony established itself on the industrial of the Reserve. 129. Herring Gull Common Visitor	has estate north
128. Lesser Black- backed Gull Common Visitor In recent years a breeding colony established itself on the industrial of the Reserve.	has estate north

131. 1	Iceland Gull	Rare Visitor	Regularly seen in the 1980s and 1990s when
			Rixton Tip was operating. The last sighting was in 1999.
132.	Glaucous Gull	Rare Visitor	Regularly seen in the 1980s and 1990s when
			Rixton Tip was operating. There has been
			one sighting this century in 2008.
133. (Great Black-	Regular Visitor	Mostly seen on passage or in the Winter
l l	backed Gull		period.
134. I	Feral Pigeon	Common Resident	Breeds on the Thelwall Viaduct.
135. \$	Stock Dove	Common Resident	
136. Y	Woodpigeon	Common Resident	
137.	Collared Dove	Common Visitor	Breeds in the surround housing estates. Has
			bred occasionally on the Reserve.
138.	Turtle Dove	Rare Summer Visitor	Has bred in the 1980s and 1990s on the
			eastern end of the Reserve. Continued to be
			seen in the early 2000s but sadly the last
			sighting was in 2006.
	Ring-necked Parakeet	Rare Visitor	Three records in 1983, 2003 and 2004.
	Cuckoo	Scarce Summer Visitor	Used to be quite common, breeding on all
140.	Cuckoo	Scarce Summer Visitor	four beds; now scarce and probably only
			occasional breeding.
141 1	Barn Owl	Scarce Visitor	Has attempted to breed but all attempts have
171. 1	Barii Owi	Scarce Visitor	failed.
142. 1	Little Owl	Scarce Visitor	A scarce visitor in the 1980s, 1990s and early
			part of this century. However, there have
			been no records since 2011.
143.	Tawny Owl	Resident	Breeds on the Reserve.
144. 1	Long-eared Owl,	Scarce Resident	Used to breed on the Reserve and could be
			observed in Winter roosts. However, the last
			confirmed breeding was in 2010 and the last
			sighting was in 2015.
145. \$	Short-eared Owl	Rare Winter Visitor	Once a regular Winter visitor, it has only been
			recorded this century in 2001, 2002, 2011,
			2015 and 2016.
	Nightjar	Rare Migrant	Two records on 9/5/1989 and 24/6/1995.
	Chimney Swift	Rare Vagrant	One record on 5/11/2005.
148. \$	Swift	Common Summer	Breeds on surrounding housing estates.
		Visitor	
149.	Kingfisher	Resident	Breeds on Ship Canal and has bred in the past
4.55			on the River Mersey ox-bow.
150.	Bee-eater	Rare Vagrant	One record of a bird first seen on 5/5/1995. A
			few days later it was picked up exhausted and
			later released. The final sighting was on
1.7.1	***	D 36	1/6/95.
	Wryneck	Rare Migrant	One record on 25/4/2001.
152.		Scarce Visitor	Breeds in areas surrounding the Reserve.
	Woodpecker	O D 11	Sightings have declined in recent years.
	Great Spotted Woodpecker	Common Resident	
	Lesser Spotted	Scarce Visitor	Recorded in most years, a pair was observed
1	Woodpecker	Source visitor	at a nest hole in 2016 but later abandoned the
	,, oodpecker		site.
		<u> </u>	DIV.

155.	Golden Oriole	Rare Migrant	Two records on 25/5/86 and 18/4/2003.
	Great Grey Shrike	Rare Visitor	Three records on 26/11/1982, 10/10/1998 and 1/3/2004.
157.	Magpie	Common Resident	
158.		Common Resident	
	Jackdaw	Regular Visitor	Does not breed on the Reserve but can regularly be seen and heard flying overhead.
160.	Rook	Scarce Visitor	Usually seen overflying the eastern end of the Reserve.
161.	Carrion Crow	Common Resident	
162.	Hooded Crow	Rare Visitor	One record on 13/1/1980. Also an historic record of one frequenting Wilgreaves Farm (now No.3 bed) Aug/Sept 1942.
163.	Raven	Regular Visitor	Increasingly common. Now regularly seen and heard overflying the Reserve.
164.	Goldcrest	Resident	Breeds in small numbers and is a common Winter Visitor and Passage Migrant.
165.	Firecrest	Scarce Visitor	One or two records in most years.
	Blue Tit	Common Resident	
167.	Great Tit	Common Resident	
168.	Coal Tit	Regular Visitor	Breeds on surrounding housing estates and is regularly encountered on the Reserve.
169.	Willow Tit	Resident	The Reserve remains a stronghold for the nationally declining species. It is estimated the Reserve holds thirty pairs.
170.	Marsh Tit	Rare Visitor	There were occasional records in the 1980s and one in 1993. There were then no other records until one wintered in 2015/2016.
171.	Bearded Tit	Rare Visitor	Recorded in 1977, 1981, 2005, 2006 and 2007.
172.	Woodlark	Rare Visitor	One record on 8/9/2006.
173.	Skylark	Regular Visitor	Has bred on the Reserve in the past. Now breeding only occurs on surrounding farmlands. Regularly seen overflying during autumn passage.
174.	Sand Martin	Common Summer Visitor	Breeds on Ship Canal although numbers declining.
175.	Swallow	Common Summer Visitor	Breeds in small numbers along Ship Canal. Post breeding roosts occur in reedbeds.
176.	House Martin	Common Summer Visitor	Breeds on surrounding housing estates although numbers have declined significantly in recent years.
177.	Cetti's Warbler	Resident	First recorded in 1998 and then not again until 2006. First bred in 2015. Now well established.
178.	Long-tailed Tit	Common Resident	
	Yellow-browed Warbler	Rare Vagrant	Recorded in 1998, 2004, 2005, 2007, 2016, 2017 and 2018.
180.	Wood Warbler	Rare Summer Migrant	Two records on 26/4/96 and 8/5/2001.
	Chiffchaff	Common Summer Visitor	
182.	Willow Warbler	Common Summer Visitor	Numbers have declined.

183.	Blackcap	Common Summer	
10/	Garden Warbler	Visitor Summer Visitor	Breeds in small numbers.
	Lesser	Summer Visitor	Breeds in small numbers.
165.	Whitethroat	Summer visitor	breeds in sman numbers.
186.	Whitethroat	Common Summer Visitor	
187.	Grasshopper	Summer Visitor	Breeds in small numbers. Numbers have
	Warbler		declined significantly in recent years.
188.	Sedge Warbler	Summer Visitor	Numbers have declined significantly in recent years.
189.	Blyth's Reed Warbler	Rare Vagrant	One record of a bird caught and ringed on 26/8/2000.
190.	Marsh Warbler	Rare Summer Visitor	Only record was in 1991 when a pair bred.
191.	Reed Warbler	Common Summer	
102	Waxwing	Visitor Rare Winter Visitor	Recorded in 1999, 2001, 2005, 2008, 2010,
192.	waxwiiig	Rate winter visitor	2012, 2013 and 2018.
193.	Nuthatch	Regular Visitor	Breeds close by and is a regular visitor to the
104	Т	Resident	Reserve. Breeds in small numbers.
	Treecreeper Wren	Common Resident	Breeds in small numbers.
	Starling	Common Visitor	Breeds on surrounding housing estates. Uses
190.	Starring	Common visitor	the Reserve to roost in Winter.
197.	Dipper	Historic Record	There is a record of one between 1-8/11/1948. Also recorded in previous winters.
198.	Ring Ouzel	Rare Passage Migrant	Recorded in 1980, 1987, 1992, 1998, 2003 and 2016.
199.	Blackbird	Common Resident and	
		Winter Visitor	
	Fieldfare	Winter Visitor	
201.	Song Thrush	Common Resident and Winter Visitor	
202.	Redwing	Winter Visitor	
	Mistle Thrush	Resident	Breeds in small numbers.
204.	Spotted	Scarce Passage Migrant	One or two sightings in most years.
	Flycatcher		
	Robin	Common Resident	
206.	Nightingale	Rare Migrant	One record of a bird caught and ringed on 11/8/2000.
207.	Bluethroat	Rare Migrant	One record of a bird caught and ringed on 6/7/1996.
208.	Red-breasted Flycatcher	Rare Vagrant	One record on 2/11/2013.
209.	Pied Flycatcher	Rare Passage Migrant	Recorded in 1987, 1995, 2000, 2002, 2005, 2012 and 2013.
210.	Redstart	Scarce Passage Migrant	One or two records in most years.
	Whinchat	Scarce Passage Migrant	One or two records annually, usually in
			Spring. Historic records show in the first part of the last century this was a common
			breeding bird.
	Stonechat	Scarce Visitor	One or two records annually.
213.	Wheatear	Scarce Passage Migrant	One or two records annually.

214.	Dunnock	Common Resident	
215.	House Sparrow	Regular Visitor	Breeds in surrounding areas but not on the
			Reserve itself.
216.	Tree Sparrow	Scarce Visitor	Sightings are becoming increasingly scarce
			and are not annual as the population in the
			surrounding farmlands declines.
217.	Yellow Wagtail	Scarce Passage Migrant	One or two records most years. Historic
			records indicate confirmed breeding in 1974
210	G W 11	7	and 1975.
218.	Grey Wagtail	Resident	Breeds in small numbers along the Ship Canal
210	D: . 1 W	D	and River Mersey.
219.	Pied Wagtail	Resident	Breeds in small numbers. Birds roost in the
			reedbeds post-breeding; records of White
220	Richards Pipit	Rare Migrant	Wagtails are uncommon and not annual. Two records of overflying birds on 4/10/2008
220.	Kicharus Fipit	Kare ivrigrant	and 15/10/2013. The later sighting was of
			two birds.
221	Tree Pipit	Scarce Passage Migrant	One or two records annually, usually on
221.	Tree ripit	Scarce rassage wiigiant	autumn passage.
222	Meadow Pipit	Passage Migrant	Regularly observed overflying the reserve
222.	Wicadow Tipit	i assage wiigiant	during the migration period. Used to breed on
			No.4 bed but the last confirmed breeding was
			in 2002.
223	Rock Pipit	Rare Visitor	Two records in the same year: 19/5/1991 and
	110 JH 1 JP 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22/12/1991.
224.	Water Pipit	Rare Winter Visitor	Used to winter regularly on No.1 bed but no
	1		records since 2000.
225.	Chaffinch	Common Resident and	
		Winter Visitor	
226.	Brambling	Winter Visitor	Recorded annually but numbers vary between
			years. Flocks of up to 60 have been observed
			at the feeding stations in some years, numbers
			peaking in early Spring.
227.	Greenfinch	Common Resident and	
220	<u> </u>	Winter Visitor	
228.	Serin	Rare vagrant	One record of a bird caught and ringed on
220	C 11C 1	C P 1	31/1/2009.
	Goldfinch	Common Resident	
	Siskin	Winter Visitor Resident and Winter	Day 12 in 200 11 200 1 200 1 200 1 200 1
231.	Linnet	Visitor	Breeds in small numbers along the Ship Canal track.
222	Twite	Rare Visitor	Recorded in 1980,1985, 1988, 1999, and
232.	1 wite	Rate visitoi	2003.
233	Redpoll	Winter Visitor	Used to breed on the Reserve but the last
233.	Reupon	** IIICI * ISIOI	confirmed breeding was in 1994.
234	Common Redpoll	Rare Visitor	Recorded in 1981, 1997, 2005, 2008, 2010,
257.	Common Reupon	Tare visitor	2013, 2014 and 2016.
235	Crossbill	Scarce Visitor	Irregular, occasionally recorded flying over
255.	C10000111	200100 (101001	during autumn passage.
236.	Bullfinch	Common Resident	Large numbers recorded most years.
	Hawfinch	Rare Visitor	Recorded in 1981, 1984, 1992, 1998, 2001,
			2005, 2006, 2012 and 2017.
238.	Snow Bunting	Rare Visitor	Recorded on 24/11/1983, 17/11/1984 and
			23/2/1985.
		•	

239. Yellowhammer	Scarce Visitor	Breeds in small numbers on surrounding farmlands and occasionally found on the Reserve, mostly on No.1 bed.
240. Little Bunting	Rare Vagrant	One record on 29/10/1994.
241. Reed Bunting	Common Resident	
242. Corn Bunting	Scarce Visitor	In the 1980s winter flocks were regularly encountered but numbers declined and the last record was in 2004.
243. White-crowned Sparrow	Rare Vagrant	One record of a bird caught and ringed 30/4/2016. The first British record of the <i>gambelii</i> sub-species.
Black Swan,	Escape	Recorded in 1984, 2000 and 2018.
Sacred Ibis,	Escape	Recorded in 1989.
Bar-headed Goose	Escape	Recorded in 1986, 1989, 1990, 1992 and 2001.
White Cheeked Pintail	Escape	Recorded in 1986 and 1994.
Muscovy Duck	Escape	Recorded in 1995.
Parakeet sp	Escape	Recorded in 1984.
Sulphur Crested Cockatoo	Escape	Recorded in 1993 and 1999.
Cockatiel	Escape	Recorded in 1988, 2010 and 2012.
Budgerigar	Escape	Recorded in 1994.
Greater Flamingo	Escape	Recorded in 1978.
Cinnamon Breasted Bunting	Escape	Recorded in 1984.
Lanner Falcon	Escape	Recorded in 1987 and 1999.
Zebra Finch	Escape	Recorded in 1999.
Pallas's Rosefinch	Escape	Recorded in 2002.
Saker	Escape	Recorded in 2000.
Bufflehead	Escape	Recorded in 2015.

David Spencer

MONITORING FISH BIODIVERSITY AT WOOLSTON WEIR

In September 2018, the University of Salford and the Mersey Gateway Environmental Trust (MGET) started a collaborative project to monitor the migration of Atlantic salmon (Salmo salar) up the river Mersey, carried out as part of a Masters by Research. The project aims at showing the effectiveness of using non-invasive methods to monitor aquatic organisms, especially recovering populations of migratory species that are declining globally. This research project sits within a 5year monitoring contract, carried out between the MGET and AECOM.

At the beginning of the project, a Vaki Riverwatcher camera was installed at the fish passage present at Woolston Weir to facilitate the Atlantic salmon swimming up the recently recolonised River Mersey. The Vaki Riverwatcher is a fish counter, used throughout European rivers, to monitor migratory fish. This tool can identify fish swimming through the passage and detect the movements which get captured by the camera using infrared light beams, creating a silhouette image, with size calculation and direction of passage. Also, an additional 15 second video clip of the fish, which is saved to the matching silhouette image is created.

In addition to this camera technology, the research study will use state-of-the-art environmental DNA (eDNA) analysis. This technique enables retrieval of DNA left in the environment (in this case, water samples) by any organisms (i.e., mucus, faeces, urine, skin etc...), and identification of which species it came from. Given the relatively short time this 'organic material' persists in the environment, finding a species match means gives a very high probability that the identified taxon has been in the area recently.

By combining these two non-invasive methods, the project will be able to monitor not just the salmon in the river, but also what other species of important migratory fish are using the river to complete their life cycles and assess whether they can successfully use the fish passage. The data will thus give an insight into the general fish biodiversity of the river and any difference in biodiversity above and below the weir.

From 2001 until 2011, 209 Atlantic salmon were caught on Woolston Weir's fish trap, with numbers ranging between 1 to 45 individuals per year. Given the low density of salmon, the trap was dismantled, in order not to stress the delicate recovering population of salmon.

The camera started collecting data from 10th September/2018 and no fish were detected until 28th December 2018. Then five adult Atlantic salmon were caught on the camera, the sizes ranged from 70cm to 95cm and all fish were detected within a four day period swimming upstream. This is less than expected in a salmon run, but as salmon migration up rivers is thought to be triggered by water flowing to the sea (aided by rain). It is possible that the dry summer has influenced the migration event by delaying it, or in general reducing it for this year.

Periodical sampling of water above and below Woolston Weir was performed during November, assumed to be the peak of the salmon migration, even though this technique is designed to reveal the presence of any fish species present in the Mersey waters. The data is currently being analysed and more eDNA sampling will be starting in spring 2019, allowing a comparison between autumn and spring. This will present an opportunity to monitor, if present, other important species, such as the European Eel (*Anguilla anguilla*) and the River lamprey (*Lampetra fluviatilis*). The spring data will also cover more areas, expanding above and below Woolston weir, giving a look into the change in fish biodiversity within different sections of the River Mersey.

Special thanks to the MGET, AECOM and The Woolston Eyes Conservation Group for all support throughout the project and allowing access to the Nature Reserve's side of the river bank.

Joseph Perkins, Chiara Benvenuto, Ilaria Coscia and Allan McDevitt



An Atlantic salmon jumping at Woolston weir.

©Rob Gresty

EDITOR'S ACKNOWLEDGEMENTS

It is once again pleasing to see the results of everyone's endeavours, summarised so well by our various compilers. This report is very much a collaborative effort; permit holders, volunteers, visiting groups, ringers, voluntary wardens, experts in the various fields and committee members have all contributed to the collection of a vast array of records. We now have a forty-year, unbroken history of rigorous wildlife recording at Woolston, starting with Brian Martin's first report for 1978/79. Brian set the standard, which we have been trying to maintain ever since. As our core group gets older, it is pleasing to report that there are signs of a younger generation coming through, though more active volunteers are always welcome. I would encourage all visitors to record any noteworthy sightings in the logbook in the Morgan Hide. Once again, I have chosen to include in the species accounts, the conservation status of all the birds occurring last year. It is sobering to see that of the 140 species recorded, 25 feature on the Red List of the Birds of Conservation Concern (BoCC) and 44 on the Amber List. This is a salutary reminder of the reason we all work so hard to keep the habitat at Woolston in prime condition, as our small contribution to future species' survival. If you want to read more about the BoCC, go to the British Trust for Ornithology (BTO) website at http://www.bto.org/

Specific thanks are due to my fellow report compilers: to Brian Martin, David Spencer, Dave Hackett and John Blundell for assisting with the bird species accounts and to Brian additionally for his excellent summary of the weather and the WeBS Count report; to Mike Miles for such a detailed analysis of species trends in his Ringing Report; to Dave Steel for his informative summaries of our always-enjoyable Migration Watches; to Dave Hackett and Brian Baird for their outstanding reports on our butterflies and dragonflies, respectively; to Allan Rustell, ably assisted by Mike Lloyd, for the vital report on our Willow Tit population, to Clive Washington for an intriguing summary of his beetle survey and to Joe Perkins et al for giving us an insight into the passage of Salmon at Woolston Weir. This year's report, coming as it does on our 40th Anniversary, also includes a detailed summary of all the bird species known to have been recorded on the Reserve, for which David Spencer deserves a note of appreciation.

Additionally, the Group owes a massive vote of thanks to Colin Woolf for his beautiful front cover artwork and, also, to the various photographers who allowed their photos to be used.

Finally, I would like to thank the following: David Spencer for his work in managing our records database and for producing the electronic version of this report and Rosalind and Brian Martin for their meticulous proof-reading.

David Bowman

OFFICERS OF THE WOOLSTON EYES CONSERVATION GROUP

Chairman Secretary/Treasurer

Brian Ankers David Spencer
9 Lynton Gardens 86 Edward Gardens

Appleton Woolston
Warrington Warrington
WA4 5ED WA1 4QT

<u>brankers@msn.com</u> <u>davidpspencer@outlook.com</u>

Vice-chairman Recorder

David Bowman Brian Martin
One-Ash 45 Albert Road
91 Myddleton Lane Grappenhall
Winwick Warrington
WA2 8LR WA4 2PF

DSBowman123@gmail.com brianmartin1940@hotmail.com