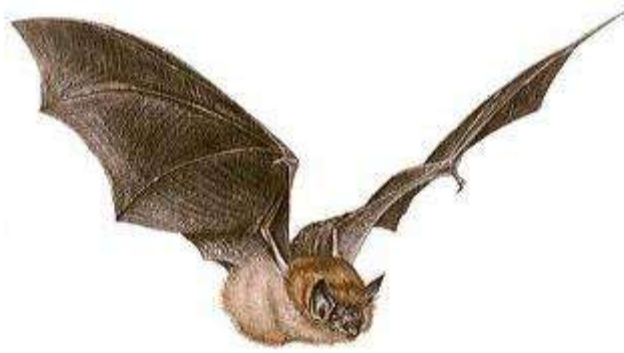


**The Bats
of
BS3**

2024-25

v1.0



**Prepared by
Peter Loy-Hancocks
for the
BS3 Wildlife Group**

1. Introduction and Methodology

This report describes the result of 31 bat surveys carried out, mainly in gardens, across BS3 during the summer of 2024, plus an additional 24 surveys carried out in 2025 (see Figure 1). Gardens were surveyed on the understanding that private addresses would be identified at no finer scale than postcode. Riverside Garden Centre, Hotwells, District Allotment Association (HwDAA) plots, Bedminster C Allotment plots and Windmill Hill City Farm, and a few other locations, were exceptions to this arrangement. All records were submitted to the Bristol Environmental Records Centre (BRERC). Everyone who hosted a detector received a personal response with details of the findings from their location.

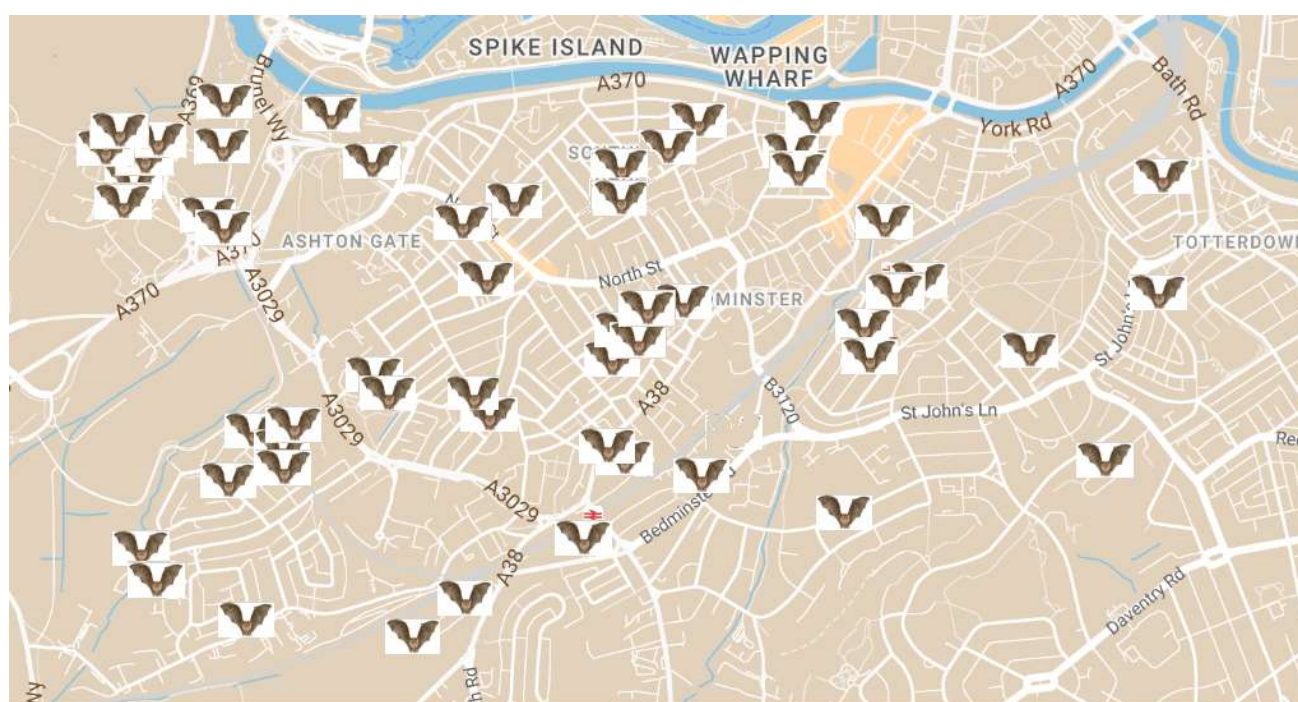


Figure 1: 55 locations surveyed in BS3 during 2024 and 2025

A full account of the bat surveys conducted at the HwDAA sites, entitled [The Bats of Hotwells and District Allotments Association Allotment Sites 2025](#), was published in July 2025. This current report contains some summary data from that report.

Bats navigate and detect the insects on which they feed by emitting ultrasonic (high frequency) sound pulses through their mouth or nose and listening to the echo. With this echo, the bat can determine the size, shape and texture of objects in its environment. Bats also emit social calls, which they use to communicate with each other rather than to navigate or detect prey items. A bat detector receives these ultrasonic calls and can either reduce them to a frequency that can be heard by the human ear or record them for later analysis.

The current survey utilised two static 'Song Meter Mini Bat' bat detectors, which were set-up using a configuration app on a mobile phone. A third detector, also a static, a Song Meter SM2 was used on two occasions in 2024. Detectors were left in the same location recording for several, typically six or seven, nights at a time. Occasionally the memory 'chip' filled up, usually with non-bat calls or there was an error in the way a detector was set-up, which reduced the recording period.

The recorded files were analysed using the BTO (British Trust for Ornithology) Acoustic Pipeline. This is a powerful cloud computing platform that used powerful algorithms which can identify all UK and most European bat species, including echolocation, feeding buzzes and social calls. It can also identify the ultrasonic calls of fifteen terrestrial small mammals and many bush-crickets and a few moth species.

The Pipeline's software can have problems correctly identifying calls produced by the large bats - Noctule, Leisler's Bat and Serotine - and Myotis species i.e., Daubenton's, Brandt's, Whiskered and Natterer's Bats. The former three small Myotis species were grouped together when reporting.

There is also an overlap in call frequency for the Nathusius' and Common Pipistrelles. It is therefore possible more of the former were present than were identified by the software.

The data collected by bat detectors can give a measure of the presence of species; relative abundance of different bat species; and their use of the locations. The number of 'records', however, does not represent a direct count of bats as, for example, one bat, such as a Pipistrelle, flying around in circles whilst foraging in front of the detector would contribute a high number of records compared with a bat flying straight across the detector's 'field of view' whilst commuting between two points or foraging at altitude.

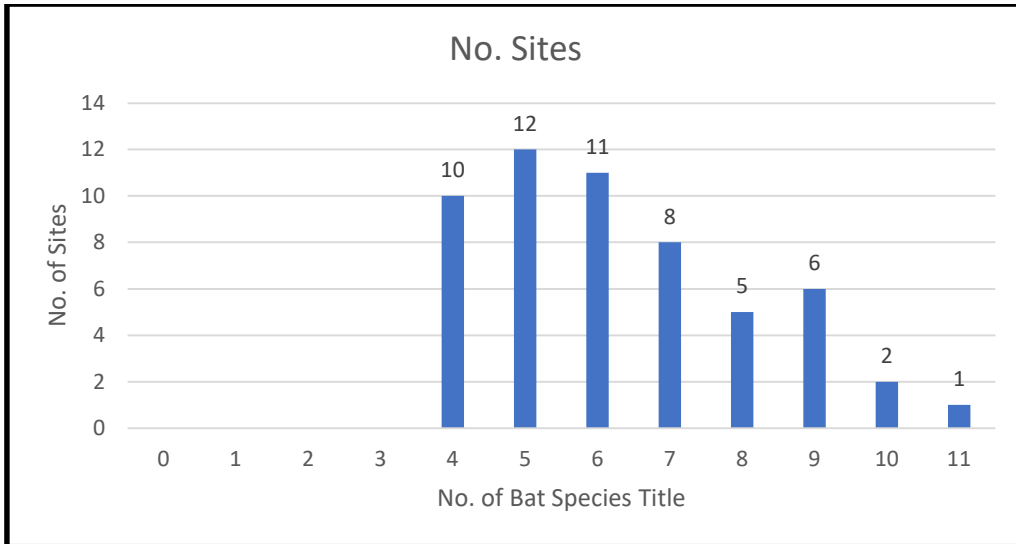
The software used during the survey gives an indication of the level of certainty (probability) of the correct identification of the recordings that it analyses. Only recordings with an identification probability of more than 50% are included in this report.

All of the results of records above that probability are presented in Appendices 1, 2, 3 and 4 organised by species and location.

This report presents survey data and some interpretations of same. It is hoped that others will use this document to better understand how bats use this area of Bristol and what implications this might have on future developments and other land use changes in the immediate area and beyond.

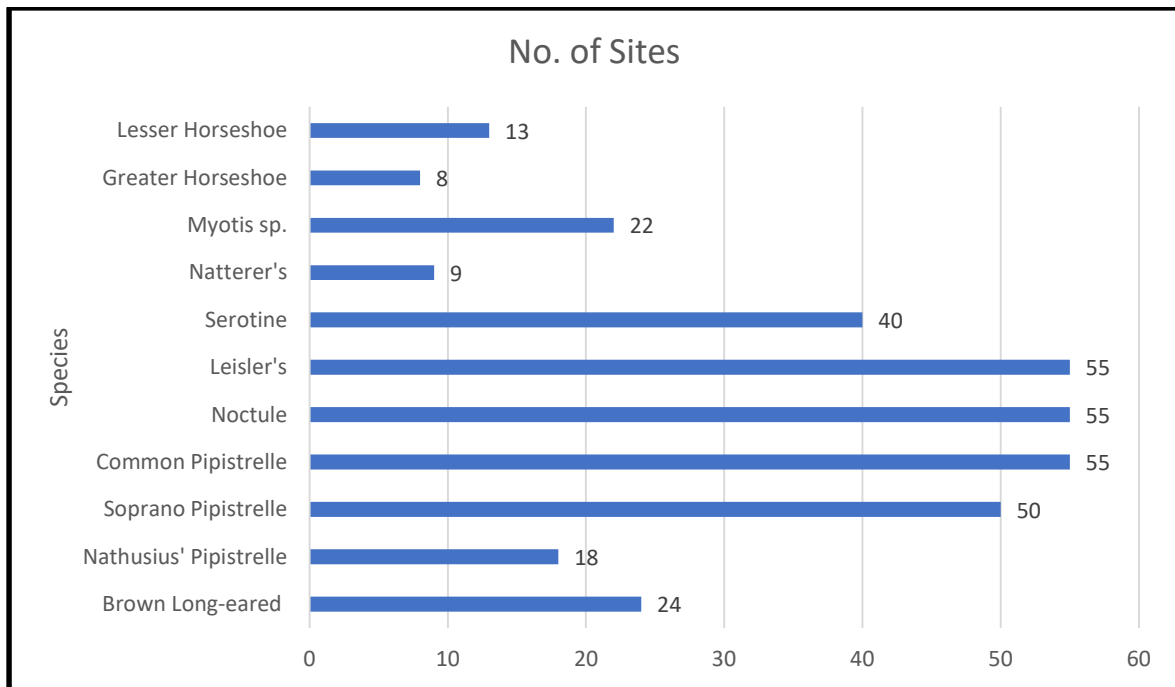
2. Results

At least four species (grouping together the smaller Myotis species) of bat were recorded at all of the 55 survey locations (see Graph 1).



Graph 1: Number of sites with number of bat species recorded per site

Leisler’s Bats, Noctules and Common Pipistrelles were recorded at all 55 survey locations, and Soprano Pipistrelles at 50 of the locations. Of the remaining seven species (grouping together the smaller Myotis species), these were recorded at between 8 and 40 of the 55 locations (see Graph 2).



Graph 2: Occurrence of bat species (out of 55 locations)

Common Pipistrelles made up 73% of the >50% probability 137,543 bat recordings across the 55 locations surveyed in BS3 during 2024 and 2025 (see Chart 1). In addition, only Serotines, Leisler’s Bats, Noctules and Soprano Pipistrelles contributed measurably to the total bat recordings. Six other species were present but contributed less than 1% each to the total number recordings.

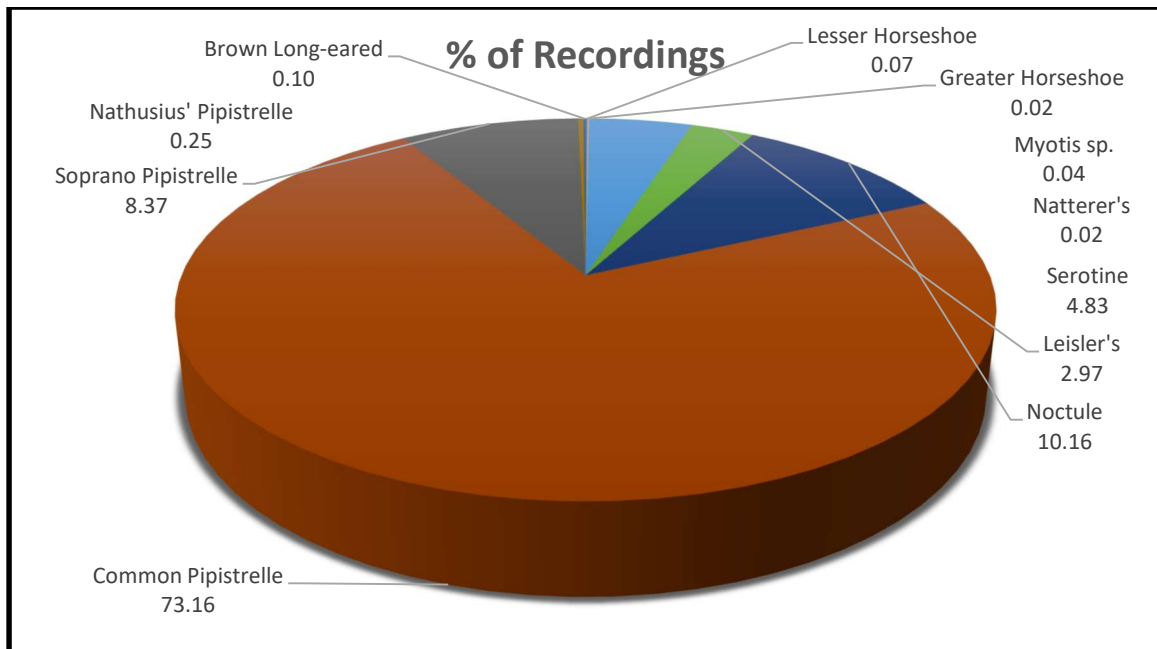


Chart 1: Proportions of recordings of bat species in BS3 (across 55 locations)

The Numbers

55 locations - 35 garden + 16 allotment + 1 Garden Centre + 1 City Farm + 1 school + 1 acta

334 – total number of ‘detector nights’

137,543 - bat recordings of 50% or more certainty of correct identification were obtained (see table 1)

4 – lowest number of bat species recorded on a site

11 – highest number of bat species recorded (combining small Myotis species)

11 – total number of bat species recorded (combining small Myotis species)

27.6 – lowest average number of bat recordings per survey night at a site

2454.3 – highest average number of bat recordings per survey night at a site

Species Accounts

Lesser Horseshoe Bat: The Lesser Horseshoe Bat (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/lesser-horsehoe>) is confined to Wales, western England and western Ireland. They tend to shun well-lit areas. Summer colonies are usually found in the roofs of larger rural houses and stable blocks offering a range of roof spaces and a nearby cellar, cave or tunnel where the bats can go torpid in inclement weather. In the winter they hibernate in caves, mines, tunnels and cellars.

To the west of BS3, internationally important, roosts are known at Clarken Coombe Lodge (one of the Long Ashton gatehouses) and a purpose built 'bat barn' at Barrow Gurney. Lesser Horseshoes hibernate in caves in Leigh Woods. To the east, at Arnos Vale Cemetery, the cellar beneath the roadway between the East and West Lodges is used by a small number of roosting Lesser Horseshoes. The basement below the Crematorium Spielman Centre is also used occasionally by small numbers of bats during the autumn, winter and spring.

This species was recorded at thirteen locations (see Figure 2). Nine of these sites are on the western edge of BS3, with the bats possibly being associated with the aforementioned western roost sites. The other four sites in south and southeast BS3 were associated with the railway line green corridor and, probably, Northern Slopes Local Nature Reserve.

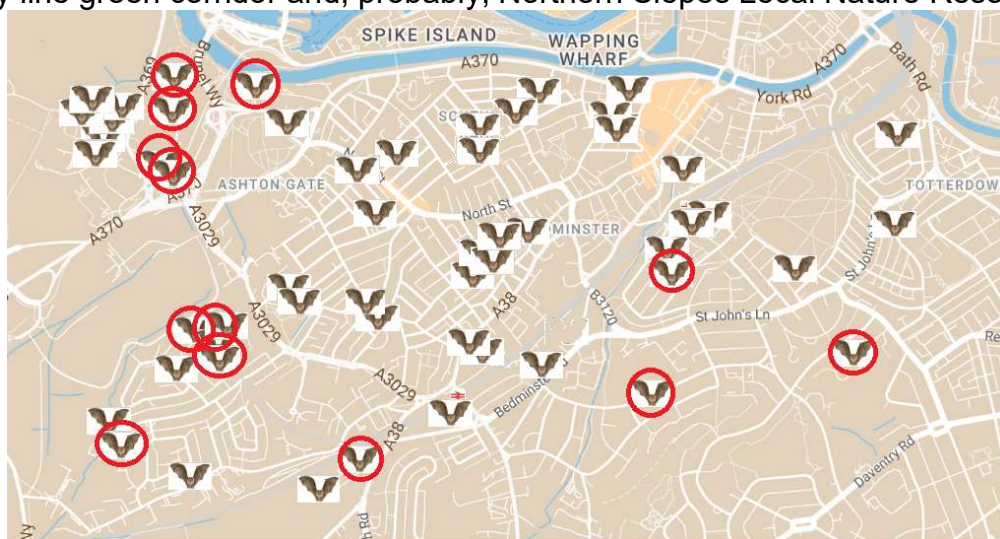


Figure 2: Location of Lesser Horseshoe Bats records (red circles)

Greater Horseshoe Bat: The Greater Horseshoe Bat (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/greater-horsehoe>) is much larger than its Lesser Horseshoe 'cousin', but its distribution and ecology are very similar to the latter species. It does however consume larger insect prey, such as chafers, dung beetles, noctuid moths, craneflies and caddis flies.

To the west of BS3, roosting Greater Horseshoe Bats are occasionally found at Clarken Coombe Lodge (one of the Long Ashton gatehouses). They have been regularly recorded during development led surveys on the Southwest edge of Bristol, but usually at lower levels than Lesser Horseshoes.

This species was not recorded at any of the 2024 survey sites, but was recorded at eight locations in 2025. Six of these locations were within four allotment sites, concentrated around Bower Aston (see Figure 3). The remaining two locations were situated near to the railway line. This is a somewhat different distribution pattern to the Lesser Horseshoe Bat, possibly due to the presence of larger flying dung and grassland beetles associated with Ashton Court deer park.

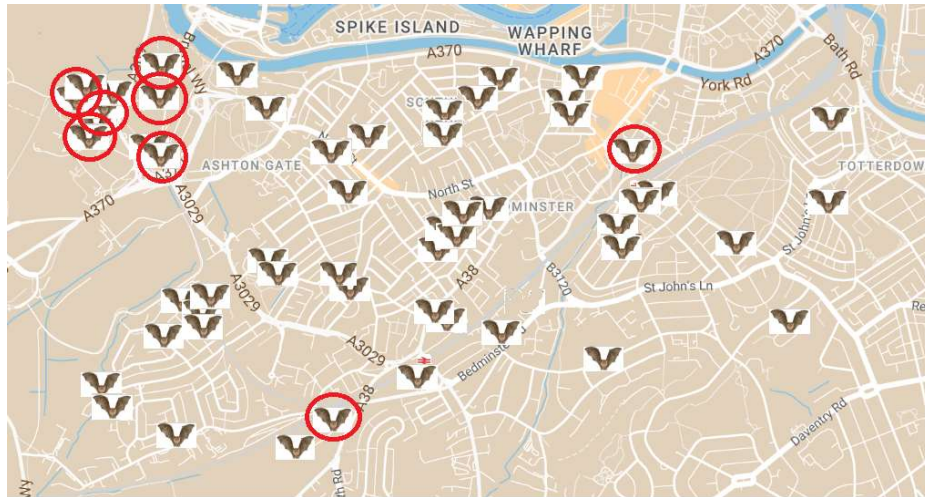


Figure 3: Location of Lesser Horseshoe Bats records (red circles)

Myotis sp. Bats: Identification of the calls of small Myotis bats i.e., Daubenton's (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/daubentons-bat>), Brandt's (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/brandts-bat-2>) and Whiskered (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/whiskered-bat>) Bats can be difficult as there is some overlap of wavelengths and calls can therefore look similar. For the purpose of this report, the records of all of the aforementioned species are amalgamated.

The majority of Daubenton's bat summer roosts are in humid sites near water. These may be tunnels or bridges over canals and rivers, or in caves, mines and cellars. They are only occasionally found in buildings, usually old stone structures such as moated castles and waterworks. Brandt's and Whiskered Bats are regularly found in all types of houses including some modern ones, but particularly in older buildings with stone walls and slate roofs. Colonies of Brandt's and Whiskered Bats may use separate parts of the same roof and may also roost with Pipistrelles or Long-eared Bats. All three Myotis species hibernate in caves, mines and other underground sites.

The twenty-two locations with Myotis species bats were spread across BS3, but with concentrations associated with the allotments in Ashton Vale and the Great Western Railway line corridor (see Figure 4).

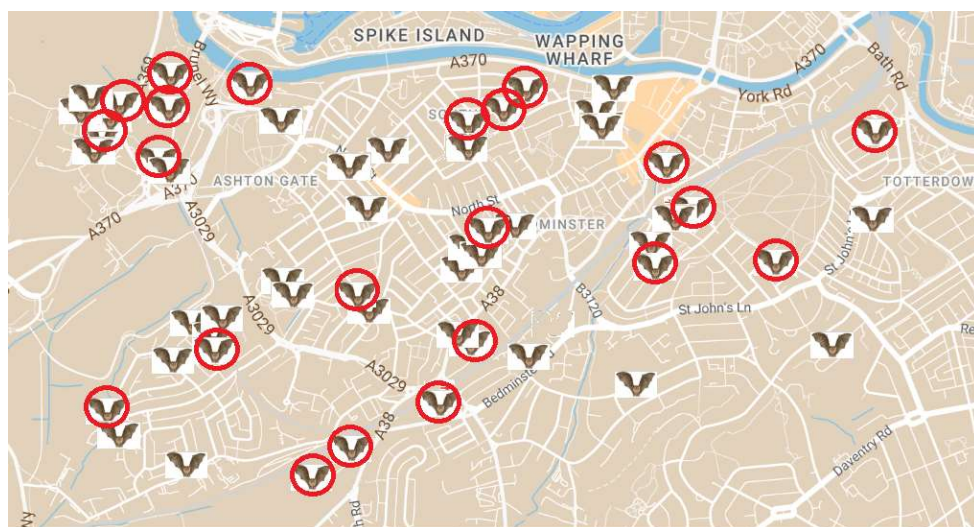


Figure 4: Location of Myotis species bat records (red circles)

Natterer's Bat: Natterer's Bats (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/natterers-bat>) are found throughout most of the British Isles. Relatively few summer roost sites are known; however, most known summer colonies are in old stone buildings with large timber beams, such as castles, manor houses and churches, or large old timbered barns. Much of the prey is taken from foliage and includes many flightless or day-flying insects.

All of the nine Natterer's Bat records were situated near to significant green-spaces and corridors, namely the Ashton Vale allotments and wetlands, the New Cut River and along the Great Western Railway line (see Figure 5).

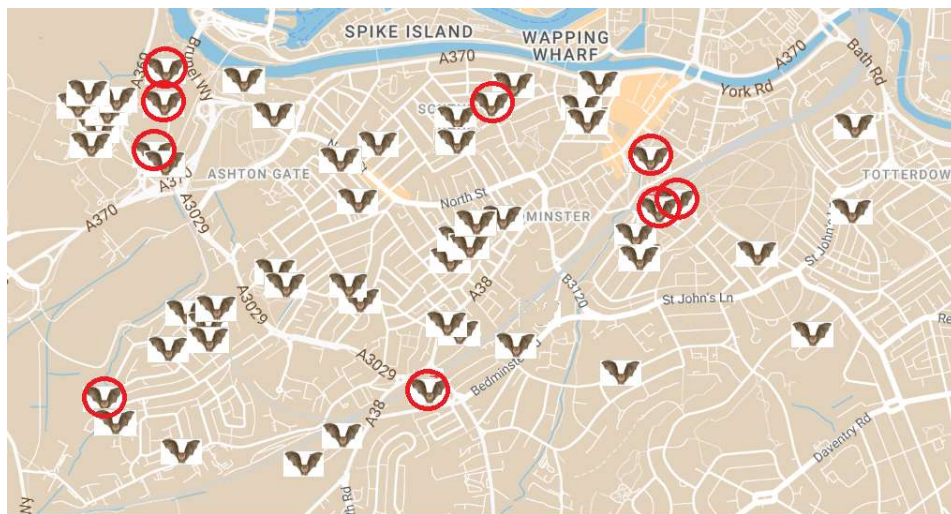


Figure 5: Location of Natterer's Bat records (red circles)

Serotine: The Serotine (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/serotine>) is one of our less common species, occurring mainly south of a line drawn from The Wash to parts of South Wales. It is one of our largest bats. It flies at about tree-top height often close to vegetation, and will sometimes catch large insects directly from foliage. It will feed around street lamps and even catch prey from the ground.

Serotines were recorded at forty of the fifty-five survey locations, scattered throughout BS3.



Figure 6: Location of Serotine records (red circles)

Leisler's Bat: Leisler's Bats (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/leislars-bat>) and Noctules are large bats that are closely related to each other. They usually fly high and fast in the open, with shallow dives, and in suburban areas they may be attracted to insects that congregate around street lights.

Leisler's Bat is found in scattered populations throughout the British Isles, with the exception of northern Scotland. Leisler's Bat naturally roosts in tree holes, but bat boxes are also used. They occasionally share roosts with noctules and pipistrelles. They also roost in old and new buildings. This is a mobile species and one roost is often occupied for only a few days before the colony moves to another roost. In view of its rarity in Britain, all known roosts are important.

Leisler's Bats were recorded at all 55 survey locations in BS3 (see Figure 7). They made up the highest number of recordings at site BS3 2NX, even outnumbering Common Pipistrelles.

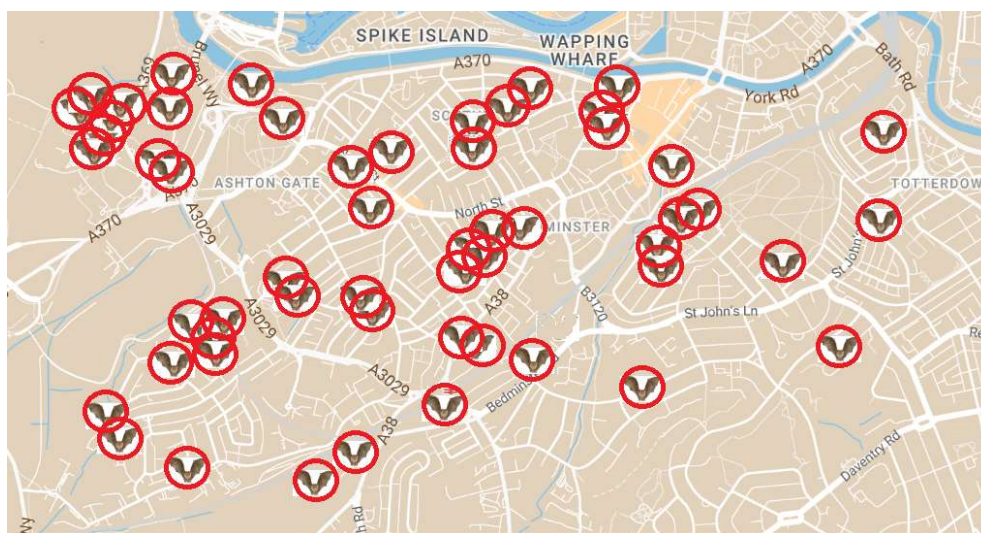


Figure 7: Location of Leisler's Bat records (red circles)

Noctule: The Noctule (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/noctule>) is one of the largest British bats. It is primarily a tree dweller, roosting in rot holes and woodpecker holes; occurring only rarely in buildings. They are known to fly over 10km from roost to feeding areas. This species is relatively widespread in much of England, Wales and south-west Scotland.

Noctules were recorded at all survey locations in BS3 (see figure 8).

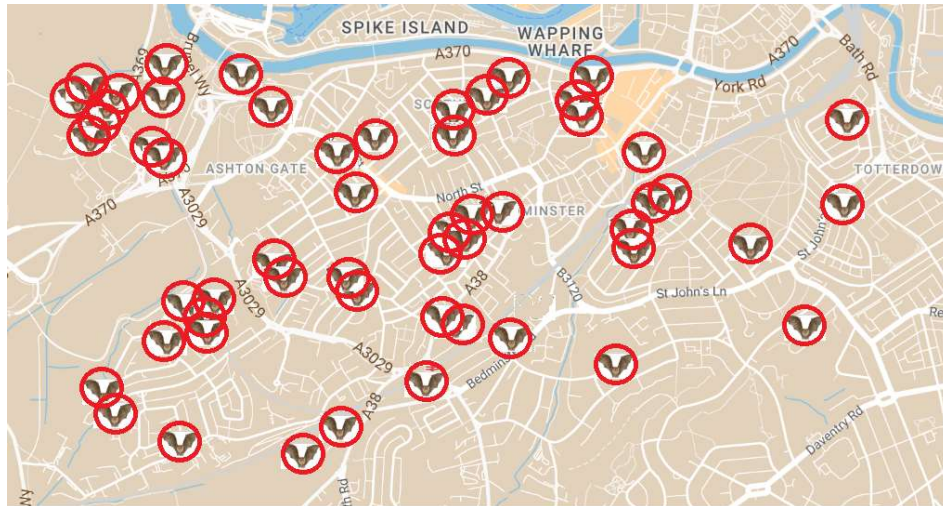


Figure 8: Location of Noctule records (red circles)

Common and Soprano Pipistrelles: Only identified as different species in the 1990s, Common (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/common-pipistrelle>) and Soprano (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/soprano-pipistrelle>) Pipistrelles, echolocate at different frequencies. Together they are the most abundant bats in the UK. Roosts of both species are usually found in crevices around the outside of newer buildings. They can be found behind hanging tiles, soffit and barge or eaves boarding, between roofing felt and roof tiles or in cavity walls. They also roost in tree holes and crevices, and bat boxes. Sopranos favour wetland habitats, but both species also feed in a wide range of habitats comprising woodland, hedgerows, grassland, farmland, suburban and also urban parks and gardens.

Common Pipistrelles were recorded at all locations (see Figure 9) and Soprano Pipistrelles at 50 of the 55 survey locations (see Figure 10). With the exception of site BS3 2NX, Common Pipistrelles made up the highest number of recordings at each location. The frequency (number of recordings per night) varied by a factor of over 200, from circa eight, at site BS3 1AR, to 1761 at Riverside Garden Centre (see table 2). Circa 73% of the total recordings were attributed to Common Pipistrelles.

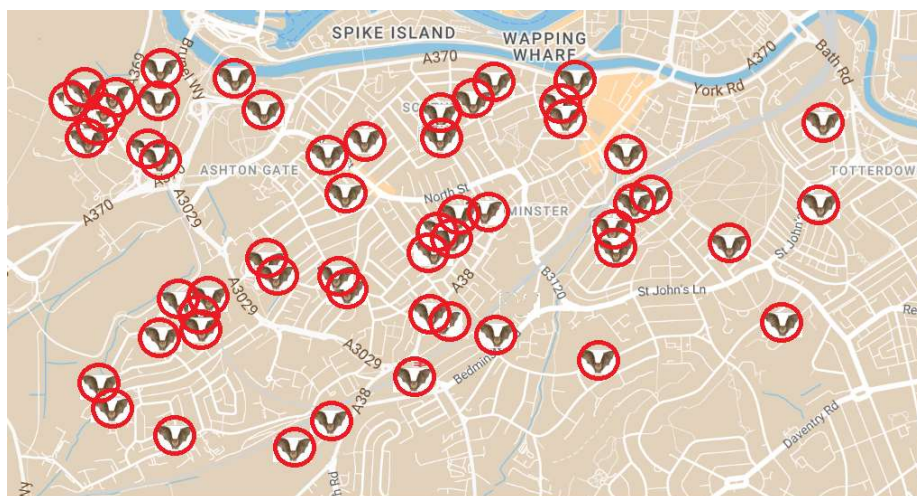


Figure 9: Location of Common Pipistrelle records (red circles)

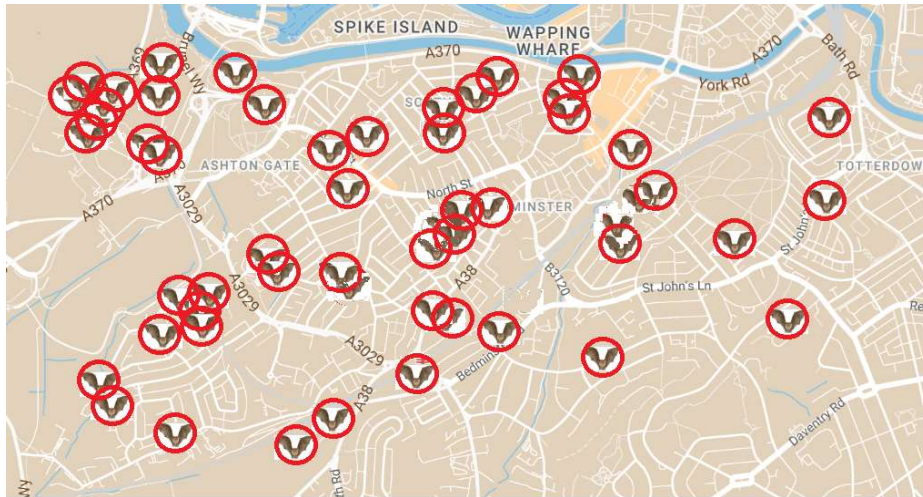


Figure 10: Location of Soprano Pipistrelle records (red circles)

Nathusius' Pipistrelle: Nathusius' Pipistrelle (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/nathusius-pipistrelle>) is rare in the UK, but there is a population in the southwest, including the Bristol area. In continental Europe, this species migrates across the continent each spring and autumn. In the UK it appears that a small summer breeding population is supplemented by migratory individuals during the winter.

Nathusius' pipistrelles are often recorded roosting in crevices and have been found in cracks in walls, under soffit boards, fissures in rocks and tree hollows. In the UK, only a small number of maternity colonies have been reported and these have been in the walls of traditionally-built buildings of stone and red brick, in wall cavities and under flat roofs. Maternity roosts are frequently shared with Soprano Pipistrelles.

The majority of roosts are located close to large freshwater lakes, and this species trends to forage near rivers, canals, lakes and waterlogged areas, as well as in woodland rides and edges.

Nathusius' Pipistrelles were recorded at eighteen sites scattered widely across BS3, but with a concentration over the Ashton Vale allotments (see Figure 11).

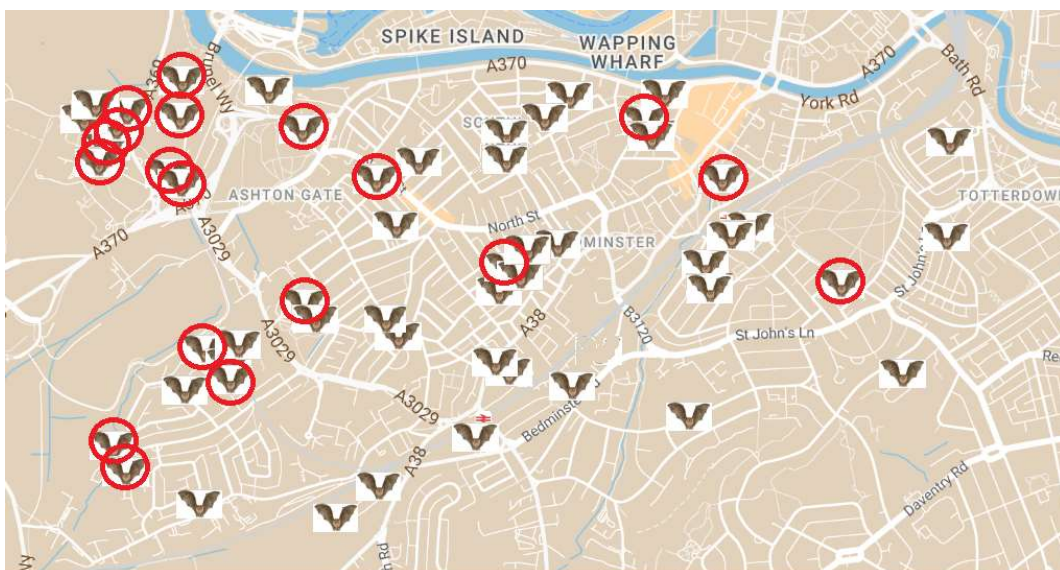


Figure 11: Location of Nathusius' Pipistrelle records (red circles)

Brown Long-eared Bat: The Brown Long-eared Bat (<https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/brown-long-eared-bat>) is found throughout the UK. On a bat detector the calls are very quiet and therefore only picked up when the bats are close to the detector. Summer roosts are usually located in older buildings, barns, churches and trees, where they form small colonies of about twenty animals. They tend to hang along the board in house lofts and hence are one of the most visible of bats when roosting. Their usual foraging habitat is open deciduous and coniferous woodland, parkland and orchards.

Brown Long-eared Bats were recorded near to natural habitats at twenty-four locations mainly in Ashton Vale and along the Great Western Railway line corridor (see Figure 12).

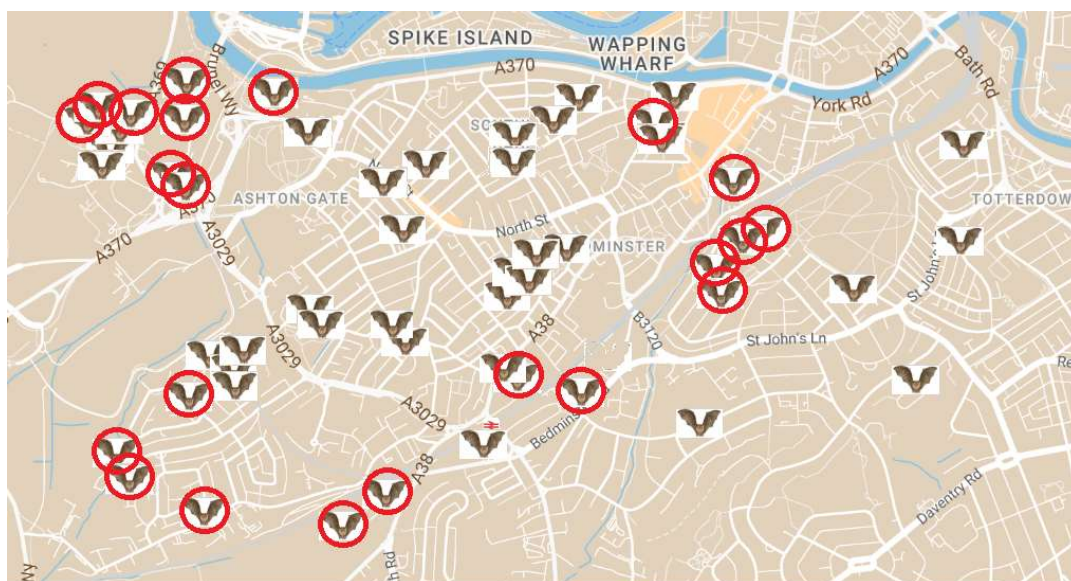
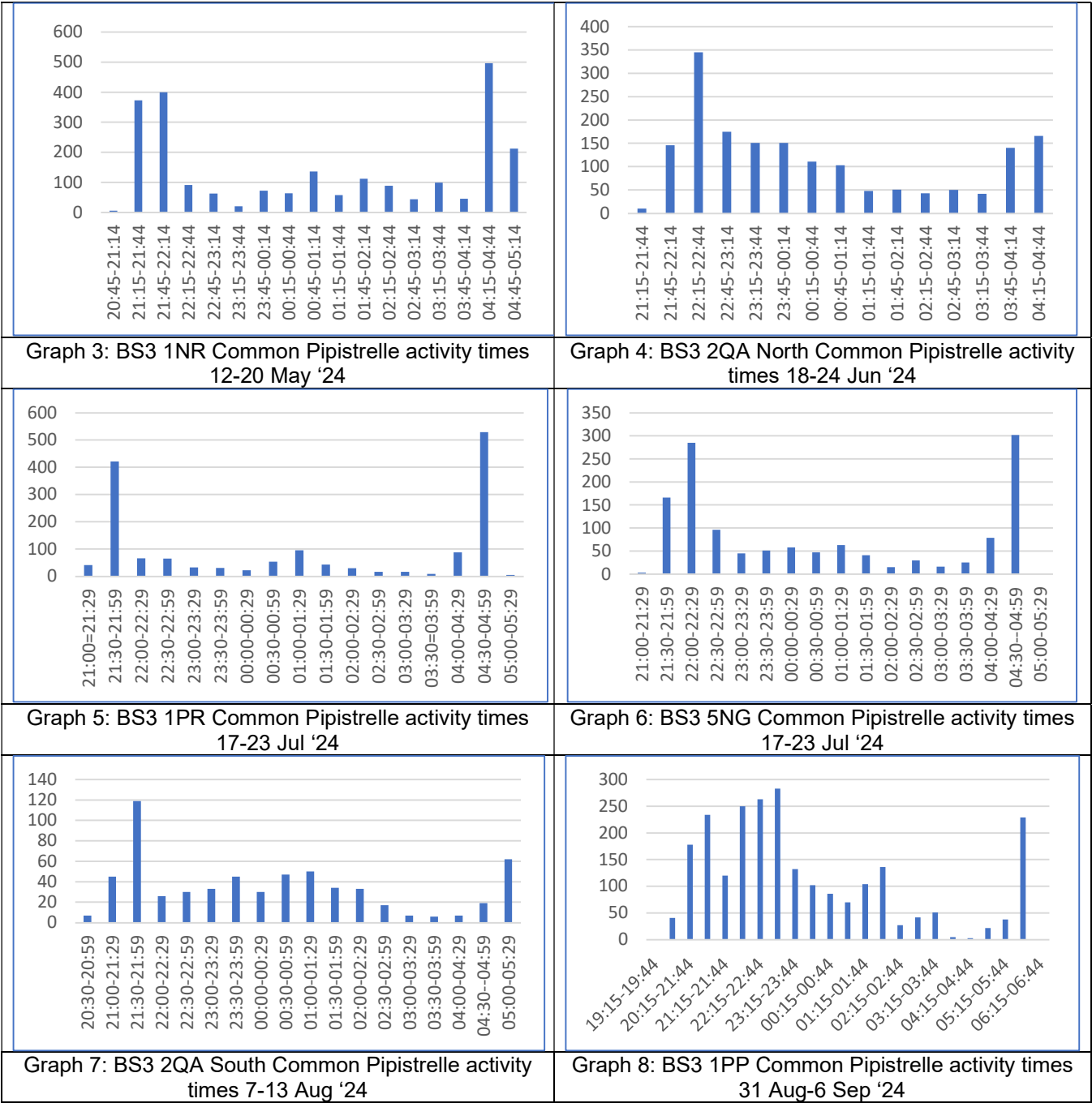


Figure 12: Location of Brown Long-eared Bat records (red circles)

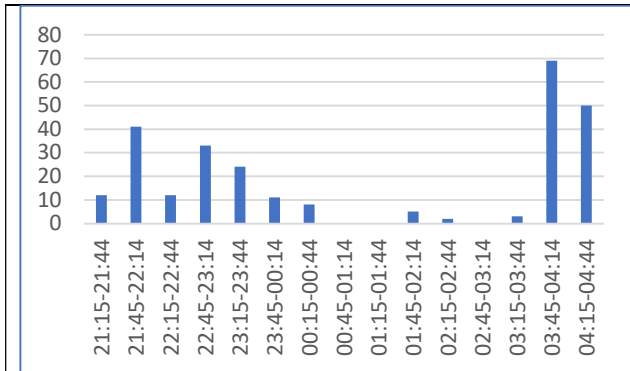
The Nature of Recorded Bat Activity

At many sites there were sufficient recordings, usually of Common Pipistrelles, to analyse activity rates at different time periods through the night. Such analysis can give a clue to the nature and reason for the activity.

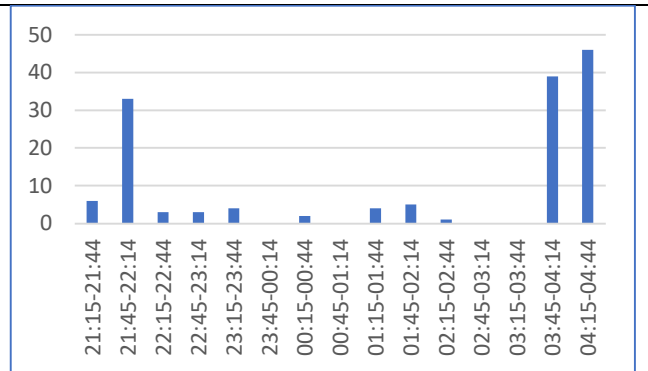
Common Pipistrelle activity was heavily concentrated around dusk and dawn at several sites (see Graphs 3 to 8). This *might* indicate that a maternity roost (females with their young of the year) were present nearby.



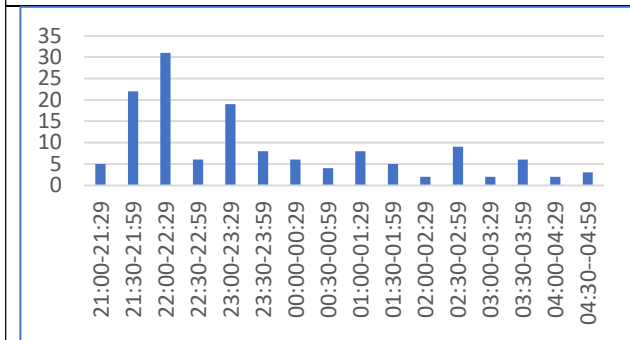
Two other species had similar concentrations of activity, namely Leisler's bats and Noctules at BS3 2QA (see Graph 9 to 10), and Leisler's Bats at BS3 5NG (see Graph 11), which again might indicate that roosts were nearby.



Graph 9: BS3 2QA North Leisler's Bat activity times 18-24 Jun '24

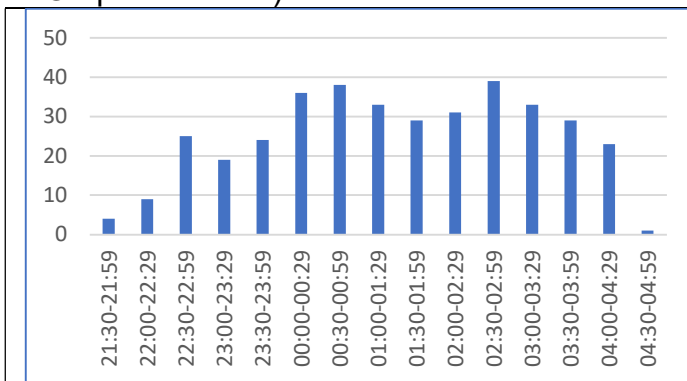


Graph 10: BS3 2QA North Noctule activity times 18-24 Jun '24

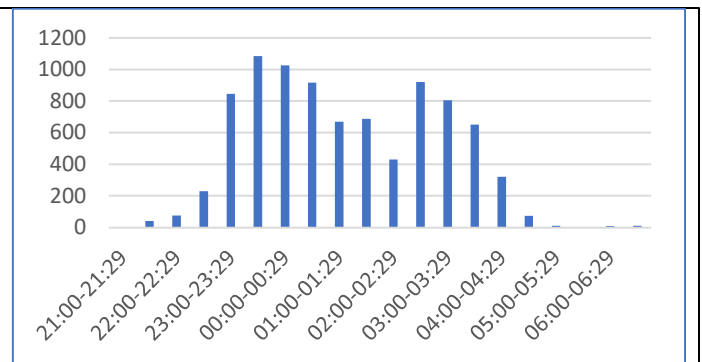


Graph 11: BS3 5NG Leisler's Bat activity times 17-23 Jul '24

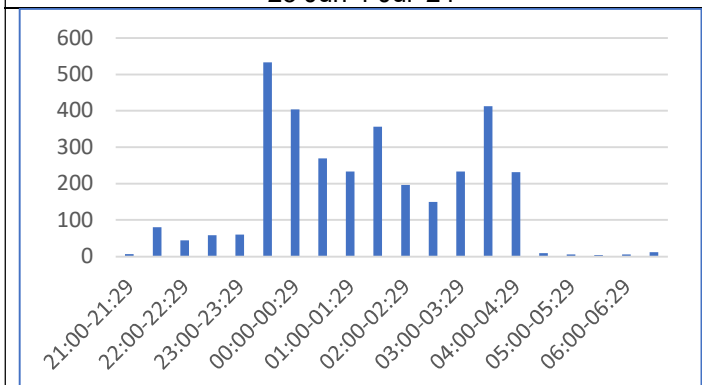
Common and Soprano Pipistrelle activity peaked in the middle of the night at some sites, indicating that these were likely to be favoured site to which bats travelled for foraging (see Graphs 12 to 14).



Graph 12: BS3 1DH Common Pipistrelle activity times 25 Jun-1 Jul '24

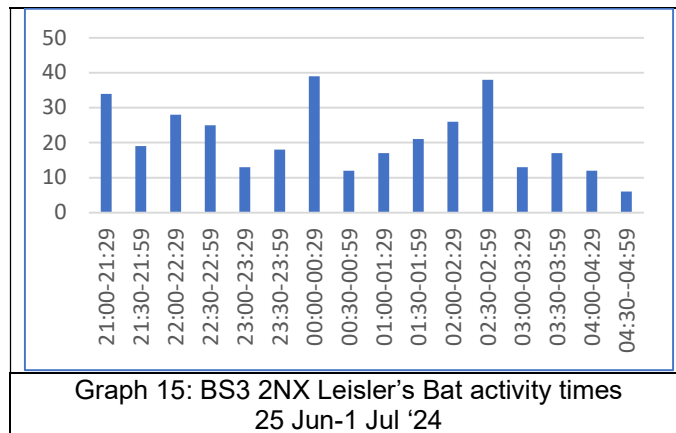


Graph 13: Riverside Garden Centre Common Pipistrelle activity times 23-28 Aug '24

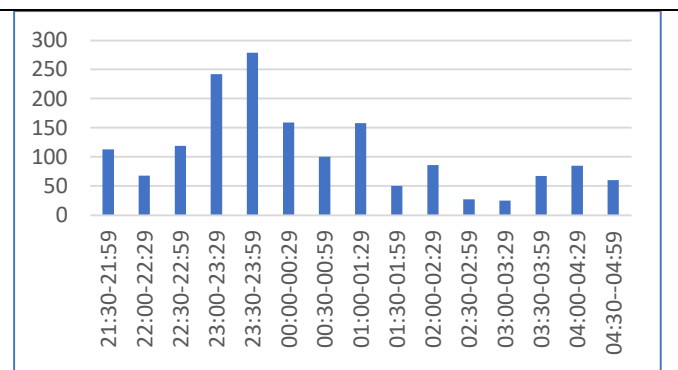
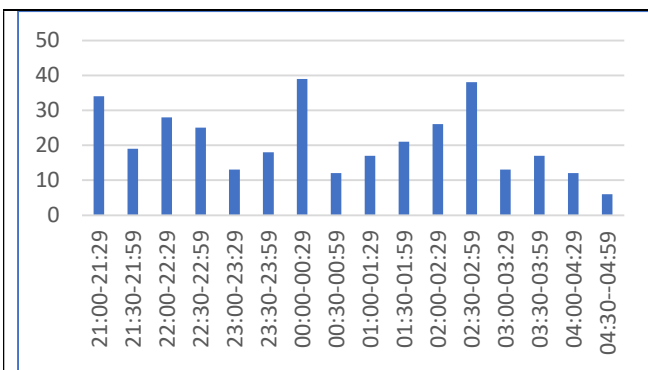


Graph 14: Riverside Garden Centre Soprano Pipistrelle activity times 23-28 Jul '24

Leisler's Bat recordings outnumbered those of Common Pipistrelles at BS3 2NX. There were only ninety recordings of the former species, which is hardly enough to analyse, however the distribution of recording times suggests that Leisler's Bats were feeding or transiting through, rather than roosting in the area (see Graph 15).

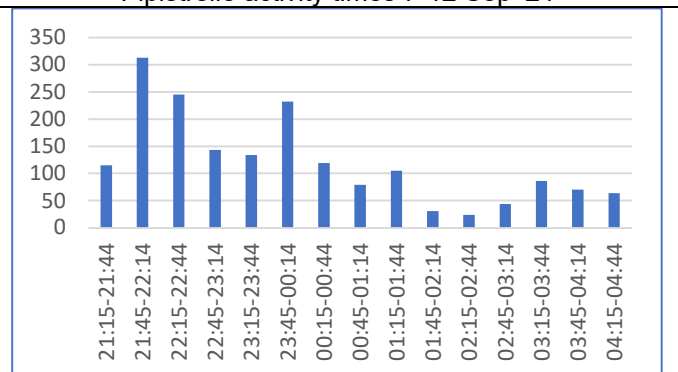
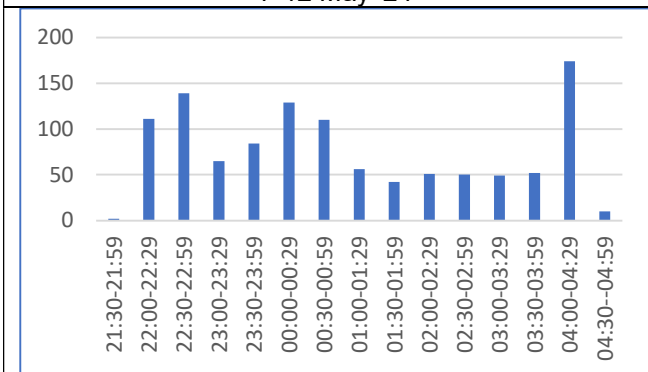


Other sites had Common Pipistrelle activity more evenly distributed through the night, possibly indicating that these were favoured sites for foraging, but by bats that had not travelled far to get there (see Graphs 16 to 20).



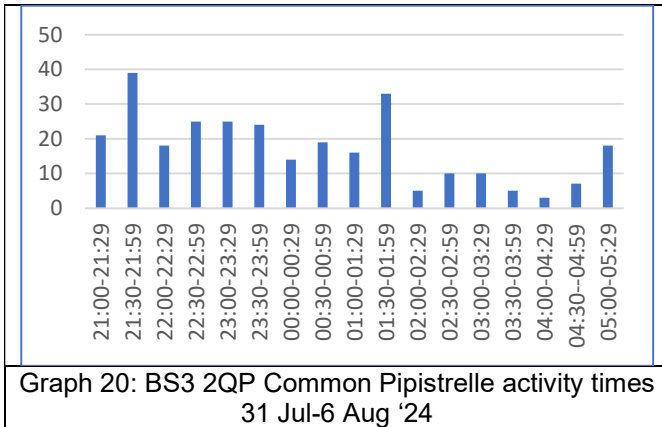
Graph 16: BS3 1LS Common Pipistrelle activity times 7-12 May '24

Graph 17: Alderman Moore Allotments Common Pipistrelle activity times 7-12 Sep '24

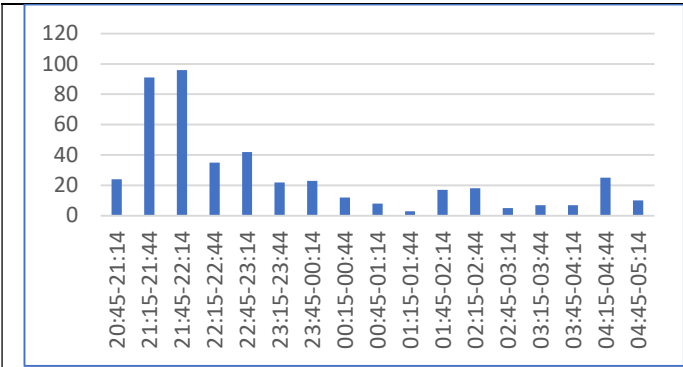


Graph 18: BS3 2QE Common Pipistrelle activity times 18-23 Jun '24

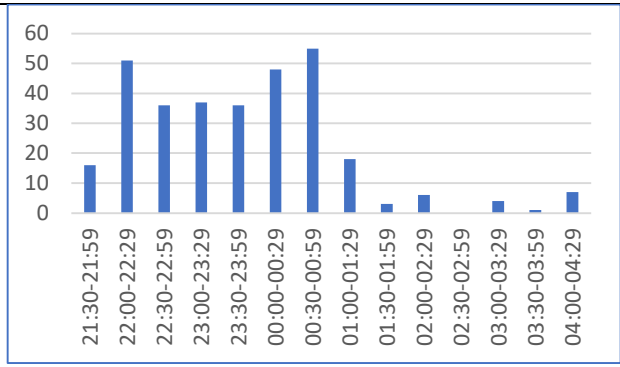
Graph 19: BS3 4QE Common Pipistrelle activity times 24-31 Jul '24



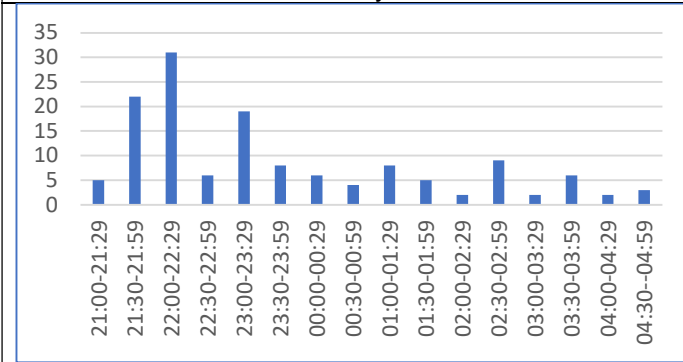
The nature of the activity was more difficult to interpret at other sites, for example at several sites there were peaks of activity early in the evening that *might* indicate emergence from a nearby roost, but no corresponding similar magnitude dawn peaks that indicate re-entry in to a roost (see Graphs 21 to 27). The early evening activity *could*, however, be due to young bats taking exploratory and exercise flights outside a nursery roost, whilst their mothers are away foraging.



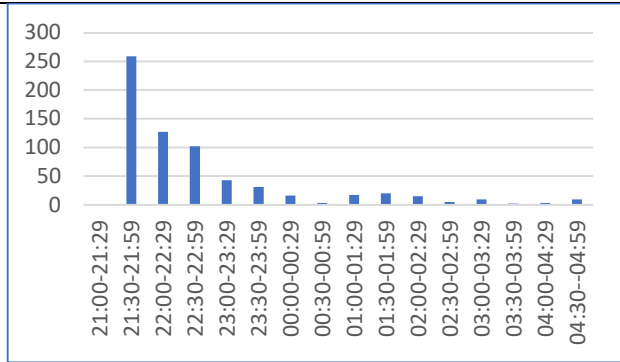
Graph 21: BS3 2DR Common Pipistrelle activity times 7-11 May '24



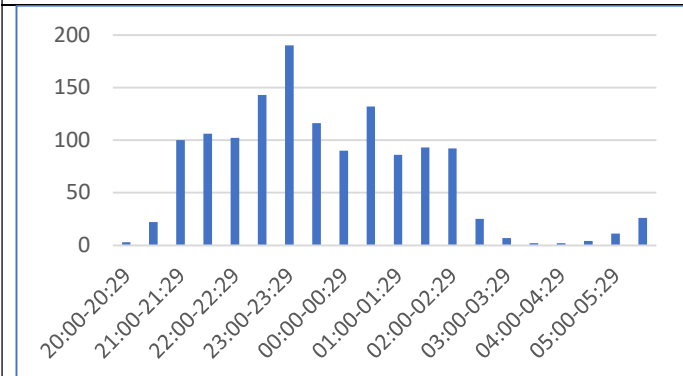
Graph 22: BS3 4LY Common Pipistrelle activity times 2-8 Jul '24



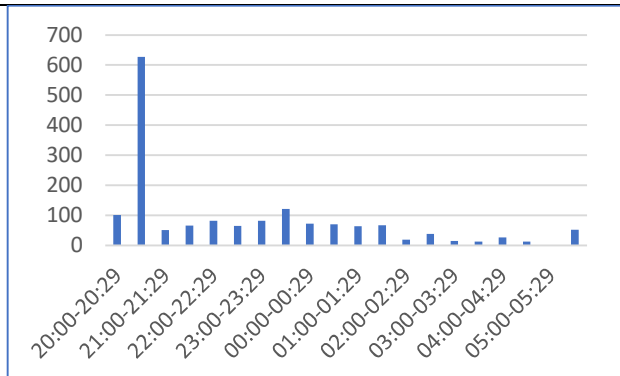
Graph 23: BS3 5NG Common Pipistrelle activity times 17-23 Jul '24



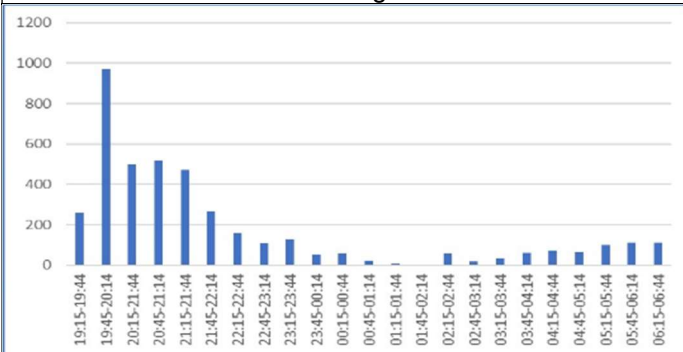
Graph 24: BS3 4TU Common Pipistrelle activity times 24-30 Jul '24



Graph 25: BS3 4NZ Common Pipistrelle activity times 23-28 Aug '24

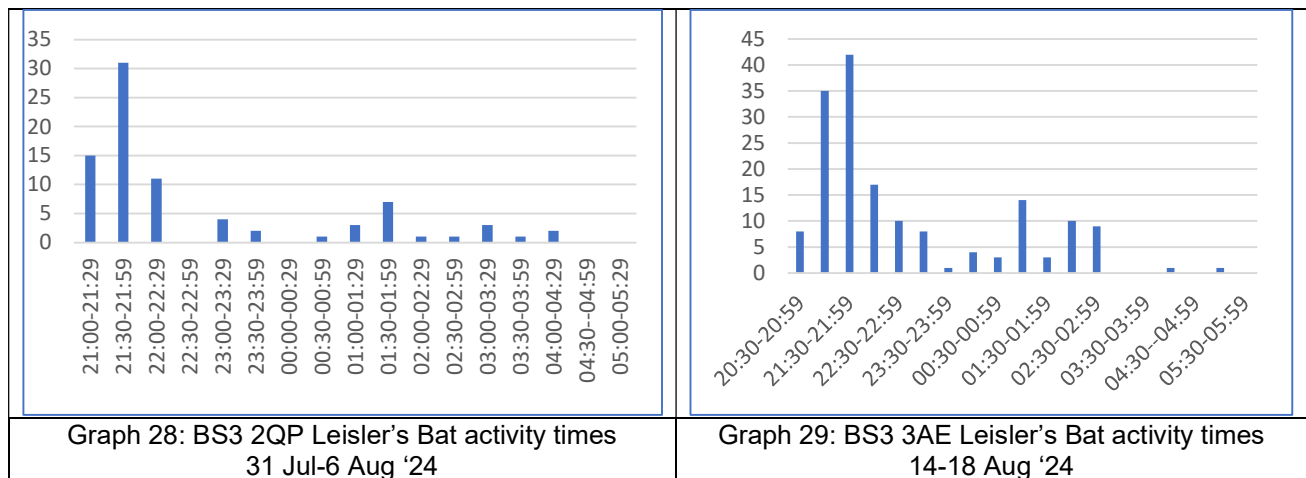


Graph 26: BS3 5NU Common Pipistrelle activity times 23-29 Aug '24

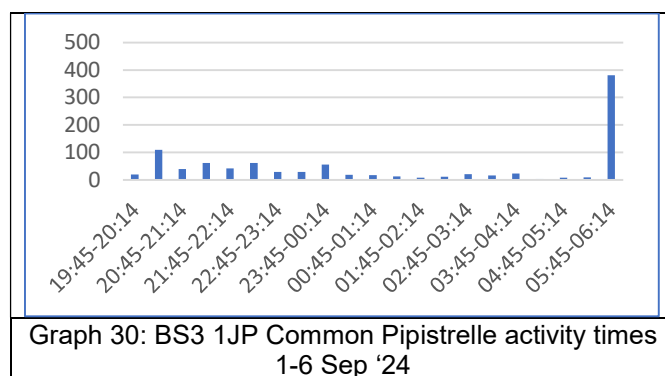


Graph 27: BS3 2LN Common Pipistrelle activity times 18-26 Sep '24

Similar dusk, with no concentrations of dawn, activity was exhibited by Leisler’s Bats at BS3 2QP and BS3 3AE (see Graphs 28 and 29). This again *may* indicate the presence of nursery roosts nearby.



There is evidence of likely dawn ‘swarming’ activity at one site, BS3 1JP (see Graph 30). This activity occurs when bats gather and repeatedly circle the entrance to a roost before entering it.



Comparing Selected Locations

A few locations were subject to more than one survey session. This was usually because sites were situated near to each other (typically on the same road) and therefore shared the same postcode, or individual sites had been the subject of more than one survey session.

BS3 4LY North, BS3 4LY South and BS3 4NZ

Two urban garden sites, 100m apart on the same side of the road, at BS3 4LY, were surveyed at the same time (see Tables 1, 2 and 3), a third urban site, BS3 4NZ, was situated 100m from BS3 4LY South. The northernmost garden was nearest to Victoria Park, which could explain the ‘thinning out’ of species between this and BS3 4LY South and then BS3 4NZ. There was a corresponding increase in the proportion of Common Pipistrelles through this series (see Charts 2, 3 and 4). It is notable that Brown Long-eared Bats, a species closely associated with trees, were recorded at all three sites, but in decreasing proportions through the aforementioned series.

Species	Recordings	%
Daubenton's Bat	1	0.3
Natterer's Bat	10	2.8
Serotine	1	0.3
Leisler's Bat	12	3.4
Noctule	8	2.2
Common Pipistrelle	318	88.8
Soprano Pipistrelle	0	0.0
Brown Long-eared Bat	8	2.2
	358	100.0

Table 1: Results for BS3 4LY North 2-8 Sep '24

Species	Recordings	%
Daubenton's Bat	0	0.0
Natterer's Bat	10	4.2
Serotine	0	0.0
Leisler's Bat	5	2.1
Noctule	3	1.3
Common Pipistrelle	217	90.8
Soprano Pipistrelle	0	0.0
Brown Long-eared Bat	4	1.7
	239	100.0

Table 2: Results for BS3 4LY South 2-8 Sep '24

Species	Recordings	%
Daubenton's Bat	0	0
Natterer's Bat	0	0
Serotine	0	0
Leisler's Bat	39	2.5
Noctule	16	1.0
Common Pipistrelle	1472	95.
Soprano Pipistrelle	7	0.5
Brown Long-eared Bat	1	0.1
	1535	100.0

Table 3: Results for BS3 4NZ 23-28 Aug '24

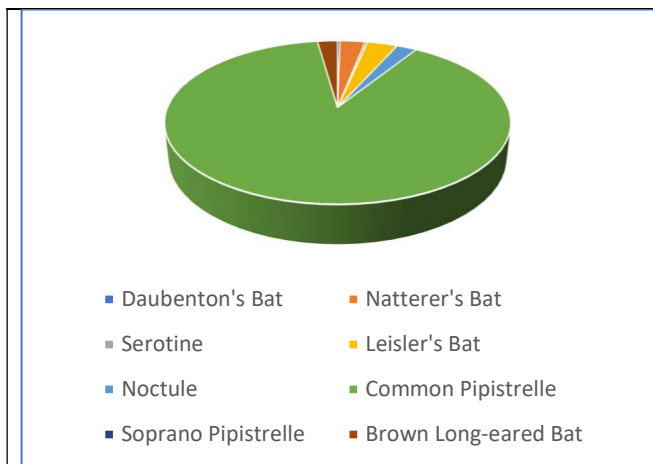


Chart 2: Proportions of bat species at BS3 4LY North 2-8 Sep '24

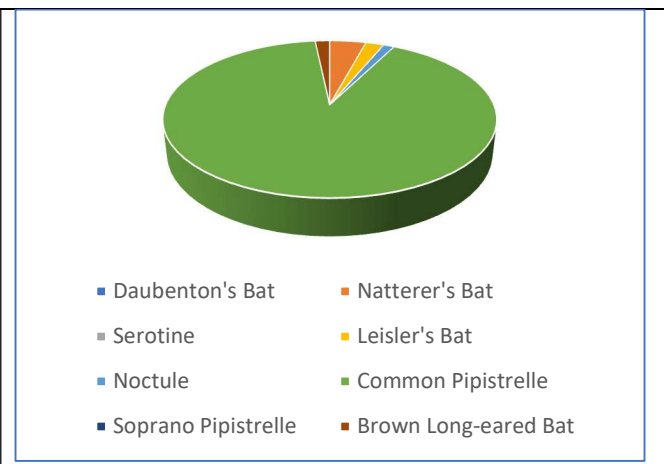
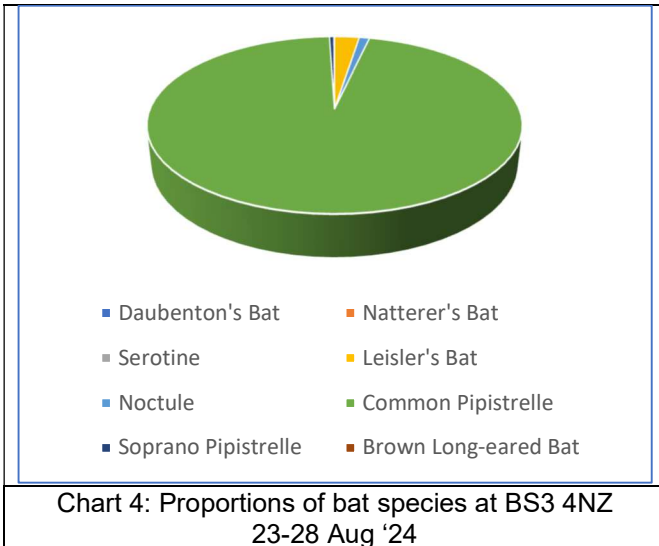


Chart 3: Proportions of bat species at BS3 4LY South 2-8 Sep '24



BS3 3JU, BS3 3AU and BS3 3AE

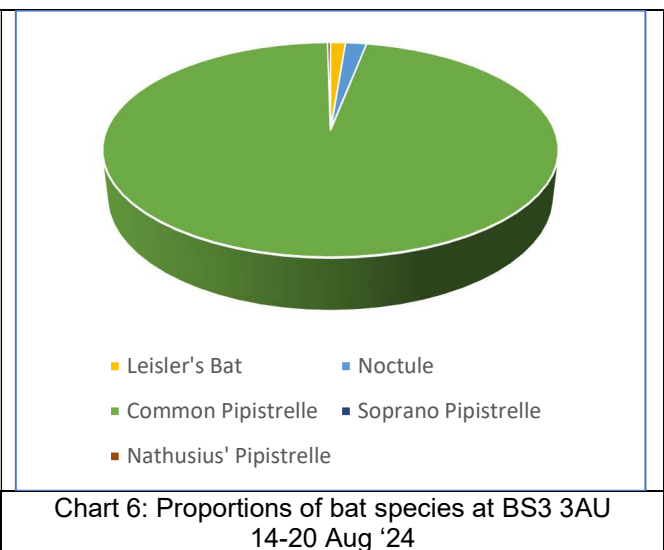
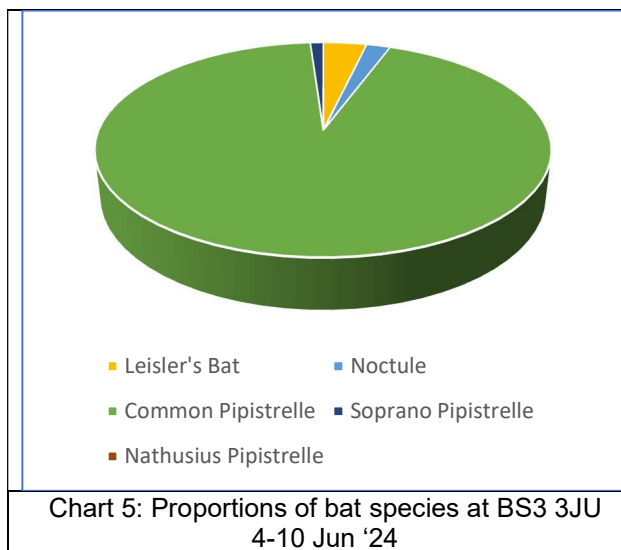
Sites BS3 3JU and BS3 3AU had some interesting similarities and contrasts. They were c100m apart, with a similar mix and proportion of species (see Tables 4 and 5, and Charts 5 and 6), there was however a notable difference in the nature of Common Pipistrelle activity, with that at BS3 3JU indicating that a nursery roost was likely present very nearby, and that at BS3 3AU indicating that this site was favoured for foraging, possibly from many of the bats from the former site (see Graphs 31 and 32).

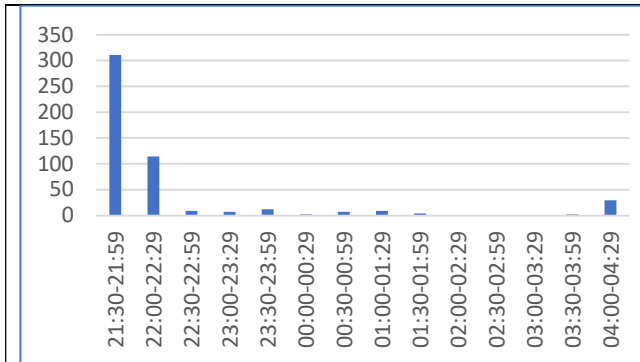
Species	Records	%
Leisler's Bat	20	3.7
Noctule	11	2.0
Common Pipistrelle	509	93.2
Soprano Pipistrelle	6	1.1
Nathusius Pipistrelle	0	0.0
Total	526	100.00

Table 4: Results for BS3 3JU 4-10 Jun '24

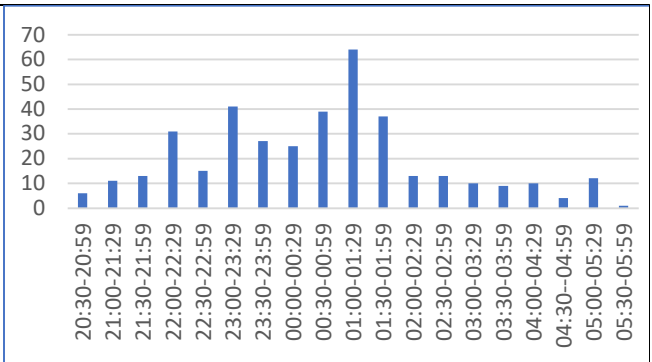
Species	Records	%
Leisler's Bat	5	1.3
Noctule	7	1.8
Common Pipistrelle	381	96.7
Soprano Pipistrelle	0	0.0
Nathusius' Pipistrelle	1	0.3
Total	394	100.0

Table 5: Results for BS3 3AU 14-20 Aug '24



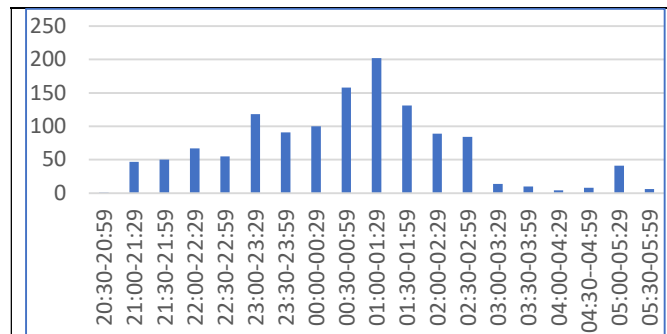


Graph 31: BS3 3JU Common Pipistrelle activity times 4-11 Jun '24



Graph 32: BS3 3AU Common Pipistrelle activity times 14-20 Aug '24

BS3 3AE was situated c220m from the aforementioned site BS3 3AU. The former site had an almost identical Common Pipistrelle activity pattern to the latter (see Graphs 32 [above] and 33). As previously discussed, BS3 3AE had similar Leisler's Bat dusk, with no concentrations of dawn, activity pattern to BS3 2QP (see Graphs 28 and 29). This *may* indicate the presence of nursery roost nearby.



Graph 33: BS3 3AE Common Pipistrelle activity times 14-17 Aug '24

Ashton Drive BS3 2QA North and South

Two sites were located 100m apart at the extreme west end of Ashton Drive, at BS3 2QA. The sites exhibited a similar range of species (see Charts 7 and 8).

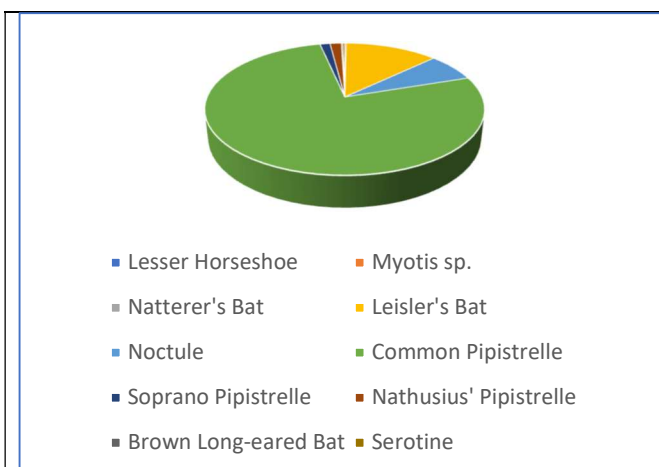


Chart 7: Proportions of bat species at BS3 2QA North 18-24 Jun '24

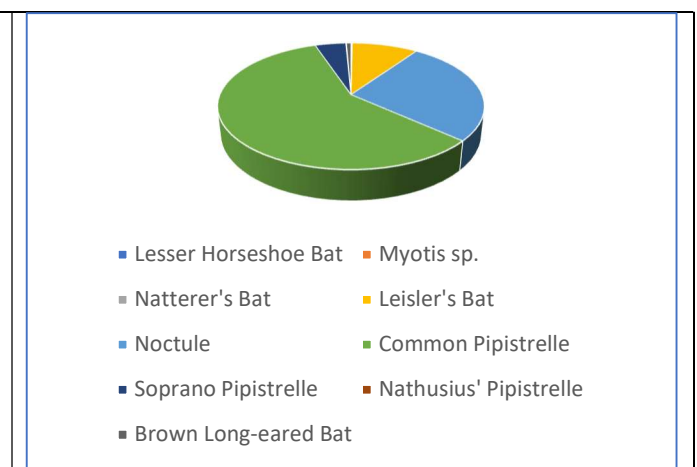
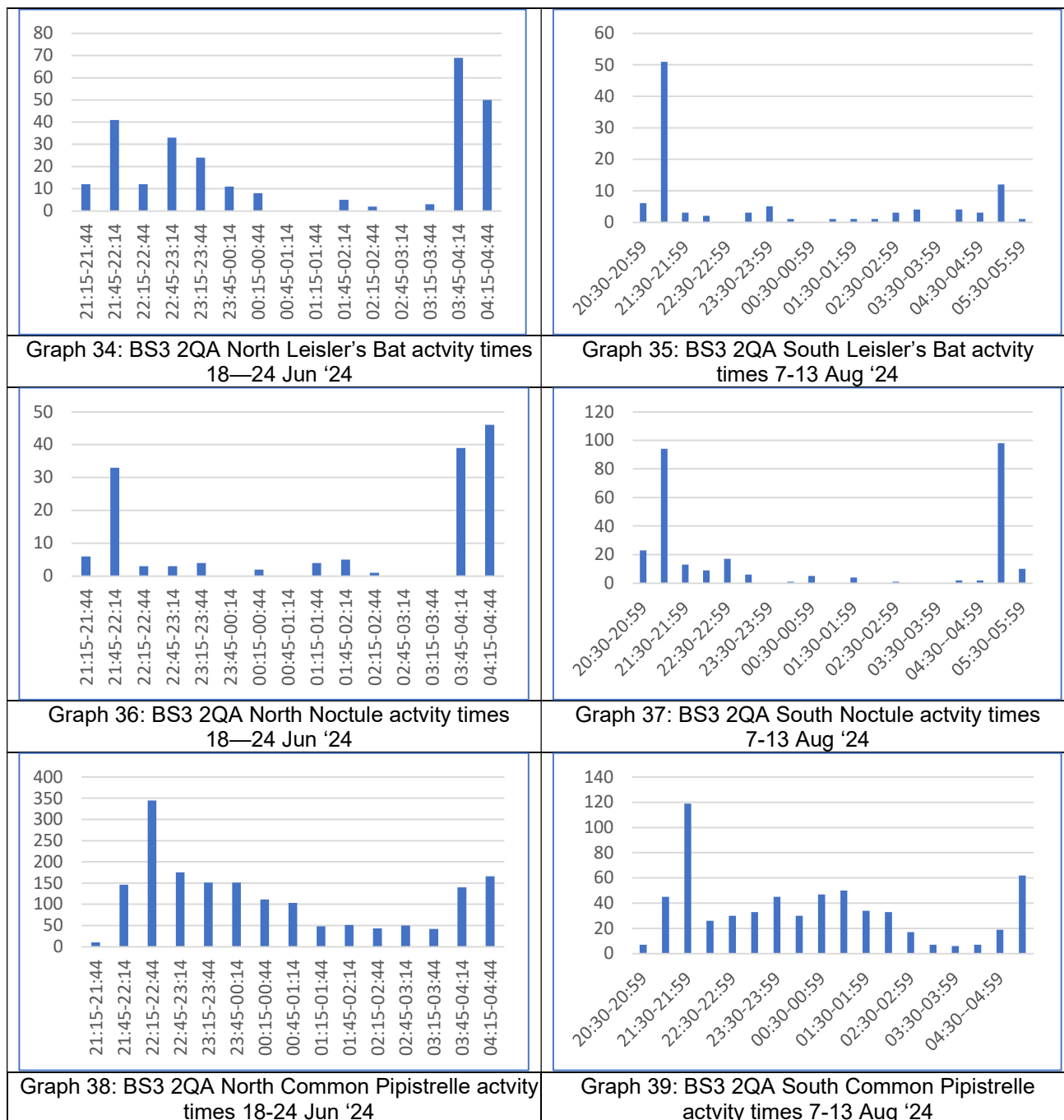


Chart 8: Proportions of bat species at BS3 2QA South 7-13 Aug '24

Leisler's Bat activity timings at the two sites possibly indicate the presence of roosts nearby to each, with BS3 2QA North showing what appears to be dusk emergence and dawn re-entry activity and BS3 2QA South showing evening flight practice activity by young bats (see Graphs 34 and 35). Noctule activity at the two sites was remarkably similar (see Graphs 36 and 37), and was possibly again associated with nearby roosts. Common Pipistrelle activity might also indicate that roosts were nearby (see Graphs 38 and 39).



BS3 5ED

BS3 5ED was surveyed for fifteen nights in June/July 2022, using the same methodology and location within the garden, as that employed when it was surveyed for five nights in early

September during the current study. Some comparisons between the two survey occasions can therefore be made.

Five bat species were recorded during both surveys, but in different combinations (see Tables 9 and 10). The proportions of the species common to both surveys were quite different (see Charts 12 and 13). There was a relatively high abundance of Leisler's Bats and Noctules in 2022 compared with 2024.

Species	Records	%
Lesser Horseshoe Bat	0	0.0
Serotine	1	0.3
Leisler's Bat	86	23.4
Noctule	61	16.6
Common Pipistrelle	203	55.3
Soprano Pipistrelle	0	0.0
Nathusius' Pipistrelle	16	4.4
Total	367	100.0

Table 9: Results for BS3 5ED during 24 Jun-10 Jul '22 (15 nights)

Species	Records	%
Lesser Horseshoe Bat	1	0.4
Serotine	0	0.0
Leisler's Bat	9	3.9
Noctule	3	1.3
Common Pipistrelle	213	93.4
Soprano Pipistrelle	2	0.9
Nathusius' Pipistrelle	0	0.0
Total	228	100.0

Table 10: Results for BS3 5ED during 7-12 Sep '24 (5 nights)

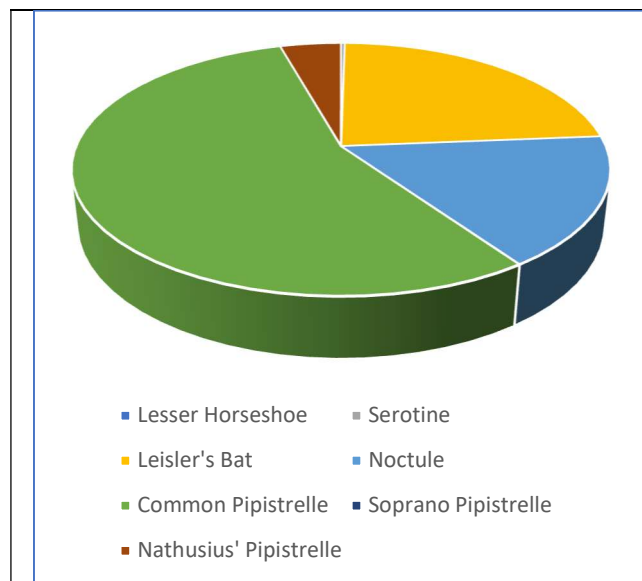


Chart 12: Proportions of species at BS3 5ED 24 Jun-10 Jul '22

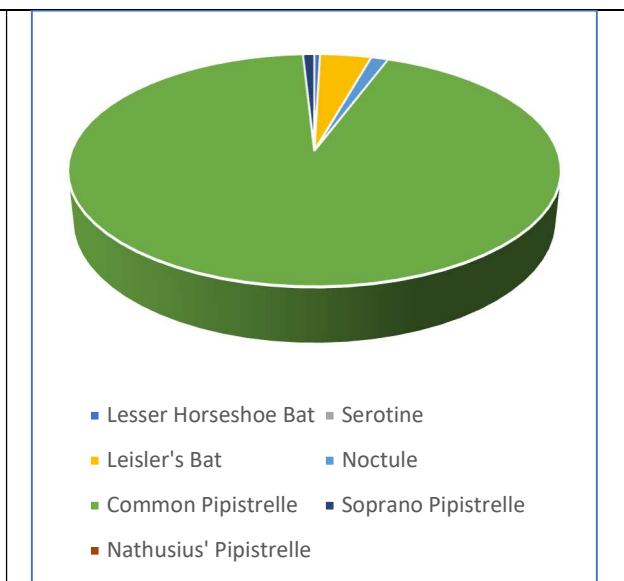
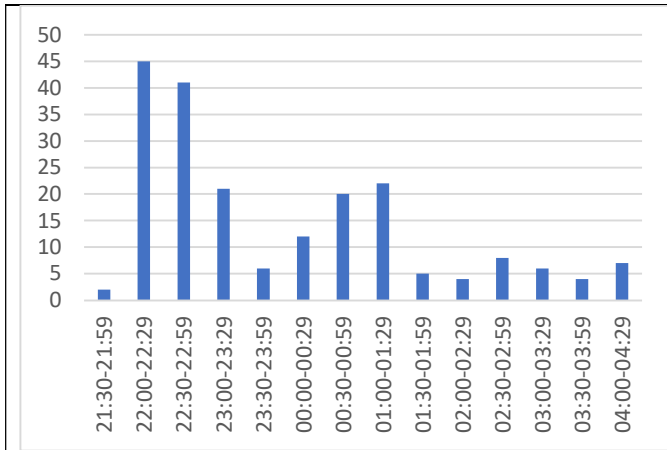
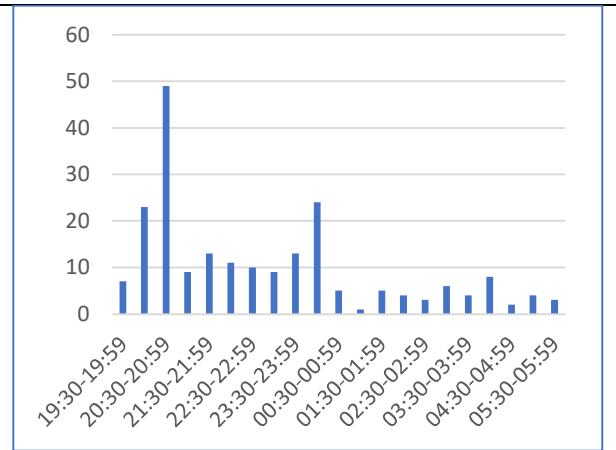


Chart 13: Proportions of species at BS3 5ED 7-12 Sep '24

The patterns of Common Pipistrelle activity at BS3 5ED in 2022 and 2024 were very similar, with early evening peaks, smaller peaks in the middle of the night, then activity tailing off through the rest of the night (see Graphs 40 and 41). This may indicate the presence of a nearby roost site.



Graph 40: BS3 5ED Common Pipistrelle activity
24 Jun-10 Jul '22



Graph 41: BS3 5ED Common Pipistrelle activity
times 7-12 Sep '24

HwDAA Allotments

The northern allotment sites i.e. excluding Alderman Moore, generally had higher numbers of species than were recorded on any other sites across the whole of BS3 in 2024 (See Figures 5 and 6). The highest bat species count was from the Orchard at the south end of the White City Allotments site, with eleven species. The allotment sites are on the edge of the parkland and woodland associated with Ashton Court, and are in close proximity to a tree lined railway line corridor and the New Cut/River Avon corridor, all of which are attractive bat habitats.

All of the Hotwells and District Allotment Association (HwDAA) sites, including Alderman Moore Allotments, were surveyed during 2025, with two locations at each site being surveyed. A detailed report, 'The Bats of Hotwells and District Allotments Association Allotment Sites 2025', was prepared for the HwDAA and has been published separately.

The northern allotment sites i.e. excluding Alderman Moore, generally had higher numbers of species than were recorded on any other sites across the whole of BS3 in 2024 (See Figures 13). The highest bat species count was from the Orchard at the south end of the White City Allotments site, with eleven species. The allotment sites are on the edge of the parkland and woodland associated with Ashton Court, and are in close proximity to a tree lined railway line corridor and the New Cut/River Avon corridor, all of which attractive bat habitats.

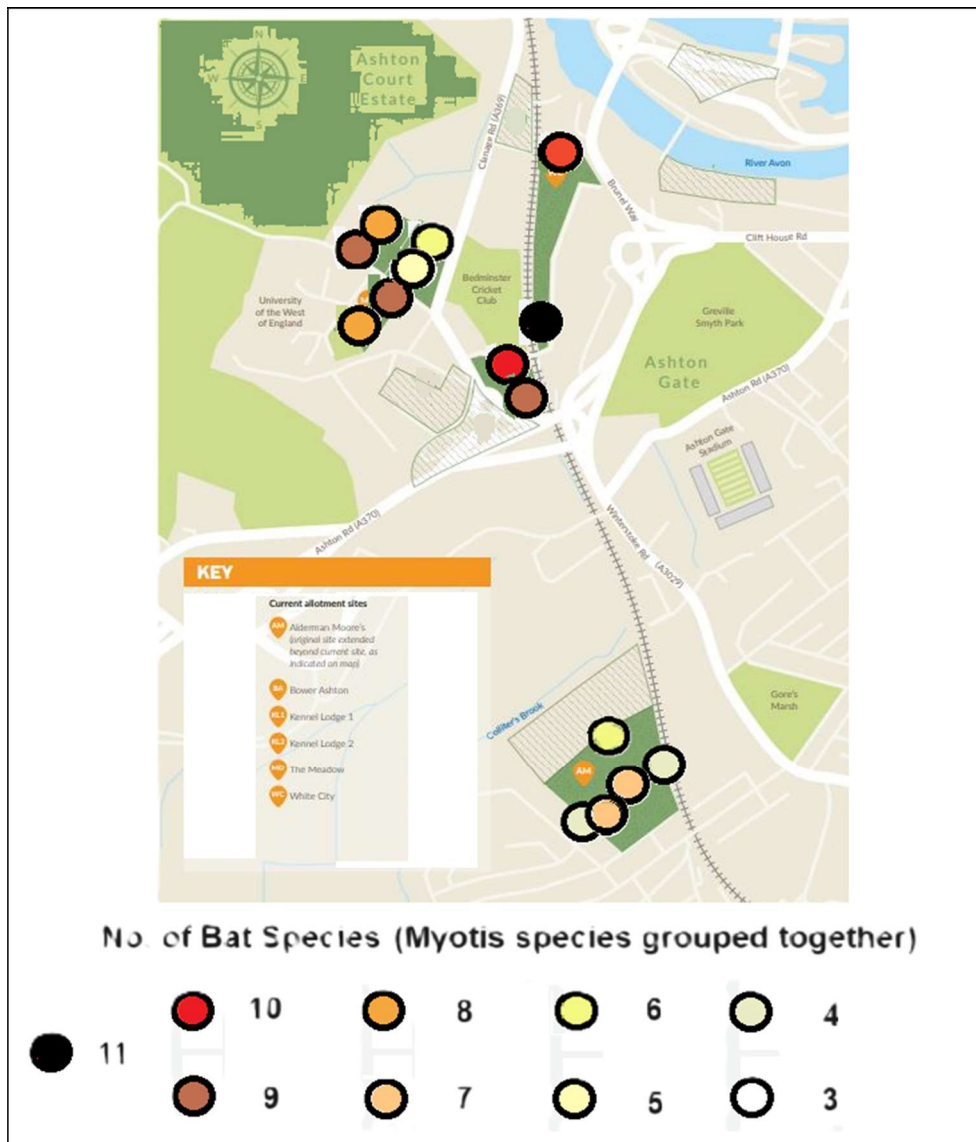


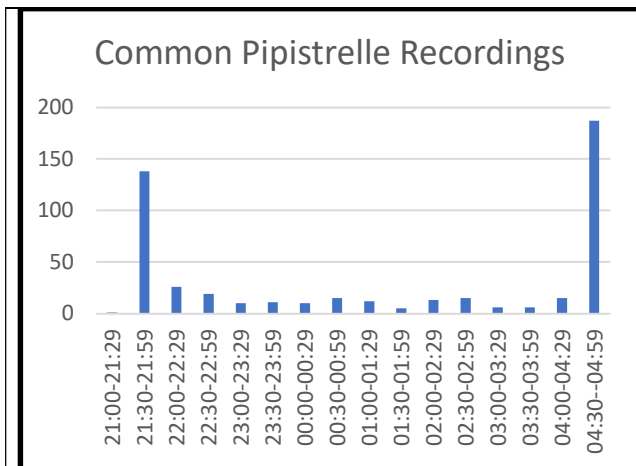
Figure 13: No of bat species at HwDAA sites

These results show the importance of the allotment sites and extensive green spaces to the variety of bat species.

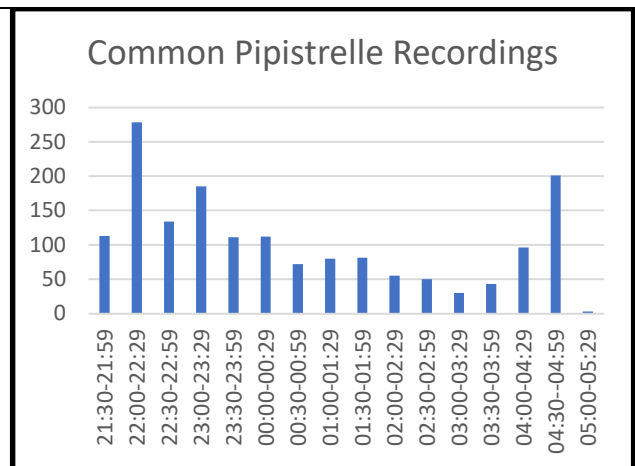
Bedminster C Allotments

Although not within BS3, the Bedminster C Allotment site is situated along part of the southern edge of the postcode area and forms part of a green corridor leading into to BS3 adjacent to the Great Western railway line. The site was surveyed at two locations with the site, NE and SW.

There is a known Common Pipistrelle roost in a house roof c100m from the NE survey location. This is reflected in the survey results, with extremely well-defined peaks of dusk and dawn bat activity at the NE location (see Graph 42) and slightly more dispersed activity pattern at the SW location (see Graph 43).



Graph 42: Bedminster C NE Common Pipistrelle activity 15 – 19 Jul '25



Graph 43: Bedminster C SW Common Pipistrelle activity 15 – 21 Jul '25

Common Pipistrelles made up a similar proportion of recordings at both the NE and SW survey locations. The presence of small numbers of Lesser and Greater Horseshoe Bat recordings at the NE location (see Table 11), but not at the SE location (see Table 12) is somewhat surprising as this location was somewhat more exposed than the latter. The identification of Barbastelle recordings are very likely to be erroneous attributions to this very rare species who's recordings are usually found to be misattributions on further analysis.

Species	%
Barbastelle	(3.5)
Lesser Horseshoe Bat	0.9
Greater Horseshoe Bat	0.5
Myotis sp.	0.3
Leisler's Bat	2.1
Serotine	0.3
Noctule	0.7
Common Pipistrelle	84.9
Soprano Pipistrelle	1.0
Brown Long-eared Bat	5.7
	100.0

Table 11: Results for Bedminster C NE bat recordings during 15 – 19 Jul '25

Species	%
Barbastelle	0.0
Lesser Horseshoe Bat	0.0
Greater Horseshoe Bat	0.0
Myotis sp.	0.3
Leisler's Bat	1.3
Serotine	0.2
Noctule	0.9
Common Pipistrelle	91.2
Soprano Pipistrelle	4.0
Brown Long-eared Bat	2.0
	100.0

Table 12: Results for Bedminster C SW bat recordings during 15 – 21 Jul '25

South Street Park and Environs

The Friends of South Street Park group requested that 'their site' be surveyed as part of the 2025 BS3 bat survey. To this end detectors were placed at Compass Point Primary School and acta Community Theatre, at locations overlooking the park. The results from three further sites that were surveyed in 2024 and 2025 were also used in assessing the immediately local bat activity.

Between four and six bat species were recorded at each of the five locations in the vicinity of South Street Park (see Figure 14).

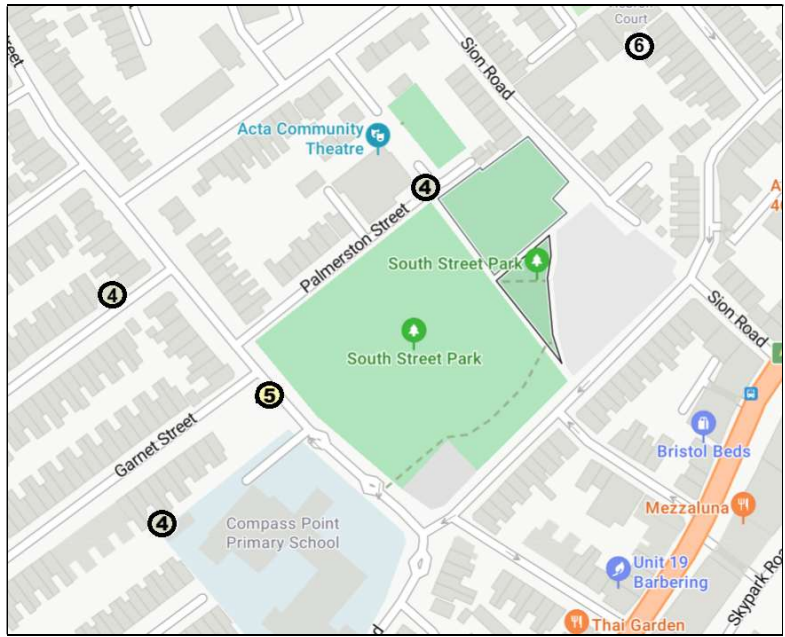


Figure 14: Number of bat species recorded near South Street Park

The surveys on Garnet Street and Compass Point had a remarkably similar Common Pipistrelle dusk and dawn activity timings (see Figure 15). This is likely to indicate the presence of a nearby maternity roost. The middle-night activity patterns at the acta, South Street and Hebron Road (2024) locations might indicate that these were favoured foraging areas. The activity patterns at Hebron Road changed between 2024 and 2025, indicating that a maternity roost may have been present in the vicinity of this site in the latter year.

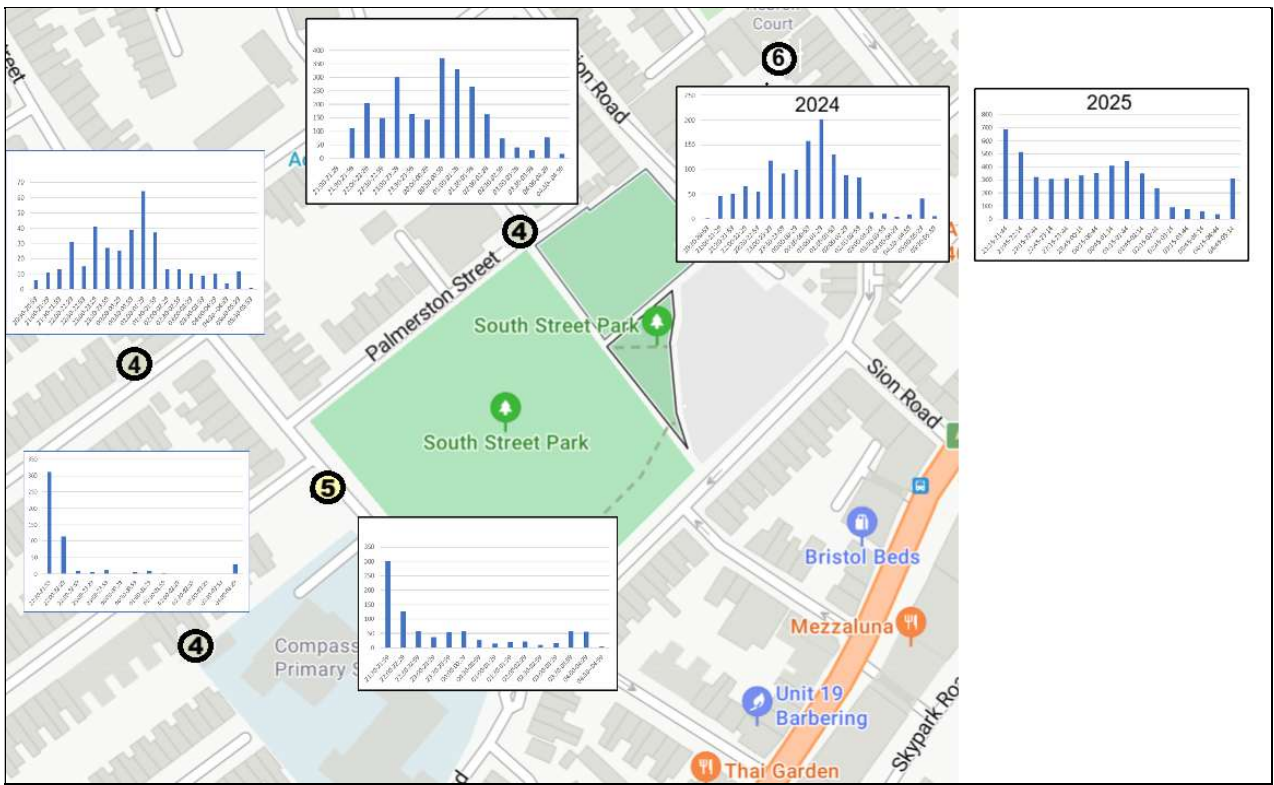


Figure 15: Common Pipistrelle activity patterns near South Street Park

It was concluded that in the immediate vicinity of South Street Park, there was a very high level of bat activity and that the number of species (4 and 5) were typical of other highly urbanised areas of BS3.

Conclusions

The UK is usually described as having seventeen species of breeding bats, two of which, Alcatheo Bat and Grey Long-eared Bat, have not been recorded in the Bristol area. Due to the difficulty in separating the calls of Daubenton's, Brandt's and Whiskered Bats, many surveys group these together as 'Myotis sp.' (sp.= species) bats. Therefore, of the remaining thirteen 'species', eleven were detected during the recent surveys in BS3. Barbastelle and Bechstein's Bats were not confirmed as being recorded.

The highest individual bat species count was eleven at the south end of White City Allotments, and ten at each at the north end of aforementioned site and at the northern end of Bower Ashton Allotments. These locations are in the vicinity of the woodlands and open-country of Ashton Court estate. Other sites with high species numbers were near Ashton Vale wetlands, at Riverside Garden Centre and near to Victoria Park. The latter is a 21ha managed green space largely surrounded by dense built development, but connected to other green spaces by the adjacent Great Western Railway. Riverside Garden Centre is adjacent to a public park and the New Cut, and is connected by these to the open country of Ashton Court and Leigh Woods, and beyond.

It is notable that at least four bat species were recorded at all of the survey locations, even in the most densely urbanised areas in BS3 (Bedminster and Southville).

These results show the importance of extensive green spaces to a variety of bat species, but also that at least a few species can utilise even the most densely urbanised areas.

Future Work

It may be possible to analyse the gathered data to establish if different activity patterns correspond to the known reproductive cycles of the different bat species detected and also to determine if any (or all!) sites would benefit from repeat surveys carried out at different times during the activity season.

It may be useful to carry out a duplicate survey in, say, five years to detect if there have been any changes in activity patterns over a known time period.

Assumptions and predictions with regards to the nature of bat utilisation of sites, based on the timings of recordings, have been made in this report. It would be useful to carry out direct observations of possible roost locations, once they have been identified.

It would be interesting to statistically compare the occurrence of bats, by numbers of recordings and numbers of species, with environmental factors such as tree cover, presence of green-spaces and human population density.

Comparisons could be drawn between the current survey and that conducted in BS13 in 2022 and 2023 (see Manor Woods Valley Local Nature Reserve and Surrounding Area Bat Report 2022 at https://manorwoodsvalley.org/get-involved/education_and_learning/research-projects/). The 2023 BS13 data is held by the Manor Woods Valley Group, and will be published in due course.

Bats will be surveyed in BS13 during the 2026 season.

It is hoped that this work will stimulate similar comparable exercises in other parts of the city.

Acknowledgements

This survey could not have been undertaken without the enthusiastic collaboration of so many home and business owners that allowed a bat detector to be placed on their properties, and allowed the minor intrusion of at least two visits, one to place and another to collect, the detector.

Similarly, many HwDAA allotmenters, coordinated by Birgit Muller, enthusiastically offered to host bat detectors on their plots.

The detectors used during this survey are the owned by the BS3 Wildlife Group. They could not have been acquired without the boundless support of Ben Barker in identifying and successfully bidding for funding from Bristol Health Partners.

David Sinden and, especially, Len Wyatt, kindly commented on a draft of the 2024 report and gave invaluable comments on its contents, most of which were accepted in full.

Finally, the author thanks his wife, Cheryl, for her understanding and support whilst he spent many days and evenings processing the data and preparing this report.

Appendix 1: 2024 Absolute number of recordings, of 50%+ probability of correct identification attributed to bat species at each site

Site	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Postcode	BS3 1LS	BS3 2DR	BS3 1NR	BS3 5BN	BS3 2DG	BS3 1AR	BS3 3JU	BS3 4LY	BS3 1NY	BS3 2QA N	BS3 2QE	BS3 2NX	BS3 1DH	BS3 4LY	BS3 1PR	BS3 5NG
Survey days	5	5	8	3.5	7	5	7	6	5	5	5	6	6	6	6	6
Lesser Horseshoe	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Myotis sp.	0	0	2	0	0	0	0	0	0	5	0	0	0	1	2	3
Natterer's Bat	0	0	0	0	0	0	0	10	0	0	0	0	0	10		2
Serotine	0	0	9	0	0	0	0	0	0	6	0	8	0	1	7	5
Leisler's Bat	27	9	41	9	23	2	20	5	16	270	49	90	75	12	107	138
Noctule	1	3	10	5	10	4	11	3	10	146	21	39	17	8	51	36
Common Pipistrelle	338	446	2381	255	1640	174	509	217	167	1619	767	46	373	318	1567	1321
Soprano Pipistrelle	9	10	14	20	18	2	6	0	3	29	11	0	3	0	17	22
Nathusius' Pipistrelle	0	1	0	0	5	0	0	0	0	33	0	0	3	0	0	0
Brown Long-eared	0	0	0	0	0	0	0	1	0	4	0	0	1	8	0	0
Total	375	469	2457	289	1697	182	546	236	196	2112	848	183	472	358	1751	1527

Site	17	19	18	20	21	22	23	25	26	27	28	29	30	31	32
Postcode	BS3 4TU	BS3 2QP	BS3 4QE	BS3 2QA S	BS3 5JZ	BS3 1RU	BS3 3AU	BS3 1RX	BS3 4NZ	BS3 5NU	BS3 1JP	BS3 1PP	BS3 5ED	BS3 2DG	BS3 2LN
Survey days	6	6	7	6	1	6	6	5	5.5	6	5	6	5	6	8
Lesser Horseshoe	0	0	0	1	1	0	0	2	0	0	0	0	1	58	0
Myotis sp.	1	0	1	0	0	0	0	2	0	0	0	1	0	1	0
Natterer's Bat	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
Serotine	7	2	5	12	0	27	0	1	0	0	6	4	0	3	1
Leisler's Bat	31	82	23	101	4	111	5	146	39	15	47	47	9	20	30
Noctule	13	21	5	285	2	11	7	17	16	9	35	44	3	44	17
Common Pipistrelle	662	288	1804	617	165	4679	381	8805	1472	1638	975	2416	213	335	4150
Soprano Pipistrelle	8	6	9	47	3	215	0	3301	7	5	6	18	2	11	10
Nathusius' Pipistrelle	0	0	6	1	0	2	1	0	0	0	1	0	0	0	0
Brown Long-eared	0	2	4	7	0	0	0	1	1	1	0	0	0	0	0
Total	722	401	1857	1072	175	5045	394	12275	1535	1668	1070	2531	228	472	4208

Appendix 2: 2025 Number of recordings, of 50%+ probability of correct identification attributed to bat species per survey night at each site

Site	1	2	3	4	5	6	7	8	9	10	11	12
Location	Alderman Moore Orchard	Alderman Moore South	Bower Ashton Plum Orchard	Bower Ashton Plot 37A	White City Orchard	White City Plot 49	The Meadows N	The Meadows S	Kennel Lodge 1 S Plot 43A	Kennel Lodge 1 N plot 69B	Kennel Lodge 2 S Plot 1B	Kennel Lodge 2 N Plot 9
Postcode												
Survey nights	5	5	7	7	7	7	7	7	7	7	7	7
Lesser Horseshoe	0	2	5	2	19	3	0	0	0	0	0	0
Greater Horseshoe	0	0	0	6	2	1	2	1	0	0	7	0
Myotis sp.	0	0	9	0	5	5	1	0	0	0	4	4
Natterer's Bat	0	0	1	0	2	1	0	0	0	0	0	0
Serotine	2	2	3255	113	912	85	707	168	36	22	1034	116
Leisler's Bat	10	8	233	182	53	244	259	149	119	180	246	244
Noctule	4	7	2826	7698	119	261	303	256	258	311	289	344
Common Pipistrelle	92	174	4675	711	7393	8374	1381	936	306	2221	5390	406
Soprano Pipistrelle	30	2	423	340	595	550	181	195	479	2233	433	655
Nathusius' Pipistrelle	0	5	64	9	23	0	51	5	0	0	109	2
Brown Long-eared	0	0	4	4	1	2	6	2	0	1	4	5
Total	138	200	11495	9065	9124	9526	2891	1712	1198	4968	7516	1776
Species	4	7	10	9	11	10	9	8	5	6	9	8

Site	13	14	15	16	17	18	19	20	21	22	23	24
Location	Compass Point School	acta Comm. Theare	Windmill Hill City Farm	Brighton Terrace	B'minster C NE Plot 111	B'minster C SW Plot 51	Hebron Rd	Carrington Rd	West St	Quantock Rd	Alpha Rd	Gores Marsh Rd
Postcode				BS3 3PS			BS3 3AE	BS3 2AQ	BS3 3NB	BS3 4PF	BS3 1DH	BS3 2PE
Survey nights	7	7	7	7	3	7	7	6	7	6	7	7
Lesser Horseshoe	0	0	0	0	5	0	0	0	0	1	0	0
Greater Horseshoe	0	0	1	0	3	0	0	0	0	0	0	0
Myotis sp.	0	0	0	1	2	5	3	0	0	1	0	1
Natterer's Bat	0	0	3	0	0	0	0	0	0	0	0	0
Serotine	3	1	17	1	2	23	15	1	1	15	4	4
Leisler's Bat	94	24	17	27	12	4	38	275	28	11	16	13
Noctule	88	59	33	45	4	16	35	49	6	19	27	14
Common Pipistrelle	858	2444	4962	246	489	1647	4856	596	3492	1218	6458	570
Soprano Pipistrelle	9	0	1425	1	6	73	5	19	2	11	21	17
Nathusius' Pipistrelle	0	0	18	0	0	0	0	0	0	0	0	0
Brown Long-eared	0	0	1	1	33	37	0	0	0	1	0	0
Total	1052	2528	6477	322	556	1805	4952	940	3529	1277	6526	619
Species	5	4	9	7	9	7	6	5	5	8	5	6

Appendix 3: 2024 Number of recordings, of 50%+ probability of correct identification attributed to bat species per survey night at each site

Site	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Postcode	BS3 1LS	BS3 2DR	BS3 1NR	BS3 5BN	BS3 2DG	BS3 1AR	BS3 3JU	BS3 4LY	BS3 1NY	BS3 2QA N	BS3 2QE	BS3 2NX	BS3 1DH	BS3 4LY	BS3 1PR	BS3 5NG
Lesser Horseshoe	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Myotis sp.	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.1	0.1	0.2
Natterer's Bat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.3
Serotine	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.3	0.0	0.2	1.2	0.8
Leisler's Bat	5.4	1.8	5.1	2.6	3.3	0.4	2.9	0.8	3.2	54.0	9.8	15.0	12.5	2.0	17.8	23.0
Noctule	0.2	0.6	1.3	1.4	1.4	0.8	1.6	0.5	2.0	29.2	4.2	6.5	2.8	1.3	8.5	6.0
Common Pipistrelle	67.6	89.2	297.6	72.9	234.3	34.8	72.7	36.2	33.4	323.8	153.4	7.7	62.2	53.0	261.2	220.2
Soprano Pipistrelle	1.8	2	1.8	5.7	2.6	0.4	0.9	0.0	0.6	5.8	2.2	0.0	0.5	0.0	2.8	3.7
Nathusius' Pipistrelle	0.0	0.2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.5	0.0	0.0	0.0
Brown Long-eared	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.8	0.0	0.0	0.2	1.3	0.0	0.0
Total	75.0	93.8	307.5	82.6	242.3	36.4	78.0	39.3	39.2	421.9	169.6	30.5	78.7	59.6	291.6	254.2

Site	17	18	19	20	21	22	23	25	26	27	28	29	30	31	32
Postcode	BS3 4TU	BS3 4QE	BS3 2QP	BS3 2QA S	BS3 5JZ	BS3 1RU	BS3 3AU	BS3 1RX	BS3 4NZ	BS3 5NU	BS3 1JP	BS3 1PP	BS3 5ED	BS3 2DG	BS3 2LN
Lesser Horseshoe	0.0	0.0	0.0	0.2	1.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.2	9.7	0.0
Myotis sp.	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natterer's Bat	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Serotine	1.2	0.7	0.3	2.0	0.0	4.5	0.0	0.2	0.0	0.0	1.2	0.7	0.0	0.5	0.1
Leisler's Bat	5.2	3.3	13.7	16.8	4.0	18.5	0.8	29.2	7.1	2.5	9.4	7.8	1.8	3.3	3.8
Noctule	2.2	0.7	3.5	47.5	2.0	1.8	1.2	3.4	2.9	1.5	7.0	7.3	0.6	7.3	2.1
Common Pipistrelle	110.3	257.7	48.0	102.8	165.0	779.8	63.5	1761.0	267.6	273.0	195.0	402.7	42.6	55.8	518.8
Soprano Pipistrelle	1.3	1.3	1.0	7.8	3.0	35.8	0.0	660.2	1.3	0.8	1.2	3.0	0.4	1.8	1.3
Nathusius' Pipistrelle	0.0	0.9	0.0	0.2	0.0	0.3	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Brown Long-eared	0.0	0.6	0.3	1.2	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Total	120.2	265.2	66.8	178.5	174.0	840.8	65.7	2454.3	279.1	278.0	214.0	421.7	45.4	68.9	526.0

Appendix 4: 2025 Number of recordings, of 50%+ probability of correct identification attributed to bat species per survey night at each site

Site	1	2	3	4	5	6	7	8	9	10	11	12
Location	AM Orchard	AM South	BA Plum Orchard	BA Guy's Plot	WC Orchard	WC David's Plot	The Meadows N	The Meadows S	Kennel Lodge 1 S Plot 43A	Kennel Lodge 1 N plot 69B	Kennel Lodge 2 S Plot 1B	Kennel Lodge 2 N Plot 9
Postcode												
Lesser Horseshoe	0.0	0.4	0.7	0.3	2.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Greater Horseshoe	0.0	0.0	0.0	0.9	0.3	0.1	0.3	0.1	0.0	0.0	1.0	0.0
Myotis sp.	0.0	0.0	1.3	0.0	0.7	0.7	0.1	0.0	0.0	0.0	0.6	0.6
Natterer's Bat	0.0	0.0	0.1	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Serotine	0.4	0.4	465.0	16.1	130.3	12.1	101.0	24.0	5.1	3.1	147.7	16.6
Leisler's Bat	2	1.6	33.3	26.0	7.6	34.9	37.0	21.3	17.0	25.7	35.1	34.9
Noctule	0.8	1.4	403.7	1099.7	17.0	37.3	43.3	36.6	36.9	44.4	41.3	49.1
Common Pipistrelle	18.4	34.8	667.9	101.6	1056.1	1196.3	197.3	133.7	43.7	317.3	770.0	58.0
Soprano Pipistrelle	6	0.4	60.4	48.6	85.0	78.6	25.9	27.9	68.4	319.0	61.9	93.6
Nathusius' Pipistrelle	0.0	1.0	9.1	1.3	3.3	0.0	7.3	0.7	0.0	0.0	15.6	0.3
Brown Long-eared	0.0	0.0	0.6	0.6	0.1	0.3	0.9	0.3	0.0	0.1	0.6	0.7
Total	27.6	40.0	1642.1	1295.0	1303.4	1360.9	413.0	244.6	171.1	709.7	1073.7	253.7

Site	13	14	15	16	17	18	19	20	21	22	23	24
Location	Compass Point (S St Pk)	Acta (S St Pk)	Windmill Hill City Farm	Brighton Trc	B'minster C NE Plot 111	B'minster C SW Plot 51	Hebron Rd	Carrington Rd	West St	Quantock Rd	Alpha Rd	Gores Marsh Rd
Postcode				BS3 3PS			BS3 3AE	BS3 2AQ	BS3 3NB	BS3 4PF	BS3 1DH	BS3 2PE
Lesser Horseshoe	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Greater Horseshoe	0.0	0.0	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Myotis sp.	0.0	0.0	0.0	0.1	0.7	0.7	0.4	0.0	0.0	0.2	0.0	0.1
Natterer's Bat	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serotine	0.4	0.1	2.4	0.1	0.7	3.3	2.1	0.2	0.1	2.5	0.6	0.6
Leisler's Bat	13.4	3.4	2.4	3.9	4.0	0.6	5.4	45.8	4.0	1.8	2.3	1.9
Noctule	12.6	8.4	4.7	6.4	1.3	2.3	5.0	8.2	0.9	3.2	3.9	2.0
Common Pipistrelle	122.6	349.1	708.9	35.1	163.0	235.3	693.7	99.3	498.9	203.0	922.6	81.4
Soprano Pipistrelle	1.3	0.0	203.6	0.1	2.0	10.4	0.7	3.2	0.3	1.8	3.0	2.4
Nathusius' Pipistrelle	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brown Long-eared	0.0	0.0	0.1	0.1	11.0	5.3	0.0	0.0	0.0	0.2	0.0	0.0
Total	150.3	361.1	925.3	46.0	185.3	257.9	707.4	156.7	504.1	212.8	932.3	88.4

