

Gunton Woodland Community Project

Bird & Bat Box Survey : September / October 2023

The results of the September / October 2023 Bird and Bat Box Survey are detailed in full in the final section of this report. For comparison / correlation purposes, the findings of the three previous Bird & Bat Box Surveys, dated October 2020, March 2022 and September 2022 have been listed, below. The two earlier surveys (October 2020 and March 2022) have been listed in summary form only. The September 2022 survey has been included for the most part unabridged, minor editing only having been undertaken.

Note : a comprehensive survey was not undertaken during the March 2022 Survey; a brief visual / status check only was carried out. The reasons for such are detailed within the report itself.

Survey Report, dated October 2020

A survey, under the control of M.Thomas, was undertaken between 09 and 15 October 2020, over a period of 3 separate visits. The box location chart and log sheets created as a result of the October 2019 Survey were used as the baseline reference. In summary, the results were as follows :

In total, 78 Bird box locations were inspected. 4 boxes were not found. (Indeed, these boxes were never shown on the initial chart, thus their original locations are unknown). 45 boxes were noted to have had nests; 28 boxes were found to be empty. 2 were found to be part full of bird guano, (used as winter shelter perhaps). 1 x box had been removed (Bird box No.5) in 2018 and had not been replaced. Bird box No. 28a had been trashed during tree topping operations by Waveney Norse. (The front face of the box (complete with name tag), was found, the smashed box lying beneath WN's tree debris).

Bird box Nos. 30 and 41 were removed and relocated onto trees locally to each respective site, in preparation for forthcoming proposed GWCP or WN tree felling operations. This was undertaken on 20 August 2020. A note was added on the listings to detail such. The chart did not require updating as box relocation for each was minimal.

In summary, 45 bird boxes were found to have been occupied during the breeding season. This equates to 57.7 % occupancy. The figures for the 2018 and 2019 surveys were 51.4% and 56.4% occupancy respectively. Nest box occupancy has thus increased, over the three years, which is a promising sign. It is especially pleasing to note that bird box occupancy, at just below 60% is as high as it is considering the increased footfall noted within the woods as a result of greater numbers of walkers, dog walkers, individuals undertaking personal exercise etc. during the Covid 19 pandemic. Winter / Spring weather was also reasonably mild and may have contributed to an increase in nesting activities.

10 Bat box locations were inspected. 4 boxes were not found. (Indeed, these boxes were never shown on the initial chart, thus their original locations are unknown). One of the six bat boxes had nest material in-situ. It is suspected that this box had been used by birds, rather than by bats.

Bird nests were noted, as in previous inspections, to be generally of moss/ feather construction, suggesting blue tit/great tit/coal tit occupancy, or similar bird species. Abandoned / non-hatched eggs were found at 7 locations; typically 1 egg only, at each was found, although at one nest 5 eggs were recorded. Chick carcasses were found in 3 bird boxes and the carcass of an adult bird (great tit) was found at one site. In one box, (Bat Box No. 17) a nest was found to be of underlying moss topped to

three quarter box height with leaf material and was noted to be in very good order. The nest was not disturbed as it was thought that it could possibly be in current use).

As for the previous survey, dated October 2019, this year, once the various boxes had been inspected and findings recorded, boxes were cleared of nesting material and the boxes cleaned with a diluted (weak) bleach mix (1 part bleach to 20 parts water). This was undertaken following review of the British Trust for Ornithology (BTO) and the Royal Society for the Protection of Birds (RSPB) websites. Essentially, when the breeding season is over, old nesting material can be removed and the boxes cleaned out. Bird Protection Law (Wildlife and Countryside Act, 1981), permits the cleaning out of nests between 01 September and 31 January. Old nests tend to harbour parasites and fleas and if not removed these remain and infect young birds of the next hatch.

Approximately one month after the completion of the bird and bat box survey, and indeed as a direct consequence of the inspection, 3 further visits were made to the woods (in November 2020), to undertake various box renovations and new box installations. Generally, box damage had been caused by other woodland predators, eg. squirrels, woodpeckers, magpies, jays, crows etc.

Box top lids were replaced on 4 boxes, the base plate on one box was replaced, the front tinplate was replaced on one other box and one box was ty-wrapped in order to rectify a large box split. Three new boxes were also installed; these were stationed at locations previously occupied by boxes and thus box numbers were retained from previous years. Of the 3 boxes, Box No. 21a was installed following a request from a local resident to sponsor a bird box. An engraved name tag was attached to the box prior to the box installation. This may, perhaps, encourage further box sponsorship, within the woods; a minimal donation to cover the initial cost of a box would be appreciated by GWCP.

As recommended in previous survey reports, it is suggested that for any future bird box installations, the proximity to existing boxes should be considered a priority, since placement of boxes too close together promotes aggressive behaviour between neighbours. These boxes could be located North of the pond, either side of the main path towards the main entrance to Pleasurewood Hills theme park, as this area is at present devoid of any boxes.

The chart, detailing the location of each box, within the woodland, has been updated as a result of the latest survey. The logsheets, detailing the findings at each box location, have also been updated. These documents should be consulted in conjunction with this report. The chart includes a key / legend as an aid to differentiating between bird and bat box locations. A North arrow has been added, for chart orientation.

In summary, 78 Bird and 6 Bat Boxes are currently in-situ within the GWCP Woodland Area.

Survey Report, dated March 2022

Following completion of the October 2020 bird and bat box survey, and the subsequent submittal of the log sheets, chart and report, it was recommended, by a long standing GWCP committee member that future surveys perhaps could be undertaken post the sheltering / overwintering period, and pre the Spring nesting activities. It was therefore proposed that the October 2021 survey be postponed until February 2022. The proposal was agreed and thus the bird and bat box survey was scheduled to be undertaken mid to end of February 2022.

Unfortunately, unforeseeable circumstances, namely extreme weather conditions precluded the proposed survey from being undertaken; indeed, three storms, namely Dudley, Eunice and Franklin hit the UK between 16th and 21st February 2022. Storm damage clearance operations took precedence over the bird and bat box inspection survey. Milder weather conditions towards the end of February / early March resulted in the early onset of bird nesting activities. The window of opportunity, for inspection operations was thereby deemed closed. As a consequence, a brief visual / status check

only was undertaken at each box location, taking due care to minimize any disturbance to any local birdlife.

The visual survey, under the control of M.Thomas, was undertaken between 10 and 17 March 2022, over a period of 2 separate visits. The box location chart and log sheets created as a result of the October 2020 Survey were used as the baseline reference. In summary, the results were as follows :

In total, 80 Bird box locations were inspected. Bird box No.1 was not in-situ. This had been found smashed at the base of the tree post tree felling operations undertaken by Waveney Norse. Bird box No.60 was noted missing after storm damage clearance operations and bird box No.36 had also been severely damaged. Eight boxes in total were replaced by new boxes, the original boxes having been deemed unserviceable. 5 new box tin faceplates were installed to mitigate against damage, by other birdlife (eg. woodpeckers, magpies and jays etc). One new box (Box No.90) was also installed, North side of the pond location; this was installed following a request from a local resident to sponsor a bird box. An engraved name tag was attached to the box prior to the box installation. (Installation date 27 March 2021).

6 Bat box locations were inspected. Two of the six bat boxes, (Nos.15 & 17) were noted to be unserviceable. The boxes were left in-situ and were to be addressed at a later date, following purchase of replacement units.

A third, and final visit was undertaken on 24th March 2022; bird box nos. 1, 36 and 60 above listed in the previous paragraph were replaced. Also, bat box no. 17 was replaced by a new bird box. This completed the proposed survey operations.

In summary, 83 Bird and 5 Bat Boxes are currently in-situ within the GWCP Woodland Area.

In light of the fact that a full and comprehensive inspection / cleaning survey had not been possible early 2022 it has been proposed and agreed by GWCP personnel that the next full bird and bat box inspection survey will be carried out, as per previous years, following completion of Spring / Summer nesting activities, ie. during the period late September to early October 2022.

Survey Report, dated September 2022

It should be noted that this latest survey is the first full, comprehensive inspection survey undertaken since October 2020. (The reason for this has been detailed earlier within this report). The interim period thus covers two breeding seasons, typically March to August 2021 and March to August 2022.

Survey / inspection operations, under the control of M.Thomas, with the assistance of J. Weaver, were undertaken between 19 and 27 September 2022, over a period of 7 separate visits. The box location chart and log sheets created as a result of the October 2019 Survey were used as the baseline reference. In summary, the results were as follows :

In total, 80 Bird box locations were inspected. 4 boxes were not found. (These boxes were never shown on the initial chart, thus their original locations are unknown). 60 boxes were noted to have had nests; 13 boxes were found to be empty. 7 were found to contain bird guano and are thus considered to have been used as winter shelters.

In summary, 60 bird boxes were found to have been occupied during the two breeding seasons. This equates to 75% occupancy. The figures for the 2018, 2019 and 2020 surveys were 51.4%, 56.4% and 57.7% occupancy respectively. Intuitively, this year's result cannot be directly cross compared with the previous results as the data spans two breeding seasons, as opposed to the singular seasons previously. Nest box occupancy had though been noted to have increased, over the three preceding

years, which was a promising sign; the positive, upward trend in occupancy for the period 2021 – 2022 mirrors this trend.

It is difficult to try to correlate data against the weather patterns during the past two breeding seasons (2021 & 2022), with the British climate being so variable. 2021 was slightly warmer than average for the UK overall and rainfall was broadly close to average. It was a duller than average year in East Anglia. Notable extreme events during the year included wintry weather with snowfalls during January and February, and a hot spell in July.

Winter 2021/22 (December, January and February) was milder than average, with a mixture of settled spells and wetter weather; January was a particularly dry month, but February was very wet. February became increasingly unsettled, with frequent rain in most areas, and a particularly stormy spell between 16th and 21st including storms Dudley, Eunice and Franklin. Spring 2022 (March, April and May) was warmer than average, though there were some cold nights and late frosts during April. Summer 2022 (June, July and August) was warmer than average, most particularly in some eastern counties of England where mean temperatures were nearly 2 °C above average; there were hot spells in each month, and the summer will be remembered for a new UK record of 40.3 °C (at Coningsby, Lincolnshire) on 19th July. The weather was settled for much of the time, with little rain in many areas during most of July and early August. Sunshine was above average overall in each individual month.

5 Bat box locations were inspected. 4 boxes were not found. (Indeed, these boxes were never shown on the initial chart, thus their original locations are unknown). Bat box inspections were purely visual / box status checks, in order not to disturb any possible inhabitants. In Britain all bat species and their roosts are legally protected, by both domestic and international legislation. This means you may be committing a criminal offence if you recklessly disturb a bat in its roost or deliberately disturb a group of bats. Incidentally, a licence is only needed if there is a possibility of disturbing bats, e.g. by entering a bat roost.

Bird nests were again noted, as in previous inspections, to be generally of moss/ feather construction, suggesting blue tit/great tit occupancy, or similar bird species. Abandoned / non-hatched eggs were found at 7 locations; typically 1 egg only, at each, was found, although at one nest 3 eggs were recorded. Chick carcasses were found in 8 bird boxes.

As for the previous surveys, once the various boxes had been inspected and findings recorded, boxes were cleared of nesting material and the boxes cleaned with a diluted (weak) bleach mix (1 part bleach to 20 parts water). A more full description of this activity is detailed under the Survey Report for October 2020.

Minor repairs were undertaken to ten bird boxes during the survey; these included re-securing to the host tree, ty-wrapping and pinning of loose items eg. front tinplate surrounds and base drawers.

Further bird box renovation operations were undertaken at nine locations, On 06 October 2022. Tin plate front entrance hole surround covers were installed on seven bird boxes, a felt roof was fitted to one other box to aid weatherproofing of the box and Box No. 8 was re-installed, following extensive repair. All bird boxes in-situ within the GWCP woodland area now have front entrance hole tin plate surrounds. It is hoped that this will discourage predatory attacks from species such as magpies, jays and crows.

The chart, detailing the location of each box, within the woodland, has been updated as a result of the latest survey. The log sheets, detailing the findings at each box location, have also been updated. These documents should be consulted in conjunction with this report. The chart includes a key / legend as an aid to differentiating between bird and bat box locations. A North arrow has been added, for chart orientation.

In summary, 80 Bird and 5 Bat Boxes are currently in-situ within the GWCP Woodland Area.

Addendum :

Following completion of the September 2022 Bird and Bat Box Survey, (plus the renovation works undertaken in October 2022) and the writing of the subsequent report, historic data for earlier surveys was provided, by B.Shimmield, for the years 2004 - 2018 (bar 2017, for which data was missing). Files were reviewed and data extracted in order to calculate the bird box percentage occupancy rates, since the first (2004) survey.

The data was presented, in tabular and graphical form, at the end of the September 2022 Survey report. As a result of the completion of the October 2023 Survey, the table and graph have each been updated and each is now presented in the latest report.

The mean occupancy rate for the period February 2004 to September 2020 is 48.7 %. A minimum occupancy rate was observed in February 2011, at 32.8%, followed by February 2015, at 35.3%. This could possibly be due to the weather conditions experienced during the build up to the previous breeding seasons.

Snow had blanketed most of the UK from December 17, 2009, to January 15, 2010 - in a winter which was described as the "big freeze". It was the most widespread and prolonged spell of wintry weather across the country since 1981.

2014 started with two spells of very wet and stormy weather from mid-December 2013 to early January 2014, and late January to mid-February 2014, as one deep low pressure system followed another. These brought extremely strong winds and heavy rain to all parts of the country, with widespread disruption across the UK. It is conceivable that such weather extremes could have had some effect upon the bird breeding season in the Spring thereafter.

A positive 'upward' trend in the bird box occupancy rate is noted post February 2015; this is very satisfying.

Survey Report, dated October 2023

Survey / inspection operations, under the control of M.Thomas, with the assistance of J. Weaver, were undertaken between 28 September and 10 October 2023, over a period of 5 separate visits. The box location chart and log sheets created as a result of the September 2022 Survey were used as the baseline reference. In summary, the results were as follows :

In total, 80 Bird box locations were inspected. 4 boxes were not found. (These boxes were never shown on the initial chart, thus their original locations are unknown). 50 boxes were noted to have had nests; 26 boxes were found to be empty. 3 were found to contain bird guano and are thus considered to have been used as winter shelters. One bird box, namely No.80 was noted to have been encased within a European Hornet's nest and, as such, no inspection of the box was carried out.

In summary, 50 bird boxes were found to have been occupied during the breeding season. This equates to 62.5% occupancy. The figures for the 2018, 2019, 2020 and 2022 surveys were 51.4%, 56.4%, 57.7% and 75% occupancy respectively. It should be noted that the 2022 survey result cannot be directly cross compared with the other results, as the data spans two breeding seasons, as opposed to singular seasons for the other surveys.

5 Bat box locations were inspected. 4 boxes were not found. (Indeed, these boxes were never shown on the initial chart, thus their original locations are unknown). Bat box inspections were purely visual / box status checks, in order not to disturb any possible inhabitants.

Bird nests were again noted, as in previous inspections, to be generally of moss/ feather construction, suggesting blue tit/great tit occupancy, or similar bird species. One box was noted to contain a nest predominantly comprising dog hair. Abandoned / non-hatched eggs were found at 6 locations; typically 1 egg only, at each, was found, although at one nest 5 eggs were recorded. Chick carcasses were found in 7 bird boxes: at one of the nests 8 chick carcasses were recorded. (This could feasibly have been the two parent birds plus their six chicks).

As for the previous surveys, once the various boxes had been inspected and findings recorded, boxes were cleared of nesting material and the boxes cleaned with a diluted (weak) bleach mix. A more full description of this activity is detailed under the Survey Report for October 2020.

Minor repairs were undertaken to a number of bird boxes during the survey; these included re-securing to the host tree, ty-wrapping and pinning of loose items eg. front tinplate surrounds and base drawers.

Further bird box renovation operations were undertaken at eight locations, on 17 October 2023. A replacement tin plate front entrance hole surround cover was installed on one bird box, tin plates were installed on four boxes to cover damaged (woodpecker chewed) areas, and felt roofing was fitted to one other box to aid weatherproofing of the box. All bird boxes in-situ within the GWCP woodland area now have front entrance hole tin plate surrounds. It is hoped that this will discourage predatory attacks from species such as magpies, jays and crows.

The chart, detailing the location of each box, within the woodland, has been updated as a result of the latest survey. The log sheets, detailing the findings at each box location, have also been updated. These documents should be consulted in conjunction with this report. The chart includes a key / legend as an aid to differentiating between bird and bat box locations. A North arrow has been added, for chart orientation.

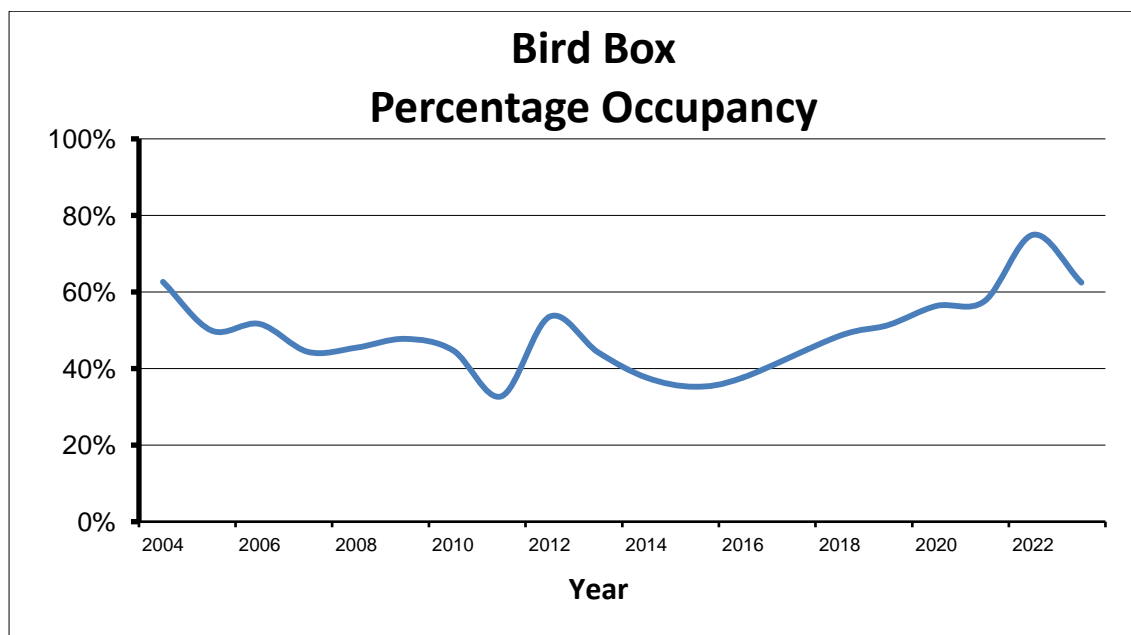
In summary, 80 Bird and 5 Bat Boxes are currently in-situ within the GWCP Woodland Area.

Historic data for earlier surveys was used to calculate the bird box percentage occupancy rates, since the first (2004) survey. The data has been presented, in tabular and graphical form, below :

Survey Date	Number of Bird Boxes in-situ	Boxes with Nests	Percentage Occupancy
Feb 2004	51	32	62.7
Feb 2005	58	29	50.0
Feb 2006	60	31	51.7
Feb 2007	63	28	44.4
Feb 2008	66	30	45.5
Feb 2009	67	32	47.8
Mar 2010	67	30	44.8
Feb 2011	67	22	32.8
Feb 2012	69	37	53.6
Feb 2013	70	31	44.3
Feb 2014	69	26	37.7
Feb 2015	68	24	35.3
Jan 2016	69	26	37.7
Feb 2017	No Data		
Feb 2018	70	34	48.6
Nov 2018	70	36	51.4
Oct 2019	78	44	56.4
Oct 2020	78	45	57.7
Oct 2021	No Data		
Sep 2022	80	60 *	75.0 *
Oct 2023	80	50	62.5

Note : The * indicates that the results for this survey were the findings based upon 2 breeding seasons, namely 2021 and 2022, since no survey was undertaken in October 2021.

A graphical plot of the above data is presented below :



The mean occupancy rate for the period February 2004 to October 2023 is 49.5 %. (The lower occupancy rates observed in February 2011, at 32.8% and February 2015, at 35.3% were attributed to the weather conditions experienced during the build up to the breeding seasons. (This subject was discussed within the September 2022 Survey Report).

The percentage occupancy data for the September 2022 survey, although very encouraging, at 75%, should perhaps be considered as an outlier in that the data relates to a period of two breeding seasons. However, the positive 'upward' trend in the bird box occupancy rate, noted post February 2015 is very gratifying. Indeed, excluding the outlier data for 2022, the percentage occupancy rate for the year 2023 is the highest rate since 2004, the first year for which data was recorded. This is very encouraging. It may well be that the additional 30 or so newer boxes, installed since 2004, have allowed the birds more selection, with fresher, more weatherproof accommodation available.

There has been a steady decline in the UK woodland bird populations now, for a number of years. Species such as blue tits, great tits, sparrows, chaffinches, wrens etc are far less observed, within the GWCP woodland area, than in previous years.

It is highly likely that the profusion of corvid bird species (magpie, jay, carrion crow, rook etc) within the GWCP woodland area, during the 2023 breeding season has had some negative impact upon the birds nesting within the bird boxes. A dozen or more crow nest sites were recorded within the woodland area, during the breeding season. The reduced number of inhabited boxes local to the crow's nests was clearly noted. A 'murder' of crows and a 'mischief' of magpies – typically used collective nouns for each respective bird species – seems somewhat apposite. In no way can it be considered a positive impact, having upwards of fifty raucous crows, as neighbours. It does rather dissuade box habitation.

An abundance of squirrels this last year within the GWCP woods may also have had a detrimental impact upon the survival of the smaller British birds.

It is difficult to try to correlate occupancy data against the weather patterns during the past breeding season, with the British climate being so variable. December 2022, however, was colder than the average for December, based upon historical data, with a two week period of sub zero temperatures being recorded mid December 2022. Such harsh, cold spells are considered unfavourable for the survival of the resident small British woodland bird population.

One final contributing factor that maybe could be considered detrimental to the survival of the smaller woodland birds is the poor state of some of the woodland trees. Ash dieback, Dutch elm disease and Sooty bark disease, a lethal fungal infection of the sycamore tree, has had a devastating effect upon numerous trees within the GWCP woodland area. Leaf foliage has been drastically reduced and, as a direct consequence, the quantity and indeed quality of indigenous insect life markedly reduced.

Report date : 23 October 2023

Submitted by : M. Thomas