

The Woolston Eyes Conservation Group



Annual Report
2021

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WOOLSTON EYES CONSERVATION GROUP

ANNUAL REPORT 2021

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CHAIRMAN'S REPORT

The past year has been a momentous one for the Reserve, with some long-term objectives coming closer to fruition. The new wetland on No.4 bed gradually took shape, with large numbers of birds quickly moving in to take advantage of the raised water levels in the western cell. Our contractor, Steve Fletcher, continues to push on with the groundworks on the eastern cell and we should see this nationally important project completed by the late autumn of 2022. We also managed, with the aid of funding from Scottish Power and Natural England (NE), to design and have erected an elevated viewing platform which will give our permit holders a panoramic view over the whole of the wetland. The platform will be opened for use by permit holders as soon as the construction work is completed.

Another major step was taken when, after years of detailed negotiations, we reached agreement with Peel Ports on the terms of a twenty-year lease for both Nos.3 and 4 beds. Allied to the existing Memorandum of Understanding with Peel Holdings, for the management of No.1 bed, this should secure the future of all the non-operational areas of Woolston Eyes, so that we can continue to improve the habitat for our important populations of birds and other wildlife.

None of the above could have been achieved without the help of so many people and organisations. First and foremost, our thanks must go to Peel Ports and Peel Holdings, without whose consent and support Woolston Eyes as a Nature Reserve simply would not exist. We are also grateful to our permit holders, whose positive support we greatly value and whose permit fees help to fund the habitat management work and provision of visitor facilities, which are at the centre of our committee's activities. In addition, I cannot speak highly enough of the unstinting technical support and advice we have received from the RSPB and NE, which has played a major part in delivering the improvements to the habitat we have seen in recent years.

A final word of thanks to all our volunteers, who have turned out in all conditions and got their hands dirty, working alongside our Assistant Warden, Elizabeth Hill and our Estate Worker, John Ball, doing invaluable, practical conservation work. If you want to get involved in volunteering with us, send an email to our website at info@woolstoneeyes.com and we will be in touch. It is probably also worth a reminder that all our committee members are also volunteers, who give a huge amount of time to the planning, fund-raising and other tasks which go on behind the scenes to keep the Reserve running smoothly, so my thanks to them, too.

As ever, I am grateful to our Editor, David Bowman and his team for collectively producing yet another excellent Annual Report and to our friend and nationally renowned wildlife artist, Colin Woolf for the wonderful cover art. The original is available to buy along with many other outstanding artworks, via Colin's website, which you can find inside the front cover.

I hope to see you on the Reserve in the coming year!

Brian Ankers

ORNITHOLOGICAL SUMMARY

With the development of the new No.4 bed wetland and an extended chain of small pools on No.1 bed, the habitat on the Reserve is in excellent condition, which no doubt contributed to the outstanding total of 151 species recorded during the year. It was exciting, too, to add two more species to the Reserve list, with an over-flying White Stork in March and a Glossy Ibis flying west in November, bringing the list to a remarkable 246.

Wildfowl have been one of the species groups to benefit from the extension of wetland areas and included a very early Garganey, a Dark-bellied Brent Goose, Common Scoter and several Scaup among the high numbers of commoner species.

Our Black-necked Grebe population showed signs of an upward trend, after a few years of stability, with 30 adults the highest total for seven years and a minimum of 15 young fledged. We are hopeful that the completion of the No.4 bed wetland over the next year or so will see this trend continue and accelerate.

Not surprisingly, given the growing attractiveness of the habitat, wader numbers and variety increased, with highlights of Avocet, spring and autumn Wood Sandpipers and a resurgence in Jack Snipe numbers at both ends of the Reserve. Our breeding waders benefited, too, with five pairs of Little Ringed Plovers settling to breed, four of them successfully. For the dedicated wader-watchers, the future looks bright.

As expected, the larger areas of water started to pull in greater numbers of passage and roosting gulls and while the two spring records each of Little Gull and Kittiwake are now expected, the spring Yellow-legged Gull was the first for more than twenty years. Tern numbers also showed an increase with 11 records of Common Tern and three of Arctic Tern.

The five Bittern sightings was the most ever recorded, though just one Great White Egret was disappointing. Little Egrets remained surprisingly scarce, given the numbers present in the north-west.

The raptor variety was good, with the outstanding highlight being our first successful pair of breeding Marsh Harriers – a long-awaited event. Peregrines maintained their long run of successful breeding, raising young for the 14th successive year. Ospreys and Red Kites passed through in both spring and autumn, which is now to be expected though the Goshawk at year end was more of a surprise.

A Woodlark, which flew south in March was only our second ever record and there was just one Lesser Spotted Woodpecker reported, with no sign of drumming this year. The Spotted Flycatcher which turned up in May was good to see, at they are now less than annual.

The autumn passage of thrushes was memorable, with several movements of around 2,000 Fieldfares topped by an astonishing 8,300 Redwings on a never-to-be-forgotten mid-October morning. With so many thrushes passing through, it was no surprise to see a Ring Ouzel turn up among one of the feeding flocks. Autumn passage also produced two Crossbills and a Hawfinch, though even more unexpected was the southward passage of at least 134 Bramblings over No.1 bed in mid-December, with hundreds more streaming over in the distance but too far away for certain identification.

David Bowman

The Weather 2021

This was the wettest year ever at Woolston, with 1,203mm recorded, and followed a series of high rainfall years as climate change scientists have predicted. Clearly, the huge amount of rain in January boosted the annual total, but there were four other months in which well over 100mm was recorded. A very cold April and May held back summer migrants and the heat wave in July was short-lived. It was also a windy year, with four named storms and just a few days in each winter period when snow fell.

January, with 213.5mm, was the wettest month of the year and the second wettest ever at the Eyes, just short of the 218mm recorded in November 2000. Following the very wet December 2020 it is hardly surprising that water levels on the Reserve were extremely high. Torrential downpours occurred on the 11th (22mm), 13th (30mm), 18th (17mm) and the 19th (23mm). The wettest day of all, though, was the 20th when named storm Christoff deposited an amazing total of 42.5mm, accompanied by very strong winds. A few quieter days followed, with some snow from the 22nd to the 24th. In what was a dull month the only prolonged sunshine was on the 25th. The rain, however, was not far away and a further 27mm fell on the 27th. At least by then it was milder, with 11°C recorded on the 28th and 29th. The final two days were cold and dry.

February was much drier, with a total of 66mm. The first week was mild with spells of heavy rain and strong winds on the 2nd. This all changed on the 7th when a bone-chilling easterly wind set in, bringing snow showers and overnight frosts until the 15th, when milder weather returned with a peak temperature of 15°C on the 22nd. At times it felt more like April or early May, although with clear skies there were a few overnight frosts. With high pressure in charge the final few days were dry and sunny.

March The high pressure continued to dominate the weather and no precipitation was recorded until the 10th. During this time there were night frosts, but fairly mild and sunny days. After this a series of depressions produced 50mm of rain between the 10th and 15th, with strong winds on several days. The rest of March was more settled with an anti-cyclone established. Temperatures began to rise in the south-westerly airstream, peaking at 20°C on the 30th. The overall rain total was 74mm.

April, with 23mm, was the second driest month of 2021. It was also cold with the Meteorological Office reporting it to have been the coldest April since 1922, with a frost recorded somewhere in the country on all 30 days. Other statistics indicated that it was also the sunniest April since 1919. Woolston reflected the national picture with sunny dry days, cold frosty nights and persistent northerly winds. The only significant rainfall was 7.5mm on the 27th and 9mm on the 29th.

May was the third wettest month of 2021, with 163mm of rainfall recorded. It began, however, as a continuation of April, cold and bleak, and it seemed as if spring would never arrive. Cold northerly winds with bursts of heavy rain saw 50mm fall in the first week. Finally, on the 8th, the wind became south-westerly and the temperature rose to a balmy 15°C.

The remainder of May was very unsettled with a series of Atlantic depressions bringing heavy rain. The worst days by far were the 24th and 25th, with torrential downpours and some hail. This led to much local flooding, accompanied by low temperatures and strong wind. Unsurprisingly, migration was delayed for many species, with the first Swifts returning to Grappenhall nest sites on the very late date of 22nd May. Summer finally arrived on the 27th as pressure rose and a temperature of 19°C was recorded. The final two days were dry, sunny and warm.

June In contrast with the previous month June was dry, sunny and warm, and in fact it was the driest month of the year, with just 16mm recorded. The 1st was very warm (25°C) and although cooler for a

time the first rain did not fall until the 20th. The dry weather was good for wildfowl broods and also Black-necked Grebe young that thrived. Temperatures rose in the final week presaging the heatwave that was to come in mid-July.

July has often been a wet month, and this was confirmed again this year with 127mm recorded. It began with the warm weather of late June continuing but by the evening of the 3rd the weather became much cooler and unsettled. Between the 4th and the 12th it rained most days, adding 67mm to the total. On the 13th, however, all this changed as high pressure built and temperatures rose to some of the highest levels ever recorded at the Eyes. From 18 °C on the 13th it became warmer by the day, peaking at 30^oC on the afternoon of the 22nd. Temperatures then became more bearable, but it was still dry until a thundery downpour on the 27th was followed by several violent thunderstorms and 32mm of rain. The Meteorological Office reported that it was the fifth warmest July since 1884.

August began warm and dry until the 5th when a low pressure system brought unsettled weather and over 70% of the monthly rainfall total of 67mm between the 6th and the 17th. The remainder of August was mainly dry and warm with much sunshine.

September for the most part was dry and warm with high pressure in charge. The first rain was recorded on the 8th, followed by very heavy downpours the next day. Temperatures peaked at 26 °C on the 7th. Dry weather returned with no rain at all until the 27th when a very deep depression introduced squally north-west winds and in the final four days 59mm were added to the month's total of 91mm.

October The weather in October was somewhat mixed. It began with several days of cool north-westerly winds and over 40mm of rain in the first five days. On the 6th there was a major change with warm air from the Azores lifting the temperature to 19 °C. The anti-cyclone that brought this Indian summer remained in charge until the middle of the month, after which it drifted away allowing cool north-west winds to return. A brief warmer spell from the 24th to the 28th was followed by very wet and windy conditions in the final three days from two depressions, and 36mm was added to make a final monthly rainfall total of 104mm, and rising water levels on the new wetland.

November The 84mm of rain recorded was about the average for November. The month began with torrential rain and gale force winds. The next few days were dry but very cold with overnight temperatures near to freezing. The 6th to the 18th was mild (15 °C on the 9th) and dry with high pressure dominating, but a cold front brought a sharp fall in temperatures and the first frost on the morning of the 21st. Sunny days and cold nights then followed until the arrival of Storm Arwen on the 26th, which brought much damage and rain to Scotland and northern England. The first snow fell on the 28th, with freezing weather on the 29th. The final two days were wet but mild.

December In recent years December has been one of the wettest months at the Eyes, and so it was in 2021, the monthly total of 175mm being second only to the exceptionally wet January. Rain fell on every day up to the 14th as one depression after another arrived from the west. The period from the 7th to the 13th recorded 59mm, and was also very windy courtesy of Storm Barra. The weather was mostly cold, notably when an anti-cyclone blocked the low pressure systems in mid-month, but rain soon returned bringing a further 69mm. The last two days were very mild when warm air, once again from the Azores area, brought an unseasonably 14 °C on the 31st.

Brian Martin

BIRDS: SYSTEMATIC LIST

Brent Goose

Branta bernicla

One was found on No.3 bed on 13th April. This is a rare winter visitor to Woolston that has only been recorded on three previous occasions: in 1986, 1988 and 1993. Interestingly, this individual was of the dark-bellied sub-species *bernicla*, which breeds in the far east of Russia.



Brent Goose

Daniel Owen

Canada Goose

Branta canadensis

There was no repeat of the record counts of late 2020 and numbers overall were about average; there was only one count into three figures. Many pairs bred.

As with many species of wildfowl few were seen during the first five days of the year in the bitterly cold weather at that time. As milder conditions returned so did the Canada Geese, with monthly maxima of 48 in January, 30 in February and 50 on the first WeBS count of 2021. (The counts for January and February did not take place due to Covid restrictions.) The maximum spring count was 62 on 10th April.

By late April breeding pairs were well distributed across the Reserve and the first brood, of three small young, was present on the Oxbow around No.3 bed on the 28th. On 1st May a pair with five very small young was on No.3 bed, together with two other sitting adults, and on the same date six adults were on nests on No.4, two on the new wetland and four on the Loop of No.4 bed. Three pairs with young of different ages were on No.3 bed on 7th May. A new brood of ten was on the Oxbow on the 9th and on the same date another new brood of four was on the south pool of No.3. New broods kept appearing

almost daily, including one of five young on the Sandpit Pond on the 10th and five pairs with broods on the new wetland on 13th May.

Two broods, one of ten and one of five, were wandering around the footpath in the centre of No.3 bed on 22nd May, and one of 12 growing young was also on No.3 bed a week later. In June four adults with 20 young were feeding among the winter feed crop on No.3 bed on the 12th, and 40 Canada Geese, including many large young, were present on the new wetland on No.4 on the 23rd. Three days later a detailed count on No.3 bed found 65 adults and 28 large young. The final record of the breeding season was from the Oxbow around No.3 bed on 8th July when 2 adults were escorting 18 well-grown young.

It is not easy to assess how many Canada Geese produced young, but from careful analysis of records it is likely to be at least 21 pairs: 12 on No.3 bed, seven on the new wetland on No.4 and two on the Oxbow.

Later in the year most were recorded on the WeBS counts: 54 in September, 67 in October and the highest number in November with 103 on the 6th, while on the same day the monthly Migration Watch on No.1bed recorded 115 passing through.

On 8th May an adult was taken by a Fox on one of the islands on the new wetland.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
48	30	50	62	49	93	20	n/c	54	67	115	59



Greylag Goose

Andy Weir

Greylag Goose*Anser anser**Amber listed*

Although the exceptional numbers present at the end of 2020 were not repeated this year there were nevertheless many three-figure counts, notably in the autumn, and confirmed breeding was reported on three of the four beds.

The year began with 120 on the Ship Canal at Bollin Point on 4th January, when very cold weather froze most of the wetlands on the Deposit Grounds. Later in January, in milder weather, 74 were present on No.3 bed, after which numbers fell significantly.

A pair with seven small young appeared on No.3 bed on 19th April and a second brood, also with seven young, was on No.1 bed on 30th April. This brood was never seen again and is assumed to have been predated. On 1st May four pairs were present on the new No.4 wetland, two with eight and seven goslings respectively, while yet another brood (of nine young) was located on No.3 bed on the same date, and another of ten young was seen on 7th May. Finally, a pair with six very small goslings on No.3 bed was the last of the breeding season. In all 9 pairs were present in the breeding season, of which seven hatched young. That many young fledged, which is unusual at Woolston, was confirmed on 29th June when a crèche of 21 well-grown young was seen with two adults on the Mersey at the east end of No.1 bed.

By August numbers of Greylag Geese began to increase, with peak counts of 74 on the 8th of that month, 125 on No.3 bed on 7th September, 100 in October and the year's maximum of 195 on 6th November.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
120	15	8	14	19	25	4	74	125	100	195	38

Pink-footed Goose*Anser brachyrhynchus**Amber listed*

There was no repeat this year of the large numbers that fed in the area in late 2020 and roosted on No.3 bed. Even so, some huge numbers flew over the Reserve, notably in the final three months of the year.

During January 180 flew east in three skeins on the 12th and 350 were flushed from fields just to the south of No.1 bed on the 22nd. In a relatively uneventful first winter period the only other significant counts were in February: 260 flying north on the 4th, 200 west on the 25th and 150 west in two skeins the following day. There were five reports in March, the last being of 85 flying to the north-west on the 25th.

In the autumn massive movements took place, particularly in October and early November.

The first returning birds were 40 and 50 flying east on two dates in late September, but on 6th October one observer counted a total of 2,300 (1,600 east and 700 west) passing over No.3 bed. The Migration Watch that took place from an elevated position on No.1 bed on the morning of 26th October recorded 2,022 over the vantage point. In November 580 flew east over No.3 bed on the 4th, and there were 670

recorded by the Migration Watchers on the 6th. On the 12th 150 were feeding in fields near Lymm Golf Course with Canada and Greylag Geese, and the following day 920 flew west over No.3 bed in ten skeins. Smaller numbers continued to fly over almost daily into December, the most significant being 1,612 on the 11th recorded by the Migration Watch team.



Mute Swan

David Bowman

Mute Swan

Cygnus olor

Amber listed

Numbers were similar to recent years, although fewer were present in the final four months than in 2020. It was a good breeding season, with many young reared.

The year began with low temperatures and many of the waters on Nos. 3 and 4 beds were frozen. As a result Mute Swans were forced on to the Mersey and the Ship Canal. With WeBS counts suspended during January and February more Swans were almost certainly present than the February maximum suggests, but once they resumed there were counts of 26 on 13th March and the year's peak of 51 on 10th April. Many of the latter were on No.3 bed where there has been a recent trend for large gatherings of adults and immature birds in spring.

Displaying pairs were noted from late March, and on 17th April a nest at Woolston Locks held two eggs. By 23rd April two nests were occupied at Woolston Weir, with a third pair reported on No.2 bed. One of the nests at the Weir hatched two young, one of which was soon lost. On 22nd May three further nests were found with sitting birds on the River Mersey from Woolston Weir to Rixton and a pair was breeding on No.3 bed in a stand of Flag Iris. Two pairs settled on No.4 bed, one on the Loop and the

other on the new wetland. Both bred successfully, with the Loop pair hatching five young and the pair on the wetland four. The pair on No.3 bed hatched four young and fledged three, while the second pair at the Weir was seen with six small cygnets on 30th May. Unfortunately, no information was received on the outcome of the three breeding pairs on the Mersey towards Rixton or the pair on No.2.

Following the breeding season numbers present on the Reserve were a little below average. A Mute Swan with a blue Darvic 40TA was on No.3 bed on 23rd May.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
33	6	26	51	29	25	23	18	23	22	32	25

Whooper Swan

Cygnus cygnus

Amber listed

Three records were submitted of birds overflying No.1 bed.

The first was on 1st January of a flock of 25 flying north-west, while 23 in three flocks, flew south-east on 21st October and 34 west on 17th November. These are high numbers for Woolston.

Shelduck

Tadorna tadorna

Amber listed

Many records were submitted in what was once again a disappointing and, in many ways, a puzzling breeding season.

The year began with no more than five Shelduck recorded in January and early February. An arrival on 22nd February brought 13 on to No.3 bed, ten of which were still present three days later. Thereafter, up to eight were reported in March on No.3 and four on the new wetland on No.4 bed. The highest count of the year was 17 on the 10th April WeBS count. The first indication of breeding activity was 12 displaying near rabbit warrens on No.2 bed on 22nd April. This is an almost annual event, always with no evidence that breeding actually takes place. If it does then predation is likely to be the cause of failure. More regular observation could shed light on what is happening each year at what is, on the face of it, an ideal breeding site. Up to 12 were on the No.4 wetland, including two pairs in late April and early May, but it was only No.3 bed where young were seen – a brood of four on 13th June. On 19th June a brood of ten was reported with the comment that it could have been a crèche which included the earlier four young. A week later, however, there were definitely two broods, an adult with 12 chicks and another with one much smaller young. Up to 15 small young were seen in the following two days, which had been reduced to a pair with 14 young by early July and to 12 and then ten by late July. The ten juveniles were always present into August, by which time they were fully grown and independent. A later report of three adults and a three-quarters grown young on No.4 bed suggests that a pair also bred there.

In the final months no more than six Shelduck were seen.

Two Shelduck fitted with green Darvic rings were seen on No.3 bed, the first ZJ on 27th March and the other LZ on 20th April.

Mandarin Duck

Aix galericulata

After the first successful breeding in 2020 there was no evidence to suggest this was repeated in 2021, but numbers continue to increase. As always, all sightings were at the east end on the Reserve on the Mersey near Bollin Point, all but four in the first three months of the year.

Nine were found on 2nd January and two females on the 4th. David Spencer, who has monitored this population for a few years, recorded five (3 males and 2 females) on the 7th and 11th January. The peak count, however, was 11 (8 drakes, 3 females) on 15th January, but 13 could have been present. Up to nine were seen in late January and early February, and five on 25th February. Thereafter, two were present on three dates in March. There were no further reports until one was seen on 20th August and 11th and 13th September.

There was, however, one further sighting on 23rd October, when the team of migration watchers in an elevated position at the east end of No.1 bed saw a flock of 20 Mandarin Ducks circle above Bollin Point before dropping into the Mersey near Rixton Bridge.

Garganey

Spatula querquedula

Amber listed

Although there were only two Garganey seen on the Reserve in 2021, the drake that flew on to No.3 bed on 22nd February was reported to be the earliest record in the whole of the country. It remained until the 24th and was the only spring sighting.

The only other Garganey seen was an eclipse drake present on the Morgan Hide scrape between the 21st and 23rd September.

Shoveler

Spatula clypeata

Amber listed

Numbers during 2021 were similar to recent years, but well below average in the first two months. Again there was no evidence of breeding, which continues to surprise given the habitat on No.3 bed and the new wetland on No.4 bed.

The year began with 19 on the Reserve on 5th January, but no more than seven in February when no WeBS count took place due to Covid restrictions. Many more were present in March as birds that have wintered further south stop off on their way to breeding grounds in Iceland. On 13th March 67 were present, which was the peak count for the first six months of the year. During March and April up to six pairs were on the Loop of No.4 bed, and there were six pairs on No.3. Display was observed, but no broods were subsequently seen.

Autumn passage began in August, which saw a maximum of 80 on the 27th, but it was October that recorded the peak numbers, including 150 on the 16th and 152 in front of the Morgan hide early on the 28th. Over one hundred were still present on 7th November, and 58 on 18th December.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
19	7	67	27	3	4	5	80	83	152	105	58



Gadwall

David Bowman

Gadwall

Mareca strepera

Amber listed

A much improved showing compared to 2020, with a huge count of international importance in July. The number of broods seen also increased, but was well down on the 19 pairs that produced young in 2019.

The year began with relatively small numbers present in January, probably the result of two cold spells when the main waters on beds 3 and 4 were frozen. Once the water opened up many Gadwall returned, with a total of 105 on both beds on 16th February. Gadwall pair early, and on 27th March 20 pairs were present on the new wetland, with a further eight on No.3 bed a week later. The first brood, (4 young), appeared on No.3 bed on 18th April, but it was 4th June before the second was seen – a large brood of ten on the south pool of No.3 bed, followed a few days later by another large brood on the Mersey north of No.2 bed. Others were then reported, the last on No.3 bed on 8th July. In all just seven broods were recorded, which was lower than expected.

The annual summer build-up began with 225 on 26th June increasing to 540 counted at dawn on 1st July, and 655 on beds 3 and 4 on the 3rd. Ten days later 680 were flushed out of the reed beds on No.3 bed by a Marsh Harrier, but the peak was 710 on 20th July, 630 on No.3 bed and 80 that flew in from No.4 bed. This qualifies as a count of international importance and is the highest number since 638 in August 2018 and the all-time high of 875 in September 2014.

By late July many Gadwall had moved on but the origin of these huge numbers is still unknown. In August 240 were still present on the 24th with 175 on the September WeBS and 194 on the WeBS of 9th October, The maxima in the last three months were above average.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
39	105	68	130	240	250	710	240	175	194	107	135

Wigeon

Mareca penelope

Amber listed

A regular visitor in small numbers, Wigeon were seen in all months except May, June and July. In the first four months no more than three were present, including a pair seen mating on No.3 bed on 16th February.

There were more records submitted in the autumn, with maxima of 11 on the 11th September WeBS count, and 18 on the following WeBS on 9th October. These were the only double-figure numbers recorded during 2021.

Mallard

Anas platyrhynchos

Amber listed

An interesting year with an exceptionally high count on the new wetland in October and many broods seen.

The very cold weather and frozen pools in early January saw large numbers of Mallard on the Ship Canal and River Mersey, the peak count being 243 on the 5th. Once mild weather became established the Mallard dispersed, but 85 were present on 13th March WeBS and 76 on the April WeBS of the 10th.

The first brood (4 young) was seen on No.3 bed on 19th April, followed by one of eight three days later. A further four new broods appeared on No.3 on 24th April, and one of eight small young on the new wetland on No.4 bed on the 29th. May began with a brood of nine tiny young on No.3 bed on the 1st, and also an apparently orphaned brood of five very small young on the same day. Other broods were noted across the Eyes into mid-May, but none were seen in June. The final breeding report was of a female with 11 quarter-grown young on No.3 bed on 3rd July. In all, a minimum of 16 broods was reported (c.f. 13 in 2020 and 20 in 2019).

In the autumn the Migration Watch team saw 81 Mallard fly over their elevated viewing point on 4th September, but it was the new wetland on No.4 that became the centre of attention. On 9th October 221

were seen on the Reserve, but by the 12th numbers had increased dramatically. Two observers on an early morning visit to No.4 bed found 510 Mallard roosting on an island on the new wetland, and this was followed shortly after by a further 80 on No.3 bed. The total of 590 is the highest seen at Woolston in 33 years, when 714 were present on No.2 bed on 29th July 1989. Throughout the 1980s large numbers of moulting drake Mallard gathered on No.2 bed during midsummer, but as the bed began to dry out many fewer were seen.

On 19th October 320 were still present on No.4 bed, and there were 180 on the Reserve as a whole on 6th November. The only other significant count was 163 present on the Eyes on 18th December. The ringing team on No.3 bed caught and ringed two Mallard in the duck trap in the spring.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
243	55	85	76	15	n/c	12	40	81	590	320	163



Male Pintail

David Bowman

Pintail

Anas acuta

Amber listed

A winter visitor in small numbers, the first records were of a drake on No.3 bed on 18th February, and either the same or another drake on 4th March. A male and female were on the new wetland on No.4

bed three days later and they remained until 19th April. There were no further reports until a female was found on the 11th September WeBS count. Over a month passed before the next sighting, a single bird on No.3 bed on 16th October.

In the final two months most of the sightings were made on the new wetland and Loop of No. 4 bed, with maxima of four (three drakes) on 27th November and 4th December. A drake on No.4 on 28th December was the last report.



Teal

David Bowman

Teal

Anas crecca

Amber listed

Numbers in the first winter were relatively low by Woolston's standards, with a maximum of 230 found on No.3 bed on 30th January. A pair was displaying there on 16th February and six pairs were seen on 2nd March. Although by then many of the wintering Teal had departed 30 were present on the new wetland on No.4 bed on 11th March, and 46 were found on the whole of the Reserve two days later. From late March to the beginning of May up to five pairs were present on a number of dates, but with no evidence of breeding. It therefore came as a complete surprise when David Bowman found two fully-grown young tucked into cover on the new wetland on 31st July. This is the first proof of breeding at Woolston for very many years.

Numbers of returning Teal began to build up in late August, with 80 on the 29th suddenly increasing to 240 on 2nd September and 300 on the 5th and 21st of that month. They remained at that level until December when a total of 480 was present on Nos.3 and 4 beds on the 4th. By the middle of December

more had arrived, with 923 counted on the 18th WeBS and 1000 flushed out of cover by a Marsh Harrier on No.3 bed on 21st December.

Forty-three Teal were caught in the duck trap on No.3 bed, all between 20th February and 3rd April. None were ringed in the second winter period owing to low water levels.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
230	40	46	30	4	n/c	21	80	300	400	275	1000



Pochard

David Bowman

Pochard
Red listed

Aythya ferina

Wintering numbers were similar to those of recent years, but there was a slight fall in breeding pairs. The year began with freezing temperatures and frozen waters, and as a result few Pochard were seen in the first two weeks. The annual late-winter build up saw an increase in numbers with 41 on 23rd January and 47 on the 30th. By 16th February more Pochard had arrived, with 79 on the Eyes, and the year's maximum of 81 on 13th March. After this many moved on and in April the highest count was 25 on the 10th. It has long been thought that the breeding Pochard at Woolston winter further south and return in early May, and although the evidence is limited some years ago a female with a wingtag seen in May on No.3 bed had been ringed at a wetland in the Loire, France, the previous October. From single-figure counts for much of April a small arrival in early May saw up to 21 Pochard present into June.

Courtship display was seen on a number of occasions and the first brood, six small young, appeared on No.3 bed on 6th May, followed by another two the following day. Females with young were numerous on No.3 bed from late May into June, and the last brood recorded was of a female with one small chick on the Loop of No.4 bed on 3rd July. In all, 13 pairs bred, nine on No.3 bed, two on the Loop of No.4 bed, one on No.2 and one on No.1. This compares to 14 broods in 2020 and the near record 21 broods in 2019.

In the past the fledging rate of Pochard young has been low, but at least three broods that were nearly full grown were present on No.3 bed in early July, and two others which were more than half grown. The United Kingdom breeding population for Pochard is thought to be between 500 and 700 pairs, making Woolston a nationally important breeding site for this duck.

After the breeding season numbers were low, with only single-figure counts in the last five months.

Monthly maxima:

J	F	M	A	M	J	J	A	S	O	N	D
47	79	81	25	20	21	11	3	5	2	5	9

Tufted Duck

Aythya fuligula

Wintering numbers were less than in 2020, but the number of broods reported was as impressive as ever.

Typically, Tufted Duck are most numerous at Woolston in cold weather, and this was certainly the case this year when 539 were present across the Reserve in freezing conditions on 1st January, the vast majority on the River Mersey and the Ship Canal near Bollin Point. Up to 420 were still present in the following ten days. A count of 306 on 15th February was sexed as 189 drakes and 117 females. Many remained into March and April, with peaks of 251 on 13th March and 203 on the 10th April WeBS count, the last three –figure count until the late autumn.

From late April pairs were seen across all areas of the Reserve, including ten pairs on No.3 bed alone on 16th May. The first brood, of 7 young, was found on No.3 bed on 18th June, followed by a further two broods a week later, and a large one of 12 young on No.3 bed on 27th June. Many broods appeared in July, the peak month for seeing them, with five new on the 2nd and a further three on the 8th. Females with young were everywhere on No.3 bed during July, with one observer reporting 25 young there on the 25th, many of them well grown. A best assessment is that a minimum of 19 pairs bred successfully: 15 on No.3 bed, two on the Oxbow surrounding No.3 bed, and one each on the Ship Canal and the new wetland on No.4 bed. Tufted Duck were also present in the breeding season on the Loop of No.4 bed and are likely to have bred there, as they have in the past, but coverage of that wetland was limited this summer and few records were submitted.

The first indication of an increase in numbers in the autumn was 87 on 11th September. Tufted Duck were relatively scarce in October, but a spell of cold weather with heavy frosts in late November resulted in a big influx and 446 were recorded on the Mersey and around the Reserve on the 25th, with 358 on the WeBS of 18th December.

Monthly maxima:

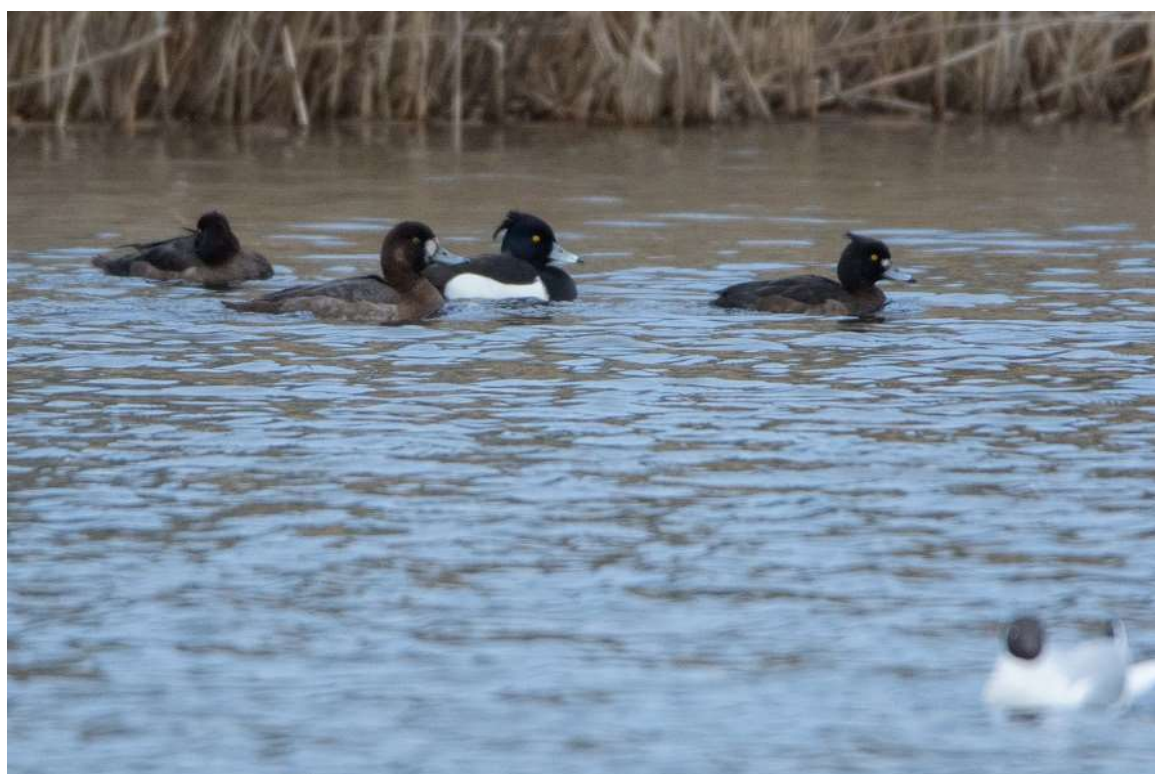
J	F	M	A	M	J	J	A	S	O	N	D
539	306	251	203	20	23	26	10	87	43	446	358

Scaup

Aythya marila

Red listed

A very scarce winter visitor to the Reserve in very small numbers. There were 22 records submitted of a first-winter female between 26th January and 4th April. Two which were found on the 13th March WeBS was the only other report during 2021.



Scaup

Daniel Owen

Common Scoter

Melanitta nigra

Red Listed

In keeping with this species' upturn in reports, another was received this year. Unusually, a drake was reported flying west over No.3 Bed on the morning of 18th November.

Goldeneye

Bucephala clangula

Amber listed

Much scarcer than they used to be, most records of Goldeneye were in the first winter period, and from either the Woolston Weir pool or the confluence of the Ship Canal and River Mersey at Bollin Point.

The peak count was nine on 10th January. Most reports were of one or two birds, but seven were at Bollin Point on 28th January and five were there on 25th February. The last early-year sighting was on 13th March.

The first returning Goldeneye appeared on 11th September and was again reported two days later, but there were no further records until 26th October. A maximum of three was present on four dates in November, and the only December sighting was of two on the 18th.

Goosander

Mergus merganser

A poor year, with all but one of the 12 records being in the first four months of the year. The maximum number seen was on 13th February when eight flew low across No.3 bed towards the Ship Canal. Four juveniles on No.3 bed on 15th July was the only other report submitted.

Red-Legged Partridge

Alectoris rufa

Still a scarce, occasional visitor though the small breeding populations in adjacent farmland continues to drip-feed the Reserve. At least one was noted along the path at Bollin Point in late April, the only sighting of the year.

Grey Partridge

Perdix perdix

Red listed

Now an uncommon species at Woolston, there was just one sighting, of two on No.1 bed near Rixton Bridge on 6th November.

Pheasant

Phasianus colchicus

Only eleven records were submitted, an indication that this resident is often under-recorded. There has been a decline over recent years despite good numbers being reported in 2020. January and February produced counts of eight or nine as they were attracted to the John Morgan Hide feeding station. Six were present in March but very few were reported thereafter and there were no records from mid-May to the beginning of August, when 15 were on No.4 bed. The only other report was of five on 26th December. There was no evidence of breeding having taken place.

Swift

Apus apus

Red listed

The first sighting was of one over No.2 bed on 22nd April, an early arrival date. There were no further records until 27th April when seven were seen from No.3 bed. Over the next week small numbers were seen and it was not until the 6th May that significant numbers arrived. On this date 100 were observed over the No.4 wetland with 40 on No.3 bed. Other notable counts in May included 70 on the 9th, 44 on the 11th, 80 on the 15th and 100 on the 22nd. Despite the early arrival on the Reserve the cool weather

conditions in May appear to have delayed the arrival of Swifts at local breeding sites surrounding the Reserve. The main arrival at these sites was very late and not until the last week in May. The warm dry weather in June seems to have benefitted breeding with at least 80 seen in a screaming flock over the Westy estate on the 17th. On the Reserve, up to 60 were regularly seen on both the No.4 wetland and No.3 bed in June. Departure began at the end of July with 200 seen on No.3 bed on the 31st. The maximum count was on 8th August when 320 flew south in the morning. The final sighting was of one on 25th August over No.4 bed.

Cuckoo

Cuculus canorus

Red listed

There were only four records of Cuckoo in 2021 reflecting the national decline in this species. The first was heard calling at dawn on 27th April from the eastern reed bed on No.3 bed and on 9th May one was calling on No.4 bed. There were no further records until 8th June when one flew in front of the John Morgan hide. The final record was of one on No.3 bed on 8th August, presumably a juvenile bird given the late date.

Feral Pigeon

Columba livia

This species is largely ignored by most observers, hence there was only a single sighting submitted this year, of four on the Viaduct on 22nd April. The only other record concerned one found dead and plucked on the footbridge to No.3 bed, presumably a Peregrine kill.

Stock Dove

Columba oenas

This resident species was recorded in all months of the year. It is thought to breed in small numbers on all four beds. However, they can be easily overlooked which accounts for the limited evidence of breeding submitted this year. A pair was seen displaying by the Viaduct on No.2 bed on 22nd April and one was singing in the centre of No.3 bed on 24th May. They are much more easily observed around the feeders at the John Morgan hide and the winter feed meadow on No.3 bed. The maximum counts here were 10 on the meadow on 17th May and 15 at the feeders on 21st December. Another notable count was 20 on the working area of No.1 bed on 26th June. As usual the maximum counts came from Migration Watches where birds from the surrounding farmlands are included in the totals with the highest count of 74 on 6th November.

On No.1 bed none were ringed but on No.3 bed two adult birds were caught. The first was ringed on 18th March and the second on the 29th May, both fairly typical dates. The average number ringed in a year is three.

Woodpigeon

Columba palumbus

A common resident which breeds on all four beds. During the spring and early summer, maximum counts were five on No.1 bed, 77 on No.2 bed, 14 on No.3 bed and 26 on No.4 bed. As with last year

there was a notable movement of birds in the autumn. On 21st October 14,260 were observed moving over No.1 bed just beating last year's record total for the Reserve of 14,200!

On No.1 bed, two were ringed during the year, an adult on 3rd March and a recently fledged bird on 27th August.

Three were ringed on No.3 bed, two adults and a juvenile. The first was ringed on 2nd July with two on 9th October. The average is 4.8 ringed per year.

Collared Dove

Streptopelia decaocto

Collared Doves are scarce on the Reserve and there were only 16 records submitted. All but two were of overflying birds with a maximum count of three flying south over No.1 bed on 8th October. Interestingly there were two records of singing birds. One was in song near the Latchford barrier on 8th April and another was singing by the canal track alongside No.3 bed on 1st May. There was, however, no further evidence of breeding.

Water Rail

Rallus aquaticus

It is always difficult to assess the population of this often-secretive species but reports received would indicate that it remains stable. As always, the majority of records were from Nos.1 and 3 beds and there were sightings throughout the year, with the exception of June when birds were undoubtedly present although unrecorded. The year began with five on No.1 bed on 4th January and singles were under the John Morgan Hide feeders on a number of dates that month. Five were heard calling on No.1 bed on 26th February. Singles were found on the new wetland on No.4 bed on 13th and 20th March and in total there were four records from this area, with two on the Loop of No.4 bed on 25th November. The only evidence of successful breeding was a report of two juveniles in front of the John Morgan Hide on 9th September. A nest with seven eggs was found on No.1 bed but unfortunately it was predated at the incubation stage. Later in the year up to four were reported from each of Nos.1 and 3 beds and the highest count of the year was of seven calling around No.3 bed on 23rd November, with a further five on No.1 bed around the same date.

Three were ringed; two on No.1 bed on 8th October and 24th November, the first on that bed since 2018, and an adult female on No.3 bed on 11th December.

Moorhen

Gallinula chloropus

Only 32 records of this common but under-recorded resident were submitted. During January, 14 were on No.3 bed on three occasions, whilst the WeBS count on 10th April produced a Reserve total of 25. Two pairs were on nests on the new wetland area of No.4 bed on 13th May, but it is not known whether they were successful. Five or six broods were seen on No.3 bed but, surprisingly, there were no reports of breeding in any other areas of the Reserve. This is almost certainly due to a lack of monitoring. On the face of it this would appear to have been a poor year for this species. The highest counts for the rest of the year were on the November and December WeBS counts when totals of 34 and 39 were recorded, the latter being the highest of the year and slightly down on the 2020 maximum of 55.

The ringing team on No.3 bed ringed 14 from mid-September to the year end, and there were three re-traps.



Water Rail

David Bowman

Coot

Fulica atra

After a poor year in 2020, there was a marked increase in numbers. On 2nd January 28 were on the new wetland and more than 50 were present Reserve-wide during February. The highest total for the first half of the year was of 77 on the March WeBS count. The first brood was seen on 19th April and in total about 21 broods were noted. The distribution was as follows; one on No.1 bed, two on No.2 bed, 11 on No.3 bed, four on the new wetland and three on the Loop of No.4 bed. Post-breeding numbers increased rapidly, with over 150 on 31st July rising to a year's maximum of 277 on the September WeBS count. The new wetland proved particularly attractive and 150 were present there on 16th September. October saw a Reserve total of 146 with 91 still present on 18th December and the year ended with 37 on the new wetland.

None were ringed on No.3 bed but three were re-trapped from 2020.

Little Grebe

Tachybaptus ruficollis

Another good year confirming Woolston as the main site in Cheshire for this grebe, which soon took advantage of the new wetland on No.4 bed.

As always, Little Grebes are scarce in winter, with just five records submitted in January and four in February, when six were on No.3 bed on the 27th. These were the vanguard of the spring arrival and were followed by 11 (5 pairs and 1) on No.3 bed on 2nd March. Over the following week up to three pairs were present on the new wetland and another two were trilling on the Loop of No.4 bed. At that time others were known to be present on No.2 bed and two pools on No.1 bed. The WeBS count on 13th March found 14 Little Grebes, and seven pairs on No.3 bed alone a week later. The peak count of the year, 37, on the 10th April WeBS was one of the highest Little Grebe counts ever at Woolston.

The first brood was seen on 27th May, a pair with one small young on No.3 bed, and two other broods were recorded on 1st June. Broods continued to appear throughout June and into early July on beds 3, 4, 2 and 1. Five adults and eight large young were reported on No.3 bed on 25th July and an adult and eight full-grown independent young were there in early August. Two juveniles were also present on No.1 bed, and three adults and five juveniles on No.4 bed. In all, it is believed that up to 14 pairs were present across the Reserve – 2 pairs on No.1 bed, 7 pairs on No.3 bed and as many as five pairs on the new wetland and Loop of No.4. Breeding may also have taken place on No.2 bed, but no information was submitted.

After the breeding season many of the Little Grebes moved on to the Oxbow around No.3 bed and the Mersey where maximum counts were made on the WeBS counts: 15 on 11th September, 16 on 9th October, 16 on 6th November and finally 10 on 18th December.

Great Crested Grebe

Podiceps cristatus

After several poor years in which few young fledged 2021 showed a slight improvement, although still disappointing.

During January most of the wetlands were frozen, resulting in many of the Great Crested Grebes resorting to the River Mersey and Ship Canal near Bollin Point, where eight were seen on 7th January and 21 on 5th February. On that date a pair was nest building on the Woolston Weir Pool. By early March eight pairs were present: six on No.3 bed, the pair at the Weir and a pair on the Ship Canal. Display was seen on a number of dates, and on 17th March a bird was on a nest on No.3 bed. The highest count of the year, and possibly the highest count ever at Woolston, was when 34 were present across the Reserve on the 10th April WeBS, of which many birds were on the Ship Canal.

Nine pairs on 28th April was the peak count of the year, including the pair on the Weir Pool that was making its second attempt after the earlier nest had been washed away. On 6th May a pair was feeding at least one young on No.3 bed, and ten days later an adult was feeding two very noisy young on the same bed. A pair appeared on the Oxbow with three young on 12th June, and from other observations it seems likely that only one of them fledged. During July a new brood of three young was seen on

No.3 bed. Records suggest that at most five young fledged, a poor return from nine pairs. The pair at the Weir failed after at least four attempts.

Following the breeding season 15 on 11th September was the highest count received.



Black-necked Grebe

David Bowman

Black-necked Grebe

Podiceps nigricollis

Amber listed

The breeding population of this national rarity has stabilised at Woolston, although the maximum number of adults was the highest for seven years. It was also a good breeding season in which many young fledged.

The first returning birds, three, arrived on the early date of 4th March, (c.f. 14th March in 2020 and 19th March in 2019). Two were clearly a pair when they were seen displaying. Numbers remained at this level for several days. A pleasing sighting was of three on the new wetland from 8th to 11th March, including one still in winter plumage. At that time a pair was nest building there in a small patch of vegetation, but this was soon abandoned. More birds began to arrive in the second half of March, with nine on the 20th increasing to 15 on the 27th. By this date most of the grebes were on No.3 bed, with only occasional sightings on the new wetland.

By 3rd April 17 were on No.3 bed, the majority of which were displaying and interacting. April generally produces the highest numbers of adults, with 20 present on No.3 between the 4th and 8th, and 23 on the 10th. More arrivals saw 28 on the 17th, (including two on the Loop of No.4 bed), the highest number since 31 in April 2014. The year's maximum however, was 30 on 24th April, 22 on No.3 bed and eight on the new wetland.

Two broods, one of two young and the other of at least one, were observed on 7th May and a third brood two days later. As always, more broods appeared in a short space of time, with a minimum of seven, possibly eight by 23rd May. A co-ordinated count on No.3 bed on 3rd June found a total of 36: 22 adults and 14 young, and by then many of the young were well grown. In early July there were several reports of a very small young being fed by adults, but whether this was a new brood is never clear at that late date. It could have been a second brood, which has occurred at Woolston, or a pair that had lost its first one. Overall, it is considered that at least nine pairs bred.

As to the number of young that fledged this too is not easy to assess, as they depart over a period of time. The count of 15 young on the 3rd July, most fully grown and independent and with some making short flights across the water, is possible, although with six independent young still present on No.3 bed on 31st July it could have been more.

The last juvenile was seen on No.3 bed on 8th August, while an adult remained on the Loop of No.4 bed, where it moulted into winter plumage. It was last seen on 9th September.

For the second successive year up to three adults were seen feeding among a small group of Gadwall that were stirring up the water, no doubt providing the grebes with food.

The productivity of Woolston's Black-necked Grebes has been good since they first bred in 1987. Since then a minimum 325 young have fledged, the vast majority on No.3 bed. The site has clearly played an important role in the conservation of this Schedule 1 bird.



Oystercatcher

David Bowman

Oystercatcher
Amber listed

Haematopus ostralegus

There was a series of records from early February until mid-July, mostly from Nos.3 and 4 bed, but also some from No.1 bed. The first sighting was on 6th February and one or two were recorded during the rest of that month. On 7th March two were on the new wetland with one on No.3 bed and two days later pairs were seen on both beds. There were similar numbers in April, including two on No.1 bed on the 9th. Three flew south over No.1 bed on 14th April and a further three were on No.3 bed. A pair was seen displaying on No.1 bed on 13th May but there was no evidence of breeding having taken place. Records of one or two continued until the final sighting of the year on 10th July.

Avocet
Amber listed

Recurvirostra avosetta

After blank years in 2019 and 2020, there was a single record when one was on No.4 bed on 17th May.

Lapwing
Red listed

Vanellus vanellus

Very few were seen in January with a maximum of 34. A flock of 400 over-flew the Reserve during February while the 15 on No.3 bed that month included a displaying male. From then onward there were regular reports from the John Morgan Hide scrape. On 11th March six displaying pairs were on the new wetland and a maximum of 14 were present during the month. Back on No.3 bed a male displaying in front of the John Morgan Hide temporarily attracted two passing females. On 6th May nine displaying pairs were noted on the new wetland, with two more on the Loop islands. Breeding was proved on the No.4 bed wetland when, on 1st July, three pairs with broods of two, two and three were seen. A solitary young was on No.3 bed on 25th July with possibly the same one again on 22nd August, so a total of four pairs bred successfully.

Post-breeding, 100 were feeding on the new wetland and from then to the year-end large flocks were recorded over-flying the Reserve, with a maximum of 514 on the October migration watch. The year ended with a total of 460 on 30th December; ten on the John Morgan Hide scrape and the rest flying towards No.4 bed.

Golden Plover

Pluvialis apricaria

There were four records of this uncommon visitor between September and November. Four were flushed from the new wetland on 14th September and the remaining reports were on the three Migration Watches from October to December when six, five and one were noted over-flying. At one time this species was seen in good numbers but in recent years it has become less frequent and this year's sightings are a little above average.

Ringed Plover*Charadrius hiaticula**Red listed*

An infrequent visitor, six sightings constituted a reasonable year with most of them from the newly created pools on No.1 bed. The first two flew west over No.3 bed on 9th March. There followed a series of reports from No.1 bed with at least one near the new pools on 31st March and another on 10th April. Hopes of a breeding attempt were raised when one was seen displaying on 17th April and 1st May and two were together in suitable breeding habitat on 15th May. It does not appear that breeding took place, however, and the only other sighting was of one flying about that area on 17th September.

Little Ringed Plover*Charadrius dubius*

This species is now established as an annual visitor and breeding has taken place in small numbers for the past ten years. Over thirty records were submitted between March and early August from Nos.1 and 4 beds. Perhaps surprisingly there were no sightings reported on No.3 bed and this is probably due to the creation of suitable breeding habitat in other parts of the Reserve. One flew north over the new wetland on 3rd March, the earliest ever record for Woolston. By the end of the month there were reports of two on the new wetland and at least four (two pairs) on the newly created pools on No.1 bed. During April there were regular sightings, with eleven on No.1 bed on the 17th and two displaying pairs on No.4 bed on the 29th. Three pairs were on territory on No.1 bed on 1st May and on the 6th two pairs, including one with two very small young, were on the new wetland. June saw a pair with one fully grown young in the same area and on the 29th four adults and four juveniles were on No.1 bed. A juvenile on No.1 bed on 12th August was the last sighting of a successful year in which a minimum of five pairs attempted breeding, at least four producing young. Three nests were found on No.1 bed, one of which was predated at early incubation stage but the other two produced young. On 31st July a very small chick was seen, from either a replacement brood or a second clutch.

Whimbrel*Numenius phaeopus**Red listed*

The only record of this infrequent visitor was of one flying north-west over No.3 bed on 4th May.

Curlew*Numenius arquata**Red listed*

Eleven sightings constituted an above-average year for what is a regular but infrequent visitor. The first was of nine flying east over No.3 bed on 24th February. Of the four March reports three were of singles over-flying the Reserve but on the 9th five were found feeding on the new wetland area of No.4 bed, with one present there on 10th April. The remaining reports between June and September were all of birds over-flying, mostly singles but three were observed moving north-west on 24th June and two flying west over No.3 bed on 24th August.

Black-tailed Godwit*Limosa limosa**Red listed*

Numbers have declined since the large flocks seen only a few years ago and just 18 records were submitted. The four March sightings were from Nos.3 and 4 bed: ten flew north-west over the new wetland on the 9th, 13 were observed moving west over No.3 bed on the 18th, two landed briefly on the new wetland on the 15th and two were on No.3 bed on the 23rd. There were no further reports until 12th August when ten, including one juvenile, were on No.3 bed. The following week saw two or three regularly on that bed. A total of 23 flew west over No.3 bed at dawn on 7th September and singles were present from the 14th to the 23rd, including a juvenile on the 16th and the 18th. The final observation was of two on 9th October. It is disappointing to recall that in 2015 and 2016 around two hundred were recorded

*Black-tailed Godwit**David Bowman***Ruff***Calidris pugnax**Red listed*

One flying west over No.3 bed on 19th August was the only sighting of the year. There have been almost annual reports since 2012, but usually only one or two. The exception was in 2015 when no less than 50 records were submitted and it is interesting to recall that none were seen between 2006 and 2011.

Dunlin*Calidris alpina**Red listed*

There were nine records of this species which is normally seen only on spring and autumn passage. Most of the spring sightings were from the new wetland with one on 15th March, two at the end of March and two on dates in May. The only one from No.3 bed was of two flying west on 16th March after briefly trying to land on the John Morgan Hide scrape. There were none from mid-May until 21st September when one was feeding on the scrape with about a hundred Teal. The only other autumn sighting was of two on the new wetland on 12th October.

*Dunlin**David Bowman***Woodcock***Scolopax rusticola**Red listed*

Following the normal pattern, there were reports from January to March and from late October onwards. They were fairly equally divided between Nos1 and 3 beds with just a single record from No.4 bed. Most were singles but on 1st February three were on No.3 bed and four were flushed from cover on No.4 bed, the only sighting on this part of the Reserve. Six were found on 6th November and there were then one or two to year end. This represents a fairly typical year for this usually secretive species.

Jack Snipe

Lymnocyptes minimus

An excellent year began with one at Bollin Point on 4th January. One was then flushed on Paddington Meadows on 14th February and flew onto No.4 bed. The three March sightings included four on No.1 bed on the 3rd and the first from the new wetland on No.4 bed on the 13th. Singles were on No.3 bed on 8th and 17th April and the last record of the first half of the year was of three on No.4 bed on 4th May. The next report was of one on the new wetland on 6th October, whilst on the 19th one dropped into the north reed bed on No.3 bed and three were on the new wetland. Exceptional numbers for Woolston towards the end of the year included ten on 6th November, of which eight were on the new pools on No.1 bed. Even this count was surpassed on 11th December when no less than fifteen were discovered feeding in the weedy areas around these pools. Up to three were recorded on No.4 bed in early December. Compared with an average of up to three sightings a year in recent times this was quite a remarkable year.

Snipe

Gallinago gallinago

Amber listed

This species also performed well throughout the year apart from a gap between mid-June and early July. On 21st January 21 were on No.3 bed and on the 30th 36 dropped in from the west just after dawn. Four were on No.1 bed on 13th February with subsequent regular counts including 16 on 6th March and 39 on the 13th. Although there were no more double-figure counts until August, small numbers were present during April with a maximum of six on No.3 bed on the 22nd. No more than two were found in May and early June with all records from Nos.3 and 4 beds.

Two were on No.4 bed on 3rd July and up to four were recorded on Nos. 3 and 4 beds during the remainder of that month. Numbers increased in August and 12 on No.4 bed on the 3rd increased to 60 on the new wetland on the 31st. Around this time there were also odd ones on Nos.1 and 3 beds. The highest totals occurred during September and October; with 70 counted on the new wetland on 9th September and the year's maximum of 89 on the WeBS count on 9th October. Numbers then declined but 16 were still present on 6th November, of which nine were on the new pools on No.1 bed. The last double-figure count of the year was of 16 on 16th December.

Common Sandpiper

Actitis hypoleucos

Amber listed

There were 16 sightings between April and July, all from Nos. 3 and 4 beds. One was on the new wetland on 1st April and there were reports of singles on No.3 bed on 11th and 15th April with a second on the new wetland on the latter date. Two were on No.3 bed three days later and one or two were on Nos 3 and 4 beds until 13th May. There were no June reports and the next one was on No.3 bed on 3rd July. A single was on No.4 bed on 17th July and the last sighting of the year was of three on No.4 bed three days later.

Green Sandpiper

Amber listed

Tringa ochropus

Over-wintering has become more common in recent years and this trend continued with two February sightings; one on No.4 bed on 16th February and two on the same bed on the 25th. The only other spring record was of one on No.3 bed on 23rd April. Return passage was first observed on 23rd June, a fairly typical date, when one was on the new wetland. Five were in that location on 3rd July and two were on No.3 bed the same day. There were regular sightings on Nos.3 and 4 beds through July whilst the first record from No.1 bed came on 5th August when two were seen during a migration watch. Good numbers then continued to be reported on No.4 bed: five on 7th August, and six a week later when a further two were on No.3 bed. Almost daily sightings continued to the end of August with up to eight seen on Nos. 3 and 4 beds. A maximum of five was reported during September and, although fewer in number, sightings continued to year end. Finally, a colour-ringed individual was on No.3 bed on 23rd December.

The No.3 bed ringing team had limited success due to high water levels at the peak time for the species, which is the subject of a colour-ringing programme. A juvenile was colour-ringed on 26th September and remained until the year end.



Colour ringed Green Sandpiper

David Bowman

Redshank

Amber listed

Tringa totanus

There were 12 observations between March and early August, all from Nos.3 and 4 beds. Most were of singles although three flew west over No.3 bed on 30th March. The majority of reports were from March to May with just a single sighting in June, July and August, including a juvenile on the new wetland on 12th June.

Wood Sandpiper

Amber listed

Tringa glareola

There were two records of this rare visitor: one on the new wetland on 13th May and a second, also from No.4 bed, of one on 3rd August.



Wood Sandpiper

David Bowman

Greenshank

Amber listed

Tringa nebularia

This elegant wader is an infrequent visitor and there were just four reports. One flew west at dawn over No.3 bed on 30th March and one was on the same bed on 4th May. The two August sightings were on the 24th and 25th. One flew west over No.3 bed and the following day one flew east and was later seen on No.1 bed.



Greenshank

David Bowman

Kittiwake

Rissa tridactyla

Red listed

This coastal gull has seen an upturn in records in recent times, and two records were received from No.3 Bed this year. Firstly, an adult flew through on 13th March, while 9th April saw one linger for the morning.

Black-headed Gull

Chroicocephalus ridibundus

Amber listed

2021 started strongly, with a high count of 2,200 logged east over No.3 Bed shortly after dawn on 5th January. A typical movement for this species, and indeed all gull species, with birds leaving roosts on the Mersey Estuary and heading inland to feed. By 6th February the first breeding birds were noted in the colony on No.3 Bed, with a count of 95. By 20th the flock had increased to 420, and a healthy count of 720 was made on the 25th. Numbers were steady by the month's end with 650 still on No.3 Bed and the first mating was noted. An early April peak is typical, with 1,000 present on No.3 Bed by the 3rd, and another spike of 710 on the 10th. Thankfully, this species takes well to the nest rafts provided, which in turn provides great views of the development of eggs and chicks. However, a good proportion nest within the reedbed and prove tricky to monitor, so the true size of the colony isn't known although numbers of adults flushed by overhead predators were in the low hundreds. The first chicks were seen on 15th May and by 8th June the first fully fledged juveniles were on the scrape. A spike in birds using No.4 Bed was noted into July, with 200 on the new wetland by the 6th including 15 juveniles, and so it

is likely these are Woolston-bred birds exploring the developing habitat. Numbers remained steady but in decline as birds started to leave the colony, with the next peak of birds coming in late October. 668 overflowed No.1 Bed on the 23rd, likely the start of post-roost movement. A count of 804 was made in similar fashion on 11th December, and 760 flew east over No.3 Bed after dawn on 21st. On 28th December 140 were loafing on No.4 Bed and a loafing winter flock may well become a regular year-round feature of the new wetland.

As with most years a couple of colour rings were read. Firstly, a bird bearing a yellow darvic was photographed coming to breed by the Manchester Ship Canal along the entrance track on 10th February. The bird was originally ringed at Pitsea Landfill Site, Essex, on 11th March 2017 and hadn't been reported anywhere since. Later, a blue darvic was read on one of the breeding birds on 20th March and on several dates in April. This bird was ringed at Arnside, Cumbria, on 6th December 2020 as part of the North West Black-headed Gulls project.



Little Gull

Daniel Owen

Little Gull

Green listed

Hydrocoloeus minutus

Two records this year is in line with this species' current Reserve status. A smart adult was present on No.3 Bed on the evening of 18th April and was seen to go to roost. However, the bird wasn't seen the following dawn, proving how quickly birds move through in Spring. The second record was a first-summer, also on No.3 Bed, on 14th -15th May.

Mediterranean Gull

Amber listed

Ichthyaetus melanocephalus

This once rare visitor continues to go from strength to strength, with a protracted reporting period seeing an exceptional 68 records. An adult dropped onto the scrape on No.3 Bed on the early date of 22nd February and by 3rd March, three were using the Reserve. Numbers of the species remain hard to keep track of, although different age groups and comparing birds with any visible differences proves a good throughput, with many records involving birds moving straight through to breeding sites – it can't be too long before Woolston joins this list. A peak count of five was made on 27th April and four were logged on 4th May and again on 15th June. A late bird was on No.3 Bed on 2nd July.



Mediterranean Gull

David Bowman

Common Gull

Amber listed

Larus canus

As in recent years, Common Gulls were well-represented in this year's records, although there was a notable lack of sightings between the end of May until late October. The new wetland played its part with most records coming from loafing birds on No.4 Bed, with two peaks early in the season. Twelve were reported on 10th February, with another spike in mid-March finishing on 19 on the 16th. The year finished with low single figures at Latchford Locks and the new wetland.



Common Gull

David Bowman

Great Black-backed Gull

Larus marinus

Amber listed

This year saw 30 records of this coastal giant. Typically, reports largely concerned over-flying birds and most were concentrated in winter. February, March, November and December were the busiest months, with a peak of birds moving to breeding locations further north and then returning birds looking for feeding opportunities. A pristine juvenile on No.3 Bed on 14th and 17th August raised a few eyebrows, given there are no known breeding pairs in the county this record is most intriguing. October saw the highest count of the year, with seven over No.1 Bed on the 23rd.

Herring Gull

Larus argentatus

Red Listed

A familiar coastal species, but one that continues to remain scarce (but expected) on the Reserve. Reports came from most months with the exception of June and September. Numbers are never as high as Lesser Black-backed Gulls, which this species is often accompanying, but breeding is suspected within the same colony. As with many large gull records, most birds are overflying the Reserve, either to feeding sites or roost movements at dawn and dusk, and it is the latter two that produce the highest counts, indeed the year's high count was 25 over No.1 Bed on 22nd December, with 21 over No.3 Bed the previous day. Typically, there was a regular run of single figure counts on No.3 Bed during the summer months, when any locally bred juveniles drop in to bathe on No.3 Bed.



Herring Gull

David Bowman



1st winter Yellow-legged Gull

Daniel Owen

Yellow-legged Gull

Larus michahellis

Amber listed

A first-winter was present with a small group of loafing gulls on the new wetland on No.4 Bed on 29th March, and again on the 31st. Interestingly, this bird had a distinctive appearance, with quite tatty coverts and a largely dark bill with a wholly yellow tip – this allowed the bird to be tracked to an individual that had wintered in Salford, Greater Manchester, before moving west along the Mersey. Yellow-legged Gull was a long overdue species for recent times, with the last report as far back as 2000. This species is often best looked for in flocks of Lesser Black-backed Gulls, but also has an affiliation with Great Black-backed and Herring Gulls. Such a gap in records is surprising, but it is hoped this is just the start of a new trend for the new wetland.

Lesser Black-backed Gull

Larus fuscus

Amber listed

It was a classic year for this species, which seems stable in the local area. Records were received throughout the year, with the first involving four at Latchford Locks on 2nd January. The first increase in numbers came on 20th February, with nine on No.3 Bed, followed by ten on No.4 Bed on 16th March – the first double-figure count of the year – and a typical arrival date for this migrant, with the bulk of British birds actually wintering on the Iberian Peninsula and as far south as Morocco. Numbers steadily increased throughout the Spring, with a sudden influx of 120 on No.3 Bed on 17th July. The first juvenile was noted on the water on 25th July, which then spiralled into a peak of 180 juveniles by 3rd August. 291 were logged passing over No.1 Bed on 5th August, after which numbers dwindled into double-figures until late-October. Birds remained in the area throughout the early winter period, with 15 over No.1 Bed on 11th December and seven on No.4 Bed on 28th December.

The Spring influx is thought to coincide with the first eggs hatching at a nearby colony, with the Reserve's surplus of young birds offering an easy meal. However, few records of predation were submitted again this year, although predation of ducklings and Black-headed Gull chicks undoubtedly occurred, this is the third consecutive year this drop has been reported and it is hoped this is the start of a new trend.

A metal ring was read on a bird coming to bread along the Manchester Ship Canal on 13th February. It was originally ringed in the nest as a chick at Banks Marsh, Lancashire, on 21st July 2007 and hadn't been reported since. Interestingly the bird was also fitted with a colour ring, but this had fallen off prior to this sighting.

Common Tern

Sterna hirundo

Amber listed

Eleven records were received this year, in-line with 2019. The first was of two west through No.3 Bed on the slightly late date of 23rd May. Sightings were the sporadic until the last on 17th September. A high count of nine flew through No.3 Bed in two flocks on 31st July – the highest count since 1990!

Arctic Tern

Amber listed

Sterna paradisaea

Never an easy bird to connect with at Woolston, so three ‘Arctic Tern days’ is a great showing. On 19th April, a single flew west over No.2 Bed. Another flew west through No.3 Bed on 28th April, while more unusually one on 4th May stayed around the scrape on No.3 Bed, providing great views for most of the morning.



Arctic Tern

Daniel Owen

White Stork

Ciconia ciconia

A surprising visitor to the Reserve, although more expected in recent times. Originally observed in fields to the north of the Reserve at Rixton Moss, it was later seen flying south over No.1 Bed, on 3rd March. A re-introduction scheme is taking place at Knepp Wildland, West Sussex, with some of the released birds roaming the country before settling down. Interestingly, it is believed this bird was ‘GB35’, originally a wild bird from Poland which later needed to be rehabilitated and eventually released as part of the flock. This individual came as far north as Lancashire, and later south over the Reserve and continued to various sites in Wales. The distinctive gaps in the wing caused by missing flight feathers, allowed it to be tracked even if the blue darvic ring couldn’t be read.

Cormorant*Phalacrocorax carbo*

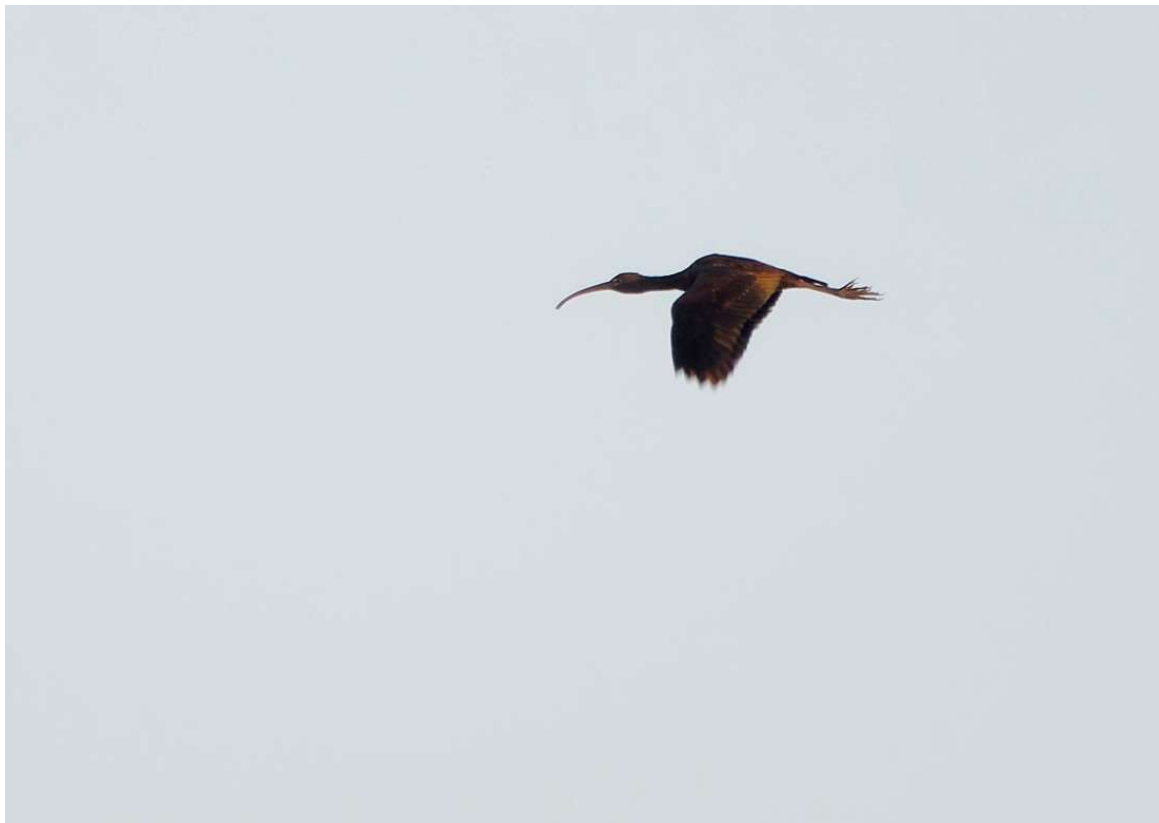
Present throughout the year over-flying, feeding, and roosting in a favoured tree just below Woolston Weir, notably in the winter months.

The highest count of the year was 34 roosting by the Oxbow on 28th January. Fourteen were found across the whole Reserve on 10th April. Later in the year the Migration Watchers on No.1 bed recorded 15 passing over their vantage point on 5th August, while the low water levels on No.3 bed attracted 12 to feed on abundant fish on the 27th of that month.

The Migration Watchers recorded 20 flying over No.1 bed on 23rd October and 26 on 11th December. Finally, 14 left the roost by the Weir on 28th October.

Glossy Ibis*Plegadis falcinellus*

One was seen to arrive from the north-east and fly steadily westward across No.3 bed on 25th November. This is the first record for the Reserve, although much anticipated and long overdue!



Glossy Ibis

David Bowman

Bittern*Botaurus stellaris**Amber listed*

A rare visitor to Woolston, 2021 was an exceptional year with five records, all of which were of single birds.

One flew past the Morgan Hide on 18th April and was photographed shortly afterwards from the south screen on No.3 bed. What was almost certainly the same bird was seen in flight on No.3 the following day, and one flew north calling over No.1 bed on 17th May.

The only other sighting was in October at dawn on the 28th when one was flushed from in front of the south screen on No.3 bed and dropped into the reed bed in the north-east corner.

*Bittern**David Spencer***Grey Heron***Ardea cinerea*

Recorded throughout the year in small numbers. They were particularly scarce in January when most of the waters were frozen, but five were found across the Reserve on the 13th March WeBS, and seven were present on one of the Loop islands when water levels were low. The highest count was of ten on 11th September – the only double-figure number, and eight were on The Eyes on 25th November. In spring and early summer adults from the nearby heronry at Grappenhall fly to and from Woolston.



Grey Heron

David Bowman



Little Egret

David Bowman

Great White Egret

Ardea alba

The only record this year was of one flying west over No.3 bed on 16th October.

Little Egret

Egretta garzetta

Remains a very scarce visitor to Woolston, which is strange given the high numbers on other wetlands in the north-west. It may be, as it could be with Bittern, that there is insufficient food for them at the Eyes. Little Egrets were seen in every month except January and February, mostly over-flying or short-staying. All were singles except for three on 28th October. An interesting sighting on 14th June was of one in a tree below the east bank of No.3 bed, a tree which regularly holds a small Cormorant roost.

Osprey

Pandion haliaetus

Amber listed

Usually seen on passage, there were three sightings this year. One flew north over No.4 bed on 30th March and a second was seen flying south over that bed on 14th April. The only autumn record was on 4th September when the migration watchers observed one flying south-east



Sparrowhawk

David Bowman

Sparrowhawk*Accipiter nisus**Amber listed*

This resident was recorded in every month except June and the vast majority of sightings were from Nos.1 and 3 beds, with none from No.2 bed and just three from No.4 bed. January and February saw one or two present and display was first seen on 23rd March when a pair was over the north-east corner of No.3 bed. Two pairs were displaying over No.3 bed on 6th April and a rare sighting from No.4 bed involved a pair displaying over the west bank on 29th April. Back on No.3 bed display was again noted on 11th May and there were no further records until 14th July. Three juveniles were over No.4 bed on 14th August and on 9th September an adult female and two juveniles were seen hunting around the John Morgan Hide feeders. October sightings included four on the 14th and three on the 26th, both from No.3 bed. Just one or two were then reported to the year end. It appears that one or two pairs bred successfully.

Two males were ringed on No.1 bed and a third, which had been originally ringed in 2019 and re-trapped in 2020. On No.3 bed a juvenile male was ringed on 20th November. Most captures are of males, which, due to their smaller size, are less able to escape from the nets.

Goshawk*Accipiter gentilis*

A juvenile female was seen flying east low over No.3 bed and flushing all the wildfowl on 2nd December. This was the only record received of what remains a rare visitor to the Reserve.

Marsh Harrier*Circus aeruginosus**Amber listed*

It was indicative of the success of this species that more records (102) were submitted this year than of any other raptor. There were sightings in every month and even more significantly, breeding was confirmed for the first time. A female was seen regularly in January and February and all reports at this time were from No.3 bed where the reed beds are particularly attractive to this species. On 14th January a different bird, possibly a juvenile, attempted to take a Bullfinch at the Sybil Hogg Hide feeders. Two females and a second calendar year male were seen displaying over No.3 bed on 15th April. From then onwards a pair was reported regularly and on 13th May food passes and nest building were observed. The male was seen bringing food to the nest on 24th June and the first juvenile was observed on 2nd August and regularly until the 17th. From then until year end one or two were reported fairly regularly. On 25th November a juvenile male with a red wing tag was seen and this bird remained to the end of the year. Investigations revealed that it had been ringed as part of a brood in Norfolk in 2021. A second bird was also present occasionally. Hopefully this species will be added to the list of regular breeders at Woolston.



Marsh Harrier

David Bowman

Red Kite

Milvus milvus

Only two records were seen this year compared with five in 2020. One flew south-east over No.3 bed on 10th April and one, again flying south-east, was over No.2 bed on 16th October.

Buzzard

Buteo buteo

Now a common resident, and as a result probably under-recorded, they were seen throughout the year in all areas of the Reserve. A maximum of three was reported in January while on 23rd February at least ten were seen soaring over No.1 bed, gaining height before drifting off to the north. Up to nine were subsequently recorded during March and April. A pair was seen displaying over No.2 bed on 19th April and although birds were present throughout the breeding season, no evidence of breeding was submitted. There were only two July records but on 24th August eight were observed flying south high over No.3 bed. The highest count of the year was on 16th September when eleven were soaring over No.3 bed. The Migration Watches in October and November reported eight and five respectively and just one or two remained until the end of the year.



Buzzard

David Bowman

Barn Owl

Tyto alba

There were only three records this year and no evidence of breeding. The first was on 16th January when one was found roosting under the John Morgan hide at dawn. On No.1 bed, one was seen hunting along the reed edge of the east pool on 23rd February. The final sighting was on 2nd December when one was hunting the open area of No.3 bed at dawn.

Long-eared Owl

Asio otus

There were no records this year which is disappointing after sightings in 2019 and 2020.

Tawny Owl

Strix aluco

Amber listed

Tawny Owl is a regular breeder. This year breeding was confirmed on No.3 bed where a pair occupied one of the Kestrel boxes and raised three young. In addition, they were regularly heard calling from the copse by No.2 bed and are likely to have bred in the vicinity. Similarly there were regular records from No.1 bed where breeding is also likely to have occurred. There were no records from No.4 bed.

Kingfisher
Amber listed

Alcedo atthis

The Reserve remains an excellent site to observe and photograph Kingfisher which breed on the River Mersey and Ship Canal. They were recorded in all months of the year and most sightings, not surprisingly, came from No.3 bed where they were regularly seen flying along the Oxbow and under the footbridge on to the bed. In the summer and early autumn they moved onto the bed itself and frequently fished from the fence posts in front of the John Morgan hide. On 9th September, three, including two juveniles were perched on these posts. There were also frequent sightings from No.1 bed where they are thought to breed along the adjacent Ship Canal and River Mersey. It is pleasing to note there was a record on the new No.4 wetland in December.

On No.1 bed three were ringed with the first on 30th March followed by birds of the year on 30th June and 2nd August. On No.3 bed an adult female and a juvenile were ringed on 9th May and 12th June respectively. The water level in the usual ringing ride (also used for Green Sandpiper) was not suitable this year and so the number of Kingfishers ringed was lower than usual for the last few years.

Lesser Spotted Woodpecker
Red listed

Dryobates minor

The only record was of a female adjacent to Butchersfield Tip by No.1 bed on 12th January. If birds are still breeding in the local area, it must be in very small numbers. There were no records in 2020 and the last record of a male drumming was in March 2019.

Great Spotted Woodpecker

Dendrocopos major

Great Spotted Woodpecker is a common resident and is thought to breed on all four beds. The only breeding information submitted this year concerned one drumming on the west bank of No.3 bed on 8th April, two drumming on the same bed on 14th April and a pair displaying on the east bank of No.4 bed on 10th April. The maximum counts were all from John Morgan feeders with six in the vicinity on 14th October.

The ringers on No.1 bed had a reasonable year with seven ringed, the first on 6th January and the last on 24th November. Apart from the first, all were birds of the year, none earlier than 25th August. A further four were caught that had been ringed in previous years, all from 2020. Only one, a male, was caught in breeding condition.

On No.3 bed: Fifteen birds were ringed during the year. The average is 10.6. The first juvenile was ringed on 17th June. Six birds were known juveniles when ringed, seven were adult and two were not ageable.

Green Woodpecker

Picus viridis

There were seven records, all from No.1 bed where breeding is thought to take place in the surrounding areas of Lymm and Rixton. The first record was on 6th January. There were then five reports in March and finally, one was yaffling on Butchersfield Tip near the west pool on 18th June.

Kestrel*Falco tinnunculus**Amber listed*

This once common species has been in decline in recent years at Woolston, so it was encouraging to receive records from throughout the year and for successful breeding to take place. One or two were reported from Nos.1 and 3 beds during January and February and a pair was seen on No.3 bed on 9th March. Three were on No.1 bed on 2nd and 3rd April but only singles were reported until 12th June, when a pair with one fully grown young was seen on the Viaduct at a location where breeding has taken place in the past. On 17th July a male flew south over No.3 bed carrying food and a juvenile was found on No.4 bed on 3rd August. The Migration Watches in September and October produced records of four and two respectively but from then onwards only singles were reported.

Merlin*Falco columbarius**Red listed*

Nine sightings of this winter visitor were received, typically in the first two and last three months of the year. An adult male appeared on No.3 bed on 9th January when it scattered Greenfinches at the feeding station. A male was then hunting a Starling murmuration on the 18th whilst, still on No.3 bed, there were sightings of a female on 14th and 16th February. One was noted on 8th October, taking a Meadow Pipit in flight on No.1 bed. A female was on the same bed on 25th October and on 4th November an adult male came in low over the water and flushed all the finches from the John Morgan Hide feeders. Finally, a male, again on No.3 bed, on 5th December.

Hobby*Falco subbuteo*

This summer visitor was present from late April until the third week of September. Nearly all of the 34 sightings were from No.3 bed but there were two from each of No.1 and No.4 beds. As usual most were singles but two were present on 28th August and 14th September and four on 18th September, when two adults and two juveniles were seen soaring over the east bank of No.3 bed. Although there was no evidence of breeding on the Reserve itself it seems likely that birds bred successfully not too far away, as evidenced by sightings of juveniles on three dates between 13th and 18th September. On 3rd July one caught a Swift over the new wetland and on 7th September one tried unsuccessfully to catch a Swallow on No.3 bed. Finally, two were over No.3 bed on 21st September.

Peregrine*Falco peregrinus*

Noted throughout the year, until the end of November, mostly from Nos.1 and 3 beds with a single report from No.4 bed. No more than one was seen until 17th April when two were at the nest site on the Viaduct. June saw the male carrying prey towards the nest on the 5th, and on the 29th the male flew in with food. The pair nested in a different part of the Viaduct to previous years but successfully bred. This was confirmed for the 14th successive year when both adults and a juvenile were seen in flight near the nest site on 12th August. From then on only singles were seen but two were present on 25th October. The final sighting was of one on the Viaduct on 25th November.



Hobby

David Bowman

Jay

Garrulus glandarius

A common resident which breeds in small numbers on all four beds. This year was typical with regular single figure counts being made in most months. Autumn movements are regularly observed on the Reserve, although not in all years. This year was exceptional, however, with several double digit counts in October and on the morning of the 14th a total of 82 was observed passing south at height over No. 1 bed. The movement comprised 29 small flocks each with less than ten individuals. This is a record count for the Reserve the previous maximum being 42 in September 2014.

The ringers on No.1 bed had the best year since 2016 with seven ringed and a further two from 2020 retrapped. Just one bird of the year was caught, on 24th December. Two were caught in breeding condition, one male and one female.

On No.3 bed seven were ringed, an improvement on the single bird ringed in 2020, compared with an average of 9.7. One was retrapped in the traps set for Moorhens on 18th November. It was ringed as an adult female on 22nd July 2011 and had not been seen since. As an adult in 2011 it must have hatched in 2009.



Jay

David Bowman

Magpie

Pica pica

A common resident species but only 15 sightings were submitted, a reflection of the lack of attention given to this species by most observers. In the spring maximum counts were four on No.2 bed, 11 on No.3 bed and nine on No.4 bed. The maximum count for the year was 23 on No.3 bed on 12th December.

On No.1 bed Magpie is a rarely ringed species and this year was typical with just a single caught on 7th May. On No.3 bed five were ringed during the year including three juveniles, compared with an average of 3.44. Most of these were caught in traps set for Moorhens.

Jackdaw

Corvus monedula

Jackdaw do not breed on the Reserve but are a common sight and sound as they fly between their breeding and feeding grounds which surround the Reserve. Records were received from all four beds throughout the year. Most flocks were small with fewer than ten individuals. However larger flocks were encountered in winter and early spring, as is typical. Notable counts were 43 flying over No.1 bed on 26th February, 86 flying west over No.3 on 20th February and the maximum count was 163 recorded during a Migration Watch on No.1 bed on 6th November. There were no records of birds at the John Morgan hide where in previous years small parties frequented the scrape and feeders post breeding.

Rook
Amber listed

Corvus frugilegus

There were of only seven sightings of Rook noted in the year, which is typical, reflecting the non-resident status of this species but probably also the fact that the species can be easily overlooked as they fly over. A notable record was of 72 flying west over No.3 bed on 14th October as they are only usually observed in ones or twos. The highest count was 104 noted on surrounding farmland during a Migration Watch on No.1 bed on 23rd October.

Carrion Crow

Corvus corone

A common resident which is thought to breed on all four beds although few observers submit records. The only breeding survey records were of five on No.2 bed on 22nd April and 13 on No.4 bed on 10th April. The maximum counts were from Migration Watches on No.1 bed with 42 on 4th September and 147 on 6th November.

The only ringing record was on No.3 bed where a single juvenile bird was ringed on 20th November. This is only the second ringed on the bed. It was caught in a trap baited with grain for Moorhens.

Raven

Corvus corax

This once scarce species is now regularly seen over-flying the Reserve and breeds locally. They were observed throughout the year and on all beds except for No.2 bed. All but one sighting was of one or two birds. The maximum was three seen at Bollin Point on 11th January. The record of a single bird perched in a tree by the new wetland on No.4 bed on 30th November is notable as almost all sightings are usually of over-flying birds.

Coal Tit

Periparus ater

Once scarce on the Reserve, Coal Tits are now an established resident and are thought to breed along the Canal track, around the Oxbow by No.3 bed and at the eastern end of the Reserve. They could be regularly heard singing in the copse by the footbridge onto No.3 bed in the spring and were also heard singing by the Tower Hide. They are regular visitors to the feeders at the Sybil Hogg and the John Morgan hides. The maximum count was of six, three at each of the hide's feeders on 2nd December.

For the ringers on No.1 bed it was an average year by recent standards with 14 ringed and the only spring capture was on 22nd March. The first of four presumed locally bred juveniles was on 7th June, the remaining three were all in the same month, while the first of the autumn was on 22nd September and the final new capture of the year was on 27th October.

On No.3 bed ten birds were ringed during the year compared to the average of 3.7, reflecting their increasing population. The first juvenile was ringed on 26th June.

Willow Tit
Red listed

Poecile montanus

The data from 2021 for Willow Tit is somewhat mixed but generally points to a decline in this species status and reflects the downturn in numbers reported in last year's annual report.

There was no playback survey conducted this year but maximum counts from each of the four beds in the spring were one on No.1 bed, two on No.3 and three on No.4 bed.

Allan Rustell's note on his nest finding studies can be found towards the end of this report. It was a disappointing year for finding breeding evidence, with the lowest number of records since intensive study began. Just three nests were found; two on No.1 Bed and one on No.2 Bed. Allan concluded that the number of birds on the Reserve is severely reduced, possibly down to just ten pairs

Ringling data supports the declining status but suggests a slightly more optimistic picture. After a very poor year in 2020 when only 14 Willow Tits were ringed, 24 birds were ringed in 2021 which would appear to be an improvement. However, the average for the four years to 2019 was 38. There were 16 juveniles amongst the 24 birds ringed. At first sight, just five juveniles on No.3 Bed appears very poor but habitat succession made it impossible to deploy nets in some areas where Willow Tits have traditionally been encountered so this may be impacting catches. Just eight different birds were re-trapped meaning 32 different Willow Tits were handled during the year, an improvement over 24 in 2020.

Blue Tit

Cyanistes caeruleus

A common resident which breeds on all four beds although only nine records were submitted for the year. The highest counts were 10 on No.1 bed, five on No.2, 21 on No.3 and 10 on No.4.

Although few observations were submitted, ringing data provides the best evidence for how Blue Tits fared during the year. On No.1 bed it was an average year with 175 ringed including 37 pulli, 12 of which were re-trapped after fledging. During the year a further 97 different individuals were re-trapped from previous years, the oldest of which was from 16th November 2014. A further two were from 2015, including one originally ringed on 26th October and not re-trapped until 26th February this year. The remainder had all been ringed during or since 2016. Only nine were caught in breeding condition, five females and four males while the first fledged juvenile was caught on 18th June.

On No.3 bed 175 were ringed, a poor year for the species, compared with an average of 192 and the total is 85 fewer than last year. Fifty-four were ringed in the nest boxes and the first fledged young appeared on 17th June. This is nearly a month later than in 2020. Birds were re-trapped from the following years: 2020 (24) and 2019 (17).

Great Tit

Parus major

Great Tit is a common resident but, as with Blue Tit, few sightings were submitted. There were only eight records received and the highest counts were: one on No.1 bed, seven on No.2, 17 on No.3 and eight on No.4.

Ringling data suggest an average year. On No.1 bed 119 were ringed, including six pulli, none of which were retrapped post fledging. A further 56 were caught that had been ringed in previous years, the oldest from 28th June 2014. One had also paid a visit from No3 bed and one from Birchwood. There were 19 processed which were in breeding condition, 7 female and 12 male, the first fledged juvenile was ringed on 16th June.

On No. 3 bed 177 new birds were ringed during the year. The average is 190. Eighty-two were ringed in the nest boxes compared to 85 in 2020. The first fledged young appeared on 3rd June. This is the same date as in 2020. Birds were retrapped from the following years: 2020 (32) and 2019 (13).

Woodlark

Lullula arborea

One flew south, low over No.3 bed on 11th March. This is only the second record for the Reserve; the first was on 8th September 2006.

Skylark

Alauda arvensis

Red listed

Small numbers now breed on No.1 bed in the areas where Mahers have completed their tipping operations and levelled off the ground. In spring two males could regularly be heard singing over this area and up to five were seen feeding in the weedy vegetation.

In the autumn there were small movements over No.1 and 3 beds. The largest count on No.3 bed was 20 flying south on 14th October but the highest count of the year was 59 seen during a Migration Watch from No.1 bed on 23rd October.

Sand Martin

Riparia riparia

The first sighting of the year was on 4th March when one flew west over No.3 bed. This is a very early arrival date with the only earlier arrival being on 2nd March 2009. There were few further sightings until 23rd March when, on No.3 bed, 230 flew north mainly in small groups during the morning and 45 were feeding over the new wetland on No.4 bed. The undoubted highlight though was on 1st April when there was an exceptional movement of 7,150 birds with large groups constantly arriving and heading north during the day. Another large movement was noted on 3rd April with 1,380 passing through during the morning. The previous highest count on the Reserve was 1,200 in 2016. There were also notable roosts in April on No.3 bed with 550 recorded on the 6th and 700 on the 18th and 19th. The new wetland on No.4 bed was also attractive to feeding flocks, with 45 on 23rd March, 70 on 6th April and 220 on 29th April. Numbers in May were smaller with maximum counts of 40 on the 4th and 80 on the 8th.

Despite the exceptional spring passage, counts in June were all in single figures reflecting the decline in the breeding population on the Reserve. Only three were noted at the traditional nest site in the Canal Bank on No.1 bed. One hundred were observed leaving a roost on No.1 bed on 7th July; this is an early date for a summer roost to have been formed and could have comprised failed breeders from

surrounding areas. In August, most counts were in single figures and the highest count was 12 on the 17th. The final sighting was of one on No.3 bed on 9th September.

The ringers on No.1 bed ringed two adults on 2nd July and 12th August, the first caught on the bed since 2018.

On No.3 bed the large roost in April resulted in 130 new and two controls being caught, one British and one French. The average is just 23.8 newly ringed.



Sand Martin

Daniel Owen

Swallow

Hirundo rustica

The first sighting was of one on No.3 bed on 23rd March, an early arrival date. In most years the first is not seen until late March/early April. There were no further records until 1st April when, together with the unprecedented movement of Sand Martins, 140 passed through No.3 bed. Other significant counts during the spring were 45 on 3rd April, 140 on 27th April and 120 on 8th May.

The only evidence of breeding was a pair at a traditional nest site on the Viaduct pier on 5th June. Three hundred were observed at dawn leaving a hirundine roost on No.1 bed on 14th June. As noted for Sand Martin, this is an early date for a roost to form and may have comprised failed breeders indicating a poor breeding season for the local population.

In autumn birds were seen regularly throughout September and the first half of October. The largest count was of 159 during a Migration Watch on No.1 bed on 4th September. The last sighting was of one on No.3 bed on 14th October.

It was a very poor year for this species for the ringing teams. The only ones ringed were three on No.3 bed, one in spring and two on 2nd August compared with an average of 171.6.



Swallow

Hannah Kearney

House Martin

Delichon urbicum

Red listed

The one seen over the No.4 wetland on 23rd March was the earliest ever arrival date for this species, as the previous earliest was 26th March 2012. However, there were no further sightings in March and for the most of April numbers were very low with a maximum count of three. The first significant arrival was on 27th April when 35 were on No.3 bed and 200 were feeding over the new wetland on No.4 bed on 29th April. Birds continued to arrive in May, with 50 on No.4 bed on the 4th and 120 on the same bed on the 6th. Breeding occurs in the housing estates surrounding the Reserve but has declined significantly in recent years. They are still thought to breed on the Westy estate and in June birds were seen gathering mud from the wetland on No.4 bed and flying off towards the estate. There were no records of any birds roosting with other hirundines and the maximum count during the summer was 34 during a Migration Watch on No.1 bed on 5th August. In September maximum counts were 15 on the 9th on No.3 bed and 14 on the 16th on No.4 bed. There were two October sightings with a single on

No.1 bed on the 4th and one on No.3 bed on the 29th. This is the first October sighting since 2003. In recent years all birds have departed in September reflecting their declining breeding populations.

Cetti's Warbler

Cettia cetti

An established resident breeding species, they are regularly reported in small numbers throughout the year. The highest count of the year was of 15 singing males reported on 15th April, a combined total from Nos.1, 3 and 4 beds, with 10 also recorded on No.3 bed on 16th April.

Thirty were caught by the ringing teams, including 27 newly ringed and three from the 2020 ringing season. Sixteen were identified as juveniles and the first was ringed on 24th July; just over three weeks later than in 2020, a possible consequence of the colder spring this year.



Long-tailed Tit

David Bowman

Long-tailed Tit

Aegithalos caudatus

Most noticeable in post-breeding feeding flocks, it is unsurprising that winter records of this diminutive resident species outnumber spring and summer reports. The largest counts were of 14 on 12th January and 12 on 20th December on No.3 bed, with 12 also on No.1 bed on 5th August.

In total, 139 birds were caught by the ringing teams, 107 ringed and 32 recaptured from previous years. The oldest of these was an adult male in breeding condition, originally ringed on 4th September 2014,

being probably seven years old when caught on 16th April. The first of 39 juveniles ringed was on 6th June.



Willow Warbler

Daniel Owen

Willow Warbler

Phylloscopus trochilus

Amber listed

A common summer visitor across the Reserve, the first three returning males were recorded singing on 30th March, two on No.1 and one on No.4 bed. By mid-April Common Bird Surveys across the Reserve recorded the year's highest counts of singing males: 22 on No.3 bed on 16th April, 12 on No.2 bed plus 11 on No.1 bed on the same date and 17 on No.4 bed on the later date of 13th May. The last sighting was of a one singing on No.1 bed on 15th September.

It was a poor year for Willow Warbler numbers ringed. The Reserve total was just 100 ringed and four recaptured from previous years. The 74 from No.1 bed was the lowest total since 1995 and although No.3 bed ringed two birds more than their 14-year low total in 2020 the 26 ringed was still over a third down on the bed's ten-year average figure. The first returning bird was ringed on the early date of 30th March, possibly the earliest ringing record for the Reserve. The last was on 3rd September and the first juvenile on 21st June. Sixty-five were ringed as juveniles, 29 of these were aged as 3J and probably locally bred.

Chiffchaff

Phylloscopus collybita

Essentially a summer visitor but increasingly recorded as over-wintering. This year 17 records were submitted of birds sighted between the end of February and the end of December. Additionally, 12

were captured or ringed during the same period. The start of March saw the first influx of migrants. By April, counts of singing males reached the maximum, with 43 on No.1 bed, 29 on No.2 bed, 38 on No.3 bed and 49 on No.4 bed. The last double-digit count of the year was 18, on No.1 bed on 4th September with just eight more sightings reported before the end of October. In late December two over-winterers were present on both Nos.3 and 4 beds.

A ten-year average total of 484 Chiffchaff was ringed on the Reserve and 73 were recaptured from previous years. The two ringing teams, however, had differing fortunes, with the 358 ringed on No.1 bed being the third best total since 1995, whilst the 126 ringed on No.3 bed was the lowest total since 2015 and 25% less than the bed average. The oldest one recaptured was originally ringed on 26th June 2017. The first juvenile was ringed on 28th May and 327, almost 70%, of the total ringed, were juveniles, aged as 3J, indicating probable local breeding.

There were four records of the sub-species ‘Siberian Chiffchaff’ race *tristes*. One was caught and ringed on No.1 bed on 19th November. A second was then ringed on No.3 bed on 24th November, a week later than a similar capture in 2020. There followed two sightings on No.1 bed, of one seen well and calling on 25th November, which could well have been the same bird ringed earlier

Sedge Warbler

Acrocephalus schoenobaenus

A summer visitor from April through to September, Sedge Warblers are frequently encountered but are not one of our more numerous warblers. Thirteen reports were submitted, with the first on 16th April, a typical date, on No.3 bed. The highest counts were of three males in song on No.3 bed on 22nd April and three on No.2 bed on 13th May. The last sighting was of one on No.3 bed on 14th September.

Numbers ringed were down 30% from 2020. No.1 bed experienced another poor year with 13 ringed while the 53 ringed on No.3 bed was more than 20% down on their ten-year average. The first was ringed on 24th April, the last on 18th September. The first of 46 juveniles, which constituted 70% of the numbers, was ringed on 13th July. Only two were re-trapped from a previous year, both originally ringed in 2019.

Reed Warbler

Acrocephalus scirpaceus

A common summer visitor which arrives in large numbers in early April. The first returning singing males were recorded on 5th April, on the new wetland on No.4 bed. By mid-April they had been reported across the Reserve although maximum counts remained small, with 10 males on No.1 bed on 26th April and 17 on No.4 bed on 13th May. The last sighting was of one on No.1 bed on 29th September.

Ringling can identify more accurately than sight-records the numbers present or moving through the Reserve and 328 were ringed this year. Additionally, 32 returning were re-trapped from previous years, the oldest of which was originally ringed on 3rd June 2016. With metreage of net rides reduced on No.1 bed. this was one of the species which experienced lower than normal catches with the 82 ringed being the lowest total since 2012. The first and the last were on fairly typical dates, 16th April and 18th September respectively. The first juvenile was caught on 26th June and a total of 205 (62%) of those ringed were aged 3J and probably locally bred.

Grasshopper Warbler

Locustella naevia

Red listed

An uncommon summer visitor, there were 14 reports between 22nd April and 11th July. Singles were reported reeling on No.2 bed on 22nd April and on No.4 bed on 1st May. The remaining 12 records were all from No.3 bed with four dates on which two males were present.

Three adults were ringed in spring, two males on No.3 bed on 24th April and 1st May and an unsexed individual on 14th May. This was the first on No.1 bed since 2018. This represents an average year for the ringing teams.



Grasshopper Warbler

David Spencer

Blackcap

Sylvia atricapilla

A common summer visitor. The first returning male, was singing on the south bank of No.3 bed on 27th March. Counts increased to double-figures by the 1st April with 40 singing males counted across No.1, 3 and 4 beds. The highest counts of the year were: 34 on No.3 bed on 16th April, 31 on No.2 bed on 22nd April and 69 on No.4 bed on 13th May. The last sighting of the year was of three on 18th September, two on No.1 bed and one on No.3 bed.

A total of 431 Blackcap was caught, 415 newly ringed and 16 recaptured from previous years, the oldest of which was from 2019. These are low totals by recent standards and this is the second year in succession that September, the historic peak month for this species, has been poor. The first ringed was on the early date of 30th March and the last of the autumn on 9th October. Two, presumed to be overwintering individuals, were ringed in November on the 8th on No.1 bed and the 13th on No.3 bed. Of

the 415 Blackcap ringed, 201 (48%) were aged as 1J or 3J and assumed to be locally bred. Analysis from the 206 birds handled on No.1 bed data identified 31 (15%) as being in breeding condition when caught, 14 females (7%) and 17 males (8%).

Garden Warbler

Sylvia borin

An uncommon but regular summer visitor from April to August. Ten sightings of this skulking species were received, all-single figure counts. The first returning male was in song on No.2 bed on 22nd April. Singles were then reported in song, from across the whole Reserve throughout May. The year's maximum was of six in song on No.4 bed on 13th May, with two on No.2 bed on 30th May. The last report was of one on No.3 bed on 13th July.

Fourteen were mist-netted, 13 new and a single re-trapped individual originally ringed in 2020. This was only a third of the expected number. Typically, the No.3 bed captures occurred late in the season, between 14th August and 4th September and six of the eight ringed were juveniles. The typical catching dates on No.1 bed tend to be earlier suggesting breeding and the five ringed were caught between 7th June and 23rd August. Two of those were in breeding condition, a male and a female, and two were juveniles.

Lesser Whitethroat

Sylvia curruca

Another of our less common summer visitors with five sightings and three ringed between April and August. The sightings were all of singles, the first on 29th April on No.4 bed followed by others on No.3 bed on 1st May, No.1 bed on the same date and on 7th May plus one on the Canal Track on 29th May. The three ringed were all from No.1 bed, the first, an adult male on 24th May followed by two juveniles caught on 23rd and 27th August.

Whitethroat

Sylvia communis

The first report of this April to September summer visitor was a singing male on No.4 Bed on 13th April. Numbers increased through April though not reaching the levels of our more common warblers, such as Blackcap, Reed Warbler and Chiffchaff. A maximum count of 30 singing males came from No.4 bed on 13th May. The last sighting, the only one for September, came from No.3 bed on the 9th of the month.

It was an 'average year' for Whitethroat as far as the ringing activity was concerned, with a total of 83 ringed and another five re-trapped from previous years. The oldest of the latter was originally ringed on No.1 bed on 23rd May 2016. The first one ringed was on the typical date of 24th April, the last on 4th September and the first juvenile on the 26th June. In total, 42 (50%) of the 83 ringed birds were aged as 1J or 3J and were probably locally bred.



Common Whitethroat

David Spencer

Goldcrest

Regulus regulus

A resident species and passage migrant, regularly reported in small numbers. There were sightings on 17 days through the year all relating to single figure counts. Maxima included eight on No.3 bed on 23rd November, seven on the same bed on 21st December and seven on No.4 bed on 28th December.

The ringing data gives a better sense of the numbers of passage Goldcrests which use the Reserve, or parts of the Reserve, during the late summer dispersal and autumn migration. Two hundred and seven Goldcrest were ringed on the Reserve, 171 at the eastern end on No.1 bed and 36 on No.3 bed. Of these, only 13 (6%) were captured in the first seven months of the year. Of the remainder, 135 (65%) were caught between August and October and 58 (28%) during November, the last month of capture. Just one was re-trapped, which was originally ringed less than three miles north of the Reserve in Gorse Covert on 6th October 2019.



Goldcrest

David Collis

Wren

Troglodytes troglodytes

A common resident, breeding across the whole Reserve. Seen throughout the year, counts of singing males from the Common Bird Surveys in spring provide some indication of population size and were as follows: 28 on No.3 bed on 8th April, 37 on No.2 bed on 22nd April and 42 on No.4 bed on 13th May.

A total of 122 Wrens was ringed, a few less than average, and a further 16 were re-trapped from previous years, the oldest of these from 26th July 2018. Ninety-six (78%) of those ringed were juveniles, with the first on 4th June.

Nuthatch

Sitta europaea

Once an occasional visitor from neighbouring habitat, Nuthatches have become more frequent over recent years. This year records of sightings, calls and song were submitted on 21 dates. Although the majority were from No.3 bed in late autumn, reports also came of singles from Nos.1, 2 and 3 beds in spring and summer. Two were noted on eight of the 15 dates in November and December and three birds were present on No 3 bed on 23rd November.

Five Nuthatches were ringed, three on No.3 bed and two on No.1 bed.

Treecreeper

Certhia familiaris

A local resident, 12 sightings were submitted, all for the period 5th February to 27th May. All were of singles except for the two present on the opposite banks of the Ox-bow between Nos.3 and 4 beds on 22nd May and the two on the south bank of No.3 bed on 24th May, which could have been the same duo.

Seventeen Treecreepers were caught, a little below the average total. Fourteen were ringed and three re-trapped from previous years, two from 2019 and one from 2020. A male in breeding condition was caught on No.1 bed on four dates, 17th March, 17th May, 2nd June and 2nd August and must have been a local breeder. Nine juveniles were ringed, the first on 14th June and one caught three times on 18th and 28th June and 21st July, in the same area where the breeding male was re-trapped.

Starling

Sturnus vulgaris

Red listed

Although resident in the urban surrounds of the Reserve, Starlings are irregular visitors, with the exception of flyovers. Winter, however, can bring roosts of this species to the reedbeds and most sightings are linked to such roosts. A small roost of 100+ was seen leaving the east reedbed at dawn on No.1 bed on 4th January. This roost did not increase but moved to the larger reedbeds on No.3 bed and had reached 10,000 by 19th January. It peaked at 60,000 birds by the end of January and had dispersed by late February. During the Migration Watch on No.1 bed on 23rd October 382 passed over. Three days later, at dawn on No.3 bed, the first autumn roost of 320 birds was noted. Roosts continued but were erratic in numbers and location with: 1050 on No.3 bed on 4th November, 500+ on No.1 bed on 17th November and 1000+ on No.1 bed on 20th December.

Starlings are seldom caught in the ringing nets and none were ringed in 2021.

Song Thrush

Turdus philomelos

Red listed

A common resident across the Reserve. Not as numerous as Blackbird, most records are of single-figure counts. Maxima from the first half of the year were: four on No.1 bed on 23rd February, six on No.3 bed on 16th February and 8th April, seven on No.2 bed on 22nd April and eight on No.4 bed on 13th May. The year's maximum was of 25 feeding along the various banks of No.3 bed on 14th October.

A below average total of 31 Song Thrush was ringed across the Reserve with an additional three re-trapped from ringing sessions in 2020. Just seven were caught and aged as 3J suggesting they were locally bred, with the first ringed on 28th June. Of the 14 adults caught on No.1 bed all were in breeding condition, 12 males and two females.



Song Thrush

David Bowman

Mistle Thrush

Turdus viscivorus

Red listed

A resident species but irregularly reported. Sightings were submitted on five dates through the year from all four beds. Two were on No.1 bed on 8th March followed by one on 1st October. Two were observed on No.4 and No.3 beds on 11th May and 12th October respectively and one was on No.2 bed on 22nd April.

Redwing

Turdus iliacus

Red listed

A common winter visitor from October to April. Reports from January and February were generally of single-figure or low double-figure counts until a flock of 135 were seen leaving a roost on No.3 bed on 9th March. The autumn migration from Scandinavia was first witnessed with 70 birds heading south over No.3 bed on 9th October. At least 500 flew west over No.1 bed during the morning of 13th October and an amazing non-stop flow of 8,300 were recorded on the following morning flying at low level, south-west over No.3 bed. Interestingly, the flight path changed to north-west from around 09:45am. Records of passage of a few tens and low hundreds followed through October. On 4th November 1850 were counted flying south over No.3 bed and the Migration Watch on No.1 bed on 6th November

counted a passage of 1741. The last sighting of the winter was of a single bird on No.3 bed on 24th December.

Although a total of 112 Redwings were ringed on the Reserve it was a disappointing figure, as the 24 from No.1 bed almost equalled the record low of 23 from 2020 since the change in lures in 2013. The first returning autumn bird was ringed on No.1 bed on 13th October and the last of the winter period again on No.1 bed on 8th January. Catches of Redwing beyond the autumn influx to year end have traditionally been scarce but this year five were ringed in January.

Blackbird

Turdus merula

A common resident on the Eyes. The year started with 40 recorded across the whole Reserve on 2nd January, which turned out to be the highest count of the year. Individual surveys of the beds provided maximum counts of: 14 on 2nd March for No.1 bed and Bollin Point, 14 on No.2 bed on 22nd April, 30 on No.3 bed on 4th November and 22 on No.4 bed on 28th December.

A total of 83 was caught, 70 of which were ringed and 13 re-trapped from previous years, the oldest being from 10th October 2016. Fourteen (20%) of the 70 were juveniles, aged as 3J, suggesting that they were locally bred, with the first ringed on 26th May. Analysis of the 40 adult birds caught on No.1 bed identified that 24 (60%) were in breeding condition, 11 females and 13 males.

Fieldfare

Turdus pilaris

Red listed

A common winter visitor from October to March. January started with 25 on the south bank of No.3 bed on 2nd January with 18 in the same area on 13th February. All other sightings were single-figure counts with the last being of five leaving a roost on No.1 bed on 24th March. The first three autumn migrants were on No.3 bed on 26th October. A passage of 2,450 was counted flying south over No.3 bed on 4th November and two days later 1976 were counted on a Migration Watch over No.1 bed. Reported numbers dropped after this initial influx with the December Migration Watch on No.1 bed counting just 82.

Ring Ouzel

Turdus torquatus

Red listed

This montane thrush is a rare visitor to the Reserve, with just six previous records. During the large arrival of Fieldfares on 4th November, one dropped into a hawthorn bush in the north-west corner of No.3 Bed.

Spotted Flycatcher
Red listed

Muscicapa striata

An irregular summer visitor. There were two records, submitted on the same date and in the same area and presumed of the same single bird feeding in trees around the oxbow by the footbridge on No.3 bed on 22nd May.

Robin

Erithacus rubecula

A common resident across the Reserve. Maximum counts were typically recorded on the regular spring Common Bird Surveys with: 21 on No.3 bed on 8th April, 34 on No.4 bed on 10th April and 26 on No.2 bed on 22nd April. The highest count was from a survey of No.4 bed on 13th May when 56 were reported.

The ringing teams caught a total of 176 Robins, 134 new and 42 re-traps, the oldest from 10th October 2016. The first juvenile was ringed on 27th May and in total 84 were aged 1J or 3J, suggesting they were locally bred. Of the 88 caught on No.1 bed, 38 were adults and of those 17 (45%) were caught in breeding condition, four females and 13 males.

Redstart

Amber listed

Phoenicurus phoenicurus

An irregular summer visitor typically recorded on spring and autumn passage. There were two sightings of a single female in early spring on two dates, 17th and 22nd April, in the same area on No.2 bed.

Stonechat

Saxicola rubicola

A scarce but regular passage migrant. Recorded on three dates, two in spring and one in the autumn. A male was on the south bank of No.3 bed on 11th March, followed by a female on 18th March feeding in front of the John Morgan Hide. In autumn three were on the new No.4 bed wetland on 30th October, including a male and female.

Wheatear

Oenanthe oenanthe

A regular passage migrant in small numbers. There were three spring sightings, all from No.4 bed. The first, of two males on 29th March, was followed by a single male on 13th April on the new wetland. May produced another male, a 'Greenland' Wheatear of the subspecies *leucorhoa*, on the 8th after overnight rain. This bird was feeding on cleared areas of No.4 bed alongside Yellow Wagtail and Pied (including White) Wagtails.



Wheatear

David Bowman

Tree Sparrow

Passer montanus

Red listed

Resident on the arable land to the north and south of the Reserve particularly on the eastern end. Irregularly recorded, there was just a single sighting this year of at least two in bushes near Rixton Bridge 15th April.

House Sparrow

Passer domesticus

Red listed

A resident in the urban surrounds of the Reserve and regularly seen in the adjacent habitat and approaches to the Reserve. Recorded on seven dates through the year with six on No.2 bed on 24th April, ten on 25th September and on 25th November on the Canal Track and Woolston Weir respectively. A female was recorded by the south screen on 28th May and one was on the John Morgan Hide feeders on 18th September, both on No.3 bed.



House Sparrow

David Bowman

Dunnock *Prunella modularis*
Amber listed

A common but reclusive resident across the Reserve, often overlooked and under reported. Significant counts over the year generally came from the Common Bird Surveys in spring when males were singing and establishing or maintaining territories. Eleven were observed under the three feeding stations on No.3 bed on 30th January, three pairs and nine birds were recorded singing on No.2 bed on 22nd April, another six were on No.1 bed on the same day and 14 were singing on No.4 bed on 13th May.

A total of 93 Dunnock was caught, which is a third less than the average. Seventy were ringed and 23 re-trapped from previous years, the oldest from 2019. Fifty-four (58%) of the birds caught were juveniles with the first ringed on 26th May. On No.1 bed, of the 15 adult birds caught 12 (80%) were in breeding condition, six females and six males.

Yellow Wagtail
Red listed

Motacilla flava

While these colourful, migrant wagtails breed in small numbers in the surrounding farmland, they have been very scarce on the Reserve for many years, due to the lack of suitable habitat. The creation of more appropriate, open habitat on Nos.1 and 4 beds, however, has produced a noticeable increase in sightings, raising hopes that they may one day return as a breeding species. On 17th April one flew east

over No.1 bed. It was then a bit of a red-letter day on 8th May when, in drizzly conditions, an unprecedented nine were with Pied Wagtails and a Greenland Wheatear on the cleared ground of the developing No.4 bed wetland. On the same morning two were also on an area of cut reed in front of the South Screen on No.3 bed. On 17th July two were again on the No.4 bed wetland, with a single there on 31st of the month. The last sighting came from No.1 bed on 12th August when two, one of which was a juvenile, were on the worked area on the north side of the bed.



Grey Wagtail

David Bowman

Grey Wagtail

Amber listed

Motacilla cinerea

Grey Wagtails are resident breeders and pass through in small numbers during autumn passage. No more than two were seen during the first winter period, with notable sightings including one feeding on Millet seeds at the Sybil Hogg Hide feeding station on 26th January and a male in song at Bollin Point on 25th February. During the breeding season a male was in song at Woolston Weir on 9th May, a pair was feeding at least two young under the No.3 bed Footbridge on 14th May and a pair carried food into a regular nest site under Thelwall Viaduct on 5th June. Return passage was first noted when three flew south over No.1 bed on 14th July. Six then moved south over No.3 bed in an hour and a half on 31st August, with all other maxima coming during Migration Watches from No.1 bed. These included seven on 23rd October, five on 6th November and eight on 11th December.

The ringing teams continue to use tape lures to attract Grey Wagtails in the autumn, though the 13 ringed was the same as the previous year and the joint lowest total since 2015. For No.1 bed it was another poor year with just five ringed. As expected, all were birds of the year and were caught between 27th August and 3rd September. On No.3 bed eight were ringed between 28th August and 26th September, compared with nine the previous year.

Pied Wagtail

Motacilla alba

This sprightly wagtail is resident in small numbers with the odd pair breeding in most years. Numbers can increase significantly during the autumn/winter as there is a southerly movement from Scotland, with sizeable roosts sometimes forming. Equally, during springtime there is a noticeable northward movement which can occasionally include the nominate race *alba*, or White Wagtail, which winters in West Africa and breeds in Iceland.

The cleared ground on No.4 bed, created by construction of the new wetland, proved particularly attractive to this species and all the high counts from early in the year came from there. Eleven were there on 16th February, 15 on 16th March and 20 on 29th April. The only indication of breeding came on 29th April, when a pair was observed entering a regular nest site under the Thelwall Viaduct. One of the most spectacular sights of the spring then came on 8th May when heavy drizzle brought a “mini-fall” on No.4 bed, with 30 Pied Wagtails, including two of which showed characteristics of White Wagtail, alongside nine Yellow Wagtails and two “Greenland” Wheatears. Maxima from the second half of the year started with 12 on No.4 bed on 7th August and 17 on the same bed on 31st of the month. Ten then flew south over No.1 bed during the Migration Watch on 23rd October, with at least 63 leaving a roost in No.3 bed on the 26th of the month and 37 at the same roost on the morning of the 30th. Finally, 35 were flushed from the No.3 bed roost by a hunting Marsh Harrier at dawn on 7th December. One was ringed during the year, a first-year male on No.1 bed on 22nd October. It was the first since 2003 and only the eighth to be caught on the bed since 1995.

Meadow Pipit

Anthus pratensis

Amber listed

This inconspicuous pipit predominantly breeds at higher elevations in the UK, though it will adopt rough land in the lowlands, particularly in coastal areas and has occasionally bred on the Reserve. It is most often seen on passage, with a preponderance of records traditionally coming from No.1 bed. Unusually, ten were feeding in the No.3 bed seed crop on 16th January, with 25 then flying north over No.1 bed on 22nd March and 15 north over the same bed on the 24th. There were no records from the breeding season and return passage was first noticed when three flew south over No.1 bed on 5th August. Twenty passed south over No.1 bed on 15th September, with 25 feeding on the No.4 bed wetland the following day, while later that same day 32 flew south over No.3 bed. A high count of grounded migrants came when 45 were feeding in a small weedy patch by one of the pools on No.1 bed on 18th September. No.1 bed then saw a fairly constant southward passage, with: 75 on 20th September, 50 on the 22nd, 30 on the 24th, 50 on 1st October, 500 on the 4th, 150 on the 6th (a date which also saw 30 move over No.3 bed) and 110 on the 8th of the month.

September is usually the peak month for catching Meadow Pipits and the 41 newly ringed was slightly below the average. It was one of the quieter years on No.1 bed, with 39 ringed, including three in

spring, on 22nd March (2) and 24th March. The next one was on 15th September, but unusually the majority were in October, with the final one on the 18th of the month. Typically, just two were ringed on No.3 bed, on 14th and 18th September.

Tree Pipit

Anthus trivialis

Red Listed

This declining, migratory pipit tends to pass through in early autumn and is, more often than not, discovered in the ringers' nets. There was just one sight record, with one heading south-east over No.3 bed early on 8th September. Three others were ringed, an average total, two on No.1 bed on 23rd August and one on No.3 bed on 28th August.

Chaffinch

Fringilla coelebs

One of our commonest finches and a resident breeder, Chaffinch numbers are swelled by an autumn/winter influx from Fenno-Scandia. Our highest regular counts usually come from No.3 bed, where the combination of seed crop and feeding stations provides a wealth of feeding opportunities. Early peak counts from the bed included 80 on 9th January, 70 on 13th February, 60 on 13th March, with 30 on No.4 bed on the same date and 40 on 16th March. The only breeding information was of three males in song on No.2 bed on 22nd April and two in song from No.4 bed on 13th May. As ever, the year's highest counts came from the post-breeding period, with No.3 bed holding 160 on 14th October. Unusually for No.3 bed, the morning of 26th October saw a southward movement of 180. Such movements are more often observed at the eastern end of the Reserve. The feeding flock in No.3 bed had risen to 200 by the end of November and still held 150 at year end. The year's maximum, though, came during a Migration Watch from No.1 bed on 11th December, when 425 moved south over the morning. This was a morning of large-scale finch movements, with mixed flocks of Chaffinches and Bramblings passing over, many of which were too distant to ascribe to species and so the above figure represents a significant undercount.

The 215 ringed was a disappointing total, given the prevalence of Chaffinches across the Reserve. For No.1 bed, however, it was the best year since 2017 with 119 ringed and a further 10 caught from previous years. The oldest of these was from 1st March 2015 and had not been re-trapped since. Just six were caught in breeding condition, two females and four males, with the first of only three juveniles to be ringed on 21st June. Fortunes were very different on No.3 bed, with 96 ringed. This is the first year since 2005 that fewer than 100 has been ringed and the average is 180. The first juvenile was ringed on the 29th June, a typical date. The seed crop on the north meadow was very poor this year and there were very few birds using it during the late autumn / early winter. Four were re-trapped from previous years, two each from 2019 and 2020 and 16 were aged as 3j indicating local breeding.

Brambling

Fringilla montifringilla

This colourful finch is a passage migrant and winter visitor, occasionally in large numbers as significant influxes can occur when the Beech mast crop fails in Scandinavia. The first winter period was poor by recent standards, with no more than three recorded on many dates through to the last sighting, of one on 23rd April. This was a male in song and as ever males are occasionally seen in song and display

prior to their departure for the breeding grounds. Return passage was first observed when a male was on the Morgan Hide feeders on 12th October. Thereafter it was always possible to locate a few Bramblings around No.3 bed, often alongside the more numerous feeding Chaffinches. Maxima included 61 flying south over the bed on 4th November and 10 around the seed crop on several dates in November, rising to 20 by 23rd December. The year's maximum, though, came during a Migration Watch from No.1 bed on 11th December, when 134 moved south over the morning. This was a morning of large-scale finch movements, with mixed flocks of Bramblings and Chaffinches passing over, many of which were too distant to ascribe to species and so the above figure represents a significant undercount.

Sixteen were ringed, reflecting the relatively small numbers present at both ends of the year. Nine of these were from No.1 bed, the first on 5th November and the final one on 22nd December. The remaining seven from No.3 bed, compared with an average of 37, included one from the first winter period on 27th February. The first three from the second winter period were all ringed on 11th November and the last on 21st December.

Hawfinch

Coccothraustes coccothraustes

Red listed

One, flying over No.3 bed on 14th October was the sole sighting of this scarce visitor.

Bullfinch

Pyrrhula pyrrhula

Amber listed

This attractive but unobtrusive finch is a resident breeder, with numbers swollen in autumn/winter by movements from further afield as they are attracted by rich sources of food, including feeding stations. During January up to 15 were regularly seen using the feeding stations on No.3 bed. Although they were present on all four beds during the breeding season, there was no confirmation of breeding. There were many single-figure counts from the remainder of the year, with a maximum of 12 on No.3 bed on 21st December.

A better sense of the abundance of Bullfinches on the Reserve can be gained from a perusal of the ringing data, with 136 ringed during the year. Even this figure is a long way short of the record 442 from 2017. This can be explained, at least in part, by the management and commercial activity across the Reserve, which is resulting in a return to more open, wetland habitat in areas which were steadily progressing from scrub to woodland. It was another poor year on No.1 bed, with just 43 ringed. A further five were retrapped, all from previous years with the oldest from 1st September 2017. Five were caught in breeding condition, two females and three males, and the first juvenile was ringed on 16th July. Very few (4) new were caught before the beginning of August and the last one of the year was on 8th November. It was similarly poor on No.3 bed, with just 93 ringed against an average of 118 and is the lowest number since the 93 in 2013. The first juvenile was ringed on 26th June which is quite a late date. Of those ringed 47 were juveniles and 37 were retrapped from the previous two years.



Bullfinch

Andy Weir



Greenfinch

David Bowman

Greenfinch
Red Listed

Chloris chloris

Greenfinches are a resident breeder and were once very common in both suburban and rural habitats, though the spread of Trichomonosis has hit the population hard in recent years. In 2020, for example, the only three-figure counts across Cheshire and the Wirral, came from the Reserve, where the high level of supplementary feeding is almost certainly a factor. There were three such counts from No.3 bed during January, with 160 on the 14th, 100 on the 24th and a similar number on the 30th, with 80 still present on 13th March. The Breeding Bird Surveys produced the following maxima of singing males: four on No.2 bed, two on No.3 bed and five on No.4 bed. Post breeding flocks from No.3 bed included: 110 on 2nd November, 120 on the 11th of the month, 100 on the 23rd, 130 on the 30th and 80 still present on 23rd December. The flock of 60, which was in trees on the east bank of No.4 bed on 30th December, had probably been flushed from No.3 bed.

Despite the occurrence of reasonable-sized flocks on No.3 bed, the ringing data indicates a much lower throughput on the bed than for many years. Just 302 were ringed, which is less than half of the previous year's total. On No.1 bed it was another very poor year, the second worst since 1995, with only 111 ringed. A further 12 were processed, nine of which were originally ringed on No.3 bed. Only five were caught in breeding condition, one female and four males, with the first juvenile on 25th June. It was also a poor year on No.3 bed, with just 191 ringed, compared with an average of 342. The first juvenile bird of the year was 29th May, a fairly typical date. Of those ringed 151 were aged as 3j which indicates local breeding.

Linnet
Red listed

Linaria cannabina

Linnets are residents which breed in small numbers and can most often be found in the wide-open spaces of Nos.1 and 4 beds. The highest counts from the early part of the year were 11 on No.3 bed on 2nd January and 15 on No.4 bed on 16th February, increasing to 110 by 13th March. Few breeding records were received, although Linnets are often seen around the largest stands of Gorse around the Reserve during the breeding season. On 22nd April 31 were counted around the various Gorse patches on No.2 bed, with one male in song. On 13th May another was singing heartily in similar habitat on the north bank of the Loop of No.4 bed. The highest post-breeding counts all came during the Migration Watches from No.1 bed, with 165 on 4th September, 158 on 23rd September and 127 on 6th November. The weedy margins of the new wetland on No.4 bed held around 60 on several dates from 14th August through to year end, while the seed crop in No.3 bed attracted just 18 on 2nd November.

The nine ringed during the year was reasonable, compared with three the previous year. On No.1 bed it was the best year since 2012 with seven ringed, all caught near the West Pool between 28th May and 9th July. Six were in breeding condition, three males and three females, while the seventh was a juvenile caught on 21st June. On No.3 bed two were ringed, which is average for this less open bed. The first was on 2nd January and the second on 17th July.

Common Redpoll

Acanthis flammea

One caught on No.1 bed on 22nd March showed characteristics of this species and if accepted will be the eighth such record for the bed.



Lesser Redpoll

David Bowman

Lesser Redpoll

Acanthis cabaret

Red listed

This agile little finch once bred in small numbers but is now a passage migrant and winter visitor. Stands of Alders are often good places to find them as Alder cones are a key food source. Thirty were feeding in the shelter belt on No.3 bed on 2nd January, with 25 in the same area on the 21st of the month. Ten were then on No.1 bed on 28th February, 11 on the same bed on 17th March and a similar number on No.4 bed the following day. Intriguingly, in recent years odd ones have stayed till quite late in the spring, raising hopes that we will see them return as a breeding species. On 22nd April a male was in display flight on No.2 bed, with two more still present in suitable habitat on No.4 bed on 10th May. Return passage was first noted when two flew over No.1 bed on 8th October. Maximum counts were of 31 on No.3 bed on 14th October, followed by 10 on No.1 bed on the 25th of the month and then just single-figure counts through to year end.

With 86 ringed it was an average year for the ringing teams, compared with 116 the previous year. No.1 bed had its best year since 2016 with 56 ringed, while a further two were caught including one from No.3 bed, ringed in 2020 and one ringed elsewhere in Britain. The first of the year was on 26th February, followed by a decent spring passage when 33 were caught up to 12th May. Towards the end of this period seven were caught in breeding condition, one female and six males, possibly indicating local breeding. The first returning individual was caught on 13th October with the final one of the year on

17th November. On No.3 bed 30 were ringed, which is about average. The last one of the spring was ringed on the 1st May and the first of the autumn on 26th October. A British control (ringed at Sandwich Bay) was caught on 24th November, with two prior controls also originating from this site.

Common Crossbill

Loxia curvirostra

This colourful and enigmatic finch breeds in pine forests in the UK, with numbers occasionally supplemented in autumn by the arrival of continental birds. It is a scarce visitor to the Reserve, usually in autumn. Two flying south along the west bank of No.3 bed on 29th March were a surprising spring sighting, while two over No.3 bed on 3rd August and a single over the same bed on the 7th were more typical.



Goldfinch

David Bowman

Goldfinch

Carduelis carduelis

Goldfinches are present all year round, breed in small numbers and form sizable post-breeding and wintering flocks. The highest count from the first winter period was of 70 on No.3 bed on 14th January. There were just two records which were indicative of breeding, with three in song on No.4 bed on 10th April and one in song on No.2 bed on 13th May. Post-breeding flocks of varying size were then encountered across the Reserve from July onwards, with 90 on No.4 bed on 31st of the month, increasing

to 150 by 5th August with another 63 counted on No.1 bed the same date. By 24th August the No.4 bed flock had peaked at around 200 and subsequent maxima came as flocks moved onto No.3 bed in late autumn to take advantage of the seed crop and supplementary feeding. Ninety or so were regularly present on No.3 bed from late October to the end of November, increasing to 130 by mid-December and through to year end.

It was a moderate year for the ringers, with just 26 ringed compared with 61 in 2020, with contrasting fortunes across the two beds. For No.1 bed it was the second-best year since 2009 with 22 ringed, 16 of which were ringed in March. Just one male was caught in breeding condition and the first juvenile was ringed on 25th August. The No.3 bed team ringed just four, compared with 59 the previous year. The average for the bed is 13.7, a figure inflated by two exceptional previous years.

Siskin

Spinus spinus

This small, colourful finch is a passage migrant and winter visitor, usually in small numbers, though some years do see a notable influx. There was only one sight record from the early part of the year, of two at Bollin Point on 11th January. Very little spring passage was then noted with no more than two passing over on seven dates between 5th March and 11th May. The early stage of return passage was again light, with just one or two seen on four dates between 2nd August and 24th September. While there were subsequently a few high single-figure counts through to year end, two dates produced more notable totals. On 26th October 63 flew south over No.3 bed during the morning, with a similar movement of 97 over the same bed on 4th November.

Unusually, a single female was ringed on No.3 bed on 6th November. The species is very rarely ringed on this bed, despite being seen frequently in the autumn and winter, with the odd ones more usually ringed on No.1 bed, which this year drew a blank.

Yellowhammer

Emberiza citrinella

Red listed

There were just five sightings of this uncommon visitor, which breeds in small numbers adjacent to the eastern end of the Reserve. Singles were at Bollin Point on 16th February, on No.1 bed on 2nd March, at Bollin Point on 30th March and a male in song to the south of Bollin Point on 20th August. Finally, five were disturbed feeding together in weedy cover around the North Pools on No.1 bed on 18th September.

For the second successive year none was ringed.

Reed Bunting

Emberiza schoeniclus

Amber listed

After a decline in the 1970s Reed Buntings have made a partial recovery in recent years. On the Reserve they have undoubtedly benefited from the combination of increased winter ground-feeding and the extension of wetland habitat via the new wetland on No.4 bed and the chain of new pools on No.1 bed. The seed crop and various feeding stations on No.3 bed produced the highest counts during the first

winter period, all from January, with 34 on the 3rd, 21 on the 9th and 30 on the 12th. Unfortunately, for various reasons, our Breeding Bird Surveys were less extensive this year, making comparisons with previous years difficult. The only counts of singing males received were of six on No.4 bed and two on No.2 bed. The only other indications of breeding came when a nest with three eggs was found on No.4 bed on 20th May, though this was subsequently predated. Maximum counts from the second half of the year were of 17 flushed from shallow flooded vegetation on the new No.4 bed wetland on 16th September, 14 on No.3 bed on 19th October and two roost counts from No.1 bed, of 20 on 17th November and 50 on the 19th of the month. Ten were still present on No.4 bed on 30th November, again flushed from the margins of the new wetland.

From a ringing perspective it was an average year, with 146 ringed. On No.1 bed 85 was the lowest total since 2015. A further 39 were caught that had either been ringed in an earlier year or in another part of the UK. There were 15 captures in breeding condition, three females and 12 males, but no juveniles were caught, with the first 'bird of the year' trapped on 4th October. While it was an excellent spring with 58 ringed before the end of April, there was then a lull with just four ringed until September and none after 24th November. On No.3 bed 61 were ringed, a little above the average of 55, with the first juvenile on the 27th August. The poor winter crop on the North Meadow resulted in just 27 being ringed in the autumn/second winter period. Just two recently fledged juveniles were ringed, indicative of local breeding.



Reed Bunting

David Bowman

WeBS COUNTS 2021

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).

Note: There were no counts in January and February due to COVID lockdown.

	Mar	Apr		Sept	Oct	Nov	Dec
Little Grebe	14	37		15	16	16	10
Great Crested Grebe	9	34		10	1	3	6
Black-necked Grebe	4	23		0	0	0	0
Cormorant	11	14		9	11	4	17
Mute Swan	26	51		23	22	32	25
Grey Heron	5	3		10	8	1	5
Little Egret	0	0		0	0	1	0
Shelduck	8	17		0	0	0	4
Pink-footed Goose	0	0		0	0	150	0
Greylag Goose	2	14		86	0	195	38
Canada Goose	50	62		54	67	103	59
Wigeon	0	0		11	18	7	0
Gadwall	68	130		175	194	107	135
Teal	46	30		242	286	174	923
Mallard	85	76		68	221	180	163
Pintail	0	0		1	0	0	3
Shoveler	67	27		83	148	97	58
Pochard	81	25		2	0	0	1
Tufted Duck	251	203		87	43	185	358
Scaup	2	0		0	0	0	0
Mandarin Duck	2	0		1	0	0	0
Goldeneye	3	0		1	0	3	2
Goosander	2	0		0	0	0	0
Water Rail	1	4		0	4	3	2
Moorhen	12	25		22	21	34	39
Coot	77	63		227	146	94	91
Kingfisher	0	1		3	4	0	1
Oystercatcher	2	2		0	0	0	0
Lapwing	10	12		55	3	150	0
Golden Plover	0	0		0	0	5	0
Ringed Plover	0	1		0	0	0	0
Little Ringed Plover	0	2		0	0	0	0
Curlew	0	0		1	0	0	0
Black-tailed Godwit	0	0		0	2	0	0
Woodcock	0	0		0	0	5	1

Jack Snipe	0	1		0	1	10	4
Snipe	33	1		8	89	16	0
Green Sandpiper	0	0		3	1	0	0
Kittiwake	1	0		0	0	0	0
Black-headed Gull	328	344		21	100	230	110
Mediterranean Gull	3	0		0	0	0	0
Common Gull	6	1		0	0	0	3
Great Black-backed Gull	0	0		1	0	0	0
Herring Gull	5	4		0	0	0	12
Lesser Black-backed Gull	7	44		10	0	4	0

WOOLSTON EYES RINGING REPORT 2021

Ringling operations in 2021 were carried out in two areas of the Reserve: the east end of No.1 Bed and the centre of No.3 Bed. For the second year in succession, ringling was suspended during a lockdown. No ringling took place between January 6th and February 10th. Ringling totals are usually low during this period of the year and the only activity severely affected was the operation of the fixed Duck Trap on No.3 Bed. For part of the year ringling took place on No.1 Bed in an area different to those used in recent years but there is no evidence that the comparability of results was materially impacted.

The year ended with 4,351 of 55 species ringed. This represents a reduction of 15% when compared with 5,137, also of 55 species, ringed in 2020. It is salutary to recall that over 7000 were ringed in 2019. It is necessary to go back to 2012 to find a lower ringling total than 2021, though the year turned out very differently on the two beds. On No.1 Bed, despite the disruption referred to above, the team ringed nearly 350 more in 2021 than in 2020. By contrast, on No.3 Bed, totals were over 1,100 lower than the previous year. There are a number of different factors at play and some of these are referred to in the following text. One of these factors is ringling effort. On No.1 Bed ringling took place on 98 days in 2021 compared with 80 days in 2020. On No. 3 Bed there was a small reduction from 86 days in 2020 to 79 days in 2021. Additionally, on No.3 Bed the ringling team is smaller than it has been in recent years meaning that fewer nets can be deployed on any given visit.

In the first winter period of 2021 operation of the fixed Duck Trap on No.3 Bed started on 20th February, at the end of lockdown. Between then and 3rd April 43 Teal were ringed. In the second winter period water levels never became high enough to run the trap. This is the second year running that operation in the second winter period has been severely compromised by lack of water and 2021 was the worst year for Teal ringed since the trap began operation in late 2014. There were just 19 different Teal re-trapped from previous years after 34 in 2020. The two oldest re-trapped were both ringed in 2016 and, unusually, neither was encountered again until this year. Although totals were low it is still surprising that there were no “multiple-year returners” trapped. Eight Woolston Teal were reported as shot, a fairly typical number. One of these was in Denmark and two in France. The two Mallards that found their way into the trap was about average. In the first two years of operation, the trap caught 44 different Mallards but the average of the six years since is just three. It may be that these are resident birds and they have become wary of the trap.

A combination of the Duck Trap and the opportunistic deployment of Potter Traps accounted for three Water Rails, and 14 Moorhens. Two of the Water Rails were ringed on No.1 Bed, the first there since 2018. Although three Coots were trapped they had all been ringed in 2020.

The only raptors ringed in 2021 were three Sparrowhawks, all male, with two on No.1 Bed and one on No.3 Bed. The ten-year average before 2020 is five point seven.

On No.3 Bed the seasonal net across the channel by the Duck Trap was deployed on just two occasions as the water levels were too high in early autumn to allow it to be used. Just two captures were made, a Wren and a Green Sandpiper, the target species. This is after eight Green Sandpipers in 2020. The Green Sandpiper was still present at year-end. Whilst this was a particularly poor result, it is to be expected that the number of Green Sandpipers appearing on No.3 Bed will decline as the new wetland on No.4 Bed becomes increasingly attractive to waders. A Green Sandpiper ringed as a juvenile in 2018 was re-sighted on August 15th at the Wildfowl and Wetlands Trust Reserve at Slimbridge in Gloucestershire.

Five Woodpigeons were ringed in 2021, a typical figure although 2020 was a blank year. Two Stock Doves is an improvement over one in 2020 but well below the average in recent years. As was mentioned in last year's report, the most favoured net for this species on No.3 Bed is now rarely used. Four Tawny Owls were ringed on No.3 Bed, an adult female and her three chicks which subsequently fledged successfully. The five Kingfishers ringed across the Reserve is the lowest total since 2015. Three of these were juveniles indicating some local breeding success. On No.3 Bed, Kingfishers are caught in the net set for Green Sandpipers so the inability to use this net will have been a factor in the low number caught. Twenty-two Great Spotted Woodpeckers were ringed, in line with the average of the years since the population crash in 2015. Of these 12 were aged as juveniles. Six Magpies were ringed, a typical figure but, unusually, one of these was ringed on No.1 Bed. On No.3 Bed they tend to enter traps set for Moorhens. The 14 Jays ringed is the highest number since 2016 but only three of these birds were aged as juveniles. A Jay, caught in a trap set for Moorhens on No.3 Bed on 18th November, had been ringed as an adult female on 22nd July 2011 and not re-encountered in the intervening ten years. It was at least 12 years old when trapped. The same traps accounted for a juvenile Carrion Crow, just the second for No.3 Bed and the 18th for Woolston.

In recent years the number of Goldcrests ringed at Woolston has increased greatly as a result of sampling the autumn influx of continental birds, principally on No.1 bed. The 207 Goldcrests ringed in 2020 was an improvement on 164 in the previous year but the five-year average is 353. Of that 207, 164 were caught in the period from the beginning of September to the end of November and will include numbers of the continental birds referred to above.

Both Blue Tits and Great Tits had another modest breeding season in the nest boxes with 137 chicks ringed on No.3 Bed (2020-134, 2019-173, 2018-163). In terms of numbers ringed, it was an average year for Great Tits but the number of Blue Tits ringed on No.3 Bed was 85 fewer than in 2020. Given that the number of chicks ringed in the nest boxes was in line with the previous year, these "missing" birds were juveniles that should have fledged in the surrounding gardens and moved onto the bed as they dispersed. Their absence implies a poor breeding season in the local area. The BTO preliminary assessment of the 2021 breeding season (BPA) reports significant reduced productivity for both these species and, yet again, Woolston's breeding experience bucks this trend and appears insulated to some degree from adverse effects in the wider countryside. After a period of rapid growth, the number of Coal Tits ringed appears to be levelling off with 24 compared to 23 in 2020 and 27 in 2019.

After a very poor year in 2020 when only 14 Willow Tits were ringed, the 24 in 2021 would appear to be an improvement. However, the average for the four years to 2019 was 38. There were 16 juveniles amongst the 24 ringed. At first sight, just five juveniles on No.3 Bed appears very poor but habitat succession made it impossible to deploy nets in some areas where Willow Tits have traditionally been encountered so this may be impacting catches. Just eight different birds were re-trapped meaning 32 different Willow Tits were handled during the year, an improvement over 24 in 2020. The equivalent figure for 2019 was 50 and for 2018 it was 54. The BPA reports a 28 per cent reduction in adult abundance and a 42 per cent reduction in productivity.

For the second year running, no hirundine roost formed on either bed in the autumn and only three Swallows were ringed. However, in an event unprecedented at Woolston, a pre-breeding roost of several hundred Sand Martins formed on No.3 Bed in late April. On the evening of 23rd April a catch was taken totalling 132, including one British and one French control. Unlikely as it may seem, 2021 becomes the record year for Sand Martins at Woolston with the 132 ringed (including two on No.1 Bed)

eclipsing the 97 ringed back in 1994. After 106 Long-tailed Tits ringed in 2020 an essentially identical 107 were ringed in 2021. The four-year average up to 2019 is 165 and it appears that populations may be stabilising at a lower level.

A total of 1,522 warblers of ten species was ringed in 2021 compared with 1,906 of eleven species in 2020. For Cetti's Warbler the BTO preliminary assessment (BPA) quotes a 33% increase in adult abundance and a 20% decline in productivity. This confirms the impression gained last year that this species is reaching "density dependence" where competition between nesting attempts is reducing breeding success. I say "nesting attempts" rather than "pairs" because males are polygamous and may be paired with more than one female. At Woolston 27 Cetti's Warblers were ringed and totals for the last four years now read 28,24,29 and 27 implying that a "steady state" has been reached. The "missing species" compared with 2020 was Yellow-browed Warbler which is not annual at Woolston. The BPA confirms that it was a poor breeding season for all our migrant warblers. In the case of Common Whitethroat, this serious decline in productivity is offset by positive changes in adult abundance and post-fledging survival but no such positive trends are shown for the other *Sylvia* warblers. The 415 Blackcaps ringed was the lowest since 2008. For the second year running there was no sign of a significant arrival of passage migrants in September. It was a similar story for Garden Warbler with the 13 ringed, after 72 as recently as 2018, the worst return since 2002. As implied by the trends in the BPA referred to above, Common Whitethroat was the exception and 83 were ringed, in line with the five-year average of 84. Lesser Whitethroats are birds of hedgerows and not common on the areas of the Reserve where ringing takes place. Just three were ringed, the same as in the previous year. All were from No.1 bed. This is the first blank year on No.3 Bed since 2014.

For *Acrocephalus* Warblers the BPA shows a significant negative change in productivity from 2020 and this was certainly the case at Woolston. With just 328 birds ringed, Reed Warblers had their worst year since 2001 and the 44 Sedge Warblers ringed was the lowest total since 2012 and a long way below the ten year average of 111.

For *Phyloscopus* warblers the same negative change in productivity is apparent in the BPA. In the case of Willow Warbler, it is necessary to go back to 1985, when David Norman was the only ringer at Woolston, to find a lower annual total ringed than the 100 in 2021. This species is very much associated with No.1 Bed and it may be that habitat change on that bed is exacerbating the decline of Willow Warbler as a breeding species. Chiffchaff bucked the trend, with 484 ringed, in line with the ten year average of 470. It was a particularly good year for this species on No.1 Bed, which may be the "flip-side" of the habitat change referred to above. Finally, amongst the migrant Warblers, three Grasshopper Warblers were ringed, which is also the ten-year average, all of which were adults.

If there is a "silver lining" in this generally depressing picture of our migrant warblers it is that the clear cause was a poor breeding season. The impact of this can swiftly be reversed in multi-brooded species just so long as the 2022 breeding season is a good one.

The following comments concerning first juveniles are drawn from the combined experience on the two beds. The first ringing dates for juveniles indicate that for resident species the timing of their breeding season was in the normal range despite the cold dry April and the cold wet May.

Ringling date of first juvenile

	2021	2020	2019	2018
Robin	27-May	25-May	07-May	26-May
Wren	04-Jun	09-Jun	09-Jun	22-Jun
Dunnock	26-May	22-May	11-Jun	08-Jun
Bullfinch	18-Jun	07-Jun	23-May	29-Jun

In the case of our migrant warblers the following table of “first juvenile” dates indicates that, with the exception of Chiffchaff, a short distance migrant, the timing of the breeding season was the latest in recent years confirming, the impression on the ground that most migrants were late coming back and that conditions were not favourable when they arrived.

Ringling date of first juvenile

	2021	2020	2019	2018
Chiffchaff	28-May	26-May	31-May	13-Jun
Blackcap	17-Jun	07-Jun	09-Jun	02-Jun
Whitethroat	26-Jun	16-Jun	09-Jun	23-Jun
Reed Warbler	26-Jun	16-Jun	22-Jun	23-Jun

Amongst the resident species, Wrens and Robins were ringed in numbers similar to 2020 which was, itself, below average. The 70 Dunnocks was the lowest total since 2015. The BPA shows a significant negative productivity trend for all three species, and it seems likely that some early nesting attempts failed in the adverse weather conditions. For several years Treecreepers have been increasing, if ringing records are the guide, but in 2020, a total of 19 were ringed, the lowest number since 2016. A further decline occurred in 2021 to just 14 ringed. Nuthatch has been annual in the ringing totals since 2016 and is now expected in small numbers. The five ringed included two on No.1 Bed, only the third year since 1995 that a “double” has been recorded on this bed.

The total of 70 Blackbirds ringed was a recovery from 54 in 2020 but still below the ten year average of 77. Blackbirds were caught in particularly low numbers on No.3 Bed where the first juvenile was not caught until 31st July. The BPA shows a productivity decline of 36% for this species and, again, it seems that early nests failed in the hostile weather conditions. It was the same picture for Song Thrush with the equivalent figures being 31 in 2021 and 25 in 2020 with a ten-year average of 39. As with Blackbird, the poor returns were concentrated on No.3 Bed with No.1 Bed having a reasonable year. The BPA shows a negative productivity trend of 24% for Song Thrush. Redwings are an irruptive species with numbers arriving varying from autumn to autumn. With 112 ringed, the year was below the ten year average of 145.

The 41 Meadow Pipits ringed was a typical recent number but three of these were caught in spring on No.1 Bed, which is less usual. For the second year running, three Tree Pipits were caught on passage

in August. One of these was caught on No.3 Bed where this species is less than annual. Thirteen Grey Wagtails were ringed, the same as in 2020 but below the annual average of 19 for the years since we started using the new audio lure. A first-year male Pied Wagtail, caught on No.1 Bed on 22nd October, was the first on the bed since 2003 and just the third for Woolston in the same period.

Of the eight species of finch that appear regularly in the Woolston ringing report six were caught in numbers lower than 2020 and below their respective ten-year averages. The 215 Chaffinches ringed was the lowest total since 2004 but this poor result was very much a “game of two halves”. On No.1 Bed it was the best year since 2017 whilst on No.3 Bed it was the first year since 2005 that the total did not reach 100. In part this poor result reflects the fact that the sacrificial crop on the bed grew very poorly in 2021. In a good year up to 100 mixed finches and Reed Buntings are caught in two-shelf nets placed through the crop in early winter. In 2021 these nets caught just a single Reed Bunting which was already ringed. It is probably unhelpful to compare the 302 Greenfinches ringed with a ten year average as we adjust our expectations to a “new normal” given the endemic nature of trichomonosis. However, this figure is less than half the 617 ringed in 2020. The BPA shows a 35% negative change year-on-year in adult abundance, and it is difficult to predict where the decline of Greenfinches at Woolston will stop. Likewise, Bullfinches, for which Woolston has been a stronghold, were caught in the lowest numbers since 2008. The BPA reports modest declines in both adult abundance and productivity for this species.

In the case of Goldfinch, 26 were ringed and this represents a return to an average catch after two exceptional years triggered by an eruption of thistles on No.3 Bed, which has not been repeated. Siskins are never caught in numbers and just two were caught, one on each bed. The Siskin on No.1 Bed had been ringed in Shropshire. It was an average year for Lesser Redpolls with 86 ringed compared to a ten year average of 84. On 22nd March, a Redpoll was caught on No.1 Bed considered to be of the race *flammea* (“Common Redpoll”). Currently accepted as a full species, there is speculation that this race, together with *cabaret* (“Lesser Redpoll”) and *exilipes* (Coues’s Arctic Redpoll”) will soon be “lumped” into a single species. For the present this is the ninth Common Redpoll for Woolston. It was a reasonable year for Reed Buntings with 146 ringed the ten year average being 149.

It was another modest year for individual species milestones with just the 14,000th Blackcap and 10,000th Chiffchaff. Amongst the comparative scarcities, we ringed our 400th Great Spotted Woodpecker, 300th Coal Tit, 150th Grey Wagtail and 50th Green Sandpiper. No new species were ringed in 2021 so the number of different species ringed at Woolston remains at 112.

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

Michael Miles on behalf of the ringing team (John Blundell, Kieran Foster, Rebecca Jones, Dan Owen, and David Riley)

RINGING TOTALS 2021

			Reserve Total	Grand Total
SPECIES	No.1	No.3	2021	1980-2021
Teal		43	43	911
Mallard		2	2	98
Sparrowhawk	2	1	3	142
Water Rail	2	1	3	105
Moorhen		14	14	344
Green Sandpiper		1	1	50
Snipe*			6	66
Stock Dove		2	2	83
Woodpigeon	2	3	5	144
Tawny Owl		4	4	22
Kingfisher	3	2	5	155
Great Spotted				
Woodpecker	7	15	22	416
Magpie	1	5	6	157
Jay	7	7	14	390
Carrion Crow		1	1	18
Goldcrest	171	36	207	3800
Blue Tit	175	175	350	12813
Great Tit	119	178	297	8482
Coal Tit	14	10	24	301
Willow Tit	15	9	24	926
Sand Martin	2	130	132	1440
Swallow		3	3	14643
Cetti's Warbler	6	21	27	175
Long-tailed Tit	63	44	107	4532
Chiffchaff	358	126	484	10334
Willow Warbler	74	26	100	8687
Blackcap	204	211	415	14025
Garden Warbler	5	8	13	1081
Lesser Whitethroat	3		3	281
Whitethroat	21	62	83	5445
Grasshopper Warbler	1	2	3	209
Sedge Warbler	13	53	66	5756
Reed Warbler	82	246	328	13362
Nuthatch	2	3	5	28
Treecreeper	7	7	14	336
Wren	56	66	122	6669
Blackbird	42	28	70	3071
Song Thrush	20	11	31	1423
Redwing	24	88	112	1811
Robin	67	67	134	5356
Dunnock	23	47	70	4350

Grey Wagtail	5	8	13	150
Pied Wagtail	1		1	46
Tree Pipit	2	1	3	53
Meadow Pipit	39	2	41	1158
Chaffinch	119	96	215	6863
Brambling	9	7	16	938
Greenfinch	111	191	302	17997
Goldfinch	22	4	26	970
Siskin		1	1	91
Linnet	7	2	9	1143
Common Redpoll	1		1	10
Lesser Redpoll	56	30	86	2411
Bullfinch	43	93	136	4229
Reed Bunting	85	61	146	7823
Others (57 species).				1952
Totals	2091	2254	4351	178270

*Six Snipe were 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 ('re-trapped') on the Reserve this year, some of them having undertaken long journeys in between ringing and recapture, and these all add to our knowledge of migration, survival/ mortality and longevity, habitat use and so on.

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

- 1 Pullus (nestling or chick)
- 1J Fledged, but flying so weakly that it is obviously incapable of having flown far from nest.
- 2 Fully grown – year of hatching unknown
- 3 Definitely hatched during the calendar year of ringing
- 3J Definitely hatched during the calendar year of ringing and still completely or partially in juvenile body plumage
- 4 Hatched before calendar year of ringing – exact year unknown
- 5 Definitely hatched during previous calendar year
- 6 Hatched before last calendar year – exact year unknown

Sex, when determined at time of ringing or finding:

- M Male
- F Female

Circumstances of finding:

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

Shelduck

GV79271 4M 19/11/2018 Martin Mere Swan Pipe, Lancashire,
VV 27/03/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 35KM 139°
This is the first Shelduck to have a ring read at Woolston

Teal

EA68640 4F 19/12/2020 Woolston Eyes No 3 Bed, Warrington, SJ6501288024
+F 02/10/2021 Svinø, Lundby, Storstrøm, Denmark, 944KM 79°

Denmark is a major source of ring returns for Woolston Teal. Whether this is because many are shot there or because the Danes are meticulous in reporting rings is not clear.

Teal

EZ69692 6M 17/02/2018 Woolston Eyes No 3 Bed, Warrington, SJ6488
+F 30/12/2019 Saint-Andre-Des-Eaux, Loire-Atlantique, France 677KM 179°

A late return.

Teal

EZ90907 6M 24/03/2018 Woolston Eyes No 3 Bed, Warrington, SJ6488

+F 27/01/2021 Graignes-Mesnil-Angot, Manche, France, 472KM 169°

Maybe these Teal change wintering areas from year to year or maybe they pass through Woolston to and from wintering areas further south.

Teal

EA32266 4F 29/11/2019 Woolston Eyes No 3 Bed, Warrington, SJ6488

+F 02/01/2021 High Leigh, Cheshire, SJ7083 8KM 142°

Teal

EA32136 5M 18/01/2020 Woolston Eyes No 3 Bed, Warrington, SJ6488

+F 02/01/2021 Little Leigh, near Northwich, SJ6175 14KM 199°

Teal

EZ69736 3F 27/12/2017 Woolston Eyes No 3 Bed, Warrington, SJ6488

+F 02/01/2021 Crowley Hall, Arley, Cheshire, SJ6782 8KM 164°

Teal

EZ69669 6F 06/01/2018 Woolston Eyes No 3 Bed, Warrington, SJ6488

+F 02/01/2021 Chorley, Cheshire, SJ5751 38KM 192°

The amount of wildfowling that takes place close to the Reserve is clear.

Teal

EA68533 6M 08/02/2020 Woolston Eyes No 3 Bed, Warrington, SJ6488

+F 09/01/2021 Anglers Country Park, Wakefield, West Yorkshire, SE3715 77KM 71°

It seems unlikely that this Teal was shot in the Country Park. It may have been found dead there showing evidence of being shot elsewhere.

Green Sandpiper

NV38191 3 07/08/2018 Woolston Eyes No 3 Bed, Warrington, SJ6488

VV 15/08/2021 Slimbridge, WWT Reserve, Gloucestershire, SO7205 184KM 178°

This is the most distant recovery of a Woolston ringed Green Sandpiper.

Black-headed Gull

EZ70644 6 11/03/2017 Pitsea Landfill Site, Essex,

RR 10/02/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 290KM 316°

Black-headed Gull

EG50631 4 06/12/2020 Arnside, Cumbria, SD4578

VV 20/03/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 92KM 167°

VV 31/03/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 92KM 167°

Mediterranean Gull

3749264 1 19/06/2020 De Kreupel Island, Ijsselmeer, The Netherlands

VV 27/04/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 521KM 278°

Lesser Black-backed Gull

GA32636 1 21/07/2007 Banks Marsh, Ribble Estuary, Lancashire,

RR 13/02/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 44KM 144°

Four examples of Gulls sitting in front of the Morgan Hide and having their colour rings read.

Although the Lesser Black-backed Gull would seem a good age at thirteen years plus the BTO longevity record for this species is over thirty four years.

Sand Martin

8905599 3 24/08/2020 Chenal, Chenac-Saint-Seurin-d'Uzet, Charente-Maritime, France

R 23/04/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 885km 353°

One of the notable events of 2021 was the formation of a short-lived pre-breeding roost of Sand Martins on No.3 Bed. This bird was on its first southerly migration when ringed in France.

Sand Martin

AHE6233 3J 12/07/2019 Mill End Farm Sand Quarry, Cheshire,

R 23/04/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 30KM 309°

Sand Martin

ALK4882 4 23/04/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488

R=M 28/06/2021 Mill End Farm Sand Quarry, Cheshire, SJ8870 30KM 129°

R=M 08/07/2021 Mill End Farm Sand Quarry, Cheshire, SJ8870 30KM 129°

These two exchanges give a clue as to the breeding site of at least some of the Sand Martins involved in the roost.

Goldcrest

LBH925 3M 14/11/2020 Woolston Eyes No 1 Bed, Warrington, SJ6688

R 21/02/2021 Weaver Valley SBI, SJ6568 21KM 183°

Chiffchaff

JHX836 3J 21/06/2017 Woolston Eyes, Warrington, SJ6788

R 17/03/2021 Upton upon Severn Sewage Farm, Worcestershire, SO8440 150KM 174°

Chiffchaff

KHV430 3J 02/09/2018 Woolston Eyes No 3 Bed, Warrington, SJ6488

R 09/03/2021 Gatehouse, Lake Road, Portishead, North Somerset, ST4677 212KM 185°

Willow Warbler

LBJ857 4 12/09/2020 Woolston Eyes No 3 Bed (No3 Bed), Warrington,

SJ6488 R 10/07/2021 Brora, Sutherland, Highland, 520KM 351°

This Willow Warbler was probably migrating south from a Scottish breeding area when ringed on No.3 Bed.

Willow Warbler

KJB958 3J 20/07/2018 Durlston Country Park, Dorset, SZ0377

R=F 08/07/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 314KM 353°

Blackcap

8358573 3M 17/09/2018 Marais de Pampin, La Rochelle, Charente-Maritime, France

R 17/06/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 808KM 354°

Sedge Warbler

AXL2617 3 22/07/2020 Nanjizal, Lands' End, Cornwall, SW3523

R 24/04/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 432KM 31°

The very prolific site at Nanjizal traps hundreds of Sedge Warblers per year but connections with Woolston are uncommon implying that Woolston birds follow a more easterly path on migration which conforms with other ringing recoveries.

Sedge Warbler

8660306 3 15/08/2018 Mars-Ouest, Sant-Philbert-de-Grand-Lieu, Loire-Atlantique, France

R 27/05/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 699KM 356°

This Sedge Warbler was also controlled at Woolston in 2019 and 2020.

Reed Warbler

ALK4065 3J 30/08/2020 Woolston Eyes No 3 Bed, Warrington, SJ6488

R=F 29/06/2021 Middleton Nature Reserve, Lancashire, SD4159 75KM 341°

Reed Warbler

ALK5191 4 26/06/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488

R=F 02/08/2021 Rostherne Mere, Knutsford, SJ7483 11KM 111°

Reed Warbler

AXC4387 3J 20/08/2018 Woolston Eyes, Warrington, SJ6688

R 03/08/2021 Titchfield Haven National NR, Hampshire, SU5302 300KM 164°

Reed Warbler

ALK2380 3J 17/07/2020 Woolston Eyes No 3 Bed, Warrington, SJ6488

R 10/08/2021 Titchfield Haven National NR, Hampshire, SU5302 300KM 164°

Reed Warbler

AXC4255 3J 06/08/2018 Woolston Eyes, Warrington, SJ6688

R 03/08/2021 Titchfield Haven National NR, Hampshire, SU5302 300KM 164

Three Woolston-ringed Reed Warblers were caught in the space of eight days at Titchfield Haven emphasising the south-easterly movement of many of Woolston's migrating warblers. It is unusual to have a year without an exchange with the Atlantic coast of France.

Redwing

RZ39643 4 18/11/2017 Woolston Eyes No 3 Bed, Warrington, SJ6488

XF 18/03/2021 Milton Green, Cheshire, SJ4758 36KM 208°

This is just the second U.K. recovery of a Woolston –ringed Redwing after a bird trapped in Yorkshire in 2017.

Greenfinch

NZ34617 3F 06/011/2017 Woolston Eyes No 1 Bed, Warrington, SJ6688

R 15/02/2021 Handforth, Wilmslow, Cheshire, SJ8683 21KM 106°

Greenfinch

TY15469 3JF 12/09/2020 Woolston Eyes No 3 Bed Warrington, SJ6488

XF 05/05/2021 Bruche, Warrington, SJ6289 4KM 270°

Greenfinch

TY15502 4M 19/09/2020 Woolston Eyes No 3 Bed (No3 Bed), Warrington, SJ6488

XF 01/07/2021 Sandyway Farm, Wincle, Macclesfield, SJ9567 38KM 127°

Siskin

APR9022 5F 15/03/2021 Market Drayton, Shropshire, SJ6733

R 30/08/2021 Woolston Eyes, Warrington, SJ6788 56KM 0°

The last “control” Siskin, ringed elsewhere in Britain, was re-trapped at Woolston on January 1st 2002.

Lesser Redpoll

ALK4322 3 29/09/2020 Woolston Eyes No 3 Bed, Warrington, SJ6488

R 07/02/2021 Great Warford, Cheshire, SJ8077 20KM 126°

Lesser Redpoll

Y328303 3 27/10/2017 New Barn Farm, Clouds Hill, Dorset, SY5982

R 14/04/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 306KM 1°

Lesser Redpoll

AYP9201 3 25/10/2020 Hatfield Moor, South Yorkshire, SE7006

R 30/04/2021 Woolston Eyes, Warrington, SJ6788 104KM 261°

Reed Bunting

ATD3145 5M 14/01/2019 Woolston Eyes No 1 Bed, Warrington, SJ6788

R 07/12/2020 Moss Brow Farm, Warburton, Greater Manchester, SJ7089 4KM 91°

Reed Bunting

AYL5302 4F 24/12/2020 Moss Brow Farm, Warburton, Greater Manchester, SJ7089

R 10/04/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 6KM 270°

R 09/05/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488 6KM 270°

Reed Bunting

AYL5360 6F 01/01/2021 Lostock Woodford, Poynton, Cheshire, SJ9083

R 09/07/2021 Woolston Eyes, Warrington, SJ6788 24KM 284°

Reed Bunting

ALK4722 4F 27/02/2021 Woolston Eyes No 3 Bed, Warrington, SJ6488

R 22/03/2021 Manor House farm, Dunham Town, Gr Manchester SJ7388 8KM 91°

Reed Bunting

AYH3725 3M 21/10/2019 Woolston Eyes, Warrington, SJ6788

R 18/06/2021 Rostherne Mere, Knutsford, SJ7484 8KM 120°

The exchange of Reed Buntings with sites to the south and east of Woolston operated by South Manchester Ringing Group has become a standard feature of winter ringing.

MIGRATION WATCH 2021

Visit 1

Participants David Bowman and Dave Steel

Day Thursday

Date 05/08/21 **Time** 0630-1030

Weather Red dawn, bright and fresh

Highlights Watching small numbers of all three hirundines trickling south, signalling the end of another breeding season.

Total 946

Visit 2

Participants David Bowman and Dave Steel

Day Saturday

Date 04/09/21 **Time** 0630-1200

Weather Overcast throughout with a light north-easterly breeze.

Highlights The grey sky seemed to offer an opportunity for us both to sadly reflect on the lack of birds compared to our early years of birdwatching, today being an example of that. Happily, our spirits lifted when an Osprey wandered by!

Total 1,863.

Visit 3

Participants David Bowman, Daniel Owen and Dave Steel

Day Saturday

Date 22/10/21 **Time** 0730-1200

Weather Grey cloud, brighter by mid -morning, south-easterly breeze

Highlights The almost constant movement of Woodpigeons throughout the morning, the Pink-Footed Geese raising the hairs on the back of my neck as once more that special flight from the Icelandic freeze to our Gulf Stream blessed shores digs deep into our ancestral past.

Total 12,197

Visit 4

Participants David Bowman, Dave Steel and Helen Allen

Day Saturday

Date 06/11/21 **Time** 0700-1200

Weather Dry, grey broken cloud, some brighter spells and a light southerly.

Highlights Seeing the delight on Helen's face when she flushed three Jack Snipe near to where we were based. Combining this Watch with the monthly Wildfowl Count. The joy in seeing a combined total of over 3,700 Redwings and Fieldfares on their migration into the UK and finally, scoffing Sue Haddocks wonderful Parkin Cake!

Total 9,083

Visit 5

Participants David Bowman, Helen Allen, Daniel Owen and Dave Steel

Day Saturday

Date 11/12/21 **Time** 0800-1030

Weather Pink-skied dawn, followed by grey sky with a cool southerly breeze.

Highlights The southerly movement of finches at start of the Watch. The guaranteed thrill from watching Pink-footed Geese skeins moving across the sky. The choc chip biscuits made by Helen and the innovation of retreating before the rain swept in!

Total 8,072

Migration Watches 2021

Date	05/08/21	04/09/21	23/10/21	06/11/21	11/12/21
Time	0630-1030	0630-1200	0730-1200	0700-1200	0800-1030
Species					
Mute Swan		0	4	8	0
Pink-footed Goose	0	0	2022	670	1612
Greylag Goose	0	80	98	110	0
Canada Goose	34	6	51	115	6
Wigeon	0	0	0	3	0
Gadwall	0	0	10	29	0
Teal	0	0	0	0	7
Mallard	3	81	83	141	9
Pochard	1	5	2	0	0
Tufted Duck	0	0	15	85	70
Goldeneye	0	0	0	3	0
Mandarin Duck	0	0	20	0	0
Grey Partridge	0	0	0	2	0
Pheasant	0	3	0	2	1
Great Crested Grebe	0	0	0	3	0
Little Grebe	0	0	0	4	0
Cormorant	15	7	20	12	26
Grey Heron	2	3	5	2	0
Osprey	0	1	0	0	0
Marsh Harrier	1	0	1	0	0
Sparrowhawk	0	1	0	1	2

Common Buzzard	3	8	8	5	0
Kestrel	1	4	2	1	0
Peregrine Falcon	0	1	0	1	0
Water Rail	1	1	0	2	0
Moorhen	0	1	5	7	0
Coot	0	0	0	47	0
Little Ringed Plover	7	0	0	0	0
Golden Plover	0	0	6	5	1
Lapwing	0	9	514	384	250
Common Snipe	2	1	11	9	5
Jack Snipe	0	0	0	8	15
Woodcock	0	0	0	6	0
Green Sandpiper	2	1	1	0	0
Black Headed Gull	14	2	668	158	804
Common Gull	0	0	1	0	0
Lesser Black-backed Gull	291	47	45	6	15
Herring Gull	0	2	17	10	5
Great Black-backed Gull	0	1	7	0	5
Feral Pigeon	20	0	2	0	0
Stock Dove	68	62	66	74	27
Woodpigeon	139	1922	7027	1011	4230
Collared Dove	1	1	1	0	0
Great Spotted Woodpecker	0	2	1	1	0
Skylark	3	4	59	27	2
Sand Martin	12	0	0	0	0
Swallow	18	159	0	0	0
House Martin	34	0	0	0	0
Meadow Pipit	3	4	125	92	18
Yellow Wagtail	1	0	0	0	0
Grey Wagtail	0	0	7	5	8
White/Pied Wagtail	5	8	10	7	10
Wren	3	0	0	0	1
Dunnock	0	1	0	3	0
Robin	1	8	1	0	1
Blackbird	4	2	4	6	7
Fieldfare	0	0	0	1976	82
Song Thrush	0	0	2	0	0

Redwing	0	0	287	1741	10
Blackcap	1	0	0	0	0
Chiffchaff	27	18	1	0	0
Willow Warbler	1	0	0	0	0
Goldcrest	0	0	1	0	0
Long Tailed Tit	12	0	0	0	0
Great Tit	0	2	0	0	0
Nuthatch	1	0	0	0	0
Jay	2	5	13	14	2
Magpie	3	3	18	2	1
Jackdaw	0	4	27	163	0
Rook	0	0	104	62	0
Carrion Crow	41	42	33	147	13
Raven	2	1	0	0	0
Starling	2	2	382	1748	175
Chaffinch	2	3	67	14	425
Brambling	0	0	12	0	134
Greenfinch	9	0	8	0	0
Goldfinch	63	22	3	17	7
Siskin	0	0	7	3	9
Linnet	87	165	158	127	64
Lesser Redpoll	0	0	1	0	3
Bullfinch	4	0	1	2	7
Reed Bunting	0	1	3	2	3
Totals	946	2706	12047	9083	8072

Dave Steel

REPORT ON BREEDING WILLOW TITS AT WOOLSTON EYES

2021 was an exceedingly disappointing year for finding breeding evidence, with the lowest number of records since intensive study began. Just three nests were found, two on No.1 Bed and one on No.2 Bed and evidence of breeding pairs was poor throughout the season.

No.1 Bed The first nest held nine eggs on 27th April and progressed to young, ready to fledge, on 23rd May. The second nest had nine eggs on 12th May and naked chicks on 23rd May. However, it was found to have sustained severe woodpecker damage later in the year, so it is not known if it was successful. In addition to the nests found, Willow Tits were heard from central and eastern parts of the bed. None were heard around the Viaduct Pools, a usual site. In July, the ringers reported that seven juveniles had been ringed, plus seven new adults. It was thought the adults could have been displaced from other parts of the Reserve.

No.2 Bed The nest found had nine eggs on 27th April, with feathered chicks, ready to fledge, on 23rd May. This was also found to have woodpecker damage later in the year, but it is hoped that at least some of the brood would have fledged. On No.2 Bed only one was heard in an area away from the nest.

No.3 Bed No nests were found but on 10th May one was observed both singing and calling on the west side of the bed. Despite this promising activity and a thorough search, no nest was found. By September, the ringers had reported trapping three adults and three juveniles in the centre copse. In addition, early in the season, three adults were trapped in the north-west corner, including two in breeding condition. Later, a family group was heard in this area with three different juveniles subsequently trapped towards the Sybil Hogg hide.

No.4 bed Despite visits early in the season, only one was heard singing, plus one other singer in the adjacent woodland to the west of the Reserve. The development of the wetland has had a significant effect on Willow Tit breeding habitat. No less than eight former nest sites are known to have been lost. In one example, a nest stump that was used in three consecutive seasons has been demolished.

SUMMARY It can only be concluded that the number of birds on the Reserve is severely reduced, possibly down to just ten pairs. Not so long ago, I understand the ringers ringed an average of 31 each year, over the past ten years, with just 24 ringed this year. Habitat loss can severely restrict the dispersal of young as potential breeding stock. With possible potential future loss on Nos. 1 and 2 Beds, it is only hoped that habitat regeneration can come quickly enough to halt the catastrophic decline of this vulnerable species.

Allan Rustell

A BRIEF NOTE ON THE STATUS OF WILLOW TIT

This brief note should be read in conjunction with Allan Rustell's invaluable report on the nesting success of this key species. A review of the ringing data plus our knowledge of habitat change should enable us to gain a reasonable feel for any alteration in status.

There is no doubt that a significant amount of scrub/woodland has been removed in recent years, because of operations on No.1 bed and the creation of the new wetland on No.4 bed. On the other hand, most of the scrub/woodland removed was single-aged and approaching the stage when we would have been expecting it to pass its peak of suitability for the species before long. Plans are in hand and funding has been obtained to return the remaining large areas of woodland/scrub, on No.4 bed, to a more suitable stage of succession. Discussions have also been started with Natural England about adopting a similar approach to the habitat on No.1 bed. In addition, the transition from scrub to woodland on No.3 bed is moving at a pace and has been impacted by a reduction in the amount of coppicing completed recently, for various reasons. Research indicates that if there are 'green corridors' between suitable habitats (early-stage scrub with a 2-4 metre height, plenty of rotting stumps for nesting and good Bramble understorey) Willow Tits will expand into such areas. Our Management Plan prioritises the creation of such habitat and we hope to see significant progress made over the winter of 2022/23.

A perusal of the ringing data seems to indicate that pairs displaced by the loss of habitat may have relocated both within and between beds. The 24 ringed during 2021 compares reasonably well with the ten-year average of 31 and is an improvement on the 14 ringed the previous year and the 21 ringed in 2015.

The following table shows the numbers of adults and juveniles ringed over the past ten years. As ringing only takes place on two of the four beds (Nos.1 and 3), only includes newly ringed individuals and given that Willow Tits are notoriously sedentary, the figures likely to significantly underrepresent the size of the population.

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Adult	9	4	6	3	3	0	4	6	1	8
Juv	28	25	29	18	32	35	37	33	13	16
Total	37	29	35	21	35	35	41	39	14	24

Curiously, the decline in numbers newly ringed has occurred more on No.3 bed, where the habitat has remained stable (9 in 2021 compared with a 10-year average of 16.5), than on No.1 bed where there has been a massive loss of scrub/woodland. (15 in 2021 compared with a 10-year average of 14.5).

It is instructive, too, to look at the national context when assessing species' status locally. The BTO's preliminary assessment of the 2021 Willow Tit breeding season (with a caveat for a small sample size) is that adult abundance was down by 28% year-on-year and productivity also down by 42%. The causes of this worrying national decline are likely to have been multi-factorial, with loss of habitat, habitat decline through maturation, usurpation by other tit species, predation by Great Spotted Woodpeckers and the weather all contributing (April 2021 was the coldest April for a century and May was the wettest month of the year). In the light of the above, our Willow Tits may not have fared too badly in 2021, though the need for continued close monitoring is clear.

David Bowman

BUTTERFLY REPORT

Unfortunately, I was unable to visit for most of the year and as a result there are insufficient records to provide a detailed account of the species. Some records were received however, and the following brief account provides a summary of the information supplied. Due to the efforts of Derek Britch and Les Jones the butterfly transect was monitored regularly and I am grateful to them for their invaluable assistance. The year started with an early Small Tortoiseshell on 26th February and there were four sightings of Brimstone on 14th April, 12th May, 26th August, plus a late record on 13th November. Small Copper had a better year and five reports were submitted compared with only one in 2020. There was a spring record of two on No.1 bed on 19th May and four sightings of singles between 20th August and 24th September. Two reports of Painted Lady during August included two on the 27th. Another species to perform well was Ringlet and three were found on the transect on 1st July. This species has established a tenuous presence in recent years and three is a good count for Woolston. It does not appear that Common Blue has recovered from a very poor year in 2020 and the only record received was of seven on No.1 bed on 2nd August. The only report of Small Skipper was of five on No.1 bed on 9th July. Purple Hairstreak was reported with a minimum of four present on 28th August. The year ended with two Red Admirals on 22nd November.



Common Blue

David Bowman

David Hackett



Comma

David Bowman



Orange-tip

David Bowman

DRAGONFLY REPORT

After a slow start due to the cold and wet weather in May, it was a much better season for records of the majority of our dragonfly species. With the easing of the Covid-19 restrictions more visits were made to the Reserve from the spring onwards, resulting in an increased recording effort. Prior to the start of the season, a new Dragonfly Transect was marked out at a series of four pools at the west side of No.1 bed. This replaced the previous one which, as reported last year, had become largely inaccessible, due to the tall growth of marginal and surrounding vegetation. Consequently, the structured dragonfly surveys, on behalf of the Carbon Landscape Project, were conducted again between May and September on both Nos.1 and 3 beds. Altogether, 145 records were logged across the Reserve during the season, which ran from the middle of May until the second week of November. During this six month period a good total of seventeen species was recorded, which was one more than in the previous three years. Included, in this figure were ten dragonfly and seven damselfly species. Once again these records were forwarded to the Cheshire Dragonfly Recorder and the Greater Manchester Record Centre.

The season began slightly later than usual on 14th May, when the first Common Blue, Blue-tailed and Large Red Damselflies were spotted along with a single Broad-bodied Chaser at the four West Pools on No.1 bed. By 19th May, more of the same species were present at these pools and the first Azure Damselflies had also emerged. On 29th May, David Bowman reported a single Common Darter on No.1 bed. This unusually early record for the Reserve was also included in a table of “First Dates” in the UK for 2021, which was subsequently published in a British Dragonfly Society magazine. At the beginning of June, the first Black-tailed Skimmers and a couple of Banded Demoiselles were reported on No.4 bed. With warmer weather on 5th June, good numbers of Four-spotted Chasers, plus the first Emperor Dragonflies were found on No.1 bed. That same day the first Red-eyed Damselflies were spotted under the footbridge to No.3 bed. On 10th July, Brown Hawkers were reported on No.3 bed, together with the only definite record of a Southern Hawker on No.4 bed. Similar to last year, there was just one Emerald Damselfly record, which was on No.1 bed on 17th July. The first Ruddy Darters appeared on 26th July, whilst the earliest Migrant Hawker record on 14th August was later than usual. The final addition to the year list occurred on 23rd August, when a Black Darter was spotted and photographed by a Permit Holder and his friend on No.3 bed. Apparently, the only other record of this scarce visitor on No.3 bed was in 1989.

Maximum numbers of several species were recorded from the end of May and during June, beginning with 100 plus Azure Damselflies on No.3 bed on 31st May, A total of 43 Broad-bodied Chasers on No.1 bed, was an exceptional count on 5th June. On the same bed on 9th June, more than 100 Common Blue and Blue-tailed Damselflies were recorded, together with 27 Four-spotted Chasers and 16 Black-tailed Skimmers. After a poor record last year it was a much improved season for Red-eyed Damselflies, with numbers peaking at 28 on 30th June. However, Brown Hawker numbers were again below average with nine being the maximum number recorded on 17th July. It was also a disappointing year for Southern Hawker records with just one or possibly two sightings. Compared with the previous year, there was a big increase in the number of Emperor Dragonflies present, with a maximum count of 11 on 17th July and proof of breeding was also established. Migrant Hawker numbers were much improved too, despite a rather shorter than usual flight season for this species. However, it was a

comparatively poor year again for Ruddy Darters with only 29 being recorded overall. Although it is encouraging, that the maximum count of 10 on 2nd September, was recorded on the developing wetland on No.4 bed. The most numerous dragonfly species was again Common Darter with 300 plus being recorded, the vast majority of which were at the pools on Nos.1 and 4 beds. After an absence of three years, it was a surprise to have two separate records of Black Darter, towards the end of August. Compared with the previous year, it is pleasing to note that the abundance of most species has improved, largely due to the colonisation of the newer pools on Nos.1 and 4 beds. Hopefully, access to the pools can be maintained in future so that dragonfly recording can continue on the Reserve.

As usual I would like to thank David Bowman for posting his detailed records and photographs on the Group website etc. and Andy Weir for his photographs. I am grateful for the record and photographs of the Black Darter, submitted by Ray Atkinson and David Turner. Thanks are also due to Les Jones, David Steel and Helen Wynn for their valued contribution during the season.

SPECIES ACCOUNTS

Emerald Damselfly

Lestes sponsa

In recent years only odd individuals have been recorded of this metallic-green species, which characteristically perches on emergent vegetation with wings half-spread. Similar to last year there was just one record from No.1 bed. This was on 17th July, when two were recorded during a survey at the West Pools.

Banded Demoiselle

Calopteryx splendens

There were four records of this large metallic blue or green damselfly, beginning with a report on 1st June of two males, at the new pools created on No.4 bed. A photograph of a male accompanied this report on the Group website. On 5th June a male and a female were spotted on No.1 bed. On 13th June, there was a report of a male which was perched on an Oak sapling along the Canal Track, adjacent to the Car Park. The last sighting was at the Weir Basin on 16th July, where another male was patrolling along the banks of the R. Mersey.

Azure Damselfly

Coenagrion puella

This common and widespread damselfly is always one of our most abundant Odonata species. Despite the unfavourable May weather, at least 364 were recorded over the season and breeding activity was noted on several dates. The first four were discovered on 19th May, around the pools on No.1 bed. On 29th May, 32 were reported on No. 1 bed and four recently emerged teneral were spotted on No.3 bed. When a survey was completed along the No.3 bed Dragonfly Transect on 31st May, a maximum count of 119 was recorded and an ovipositing couple was noted. There was a report from No.4 bed on 1st June, where 14 were identified amongst around 60 freshly emerged damselflies. Throughout June there were only single figure counts on No. 3 bed, except for 10 on 5th June and 17 on 30th June. There was a good count of 79 at the West Pools on No.1 bed on 9th June, including several egg-laying pairs. On 10th July, 35 were present along the public footpath on the west side of No.2 bed and 22 were recorded

on 17th July on No.1 bed. The last sighting was on 26th July, when 11 were recorded along the south bank of No.3 bed.



Banded Demoiselle

David Bowman

Common Blue Damselfly

Enallagma cyathigerum

Another widely distributed species, which was recorded on sixteen dates from the middle of May until September. During this flight period a total of 259 were recorded, which was above average. The first sighting was on 14th May, when two were at the West Pools on No.1 bed, increasing to 13 by the 19th May. On No.3 bed at least 10 were present on 5th June. Numbers peaked at the West Pools on 9th June, when 106 were counted and an ovipositing pair was observed. Similar to the previous species, only single figure numbers were present on No.3 bed for most of June, until 20 were recorded during a survey along the south bank on 30th June. At the Weir Basin, 10 were present on 16th July. The following day, 25 were noted on No.1 bed, including an egg-laying couple. The highest count on No.3 bed was on 26th July, when 24 were recorded and two copulating pairs were present. Numbers declined after this with only two single figure counts in August. The only record from No.4 bed was on 4th September, when a single was present at one of the new pools. Sadly, the last sighting on 18th September was of a freshly deceased male, which was spotted at the edge of a pool on No.1 bed.

Red-eyed Damselfly*Erythromma najas*

This less widespread damselfly is mainly found at still-water habitats with floating vegetation, in the southern half of the U K. It has been recorded on the Reserve since 1986, but numbers tend to vary considerably each year. From the beginning of June until the end of August, a total of 74 was recorded, which was a big improvement on the previous two years. As usual the majority were present along the bunded Oxbow part of the R. Mersey, below the footbridge on to No.3 bed, where the insects often rest on floating leaves and algae. The first sighting was on 5th June, when six were noted and a tandem pair appeared to be ovipositing. During the following few weeks there were three more single-figure counts. A maximum count of 28 was recorded, during a survey on 30th June and a few tandem pairs were noted. At the Weir Basin on 16th July, a single male was perched on pond weed. A single was also present under the footbridge to No.3 bed on 17th July, where 15 were recorded during a survey on 26th July. The final sighting was also on No.3 bed, where two were present on 27th August.

Blue-tailed Damselfly*Ishmura elegans*

It was a better season for numbers of this common and widespread species with around 400 being recorded across the Reserve. The first sighting was on 14th May, when eight were present at the West Pools on No.1 bed. By the 19th May, numbers had increased here to 28 and then on 22nd May a minimum of 10 were present, including an immature (rufescens) female. A week later on 29th May, 44 were reported on No.1 bed. By contrast, the first record on No.3 bed was of three on 31st May. At the new pools on No.4 bed, 45 were seen on 3rd June. On No.1 bed a maximum count of 110 was logged during a survey at the West Pools on 9th June and 10 copulating pairs were noted. On 19th June, at least 50 were present on No.1 bed whilst on No.3 bed about 10 were found. Numbers on No.3 bed increased to 25 on 23rd June and then peaked at 29 on 30th June. After this there was only one double-figure count on 17th July, when 18 were recorded on No.1 bed. The only August record was on 28th when three were recorded on No.1 bed. The last two sightings were in September, beginning with a single on No.4 bed on the 4th and four on 18th September on No.1 bed.

Large Red Damselfly*Pyrrhosoma nymphula*

This distinctive red and black damselfly breeds in a variety of wetland habitats and is invariably one of the first to appear in the spring. Although it is common and widespread, the numbers recorded on the Reserve are relatively low and appear to have declined in recent years. This possibly coincides with their former breeding pools on No.1 bed becoming inaccessible. There were just three records this year, beginning with two freshly emerged teneral on 14th May, at the West Pools on No.1 bed. When a survey was completed shortly afterwards at these pools on 19th May, two mature adults were recorded. Unusually the last sighting occurred on No.3 bed, where a single was spotted in flight along the south bank area on 5th June.

Southern Hawker*Aeshna cyanea*

This large and colourful dragonfly breeds in shallow woodland ponds and lakes. It is a solitary species, which often feeds along hedgerows and tree canopies, although males may occasionally hover close to an observer for several seconds. Only small numbers have been recorded recently, but it was a poor

year with just one positive sighting. This was on 10th July, when two were reported on No.4 bed. There was also another report on the Group website on 24th July, of a “possible Southern Hawker” on No.4 bed.



Brown Hawker

David Bowman

Brown Hawker

Aeshna grandis

Records of this distinctive amber-winged dragonfly have been well below average over the last two years. The totals recorded during this period were 29 in the current season and 37 in 2020. This compares with figures averaging around 100 in the previous five years. Unusually there were no records before the 10th July, when the first two were reported on No.3 bed. The maximum number recorded this year was nine on 17th July, at the West Pools on No.1 bed. The only record from No.4 bed was a single on 24th July. The highest count on No.3 bed was seven on 26th July, and during August there were only three records of singles on this bed. Six were recorded at the West Pools on No.1 bed on 28th August. The last sighting was also on No.1 bed, where a single was present on 11th September.

Common Hawker

Aeshna juncea

Once again there were no records of this species, which was last recorded at Woolston in 2014.

Migrant Hawker

Aeshna mixta

It was an average year for records of this medium-sized dragonfly, which appears from late summer onwards. The first sighting was on No.3 bed on 14th August, when a single was observed in front of the Morgan Hide. On 27th August, six were present along the south bank of No.3 bed. On 28th August, eight were recorded at the West Pools on No.1 bed. On 4th September, three were spotted at a pool on No.4 bed, whilst a single was present on No.3 bed. On 7th September, there was a report of two in front of the Morgan Hide and on 9th September seven were present on No.3 bed, including three copulating pairs. When further surveys were completed on Nos.1 and 3 beds on 11th and 15th September, eight were counted on each occasion. On 16th September, a photograph of a male was included with the sightings report on the Group website. The final record of the year was on 18th September, when at least six were seen hawking around the margins of the West Pools on No.1 bed.



Migrant Hawker

David Bowman

Emperor Dragonfly

Anax imperator

After two disappointing years it is pleasing to report that a total of 27 was recorded this year. Significantly, all of these sightings were from both Nos.1 and 4 beds. The first of the year was on 5th June, when three were present on No.1 bed. On 9th June, six were recorded at the West Pools on No.1 bed, including an ovipositing female and a male was photographed for the Group website report. When No.1 bed was visited again on 19th June, two were seen and an exuvia of this species was retrieved from the marginal rushes. The first report from No.4 bed was of two on 15th July, followed by five on 17th July, one of which was photographed in flight for the website report. Also on 17th July, six males were recorded at the West Pools on No.1 bed. There were no records this year during August and the final sighting was on 2nd September, when three were reported on No.4 bed.



Emperor Dragonfly

David Bowman



Broad-bodied Chaser

Andy Weir

Broad-bodied Chaser

Libellula depressa

The species is known to colonise new ponds which was confirmed this year when over 60 were recorded at the series of pools which have been created on No.1 bed. The first of these was a single at the West Pools on 14th May followed by three at the same pools on 19th May. Eight were reported on No.1 bed on 29th May, whilst on 31st May a single was spotted on No.3 bed. There was only one record from No.4 bed, where eight newly emerged teneral were reported on 1st June. A photograph of a female on No.3 bed was posted on the Group website on 4th June. Meanwhile, around the pools on No.1 bed on 5th June, a maximum count of 43 was reported. On 8th June, two were reported on No.3 bed and at the West Pools on No.1 bed, 13 were recorded on 9th June. There was a later than usual record on 16th July, when a single was spotted on the north bank of the R. Mersey, opposite No.2 bed.



Emerging Broad-bodied Chaser

David Bowman

Four-spotted Chaser

Libellula quadrimaculata

It was also an excellent season for numbers of this common species. Overall, a total of 59 was recorded on just three visits to the pools on No.1 bed. The first of the year was on 5th June, when 22 were counted at the various pools across the bed. During a survey on 9th June at the West Pools, an excellent count of 27 was recorded. The final sighting was also at these pools where 10 were present on 17th July.



Four-spotted Chaser

Brian Baird



Black Darter

David Turner

Black-tailed Skimmer*Orthetrum cancellatum*

Compared with the last five years there was a big increase in the numbers recorded for this species. During the season a total of 79 was counted, whereas on average less than twenty have been recorded in recent years. Males habitually rest on bare earth, wood and stones around the margins of their breeding pools. Hence, the higher figures are largely due to the on-going work on No.4 bed. The first sighting was on 1st June, when three males were reported on No.4 bed. After this there were three records from No.1 bed, beginning with five on 5th June, a maximum count of 16 on 9th June and six on 19th June. The remaining counts were all on No.4 bed, where seven were reported on 1st July, 12 on 10th July and 11 on 15th July. The last sightings were also on the bed, where 12 were present on 17th July and seven on 24th July.

Black Darter*Sympetrum danae*

This small dark dragonfly, which once bred for a short period on No.1 bed, has been regarded as a rare visitor over the past two decades. The most recent records were of singles on No.1 bed in August 2017 and 2013 respectively. It was therefore pleasing to receive an email from a Permit Holder, together with several photographs of a female on No.3 bed, which he and his friend had spotted on 23rd August. By coincidence, the only previous record on No.3 bed was also of a female back in 1989. Unusually there was a second record this year from No.1 bed, where a tandem couple were spotted on tall vegetation at the West Pools on 28th August. Adults are known to wander away from their breeding habitats, and it is probable that these insects may have dispersed from either Risley Moss or Rixton Claypits, where there are established populations.

Ruddy Darter*Sympetrum sanguineum*

There were just six records of this small red dragonfly, which has a preference for shallow well-vegetated ponds and slow flowing waters close to woodland. The first was on 26th July, when seven were present along the south bank of No.3 bed. The sightings report on the Group website for 31st July included a close-up photograph of a male, showing the diagnostic black legs. Along the lower south bank of No.3 bed, six were counted during a survey on 27th August. At the West Pools on No.1 bed on 28th August, four were spotted, including an ovipositing female. There was a good report on 2nd September from No.4 bed, where a maximum count of 10 was noted. The last record was on 18th September, when a single was noted on No. 3 bed.



Ruddy Darter

Brian Baird

Common Darter

Sympetrum striolatum

Over the past two years there has been a dramatic increase in numbers, due to the colonisation of the new pools created on Nos.1 and 4 beds. This probably contributed to the early record of a single on 29th May, at the West Pools on No.1 bed. The record is significant, as it was subsequently listed by the British Dragonfly Society, as the earliest Common Darter record in the U K, for 2021. The next records were all on No.1 bed where 10 were present on 5th June, 13 on 9th June and a minimum of 30 on 19th June, including freshly emerged teneral. By mid-July there were also double-figure counts on No.4 bed. On 17th July 56 were recorded on No.1 bed, including six ovipositing couples. On No.4 bed there was a good report of 55 on 26th August. However, on No.3 bed there were only single-figure counts during July and August, followed by a maximum count of five on 15th September. On No.1 bed, 29 were present on 28th August, whilst 40 were on No.4 bed on 2nd September. Numbers declined towards the end of September and the only record in October was of two on No.4 bed, on 30th October. The final sightings were on 13th November, when two were found basking in sunshine on a pile of logs on No.4 bed and three were reported along the R. Mersey.



Common Darter

Brian Baird

Brian Baird

BROAD-LEAVED HELLEBORINE – AN UPDATE

In the 2019 Annual Report I wrote a short article about the discovery of large numbers (approximately 240 plants) of this orchid on the Reserve, the majority growing in deep shade along the Ship Canal track. After talking to local and national orchid experts it was thought that this population could well be of national importance. As a result I planned to survey other parts of the Eyes in 2020, but Covid prevented this.

In July 2021, however, as Covid restrictions eased I carried out further fieldwork on Beds 3 and 4, and discovered more Broad-leaved Helleborines, most growing in shaded copses on No.4 bed. Three fine specimens were in flower on the south bank of No.3 bed very close to the footpath, and because of this I did not expect them to survive, but remarkably they did. The final overall total on the Reserve was 392, with the likelihood of others in areas not yet surveyed.

Interestingly, the November 2021 edition of the journal ‘British Wildlife’ included a fascinating paper entitled “Dull flowers and dazzling insects – the story of pollination in one of our less glamorous orchids”¹. It was written by Dave Morgan, a Cheshire-based retired plant physiologist. It focuses on how the Broad-leaved Helleborine is pollinated, and by what. His observations, and studies by others, indicate that this orchid is pollinated mainly by social wasps, principally the Common Wasp *Vespula vulgaris*. The mechanism by which the plant attracts its pollinators is very interesting. A study by Jakubska et al² found that the nectar of this orchid contains more than 100 chemicals, including attractants and antimicrobials.

I recently contacted Dave Morgan, and he is keen to visit Woolston in late summer 2022 when the Broad-leaved Helleborines are in flower and to learn more about the Reserve.

References

1. Morgan D. November 2021 Dull Flowers and dazzling insects – the story of pollination in one of our less glamorous orchids. British Wildlife Volume 33 No.2 118-124
2. Jakubska et al 2005 Why do pollinators become “sluggish”? Nectar chemical constituents from *Epipactis helleborine* (L) Crantz (Orchidaceae) Applied Ecology and Environmental Research 3: 29-38

Brian Martin

EDITOR'S ACKNOWLEDGEMENTS

We have been producing an Annual Report on the Reserve's wildlife since Brian Martin's first solo effort in 1978/79. This gives us a forty-four-year, unbroken data set to enable us to assess the significant and often worrying changes to the status of our many species. Brian is currently writing a book about the history of Woolston Eyes, how it was established as a nature reserve and how our bird populations, in particular, have changed over time. Brian will send out more details nearer the publication date.

These days, the production of this report is very much a team effort and I have many people to thank for their contributions. David Spencer's assistance with the production aspects and Brian and Ros Martin's assiduous proof-reading have been invaluable. All of those who have written species accounts or articles have helped to share the burden of what is a fairly demanding annual task, for which I am very grateful. They are, in no particular order: Allan Rustell, Mike Miles, Dave Steel, Brian Baird, Dave Hackett, Dan Owen, John Blundell, Brian Ankers, Brian Martin and David Spencer.

My thanks also go to those photographers who have kindly allowed me to use their excellent images. We are equally very fortunate to have the services of Colin Wolf, one of the nation's finest wildlife artists, who freely gives his time to produce the covers for our reports. He continues to excel himself and this year's painting of our displaying Marsh Harriers is again outstanding.

Finally, there would, of course, be no report without the massive amount of survey and recording work which takes place on a daily basis, for which I thank all those permit holders, volunteers, ringers and wardens who have contributed such a wealth and variety of information on our wildlife.

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