

The Woolston Eyes Conservation Group



Annual Report

2016

Colin Ward
2017

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

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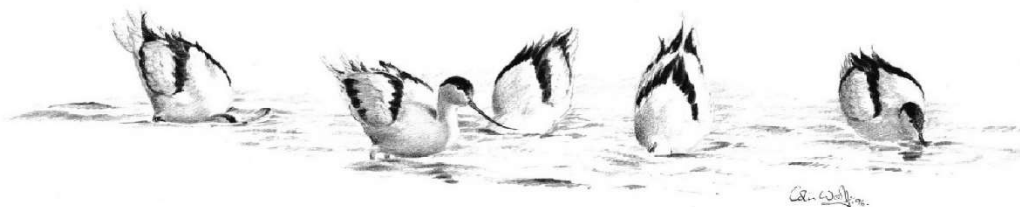


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WOOLSTON EYES CONSERVATION GROUP

ANNUAL REPORT 2016

CONTENTS

		Page
Chairman's Report	B. Ankers	4
Weather	B. Martin	5
Systematic List	B. Martin D. Hackett D. Spencer J. Blundell D. Bowman	8
WeBS Counts	B. Martin	77
Ringling Report	M. Miles	78
Selected Recoveries and Controls	M. Miles	85
Migration Watch	D. Steel	93
Willow Tit Report	A. Rustell	97
2016: An Exceptional Spring Migration	B. Martin	103
Butterfly Report	D. Hackett	105
Odonata Report	B. Baird	115
Survey of the Flora	M. Rawlins	127
Bee, Wasp and Ant Survey	T. Parker	129
Beetle Survey	C. Washington	136
Editor's Acknowledgements	D. Bowman	137
Officers of the Woolston Eyes Conservation Group		138

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CHAIRMAN'S REPORT

Thank you all once again for supporting such an important north-west nature reserve. Major thanks must also go to Peel Holdings and the Manchester Ship Canal Company, for their support over almost forty years. Their commitment to conservation and willingness to support our efforts has been much appreciated and I look forward to many more productive years ahead.

As well as Black-necked Grebes we have other red listed breeding birds such as Willow Tit, Grasshopper Warbler, Pochard and an increasing number of Cetti's Warblers, along with many other more common breeding species.

Two visitor species caused great interest this year, namely Red-necked Phalarope and Osprey, both depicted on the fantastic front cover painting done by the extremely talented artist Colin Woolf. The original is on sale at a special price of £650-00 so it is advisable to put any orders in sooner rather than later as his paintings are increasingly popular. Colin's details can be found on the inside cover.

As you may all know we are working increasingly closely with the RSPB and have been able to contract with them for the services of our Assistant Warden, Ash Radford. He is doing a fantastic job, not only undertaking manual work but organising volunteer parties and communicating with young people, such as local scout groups. Please feel free to make yourself known to him when you visit so that he can answer any questions you may have.

Although we don't own the access track we do hope to improve it this year but, as a charity, we have to be prudent about how we spend our income. We are currently looking for a firm who may be able to donate a few loads of road scrapings or similar but if nothing is forthcoming, we will have to purchase some ourselves to improve the access.

As ever, our Vice-chairman David Bowman and his team must be commended on the production of yet another fantastic report and I thank them for the hours of work that it has entailed.

I hope you continue to enjoy the delights of Woolston Eyes and have a great birding year.

Brian Ankers
Chairman

THE WEATHER 2016

There were no extreme weather events at the Eyes in 2016, although the year began with a continuation of the stormy and wet weather that was such a feature of late 2015. There was little snow or prolonged cold and the majority of months saw slightly above average temperatures, apart from April and November. September and December were both warm months and sunshine was a little above the average. At the Eyes the rainfall total (920mm or nearly 37ins.) was near or above average, with the now familiar pattern of some days of torrential downpours followed by dry spells. Named storms now feature in weather forecasts and five in the early months were followed by three in the final two months. Not all of these directly affected the Warrington area.

January, with a total rainfall of 128mm was the wettest month of the year. It began mild and heavy rain characterised the first two weeks. During this time almost 70mm was recorded and the high water levels on the Mersey were no doubt a factor in a Grey Seal finding its way over Howley Weir and up to the Eyes. The first frost occurred on the 16th, with overnight temperatures of -4°C, and with the water on No.3 bed frozen most of the wildfowl were forced onto the Mersey and Ship Canal. The following four days were cold and frosty, but mild weather then returned with rain recorded on most days. The 25th was exceptionally mild (15°C), but the month ended stormy and unsettled, courtesy of Storm Gertrude.

February began mild but still very windy. The first week was particularly wet (45mm) with only one dry day. Storm Imogen produced very unsettled conditions on the 8th and 9th and probably blew in the Kittiwake that was seen on the 9th. The weather finally settled down as high pressure built on the 10th, with overnight frosts. It was dry until the 17th when a front brought heavy rain (12mm) and a brief rise in temperature. Anticyclonic conditions returned and with the Jet Stream above the Mediterranean the month ended cold and raw. In total 82mm of rain was recorded.

March began, like February, with a series of Atlantic fronts depositing 35mm of rain in the first five days. With winds from the north-west it was cold and raw with snow falling on the 2nd and 4th. A less cold spell from the 8th to the 13th saw the temperature rise to 14°C on the 13th. High pressure then became established, with predictably cold days, frosty nights and fresh winds from the east. No rain was recorded from 13th – 26th. By then it had become warmer, with a Small Tortoiseshell seen on No.3 bed and an arrival of Black-necked Grebes, Sand Martins and a few Swallows. As the anticyclone finally gave way strong winds and heavy rain associated with Storm Katie added another 19mm to the monthly total of 74mm, and what had been a largely cloudy March ended with many butterflies on the wing.

April, with a total of 74mm, was another wet month. After a cold start temperatures in the first week peaked at 14°C. Rain fell on all but one day, with 10mm on the 7th alone. The 9th saw a return to frosts for a time, but a brief warm interlude with south-west winds brought in more migrants, including a Ring Ouzel. Mornings continued to be cold with some fog. The 15th – 19th brought a return to frosts with the wind from the north and high pressure once again in charge. The next ten days were mostly cold and dry, although the month ended with heavy rain on the 28th and 29th to round off a largely cold and damp month.

May, with 58mm, was the driest month of the spring, and on only nine days was any rain recorded. High pressure dominated and with winds from the south-east it was warm and sunny, perfect conditions

to drift in a Black Tern, a Marsh Harrier, a long-staying Osprey and other migrants. Temperatures peaked at 25°C on the 9th. Very heavy rain on the 10th and 11th was quickly followed by a return to warm and dry conditions. Three days of heavy rain (22mm) from 19th – 22nd attracted large feeding flocks of Swifts to No.3 bed, although the remainder of the month was dry and temperatures were in the low 20°C, ideal conditions for the emerging Black-necked Grebe broods.

June, recording 113mm of rain, was the third wettest month of 2016. It began, however, with the continuation of the dry warm weather of late May; temperatures reached a high of 25°C on the 9th. The weather broke on the evening of the 9th when 18mm of rain was recorded. Could this have grounded the pair of Red-necked Phalaropes found on No. 3 bed the following afternoon? The remainder of June had only five dry days, with 90mm recorded from 15th to the end of the month.

July was very much a month of two halves. The first two weeks continued the wet pattern of June, with 63 of the 77mm total falling between the 1st and the 15th. The 11th was particularly wet, with 21mm recorded. By contrast the rest of July was largely dry and very warm, with a flow of hot air from Spain bringing very high temperatures which peaked at 30°C on the 19th, the hottest day of the year. Warm sultry weather was the norm for the rest of July, with just a few days when light rain fell.

August The first week was largely dry and warm. Unsettled cooler days followed, but by the 12th dry and warm weather returned and lasted for a week. On the 19th a very deep depression brought wet and windy conditions, with 30mm of rain recorded between the 19th and 22nd, which was over half the August total of 57mm. Once again, however, it became warm with a maximum of 26°C in the last week. For once the August Bank Holiday was warm and sunny!

September The anticyclone that brought the warm August weather persisted until the 3rd, when heavy rain set in. This was a brief interlude as very warm air from southern Europe moved in and 24°C was recorded on the 7th. Another few days of wet and windy weather followed, but by the 13th very humid air brought severe thunderstorms from north-west France. Woolston missed the heaviest of the rain and flooding which caused problems in Manchester. The 13th was said to have been the hottest September day since 1911! On the 16th cool north-west winds brought the first taste of autumn. More than half the monthly total of 55mm fell in the second period, with a total of 19mm on the 24th and 26th.

October was the driest month of the year with just 33mm of rain recorded. High pressure was very much in charge, with no rain falling at all until the 11th. In fact, the only significant rain, 20mm, was noted between the 17th and 19th. Much of the month saw above average temperatures.

November This was the second wettest month, with 122mm; it was also cold for the most part. The first three days were dry but with northerly winds established it felt raw, with day-time temperatures no higher than 5°C. On the 8th heavy rain set in and in the following few days a total of 42mm fell. With it came a brief mild spell and a surprising 15°C was recorded on the 14th. More wet weather from 17th-22nd led to widespread flooding as Storm Angus moved across the south of England. Woolston missed the worst of the storm but 56mm of rain was recorded. The last week was dominated by high pressure, with sunshine by day but frosts and fog overnight.

December In contrast December was the second driest month of 2016, with only 42mm recorded. The first week was cold with severe frosts until the first low pressure for two weeks brought milder weather on the 7th and 12mm of rain. The higher temperatures lasted until mid-month, when they were replaced by fog and frost on the 17th. This was a brief period before storms Barbara and Conor arrived with wet,

windy and mild conditions over Christmas. The month ended with high pressure in control and a return to sunny but cold days and severe overnight frosts.

Brian Martin



View from the John Morgan Hide in March

David Bowman

SYSTEMATIC LIST

Mute Swan

Cygnus olor

Amber listed

A disappointing year in terms of breeding pairs and, apart from a high count early in the year, numbers throughout 2016 were below average.

The year began with 47 found across the Eyes on 6th January, but this was unusual and apart from the two other January counts of 25 and 23 numbers did not again exceed twenty until September.

During March three pairs were present on the Eyes, with the main focus on No.3 bed. Another pair was reported near a long-standing nest site by Woolston Weir, with a pair also present on the Loop of No.4 bed in early April. There were also reports of a pair on No.1 bed in mid-April, but there was no evidence that any of the pairs away from No.3 bed even attempted to breed.

In late May two broods of four and six young appeared on No.3 bed and for about ten days they did well and grew steadily. On June 15th, however, only one brood could be found and that had been reduced to three cygnets. By late June the young were a good size, but they and the adults were never seen again. This follows a pattern of poor fledging rates on No.3 bed in recent years, for reasons that are not fully understood.

The large mid-summer influx of Mute Swans on to No.3 bed, which occurred in 2014 and 2015 did not happen in 2016.

Thirty-three on the 12th November WeBS Count was the highest year- end total.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
47	16	16	19	14	16	11	15	24	26	33	21

Whooper Swan

Cygnus cygnus

Amber listed

There were three reports this year, beginning with four on 19th October, six on 21st October and finally two which flew east on the morning of 9th November.

Pink-footed Goose

Anser brachyrhynchus

Amber listed

There were many reports of over-flying flocks, especially late in the year and unusually one was present on No.3 bed for a month in the spring.

In the first winter period the first record was of 100 flying east on 5th January. A large movement the next day saw a total of 550 fly south-east. There were then no further sightings until 11th February, when 45 flew north-west over No.1 bed. On 9th April one was found on No.3 bed and over the next month was seen by many observers, often associating with Greylag Geese. It was not seen after 12th May.

The next record was of a total of 1725 flying over the east end of the Reserve on 8th October Migration Watch. Thereafter, there were 28 reports of skeins, mainly flying east, with peak numbers of 700 on 20th October and 281 in three skeins on 2nd November. There were almost daily sightings in the last two weeks of December, including 250 on the 16th, 460 on a Migration Watch on the 22nd and a single skein on 350 flying east on the 24th. Pinkfeet were still passing through in the final two days, with 125 east in two skeins on the 30th and 100 flying south-east on the 31st.

Greylag Goose

Anser anser

Amber listed

Similar numbers to 2015 were present during the year, but fledging success was poor.

During January no more than two were seen on just four dates. There was an arrival of birds in the second half of February, with 22 on No.3 bed on the 20th, 23 on the 24th and 24 on 3rd March. Fewer were noted for much of March, until a Reserve-wide count of 22 on the 30th. A brood of five very small young appeared on No.3 bed on 23rd April. By the 27th April a brood of five young was still present, although one observer considered that the original brood may well have been predated by Lesser Black-backed Gulls that breed on a nearby light industrial estate. Two small young, without their parents, attempted to join the brood of five, but were driven off and within a short period of time both were taken by Lesser Black-backs. New broods of six, four and another of uncertain size were present on 4th May, with the following day bringing an additional brood of ten small young.

At least six (possibly seven) pairs bred, but from careful observations it appears that none of the young survived, with no sightings of young after 10th May. Twenty-eight adults were on No.3 bed on 31st May, after which numbers rapidly declined.

As in previous years, peak counts occurred in the early autumn, with 71 (including 42 over-flying) seen on 19th September. Thereafter there were just five further reports, all of less than ten birds.

Canada Goose

Branta canadensis

There was a fall in the number of breeding pairs this year and peak autumn numbers were approximately half those of 2015.

Relatively few were noted in January, with a maximum of 17. More arrived in February, with 87 on the Reserve on the 16th and 75 counted on the WeBS four days later. Numbers remained at – or a little below – this level into March, by which time one was on a nest on a raft on No.3 bed on the 27th, with a second nest found on No.1 bed on 16th April. In all a total of nine pairs bred on the Eyes (c.f. 12 pairs in 2015), six on No.3 bed and single pairs on No.1 bed, the Loop of No.4 bed and the river between

beds 2 and 3. The outcome of the nest on No.1 bed is not known. Little information was submitted to assess breeding success, but a few records suggest that two or three pairs probably did fledge young.

Like Greylag Geese, peak numbers are seen in the early autumn, with 128 on No.3 bed on 29th August, 184 over No.1 bed on 3rd September Migration Watch, and 125 on 8th October. Birds were present throughout November and December, with a maximum of 57 on 26th November.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
17	87	64	63	39	66	50	128	184	125	57	29

Shelduck

Tadorna tadorna

Amber listed

Recorded in every month except August, with good numbers present in the spring. At least four pairs bred.

During January up to 14 were seen on many dates with a maximum of 17 in February, 23 in March and the year's peak of 24 on 5th April. While most were present on No. 3 bed, Shelduck were also seen on the Loop of No.4 bed and in suitable breeding habitat on other parts of No.4 bed. On 4th June a gathering of 14 Shelduck was present at a long-standing rabbit warren complex, all displaying. Whether breeding subsequently took place there is not known. A brood of nine small young appeared on No.3 bed on 23rd June. One of the young soon disappeared but a brood of three was observed near to the brood of eight on 1st July, and a third pair bred in a rabbit hole by the redundant arm of the Oxbow, where they were seen with at least five young. After 1st July no young were seen and it is thought that most were taken by Lesser Black-backed Gulls.

No Shelduck were seen after this date until mid-September and it was not until December that significant numbers returned, peaking at 15 on the 27th.

Mandarin Duck

Aix galericulata

The only record was of a drake on No.3 bed on 17th May.

Wigeon

Anas penelope

Amber listed

A typical year, with only small numbers noted.

During January and February there were many reports of no more than five birds. There was just one March record and then no more until an eclipse drake was on No.3 bed on 21st June.

Most Wigeon are seen on autumn passage and then there were almost daily sightings up to the end of the year. The only other double-figure counts were of ten on 5th November, 12 on 29th November and the year's maximum of 15 on 18th December.



Wigeon

Andy Weir

Gadwall

Anas strepera

Amber listed

Overall numbers were down on the very high counts of 2014 and 2015, but the summer build-up, so much a feature of recent years, was apparent although not on the scale of the previous two years.

A fairly typical year began with peak counts of 37 on 16th January, 51 on 20th February and 80 on 23rd March. By this time most were paired, with at least 22 pairs on No.3 bed on 29th March. Numbers continued to increase during April and on two early May dates 89 and a minimum of 100 were flushed by a Marsh Harrier. The first brood (nine young) appeared on No.3 bed on 30th May and was followed by at least a further eight broods.

On 6th July three broods of about two-thirds grown young were found on pools in the remote north-east corner of No.3 bed and could well have been previously unseen. A best assessment of breeding numbers in 2016 is therefore in the range of 10-13 pairs. Of these one was on No.1 bed, two on the Mersey between Nos. 2 and 3 beds, one on the Loop of No.4 bed, one on the river below the Loop and five to eight on No.3 bed.

During the summer numbers increased steadily, with at least 153 adults on 7th June, 230 on 18th July and the year's maximum of 295 on the evening of 1st August. This is well down on the nationally important peak of 539 in June 2015 and the internationally important 875 in September 2014.

The final months produced good counts of 118 on the 17th September WeBS and 85 on 12th November. By December fewer were present but up to 35 were regularly feeding on the invasive weed *Azolla*, a favourite food of Gadwall, on the Mersey Oxbow below the south bank of No.3 bed.

The ringing team caught an adult female in the duck trap, on 9th January, only the seventh ringed to date.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
37	51	80	86	100	153	230	295	118	48	85	35

Teal

Anas crecca

Amber listed

Woolston's commonest wintering duck, and although less numerous than 20 years ago, impressive flocks still occur, with peak counts this year again exceeding a thousand. Teal are secretive in the breeding season and it is not often that broods are seen. In 2016, however, confirmation of successful breeding was made.

In January 450 were flushed from cover on the 2nd, but the highest early year count was 634 on the 16th WeBS. Owing to their fondness for cover Teal can be under-recorded and it is WeBS counts that usually reveal the actual numbers present. Even so, apart from a count of 220 on 12th March WeBS it was apparent that Teal numbers in the spring were below average. By April most had departed and those that remained were beginning to pair up. Nineteen (eight pairs) were recorded on 9th April, but very few were reported during late April and May. On 7th June a flock of 15 was flushed from the undisturbed north-east corner of No.3 bed, the majority of which were drakes.

Breeding was proved on 16th July when a female with three well grown young was seen from the Morgan Hide – minus one young three days later.

The first returning birds were noted on 23rd August when 66 were on No.3 bed, increasing in September to a maximum of 337 on the 17th. During October numbers remained stable at a little below the September peak. By mid-November 500 were flushed on the 12th and 700 were estimated to be on No.3 bed on the 25th. As cold weather set in during December Teal were forced out of cover as the water on No.3 began to freeze over. In similar conditions the year's maximum of 1200 was counted on the ice in the final few days of the year.

The ringing team caught 97 new Teal in the No.3 bed duck trap, 76 in the first winter period and 19 in December. A further two were ringed after flying into a mist net set for Green Sandpipers. A total of 17 Teal was retrapped during the year, seven from 2014 and ten that were first ringed in 2015.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
634	148	220	60	2	15	10	66	337	255	700	1200

Green-winged Teal

Anas carolinensis

On 29th November one was seen among hundreds of Common Teal sitting on the ice that covered a large part of No.3 bed. It was then seen by many observers until 5th December then the 9th, 14th and finally 16th December. This is only the third record of this American sub-species at Woolston the other previous sightings being on 5th February 1984 and 11th April 1987.



Green-winged Teal

Andy Weir

Mallard

Anas platyrhynchos

Amber listed

Given the two relatively mild winters, numbers of Mallard were not exceptional in 2016 and if anything were below average. Many broods were reported across the Reserve.

In cold weather the highest early year count was 118 present on the 16th January WeBS, the only three-figure count in the first eight months. Consistent numbers (50–80) were noted in the following months.

The first brood was reported on the Loop of No.4 bed on 3rd April, with broods subsequently distributed widely on the freshwater pools, the Mersey and the Ship Canal. In all, a total of 25 broods was seen, the last on 16th July on No.3 bed (c.f. 29 broods in 2015 and 34 in 2014). Eleven were found on No.3 bed, three on No.1 bed, three on the Mersey, three on the Canal, three on the Loop of No.4 bed and one each on the Weir Pool and No.4 bed.

In the final months there were peak counts of 112 on No. 3 bed on the evening of 12th September and 109 on 14th December.

Five Mallard were ringed in February and March, three drakes and two females.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
118	85	68	63	57	82	56	86	112	79	87	109

Pintail

Anas acuta

Amber listed

This species is now an extremely scarce visitor to Woolston.

The only early year record was of a pair on No.3 bed on 23rd April. The only other reports were in September, when two females were on No.3 bed on the 6th and 7th, and a lone female on the 16th.

Garganey

Anas querquedula

Amber listed

A drake on the Oxbow below the footbridge on 20th April and a pair on No.3 bed on 22nd April were the only records received of this fine summer visitor.

Shoveler

Anas clypeata

Amber listed

Shoveler were more numerous this year compared to 2015, especially in the autumn, although numbers were still well down on the high counts of several years ago. Several pairs summered, both on No.3 bed and the Loop of No.4 bed, but there was no repeat of the proved breeding of last year.

During the first two weeks of January many were present on No.3 bed, peaking at 51 on the 8th. After this numbers fell, and 21 on No.3 on 25th March was the only count in excess of 20 until the autumn.

On 13th April nine pairs were on No.3 bed, and up to two pairs were noted on the Loop of No.4 bed in June. However there was no evidence of breeding.

As often occurs, Shoveler increased in the autumn as passage birds arrived. Maximum counts were of 62 on 22nd August, 61 on 29th October and 60 on 5th November.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
51	30	21	18	2	6	20	62	48	61	60	35

Red-crested Pochard

Netta rufina

On 19th April a pair was found on the Mersey near to Woolston Weir. Later that day they moved on to No.3 bed, where they remained until the following day.



Red-crested Pochard

David Bowman

Pochard

Aythya ferina

Red listed

Wintering numbers remain relatively low, but it was a better year than 2015, with the first three-figure count for three years. There was also a slight increase in breeding pairs.

The year began quietly with counts mainly of less than ten birds in the first three weeks. More began to arrive, with 30 to 50 present on many late January and February dates and a year maximum of 104 on the 12th March WeBS count. Many soon moved on but, as usual, many summered with peak counts of

38 in April and 25 (23 drakes) on 8th May. The first broods (two) appeared on 23rd May and others were seen in the following few days. On 26th May four separate broods were on No.3 bed, with three others with tiny young on the 11th, 15th and 27th June. Finally, on 2nd July a female with a well grown chick was found on the Loop of No.4 bed, a brood clearly missed earlier. In total a minimum of nine pairs bred but, because of the difficulty in separating some of the early broods, there could have been up to 11 pairs with young, (c.f. eight broods in 2015).

Very few Pochard were seen after the end of July, with no sightings whatsoever between 26th July and 19th October. There were only six records in November and December, with no more than four reported.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
53	80	104	38	25	20	4	-	-	1	4	4



Pochard

Andy Weir

Tufted Duck

Aythya fuligula

With no prolonged cold weather in either winter periods Tufted Duck numbers were lower than in recent years, but some impressive counts occurred. The number of broods seen was similar to 2015.

The year began with 356 on 6th January and similar numbers were recorded up to the end of the month. In February there was a maximum of 399 on the 3rd, while the year's peak was 428 on 3rd March. Most were found on No.3 bed, the Weir Pool and the Ship Canal. Up to 200 were still present in April and 79 adults were on the Eyes on 8th June.

The first brood was seen on No.3 bed on 29th June, with three other broods there the next day. Over the following two weeks many new broods were seen, with a maximum of ten broods and 46 young on No.3 bed on 12th July. In all a total of 20 broods was recorded (21 in 2015), 14 on No.3 bed, three on the Loop of No.4 bed, two on the Mersey and one on the east pool of No.1 bed. The ever-present Lesser Black-backed Gulls took a number of small chicks, but broods of well grown young suggest a good breeding season overall.

It was into October before significant numbers returned, with 123 on the 25th and the end of the year maxima of 254 on 12th November, and 286 on 7th December.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
356	399	428	200	54	79	56	13	19	123	254	286

Scaup

Aythya marila

Red listed

There was just one record of this once annual visitor to the Eyes, a female on No.3 bed on the evening of 24th November.



Goldeneye

Keith Gallie

Goldeneye*Bucephala clangula**Amber listed*

A winter visitor most often seen on the Woolston Weir basin. With no prolonged cold spells numbers in both winters were relatively low, with only single-figure counts received.

In the first winter period there were many reports, with a maximum of eight (five drakes) on 16th January. The last early-year record was of three on 30th March and there were no further sightings until 5th November, when two were on the Mersey east of the Weir basin. Thereafter no more than two were seen until the onset of cold weather in late December, when up to four drakes were present at the Weir.

Goosander*Mergus merganser*

An uncommon visitor to the Eyes with just three records, probably of one bird, a female, on the 21st, 22nd and 24th August.

Ruddy Duck*Oxyura jamaicensis*

A female was present on No.3 bed from 20th April until 8th June. On 10th June she was joined by a drake and the pair was reported on many dates up to 9th July. Breeding may have been attempted as the male only was seen over the next ten days. There then followed almost a week with no records before a female was found on the Loop of No.4 bed on 26th July. Back on No.3 bed there were three August reports of a female on the 9th, 21st, and finally the 22nd.

Red-legged Partridge*Alectoris rufa*

For the third consecutive year records were submitted. One was seen near the Viaduct on 9th January and the other report was of two to the south of the Canal during the November Migration Watch. These are the tenth and eleventh ever records for Woolston.

Grey Partridge*Perdix perdix**Red listed*

For the first time ever there were no records of this nationally declining red-listed species. The loss of this traditional farmland bird is probably the result of changing agricultural practices and habitat loss.

Pheasant*Phasianus colchicus*

This resident species can be found across the Reserve in declining numbers. This year's figures were similar to those recorded in 2015, with maximum counts in January and April. A series of sightings during the first half of January indicated a Reserve total of 15 to 20, of which the majority were on No.1 bed and Butchersfield Tip. Similar numbers were found during the common bird surveys in March and

April, when the northern half on No.4 bed held nine on two occasions. Seven were on No.3 bed on the evening of 22nd April and four on No.1 bed on the 16th. This would indicate a minimum of 20 for the whole Reserve given that there is almost certainly under-recording of this species.

Breeding almost certainly took place on No.1 bed where a female was calling anxiously on 7th August, behaviour indicative of young being present, although these were not seen. On 13th September a female with three large young was on Butchersfield Tip. Post-breeding, the only significant totals were on the October and November Migration Watches, when counts of 23 and eight respectively were recorded.

Cormorant

Phalacrocorax carbo

A common visitor to the Reserve, with up to 20 counted on a number of dates. Over-flying birds moving either from or to roosts are reported regularly, with peaks of 37 flying west on 29th October and 35 on 5th November. Favoured diurnal roosts on pylons by the Loop of No.4 bed and trees along the Mersey are frequently used by this species. A bird of the *sinensis* race was photographed on the pipebridge over the Mersey on 23rd January.

Bittern

Botaurus stellaris

Amber listed

It is pleasing to report five records of this elusive but increasingly regular species. The first was on No.1 bed when it flew between two phragmites reed beds on 29th February. What was probably the same bird was seen dropping in to the eastern reedbed on No.1 three days later. On 9th August one was watched flying low over No. 3 bed and on 22nd August there was another sighting on No.1 bed, of one flying across open water before landing in the eastern reedbed. Finally, during reed cutting on No.3 bed on 9th December, one was flushed by a reed cutting machine.

These represent the best series of records ever at Woolston Eyes.

Little Egret

Egretta garzetta

It is encouraging that the number of records this year was an improvement on previous years. Little Egrets still remain an irregular visitor to the Eyes compared to other wetlands in the County. The 21 records between 9th April and 9th November were all of single birds, apart from a flock of five flying east over No.1 bed on 14th October.

Great White Egret

Ardea alba

The only record this year was of one reported on 8th September, though no further details were available at the time of writing.



Little Egret on the John Morgan Hide scrape

David Spencer

Grey Heron

Ardea cinerea

A regular visitor throughout the year that has bred at the Eyes. Unlike 2015 there were no double-figure records submitted, the highest counts in the first six months being seven on 20th January and 21st March. Later in the year eight were found on 12th November WeBS count.

On 2nd July one was seen to take the last surviving chick of a Shelduck brood.

Little Grebe

Tachybaptus ruficollis

Another reasonably good year for this grebe, although there were fewer breeding pairs than in 2015.

The year began with up to six present in January. Smaller numbers were reported in February and for much of March, but trilling birds were heard on Nos.1 and 3 beds. The main influx traditionally occurs in April, with ten on the Eyes on the 9th and 14 on No.3 bed alone (six pairs plus two) on 8th May. One was seen with nest material on 12th May and the first brood, an adult with a single young, was found on No.3 bed on 28th May. Further broods followed during June, including a pair with three large young on the east pool of No.1 bed on the 10th. On 18th June four broods were present on No.3 bed (eight adults and six young), with a fifth brood of three very small young following on 4th July. On 9th July a bird was on eggs on a nest inside the east bank of No.3 bed and a pair with one young was seen near this nest on 19th July. Yet another new brood appeared on No.3 bed on 23rd July. In all, ten pairs are

thought to have bred, six on No.3 bed, two on the Loop of No. 4 bed and two on No.1 bed, where three large but unfledged juveniles were found on 5th August. With five large young also present on No.3 bed on that date and others on the Loop, it is probable that a minimum of ten young fledged.

By the early autumn most Little Grebes had moved on to the Oxbow surrounding No.3 bed, with maxima of 13 on 25th October and 12 on 14th December.

Great Crested Grebe

Podiceps cristatus

Relatively small numbers winter at Woolston, with most birds returning to breed during late February and March. A Reserve-wide count of eight on 20th January was, therefore, atypical. Sixteen were noted on 12th March, while on 17th March five pairs were on No.3 bed, with another on the Ship Canal and a seventh pair at a regular site at Woolston Weir. Two days later one was on a nest on No.3 bed and on 22nd March six pairs were reported on No.3 bed. The year's maximum of 19 was found on 9th April WeBS.

The first broods were seen on 17th May, after which others appeared up to the 8th June. In all it is believed that eight pairs bred, six on No.3 bed and single pairs on the Mersey between Nos.3 and 4 beds and on the river north of No.2 bed, where a bird was on a nest on 8th June. The outcome of this nest is not known. An adult with a newly hatched chick was reported on No.3 bed on 14th July.

By August most birds had left, with none seen in September and just one sighting in October. The year-end peak was four on 2nd November.

Black-necked Grebe

Podiceps nigricollis

Amber listed

2016 was the 30th year since this rare species first bred at Woolston, and young have been raised every year, apart from a short period in the early to mid-1990s following the drainage of No.3 bed. The early 2000s saw the peak in breeding numbers, with up to 40% of the national population at Woolston. Since then it has stabilised at about eight to ten pairs most years, and in 2016 it was within this range.

The first bird returned on 15th March and just one was present for the next ten days. An arrival on 25th March saw five on No.3 bed, including a pair displaying, with six the following day. A few more arrived in early April, with eight seen on the 9th and 13th but the final influx occurred between 14th and 20th April, when 12 increased to the year's maximum of 18 adults on 20th/21st April.

The first evidence of confirmed breeding was a report of one bird on a nest on 10th May, with the first brood (two very small young) appearing on 15th May. A second brood was seen the next day with three broods on the water on 21st May and four (totalling six young) on 26th May. Over the following weeks more broods appeared regularly, with five on No.3 bed on 9th June and a sixth two days later. By this time some large independent young were seen and by the end of June some of these birds were already flying short distances across the water. More new broods appeared over the following weeks with the last, the eleventh, on 16th July. It is believed that up to three of these were from pairs that had lost

young earlier and had relaid. From many hours of observation it is thought that eight or nine pairs bred, fledging a minimum of nine young, but possibly as many as eleven.

The last adult was reported on 6th August and the last juvenile on 23rd August.



Black-necked Grebe

Andy Weir

Red Kite

Milvus milvus

Although a rare visitor to Woolston, this is the third consecutive year that records have been received. On 23rd April David Bowman saw one flying low over No.2 bed before being lost to view. It reappeared about 20 minutes later circling high over No.3 bed before drifting off. Two days later, what may have been the same bird was reported from No.3 bed.

Marsh Harrier

Circus aeruginosus

Amber listed

Usually seen during spring and autumn, individuals occasionally stay into early summer, raising hopes of possible breeding. The first sighting was of one on No.3 bed on 9th February and the following day a “female-type” was reported from No.1 bed. The next record was on 13th April and sightings continued on a regular basis until 23rd May, mostly of singles, and described as female/immature birds. On 24th May, what was believed to be a different individual was on No.3 bed. An immature male was seen on 2nd May and another “new bird” on the 9th. Two females were present on 12th May.

The first evidence of return passage was on 12th September, when a juvenile female was seen on No.3 bed and there were reports of a single, again on No.3 bed, on the 16th and 30th of that month. No further records were submitted and it appears that between six and seven different birds passed through during the year which is about average.

Hen Harrier

Circus cyaneus

Red listed

For the second successive year there were sightings of this threatened species. A “ringtail” appeared on No.3 bed on 27th October and was seen by many observers before departing on 1st November. It had a radio transmitter which had been fitted in the Isle of Man and information was obtained about its movements. A radio-tagged bird had been reported at Risley Moss around the same time but it seems that this was not the same bird as the one seen at Woolston.



Hen Harrier on No.3 bed

Steve Dolan

Goshawk

Accipiter gentilis

There are one or two reports most years. At 9.20 a.m on 14th May David Bowman saw a large immature female chase a Feral Pigeon under the Thelwall Viaduct before disappearing to the west. The bird was seen at a distance of about 50 yards and full field notes were taken.

Sparrowhawk

Accipiter nisus

Present throughout the year, most reports were from No.3 bed but there were also occasional sightings on Nos.1 and 4 beds. Three were on No.3 bed on 2nd January, while February brought records of a pair on two occasions, with display observed on the 20th. April saw an increase in reports with three present on the 8th, 9th, and 13th and display on a number of dates including a pair on No.1 bed on the 16th. On 28th April five were on No.3 bed, of which two pairs were displaying to each other. The first indication of breeding was on 4th May when one of a pair was observed carrying prey into trees on the north bank of No.3 bed. Juveniles were first seen in July; on the 28th two were seen hunting along the north bank of No.3 bed and perching in a dead tree. Two days later three juveniles were in the same area “perching, soaring and interacting”. Five were noted soaring over the same area on 24th August. A pair also bred on No.4 bed but the eggs were destroyed, probably by Grey Squirrels.

The highest count of the year was of seven on a Migration Watch on 8th October but not all of these would have been directly over the Reserve. At the end of October two juveniles were on No.3 bed and a total of four birds was on that bed on 5th November. During December there were six records of one or two, whilst on the 16th two males and a female were reported from No.3 bed.

Five were ringed, four on No.1 bed and one on No.3 bed, between 7th August and 26th October. All were first year males.

Buzzard

Buteo buteo

This species is now by far the most common raptor to be found at Woolston and over a hundred records were submitted. In fact it is quite unusual not to see or hear at least one on any visit to the Reserve. Most records were from Nos.1 and 3 beds, with only a few sightings reported from No.4 bed. Breeding has previously occurred on this bed but, although two were present on a number of occasions from March to June, there was no evidence of breeding there this year. Significant sightings included three at Bollin Point on 20th February and five on No.1 bed on the 29th, including a pair displaying. On 3rd March nine were on Nos.1 and 2 beds and on the 26th of that month nine were soaring over No.3 bed, including one carrying nest material towards the east bank. Six were on No.1 bed on 2nd April and one was seen to take what was thought to be a Moorhen on No.3 bed on the same date. The highest counts of the year were on 5th April, when eight were on No.1 bed and five on No.3 bed, and on 9th April when a total of 17 was counted across the Reserve. On 4th May a count of 15 included eight flying north over No.1 bed.

In late spring and summer there were a number of reports of birds taking Black-headed Gull chicks on No.3 bed and this predation was thought to have had a significant effect on the breeding success of that species. It is thought that three pairs bred. A nest with three large young was found on No.4 bed and pairs probably bred on both Nos.1 and 2 beds. A nest was found on No.2 bed but the outcome could not be ascertained due to the presence of Giant Hogweed. After the breeding season the highest counts were of seven on No.3 bed on 23rd July, six soaring over Butchersfield Tip on 23rd August and eight over No.3 bed on 27th August. The Migration Watches recorded totals of 11, 11 and 25 but these include birds at some distance from the Reserve.

On 17th June the ringing team on No.1 bed caught and ringed a bird aged three years. This is the first ever free-flying Buzzard to be ringed at Woolston.

Osprey

Pandion haliaetus

Amber listed

During the first half of May there were a series of sightings from No.3 bed. One was observed on No.1 bed on 4th May and it later flew north over No.3 bed, where it was seen by a few observers from the John Morgan Hide. The next report was of one with a fish at the Weir on the morning of the 9th. It was seen again during the afternoon, when a blue ring on its left leg was noted. From photographs taken it was apparent that this was a different bird to that seen five days earlier. It remained on No.3 bed until 15th May, apart from a brief excursion to the Loop of No.4 bed on the 13th. It was often seen perched on a dead Silver Birch, on occasions with fish.



Osprey on No.3 bed

Hazel Rothwell

Kestrel

Falco tinnunculus

Amber listed

During the first three months there were only eight records, all of singles. April brought twelve sightings, including a pair displaying on No.1 bed and a third bird on the Viaduct. On 19th April a pair was observed calling near a nest box on No.3 bed and chasing off a Buzzard. The following day one flew east over No.3 bed onto No.2 bed carrying prey and on the same day two were seen on No.4 bed. On 21st May a male was seen carrying food into the nest site on the Viaduct and a pair was present there on 4th June. It is presumed that breeding was successful as on 13th August four were found on No.1 bed, the highest count of the year. It appears that only one pair bred, which is the same as in the past two

years. No more than two were reported to year end and there were only seven records between October and December.



Kestrel

Keith Gallie

Merlin

Falco columbarius

Red listed

After blank years in 2014 and 2015 there were seven sightings of this small falcon. On 18th January a female was flushed from No.1 bed near the Viaduct and on 18th February one (again a female) flew low across No.3 bed flushing all the wildfowl. The remaining spring record was of one flying rapidly over the John Morgan Hide to the east. On the October and November Migration Watches one was recorded on each occasion. The other two reports were of a female on No.1 bed on 7th December and on the Wildfowl Count of 17th December, when one flew low across the Loop of No.4 bed to the east. This represents an above-average year for this attractive but often elusive winter visitor.

Hobby

Falco subbuteo

In a fairly typical year there were fifteen records between late April and early September. All were from No.3 bed, apart from one on No.4 bed on 14th May and three September reports from No.1 bed and Butchersfield Tip. The first of the year was on 30th April when one was on No.3 bed. Six May records followed, including two birds on the 1st and the 9th. The last spring report was on 21st May and there was then a gap until 8th July, when one was seen carrying prey, possibly a Swift. On 6th August two were hunting hirundines over No.3 bed and the final record from this area was on 20th August, when one was observed chasing and nearly catching a Sand Martin. The final sightings of the year

were of one at the Swallow roost on No.1 bed on 3rd September, two on the Migration Watch on the same day and one again at the Swallow roost on 6th September.

Peregrine

Falco peregrinus

There were 65 records of this impressive falcon, which has bred on the Thelwall Viaduct for the past nine years. Reports were submitted throughout the year, with the exception of October, but birds were scarce in February and November, with just one and two records respectively. January saw frequent sightings and a pair was at the traditional nest site on the 11th. A pair was on the Viaduct on 20th February and during March they were hunting Feral Pigeons, a common prey species at Woolston. On 23rd March one stooped at a Black-headed Gull on No.3 bed, narrowly missing it. By May it was clear that young were in the nest; the male flew across No.3 bed with prey on the 7th and on the 14th the male was seen on guard at the nest site. By the end of May the adults were seen regularly around the Viaduct and an adult and one juvenile were noted there on the 24th. On 4th June the two adults and three large young were reported under the Viaduct on the northern side of the Canal and the family was seen again on 10th June and 2nd July with all three young surviving. Two juveniles were hunting over No.3 bed on 8th July and on the 21st of that month a juvenile took a Feral Pigeon near the eastern end of No.1 bed. On 10th August a juvenile female flushed all the waders on No.3 bed, stooping unsuccessfully at a Black-tailed Godwit. After August there were fewer sightings, with two in September (both of singles), none in October and two in November, both at the eastern end of the Reserve. The year ended with five December reports, including a record of one stooping at a flock of 1,200 Teal on No.3 bed on the 30th but failing to flush them into the air.

Water Rail

Rallus aquaticus

Over 80 records of this fairly common but elusive species were submitted, all except one from Nos.1 and 3 beds. In January, maximum counts were of three on No.1 bed and two on No.3 bed. The majority of February reports were from No.1 bed, with four counted on the 29th. March saw a number of records of four or more from No.1 bed, where a total of six was reported on the 3rd and five on the 10th. The highest count of the year (eight) was on 4th April, when five were on No.1 bed and a further three on No. 3 bed. During the breeding season few records were submitted, with just two in each month between May and July. These included the only record from the Loop of No.4 bed, where one was heard calling on 18th June. The first indication of successful breeding was on 8th July when a juvenile was seen from the John Morgan Hide. On 5th August a juvenile was in front of the screen next to the Sybil Hogg Hide and later that day a juvenile was seen from the John Morgan Hide. It seems likely that these were different birds, which would indicate that two broods had been produced. The only other record of young was on 22nd August when a juvenile was reported from the Tower Hide.

Autumn saw four on No.1 bed on 7th November and three on No.3 bed on the 26th, the last record of the year. It is interesting to note that, although No.1 bed appeared to hold the higher numbers, the only confirmed breeding took place on No.3 bed. Two were ringed; an adult male was caught at the feeding station on No.1 bed on 30th August, and a juvenile female was captured on No.3 bed the following day.

Moorhen

Gallinula chloropus

This species is probably under-recorded but there were still over a hundred records of this common resident. Thirteen were on No.3 bed on 1st January and later that month there were three counts of between 23 and 25 across the Reserve. Counts during February were slightly lower with a maximum of 19 on the WeBS Count (20th). The March count produced a total of 23 but generally between ten and twenty were present. On 23rd March a pair was seen nest building in front of the John Morgan Hide and counts during the breeding season were generally in single figures.

From records submitted it is calculated that about 19 broods were produced, very similar to 2015 when 20 were noted. Of these, 12 were on No.3 bed, two on the Loop of No.4 bed (seven in 2015), three on the river, one on No.1 bed and one on the flooded fields to the north of No.2 bed. Post-breeding, 18 were counted on 26th July and on 30th September 36 were on No.3 bed alone. The highest counts of the year were on 15th October (47) and 2nd November, when a Reserve-wide total of 58 was recorded. This represents an increase compared with the 2015 maximum of 38.

Fifteen were ringed on No.3 bed. Five were captured in mist nets set for Green Sandpipers during August and September and no less than ten were found in the duck trap on Christmas Eve! Three of these were adults.

Coot

Fulica atra

In contrast to the previous species, numbers were down on the 2015 totals and breeding was also less successful. The highest counts in January and February occurred on the WeBS counts with 35 and 55 respectively. Numbers increased slightly in March, which brought the year's maximum of 56 across the Reserve. In April birds were less plentiful, with a highest total of 35 on the 20th. The first brood was reported on this date when a minimum of three small young were in a nest on the river near the footbridge. About 26 broods were found and, of these, no less than 18 were on No.3 bed. Four were on the river, three on the Loop of No.4 bed and one in flooded fields to the north of No.2 bed. This represents a decline from 2015 when an estimated 42 broods were counted. Interestingly, the number of broods on No.3 bed was virtually the same as in 2015 but very few were seen elsewhere. Overall, breeding was reasonably successful although less than in the last four years, which were above average.

Maximum counts during the summer were on 16th June when 40 were at the John Morgan Hide, and 30th July when 35 of a Reserve total of 44 were on the Loop of No.4 bed. In August less than 20 were present and the WeBS counts for October and November recorded 26 and 29 respectively. By December even fewer remained with ten on the 27th concluding a disappointing year.

Just two were ringed on No.3 bed, both on 9th January.

Avocet

Recurvirostra avosetta

Amber listed

This amber-listed species remains a rare visitor to Woolston. Two were seen briefly on No.3 bed on 10th June but soon left. This is only the sixth ever record for the Reserve.

Oystercatcher

Haematopus ostralegus

Amber listed

Although amber-listed this species is a fairly common visitor, with most sightings reported during spring and early summer. The same pattern was followed this year and a total of 37 records were submitted between mid-March and July, all from Nos.1 and 3 beds. The first of the year was on 15th March when three were reported from No.1 bed. Two days later two were in front of the John Morgan Hide. Three were in the same location on 7th April and four were found there on 4th May. Three flew east over No.1 bed on 27th May and three were at the Weir on 7th June. July sightings were of two at the John Morgan Hide on the 7th, 14th and 18th, with one on No.3 bed on the 19th proving to be the last of a fairly typical year.

Grey Plover

Pluvialis squatarola

A rare visitor to Woolston, this normally coastal species made an unexpected appearance on 13th September. It was an American visitor to No.3 bed who first identified the bird through its call and it was later seen briefly flying around the bed before leaving to the west. This is the first record since 2005 and only the third since 1990. During the late 1980's there were annual sightings but this was at a time when the closely related Golden Plover were seen in their hundreds and even thousands at Woolston!

Lapwing

Vanellus vanellus

Red listed

The year began with a report of 243 flying west on the morning of 2nd January. Later that month, on the 23rd, 200 were in fields to the south of Butchersfield Tip and a further 325 were seen over No.3 bed. The February WeBS count totalled 90 but the first reports, as birds looked for breeding sites, was of three on the John Morgan Hide scrapes on 25th March. Two were on islands on the Loop of No.4 bed on 3rd April and on 7th April, three pairs were on fields to the south of Butchersfield Tip. There is no indication of whether they bred. Signs of breeding included display in front of the John Morgan Hide in late April and early May, and on 17th May an adult was thought to be on a nest in front of the Sybil Hogg Hide. On 3rd June a pair was calling noisily on one of the Loop islands and display was observed there on 18th June. On 10th June a nest was found in the centre of No.4 bed with four eggs. Unfortunately the nest was predated and there was no evidence of successful breeding anywhere on the Reserve.

The annual post-breeding flocks on No.3 bed first appeared on 18th July when 47 were present. Numbers continued to increase, with counts of 282 on 23rd August building to a maximum of 480 on 13th September. Other high autumn totals were reported from the Migration Watches, with counts of 686 on 3rd September and 545 and 386 for October and November. From mid-September onwards the No.3 bed flock declined; 380 on 18th September and 200 on 21st October. The remaining high totals were of 400 over No.1 bed on 28th and 30th September, and 300 in fields to the north of No.1 bed on 23rd November. On 31st December 40 were on fields to the south of Butchersfield Tip, while a further 300 flew over No.2 bed.

Little Ringed Plover*Charadrius dubius*

Although there were nearly 50 records of this once infrequent visitor, this was less than half the number of reports submitted in 2015. The first of the year was one on No.3 bed on 19th March and this was followed by two on the northern half of No.1 bed on 2nd April. Later that month three were found in the same area, including a pair displaying. Also in April came a record of one on the flooded fields to the north of No.2 bed. There were five May sightings; two of overflying birds but also a pair on the favoured area of No.1 bed (14th) and two to the north of No.2 bed (31st). On 4th June no less than seven were on No.1 bed, including two pairs with at least one young each and another pair thought to be nesting. Another three were on No.3 bed on that day, making a Reserve total of ten. Two adults were in front of the John Morgan Hide on 5th June and during the next fortnight one or two were seen regularly in this location. There were no further sightings until 23rd July, when an unaccompanied juvenile was on the scrape. August produced five records from the John Morgan Hide including two juveniles on the 30th. It is not certain whether these juveniles were the result of breeding on No.3 bed but this seems likely. If so, it appears that three or four pairs raised young on the Reserve, compared with a minimum of four in 2015. The final record of a successful year was of one on No.3 bed on 9th September.

Ringed Plover*Charadrius hiaticula**Red listed*

There were four records of this red-listed wader, which is in serious decline and is a rare visitor to Woolston. One was found in front of the John Morgan hide on 17th May and what may have been the same bird was seen there again four days later. The other sightings were of one flying west over No.1 bed on 30th July and one in winter plumage on No.3 bed on 2nd September.

Whimbrel*Numenius phaeopus**Red listed*

Another occasional visitor, there were three records, all from No.3 bed. On 14th April one flew low over the bed calling. Three flew west, again calling, on 4th May and the third sighting was of two flying east on 14th July.

Curlew*Numenius arquata**Red listed*

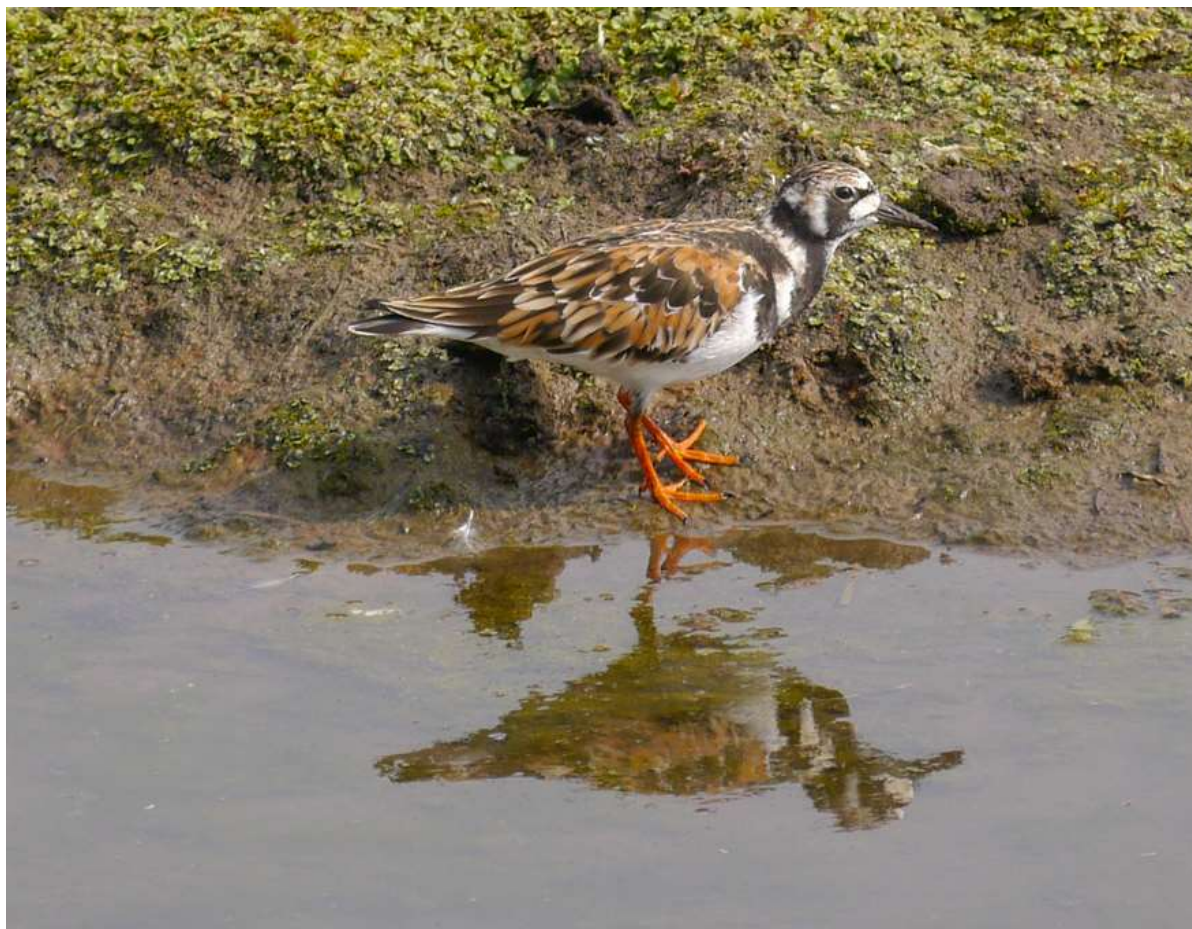
One flew east over the south bank of No.3 bed on 19th February and one flew east over No.1 bed on 8th April. The final sighting was during autumn passage when one flew west calling over no.3 bed on 6th August. None of these birds landed and this was a poor year for this red-listed species.

Black-tailed Godwit

Limosa limosa

Red listed

Although red-listed this species goes from strength to strength at Woolston and the 125 records submitted make this the second best year ever. Nearly all reports were from No.3 bed, where an early sighting on 1st March was the first of the year. There were no further reports until 5th May when nine were seen. A week later nine circled the bed but did not land and the next record was not until 27th June, when a bird in breeding plumage appeared on No.3 bed. What may well have been the same individual was seen again on 30th June. Four flew west on 7th July and a week later seven in summer plumage circled the bed but did not land. Small numbers were present between 27th July and 9th August, with a maximum of ten. On 10th August 60 were seen and numbers increased rapidly to a year maximum of 175 on the 29th. This is slightly less than the record count of 211 on 13th June 2015. On 22nd August a bird was seen which had been first ringed on the nest in Southern Iceland in 2015 and subsequently re-ringed on a number of occasions in the north-west of England. This individual was present again on 31st August. After August, numbers declined with 120 on 3rd September, then 100 on the 18th but only 25 the following day. On 26th September 49 were present but no more than twenty were reported thereafter. Small numbers were present regularly until 23rd November when two on No.3 bed were the last of an excellent year.



Turnstone in May

David Spencer

Turnstone

Arenaria interpres

Amber listed

This amber-listed wader had not been seen at Woolston since 1991 so it was a pleasant surprise when one in full summer plumage was found on No.3 bed on 10th May. It remained until the following day and was seen by a number of fortunate observers. Equally surprising was a second bird which appeared on return passage, again on No.3 bed and in full summer plumage, on 2nd July,



Ruff

Andy Weir

Ruff

Calidris pugnax

Red listed

The numerous sightings in 2015 were sadly not repeated. In fact the only records related to a single male which was seen daily on No.3 bed from 9th to 16th September. This wader is a less than annual visitor.

Dunlin

Calidris alpina

Amber listed

There were 18 records, on both spring and autumn passage, all from No.3 bed. On 28th April one in full summer plumage was found and what was thought to be a different individual was seen the following

day and on the 30th. Five flew low across the bed to the north on 11th May but did not land. Autumn passage was marked by four on 16th July, whilst two on 9th August remained until the 11th and were joined by a third on the 13th. None was reported thereafter until one appeared on 6th September. It was seen again the following day and three were present on the 8th. The final records were of three on 15th October and one on the 22nd. This was the latest sighting since 2011. Whilst not as common as in 2015, this was a reasonable year for a fairly infrequent visitor.



Dunlin & Common Sandpiper on the John Morgan Hide scrape

David Spencer

Red-necked Phalarope

Phalaropus lobatus

Red listed

No.3 bed has become a magnet for waders in recent years but, nevertheless, it was a major surprise when a visiting birdwatcher discovered a pair there on 10th June. At least two wardens were fortunate enough to see the birds which had disappeared by the next day. There had been only two previous records of this red-listed species at Woolston.



Red-necked Phalaropes on No.3 bed

Roly Pits

Common Sandpiper

Actitis hypoleucos

Amber listed

With over fifty records, this was an excellent year and very similar to 2015. Nearly all records were from the favoured No.3 bed and began with two on the scrape on 12th April. The next sighting was of one on the Canal near the ferry on 21st April and there were several reports of one on No.3 bed between 27th and 30th April. On 4th May one was found on the river below the Sybil Hogg Hide. This proved to be the last spring record and there was a gap until 19th July when one was found, again on No.3 bed. Regular reports of one followed, until 30th July when three were present. One or two were seen on an almost daily basis, until 23rd August with three on the 10th. The only other record was of a single on 3rd September.

Two juveniles were ringed on No.3 bed on 30th July and 6th August, bringing the total number ringed at Woolston to nine.

Green Sandpiper

Tringa ochropus

Amber listed

This amber-listed species continues to be seen in excellent numbers and over a hundred records were submitted. For the third consecutive year there was evidence of over-wintering, with the first sighting

on No.3 bed on 5th January. Surprisingly, there were no spring records and the next report was on 7th July. One was on No.3 bed on 12th and 14th July and from 18th July until the end of September there were almost daily sightings. Up to seven were present on a number of dates. As part of the ringing programme birds were fitted with colour rings and there were five sightings of these, all on No.3 bed. The vast majority of records were of birds without colour rings however, indicating that many more individuals than was thought were passing through and staying only a short time. Seven were ringed in total, all on No.3 bed. During October there were six records, with a maximum of six roosting at dawn on the 17th. Further evidence of over-wintering came with five November reports of singles, with two present on the 5th. The final record was of one heard on the river on 16th December, presumed to be the same one seen earlier that day flying over the duck trap. Of the reports submitted all but two were from No.3 bed.



Green Sandpipers

Andy Weir

Greenshank

Tringa nebularia

Amber listed

There were twelve records of this elegant wader between 11th August and 13th September, all from No.3 bed. They were mostly singles but two were seen on 29th August and three on 27th August and 13th September. As in 2015 this species showed well this year.

Wood Sandpiper

Tringa glareola

Amber listed

As in the previous year there were sightings of this rare visitor. One was on No.3 bed on 23rd August and what may well have been the same individual was present from 28th to 31st August, on which date it flew off high to the south at 19.30.



Wood Sandpiper

Hazel Rothwell

Redshank

Tringa totanus

Amber listed

The first sighting of this amber-listed passage migrant was on 30th March, when one was found on No.3 bed. In total twelve records were received, all from No.3 bed. There were three April reports of singles and the next sighting was of one on the spit on 5th and 6th June. None were then seen until autumn passage began, with one on 2nd August. A further single was present on the 22nd and three were reported on the 29th. A fairly average year ended with one on 12th September and four, the highest count of 2016, on the 13th.

Jack Snipe

Lymnocyptes minimus

For the first time in many years there were no records.

Addendum: a record of two on No.1 bed on 25th November was omitted from the 2015 Annual Report.

Woodcock

Scolopax rusticola

Red listed

This declining species is seen at Woolston only during the winter months and it is encouraging to report an increase in sightings compared to the previous year. The first three months produced eight records from Nos.1 and 3 beds. There were four January sightings of one on the 5th, 9th and 20th, and two were flushed from the west bank of No.3 bed on the 28th. Two were on No.1 bed on 11th February, one on No.1 bed on 7th and 8th March and one on No.3 bed on 19th March. The next report was of one on No.3 bed on 1st November, followed by four more November sightings of one or two. On 8th December one was found on an area of No.2 bed that had been recently cleared by construction workers and the final record was of three flushed from the east bank of No.3 bed on 11th December. The 15 records submitted compare favourably with ten in 2015.



Snipe

Andy Weir

Snipe

Gallinago gallinago

Amber listed

This was a fairly typical year for this cryptic wader, which is found only outside the breeding season. In the first winter period there were sightings until 2nd May, with nearly all records from Nos.1 and 3 beds. There was just one report from No.2 bed and the Loop of No.4 bed. Only small numbers were present, the highest counts being of 17 on No.3 bed on 5th January and 11 on No.1 bed on 18th January

and 10th February. After the breeding season the first record was on 21st July and typically numbers increased during August, with 14 on the 17th and 30 on the 19th, both from No.3 bed. September saw the highest counts of the year and a peak of 74 on No.3 bed on the 21st. By October numbers had decreased but on the 17th a Reserve-wide total of 30 included 18 on the Loop of No.4 bed. The last double-figure count was of 13 on No.3 bed on 20th November and less than ten were present until the year end.

Black Tern

Chlidonias niger

The only record of this occasional visitor was on 9th May when one was found on No.3 bed. Typically it was not seen again.

Common Tern

Sterna hirundo

Amber listed

There were 21 records of this amber-listed species, the first being on 12th April when two were on the scrape on No.3 bed. The next sighting was on 10th May when six flew in from the south but quickly headed east; two were present the following day. Later that month there were reports of one flying south on the 21st and two heading north on the 25th. On 7th June a pair was seen mating in front of the John Morgan Hide and on the 17th no less than twelve were present. Two on 18th June and three on the 26th were the other sightings that month, followed by three July reports; one on the 6th and 7th and five flying south on the 26th. Two were present on 1st August and the last records were of singles on the 3rd and 6th of that month. All sightings were from No.3 bed.

Arctic Tern

Sterna paradisaea

Amber listed

This long-distance migrant is an infrequent visitor and there were just two records. On 12th April one was on the No.3 bed scrape, together with two Common Terns, and the other sighting was of one, again on No.3 bed, on 13th May

Kittiwake

Rissa tridactyla

Red listed

This species had not been recorded at Woolston since 2001, so it was encouraging to have three sightings this year. On 9th February one was on No.3 bed for five minutes before leaving to the south. Again on No.3 bed, one flew low over the bed heading north in a heavy hailstorm on 26th April. The final report was on 19th May when a permit-holder found one in front of the John Morgan Hide.



Kittiwake flying over No.3 bed in hailstorm

David Spencer

Black-headed Gull

Chroicocephalus ridibundus

Amber listed

The first record was on 2nd January, when 620 flew low over No.3 bed to the east in the early morning. Further westward movements of 100 and 220 were noted on 9th and 11th January and 550 were counted moving in the same direction early on the 16th. The first sign of birds returning to the colony on No.3 bed was on 24th January when 200 were on the water. Numbers increased with the advent of spring; 450 were present on 28th February and 800 on 6th March. On 11th March a count of 535 contained up to 200 immature birds. A Reserve-wide total of 960 on 16th March was followed by a count of at least 1100 on No.3 bed, on 30th March, the highest count of the year. On 4th May 31 appeared to be nesting on the rafts and the first young were seen on the 16th, when Buzzards were observed taking some chicks. By 4th June 17 young were seen, ten on the rafts and the rest on natural nests. A count on 18th June produced 350 adults and 30 young and by the end of the month a total of 76 young was present. This was the maximum count of young and the highest number since 2011. Post-breeding counts of significance included 500 moving east over No.4 bed on 24th October and a Reserve-wide total of 260 (not over-flying) on 23rd November. The year ended with 40 at Latchford Locks on 27th December.

Little Gull

Hydrocoloeus minutus

One of the highlights of spring passage is the appearance of this attractive small gull, which is usually seen in April. This year's records were all from No.3 bed between 2nd and 26th April. One was present on the 2nd and on the 11th up to five were reported. The following day a total of six comprised five adults and a second summer bird and this was the highest count of the year. Between the 18th and 26th there were regular sightings of a first summer and an immature bird, which were almost certainly different individuals.



Little Gull

Andy Weir

Mediterranean Gull

Larus melanocephalus

Amber listed

This species is usually seen during the spring, occasionally staying into early summer and this year's records followed this pattern. All records were from No.3 bed, with the first on 17th March when two were present. Two adults were displaying in front of the John Morgan Hide on the 19th and there were two other March sightings, two on the 26th and two adults and a second summer bird on the 31st. There were eleven April reports involving up to three birds. Most were identified as adults but first and second summers were noted on a few dates. A first summer individual noted on 22nd April was seen to have a red Darvic ring. It was established that it had been ringed as a nestling in Poland in June 2015.

Two adults remained until 6th May and none were then reported until June, when there were five records of one or two birds. The only other record of a fairly typical year was on 6th August when one was heard calling over No.3 bed.



Mediterranean Gulls on the John Morgan Hide scrape

David Spencer

Common Gull

Larus canus

Amber listed

In spite of its name this species is not seen in large numbers at Woolston, where it is only found outside the breeding season. Often seen at Latchford Locks, three were noted there on 7th February and eight on 6th March. During March and April small numbers were reported from the Canal and No.3 bed, where eight were seen on 23rd April, the highest count of the year. Two first summer birds were on No.3 bed on 25th April and the last spring record was on 16th May. The first post-breeding report was from Latchford Locks on 26th July, a typical date. Small numbers were seen at this location until the year end, with maxima of three on 30th October and 20th November. Numbers were down compared to 2015, when a maximum of 14 was reported.

Lesser Black-backed Gull

Larus fuscus

Amber listed

Despite its conservation status, this large gull is not always a welcome visitor due to its habit of predated on ducklings and Black-headed Gull chicks. The year began with 22 flying east over No.3 bed on 2nd January and on the 6th four were on No.3 bed. A pair was seen displaying there on 4th February and on the 16th two adults and four immatures were present. Of five seen on No.3 bed on 2nd March a pair was on one of the rafts and another was making a scrape. On 26th March 15 were on the water and two were at Latchford Locks. There were a number of high counts from the Loop of No.4 bed, with 30 on the water on 14th April and 21 on the 20th. On the latter date one took a Mallard chick on No.3 bed. Thirty were on No.3 bed on 28th April and 25 on the early morning of 2nd May. On 12th May eight were on the Loop and on 3rd June six in the same area were causing confusion amongst the wildfowl and Lapwings. During June and July there were a number of reports of birds taking Black-headed Gull chicks and they also were seen to take a Moorhen chick and a young Tufted Duck. Around this time there were further counts of 15 and ten from the Loop of No.4 bed. The only counts of significance during autumn and early winter came from the Migration Watches at the eastern end of the Reserve. The totals (of birds over-flying) from September through to December were of 33, 45, 31 and 26. Although this species does not breed on the Reserve it is known to do so on factory roofs in nearby Woolston.

Herring Gull

Larus argentatus

Three at Latchford Locks was the first sighting of this species, which is usually recorded outside the breeding season. On 17th February eleven were on the rafts on No.3 bed, a mixture of first and second winter birds. Other significant spring counts from No.3 bed were of ten on 16th March, 16 on 26th March and 27 on 2nd April. Only singles were then reported until the last spring record on 16th May. The only summer sighting was on 3rd August when three were on No.3 bed. None were then reported until 30th October when one was noted at Latchford Locks. The November and December Migration Watches recorded 13 and 50 respectively, but the largest count of the year was the 117 which flew east during the morning of 22nd December.

Great Black-backed Gull

Larus marinus

Amber listed

It is hard to believe that three years ago this, our largest gull, was a rare visitor to Woolston. Since then there have been 14 records in 2014, 20 in 2015 and 24 this year. Nearly all records were from No.3 bed, the only exceptions being the Migration Watches at the eastern end of the Reserve. The first of the year was on 20th February when one was on the water. Two adults, possibly the same birds, were seen on three occasions between 13th and 21st April and three were present on the 30th. Singles were reported on eight dates in May and again the records may relate to the same individual, which was described as a third summer bird. It decimated a brood of Canada Goose young and then turned its attention to Moorhen chicks. There was only one June sighting of two adults and the next record was on 13th August, when two adults were seen trying to catch young of various wildfowl species. One was reported from the November Migration Watch and the two December records were of three flying west on the 3rd and the highest count of the year, 13 from the December Migration Watch on the 22nd.

Rock Dove/Feral Pigeon

Columba livia

Although Feral Pigeons are a regular species on the Reserve, they do not attract a lot of interest for most observers. The only sightings submitted were from the Latchford Locks area and the eastern end of the Reserve. The highest counts were 130 on 7th February and 250 on 19th November, both at the locks. Small numbers were seen from the Migration Watches from Butchersfield Tip; 13 were noted on the 3rd September, just one on the 8th October, 12 on 19th November and 10 on 22nd December. The only evidence of breeding was from a Common Bird Survey on 14th May on No.1 bed, when three were observed in suitable breeding habitat.

Stock Dove

Columba oenas

Amber listed

Stock Doves are present in small numbers across the whole Reserve and it is likely they breed on all beds. The highest count on No.1 bed was six on the 8th March. On No.2 bed four were seen during a Common Bird Survey on the 16th April. Most sightings were from No.3 bed, with a maximum count of six on 24th December. During the spring and summer months a pair could be regularly seen under the feeders by the John Morgan Hide. On the 3rd May the pair was displaying on the hide roof and on 18th June three adults and two juveniles were under the feeders. There was only one record from No.4 bed, of a single seen during a Common Bird Survey on 5th May.

As usual the largest numbers were seen on the farmland surrounding Butchersfield Tip. Twenty were seen on both 3rd September and 8th October, 11 on 19th November and 46 on 22nd December.

On No.1 bed the six ringed during the year was the highest total on the bed since 1995, four were young ringed in nest boxes provided for Barn Owls, while the two adults, including a male in breeding condition, were caught near to the boxes. On No.3 bed six were also ringed during the year. All the birds were adult and, as is usual, they were ringed between May and August.

Woodpigeon

Columba palumbus

A widespread and common breeding bird. The Common Bird Surveys recorded 11 on No.1 bed on 14th May, 8 on No.2 bed on 4th June, 16 on No.3 bed on 4th May and 25 on No.4 bed on 28th May. Large numbers also roost on the Reserve. Two hundred were seen leaving No.2 bed at dawn on 18th February and 200 were also observed on No.1 bed on 29th February. In April there was still a gathering on No.1 bed of 135 on the 16th. Large movements occurred in the autumn period, with 952 seen from Butchersfield Tip on 3rd September, while 1700 flew south over No.1 bed on 31st October.

On No.3 bed seven new birds were ringed, slightly above the yearly average of 5.2. All were ringed at the feeding station.

Collared Dove

Streptopelia decaocto

Collared Doves are relatively uncommon visitors to the Reserve. Most sightings occur at Latchford Locks or the nearby Canal track adjacent to No.4 bed. Even at these sites most sightings involved just

one or two birds; the maximum count was five near the Sandpit Ponds on 9th November. On No.3 bed there were just five records of over-flying birds, with a maximum of two on 3rd December. The only other records came from the Butchersfield Tip, with a maximum count of four seen on 19th November in fields north of the Reserve.

Cuckoo

Cuculus canorus

Red listed

Previous annual reports have documented the sad decline of this once regular breeding species. In 2014 there were no sightings on the Reserve and only two reports in 2015. Although there was no evidence of breeding there was an increase in the number of sightings in 2016. The first record was on 8th May when one was heard calling north of No.2 bed and presumably the same bird was seen flying across No.3 bed on the same day. Further sightings were of one on No.1 bed on 13th May and singles on No.3 bed on 18th and 21st May. The final sighting was of a bird calling on No.4 bed on 28th May.

Barn Owl

Tyto alba

On No.1 bed, following the first to be ringed on the Reserve in 2015, one was observed near a nest box on 9th January and presumably the same bird was found roosting in the box on 23rd January. There were no other records from No.1 bed.

On No.3 bed there were no sightings from the first winter period but their presence was evident by the six fresh pellets found under the John Morgan Hide on 23rd January. A single adult male bird was ringed on No.3 bed in May. It was present in a box with two warm eggs. Unfortunately, when the box was next checked, although the clutch had risen to five eggs, the nest had failed. Fingers crossed it won't be too long before this species breeds successfully on the bed.

The only record elsewhere was of one flushed from the north-east corner of No.4 bed on 16th May.

Tawny Owl

Strix aluco

Amber listed

Tawny Owls are the commonest owl species found on the Reserve and are regularly heard calling on No.1 and 2 beds at dawn and dusk. Most records were of single birds calling but two were heard on No.1 bed on several dates in the latter half of the year and two were seen hunting by the south bank of No.3 bed on 13th October.

A pair bred on No.4 bed using an old Magpie's nest. On 4th April this nest contained three eggs and a single chick was ringed in the nest on 12th May. A nest on No.3 bed was, unfortunately, unsuccessful. This year there was no evidence of breeding on No.1 bed, although one was found roosting in a Barn Owl box on the bed on 23rd December.

Long-eared Owl

Asio otus

Long-eared Owl is a former breeding species and winter roosts were once a regular occurrence. However, there were no reports this year. Given that in 2015 there was only a single report of two birds on No.4 bed and 2014 and 2013 were blank years, it is evident that this owl has become a very scarce bird on the Reserve.

Short-eared Owl

Asio flammeus

Amber listed

There were two sightings this year of Short-eared Owl, both on No.1 bed. One was seen hunting around the east side of the bed on the morning of 11th January and in the autumn one was hunting over the north of the bed on 23rd September.

Swift

Apus apus

Amber listed

A single bird hawking over the east bank of No.3 bed on 27th April was the first sighting of the year. This was followed by four on 30th April. In the first week in May numbers steadily increased and by the 10th May, in heavy rain, 50 were flying low around the John Morgan Hide. On the same day 50 were also observed flying east over No.1 bed. The maximum count during the spring period was 120 on No.3 bed on 19th May. In the colonies in the Warrington area breeding numbers are thought to have remained constant this year. Although the birds struggled in the wet second half of June and July and were absent for long periods, in May and early June when it was warm, they fed well and screaming flocks were very active around nest sites in many parts of Warrington. The usual post breeding flocks were seen, with c100 on 2nd August flying south over No.1 bed and 270 were feeding over No.3 bed a day later. Eighty five on 6th August on No.3 bed was the last sizeable flock seen, after which numbers decreased. The final sightings were on the relatively early date of 20th August when 10 were seen on No.3 bed.

Kingfisher

Alcedo atthis

Amber listed

There were records of Kingfisher in all months except February. They can be quite scarce in the winter months, so one on the perch in front of the John Morgan Hide on 2nd January was a welcome sight. For the remainder of the winter period there were only three sightings but, from April onwards, birds could frequently be seen or heard from the footbridge onto No.3 bed. There was no proof of breeding but a pair was present by a suitable nest site on the Ship Canal, alongside No.1 bed on 16th April. In August, there were regular sightings of up to two from the John Morgan Hide. The maximum count for the year was three on No.3 bed on 17th September and on No.1 bed on 30th September. The final sightings of the year were on 29th December, when two were seen flying past the John Morgan Hide and one was observed near Woolston Weir.

On No.1 bed seven were ringed, which was the highest total since 2008, and a further one was caught that had been ringed on No.3 bed during the year. All were first year birds. These are the first birds caught on the bed since 2011. On No.3 bed it was a record year with four ringed. All were juveniles and came from the net set for the Green Sandpipers in July, August and September.



Kingfisher in front of the John Morgan Hide

David Mercer

Green Woodpecker

Picus viridis

Green Woodpeckers are thought to breed in the Lymm and Rixton areas but are an uncommon visitor to the Eyes. They are mostly encountered at the eastern end of the Reserve, so it was unusual that the first record of the year was of one heard calling near the Tower Hide on No.3 bed on 30th June. The next record was one at the eastern end of No.1 bed on 21st September. There was then a series of sightings from mid-November to late December on No.1 bed and the Bollin Point area; these records possibly all relate to the same bird. The final record was of a bird calling from trees bordering the River Mersey below Butchersfield Tip on 22nd December.

Great Spotted Woodpecker

Dendrocopos major

Great Spotted Woodpeckers are present on all four beds and are regularly seen at the feeders at the John Morgan Hide on No.3 bed. Despite being the commonest woodpecker, there were relatively few records submitted and the only evidence of breeding was of a pair seen drumming on No.4 bed by the pipebridge on 16th February and one heard drumming in the centre of No.3 bed on 20th February. The highest counts of the year were five in the Butchersfield Tip area on 3rd September and four on No.3 bed on 24th September.

For the ringers on No.1 bed, after the very poor year in 2015, it was a return to normality with seven ringed; all were first year birds. One other was retrapped during the year, a male originally ringed on 30th November 2013. On No.3 bed, after a blank year in 2015, 2016 produced 11 new birds. The first was ringed in February. Nine juvenile birds were ringed from 2nd July to the year end.



Great Spotted Woodpecker

Hazel Rothwell

Lesser Spotted Woodpecker

Dendrocopos minor

Red listed

The male Lesser Spotted Woodpecker was regularly seen and heard drumming during spring and early summer, similar to last year's sightings. This is the bird which was first reported in November 2011 when it was a juvenile and caught and ringed on No.3 bed. There were then no other reports of the bird until 2015 when it was regularly seen and head drumming during the spring. This year, it was first heard on 7th March and then there were regular sightings until 6th May. There were also reports of a female being seen on at least one occasion but no further details of this sighting are available. There were then no other records until 1st November, when a bird was seen on the west bank of No.3 bed. There were then further sightings of what was presumably the same bird on 25th November, 28th November and 5th December. Unfortunately, in these winter records, the bird was not seen well enough to determine its sex or age.

Magpie

Pica pica

A common resident breeder. It can usually be found on all four beds but it is notable that there were no records from No.2 bed this year. This is thought to be due to the lack of coverage of this bed rather than the absence of birds. On the 29th April 25 were counted on No.4 bed and the maximum recorded for the year was a Reserve wide count of 28 on 16th March. A ringed bird was observed on the scrape in front of the John Morgan Hide in September. It was possible to read the ring and determine the bird had been caught on No.3 bed on 23rd April 2011.

Two birds were ringed on No.1 bed (an average year), the first on 27th May and the second on 3rd June, both in their second year, one of which had a brood patch. Just a single bird was ringed this year on No.3 bed. It was female hatched in 2015. It was ringed on the 5th July. A bird was retrapped from 2015 too. It was ringed as an adult on the 21st November last year, being retrapped on 16th April.



Jay

Hazel Rothwell

Jay

Garrulus glandarius

A typical year for this species and breeding is thought to have occurred on all four beds. The Common Bird Surveys recorded two on No.1 bed, six on No.2 bed, two on No.3 bed and two on No.4 bed, all birds being in suitable breeding habitat. This year there appeared to be no large autumnal movements with a peak count of just eight on 8th October (this compares to a maximum count of 36 in October 2015).

Nine were ringed on No.1 bed, the best year since 2005. A further three were retrapped during the year, the oldest from 1st June 2013, with the others from 2015. Eight were caught in breeding condition, six females and two males, no juveniles were ringed and the last of the year was caught on 28th June. Ten birds were ringed during the year on No.3 bed. This is a little below the average of 11.6 birds. Six were juveniles, the first two of which were ringed on the 17th July.

Two nests were found, one on No.1 bed with four eggs and one on No.4 bed with three eggs. Both nests were successful.

Jackdaw

Corvus monedula

As usual, most sightings of Jackdaw, which do not breed on the Reserve, were of overflying birds with peak counts in the autumn and winter periods. The maximum recorded was 107 seen during a Migration Watch from Butchersfield Tip on 22nd December. Other counts were much smaller, with 30 at Bollin Point on 26th November, 30 over No.1 bed on 10th October and 25 over No.3 bed on 18th February. There was only one record from No.2 bed of a single bird flying over on 20th April and there were no records from No.4 bed.

The only non-flyover sighting in the year was one bird at the John Morgan Hide feeders on 25th April.

Rook

Corvus frugilegus

Rook are an uncommon visitor and all sightings are usually from the eastern of the Reserve, flying over as they move between the surrounding farmland. In 2015 there were no records and in 2016 only four. Ten were seen from Bollin Point on 20th February, four from the same location on 22nd October, one flying east over No.1 bed on 28th November and 10 from Butchersfield Tip on 22nd December.

Carrion Crow

Corvus corone

A common resident breeding species which is believed to breed on all four beds although, this year, there were no records from No.2 bed. In the Common Bird Survey five were recorded on No.1 bed, two on No.3 bed and 35 on No.4 bed, all birds present in suitable breeding habitat. As usual the maximum counts were observed in the winter periods, with 48 on No.4 bed on 16th March and 70 from Butchersfield Tip on 3rd September.

On No.1 bed an adult was caught on 12th April. This is the first time this species has been caught on the bed.

Raven

Corvus corax

The first sighting of the year was of two soaring to the east of No.3 bed on 16th January but there were no further sightings until autumn. On No.3 bed single birds were seen flying over on 8th and 13th September, 29th October and 9th December. On 16th December one flew west over No.1 bed and the maximum count of the year was three seen from Butchersfield Tip on 22nd December.

Goldcrest

Regulus regulus

Although Goldcrest are, primarily, an autumn and winter visitor they are thought to breed in small numbers in areas local to the Reserve. In the first winter period, there was a maximum count of six on No.3 bed on 5th January. Notable, also, was one singing on 21st January by the No.3 bed car park. There were relatively few sightings in the summer months and it wasn't until September that significant numbers were observed. On 3rd September, seven were seen in the Butchersfield Tip and Bollin Point areas. In the same location, there were 14 on 8th October and 10 on 12th November. On 3rd December 12 were seen on No.3 bed.

For the ringers it was a record year for this species. On No.1 bed 410 were ringed, the previous highest being 134 in 2005. The first of the year was on the early date of 11th February with the last on 21st December. The first juveniles were caught on 4th July. These were followed by a further four in that month and six in August; these were probably locally bred. The first autumn visitors began to arrive from 3rd September but the peak numbers were ringed in October, when 221 were caught, and November produced a further 119. There were two that had been ringed in previous years, both from September 2015. One other had also been ringed previously on No.3 bed and five had previously been ringed elsewhere in Britain. It was also a record year on No.3 bed with 92 ringed. A juvenile was ringed on 2nd July. The first of the autumn migrants were ringed on 10th September, with 89 from then until the year end.

Firecrest

Regulus ignicapilla

On No.1 bed, a first-year male was caught on 16th November, the first to be ringed on the bed since 2012. A juvenile female was also ringed on No.3 bed on 13th November. This is the first Firecrest to be ringed on the bed since 30th October 2009. With so many Goldcrest around this autumn it wasn't a huge surprise, but a very welcome one.

Blue Tit

Cyanistes caeruleus

A common and widespread resident species. In the Common Bird Surveys, 11 were recorded on No.1 bed on 16th April, five on the same date on No.2 bed, eight on No.3 bed on 4th May and 17 on No.4 bed on 20th April.

The ringers on No.1 bed had another excellent year with 199 ringed, the second-best year since 1995. The nest boxes on the bed produced 35 pulli of which eight were retrapped after fledging. A further 88 were caught during the year that had been ringed in previous years, the oldest of these was from 21st August 2009, with the others from 2010 (two), 2011 (five), 2012 (five), 2013 (12), 2014 (21) and the remainder from 2015. There was also one caught that was ringed elsewhere in Britain. There were 26 caught in breeding condition, 13 males and 13 females, and the first fledged juvenile was ringed on 17th June, compared to 11th June in 2015.

On No.3 bed it was also an above average (152.8) year with 184 ringed. Sixty-one were ringed as pulli in the boxes, ten more than last year. Twenty-one were retrapped from 2015, 11 from 2014, seven from 2013, two from 2012, one from 2011, one from 2010 and one from 2009.

On No.4 bed three nests were found in old Giant Hogweed stems with clutch sizes of six, seven and nine. The outcome of these nests is unknown.

Great Tit

Parus major

Like Blue Tit, this is another common and widespread resident species. The Common Bird Surveys recorded 12 on No.1 bed on 2nd April, six on No.2 bed on 4th June, 11 on No.3 bed on 4th May and six on No.4 bed on 5th May.

On No.1 bed the ringers had an excellent year with 128 ringed, the third best year since 1995. In a slightly better year for the nest box pulli than 2015, there were 27 ringed, 11 of which were retrapped when they had fledged. A further 39 were caught that had been ringed in previous years, the oldest from 19th September 2009, with the others from 2010 (four), 2011 (three), 2012 (six), 2013 (five), 2014 (14) with the remainder from 2015. Twenty-four were caught in breeding condition, 14 males and 10 females, the first fledged juveniles were caught from 13th June, compared to 23rd June in 2015.

On No.3 bed, there was a slightly reduced average of 157 ringed (average is 168 new birds). A total of 70 young was ringed in the nest boxes. This compares to 77 in 2015. The first fledged young was caught on 25th June. This is nearly three weeks later than in 2015. Twenty-six were retrapped from 2015, thirteen from 2014, three from 2013, two from 2012, one from 2011 (that had only been retrapped twice since) and two from 2010.

Coal Tit

Periparus ater

Although Coal Tit sightings have increased in recent years, they remain relatively scarce. This year there were no records in the summer months but they are thought to breed in areas local to the Reserve. All but one sighting was of singles, with the maximum being two seen on No.4 bed on 21st April. There were only three records for No.3 bed, the first on 28th January, another on 13th April and the last on 28th September. Five records were received from the Bollin Point and No.1 bed area, four from the first winter period and the final sighting on 22nd December. In total, there were only nine records submitted and it is considered that the species has been under-recorded. The records from the ringing teams are considered to be more representative of the status of the species.

On No.1 bed it was a very good year, with 14 ringed; after 2015, the second highest number since 1995. A further two, originally ringed in 2015, were retrapped in the first winter period with one remaining until 17th March. There were no summer records and the first of the autumn was on 17th September, with another two days later. The majority, seven, was caught in October, with a further four in November; all were first years.

None was ringed on No.3 bed this year

Willow Tit

Poecile montana

Red listed

A detailed study by Allan Rustell, of the breeding of Willow Tits on the Reserve can be found towards the end of this Report. Allan found 17 nests; four on No.1 bed, one on No.2 bed, four on No.3 bed and eight on No.4 bed. Surveys on No.2 bed were restricted by the large areas of Giant Hogweed.

Based on the nests found, together with the presence of singing males and the suitability of habitat, the number of breeding pairs was estimated to be 7-9 on No.1 bed, four on No.2 bed, 5-6 on No.3 bed and 10 on No.4 bed. The estimated total of around 30 pairs emphasises the national importance of the Reserve for this red listed species.

Allan's surveys are supported by the ringing data. On No.1 bed it was a better year than 2015, with 15 newly ringed, similar to the previous five-year average of 14.8. A further 10 were retrapped from previous years, the oldest from 14th August 2009. Six adults were caught in breeding condition, four females and two males, while the first juvenile was ringed on 13th June, compared to 23rd in 2015, 11 first years were ringed in total.

No.3 bed had the best year since 2011, with 20 ringed compared with an average of 16.7. Of those 20, 17 were juveniles. The first was ringed on the 2nd July, this is the latest date. Four were retrapped from 2015 and three from 2014.

Marsh Tit

Poecile palustris

Red listed

The Marsh Tit, which was first observed in November 2015 and was the first sighting on the Reserve since 1993, continued to visit the feeders at the John Morgan Hide in January but was not seen after 7th February.

Skylark

Alauda arvensis

Red listed

Most reports of Skylarks came from the eastern end of the Reserve, where they breed on adjacent farmland. The maximum count in the spring was 14 singing males south of the Ship Canal. Autumn passage started on 17th September, when 20 flew south over No.1 bed. On 30th September, a minimum of 500 was seen flying south over the same bed, part of a large movement throughout the north-west region. Other significant counts included 54 from Butchersfield Tip on 8th October and 20 flying south over No.1 bed on 26th October.

There were only six reports of Skylark from No.3 bed (two records in April and four in the second winter period), with a maximum count of two and no reports from No.2 or No.4 beds.

Sand Martin

Riparia riparia

The first Sand Martins arrived on the comparatively late date of 26th March, when there was a steady movement onto the bed from the south during the morning, totalling 61. As often happens, the favourable weather conditions on which the Sand Martins arrived also saw the arrival of a small party of Black-necked Grebes. On the 30th March, there was a further arrival, with 69 moving through from the south in the morning. On 2nd April 105 were seen, including 15 which came from a roost in the reed bed at dawn. On 6th April, there was the start of an unprecedented movement when 450 were recorded flying north and on 7th April there was a conservative estimate of c.1200, including 760 which were observed leaving three separate dawn roosts. This was part of a general movement throughout our region; 1000 were reported from Marbury Country Park the same day. This is by far the highest count of Sand Martins recorded on the Reserve, the previous maximum being 400 in 2013. Other significant counts in April included 435 on 9th, 230 on the 12th, 300 on the 18th and 90 on the 23rd. In the summer period numbers were much smaller, with most counts being in single figures. There was no confirmation of breeding although, on several occasions, birds were seen prospecting a nest hole on the Ship Canal near the car park. There were no large post breeding numbers. All sightings in August and September were still in single figures except for a count of 41 on No. 3 bed on 20th August. The final record of the year was of two on 16th September.

On No.1 bed the ringing team had a very successful year for Hirundines (see also Swallow and House Martin below). Fifty Sand Martins were ringed, the highest ever total for the bed (34 in 2009 was the previous highest). The first of the year, a control, was caught on 18th June, but the remainder were caught at the Swallow roost that was present from mid-August. Of the new captures the majority were first years with only three adults amongst them, one of which had a brood patch, possibly a failed breeder. The last of the year was on 10th September. On No.3 bed just two were ringed on the 29th and 30th July. The average is just 19, so two is the lowest total for five years.

Swallow

Hirundo rustica

The first Swallows of the year arrived on the same day, 26th March, as the first Sand Martins, when five were seen on No.3 bed. No more were seen until 1st April, which was the start of regular sightings. Numbers were low, however, with most sightings being of less than ten. It was not until late spring that numbers increased, with 250 counted in the evening of 22nd April and 300 on 2nd May, both counts on No.3 bed. One pair bred this year, under the jetty by the Old Pumphouse near No.4 bed. In August, a post-breeding roost formed on No.1 bed, 400 were seen to roost there on 19th August and the maximum count was 1500 on 2nd September.

By mid-September there were regular southerly movements observed. The maximum counts were 76 on No.3 bed on the 13th, 30 on the 21st, 50 on the 23rd and 18 on the 30th. The last sighting was of one flying south over No.1 bed on 14th October.

On No.1 bed 490 were ringed. The previous highest was 350 in 2003. The first of the year was caught on 16th August and the last on 14th September. 425 were first years and of the remaining 65 adults, of the ones that were sexed, 23 were female and 35 were male. Forty-seven of the adults were caught in the first two weeks of September, 11 of the females still had brood patches while just two of the males were still in breeding condition. On No.3 bed it was a poor year with just 79 ringed and there was no significant roost on the bed this year. The average is 204.8. The first were ringed on 29th July.

House Martin

Delichon urbicum

Amber listed

Three on 6th April were the first sightings of the year, a typical arrival date. Similar to Swallows, numbers remained low for the first half of April, with most sighting being of singles. Counts for the second half of April were 10 on the 14th, 20 on the 22nd, 26 on 23rd, 50 on the 24th, 23 on the 28th and 220 on the 30th. In the breeding season numbers were relatively low, with a maximum count of 21 on 28th July. House Martins do breed in the housing estates surrounding the Reserve but numbers at these breeding sites have decreased in recent years, mirroring the nationwide decline in this species. Towards the end of the breeding season numbers increased. Forty-eight were seen on No.3 bed on 9th August and 61 were on the same bed on 20th August. The highest count of the year was on 5th September when 500 flew south over No.1 bed. The final sightings were also on No.1 bed when 12 flew south on 28th September.

As with the previous two species, it was a record year for the ringers on No.1 bed with 21 ringed, the first since 2009. All were caught during the three-week period from 17th August to 6th September and mostly in the early evening. All those caught were first year birds.

Cetti's Warbler

Cettia cetti

2016 confirmed that this secretive but vocal warbler has established a foothold at Woolston Eyes. Male birds were resident on Nos.1 and 3 beds, being recorded singing in every month of the year. No.3 bed provided the first record of a calling male by the Tower Hide on New Year's Day, with the last on the bed on 16th December singing along the north bank. No.1 bed reports commenced with a singing male on 11th January in the east pool reed bed, with the last on the bed on 27th December, again in the east pool reed bed and presumed to be the same individual male.

Song was heard on all four beds and breeding was confirmed on No.1 and No.3 beds, although no actual nests were recorded. Confirmation came from the ringing team captures of five females in full breeding condition in suitable habitat and a juvenile female caught on 13th August, all on No.1 bed, and the capture of a recently fledged juvenile male on 17th July on No.3 bed.

Records from No.3 bed were spread with song recorded from the north, east and south banks, an individual heard around the car park and in the centre of the bed from the Tower Hide to the Rotary Hide. The most frequent reports arose from the east bank to the north east corner. The maximum count was reported on 14th April with four singing males, one in the north-east corner, one on the east bank, one on the south bank and one close by the John Morgan Hide. Reports of three males singing were noted on 9th April, 20th and 27th October, 5th November and 11th December. Despite the numbers of breeding females noted above, only two males were categorically recorded on No.1 bed, one heard on multiple occasions along the track centred around the gate near the west pool and one, possibly two, in the adjacent reed beds around and to the south of the east pool. Only one record on the 4th April was reported on No.2 bed.

The ringing teams captured 20 in total, 17 new and 3 recaptured. Ten new birds, six probably locally bred and four probable migrants, were ringed on No.3 bed. On No.1 bed, seven new birds were ringed and three recaptured birds processed. Of note was the territorial male from 2015 caught at opposite

ends of a 500m linear scrub tract, with five females with brood patches along the same stretch of habitat. The only juvenile was caught in the east pool reed bed, where the majority of song had been recorded. Of the other two retraps one was a bird dispersed from No.3 bed and one from an unknown site.

Long-tailed Tit

Aegithalos caudatus

These are highly gregarious and a common resident breeding species across the Reserve, with their excitable calls often attracting attention to foraging groups. Outside of the breeding season the majority of records are multiple sightings associated with these feeding flocks. There were reports of eight on No.3 bed on 5th January, ten on No.2 bed on 6th January, 16 on 9th January at Bollin Point at the eastern extremity of the Reserve and 12 on the feeders at the John Morgan Hide on 4th February. During the breeding season the Common Bird Surveys count singing/calling individuals for population estimates; six were reported on No.3 bed on 4th May, six on No.4 bed on 5th May and three on No.1 bed on 14th May. Post breeding records illustrate an increase in flock size, with the largest being 22 on No.1 bed on 21st September, 17 on Butchersfield on 8th October, 16 at Latchford Locks on 30th October and 11 on No.2 bed on 2nd November. Three nests were found on No.3 bed, two of which had the eggs predated and the adults of the third were seen feeding young but it is unknown if these fledged successfully.

In total the ringing teams ringed 126 during the year, slightly above the average expected, compared to the last five years figures. Captures of juveniles, however, were down on previous years with just four on No.1 bed and seven on No.3 bed, which could be an indicator of a poor local breeding success. Nine, five females and four males, were caught in full breeding condition on No.1 bed, which puts the four juveniles caught on that bed in context, given the cumulative breeding potential. Both beds saw retraps from previous years, which provide longevity figures as follows; one from 2010, two from 2011, two from 2012, six from 2013, eight from 2014 and nine from 2015.

Yellow-browed Warbler

Phylloscopus inornatus

A scarce autumn vagrant to Woolston but a significant nationwide influx of the species in 2016 saw the Reserve share in sightings of this Siberian migrant. Incredibly, four were ringed on No.1 bed in October, one on the 7th and then three individuals, two in the same net, and all three in the same net round on the 10th. Prior to these, only two others have been ringed at Woolston, the last on No.1 bed on 5th October 2007 and the first on No.4 bed on 3rd October 1998.

Sightings were also reported of a ringed individual on No.1 bed on 11th October amongst a flock of Chiffchaffs, quite possibly the same one ringed on the 10th, and a single on No.3 bed by the south screen on 12th November.

Chiffchaff

Phylloscopus collybita

One of the first summer migrants to return from their wintering grounds in the Mediterranean and West Africa. Woolston had its first report of a single bird on 15th March. By the end of the month a Reserve-wide survey recorded 42, which had increased to a count of 105 singing males on 5th April, the highest count of the year. In total, six nests were found on the Reserve, four on No.4 bed and one each on No.1

and No.3 beds, with an average of six eggs. The nest on No.3 bed fledged six young but the outcome of the others was unknown.

Singing dramatically reduces after breeding, being replaced with the “hweet” calls which may explain the reduction in records received during late summer and autumn. However, the number of birds on and passing through the Reserve remain high, which is evident from the ringing numbers.

A total of 586 birds was ringed by the two Woolston teams, 394 on No.1 bed, the highest annual total since 1995, plus 192 on No.3 bed, which was an above average total. Twenty four of those caught on No.1 bed were in breeding condition, 13 females and 11 males. The first captures were on 17th and 27th March, respectively, for Nos.1 and 3 beds and similarly, the first juveniles ringed on 6th and 4th June. There were a number of retraps from previous years, with one from 2012, three from 2013, four from 2014 and 20 from 2015.

A total of seven, five from No.3 bed and two from No.1 bed, of those ringed were of the race “tristis” - Siberian Chiffchaff, a record number for the Reserve.

Willow Warbler

Phylloscopus trochilus

Amber listed

A later arrival than the closely similar Chiffchaff, the first report of the year was of one singing by Woolston Weir on the 3rd April and three singing on No.1 bed the day after. Numbers rapidly increased through April, illustrated by the numbers of singing males counted on the Common Bird Surveys of two on No.2 bed and six on No.3 bed on the 9th, 12 on No.1 bed on the 16th and ten on 27th April on No.4 bed. The highest day count was of 26 across the whole Reserve on 20th April.

Two were reported still singing on 3rd July, one by the Ship Canal and the other on No.3 bed. The last record of the year was a late sighting on No.1 bed on 11th October of a bird in a mixed flock with tits, a Blackcap, a Chiffchaff and a Yellow-browed Warbler – possibly the same one ringed on that bed on the preceding day, the 10th. Two nests were found, one on No.4 bed and one on No.1 bed. Both nests were successful, with seven young fledging on No.4 bed and six from the No.1 bed nest.

The ringing teams had a combined total of 176 newly ringed; 126, an average annual number, on No.1 bed and 50, an above average annual number, on No.3 bed. In addition, 16 were retrapped, having been ringed in previous years, of which one was from 2012, two from 2013, one from 2014 and the remaining 12 from 2015.

The first of the year were ringed on the 4th and 9th April on Nos.1 and 3 beds respectively and the last were ringed on 10th September and 10th October on No.3 and No.1 beds respectively. The last ringed was an unusual looking bird which was caught on No.1 bed on the same morning as the three Yellow-browed Warblers and may have been one of the eastern races. No.1 bed caught 21 in breeding condition, 13 females and 8 males and the first juveniles were ringed on 28th June on No.1 bed and 17th July on No.3 bed.

Blackcap

Sylvia atricapilla

A common summer visitor which breeds across the Reserve. The first record of returning birds came on 4th April, with a male ringed on No.1 bed and a singing male reported on No.3 bed. Numbers of birds increased significantly through the remainder of April and early May, with 36 males recorded on Common Bird Surveys on No.1, No.3 and No.4 beds, 23 of which were from No.4 bed alone. The last field report was of two on No.1 bed on 11th October.

A total of 530 Blackcaps was ringed on the Reserve, 276 on No.1 bed, the second highest number since 1995 and 254 on No.3 bed, slightly below the 314 average total. There were 16 caught which had been previously ringed, 14 from Woolston, of which two were from 2015, eight from 2014, three from 2013 and a single bird from 2012. The remaining retraps were from No.1 bed, with one from another UK site and one originally ringed as a juvenile in France on 14th September 2015. Thirty were caught on No.1 bed in breeding condition, 13 females and 17 males and the first juveniles were caught on 25th June on No.3 bed and 30th June on No.1 bed. The last record was of a single, ringed on No.1 bed on 2nd November.



Garden Warbler

Hazel Rothwell

Garden Warbler

Sylvia borin

An uncommon but annual summer visitor recorded in low numbers across the Reserve. Most field records relate to sightings of singles, the first of the year being one on No.4 bed on 21st April and by 10th May there had been records of individuals on territory on all four beds. The only reports concerning more than one were of two on the south bank of No.3 bed on 4th May and two singing males

recorded on No.1 bed on 10th May during a Common Bird Survey. On 6th June one was seen carrying food in the north meadow of No.3 bed. The last field record of the year was of a male in song in the centre of No.3 bed on 3rd July.

Although a combined total of 32 was ringed this year, the ringing teams had mixed fortunes with this species. The 25 birds ringed on No.1 bed was the third highest total since 1995 compared to the poor total of seven, half the annual average of 15, ringed on No.3 bed. The first capture was on 4th May on No.1 bed, followed by one on No.3 bed on 7th May, which is an unusual date for that bed as most of their captures historically occur in the autumn. The last captures were of one on 24th August, the earliest date since 2004, on No.3 bed and of three in September on 10th on No.1 bed. It is not often that retraps from previous years' ringing are caught for this species but one was on No.1 bed, an adult male, originally ringed on 7th May 2013 as an adult (hatched in 2012 as a minimum), caught again on 10th July the same year and not recorded again until this year in breeding condition on 19th May. Two other males were caught in breeding condition but no females and the first juvenile was caught on 15th July.

Lesser Whitethroat

Sylvia curruca

This is an uncommon summer visitor to Woolston but a low number of records are received annually and pairs are suspected to breed. There were four field records this year split evenly between No.1 and No.3 beds. The first was of a male singing in the area by the west pool on No.1 bed on 2nd May, which was closely followed by a male in full song on the south bank of No.3 bed on 6th May. A second was seen near the Viaduct at the start of No.1 bed on 17th May and the last record was of feeding activity in front of the John Morgan Hide on No.3 bed on 10th September.

Both ringing teams caught and ringed this delightful warbler this year, three on No.1 bed and two on No.3 bed. The three on No.1 bed were all juveniles ringed in late summer, on 17th and 26th August and 7th September. The No.3 bed team ringed a second calendar year male on the 21st May and a juvenile on 24th August.

Whitethroat

Sylvia communis

A common summer migrant which is present and breeds across the whole Reserve. The first field report was of a singing male on the main track on No.1 bed on 13th April, followed by No.3 bed reporting another singing by the John Morgan Hide on 18th April. The peak counts from the Common Bird Surveys were: 19 singing males on the northern section of No.4 bed on 28th May and six on the southern section on 27th May, seven singing males were counted on No.3 bed on 4th May with another present and 14 on No.2 bed, nine in song, two giving alarm calls and three others present on 4th June.

The split of 86 ringed in the year was 53 on No.1 bed, the second best year since 2010, and 34 on No.3 bed, better than the number ringed in 2015 but still half of the annual average of 68. The first ringed was on 16th April on No.3 bed, the earliest on record since split bed reporting began 12 years ago. The first juveniles were ringed on 25th and 30th June on Nos.3 and 1 beds respectively, which are both within the expected recording period. The last were ringed on 17th September on No.3 bed, a new latest date by one day, but ten days earlier, on 7th September, on No.1 bed. Eleven were caught in breeding condition on No.1 bed, seven males and four females and typically for this species no birds were caught that had been ringed in previous years.



Whitethroat

Andy Weir

Grasshopper Warbler

Locustella naevia

Red listed

Another summer visitor which has moved from the Amber to the Red List in the UK on the BoCC4 update in December 2015. The decline of this species has also been noted on the Reserve, with a fall in the number of reeling males reported over recent years. There were 16 records of this elusive species this year, one from No.1 bed, three from No.4 bed and 12 from No.3 bed.

The single record on No.1 bed was of a reeling male on the morning of 4th May. It stayed for around two hours before becoming silent and was presumed to have moved on as no other signs were reported throughout the season. Two of the three records of 'reeling' males from No.4 bed, a week apart on Common Bird Surveys of the area, may have been the same individual. However, two males were 'reeling' at the same time on 1st May in the centre of that bed. Many of the reports from No.3 bed were clustered around two areas reported as 'the centre of the bed' and the 'Enviroloo' areas which make it possible to be the same individual, but a report from outside of that cluster by the Rotary Hide on 27th

April and another on the south bank on 5th May suggests at least two and possibly three males were present during the reeling period witnessed, from 27th April until 16th May.

Only two birds were ringed this year, both on No.3 bed, an adult male on 30th April and the first juvenile to be ringed since 31st July 2010 was ringed on 23rd July.

Sedge Warbler

Acrocephalus schoenobaenus

A common breeding summer visitor, in similar habitat to the Reed Warbler below but less numerous on the Reserve. The first field record of the year was from No.1 bed on 14th April, with a male singing briefly in the eastern reed bed and the last of the year, an early date for this April to September visitor, probably down to under reporting, was on 3rd July of three singing in the centre of No.3 bed. The majority of field records were of singles singing or sighted, with higher counts of six singing males on No.1 bed on 4th May, four singing males on No.4 bed on 28th May and the last field report above from No.3 bed on 3rd July.

A total of 106 birds was ringed by the ringing teams, 43 on No.1 bed and 63 on No.3 bed, both about average annual totals. The first capture of the spring was on No.1 bed on 20th April, followed by No.3 bed on the 23rd April, with the last captures in September, on the 9th, and the second latest date on record of 24th for Nos.1 and 3 beds respectively. Four were caught in breeding condition on No.1 bed, two males and two females. The first local juveniles were ringed in mid-July, on the 12th on No.1 bed and the 17th on No.3 bed. This was six days later than in 2015 but almost a month later than the earliest record on the bed of 20th June in 2009. No birds were retrapped from previous years ringing.



Sedge Warbler

Hazel Rothwell

Reed Warbler

Acrocephalus scirpaceus

A common summer visitor from April to September, which breeds across the Reserve in the various reed beds. The first record of the year was of two singing on the eastern side of No.3 bed on 14th April. Common Bird Surveys identifying singing males on territory from late April to mid-May reported, five on No.3 bed on 23rd April, five on No.4 bed on 5th May and ten on No.1 bed on 14th May. The latest field report was of two on No.3 bed on 12th September.

The combined total of Reed Warblers ringed was 465, with 216 on No.1 bed, the highest total since 2010, and 249 on No.3 bed, the lowest total since 2008. The earliest capture date was the 20th and 23rd of April and the latest captures were the 28th and 24th September, for Nos.1 and 3 beds respectively. The 24th September was the earliest 'last capture' date on No.3 bed since 2005. There were 37 birds retrapped from previous years ringing, one from 2008, three from 2010, one from 2011, six from 2013, eight from 2014 and eighteen from 2015. The oldest was originally ringed on No.1 bed on 28th July 2008 and had not been caught since. In addition to the 37 above, six were retrapped from ringing sites elsewhere, with one each ringed in France, Portugal and Spain and three from other UK sites, one being Rostherne Mere and the others unknown. No.1 bed had 53 in breeding condition, 27 females and 26 males and the first juvenile on 28th June, whilst No.3 bed had the first juvenile capture on the late date of 2nd July.

Nuthatch

Sitta europaea

Although breeding sites are known at adjacent habitat at the eastern end of the Reserve, this is an infrequent visitor on the Eyes, which accounts for the fact there were only six field records received this year, against eight in 2015. Only one record was received in the first half of the year, a single bird on No.1 bed on 13th February and No.3 bed reported one on 16th August. Nuthatch was, however, reported on all four Migration Watches from Butchersfield, with two on each of the watches on 3rd September, 8th October and 19th November and a single bird on the Watch on 22nd December.

A single female was ringed on No.1 bed, adjacent to Butchersfield, on 14th September.

Treecreeper

Certhia familiaris

There were eight records of this elusive but constantly active resident, all reported from No.3 bed, with the exception of a singing male by the screen on No.2 bed on 18th February and a bird reported in the copse between No.2 and 3 beds on 15th March. Of the six reports from No.3 bed, three were sightings from the south bank on 6th March, 8th April and finally 11th November. The last sighting was of a single bird in the Copse on No.3 bed on 29th December.

The ringing teams had an excellent year, with a combined total of 18 newly ringed, nine on each of the two beds between the first on 17th March on No.1 bed and the last on 6th November on No.3 bed. A female with a brood patch on 28th May and a retrapped male with cloacal protruberance on 4th June were the first ever birds caught in breeding condition for No.3 bed. Three birds were caught in breeding condition on No.1 bed, two males and a female, all indicating local breeding. Twelve juveniles were ringed, four on No.1 bed and eight on No.3 bed, with the first on 25th June on No.3 bed.

Wren*Troglodytes troglodytes*

A common breeding resident across the whole Reserve. The maximum Common Bird Survey counts for the various beds peaked at: 34 on No.4 bed, of which 32 were singing males, 24 on No.3 bed, all singing males, and 19 singing males on both No.2 and No.1 beds.

There were 175 newly ringed, 99 on No.3 bed, an average number, and 76 on No.1 bed, the best total since 2009. A further 21 were retrapped from previous years ringing, with 13 originally ringed in 2015, five ringed in 2014 and three ringed in 2013. Thirteen birds were caught in breeding condition on No.1 bed, seven females and six males, and the first juveniles were ringed on 25th June on No.3 bed and 4th July on No.1 bed.

Starling*Sturnus vulgaris**Red listed*

Starlings are not common on the Eyes, although birds can be seen in the housing estates approaching the Reserve and at distance towards the A57. Most reports, however, relate to roosting birds in the winter period at the start of the year and in late autumn to year end. Although this year no massive roosts were formed, a significant but variable roost formed in the reed beds on No.1 bed. At its peak an estimated 10,000 were noted leaving at dawn on 4th January. At the same time a small roost of some 200 birds was reported on No.3 bed, which reached an estimated peak of 2,600 birds on 20th February but was very variable with just 350 present on the last report on 7th April.

One was seen on the Common Bird Survey of 14th May on No.3 bed, before 75 were seen coming into roost on the same bed on 22nd July. On 22nd October 350 were estimated leaving a roost on No.3 bed and similarly 100 leaving the eastern reed bed on No.1 bed on 24th October. A flock of 70 was recorded in Rixton Paddocks and fields adjacent to the eastern end of the Reserve on 26th November. By 30th October the No.3 bed roost had risen to 600, but two Sparrowhawks flushed the flock which did not settle and left the Reserve to the east. Thereafter, this roost fluctuated in numbers to as low as 60. The roost on No.1 bed, however, had increased to 4,000 on 16th November and 10,000 by 21st December. The last report of the year was of an estimated 8,000 leaving the No.1 bed roost on 22nd December, during the morning Migration Watch from Butchersfield.

Ring Ouzel*Turdus torquatus*

A very scarce passage migrant to Woolston, the last record being a single bird on the Canal Track on No.2 bed on 18th April 2003 and prior to that, in 1998. It was therefore exhilarating that a handsome male was found near the Sandpit Pond on No.4 bed in the morning of 12th April, after heavy overnight rain, following south-easterly winds, brought in several passage migrant species. The bird fed for a few hours in the same general area before disappearing later in the afternoon.



Ring Ouzel on No.4 bed

David Spencer

Blackbird

Turdus merula

A common resident breeding species found across the Reserve and regularly reported in numbers. The Common Bird Surveys conducted in the breeding season reported maximum numbers of singing male and birds in suitable habitat as follows: No.1 bed six in total, two singing males and four present in suitable habitat, No.2 bed 20 in total, seven singing males, two in territorial aggression and 11 foraging males, No.3 bed; four in total, three were singing males and No.4 bed 22 in total, with at least ten singing males.

Other significant reports were of 20 birds on the Migration Watch of 8th October over Butchersfield, 30 on a count from No.3 bed to No.1 bed and Bollin Point on 22nd October, 20 on Rixton Paddocks and adjacent fields next to the eastern edge of the Reserve on 26th November, 18 on No.3 bed on 5th December and 19 on No.2 bed on the same date. A single nest was reported on No.4 bed which fledged four young.

A total of 75 was ringed on the Reserve, 40 on No.1 bed, the highest total since 2010 and 35 on No.3 bed, almost double the 2015 total but still 11 short of the average annual number. Twelve were caught on No.1 bed in breeding condition, eight males and four females and seven locally bred juveniles were ringed on each bed, with the first on 25th June on No.3 bed and then 21st July on No.1 bed.

Fieldfare*Turdus pilaris**Red listed*

This winter migrant is seen most frequently and in the largest numbers in the autumn period from October onwards. The migrants from the 2015 to 2016 winter were thin on the ground in the first three months of the year, with only four reports in January, the highest number being a flock of 14 on No.1 bed on the 6th. Only one other sighting was received after January of two, again on No.1 bed, on 15th March.

The first autumn arrival was reported from No.3 bed of a flock of 12 on 21st October. Multiple sightings were reported through to the end of the year, with notable flocks of 150 from No.1 bed on 31st October and 107 and 138 over Butchersfield on the Migration Watches of 19th November and 22nd December respectively. The largest reported sighting was of 200 flying south over No.1 bed on 12th December.

A single male was ringed on 5th December on No.1 bed, the first since 2010 and only the sixth since 2002.

Song Thrush*Turdus philomelos**Red listed*

A resident breeding species across the whole Reserve and frequently seen throughout the year. Common Bird Surveys usually record low to mid-single digit counts. High counts in 2016 were of six on the 23rd and 28th January on No.3 bed, ten on the 3rd and 30th March across the whole Reserve, eight singing males on 21st April on the southern area of No.4 bed and six in the northern transect of No.4 bed on 28th May. After the breeding season sightings dropped to only one or two, with the Migration Watch over Butchersfield of 8th October producing the last significant count, with five reported. Nest records were submitted for two nests on No.4 bed, one with four eggs and the other three eggs, however, both clutches of eggs were predated.

There were 38 ringed, 20 on No.1 bed, the highest total since 2009 and 18 on No.3 bed, the same number as in 2015, but well below the average of 27. The first juvenile on No.1 bed was ringed on 28th June and a total of nine juveniles were ringed, indicating local breeding, five of which were on No.3 bed. Two continental juveniles, greyer backed and slightly larger, were ringed on No.1 bed on the 14th and 10th September.

Redwing*Turdus iliacus**Red listed*

This species was moved to the Red list (BoCC4) and is an autumn-winter visitor, with many records relating to migrating flyover flocks. The first record of the year was of 18 birds on No.3 bed on 2nd January and sightings of single figures were also submitted in early January. A report of 60 flying over No.2 bed came in on 14th January and a flock of 70 were seen arriving to roost at dusk onto No.3 bed on 22nd January. A further roost sighting was reported on 20th February, when ten were seen leaving the

centre of No.3 bed at dawn. Apart from a count of 20 from No.1 bed on 15th March, only single-figure counts were reported until the last sighting of nine on 23rd March on No.3 bed.

The first record in the autumn was of 65 flying south over No.1 bed on 5th October. The peak count of the year was of 1112 birds flying south over Butchersfield on the Migration Watch of 8th October. There were numerous reports of flocks between 10 to 100 birds through to the year-end but of note were 115 from No.3 bed on 29th October, 500 on No.1 bed on 28th November, 115 over No.3 bed on 3rd December and 600 over No.1 bed on 12th December. The last report was of 53 on the Migration Watch of 22nd December from Butchersfield.

The ringing teams ringed a combined total of 217, with 216 from the October to December period, 174 from No.1 bed, almost three times the previous highest number recorded in 2014, and 42 from No.3 bed. Only one was caught in the January to March period on 16th January on No.3 bed. Typically, the vast majority of Redwings ringed tend to be juveniles but, unusually, the proportion of adults in this year's captures was 20% on No.1 bed and even higher at 37% on No.3 bed. The use of a new lure has increased the capture rate significantly for this species and may be the attraction for mature birds.

Mistle Thrush

Turdus viscivorus

Red listed

Another species recently moved from Amber to the Red list (BoCC4) due to the decline in breeding populations. The Reserve had a confirmed breeding pair on the south bank of No.3 bed discovered on 1st May, with three large young observed. This pair activity probably accounted for a substantial proportion of the ten field reports received from that vicinity in April and May. No counts above two were reported until the autumn, when 16 were recorded flying over Butchersfield during the Migration Watch of 3rd September. Two were then seen on No.1 bed on 23rd September, then the Migration Watches over Butchersfield on 8th October, 19th November and 22nd December recorded six, four and two respectively.

Spotted Flycatcher

Muscicapa striata

Red listed

There were two records of this scarce summer visitor this year. The first, in spring, was located on the 10th May, hawking for insects from dead tree branches east of the footbridge entrance to No.3 bed. The second record, in the autumn, was a juvenile caught and ringed, again on No.3 bed, on the 31st August, the eighth of this species to be ringed at Woolston Eyes.

Robin

Erithacus rubecula

A common resident breeding species at Woolston, with a peak count of 113, mostly singing males, recorded on 6th January on a Reserve-wide survey. Common Bird Surveys during the breeding season recorded total numbers of singing males on all four beds, averaging 60 in April and 57 in May.

In total, 179 Robins were ringed this year by the teams on No.1 and No.3 beds. The 101 ringed on No.3 bed was their third highest annual total, with the 78 ringed on No.1 bed being an average number and just short of the 80 ringed in 2015. The first juvenile was caught on 7th May on No.3 bed, an early date, with the first on No.1 bed a full month later on 6th June, a week later than 2015.

Redstart

Phoenicurus phoenicurus

Amber listed

There were three records of this attractive but infrequent visitor, typically both during migration. The first was a male noted calling frequently and photographed in bushes bordering the winter feed crop on No.3 bed on the morning of 18th April. The second was a male on No.4 bed on 23rd April. The last was a first year female, caught and ringed on No.1 bed on 7th September. This is the third consecutive year one has been ringed on that bed and the 17th since ringing commenced in 1980.

Whinchat

Saxicola rubetra

Red listed

Moved to the Red list from Amber in December 2015, just a single record, as in 2015, of this now scarce passage visitor was reported on 3rd May on the south meadow area of No.3 bed.

Stonechat

Saxicola rubicola

Just a single record of this passage migrant was reported this year, a male on the north meadow of No.3 bed on 13th September.

Wheatear

Oenanthe oenanthe

Two sightings were reported in the spring passage, one from No.1 bed on 2nd April and one from No.3 bed on 5th May, a female on the north meadow. A second bird for No.3 bed was located in the autumn passage on 28th September.

Dunnock

Prunella modularis

Amber listed

A resident breeding across the Reserve, common but secretive and usually only seen as singles or pairs. Surveys in spring recorded peak counts of seven, two in song, three feeding young and two present on No.2 bed, seven in song on No.3 bed and 14 on No.4 bed. Other significant high counts were of 17 birds across the Reserve on 16th March and 11 on 20th October on No.4 bed.

There were 98 new Dunnocks ringed on the Reserve in the year but the split between the beds, 70 on No.3 bed, an average number, and 28 on No.1 bed, the highest total since 2009, is an indicator of the

differences in habitat between the two beds. In addition, 27 ringed in previous years were retrapped with 14 from 2015, seven from 2014 and six from 2013, providing an indication of the species longevity. Twenty two were caught in breeding condition on No.1 bed, 15 males and seven females and the first juveniles were ringed on 4th June on No.3 bed and 10th June on No.1 bed.

House Sparrow

Passer domesticus

Red listed

This lively sparrow is an occasional visitor from breeding colonies in nearby housing estates. There were a typical eight sightings this year. Six were in Weir lane on 16th April, followed by two on 5th May on No.4 bed, including a male in song. A male was then near the South Screen on No.3 bed on 30th May, two on No.2 bed on 1st June and a male on No.3 bed on the 30th of the month. The only double-figure counts of the year came with: 16 on the Canal track by No.4 bed on 3rd August, 10 in the same place on 23rd August and 10 on No.2 bed on 14th December.

Tree Sparrow

Passer montanus

Red listed

Once a regular visitor, Tree Sparrow is now a very scarce visitor. The only record was of three in Willows by the No.3 bed Tower Hide on 2nd October.

Yellow Wagtail

Motacilla flava

Red listed

This beautiful, declining wagtail breeds in small numbers on arable land adjacent to the eastern end of the Reserve and is a scarce passage migrant at Woolston. There were four sightings, which is about average. The first three were all of small numbers flying south over No.3 bed in July, with one on the 14th, two on the 16th and three on the 23rd. Finally, four flew south over Butchersfield Tip during the Migration Watch on 3rd September.

Grey Wagtail

Motacilla cinerea

Red listed

Strongly associated with water courses, this smart wagtail is showing worrying signs of a national decline. Small numbers were encountered on many dates throughout the year, primarily from No.3 bed or to the east of Thelwall Viaduct. Sightings of note included: three at Bollin Point on 9th January, a pair, including a male in song, by Thelwall Viaduct on 10th June, six flying south over No.3 bed on 6th August, seven flying south during the Migration Watch from Butchersfield Tip on 3rd September and five on No.1 bed on 17th September.

The use of tape lures has contributed to the increased numbers ringed in recent years. On No.1 bed, a record 21 was ringed, the previous highest being six, all between 17th August and 21st September. As

expected, all were first years, with three still in post juvenile moult. On No.3 bed, nine juveniles were ringed during the autumn, an increase from just one in 2015. All were caught in the net set for Green Sandpipers. They were ringed on 6th, 24th (2), 31st (2) of August, and on 3rd (2) 10th and 24th of September.

Pied Wagtail

Motacilla alba

This common wagtail can be encountered across the Reserve, throughout the year, in small numbers and can form small winter roosts. The only notable count from the first quarter was of eight on No.1 bed on 3rd March. Three were then found in suitable breeding habitat, on No.1 bed, on 2nd April. On 28th May one was observed carrying food into a suitable nest site under a pier at Thelwall Viaduct. The only notable counts from the second half of the year were of: 11 on 3rd September during the Migration watch from Butchersfield Tip, 10 flying south over No.1 bed on 28th September, eight at dawn from a roost on No.3 bed on 5th November and 11 during the Migration Watch on 19th November.

Tree Pipit

Anthus trivialis

Red listed

A scarce passage migrant, the only sighting was of one south over No.3 bed on 6th August. In addition, five were ringed, three on No.1 bed, all first years, between 13th and 17th August and two on No.3 bed, on the 6th and 16th August.

Meadow Pipit

Anthus pratensis

Amber listed

This declining, upland breeding species is a passage migrant and winter visitor, most commonly encountered at the eastern end of the Reserve. The highest count from the first half of the year was of seven on No.1 bed on 2nd April. Return passage was first noted with two flying south over No.1 bed on 5th September, with 20 heading the same way on the 14th of the month. These presaged a period of very heavy passage over No.1 bed, through to the end of September, with 400 on the 17th, 187 on the 28th and 1,500 on the 30th, a day when the whole north-west saw huge numbers moving. The only other counts of note were made during the Migration Watches from Butchersfield Tip, with 54 on 8th October and 22 on 19th November.

No.1 bed saw the second highest total since 1995, with 91 ringed. There was a good spring passage and 13 were ringed between 10th March and 5th April. The first returning birds were caught from 7th September, with a high percentage of these early arrivals still in post juvenile plumage. All of those ringed, apart from one, were first years and the last was caught on 30th October. Interestingly, the passage period in 2015 was from 18th September until 12th October and 25% of those caught in that year were adults.

Chaffinch

Fringilla coelebs

A common resident, breeding across all four beds and forming sizeable winter flocks. Numbers tend to build up on No.3 bed, due to the attraction of the winter seed crop, until the seed stocks are eventually exhausted and numbers decline. The year started with 100 present, rising to 160 by the end of January. The only significant count away from No.3 bed during the month, was of 40 on No.1 bed on 11th January. Although numbers did reduce on No.3 bed throughout February, 60 were still present around the seed crop and the Morgan Hide feeders on 4th March., with 52 under the feeders on 2nd April. The Breeding Bird Survey located 14 singing males, which is about average considering that No.3 bed was not surveyed. They were distributed as follows: four on No.1 bed, five on No.2 and five on No.4. The only proof of breeding came from a nest on No.2 bed, which fledged four young. Counts from the second half of the year peaked at 55 in No.3 bed on 24th November, with numbers dwindling to less than half that by year end.

The 287 ringed was comparable to the previous year's 276, although some way below the 401 from 2014. The 120 ringed on No.1 bed was the highest total since 2010 and a further 17 were caught from previous years. The oldest of these was from 3rd April 2009, while others came from 2010 (1), 2011 (1), 2013 (5), 2014 (4) with the remainder from 2015. There were 22 caught in breeding condition, 14 males and 8 females and the first juvenile was ringed on 3rd June, compared with the 27th in 2015. On No.3 bed, 167 were ringed, a little below the average of 169. The first juvenile was caught on 30th June, quite a late date. Sixty-nine juveniles were ringed up until the end of August and a further 73 were ringed in the seed crop between September and year end. Thirteen were retrapped from 2015, six from 2014 and six from 2013.

Brambling

Fringilla montifringilla

This passage and winter visitor from Scandinavia arrives in variable numbers, depending primarily on the state of the beech mast crop and can usually be found consorting with Chaffinches. During the first quarter of the year all but one sighting came from No.3 bed, with almost daily sightings into double figures. Maxima were: 25 on 2nd January, 32 on the 10th, with a similar number two days later, 35 on 20th February and 23 on 5th March. Smaller numbers were then present throughout the rest of March and into early April. Spring passage then became more evident, when 40 were counted on No.1 bed on 4th April, with 48 under the Morgan Hide feeders on No.3 bed on the 6th, building to 60 three days later. There were then four single-figure counts, with the final three of the spring on No.3 bed on 30th April. Return passage is never as pronounced and was first noticed on 24th October, when two turned up among the Chaffinch flock around the No.3 bed seed crop, with one there on 29th October, two on 9th November and the last, a single, on 24th November.

The excellent total of 110 was ringed this year. On No.1 bed, this species is ringed less than annually and then generally in low single figures. There are, however, occasional influx years and 2016 proved to be one of those. The 91 ringed was easily the highest total for the bed, the previous best being 54 in 2013. The first was caught on 28th January and the last on 27th April and there were none from the latter part of the year. A further 10 were caught that had been ringed on No.3 bed originally. On No.3 bed 19 were ringed between 2nd January and 16th April, ten males and nine females. None was ringed in the second winter period despite a couple being heard around the feeding station. The best month was April with 10 newly ringed. This mirrors the pattern for No.3 bed, with April being the month of strongest passage.

Numbers ringed on No.3 bed:

November	December	January	February	March	April
15	53	37	21	70	93

Greenfinch

Chloris chloris

This is the commonest finch at Woolston, with large numbers attracted to the various feeding stations and the No.3 bed seed crop, and small numbers remaining to breed. The year opened with 200 feeding around No.3 bed during the first week in January, with up to 60 regularly visiting the Morgan Hide feeders during the remainder of the month. During February up to 120 were present till the 20th. The Breeding Bird Survey found 11 singing males, with five on No.1 bed, two on No.3 bed and four on No.4. During the second winter period 40 on No.3 bed on 30th July had risen to a peak of 110 by 15th December.

The above average total of 711 was ringed during the year. On No.1 bed it was considered an average year with 404 ringed, with a further 55 caught that had been ringed on the bed in previous years. The oldest of these was from 28th October 2011, others were from 2012 (1), 2013 (7), 2014 (4) and the remainder from 2015. Interestingly, 26 were caught that had originally been ringed on No.3 bed and one had been ringed elsewhere in Britain. A good number, 56, were caught that were in breeding condition (only 10 in 2015), 24 females and 32 males. The first juvenile was ringed on the early date of 13th May compared to 23rd June in 2013. No.3 bed had a better than average year, with 306 ringed, compared with an average of 276. The first young was ringed on 28th May. This is about a week earlier than in 2015 and is quite an early date. Birds were retrapped from 2015 (6), 2014 (1) and 2013 (1).

Goldfinch

Carduelis carduelis

This colourful, resident finch breeds in small numbers and forms large post-breeding flocks, which are most often seen feeding on the seed heads of thistles. The first sizeable count of the year was of 40, across the whole Reserve, on 13th January. The only subsequent count of note from the first winter period came from No.3 bed, with 28 on 23rd January. During March, a small flock of 15 on No.2 bed, on the 3rd, had grown to 20 by the 23rd. Forty then flew north over No.3 bed on 30th March. Although double-figure counts were made on Nos.1 and 4 beds during the breeding bird surveys, the only suggestions of breeding came from three singing males, one on No.1 bed and two on No.2. The first post-breeding flock recorded was of 30 on 16th July, on No.4 bed. Maxima through to year end were then: 120 on No.1 bed on 7th August, 151 over Butchersfield Tip during the Migration watch on 3rd September, 135 on No.3 bed on 29th October, with another 65 on No.4 bed on the same date and 109 during the Migration Watch on 22nd December.

The total of 16 ringed during the year was about average. On No.1 bed the eight ringed was comparable to recent years. Of these, four were in breeding condition, three females and one male and only three first years were caught during the year. It was a good year for No. 3 bed, with eight ringed, against an average of 5.5, four of which were birds of the year. The first was on 2nd July, with two in August, three in September and two in November.

Siskin

Carduelis spinus

The UK has a thriving breeding population of Siskins and numbers are augmented by the arrival of European migrants in the winter. At Woolston it is a passage migrant and winter visitor in variable numbers. During January there were ten single-figure counts, mainly from No.3 bed but also from the eastern end of the Reserve. The maximum from the month was of 10 on the 28th, from Butchersfield Tip, with 16 also there on 3rd March. The only other notable counts from spring passage were of 10 on 4th April on No.1 bed, with the last sighted on 20th April, a single on No.3 bed. One, passing over No.1 bed on 23rd September, was the first sign of return passage. Small numbers were then noted regularly, through to year end, with the only sizeable flocks being 25 on 22nd December during the Migration Watch from Butchersfield Tip and 20, across the Ship Canal from the Tip on the last day of the year.

Just four were ringed, three on No.1 bed and one on No.3, which is average and well below the record total of 21 the previous year. On No.1 bed the first was on 22nd February, second on 23rd March and the final one on 31st March. On No.3 bed, a second calendar year female was ringed on 13th February. This is a rarely ringed species on the bed with just five ringed since 2004.

Linnet

Carduelis cannabina

Red listed

Small numbers breed, usually in the more extensive stands of Gorse on Nos.1 and 2 beds, and can form sizeable post-breeding flocks. The year started with 11 around the seed crop on No.3 bed on 2nd January, followed by 100 on No.4 bed on the 13th, the highest count from the first winter period. Forty were also noted on No.1 bed on 16th March. During the breeding bird surveys, all records came from the usual breeding sites, with maxima of eight present and one in song on No.1 bed and six present and three in song on No.2 bed. Five nests were subsequently located, four on No.2 bed and a single nest on No.4 bed. The nest on No.4 bed and one of those on No.2 contained clutches of three eggs and two nests on No.2 bed had clutches of 4 eggs, but none of these were followed through to determine fledging success. One nest on No.2 bed did fledge young.

The first notable flocks of the autumn were of 38 on 3rd September and 112 on 8th October, both during Migration Watches from Butchersfield Tip. On 29th October 90 were present, with 64 on the Loop of No.4 bed and 26 on the west bank of No.3. The seed crop on No.3 bed then proved attractive to small flocks during the last two months of the year, with 40 on 9th November, 10 on the 25th of the month, 25 on 5th December, 30 on the 8th and 12 on the 24th. The highest count, though of the second winter period came from the Migration Watch, when 106 passed over Butchersfield Tip on 22nd December.

Just five were ringed during the year, four on No.1 bed and one on No.3. The No.1 bed total included two males and one female in breeding condition and was the highest annual total since 2012. The individual from No.3 bed (a second calendar year female) was ringed on 2nd February. Just 23 birds have been ringed on this bed since 2009.

Lesser Redpoll

Carduelis cabaret

Red listed

While no longer breeding on the Reserve, this attractive and agile small finch is a regular passage and winter visitor. Single-figure counts were made, across the Reserve, on 16 dates during the first winter period. Ten on 1st March, on No.3 bed, were probably the first sign of spring passage, followed by singles on 29th March and 1st April, on No.3 bed, and on 9th April on No.1 bed. As usual, there were no records from the breeding season. Return passage was first noticed on 30th September, when one was over No.1 bed. The highest counts through to year end were then: 20 on 8th October during the Migration Watch from Butchersfield Tip, 50 over No.1 bed on 10th October, 47 feeding in Alders on the Loop of No.4 bed on 29th October and 20 over No.1 bed on 16th November.

From a ringing perspective, it was a good year, though not outstanding, with 77 ringed. On No.1 bed, after the record total of 93 during 2015, 57 was still well above average. One was also retrapped from 2015 and another retrap had been ringed elsewhere in Britain. There were seven captures during the spring, between 31st March and 13th April, while the first of the autumn was caught on 3rd October. None was caught in breeding condition. On No.3 bed, twenty were ringed during the year, compared with an average of 26. The last of the first winter period was ringed on 27th March and the first of the autumn on 21st October.



Lesser Redpoll feeding in front of the John Morgan Hide

David Spencer

Common Redpoll*Carduelis flammea*

An autumn/winter visitor to the UK from the continent, in small numbers, a first year was caught and ringed on No.1 bed on 26th October and was the first since 2013.

Common Crossbill*Loxia curvirostra*

This occasional visitor is an irruptive species, which breeds in extensive pinewoods in the UK. As in 2015 the only record was from a Migration Watch from Butchersfield Tip, where on 8th October three flew low overhead, calling.

Bullfinch*Pyrrhula pyrrhula**Amber listed*

Although there are signs of a continuing national decline, this shy, colourful finch remains common at Woolston and breeds on all four beds. A regular visitor to the Morgan Hide feeders, the highest counts from early in the year all came from around Bollin Point, with 13 on 9th January, 17 on the 16th and 10 on the 20th of the month. During the breeding season our surveys located four in song, with another 21 present in suitable breeding habitat. They were distributed as follows: No.1 bed two in song and four present, No.2 bed two present, No.3 bed two present and No.4 bed two in song and five present. There were no sight records to indicate successful breeding, though a single nest was found on No.4 bed with three eggs. Fledging was not determined. The only double-figure count from the latter part of the year was of 13 on 22nd December, during the Migration Watch from Butchersfield Tip.

Although below the previous year's record of 264, the 236 ringed is still an excellent total. On No.1 bed a record 94 were ringed during the year, with a further 47 from previous years, the earliest from 5th July 2012. An indication of the true breeding population came from the 67 caught in breeding condition, including 24 females and 43 males (only 20 adults in 2015). The first juvenile was ringed on 6th June compared to 23rd in 2015. On No.3 bed 142 were ringed, compared with an average of 103. This species is doing very well on the bed and it isn't unusual for the ringing team to handle more than 20 birds in a session. In total, 453 handlings were made. The first juvenile bird was ringed on the earliest ever date of 28th May and seventy-three juveniles were ringed in total. The oldest individual retrapped was from 2009.

Yellowhammer*Emberiza citrinella**Red listed*

This attractive bunting breeds in small numbers on farmland adjacent to the eastern parts of the Reserve and is an occasional visitor. The ten sightings this year mark a return to form after just two in 2015. The first was of a male in song from south of the Ship Canal, at Bollin Point, on 9th April, with four over No.1 bed on the 13th. Single males were then on No.1 bed on 4th May and 4th June, with two then on 30th June. Two then flew over Butchersfield Tip during the Migration Watch on 18th October, followed by one at Bollin Point on the 22nd, two during the Migration Watch of 19th November and finally, one in the arable fields beyond Rixton Paddocks on 26th November.

After five blank years, Yellowhammer finally returned to the Reserve's ringing list, with ten caught on No.1 bed, the highest total since 2007. The first was caught on 13th April with the final one, the only juvenile, on 4th July. Eight of the ten were caught in breeding condition, with three females and five males; all were caught in the feeding station area and those seen in flight appeared to be coming from the south of the Canal.

Reed Bunting

Emberiza schoeniclus

Amber listed

Reed Buntings breed on all four beds, though in declining numbers, and regularly form small winter roosts. Although all records from the first winter period came from Nos.1 and 3 beds, this is probably attributable to the lack of observer coverage on the other two beds. The only double-figure count was of ten on No.3 bed on 18th February. During the breeding season the systematic survey found 18 males in song, plus another 13 individuals observed. This is the same number as in 2015, though still a decline compared with 21 in 2014 and 35 the year before that. Distribution of singing males was as follows: No.1 bed seven plus 13 observed, No.2 bed one, No.3 bed six and No.4 bed four. Evidence of successful breeding came with a juvenile being fed outside the Morgan Hide on No.3 bed on 13th June. Small numbers were then reported through to year end, from Nos.1 and 3 beds and Bollin Point. The only counts of significance were from the regular No.1 bed roost, with 30 counted on both 23rd September and 16th December.

From a ringing perspective, the evidence was of a much better year, with 174 ringed compared to 63 in 2015, which had been the lowest total for twenty years. On No.1 bed, 72 were ringed, almost double the tally from the previous year. A further 31 were caught that had been ringed on the bed in previous years, the oldest from 13th April 2007. An indication of the breeding population on the bed came from the 10 females and 12 males which were caught in breeding condition. The first juvenile was ringed on 28th June, compared to 11th August in 2015. On No.3 bed, it was a record year, with 102 ringed. The winter feed crop was particularly attractive for this species and 92 were ringed there between 3rd September and 19th November. The best date was 2nd October with 16 newly ringed. Sixteen were retrapped from previous years, the oldest from 2010.

White-crowned Sparrow

Zonotrichia leucophrys

This was a completely unexpected find in one of the No.3 bed ringing team's nets, on 30th April. This was only the sixth White-crowned Sparrow to be found in Great Britain and if confirmed as being of the race *gambelli*, would be a first for Britain. Aged as a second calendar year individual, it was released by the Morgan Hide where it promptly disappeared for about an hour, showing occasionally before flying towards the Frank Linley Hide and not being seen again. The bird was carrying a reasonable amount of fat (score 3 on the 8 point scale) and it presumably moved on.



White-crowned Sparrow

David Bowman



Common Seal in the River Mersey

David Bowman



Fox at the John Morgan Hide feeders

David Spencer

WeBS COUNTS 2016

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	2	2	4	10		7	4	6	3
Great Crested Grebe	1	10	16	19				2	
Black-necked Grebe				8					
Cormorant	10	17	10	3		7	10	14	18
Little Egret				1					
Grey Heron	3	3	1	2		7	6	8	4
Mute Swan	8	16	11	12		24	26	33	15
Shelduck	4	5	17	23			5	1	5
Greylag Goose	1	22	3	12		11		1	
Canada Goose	14	75	43	63		16	3	14	19
Pink-footed Goose				1					
Wigeon						6	5		15
Gadwall	37	51	43	86		118	48	85	24
Teal	634	148	220	60		337	80	500	1050
Mallard	118	85	47	40		31	43	87	83
Shoveler	39	15	1	15		48	38	38	35
Pochard		19	104	38					
Tufted Duck	334	353	295	181		14	78	254	109
Goldeneye	8	5	1						2
Ruddy Duck				1					
Water Rail	3	3	1				1	2	1
Moorhen	10	19	23	18		32	47	61	37
Coot	35	55	52	42		11	26	29	12
Kingfisher				1		3			
Oystercatcher				1					
Lapwing	70	90	4	3		385	86		
Black-tailed Godwit						53	18	9	
Green Sandpiper								1	
Redshank				1					
Snipe			1	2		30	26	3	1
Black-headed Gull		208	300	550		36	61	75	15
Common Gull		1					1		2
Lesser Black-backed Gull		2	1	4			3		

WOOLSTON EYES RINGING REPORT 2016

Ringing operations in 2016 were carried out in two areas of the Reserve: the east end of No. 1 bed and the centre of No.3 bed.

I commented last year that it is difficult to make comparisons between years when there are significant variations in ringing effort. This is true again for 2016. On No.1 bed the two “pensioners, John Blundell and David Riley, were, between them, ringing on 146 days in 2016. On some of these visits ringing was represented by a single net opened for just two hours whilst chores were undertaken but nevertheless this is probably the highest level of ringing effort in a single year ever to be achieved on the bed. On No.3 bed after 2015 was reduced to 56 ringing days by a combination of theft, vandalism and illness, in 2016 effort returned to a more normal 82 ringing days (2014 – 89 ringing days). Against this background the grand total of 6,787 birds of 66 species newly-ringed across the Reserve was a 42% increase on the 4,793 birds of 57 species ringed in 2015 and just ten more than in 2014. However, 2014 was an exceptional breeding season whilst 2016 appears to have been fairly average, with totals increased by high levels of ringing effort. The diversity of species encountered was good and the total of 66 species ringed is the highest ever in a single year, the previous highest being 61 species in 2008.

The Fixed Duck Trap on No.3 bed continued to catch wildfowl with 97 Teal and five Mallard ringed. The number of Teal ringed would have been higher had the need for reed cutting not kept water levels too low to operate the trap until the middle of December. As a result just one trapping session took place in the second winter period. Seven Teal were retrapped that had originally been ringed in 2014 and ten from 2015, demonstrating the winter site fidelity of these birds and the importance of Woolston as a safe winter feeding site. Four more Woolston ringed Teal were reported as shot during the year (see below) and the spread of sites gives an indication of how widely these birds wander. On January 9th a female Gadwall was trapped and ringed. This is just the seventh Gadwall to be ringed at Woolston, the other six having been ringed in 1996.

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

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

On No.3 bed the seasonal net across the channel by the Duck Trap was deployed on 13 occasions making 38 captures including Green Sandpipers, Common Sandpipers, Kingfishers, Grey Wagtails and, less predictably, three Meadow Pipits. As explained in last year’s Report the seven Green Sandpipers were colour ringed as part of the national scheme but we swiftly appreciated that the bird’s habit of feeding in the soft muddy edges of the bed make the rings hard to identify in the field. Hopefully, other sites will have more conducive conditions. In 2015, the last year for which national figures are available, just 44 Green Sandpipers were ringed in Britain and Ireland and Woolston contributed 11

birds to that total. At Woolston, at least, Common Sandpipers are not as common and just two were ringed.

The 12 Stock Doves ringed in 2016, was the same as in 2015 and the highest single year figure yet achieved. Six were caught at the usual site by the feeders on No.3 bed, whilst on No.1 bed the provision of nest boxes for Barn Owls has proved a boon for Stock Doves. Whilst a Tawny Owl nest on No.3 bed failed at the egg stage a single chick was ringed on No.4 bed. After our first ringed Barn Owls in 2015, a roosting adult was ringed on both Nos.1 bed and 3 beds.

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

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

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

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

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

A total of 2,009 warblers of eleven species was ringed in 2016. Whilst this is an increase of 28% on the 1,567 new birds of ten species ringed in 2015 this is the result of increased ringing effort. The ten year

average is 1,982 new warblers ringed and by this measure 2016 achieved an average total with above average effort and must be considered a moderate breeding season at best. Numbers of Cetti's Warblers continue to increase at Woolston and the 17 ringed was a new record. Breeding probably took place on both No.1 and No.3 beds with five females in breeding condition caught on the former and a recently fledged juvenile male on the latter. After a very poor year in 2015 the 126 Long-tailed Tits ringed represented a return to the ten year average of 122. However 76 of these were ringed on No.1 bed and, discounting the very high level of ringing effort, it seems likely that the long-term decline of this species at Woolston is continuing.

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

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

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

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

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

Ringing date of first juvenile

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

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

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

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

As has been reported elsewhere, on 30th April a White-crowned Sparrow appeared in a net near the feeders on No.3 bed. It showed characteristics of the race *gambelli* (Gambell's White-crowned Sparrow). At the time of writing the record is still under review by the British Birds Rarities Committee and should it be accepted as *gambelli* it will be the first record of this form in Britain. In any event it was the sixth record of White-crowned Sparrow of any form and just the second to be ringed after a bird on Fair Isle in 1977. This was the only new species to be ringed at Woolston in 2016 and brings the cumulative total of species ringed to 110.

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

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 (Jason Atkinson, John Blundell, Evalin Casson, George Dunbar, Kieran Foster, Phil Guest, Margaret Rawlins and David Riley)

RINGING TOTALS 2016

SPECIES	No.1	No.3	Reserve Total 2016	Grand Total 1980-2016
Gadwall		1	1	7
Teal		97	97	287
Mallard		5	5	84
Buzzard	1		1	3
Sparrowhawk	4	1	5	117
Water Rail	1	1	2	90
Moorhen		15	15	264
Coot		2	2	28
Common Sandpiper		2	2	9
Green Sandpiper		7	7	24
Stock Dove	6	6	12	53
Woodpigeon		7	7	121
Tawny Owl*			1	16
Barn Owl	1	1	2	6
Kingfisher	7	4	11	97
Great Spotted Woodpecker	7	11	18	305
Magpie	2	1	3	137
Jay	9	10	19	344
Carrion Crow	1		1	17
Goldcrest	410	92	502	2328
Firecrest	1	1	2	12
Blue Tit	199	184	383	10210
Great Tit	128	157	285	6441
Coal Tit	14		14	156
Willow Tit	15	20	35	771
Sand Martin	50	2	52	1208
Swallow	490	79	569	13431
House Martin	23		23	106
Cetti's Warbler	7	10	17	50
Long-tailed Tit	76	50	126	3784
Yellow-browed Warbler	4		4	6
Chiffchaff	394	192	586	7791
Willow Warbler	126	50	176	7903
Blackcap	276	254	530	10607
Garden Warbler	25	7	32	889
Lesser Whitethroat	3	2	5	258
Whitethroat	52	34	86	4992
Grasshopper Warbler		2	2	193
Sedge Warbler	43	63	106	5249
Reed Warbler	216	249	465	10913

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

Notes

* The Tawny Owl was ringed on No.4 bed

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

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 ('retrapped') 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 the 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
- 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

Mute Swan

W28851 5M 02.08.2010 Acre Dell Pools, near Congleton, Cheshire SJ8366

GW (CAF9) VV 26.07.2016 No.3 bed Woolston Eyes, Warrington SJ6588 30km 320°

Teal

EZ03657 5M 20.02.2016 No.3 bed Woolston Eyes, Warrington SJ6588

+F 22.12.2016 Dam Hill, Edgefield, Norfolk TG0836 248km 103°

Teal

EY43993 3F 29.11.2014 No.3 bed, Woolston Eyes, Warrington SJ6588

+F 31.01.2015 Chilsworthy, Devon SS3307 310km 204°

Teal

EZ03640 5M 06.02.2016 No.3 bed Woolston Eyes, Warrington SJ6588
+F 10.01.2017 Parbold, near Wigan, Lancashire SD4911 28km 326°

Teal

EZ03581 5M 14.03.2015 No.3 bed Woolston Eyes, Warrington SJ6588
+F 25.11.2016 Uxem 51°01'N 2°28'E Nord, France 431km 128°

These are the third, fourth, fifth and sixth Woolston Teals to be shot after birds in Denmark and Anglesey. The spread of these sites gives a clue to how widely Woolston's wintering Teals wander and how variable the Woolston population must be.

Tufted Duck

FH57055 4M 12.04.2014 No.3 bed, Woolston Eyes, Warrington SJ6588
+F 29.01.2016 near Welney, Cambridgeshire TL5090 210km 119°
Just two Tufted Ducks have been ringed at Woolston.

Black-tailed Godwit

ISR 635323 1 10.07.2015 Kaldadarnes, Floi, Arnes 63°55'N 21°10'W Árnassýsla,
Iceland

VV 22.08.2016 No.3 bed Woolston Eyes, Warrington SJ6588 1586km 138°

As a one year old bird this Black-tailed Godwit probably summered in the north-west of England rather than returning to Iceland to breed.

Black-headed Gull

ES95942 1 21.06.1997 No.3 bed, Woolston Eyes, Warrington SJ6588

VV 17.03.2016 Old Moor, Barnsley, South Yorkshire SE4202 79km 80°

Although this Black-headed Gull was nearly 19 years old when its ring was read at Old Moor RSPB Reserve the B.T.O. longevity record is 32 years 4 months and 9 days.

Mediterranean Gull

PLG FS15592 1 20.06.2015 Zb Mietkowski, Domanice, Mietkow 50°57'N 16°36'E
(Red PRY6) Dolnoslaskie, Poland

VV 19.04.2016 No.3 bed Woolston Eyes, Warrington SJ6588 1331km 282°

Mediterranean Gull

NLA 3725713 1 21.06.2012 De Kreupel, 52°46'N 5°13'E Noord-Holland, The Netherlands

(White E718) VV 20.08.2012 Damp, Schleswig-Holstein, GERMANY 54°35'N 9°59'E

VV 24.08.2012 Damp, Schleswig-Holstein, GERMANY 54°35'N 9°59'E

VV 15.02.2014 Bray Harbour, Dublin, IRELAND 53°12'N 6°06'W

VV 06.03.2014 Sandymouth Strand, Co Dublin, IRELAND 53°19'N 6°11'W

VV 21.01.2016 Bray harbour, Wicklow, IRELAND 53°02'N 6°01'W

VV 19.04.2016 No.3 bed Woolston Eyes, Warrington SJ6588 522km 278°

This Mediterranean Gull may have been moving between its wintering area in Ireland and a breeding area further east when its colour ring was read from the Morgan Hide.

Swift

SB31975 4 17.05.2012 No.3 bed Woolston Eyes, Warrington SJ6588

SR 06.05.2016 Warrington SJ6284 5km 211°

('Sick, Wounded, Unhealthy', released by RSPCA on 6 May at Stapeley Grange SJ6750)

Goldcrest

HDJ585 4F 04.04.2015 No.3 bed, Woolston Eyes, Warrington SJ6588

R 23.10.2015 Alderton, Suffolk TM3441 307km 120°

Goldcrest

ERN214 3M 04.09.2014 No. 1 bed, Woolston Eyes, Warrington SJ6588

R 27.09.2015 Litlington, East Sussex 343km SSE

Goldcrest

JCP859 3M 08.10.2016 Lake Vyrnwy, Powys SJ0119

R 23.11.2016 No.1 bed Woolston Eyes, Warrington SJ6588 94km 42°

R 25.11.2016 No.1 bed Woolston Eyes, Warrington SJ6588 94km 42°

Goldcrest

HTD566 4F 26.10.2016 Sandwich Bay Estate, Kent TR3657

R 07.11.2016 No.1 bed Woolston Eyes, Warrington SJ6588 355km 312°

Goldcrest

KAD115 3M 30.10.2016 Billinge Hill, near Billinge, Merseyside SD5201

R 07.11.2016 No.1 bed Woolston Eyes, Warrington SJ6588 18km 137°

Goldcrest

JHV435 3M 19.10.2016 No.1 bed Woolston Eyes, Warrington SJ6588

XF (cat) 21.01.2017 Hartford, Northwich, Cheshire SJ6372 15km 185°

Blue Tit

L406788 3F 08.10.2015 No.1 Bed, Woolston Eyes, Warrington SJ6588

R 12.06.2016 Backford Cross, Cheshire SJ3873 32km 238°

Blue Tit

Z434072 5M 29.02.2016 No.1 bed, Woolston Eyes, Warrington SJ6588

XF 09.05.2016 Lymm, Warrington SJ6787 3km 91°

Blue Tit

Z945864 3J 01.09.2016 Knutsford Moor (RS), Cheshire SJ7578

R 07.11.2016 No.1 bed Woolston Eyes, Warrington SJ6588 15km 310°

Sand Martin

D813937 3 26.07.2014 Kilnsea Clays, East Riding of Yorkshire TA4114

R (=M) 18.06.2016 No.1 bed Woolston Eyes, Warrington SJ6588 176km 263°

Swallow

D646969 3 19.08.2014 No.3 bed Woolston Eyes, Warrington SJ6588

R (=M) 01.10.2015 La Janda, Vejer de la Frontera, 36°16'N 5°55'W Cádiz, Spain 1921km 188°

Swallow

D940554 1 (3/3) 11.08.2015 Great Warford, Cheshire SJ8078

R (=F) 05.09.2016 No.1 bed Woolston Eyes, Warrington SJ6588 19km 301°

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°

Leighton Moss is one source of the breeding population now established at Woolston.

Chiffchaff

HDK678 3J 30.06.2016 No.3 bed Woolston Eyes, Warrington SJ6588

R 03.10.2016 Westdown Plantation, Wiltshire SU0449 243km 171°

This Chiffchaff was headed no further than the Mediterranean and could afford to take its time moving south.

Chiffchaff

JVC598 3 11.09.2016 Billinge Hill, near Billinge, Merseyside SD5201

R 17.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588 18km 137°

Chiffchaff

FRP RB0298 3 01.11.2014 Mars-Ouest, Sant-Philbert-de-Grand-Lieu 47°07'N 1°40'W

Loire-Atlantique, France

R 03.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588 699km 356°

Willow Warbler

HJP277 3J 01.08.2015 Martin Down, Hampshire SU0420

R (=F) 06.06.2016 No.1 bed Woolston Eyes, Warrington SJ6588 272km 352°

In contrast this young Willow Warbler was heading across the Sahara and was on the south coast by the beginning of August.

Willow Warbler

HDJ230 4F 10.07.2015 No.1 bed Woolston Eyes, Warrington SJ6588

R 21.04.2016 Portland Bill, Dorset SY6868 319km 179°

Blackcap

X309253 3M 28.09.2015 No.1 bed, Woolston Eyes, Warrington SJ6588

R 24.04.2016 Grugmor, Isle of Anglesey SH3088 134km 270°

Blackcap

S024799 3M 10.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588
R 17.09.2016 Icklesham, East Sussex TQ8815 352km 142°

Blackcap

S024876 3M 17.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588
R 14.10.2016 Icklesham, Sussex, East Sussex TQ8815 352km 142°

Blackcap

Z499636 3J 27.07.2016 Brockholes Quarry, Lancashire SD5830
R (=M) 07.09.2016 No.1 bed Woolston Eyes, Warrington SJ6588 44km 172°

Blackcap

S266337 3J 30.08.2016 No.1 bed Woolston Eyes, Warrington SJ6588
R (=F) 11.10.2016 Stanford Reservoir, Northamptonshire SP6080 144km 139°

Blackcap

Z265414 5M 12.05.2016 Bardsey Island, Gwynedd SH1121
R 13.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588 167km 66°

Blackcap

7739642 3M 14.09.2015 Dunes du Fort Vert, Marck 50°58'N 1°55'E
FRP Pas-de-Calais, France
R 27.08.2016 No.1 bed Woolston Eyes, Warrington SJ6588 405km 312°

Blackcap (1 day)

S266898 4M 21.09.2016 No.1 bed Woolston Eyes, Warrington SJ6588
R (=3) 22.09.2016 Much Marcle, Herefordshire SO6533 154km 180°
(ringed at 10.55, weight 22.0g; controlled next day at 12.30, weight 19.4g)

Blackcap

S158927 3J 21.07.2016 Rostherne Mere, Knutsford, Cheshire SJ7484
R (=M) 26.08.2016 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Warbler

FRP 7697595 3 20.08.2015 Conchemarche, Mortagne-sur-Gironde, 45°28'N 0°46'W
Charente-Maritime, France
R (=M) 04.06.2016 No.3 bed Woolston Eyes, Warrington SJ6588 887km 352°
R (=M) 02.07.2016 No.3 bed Woolston Eyes, Warrington SJ6588 887km 352°
R 03.08.2016 No.3 bed Woolston Eyes, Warrington SJ6588 887km 352°

Reed Warbler

ESI 4L44116 3 20.09.2015 Noain, 42°45'N 1°37'W Navarra, Spain
R 17.08.2016 No.1 bed Woolston Eyes, Warrington SJ6588 1184km 357°

Reed Warbler

FRP 6333645 3 25.08.2010 Fauquet, Clairmarais, 50°46'N 2°16'E Pas-de-Calais, France

R 15.07.2016 No.1 bed Woolston Eyes, Warrington SJ6588 439km 312°

Three examples of Reed Warblers ringed in continental Europe in the course of their first southerly migration that returned from sub-Saharan Africa to breed at Woolston.

Reed Warbler

L626959 4F 14.06.2011 Barlows Farm, Greater Manchester SD6202

R 25.06.2016 No.3 bed Woolston Eyes, Warrington SJ6588 15km 172°

Reed Warbler

Z771841 1 (4/4) 14.06.2016 Abram, Wigan, Greater Manchester SD6003

R 03.08.2016 No.3 bed Woolston Eyes, Warrington SJ6588 16km 164°

Reed Warbler

S094880 3 16.08.2016 Fleetwood, Lancashire SD3346

R 07.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588 66km 151°

R 09.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588 66km 151°

R 10.09.2016 No.3 bed Woolston Eyes, Warrington SJ6588 66km 151°

This is an example of the importance of Woolston as a stopover site for migrating warblers from breeding sites further north.

Reed Warbler

Z634138 3 30.08.2015 No.3 bed Woolston Eyes, Warrington SJ6588

R 14.08.2016 Knutsford Moor, Cheshire SJ7578 15km 130°

Reed Warbler

Z434725 3J 29.07.2016 No.1 bed Woolston Eyes, Warrington SJ6588

R 24.08.2016 Knutsford Moor, Cheshire SJ7578 15km 130°

Reed Warbler

S157624 3 07.09.2016 Rostherne Mere, Knutsford, Cheshire SJ7484

R 28.09.2016 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Warbler

POL A388099 4 19.08.2015 Herdade dos Forninhos 37°43'N 8°43'W Beja, Portugal

R 04.05.2016 No.1 bed Woolston Eyes, Warrington SJ6588 1804km

Reed Warbler

S024238 4 30.07.2016 No.3 bed Woolston Eyes, Warrington SJ6588

R 16.08.2016 Marais de Pampin, La Rochelle 46°10'N 1°10'W

Charente-Maritime, France 806km 174°

Dunnock

TV10236 3J 06.08.2015 No.3 bed, Woolston Eyes, Warrington SJ6588

XF 31.03.2016 Queenstown, Blackpool SD3137 59km 325°

Grey Wagtail

D948661 3 29.09.2014 No.1 bed, Woolston Eyes, Warrington SJ6588

X 19.04.2016 Melrose, Scottish Borders NT5733 245km 358°

Grey Wagtails undertake a broad front southerly migration in autumn.

Chaffinch

D328726 5M 28.06.2014 No.1 bed, Woolston Eyes, Warrington SJ6588

XF 04.03.2016 Lymm, Warrington SJ6786 3km 130°

Chaffinch

D327766 4F 17.12.2013 No.3 bed, Woolston Eyes, Warrington SJ6588

XF 13.03.2016 Horwich, Greater Manchester SD6311 25km 355°

Chaffinch

Z434982 3M 28.11.2016 No.1 bed Woolston Eyes, Warrington SJ6588

R (=4) 31.12.2016 Nr Partington, Greater Manchester SJ7190 7km 75°

Greenfinch

TT81507 4M 28.12.2013 No.3 bed, Woolston Eyes, Warrington SJ6588

XF 30.01.2016 Buxton, Derbyshire SK0572 43km 111°

Greenfinch

TT82410 4F 30.10.2014 No.1 bed, Woolston Eyes, Warrington SJ6588

XF 15.05.2016 Brockhole, Lake Windermere, Cumbria NY3801 117km 347°

In addition Woolston ringed Greenfinches were found dead locally in Warrington, Lymm and High Legh.

Lesser Redpoll

Y155779 5 22.03.2012 No.1 bed, Woolston Eyes, Warrington SJ6588

R (=M) 09.04.2016 Petre Crescent, Rishton, Lancashire SD7329 42km 11°

Lesser Redpoll

D948673 3 29.09.2014 No.1 bed Woolston Eyes, Warrington SJ6588

R (=F) 20.04.2016 Barnacre Reservoir, Lancashire SD5348 61km 349°

Lesser Redpoll

L406920 4F 04.11.2015 No.1 bed, Woolston Eyes, Warrington SJ6588

R 10.03.2016 Walkden, Manchester, Greater Manchester SD7302 18km 31°

Lesser Redpoll

Z634417 3M 31.10.2015 No.3 bed, Woolston Eyes, Warrington SJ6588

XF 14.03.2016 Thelwall, Warrington SJ6487 0km

Lesser Redpoll

Z414874 5M 27.04.2015 Crawford, near Up Holland, Lancashire SD5003

R 05.10.2016 No.1 bed Woolston Eyes, Warrington SJ6588 21km 136°

Reed Bunting

D937885 3M 04.10.2015 Rostherne Mere, Knutsford, Cheshire SJ7484
R 17.03.2016 No.1 bed Woolston Eyes, Warrington SJ6588 11km 291°

Reed Bunting

S268025 3M 27.12.2016 No.1 bed Woolston Eyes, Warrington SJ6588
R 28.12.2016 Little Heatley, Nr Dunham Woodhouses, Cheshire SJ7187
(next day) 7km 91

Reed Bunting

L869687 5M 21.07.2014 No.1 bed Woolston Eyes, Warrington SJ6588
R 31.12.2016 Nr Partington, Greater Manchester SJ7190 7km 75°

Reed Bunting

Z434584 3F 20.10.2016 No.1 bed Woolston Eyes, Warrington SJ6588
R (=4) 31.12.2016 Nr Partington, Greater Manchester SJ7190 7km 75°

MIGRATION WATCH 2016

Visit 1

Participants Helen Wynn, David Bowman, Paul Hazlehurst, Les Jones, Dave Spencer and Dave Steel
Day Saturday
Date 03/09/16 **Time** 0615-1200
Weather Dry and bright start. Heavy rain by 0945
Highlights Hobby hunting the Swallow Roost first light. The retreat from the rain to No.3 bed Morgan Hide to finish the watch (we have never retreated before!). Helen's home baked cakes.
Total Two thousand three hundred and forty nine birds noted.

Visit 2

Participants David Bowman, Sue Haddock, Dave Steel and Helen Wynn
Day Saturday
Date 26/10/16 **Time** 0630-1200
Weather Dry, bright and cool.
Highlights Imitating a Tawny Owl, which then flew overhead to check the team out. Having a poem written by Sue about this encounter. Helen's new binoculars!
Total Six thousand six hundred and forty eight birds noted.

Visit 3

Participants David Bowman, Les Jones, Dave Spencer, Dave Steel and Helen Wynn
Day Saturday
Date 19/11/16 **Time** 0700-1200
Weather Cool and clear, SE wind and sunny.
Highlights Noting the 'desperation' in the search for Grey Partridge for this year's Woolston List by our favourite twitcher. Noting five Bullfinch flying from the North dropping in from on high.
Total Four thousand four hundred and ten birds noted.

Visit 4

Participants David Bowman, George Dunbar, Dave Spencer and Dave Steel
Day Thursday
Date 22/12/16 **Time** 0800-1200
Weather Frosty start, bright and cold throughout.
Highlights The 7,500 Starlings leaving the No.1 bed roost. The 4WD trip through the mired tracks of No.1 bed, reminding me of the many such mud-strewn ways our resident Stig has confidently tackled on our birdwatching trips abroad.
Total Nine thousand nine hundred and sixty two birds noted.

Date	03/09/16	08/10/16	19/11/16	22/12/16
Time	0615-1200	0630-1200	0700-1200	0800-1200
SPECIES				
Mute Swan	7	3	13	4
Pink-footed Goose	0	1725	137	460
Greylag Goose	0	2	0	0
Canada Goose	184	125	0	18
Gadwall	27	0	3	9
Teal	140	0	0	0
Mallard	32	79	38	28
Shoveler	21	1	0	0
Tufted Duck	3	1	34	170
Goldeneye	0	0	1	0
Red-legged Partridge	0	0	2	0
Pheasant	4	23	8	3
Little Grebe	2	0	2	4
Cormorant	6	8	6	8
Little Egret	1	0	0	0
Grey Heron	2	2	1	0
Sparrowhawk	1	7	1	1
Common Buzzard	4	11	11	25
Kestrel	2	1	2	1
Merlin	0	1	1	0
Hobby	2	0	0	0
Peregrine Falcon	1	0	2	0
Water Rail	2	0	0	0
Moorhen	1	3	4	3
Coot	0	0	1	1
Lapwing	686	545	386	80
Common Snipe	28	0	11	0
Woodcock	0	0	0	1
Green Sandpiper	4	0	0	0
Black-tailed Godwit	120	0	0	0
Black headed Gull	2	316	151	27
Lesser Black-backed Gull	33	45	31	26
Herring Gull	0	0	13	50

Date	03/09/16	08/10/16	19/11/16	22/12/16
Time	0615-1200	0630-1200	0700-1200	0800-1200
SPECIES				
Great Black-backed Gull	0	0	1	13
Feral Pigeon	13	1	12	10
Stock Pigeon	20	20	11	46
Wood Pigeon	146	952	692	236
Collared Dove	2	0	4	2
Tawny Owl	1	1	2	0
Green Woodpecker	0	0	1	1
Great Spotted Woodpecker	5	1	3	1
Skylark	0	54	9	6
Sand Martin	2	0	0	0
Swallow	157	0	0	0
House Martin	20	0	0	0
Meadow Pipit	0	54	22	0
Yellow Wagtail	4	0	0	0
Grey Wagtail	7	3	1	0
White/Pied Wagtail	11	8	11	0
Wren	12	9	3	1
Duncock	0	2	3	3
Robin	18	24	30	0
Common Blackbird	7	20	15	12
Fieldfare	0	0	107	138
Song Thrush	0	5	1	1
Redwing	0	1112	2	53
Mistle Thrush	16	6	4	2
Blackcap	2	2	0	0
Chiffchaff	20	1	1	0
Goldcrest	7	14	7	3
Long tailed Tit	0	17	3	12
Blue Tit	7	6	2	5
Great Tit	0	8	4	6
Coal Tit	0	0	0	1
Willow Tit	0	0	0	1
Nuthatch	2	2	2	1

Date	03/09/16	08/10/16	19/11/16	22/12/16
Time	0615-1200	0630-1200	0700-1200	0800-1200
SPECIES				
Jay	3	8	2	3
Magpie	5	6	6	11
Jackdaw	3	17	22	107
Rook	0	0	0	10
Carrion Crow	70	62	60	66
Raven	0	0	0	3
Starling	193	1124	2440	8000
Chaffinch	14	39	14	25
Greenfinch	70	0	11	11
Goldfinch	151	25	30	109
Siskin	0	5	1	25
Linnet	38	112	1	106
Lesser Redpoll	0	20	0	0
Common Crossbill	0	3	0	0
Bullfinch	8	5	9	13
Yellowhammer	0	2	2	0
	2349	6648	4410	9962

WILLOW TIT REPORT

2016 was a particularly good year for locating nest sites, with a total of eighteen active nests found in the general area of the Reserve.

No. 1 Bed

Nest 1

25/3 A double excavation was found 2.15m high in a tall stump standing in the water of the West Pool, which had made little progress on 12/4.

14/5 The nest site had suffered massive woodpecker damage, with wisps of material visible on the stump. The birds were alarming in the vicinity. Mike Lloyd (ML) informed me he had checked the site earlier and he found the nest in the water below.

Nest 2

4/5 Found a nest between the main track and the Canal that had been reported by ML. It was about 2.75m high in a willow but upon inspection I found a hole had been drilled into the cavity level with the nest and, although there was material, it was empty. Another casualty of Great Spotted Woodpecker!

Nest 3

14/5 This was a most interesting nest because it was within the same cavity of a nest that had been opened up by Great Spotted Woodpecker in 2015. The birds had excavated into the base of the old cavity to make a new chamber. It is the first instance I have known a pair use an old, and predated, cavity. The bird was flushed off six eggs. The site was in a birch stump immersed in the pool and only about 60m from *Nest 1*.

31/5 The nest contained chicks 'in pin'. Adult was alarming nearby.

28/6 There was no apparent damage to the nest, so assume a successful fledging.

Nest 4

14/5 Using directions from ML, I located a nest north of the Viaduct Pools, 1.53m high in a small diameter birch stump. I could discern five naked chicks and an adult was calling close by.

31/5 Heartbreak! Nest smashed into by Great Spotted Woodpecker and the nest was on the floor. The attack could have happened post-fledging, but I am not optimistic.

No. 2 Bed

Nest 5

12/4 Watched a bird excavating about 1.85m high in the limb of a willow, in the centre of the bed.

4/5 Female incubating at least six eggs.

14/5 Female brooding at least five newly-hatched chicks plus one egg.

31/5 At least four chicks ready to fledge plus one fledged in foliage nearby. Adult calling in the vicinity.

No.3 Bed

Nest 6

10/4 Near the Linley Hide, with help from ML, one nest located an inconspicuous hole, 1.95m high at the end of a broken willow limb. In the deep cavity I could just discern material and wondered if the eggs were covered.

18/4 I could discern five eggs in the cavity.

4/5 Female brooding naked chicks.

19/5 The nest was empty and had been predated by Great Spotted Woodpecker. A hole was drilled level with the nest and the material pulled out. There is a small chance this could have happened post-fledge.

Nest 7

10/4 Found a conspicuous excavation 1m high in a willow stump to the south-west of the bed.

18/4 Female brooding nine eggs.

19/5 Female brooding small young.

31/5 At least five large feathered young in the cavity.

5/6 To my delight the nest was intact and a certain successful fledge.

Nest 8

18/4 ML found an excavation 3.53m high, which was difficult to find, after hearing the pair in the vicinity. It was in a willow in the north-west corner.

14/5 He reported that the cavity had been usurped by Blue Tits and one of the adults was sitting tight in the hole.

Nest 9

4/5 I located a nest near the centre of the bed where I had previously found trial borings. It was 3.1m high at the end of a willow limb and difficult to reach but I could see it contained at least eight eggs. The pair alarmed close by.

19/5 The nest had been predated and the lining removed through a hole drilled at the base of the chamber. One egg was still attached to the lining, trailing from the stump. Obviously the work of Great Spotted Woodpecker.

No. 4 Bed

Nest 10

31/3 Found a fresh excavation 1.4m high in a willow stump where I had previously watched a singing male at the south-centre of the bed.

10/4 Two Blue Tits were fussing about the hole and I saw one enter and fly out with wood chips in its bill. The excavation had hardly progressed and no Willow Tits were in the vicinity.

2/5 The excavation was a little larger but had been opened up by a woodpecker. No evidence of a nest was in the vicinity, but if predated, I think it would be the Blue Tits that suffered.

Nest 11

3/4/ I watched a bird excavating a hole 1.85 high in a thin willow stump in the north-east corner of the bed.

18/4 The cavity had progressed to 15cm deep but there were two woodpecker piercings level with the bottom of the boring. Later visits confirmed the nest had been abandoned.

Nest 12

2/5 ML showed me a fresh cavity about 2.15m high in the decrepit limb of a willow at the south of the bed. Upon inspection I was amazed to see two titmice eggs resting upon wood chips within the cavity which was devoid of nest material. We heard a Willow Tit calling nearby and another fresh cavity was found about 20m away (see *Nest 13*).

8/5 Two Blue Tits were fussing around the hole. One entered but came out again. The two eggs were still resting upon wood chips without a vestige of nest material.

N.B. This nest did not progress and remains a real puzzle. It was impossible to tell whether the eggs were Willow Tit's or Blue Tit's, but had obviously been 'dumped' as there was no material in the cavity which was 15cm deep. Had the Willow Tit been driven off by the Blue Tits but laid in desperation? If the Blue Tits had successfully usurped the site, why did they not continue to use the nest site?

Nest 13

2/5 This nest was found about 20m from *Nest 12* and appeared to contain material and the adult was alarming close by. I saw an adult enter the site with material on 8/5.

14/5 Female brooding at least five eggs.

5/6 ML reported the cavity had been ripped out by Great Spotted Woodpecker.

Nest 14

2/5 ML showed me a nest towards the south-west of the bed where I had heard birds on territory over the past month. It was 2.45m high in the end of a sloping willow. The female was brooding nine eggs.

14/5 Nest contained naked young.

5/6 ML reported the nest was empty but intact, so presume a successful fledge. When I visited on 28th June the site had sustained woodpecker damage which proves this can occur post-fledging.

Nest 15

2/5 A cavity was visited where birds had been seen excavating on 21/4, east of the Loop. It was 2.06m high in a willow limb and inspection revealed feathers and a quantity of moss, a material used more by Blue Tits!

8/5 The nest contained at least five eggs but also moss in the lining, but I was delighted to watch a Willow Tit enter the cavity to brood. It was equally disconcerting to hear a Great Spotted Woodpecker drilling in the scrub nearby!

24/5 The pair were feeding chicks 'in pin'. Again I heard Great Spotted Woodpecker in the vicinity.

28/6 A slit was drilled level with the nest but I could see feathers and nest material in the chamber so hope it was a successful fledge.

Nest 16

8/5 Using directions from ML, I located a nest 1.85m high in a medium-diameter willow stump. The female was brooding at least seven eggs.

14/5 The female was still brooding eggs.

5/6 ML reported the cavity had been ripped out by Great Spotted Woodpecker.

N.B. this nest was only about 35m from Nest 13 and had been detected through observing an altercation between the rival pairs.

Nest 17

24/5 Directed by ML, I located a nest by the river in the north-east corner. It was 1.7m high in the dead limb of a willow. It contained six eggs plus a newly-hatched chick. I watched the adult enter.

31/5 The nest contained chicks coming into 'pin'.

14/7 ML reported that the nest had been opened up by Great Spotted Woodpecker, by viewing the site through binoculars. However, he was confident that this happened post-fledge because he had passed the nest on previous occasions and it appeared to be intact.

Woolston New Cut

Nest 18

27/4 I found a nest at the 'New Cut' area, Paddington, north of the Reserve. It was about 2.6m high in a large dead willow stump. An inspection revealed the eggs were covered by nest material.

16/5 The nest contained at least five naked chicks which were being fed by both adults. Neither adult had been ringed.

I did not have the opportunity to monitor the outcome of this nest.

SUMMARY

As stated above, a total of eighteen active nests was located in the general area of the Reserve. This figure does not include the many trial and abandoned borings which were found. I am again grateful to Mike Lloyd for his help in directing me to some of the sites. Of the eighteen nests found, three were abandoned at excavation stage, one usurped by Blue Tits and seven were predated. Seven were successful, presumed fledged.

Because of the nature of the damage it is presumed all predations were the work of Great Spotted Woodpecker. I have previously put on record the alarming damage done by this species to the Willow Tit population. As previously stated, Great Spotted Woodpecker can attack nest sites post-fledging and unless monitored closely, a nest can sometimes have actually been successful when it appears to have failed.

Further interesting information has been gleaned from the distance measured between occupied nests. It is usually considered that, because of their national scarcity, Willow Tits have considerably larger territories compared with other titmice. Two nests on No. 4 bed were found just 35m apart. A third nest was only 115m further away. In addition, two occupied nests on No.1 Bed were only approximately 60m apart. I feel this confirms the high density of birds at the Eyes.

It has been interesting to note the number of high nests found this year. According to the literature, Willow Tits typically nest in rotting stumps at low elevation between 1.5m to 2m from the ground. Nine of the nests were around 2m high and above. This is a large proportion.

No.1 Bed: In addition to the nests found, I watched a bird excavating in March at the top of a tall limb of a willow in open water at the Viaduct Pools. I returned in April but was unable to locate a nest. Also in April, I watched a pair where the female was carrying nest material. They flew in the direction of the pools and I found an excavation at the edge of the area which did not progress. Birds were heard singing to the east of the West Pool and I found excavations in the general vicinity. In view of these

territories and the fact I was unable to check areas on the north bank I think an estimate of seven-nine pairs is not unreasonable.

No.2 Bed: Other than the nest monitored, I did not have the opportunity, or the appetite to fight the Giant Hogweed, to search for further nests. However, because of past records and suitability of habitat, the bed could easily support in excess of four pairs.

No.3 Bed: In addition to the nests described, birds were heard in the area of the north-west woodland and because the north and east banks were not monitored there could easily be other territories. Estimate five-six pairs

No.4 Bed: This is the largest bed and birds were observed singing and in pairs over the central portion, and trial and deserted borings were found. A bird also sang in the south-west corner. This evidence, together with the active nests found, suggests there could easily be around ten pairs on this bed.

Because Willow Tits can be notoriously quiet for large parts of the breeding cycle and easily overlooked, it is not unreasonable to estimate a total of around 30 pairs for the Eyes. This emphasises the national importance of the Reserve for this Red Listed species.

Allan Rustell



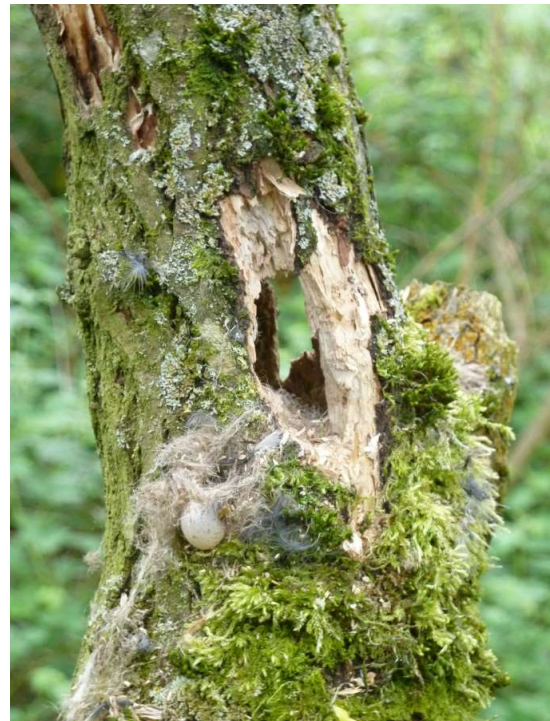
Nest 4 – 14th May

Allan Rustell



Nest 4 – 31st May predated

Allan Rustell



Nest 9 – 19th May predated

Allan Rustell

2016: AN EXCEPTIONAL SPRING MIGRATION

Spring is always eagerly awaited; for some it is the first Snowdrop and for others the first sighting of a Swallow or the song of a Willow Warbler. At the Eyes it is all of these but also the return of the **Black-necked Grebes**, which in 2016 were back on 19th March, followed a week later by the first **Swallows** and **Sand Martins**. These were fairly typical arrival dates, but they presaged an exceptional spring migration at Woolston, which will be long-remembered.

It began on 2nd April with two adult **Little Gulls** on No.3 bed, a **Wheatear** and two **Little Ringed Plovers**. The following day an immature Little Gull was present with further Swallows and up to four Sand Martins. These sightings, however, were completely overshadowed on 7th April when a few lucky observers witnessed up to 750 Sand Martins leaving a roost on No.3 bed, with a further 450 passing through during the morning – record numbers by far for Woolston. Those present considered that the above numbers were an absolute minimum. More splendid Little Gulls (three adults) passed through on 11th April, and five (four adults) were present the next day. Soon afterwards a male **Ring Ouzel**, an uncommon bird on the Reserve, was found by the Sandpit Pond, where it remained for the rest of the day. The first **Common Sandpiper** was also reported.

With winds shifting to the south many migrants returned, including on 20th April a drake **Garganey** below the footbridge on to No.3 bed and a pair in front of the Sybil Hogg hide on the 22nd. Another Little Gull and three **Mediterranean Gulls** were present on No.3 bed the following day. The 27th April brought a surprise in the form of an adult **Kittiwake** during a brief cold spell with fresh northerly winds. These sightings, however, were eclipsed by a first-class rarity a **White-crowned Sparrow**, which flew into a ringer's net on 30th April. A native of North America, this was only the sixth United Kingdom record. It was identified as a sub-species of the White-crowned Sparrow from the west of the United States, and had never before been recorded in Britain. It would be intriguing to know how this bird reached this country. Needless to say it attracted twitchers from all parts of the United Kingdom and in the process earned the Reserve several hundred pounds in donations! After its release the bird remained near the John Morgan hide for about an hour and a half, after which it was never seen again.

More surprises followed in May with an **Osprey** drifting west on the 4th and the year's only **Black Tern**, in the classic conditions of warm south-easterly winds, on the 9th. The next day a summer-plumaged **Turnstone** was feeding in front of the John Morgan hide, a first record since 1991! On the same day another Osprey was flushed from the ground on No.1 bed and what could well have been the same bird was perched in a dead Silver Birch on No.3 bed on the 11th. This bird remained on the bed for almost a week and was seen with fish on several occasions. The Turnstone was still present on the 11th and two **Marsh Harriers** provided a spectacular display for a number of lucky observers. Another Kittiwake was seen on the 20th May, before a totally unexpected find by a birdwatcher visiting the Eyes for the first time, a pair of **Red-necked Phalaropes** in front of the John Morgan hide. These splendid birds were present all day and seen by a number of very appreciative birdwatchers. The finder of the phalaropes, Roly Pitts from Oxfordshire, also located two **Avocets** on No.3 bed.

These sightings largely brought to an end an amazing spring, although another summer-plumaged Turnstone was feeding on No.3 bed on 2nd July – two in less than two months after an absence of 25 years!

Autumn migration was in many ways equally memorable, with record numbers of eastern migrants arriving in the UK. At Woolston, the national influx of **Yellow-browed Warblers** was reflected in an unprecedented four being ringed on No.1 bed, while seven **Siberian Chiffchaffs**, of the race *tristis*, were also ringed, two on No.1 bed and five on No.3. With many hundreds of **Goldcrests** pouring through the Reserve it was not surprising to find **Firecrests** also ringed.

All in all, a remarkable year.

Brian Martin

BUTTERFLY REPORT

After a poor year in 2015 it was hoped that butterflies would bounce back this year. However this proved not to be the case and 2016 was the worst year for many species since systematic recording at Woolston commenced in 2003. This picture was reflected nationally as concern for the future of some of our most common butterflies increased.

At Woolston it was a disastrous year for Purple Hairstreak, with no sightings in spite of regular searches of suitable habitat during the flight season. It is hoped that this elusive species has not been lost permanently. Another species which continues to decline is Small Copper and there was only one confirmed sighting this year. Many common species fared badly including Peacock, Small Tortoiseshell and Common Blue whilst butterflies of high summer such as Gatekeeper and Meadow Brown appeared in below average numbers.

The year started reasonably enough with the first reports of Small Tortoiseshell and Peacock on 14th and 16th March respectively but it was April before any other species emerged. The weather proved generally unfavourable throughout the spring and summer but in spite of this Small and Green-veined Whites were present in above-average numbers and there was a small arrival of Painted Lady in early June. It was only from mid-August onwards that warm and settled conditions prevailed and this was to the benefit of Red Admiral and, spectacularly, Speckled Wood which was seen in record numbers in early September. The season was not prolonged however and the only butterflies reported after September were Comma and Red Admiral on three dates in October, and there were two November reports of Red Admiral on the 2nd and 23rd.

An unexpected local sighting, although not on the Reserve, was of a Camberwell Beauty seen at nearby Pennington Flash at the beginning of July. This shows that, in spite of generally poor conditions, a rarity can crop up at any time!

Regardless of the often unfavourable weather conditions the Butterfly Transect was monitored regularly with often frustrating results, for example on 3rd April when not a single butterfly was seen! Thanks as always to David Bowman and Les Jones for being prepared to cover in my absence.

As stated above, Woolston was typical of the wider picture and this was reflected in the Annual Report of the Cheshire and Wirral branch of Butterfly Conservation which revealed a very poor year across the county. In spite of this Woolston Eyes held the highest numbers of six species in Cheshire.

It would be impossible to compile this report without the records submitted by fellow wardens and permit holders via the logbook and website and I am grateful to all who took the trouble to provide valuable information by these means or verbally. As Woolston Eyes is such a large site it can be difficult to monitor the whole Reserve and I would be grateful for any help, regardless of levels of expertise or time commitment. If any permit holders are interested in monitoring butterflies at Woolston please contact me via the website and I will happily provide any necessary training in monitoring methods or identification.

SPECIES ACCOUNTS

Small Skipper

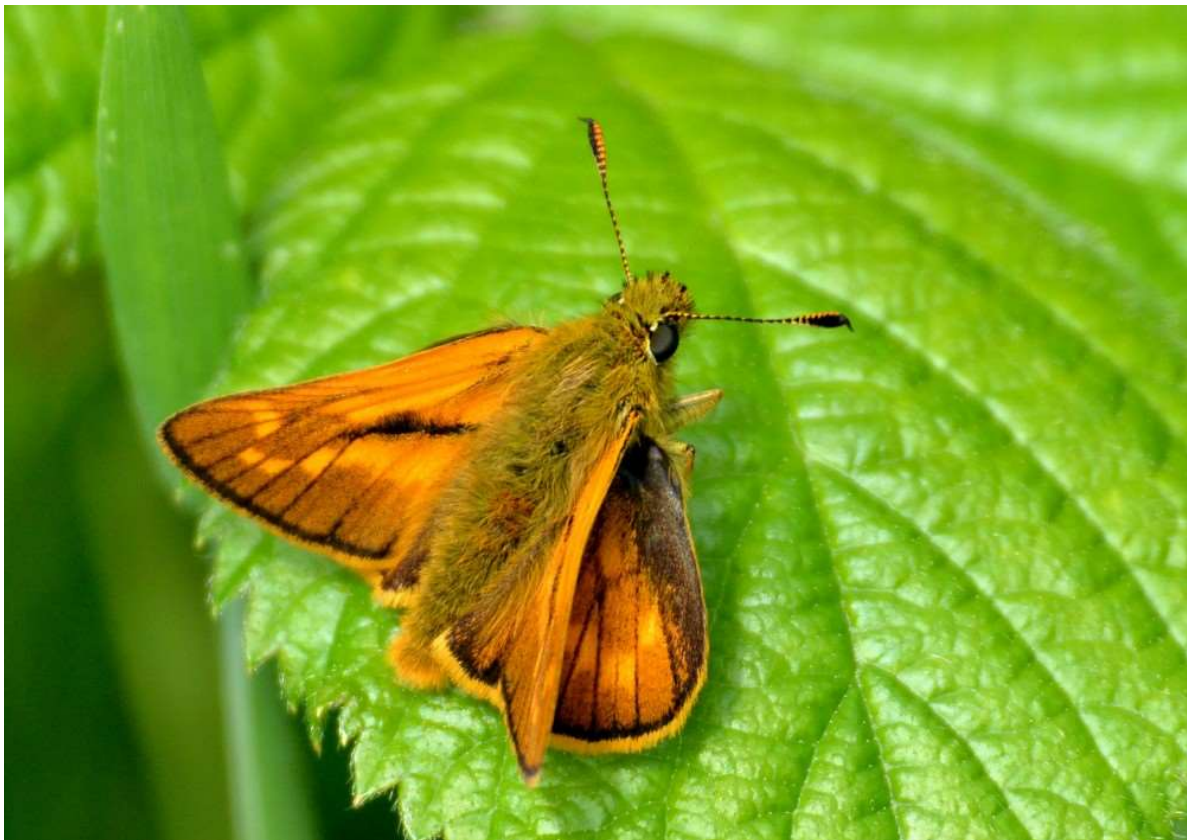
Thymelicus sylvestris

This was a very poor year for this inconspicuous butterfly. The first was seen on 23rd June which was about average. Seven were counted on this date and there were no further records until 19th July. Between then and 26th July a total of nine were present and reports were confined to Nos. 1 and 2 beds and Butchersfield Tip. Disappointingly there were no further sightings and for the first year since 2010 there were no August records. The year maximum of nine was the lowest since 2010 and 2003 when similar totals were present.

Large Skipper

Ochlodes sylvanus

In contrast to the previous species, butterflies were present in about average numbers although the exceptionally high counts of the previous year were not repeated. The first sighting was on 5th June when six were found on the northern section of No.1 bed. Maximum numbers occurred around mid-month when eight were present on Nos. 3 and 4 beds. The final report was of a single on 23rd June, the earliest date for many years. Usually butterflies are present well into July and occasionally into August.



Large Skipper

David Bowman

Brimstone*Gonepteryx rhamni*

This species emerges from hibernation in spring and the first was reported on No.2 bed on 13th April. On 20th April singles were found on Nos. 1 and 4 beds. There were four May sightings with a female on the Canal track and one on the river on the 4th. Singles were noted on No.2 bed on the 6th and 8th and the final spring report was of one on the south bank of No.3 bed on the 31st. The only record of the summer brood was of one on the Canal track on 5th August, which proved to be the last of a fairly average year.

Large White*Pieris brassicae*

The first report was of one on Butchersfield Tip on 4th May. The next sighting was on 5th June but there were no further records until 18th July. Four were present at the month end with two on No.1 and two on No.3 bed. Between 3rd and 7th August eight were found and up to six were regularly reported up to the end of that month. The year maximum was between 7th and 13th September, when a total of nine was recorded, the highest count of the year. None were seen thereafter but this year's counts were slightly above average.

Small White*Pieris rapae*

A single on 10th April was the first of the year and small numbers were reported on many dates until early June. The highest count during this period was of eight on the Butterfly Transect on 23rd May. The second brood emerged in mid-July with the first definite sighting on the 18th. Excellent numbers were present during the remainder of July and approximately a hundred were seen at this time. Seventy "whites" were on the northern section of No.1 bed alone on 31st July and these were thought to have been predominately of this species. This is an above average total and a considerable improvement on the previous year when an estimated 30 were present. The Woolston Eyes counts were by far the highest in the county this year. Numbers declined during August and there were no further counts in double figures. Butterflies lingered into September with seven on the 11th and two on the 13th.

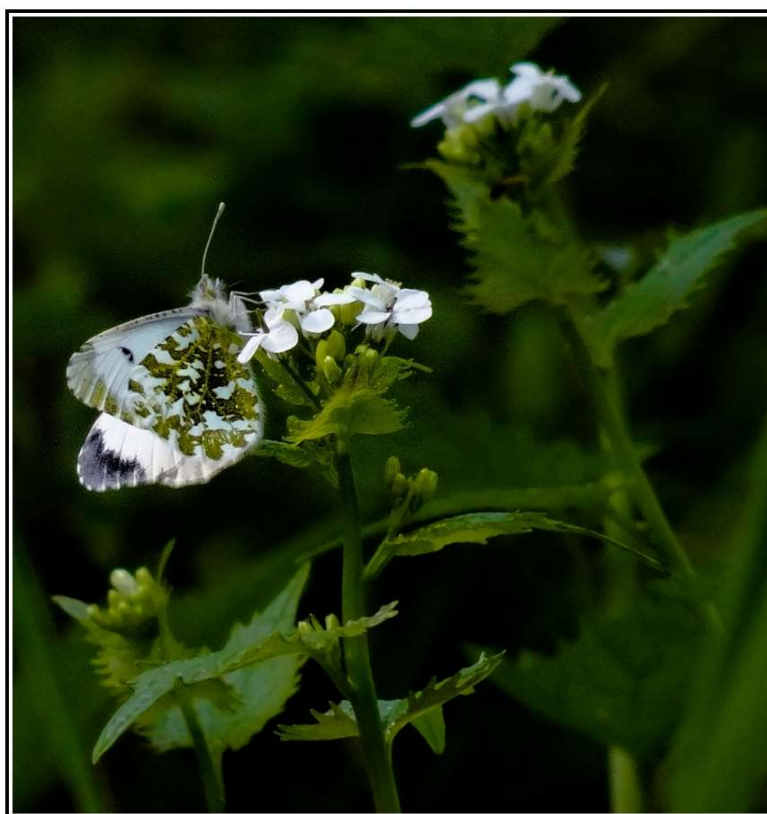
Green-veined White*Pieris napi*

The first sighting was on 20th April and further singles were reported on four dates to the end of May. Seven were on No.4 bed on 8th June but the only other record that month was of one on the 23rd. There were no further sightings until 18th July when good numbers of "whites" began to emerge. Over the next week about fifty were present; this was the highest count of the year, nearly double the number seen in 2015. This was one of the few species to show an improvement on the previous year in Cheshire as a whole. Reasonable numbers were present during August, including 22 on No.4 bed on the 16th and a Reserve total of 29 between the 16th and the 21st. This was the last significant count of the year which ended with four on No.4 bed on 7th September and a single on the 11th.

Orange Tip

Anthocharis cardamines

The appearance of this attractive butterfly is always eagerly awaited but it was not until 20th April that the first were seen; these comprised two on the Canal track and a female on No.4 bed. There were few further sightings but on 4th May a total of 13 included 5 females. The only other records were of two on 8th May and one on the transect on 23rd May. The year maximum was similar to the 2015 total of twelve.



Orange Tip

David Waterhouse

Purple Hairstreak

Favoncus quercus

A small colony has been present since 2011 but this year there were no sightings in spite of regular evening surveys of the Oak trees along the Canal track and the south bank of No.3 bed during July and August. Although the weather during the flight period was not ideal, surveys during suitable conditions failed to find any butterflies of this elusive species. The picture was equally bleak throughout Cheshire with very few sightings reported. It is hoped that the colony has not disappeared permanently and any records in 2017 would be much appreciated.

Small Copper

Lycaena phlaeas

The recent decline of this attractive butterfly continues and this year there was only one confirmed sighting. One was found on the northern section of No.1 bed on 6th August. Most parts of Cheshire

reported low numbers, the exceptions being Moore Nature Reserve and the nearby Upper Moss Side Farm.

Common Blue

Polyommatus Icarus

One was found on the nearby Bridgewater Canal as early as 9th May but the first sighting at Woolston was not until the 23rd when one was on the Canal track. The beginning of June saw the main emergence and on the 5th a survey of the northern section of No.1 bed produced a total of 23. Over the next week a further seven were found on the rest of the Reserve, making an overall total of 30 which proved to be the highest of another disappointing year for this species. Surprisingly, this proved to be the highest total in the county. Only single-figure numbers were present during the summer months until the end of August when a total of 14 included ten on the favoured northern half of No.1 bed. The only other records were of one on 11th September and two on the 13th.

Holly Blue

Celastrina argiolus

Never common at Woolston, there were just two records this year. On 6th May one was found near the Weir and on 16th August two were seen on Ivy at Latchford Locks.

Red Admiral

Vanessa atalanta

This migrant species benefitted from the warm, dry conditions from mid-August onwards and was seen in good numbers. The first was reported on 8th June and odd ones and twos were seen on a few dates until the end of July. On 31st July six were on the Butterfly Transect and over the next three days a further 14 were counted in other areas of the Reserve, making a total of 20 which was the highest of the year for Cheshire and the third highest here since systematic recording began in 2003. Early August saw a count of eleven and good numbers remained throughout August with ten on No.1 bed on the 27th. The Buddleias on the northern section of No.1 bed always attract good numbers of this species and sightings there continued into September. A total of twelve on 11th and 13th September included nine in this area alone. The south bank of No.3 bed held four on 16th September, six on 23rd September and two on 2nd October. Late reports included one on No.4 bed on 17th October and the final sighting of the year, a single in Weir Lane on 2nd November.

Painted Lady

Vanessa cardui

The beginning of June saw a number of sightings of this migrant species with the first on the 3rd. On the 8th and 9th no less than eight were found across the Reserve, the highest total since the summer of 2009. This was the equal highest count in Cheshire this year, eight being recorded on Hilbre Island on 4th June. There were no further reports until 31st July when one was on the northern section of No.1 bed. Four were in the same area on 7th August and a further single on the 23rd. The season ended with one on No.3 bed on 6th September and two on the favoured area of No.1 bed on the 27th. This represents the best year for this species at Woolston since 2009, when millions of butterflies were reported across the country.



Painted Lady

David Spencer

Small Tortoiseshell

Aglais urticae

The first record was of a single on No.3 bed on 14th March and odd ones were seen on the 16th and 17th. There were no further reports until 30th March when one was found on No.4 bed. The first count of any significance was on 20th April when 25 were on the Reserve itself and a further nine along the river. Surprisingly, this was the highest total of a disappointing year and also the highest for Cheshire. On 4th May 15 were present but there were few subsequent sightings until the emergence of the second brood in mid-July. On 23rd July nine were found on the northern section of No.1 bed and eight were in the same location on the 31st. The final record was of eight in the same area on 11th September.

Peacock

Aglais io

As with the previous species this was a poor year. The first sighting was on 16th March but there were no further reports until 8th April when six were on No.3 bed. Only odd ones were then noted until 20th April when a survey of the whole Reserve resulted in a total of 29. On 4th May 22 were present but only single-figure counts were made until the last of the first brood was noted on 8th June. The next report was on 19th July when two were seen. A series of visits between 31st July and 9th August produced the highest count of the year, a disappointing 44. This is the lowest total since systematic recording began in 2003, the previous worst being 50 in 2005. Nevertheless, it was the highest in the county in what proved to be a very disappointing year. On 16th August a Reserve total of 15 included

eight on Butchersfield Tip. The last sighting of the year was of a single, again on Butchersfield Tip, on 30th August.

Comma

Polygonia c-album

One on No.4 bed on 3rd April was the first sighting and there were four further records, all of singles, until 20th April. There were no further reports until the second brood emerged on 18th July with one on the Canal track. Between 30th July and 3rd August a total of nine was present across the Reserve and single-figure counts were made on a number of dates in August. The highest total of the year was between 11th and 13th September when twelve were found. Although down on the previous year's excellent maximum of 40, this year was about average for this species. Continued warm and sunny weather into mid-September produced good numbers but unfortunately it was not possible to carry out a Reserve-wide survey at this time. The final reports were of singles on 17th and 29th October.



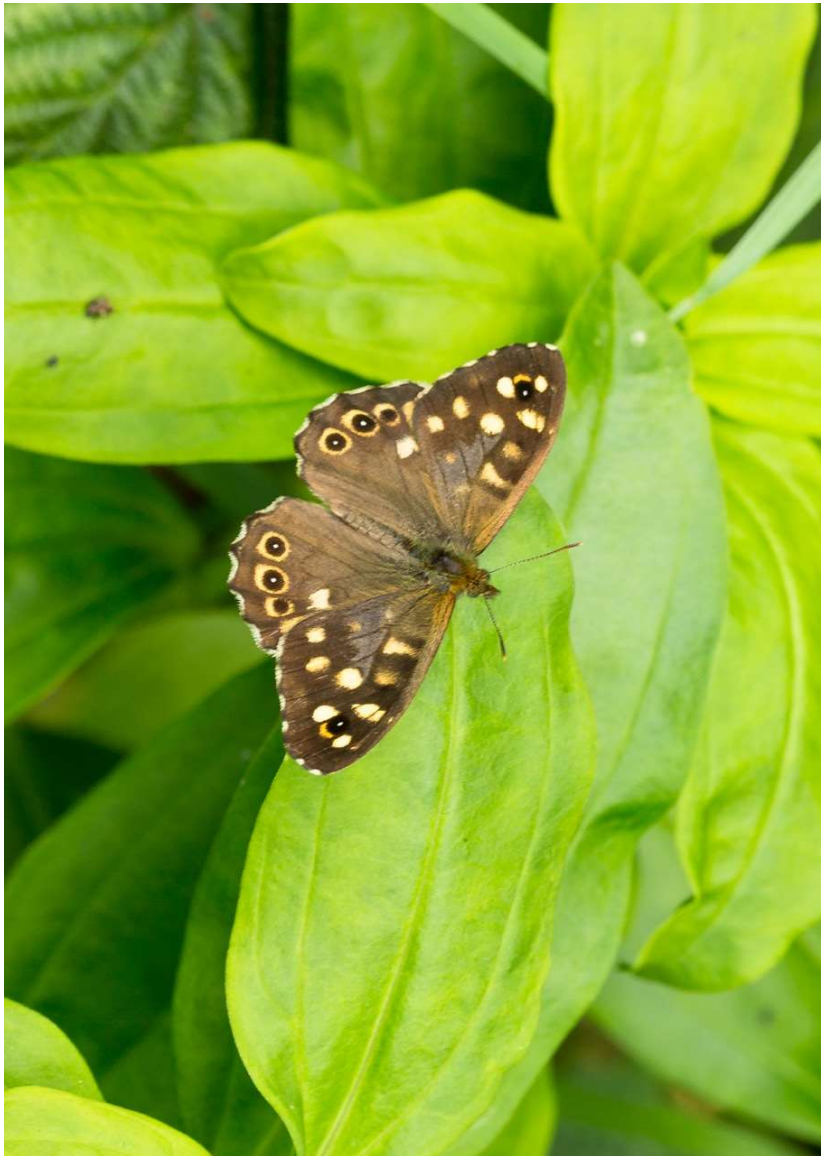
Comma

David Bowman

Speckled Wood

Pararge aegeria

Early April saw the emergence of this species and there were two other April records, both of singles. There were two May reports and seven were present at the end of the month. An increase in numbers during June was apparent when 15 were found in the first week. Nine were on Butchersfield Tip on the 15th. A week later, 18 were present of which ten were on No.3 bed. There were only single-figure counts during July but numbers increased in August. By 23rd August 45 were present and this rose to 118 by the end of that month. On 1st September 35 were found in the Sandpit Pond area of No.4 bed alone and 49 were on Butchersfield Tip on the 7th. Between 27th August and 7th September a series of visits to all parts of the Reserve, including some normally uncounted wooded areas, produced the remarkable total of 235. This is a record count for Woolston and far exceeds the previous maximum of 164 which occurred in 2013. No other site in Cheshire reported more than the 42 seen at Moore. Numbers then began to decrease, although 21 were still on Butchersfield Tip on 13th September. Nine were reported on No.3 bed on 16th September and the final record was of one on No.4 bed the following day.



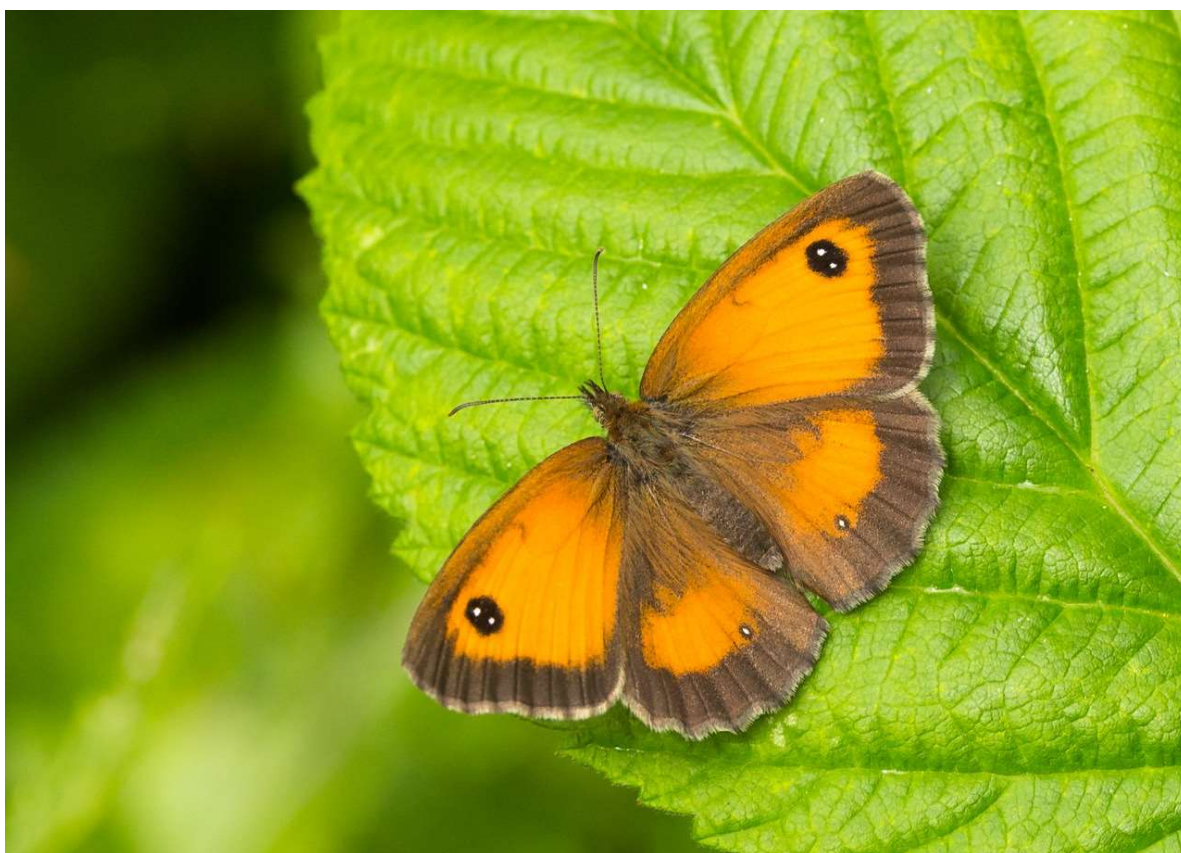
Speckled Wood

Andy Weir

Gatekeeper

Pyronia tithonus

This species normally emerges around the beginning of July but due to holidays no counts were made until mid-month. Butterflies were few in number however with only 37 present on 18th July. A series of visits between 18th and 23rd July resulted in an overall total of 169 and numbers peaked around this time with a disappointing year maximum of 261, well below average and the lowest since 2007. By the end of July numbers were already past their peak and a total of 139 included 66 on the northern section of No.1 bed. The following week the same area held only seven butterflies and the highest count in August was of 37 on the 16th. About ten were present on 23rd August and the last report of a very poor year was of two on 27th August.



Gatekeeper

Andy Weir

Meadow Brown

Maniola jurtina

Both this and the previous species are butterflies of high summer and with poor conditions prevailing until mid-August it was no surprise that this proved to be a poor year. The first sighting was of four on 15th June, a fairly typical date but numbers were slow to increase, the highest June count being 31 on the 23rd. The first evidence of a significant increase was on 23rd July when 50 were on the northern section of No.1 bed. The year maximum occurred around this date and a series of visits to all areas of the Reserve produced a total of 132, much below average in recent years and the lowest total since

2007. Only four sites in Cheshire reported numbers in excess of a hundred. It is no coincidence that both Meadow Brown and Gatekeeper had their worst summer in ten years. Totals of between 30 and 40 were recorded up to 23rd August but thereafter few were seen; twelve were noted on 27th August and seven on the 30th. The last report was of two on Butchersfield Tip on 7th September.

Ringlet

Aphantopus hyperantus

Given the performance of the two previous species it was unsurprising that a species whose flight period is more or less limited to July should also fare badly. In fact there were only two sightings, both of one individual on No.3 bed. The first was on 9th July, when Les Jones found one in the centre of the bed, and the only other record was from John Haddock on 1st August. This species only established itself on the Reserve in 2014, and it is to be hoped that it does not become lost to Woolston.



Ringlet

David Bowman

Dave Hackett

ODANATA REPORT

Compared to the previous two years the 2016 season was disappointing, as far as the abundance of many of the species recorded across the Reserve was concerned. The cold wet spring and unseasonable weather at times throughout the summer months inevitably affected the totals present, and probably led to a shorter season overall. The species which appeared to have suffered most included Blue-tailed and Emerald Damselflies, Banded Demoiselles, Broad-bodied Chasers, Black-tailed Skimmers and Ruddy Darters. On a more positive note, increased numbers of Large Red Damselflies were recorded in the early season, and once again good numbers of Brown Hawkers were noted from mid-June onwards. Additionally the small populations of Red-eyed Damselflies, Four-spotted Chasers and Migrant Hawkers seemed to be stable. A total of sixteen species was recorded during the season and breeding was either proven, or deemed probable for around half of these.

Once the sun eventually appeared the season got underway when the first Large Red Damselfly was spotted on 3rd May. Two weeks later on 17th May the first Four-spotted Chaser appeared, quickly followed on 19th May by the first Azure, Common Blue and Blue-tailed Damselflies plus a couple of Broad-bodied Chasers. At the end of May a few Red-eyed Damselflies had emerged as well as an immature Black-tailed Skimmer. On 6th June the first Emperor Dragonflies were noted followed by Common Darters on 11th June. Brown Hawkers appeared a week later on 18th June, but the first Banded Demoiselles were not reported until the relatively late date of 6th July. A solitary Southern Hawker was spotted on 14th July and the following week the first Ruddy Darters were found. Emerald Damselflies were present on 23rd July, but it was a few weeks later before the first Migrant Hawker appeared on 13th August.

Although the normal pattern of emergence still prevailed the weather may have curtailed the flight periods of some species. Of the five damselfly species which had emerged during May, only the Common Blue and Blue-tailed Damselflies were still present in the middle of August, and the odd Red-eyed Damselfly was spotted at the beginning of September. Broad-bodied Chasers were only recorded during a two week period at the end of May, whereas Four-spotted Chasers were present until 11th June. Black-tailed Skimmers were reported from the end of May until 23rd July and Emperor Dragonflies were reported from early June to mid-August. Both Common Darters and Brown Hawkers, which were recorded from June until late September and early October respectively, had the longest flight periods. Banded Demoiselles, Emerald Damselflies and Ruddy Darters, which first appeared during July, were all seemingly short lived, whilst Southern Hawkers were recorded until mid-September. Average numbers of Migrant Hawkers were present from late summer until 9th October. Despite fewer numbers being recorded overall, the odonata season stretched from early May until the second week of October, which was approximately three weeks shorter than the year before.

The highlight of the season was the discovery of an emerging Four-spotted Chaser on 28th May at the New Pool. A small group of fascinated observers watched as it finally broke free from its larval case and slowly unfolded its wings, before climbing a few inches up a reed stem to harden off, before taking its short maiden flight. Fortunately this ultimate proof of breeding was photographed and duly reported on the sightings page of the website.

Finally, I would like to express my appreciation and thanks to all who assisted me in various ways during the year, and also those who contributed towards this report by recording their sightings in the Log Book, or submitting records and photographs to the website.

SPECIES ACCOUNT

Emerald Damselfly

Lestes sponsa

This fairly common green coloured damselfly breeds in shallow ponds with plenty of marginal vegetation on which the adults perch for long periods, with their wings spread half open. They tend not to fly much over the water and are often only spotted when disturbed. Previously it was recorded regularly on No.4 bed, but the majority of recent records have been in single figures only from No.1 bed, where the lush grass and rushes provide a suitable habitat. It was nevertheless disappointing that there was just one record this year, dated 23rd July, when three were spotted in the tall grasses surrounding the New Pool.



Emerald Damselfly

Brian Baird

Banded Demoiselle

Calopteryx splendens

Very small numbers of this riverine species have been recorded on the Reserve during the last decade. Breeding occurs in slow-moving streams and rivers which have muddy bottoms and preferably tall bank-side vegetation. The south facing stretch of the Mersey, alongside Woolston Weir, is the favoured place for sightings of this butterfly-like insect. It is here that on warm sunny days, usually during June and July, males have been observed from the footbridge, performing their delightful courtship display. There were just four records this year, commencing on 6th July, when both a male and female were present by the Weir. There were two separate records of singles here on 19th July, one of which was

noted in the Log Book. The other was of a female, found perching low down at the water's edge, which usually indicates that she was ready to lay her eggs. Another entry in the Log Book dated 26th July was the last record for a slightly below average year.

Azure Damselfly

Coenagrion puella

This common damselfly is one of the earliest to appear in spring and they are often first spotted perching on the vegetation along the south path of No.3 bed. It breeds in a wide range of habitats and was found on all four beds. On 19th May, the first few of the year were recorded on No.3 bed and at least 10 were spotted around the pools on No.1 bed. On 24th May, just four were found on No.4 bed, however when the pools on No.1 bed were visited again on 28th May a minimum of 55 was present. At the end of May and beginning of June, a dozen or so were noted along the south path of No.3 bed. The highest count of the year was on 6th June when 70 were identified around the New Pool, and several pairs appeared to be ovipositing, or egg-laying. After this peak numbers quickly decreased and only single-figure counts were recorded during the rest of June. In warmer conditions on 6th July 10 were present at the New Pool, including a pair ovipositing in tandem. The final record was on 23rd July, when just two singles were noted on No.1 bed.

Common Blue Damselfly

Enallagma cyathigerum

This is another common and widespread damselfly which breeds in a variety of habitats, including large open pools and sluggish rivers. Males are strong flyers and often zoom out across the water's surface chasing off other insects. The majority of records came from No.1 bed, commencing on 19th May when 15 were counted at the Viaduct and New Pools. In sunny weather on 28th May a minimum of 65 was recorded at the New Pool followed by a count of 55 there on 6th June. During another visit to this pool on 11th June, in much cooler and damp conditions, only a few were found perching low in the surrounding grasses. On 30th June two were present along the west path of No.2 bed and a single male was at the Weir. Numbers increased slightly after this when at least 15 were present on 6th July on Nos.1 and 2 beds. There were just two records of this species on No.3 bed, beginning with four on 14th July, followed by 10 on 19th July. At the New Pool on 23rd July, at least 20 were present and active, apart from one unfortunate individual which was being eaten by a spider. On 3rd August, 20 were again noted at the New Pool and several pairs were either in cop or ovipositing. The last two records were also from this pool, where 12 were present on 6th August and 15 on 17th August.

Red-eyed Damselfly

Erythromma najas

This darker coloured damselfly with blood-red eyes prefers still-water habitats with plenty of floating vegetation, especially water-lilies, on which they often rest for long periods. The small colony at Woolston favours that quiet stretch of the river along the south of No.3 bed, where they can be identified with binoculars from the footbridge. Usually it is the males which are spotted here perching on floating leaves, debris or algae. The first of the year appeared on 28th May and two more singles were noted by the end of the month. Four were present on 4th June and a week later a single was reported on 11th June. There was an uncommon record on 30th June, when a single male was spotted on floating vegetation at the Weir. On the same day eight were noted along the south bank of No.3 bed. Six were spotted from the footbridge on both 14th and 19th July and another four were present here on

23rd July. Again in this area of the river, singles were recorded on both the 5th and 6th August whilst on 17th August a tandem pair appeared to be egg-laying on floating algae. The final record was on 1st September, when a male was seen resting on a floating oak leaf underneath the footbridge.



Red-eyed Damselfly

Brian Baird

Blue-tailed Damselfly

Ishnura elegans

This is another widespread species which is found in a wide range of habitats including those with a degree of pollution. They tend to fly low down amongst waterside vegetation but also wander away from the water and were spotted flitting leisurely along the paths on Nos.1, 2 and 3 beds. Despite being recorded on thirteen dates during the season numbers were below average. The first record was on 19th May when 12 were spotted at the Viaduct and New Pools on No.1 bed, followed by a similar number at the New Pool on 28th May. Although only a few were present on No.3 bed at the end of May numbers at the New Pool had increased to at least 20 on 6th June. A couple was spotted on No.3 bed on 11th June, before numbers increased to 22 along the south bank of the bed on the 30th June. On the same day a total of 27 was counted along the west path of No.2 bed, including a few in other colour forms. Numbers then declined throughout July when only-single figure counts were recorded, with a maximum of six on No.3 bed on 14th July. The last records were both at the New Pool, where just two were present on 3rd August and three on 17th August.

Large Red Damselfly

Pyrrhosoma nymphula

These fairly large and active red and black damselflies are quite distinctive and are usually the first species to appear in early spring, as both water temperature and hours of daylight increase. Although proof of breeding was established in 2007 it would appear from recent records that only a small colony remains on No.1 bed. However after just one record last year, and none at all in 2014, it is pleasing to report that this species was recorded on six dates during the current season. As expected it was the first damselfly to be spotted, when a freshly emerged teneral was discovered at the Viaduct Pools on 3rd May. On 4th May, when the same pools were re-visited three more were found, including one making its maiden flight to a nearby tree. On a subsequent visit to the Viaduct Pools on 19th May only a single male was noted. During a survey at the New Pool on No.1 bed on 28th May a minimum of 10 was found. The last two records were also from the New Pool during June, where four were present on the 6th and finally seven were recorded on the 11th.



Large Red Damselfly

David Bowman

Southern Hawker

Aeshna cyanea

Only small numbers of this large dragonfly are usually present and typically there were just five records this year. This species prefers shaded ponds in which to breed and in 2015 breeding was proved at the Viaduct Pools on No.1 bed. The bright apple-green marked males are inquisitive and will sometimes

hover close to an observer for several seconds, but both sexes often perch on bushes and hedges along woodland paths, often allowing closer examination. The first of the year was spotted on 14th July followed by another single on 23rd July. Three were hawking over the bracken along the Canal Track by No.2 bed on 6th August. At the New Pool another three were recorded on 17th August, whilst later that afternoon a male was seen patrolling over the river by the footbridge to No.3 bed. The last record was on 17th September, when a female was spotted on a gorse bush on No.1 bed.

Brown Hawker

Aeshna grandis

This distinctive large brown dragonfly, with amber-coloured wings, breeds in ponds, canals and slow-moving rivers, where the larvae develop over a period of two to four years. Although they are found on all four beds from mid-summer onwards, the majority of sightings usually occur along the south bank area of No.3 bed. There were sixteen records this year starting on 18th June, when the first two were spotted on No.3 bed. Another two were present on No.4 bed on 4th July and when Nos.1 and 2 beds were visited on 6th July four were found. Numbers then increased from 14th July when 19 were counted on No.3 bed, including a female ovipositing under the footbridge. On 19th July a total of 18 was recorded on No.3 bed and along the Canal Track. A male flying around over the scrape in front of the Morgan Hide on 23rd July was probably searching for a female. Thirteen were noted on 6th August, followed by a peak count of 20 on 17th August across Nos.1, 2 and 3 beds. An ovipositing female was also observed at the New Pool on this last date. Towards the end of August at least four were spotted on No.3 bed, whilst on 1st September up to 10 were present on the bed. However throughout the rest of September just single-figure numbers were recorded. The final record was on 9th October, when a male was seen patrolling along the riverbank to the south of No.3 bed.

Common Hawker

Aeshna juncea

Once again there were no records of this species during the year. It is normally found in more acidic boggy areas and has now become a scarce visitor to the Reserve. The most recent record was of a single reported on 3rd July 2014.

Migrant Hawker

Aeshna mixta

This small hawker breeds in slow-moving waters and ponds with plenty of emergent vegetation. The adults appear from late summer onwards and are often spotted feeding above the trees and hedges along the paths and Canal Track. Fortunately they also perch low down on marginal vegetation around the water's edge, where they may be approached with care. The earliest sighting this year was on 13th August, when a single was spotted along the south bank of No.3 bed. More singles were noted on the bed on 17th and 29th August, whilst another was feeding along the Canal Track on the former date. On 1st September a maximum of 10 was present on No.3 bed and along the west path of No.2 bed. The following day a single was reported on No.3 bed. Further records from the south side of No.3 bed continued during September, with six on the 7th, three on the 10th and seven on the 11th. Along the Canal Track on 17th September two were present and a single was reported on No.3 bed. The final record was on 9th October, when another single was hawking along the riverbank by No.3 bed.



Migrant Hawker

Brian Baird

Emperor Dragonfly

Anax imperator

This large hawker species breeds in open well-vegetated ponds, lakes, canals and slow rivers where the larvae normally spend two years developing. The bright blue males are very territorial and often patrol fairly high over the water's surface for long periods, in pursuit of other insects and rivals. By contrast the green-coloured females remain away from the water until they are ready to lay their eggs. There were just eight records this year beginning with two on 6th June, when a female on No.3 bed was photographed for the website, whilst a male was spotted at the New Pool on No.1 bed. Another single present at the New Pool on 11th June may well have been the same insect seen earlier. On 4th July a male was patrolling over the small Sandpit Pond on No.4 bed and a couple of days later another male was observed at the New Pool. The photograph of a male on No.3 bed, which was submitted to the website on 13th July, may have been taken by the observer on 30th June. The last two records were at the New Pool, where a single was spotted on 3rd August and two were reported on 17th August.



Emperor Dragonfly

Andy Weir

Broad-bodied Chaser

Libellula depressa

During the last decade small numbers of this stocky, medium-sized species have been recorded on Nos.1 and 3 beds. They are associated with small ponds and shallow lakes in which the larvae live amongst the debris and mud at the bottom. The adult dragonflies appear in early summer when the

mature pale blue males habitually perch on waterside vegetation, from which they frequently chase off other insects or pursue females. Unusually all six sightings this year came solely from No.3 bed during the month of May, starting on the 19th when two singles were found at different locations on the bed. On 24th May another single which was present along the south bank, was recorded in the Log Book. There was a further entry in the Log Book dated 30th May, when two females were spotted in front of the South Screen, and another female was seen ovipositing in front of the Tower Hide, with a male in attendance nearby. The final record dated 31st May was from the middle of the bed where a territorial male was perched on the rushes at the edge of the water.



Four-spotted Chaser emerging

David Bowman

Four-spotted Chaser

Libellula quadrimaculata

This widespread dull brown dragonfly breeds in a wide range of still waters where the larvae remain for two years, before emerging in the spring and early summer. Although both sexes will wander away from water, the males are often spotted flying from and returning to a favourite perch at the water's edge. The first to be recorded this year was on 17th May, when a single was noted on the south bank of No.3 bed. When the New Pool on No.1 bed was surveyed on 28th May, a total of 15 was recorded. It was during this survey that an emerging teneral was discovered and observed for about twenty minutes, until it had taken its short maiden flight. This is probably the first proof of breeding at Woolston for this species. Following this, two were recorded on No.3 bed on 30th May, and shortly after on 4th June a single was spotted on a tree on No.2 bed. In warm conditions on 6th June at least 17 were present at the New Pool, including a pair in cop, and a female ovipositing. The final record on 11th June was also at the New Pool, where just two were present in much cooler and damp weather.

Black-tailed Skimmer

Orthetrum cancellatum

Shallow lakes, ponds and gravel pits with bare margins are typical breeding habitats for this medium-sized dragonfly, which was first recorded on the Reserve in 2006. Adult males have a pale blue tapered abdomen which becomes black towards the end. Immature males and females are basically yellow but have a black ladder marking along the top of the abdomen. Males often perch on dry mud, stones and wood around the water's edge, where they are more easily spotted than females. The first of the year was found on No.3 bed on 31st May and then two males were spotted at the New Pool on No.1 bed on 6th June. A single, present on No.3 bed on 11th June, was reported on the website. Three more were found at the New Pool on 11th June, including an immature male. A few days later on 15th June, a mature male was photographed on No.3 bed. Single males were recorded on 6th July at the New Pool and on 14th July alongside the Mersey adjacent to No.2 bed. On 19th July a male was seen flying low over the water in front of the South Screen on No.3 bed. The last record was on 23rd July, when another male was spotted at the New Pool.



Black-tailed Skimmer

Brian Baird

Black Darter*Sympetrum danae*

For the third year in a row there were no records of this small darter which is normally found in more acidic bog pool habitats. It was last recorded on 10th August 2013 at the New Pool on No.1 bed.

Ruddy Darter*Sympetrum sanguineum*

This small bright red dragonfly breeds in shallow ponds with lots of vegetation which is often situated close to woodland. It is not a widespread species, being mostly restricted to the south and south-east of the country, although it is gradually expanding its range. The New Pool on No.1 bed and its environs was again the only place where this species was located. Although only small numbers are normally present, it was nonetheless a poor year with just four records being submitted. The first was on 23rd July, when two were spotted on the path close to the pool. In blustery conditions on 3rd August a single was perched on a stone in the same area. A maximum of seven was present around the New Pool on 6th August. The final record was on 17th August, when once again a total of seven was identified on No.1 bed.

*Ruddy Darter**Brian Baird*

Common Darter*Sympetrum striolatum*

This very common and widespread species is normally recorded on all four beds. In cool conditions the mature orange-red males often perch on the ground, or on wooden fences along the paths and the Canal Track. Unusually there were no records from No.2 bed this year and the smaller numbers present may have resulted in a shorter flight period. The first two were spotted at the New Pool on 11th June. A single was on No.4 bed on 4th July and another two were noted on No.1 bed on 23rd July. Two were also present at the New Pool on 3rd August before numbers increased to 11 around this pool on 6th August. During a survey on 17th August, a maximum of 40 was counted on No.1 bed and five were present on No.3 bed. Numbers declined after this with just one or two being seen on No.3 bed in early September. However, on 11th September four were present on No.3 bed, whilst on No.1 bed another four were found on 17th September. Although this species is often encountered in late autumn, our last record this year was on the relatively early date of 23rd September, when a single male was present on No.3 bed.

Brian Baird

SURVEY OF THE FLORA

Several surveys of the plant life on the Eyes have been carried out since 1980, and a summary of the results is available on the website. In early 2013 I was asked if I would carry out an update. I had been visiting No.3 bed regularly since 2002 as part of the bird ringing team, but had rarely visited other parts of the Reserve up until that time. I decided to start by listing the plant species I was familiar with on No.3 bed. Subsequently in 2014, 2015 and 2016 I visited beds Nos. 1, 2 and 4 respectively, along with two interested friends and permit holders, Anne and John Harris. We made just two visits to each bed, one in spring and one in summer, which means these areas have been much less comprehensively surveyed. I also decided to record the species along the access road past beds 4 and 3, along with the footpath to Weir Lane, as a separate area denoted by 'C' (referring to the Canal bank).

Survey Results

Up until 2013, the website lists 215 plant species recorded on the Reserve, though this does include a few duplications. The list attached, produced by Anne, John and myself, stands at 237 species, of which 76 have not been previously recorded. Some of these new ones may have been overlooked in the past, but many of the others have been introduced deliberately (as with the Snake's Head Fritillaries and Cowslips in the North Meadow of No.3 bed, or in the various seed crops which have been planted over the years). Some of them are non-native plants, including garden escapes, or plants which appear to have developed from seeds which have lain dormant in the silt until it was disturbed (as with the ornamental quaking grass which appeared on No.3 bed in 2013). Some of the species in the seed crops and the wild flower mixtures were annuals which have not reappeared in subsequent years. Fifteen of the new species are trees or shrubs.

On the other hand, there were 59 species on the previous list which we have not recorded from 2013 to 2016. The majority of these are grasses, rushes, sedges and water plants which we have not had the expertise to survey thoroughly. However, there are undoubtedly some species which have been lost to the Reserve as the vegetation in some areas has become dominated by invasive species. A particular group of these includes summer-flowering plants of marshy areas, such as Ragged Robin, Gypsywort, Water Crowfoot, Salad Burnet and Common Skullcap. For example, Gypsywort used to grow along with Woody Nightshade in the north-west corner of No.3 bed, but the area is now dominated by Himalayan Balsam. On the other hand, there is a group of spring-flowering woodland plants including Wild Garlic, Primrose, Lesser Celandine, and Dog Violet which survive in the shelter belt on No.3 bed in spite of the Himalayan Balsam, because they are adapted to flower early in the year before the canopy closes above them.

In the spring of this year (2017), I have noticed several tight clusters of Himalayan Balsam seedlings growing along the side of the path along the bank of No.3 bed, which I have also noticed near my home in Saddleworth. Thinking of the way the seed pods explode when ripe, this is not going to happen naturally. The seeds of Himalayan Balsam are edible and nutritious, and I suspect that some of the small mammals on the Reserve may have been collecting little caches of the seeds for winter, some of which have not been eaten and are now germinating. As the nectar of Himalayan Balsam is also very popular with bees, it seems that the plant may have some benefits to the ecology of the Reserve as well as disadvantages.

We found that **No.1 bed** had the most varied habitat, with fewest invasive plants. We recorded **116 species** there, 20 of which were not found elsewhere on the Reserve. These included attractive plants

such as Red Valerian, Purple Loosestrife, Mouse-ear Hawkweed and Biting Stonecrop, many of which prefer the drier or more alkaline areas of disused industrial workings.

We recorded a total of **96 species** on **No.2 bed**. The ‘interior’ of the bed is poor in variety of species, but the area immediately adjacent to and underneath the motorway, where the soil seems to be more alkaline due to a residue of construction materials, is more species rich. We found eight species there which did not grow elsewhere on the Reserve, including Marsh Marigold and Brooklime in wetter areas, and Danish Scurvy Grass under the motorway. The latter is a plant which has spread widely along our major roads, as it benefits from the salty environment produced by grit spreading in winter.

We found **163 species** on **No.3 bed**, far more than on any other bed. This is no doubt partly due to my greater familiarity with the area, but it is also because so many plants have been deliberately introduced, either individually or in seed mixtures. Also the meadow areas have been actively managed for wild flowers. There were 66 species which have not been found elsewhere on the Reserve, some examples of which are given above. Others include the False Acacia tree near the entrance to the bed just over the bridge, as well as the Snowdrops, Daffodils and Solomon’s Seal found along the footpath in the spring.

We recorded a total of **85 species** on **No.4 bed**, only seven of which were found nowhere else on the Reserve, but this does include the attractive Bee Orchids and edible Wild Strawberries! Like No.2 bed, No.4 has large areas of Giant Hogweed in the centre.

Finally, we have listed **84 species** along the **Canal banks adjacent to Nos.1 and 2 beds**, including nine species which we have not found elsewhere. These included Hemp Agrimony, Juniper and several species of flowering shrubs such as Forsythia and Flowering Currant.

Conclusion

Numbers of plant species found at Woolston Eyes SSSI, 2013 – 2016

Bed	Number of species	Number of species not found on other beds
1	116	20
2	96	8
3	163	66
4	85	7
Canal bank	84	9
Total	237	

We are aware that we have not been able to cover the whole Reserve and that there must be plants we have missed, and probably also some we have wrongly identified. There were also a few plants which we were not able to identify, which have been omitted from the current totals. I would be very pleased to hear from anyone who knows of any plants that are not included in the list, or notices any mistakes. In particular it would be useful to target the 59 species from previous lists which we have not found, to see how many of them have really been lost from the Reserve. It would be helpful if a volunteer with a knowledge of grasses, sedges and water plants could take on surveying these groups.

Margaret Rawlins

BEE, WASP AND ANT SURVEY

During 2016, myself and Carl Clee, the Cheshire County Recorder for Aculeates (bees, wasps and ants), carried out a survey of the Reserve, on No.3 bed, the Ship Canal track and parts of No.4 bed to determine species present. We were also interested in the particular habitats used by these species both for feeding and for nest sites so this information can be incorporated into site management.

Several visits were carried out throughout the spring and summer with a total of 45 species being recorded. However, as with most insects, aculeate activity depends on the weather so any visits on cool, overcast days produced few species. This year we have run a malaise trap on the Reserve which has given a better representation of species.

SPECIES LIST FOR 2016

Formicidae - Ants

Myrmica ruginodis

Widely distributed and common across Britain. Nests in woodland and open areas, usually in tree stumps or under stones.

Pompilidae – Spider Wasps

Pompilius cinereus

A spider-hunting wasp found in sandy areas throughout Britain, but especially coastal. Preys on ground-dwelling spiders.

Evagetes crassicornis

A spider-hunting wasp which is a brood parasite in the nest of other species in the same family. It is most often encountered in dry, sandy habitats where potential host species are plentiful. Suggested hosts are *Arachnospila anceps* and possibly *Anoplius nigerrimus*, although these have not been confirmed. Widespread but rarely numerous throughout Britain.

Priocnemis exaltati

Medium sized (5-12mm) spider-hunting wasp which preys on a wide variety of ground living spiders including Lycosidae, Salticidae and Pisauridae. They are used to stock a short multiple-celled nest burrow. A widespread species found in a variety of habitats, although most common in woodland.

Symorphus bifasciata

A potter wasp nesting mainly in cut or broken plant stems (often in thatch). Predatory on larvae of

chrysomelid beetles, particularly *Phyllodecta* sp. Common in south but occurs as far north as Perthshire. Also found in Wales and Ireland.

Ancistrocerus gazella

Large black and yellow potter wasp, nesting in various cavities, especially broken plant stems. Prey are lepidopterous larvae. Generally a common species in the south but becoming more local northwards.

Vespidae – Social Wasps

Common Wasp

Vespula vulgaris

Social wasp which typically forms large colonies underground. The nest is started in an existing cavity such as a mouse nest, in rockeries or in rubbish heaps, usually in a bank rather than on flat ground. Aerial nests occur, but are always in enclosed spaces such as cavity walls, attics or hollow trees. Widespread and common.

Vespula germanica

A social wasp which typically nests underground at depths of up to 22cm, both in banks and in flat ground. Aerial nests are unusual and always in an enclosed space such as a cavity wall. In a season, a typical nest will produce 10000 wasps including 1200 queens and at the height of activity there would be 1500 workers present. It is common in England and Wales and extends into southern Scotland, but becomes scarcer in the northern part of its range.

Dolichovespula sylvestris

Despite its name, the tree wasp often constructs underground (20% of nests), although usually near the surface in a pre-existing cavity. Aerial nests are found up to 830cm, usually in enclosed spaces such as bird boxes, hollow trees, cavity walls etc., although exposed nests have been found in situations where they are under cover (e.g. in a porch). Widespread and common.

Hornet

Vespa crabro

A social wasp. Normally nests in trees and bushes, less commonly in haystacks or, on exposed moors, underground. Found throughout the UK, commoner in the north and west.

Sphecidae – Digger Wasps

Crossocerus quadrimaculatus

A black and yellow sand wasp which nests in earth banks, especially amongst the roots of uprooted trees. The nest is stocked mainly with small flies, but small Lepidoptera and Trichoptera have also been recorded. Common in the southern half of Britain north to Cheshire and Mid-Yorkshire.

Crossocerus megacephalus

A common solitary wasp which nests in wood, often rotten wood, and usually utilising the borings of other insects such as beetles. Its prey consists of a variety of flies. It is found throughout the British Isles.

Crossocerus pusillus

Medium sized (4.5-6.5mm) black solitary wasp nesting in soil and preying on small Diptera. Widespread and common.

Crossocerus elongatulus

Medium sized (4.5-6.5mm) black solitary wasp nesting in soil and preying on small Diptera. Widespread and common.

Crossocerus wesmaeli

A small black solitary wasp nesting in holes in firm dry sand. It is predatory on small Diptera, especially stiletto flies *Thereva* spp. Widespread and common.

Ectemnius cavifrons

Large (11-16.5mm) black and yellow solitary wasp nesting in rotten wood or plant stems. Adults frequently seen on flowers, especially umbels, and preying mainly on Diptera, especially hoverflies. Wales and England north to Lincs. and Staffordshire. Common.

Ectemnius cephalotes

A solitary wasp, nests in burrows in soft, rotten wood. Preys on Diptera. Several females seem sometimes to share a common entrance to their separate nests. Widely distributed in England and Wales and frequent in many areas. Rare in Scotland.

Crabro cribrarius

A large yellow and black solitary wasp which nests in sandy soil. Burrows are stocked with flies. Flies from a wide variety of families including Therevidae, Asilidae, Empididae, Syrphidae and Muscidae have been recorded as prey of this wasp. Widespread in open, sandy habitats in Britain north to Nairn and mid-Perthshire.

Crabro peltarius

A large (7-13mm) black and yellow solitary wasp nesting in dry soil and preys on Diptera including Therevidae, Stratiomyidae, Empididae and Muscidae. Widely distributed north to Sutherland.

Crossocerus quadrimaculatus

A black and yellow sand wasp which nests in earth banks, especially amongst the roots of uprooted trees. The nest is stocked mainly with small flies, but small Lepidoptera and Trichoptera have also been recorded. Common in the southern half of Britain north to Cheshire and Yorkshire.

Pemphredon lugubris

A large, black wasp nesting in rotten wood. Preys on aphids. A widespread species.

Pemphredon inornata

Solitary wasp nesting in broken plant stems. Predatory on aphids. Locally common in southern England, becoming much more local northwards.

Apidae – Bees

Clarke's Mining Bee

Andrena clarkella

A beautiful and conspicuous solitary bee found in open woodland, chalk grassland, coastal areas and the fringes of heaths and moors. Sometimes nests in large compact aggregations formed on the edges of well-trodden paths, but groups of 2-3 large burrows are more typical. Visits a wide range of flowers. Generally distributed and locally common in England and Wales, scarce and sporadic in Scotland.

Tawny Mining Bee

Andrena fulva

A bee, one of the first to be found on the wing in the spring. Females are covered in tawny fur but the males are more drab. It builds nests in the ground, often producing a small mound of excavated earth around the opening.

Orange-tailed Mining Bee*Andrena haemorrhoa*

A mining bee, common and widespread, found on short grassland, heathland and in open scrub. Widespread and common.

Buffish Mining Bee*Andrena nigroaenea*

A solitary bee which nests in bare sand in a variety of habitats, including open sites and woodland. Visits a wide range of flowers, but shows some preference for dandelions. Common and widespread.

Chocolate Mining Bee*Andrena scotica*

A common early spring bee, nesting in soil in a wide variety of habitats. Pollen is collected from many plants, especially *Crataegus*.

Common Furrow Bee*Lasioglossum calceatum*

Small, ground nesting solitary bee, usually nesting in steep banks. Widespread and common.

Bloomed Furrow Bee*Lasioglossum albipes*

A solitary bee, typically found in ruderal areas such as field edges. Widespread and common.

Green Furrow Bee*Lasioglossum morio*

Throughout England and Wales, the range extending from the Isles of Scilly to Kent, northwards to the Isle of Man (Nelson 1958), North-east Yorkshire (Archer 2002) and Cumberland. Females are active from late March to the end of October, males from late June to late October (exceptionally early November). *L.morio* is primitively eusocial. The females normally nest in large aggregations in exposed soil. Chambers (1949) reported that in a Bedfordshire site the females were so numerous that the air was strongly pervaded by their scent for a distance of several feet from the bank in which they nested.

Blue Mason Bee*Osmia caerulea*

A solitary bee. Nest burrows are generally dug in old posts and other dead wood, but also occasionally in hard banks or old walls. Described by Saunders (1896, *The Hymenoptera Aculeata of the British Islands*, p.335) as 'Common and generally distributed, occurring from May to August'.

Red Mason Bee*Osmia bicornis*

A tawny brown bee which nests in a variety of situations, including dead trees.

Willughby's Leafcutter Bee*Megachile willughbiella*

A leaf cutter bee. The female cuts semi-circular sections from leaves and uses them to build a sausage shaped nest in woody plant stems, especially willows. Common in southern Britain, frequently occurring in gardens.

Wood-carving Leafcutter Bee*Megachile ligniseca*

This is a summer-flying species with early records from mid-June to as late as early September. The majority of records however fall between early July and mid-August. An uncommon species more frequently found in the south-east of mainland Britain. It has a more scattered distribution further north, seemingly reaching its extremity in north Yorkshire and two recent records from Staffordshire. Nests are most frequently encountered in timber such as old trees and fence posts. This species has only moved into this area in the past few years and is a first record for Woolston Eyes.

Early Nomad Bee*Nomada leucothalma*

Cuckoo bee which is a cleptoparasite on *Andrena clarkella* - a widespread solitary bee occurring in woodland and scrub. Widespread but local.

Marsham's Nomad Bee*Nomada marshamella*

A black and yellow solitary bee which is cleptoparasitic on the common solitary bee *Andrena scotica*, and also some of its scarcer relatives. Widespread and common.

Red-tailed Bumblebee*Bombus lapidarius*

A common bumblebee of gardens and hedgerows. It is mainly black with a red tail and the male has a broad yellow collar. The nests are often under stones. Only the young fertilized queen survives the winter, having hibernated in a protected place such as in a hole or under moss. She emerges in spring and starts up her own colony.

White-tailed Bumblebee*Bombus lucorum*

A common black, white and yellow bumblebee found in gardens and hedgerows. It often breeds in old vole nests. Only the young fertilized queen survives the winter, having hibernated in a protected place such as in a hole or under moss. She emerges in spring and starts up her own colony.

Common Carder Bee*Bombus pascuorum*

Widely distributed, common and often abundant bumblebee. The adult is a small, largely tawny insect with variable amounts of black. There are two forms occurring in the north and south, which overlap and interbreed in northern England and north Wales. The coat is thin and rather 'scruffy' looking. It is a surface-nesting bumblebee which constructs its nest in cavities, such as old mouse runs and in tangles of vegetation.

Early Bumblebee*Bombus pratorum*

A rather small black and yellow bumblebee with a red tail. On the wing quite early in the year and may be finished by the end of July. Sometimes there is a second brood later in the summer. The nest is often well above ground, in bird nests or nest boxes for example. Widely distributed and common.

Buff-tailed Bumblebee*Bombus terrestris*

One of our commonest larger bumblebees and widespread and common in the north to the central lowlands of Scotland. It is black and golden in colour, with a white or buff tail and nests below ground. Only the young fertilized queen survives the winter, having hibernated in a protected place such as in a hole or under moss. She emerges in spring and starts up her own colony.

Gypsy Cuckoo Bee*Bombus bohemicus*

A cuckoo bee, resembling the bumblebee *Bombus lucorum*, whose nest it parasitises. The eggs are laid in the bumblebee nest and the bumblebee workers rear the cuckoo bee larvae. A common species, particularly in the north and west of Britain.

Vestal Cuckoo Bee*Bombus vestalis*

Cuckoo bee parasite in nest of the bumblebee *Bombus terrestris*. Uncommon in Northern England.

Honey Bee*Apis mellifera*

The common honey bee. It is a domesticated species, although occasional colonies may persist in the wild for a few years in hollow trees, etc.

Tony Parker

BEETLE SURVEY

In 2016 I was fortunate to get permission to study the beetles occurring on the Reserve. Woolston has been primarily managed for its birdlife and very little work has been done on invertebrates to date. Beetles are a particularly useful invertebrate group to study, as they occupy a wide range of habitats and there are a large number of readily identified species, so they can be used as an indicator of the biodiversity of a site. There are just over 4000 beetle species in the UK, and a typical nature Reserve will yield a list of several hundred species on continued study.

In 2016 the objective was to find the majority of the common, easily located species. Nine visits were made during the year, using a variety of capture methods. Sweeping herbage in summer, and beating trees, produced large numbers of species. The most productive technique was suction sampling. This uses an adapted leaf blower to suck insects into a capture net, after which they can be tipped into a tray and sorted. Then everything is taken home for close study, as microscopic examination is required to be confident about the identification of many species. Voucher specimens were retained for any species that were unusual, or might require verification by other specialists.

A total of 214 species were found in 2016. At the time of writing, this has increased to around 240 species, with further species continuing to be found as new capture methods are used - so there are definitely more beetles than birds at Woolston! Because litter sieving and suction sampling target ground-level habitats, a large proportion of these were ground beetles (*Carabidae*, 36 species) and rove beetles (*Staphylinidae*, 66 species). Litter heaps, particularly around the central meadow area, were especially good locations for this group of beetles. Sweeping and beating yielded predominantly weevils (*Curculionidae* and *Apionidae*, 34 species) and leaf beetles (*Chrysomelidae*, 20 species). A number of uncommon species were found. The tiny ground beetle *Bembidion gilvipes* (sorry, there are no common names for most beetles!) is found in wet lowland sites, more usually in the south-east of the UK. The bark beetle *Ernicoporus fagi* is more usually found in ancient woodland, so a single specimen in a vane trap was an unexpected find. Vane trapping also yielded large numbers of *Phloiophilus edwardsii*, a nationally notable species that feeds off fungus in trees. A full technical report has been produced.

Much of this work has focused on the No. 3 bed area and the central meadow and associated pathways, as these are the simplest to access. In 2017 the objective will be to use different capture methods and widen the studied area, in order to find different species and to gain a more complete picture of the Reserve.

Clive Washington

EDITOR'S ACKNOWLEDGEMENTS

After an exceptional year for birds and other types of wildlife, it is good 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 an almost 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. Of the 157 species recorded, 29 feature on the Red List of the Birds of Conservation Concern (BoCC) and 45 on the Amber List. So, approaching half of the species were either in serious decline or starting to show worrying signs of being so. 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, the WeBS Count report and evocative article on the exceptional passage of birds in 2016; 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 Margaret Rawlins for so neatly summarising and contextualising her plant survey; to Tony Parker for his fascinating study of our bees, ants and wasps and, finally, to Clive Washington for his intriguing summary of his beetle survey.

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