

Quantock Hills National Landscape

Quantock Hills Bat Monitoring 2024









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1. Summary

- a. In 2013 the Quantock Hills National Landscape Team wished to undertake monitoring of bat species at key locations in the Quantock Hills to complement existing monitoring, such as the National Bat Monitoring Programme (NBMP). Early discussions identified the National Trust as a natural partner.
- b. Volunteer recruitment was undertaken in spring 2013 with a training event held August 2013. 2 training evenings were held throughout September to allow volunteers to use the equipment and gain confidence in undertaking the monitoring. In 2014 monitoring took place on 2 transects, Fyne Court and Cothelstone Hill, based on the BCT / JNCC Field Survey model.
- c. Following the first year of monitoring there was a desire to continue with significant interest from volunteers and organisations. Both Fyne Court and Cothelstone Hill transects were evaluated with minor route changes being made to Cothelstone Hill.
- d. For 2015 Forestry England became a new partner and a transect was developed for Ramscombe in Great Wood. This would provide new habitats for monitoring including conifer plantation, sessile oak woodland and open extensive grassland.
- e. In 2022 the Quantock Landscape Partnership Scheme undertook extensive bat monitoring work including setting up a new transect at Broomfield Common and significant static bat detector deployment around the Quantock Hills and fringing areas to investigate the presence of Barbastelle and latterly Bechstein Bats. A full report of the Barbastelle study can be found <u>here</u>.
- f. Included within this report for the first time are the Woodland Surveys undertaken in the Special Areas of Conservation (SACs) woodlands in the north of the National Landscape. These surveys have been undertaken since 2009 and are surveying for Barbastelle bats as part of the National Bat Monitoring Programme. Since 2014 the National Landscape Team has coordinated the monitoring as part of it bat monitoring programme. While Natural England / Bat Conservation Trust only assess and report on presence / abundance of Barbastelle bats the National Landscape Team assesses for all species.
- g. Summary information from 2024 includes:
 - i. <u>Fyne Court</u> while lower numbers of bat calls were recorded than 2023 results are still higher than average. Numbers of the larger bat species were particularly high as were Barbastelle calls.
 - ii. <u>Ramscombe</u> Numbers appear stable. Barbastelle bats were again recorded and were recorded in more locations that previous years. Number of species recorded was lower than average and in 2023. The distribution of bats appears to have reduced with the early part of the transect, which was a hotspot, seeing less activity. This may be due to the reduction in tree cover through normal forestry activities.
 - iii. Cothelstone Hill Numbers of bats recorded have dropped from the high records in 2023 though they are still higher than 2021 / 2022. Numbers of Barbastelle calls have dropped and level of

activity in the sections through the woodlands at the start of the transect have decreased which may be due to the coppicing work that has been carried out.

- iv. Broomfield Common Unfortunately it was not possible to complete either survey for this transect in 2024 due to access issues. With the small size of the site there may be a more effective method of monitoring such as static detectors.
- v. <u>Hodders & Somerton Combe (woodland)</u> Unlike other transects Hodders & Somerton Combe transect had significantly higher number of bat calls recorded that in previous years with over double the average number. While this increase was largely due to the more common pipistrelle species there was also a significant increase in Barbastelle calls as well. Greater Horseshoe bats were also recorded again as in 2023.
- vi. Alfoxton (woodland) Numbers were pretty consistent with previous years. As in previous years Barbastelle numbers as relatively high and in similar locations, from the start point to point 2. Species diversity is again high with significant numbers of larger species such as Noctules and Serotines.
- vii. Holford Combe (woodland) unfortunately due to reduced surveyor numbers only one of the three survey periods was completed. The number of calls recorded was lower than in previous years for this period. No Barbastelles were recorded during this period and number of myotis species, which are usually very high on this transect, were much lower than average.

2. Background

- a. There are 17 species of breeding bats in the UK. Since the 1970s there has been a severe decline in bat populations (BCT NBMP 2013) due to loss of habitat and roost sites and changes in farming practises leading to reduction in insects (the main prey species of all UK bat species).
- b. Due to the decline in bats populations all UK bat species are on the priority species list (Section 41) under the Natural Environment and Rural Communities Act 2006. This list is a statutory requirement, to be published by the Secretary of State, of habitats and species of principal importance for the conservation of biodiversity in England. This list is used by decision-makers such as local authorities when implementing their duty to have regard to the conservation of biodiversity in the exercise of their normal functions (Sc 40 of the NERC Act 2006).
- c. The Bat Conservation Trust, in partnership with the JNCC, Defra and Natural Resources Wales, undertake a number of national monitoring schemes for bats including the Field, Woodland, Waterway and Hibernation Surveys and summer maternity roost counts. The results of these surveys, which began in 1997, identify trends in the UK bat species and are used by national government in targeting initiatives for biodiversity. However there is a limit to the scope of these existing surveys at the local level.
- d. In spring 2013 the Quantock Hills National Landscape Team wished to enhance the level of knowledge of bat species and populations on the Quantock Hills. This was to complement existing work, such as the NBMP woodland surveys in

the northern combes or Alfoxton, Holford and Hodders and the Lesser Horseshoe studies at Hestercombe.

- e. The National Landscape Team particularly wished to monitor Cothelstone Hill to understand the effect of management on bat species, especially the woodland management. After discussions with Steve Sudworth and Nigel Garnsworthy (National Trust) it was agreed that a joint approach would be beneficial in terms of synergies between the organisations. For the National Trust, Fyne Court was a priority site for monitoring.
- f. After the success of the 2014 monitoring season the National Landscape Team was approached by Andy Harris, Ecologist for Forestry England, to see if there was opportunity to undertake monitoring in Great Wood. After discussions it was decided that Ramscombe offered the best opportunity for monitoring due to ease of access and suitable habitats.
- g. In 2022 the Quantock Landscape Partnership Scheme (QLPS) undertook two distinct areas of work related to bat monitoring. The first was the development of a transect at Broomfield Common to monitor impacts of woodland works undertaken as part of the scheme and the second was a Barbastelle Bat Project.
- h. The Barbastelle Bat project aimed to further knowledge of presence of Western Barbastelle (*Barbastella barbastellus*) bats in and around the National Landscape using static bat detectors. The project also undertook trapping to ascertain breeding populations and maternity roosts. A full report of the project can be found <u>here</u>.
- i. Included within this report for the first time are the results for the Woodland Surveys that occur in the north of the National Landscape. These surveys are part of the National Bat Monitoring Programme and are assessing presence of Barbastelle bats (*Barbastella barbastellus*) in Special Areas of Conservation (SAC) woodlands. There are three transects in Hodders Combe, Holford Combe and Alfoxton Woods. The survey methodology is similar to the field surveys with a route walked at a steady pace while looking for and recording bat calls. The reporting requirements of the surveys are centred on the presence of Barbastelle bats however the National Landscape Team undertake additional analysis to provide detail of other species recorded.
- j. With increasing access and affordability of hardware and software used in bat monitoring this type of initiative provides an opportunity for volunteer engagement and would forms part of a wider volunteer initiative of 'Wildlife Monitoring'.

3. Engagement & Training

- a. Since 2013 the National Landscape Team has looked to recruit volunteers to support in the bat monitoring programme. Usually in May or early June the team will host a bat event open to the interested public. The bat monitoring programme will be promoted through the event with a training event held in early to mid-June ready for the early July survey period. The training event covers the basics of bat behaviour and ecology, the rationale for surveying and methodology used. It also includes a practical element with volunteers able to use the bat monitoring equipment.
- b. During 2020 and 2021 training became a hybrid online / face-to-face approach, due to the pandemic. However in 2023 and 2024 this revert to a face to face approach. In 2023 there were a significant number of participants who attended the training / introductory evening, however this did not translate to significant

numbers of new volunteers engaging with the surveys. During 2024 lower numbers of people attended the training session however there was a greater proportion who engaged more significantly with surveying.

- c. The National Landscape Team, through grant aiding, has been able to purchase some equipment in support of the bat monitoring programme. Since 2021 we were able to use Echo Meter Touch2 (EMt) devices with apple or android tablets, either the National Landscape Teams or volunteers own devices. These devices record in full-spectrum and provide real time call display and analysis, though the auto ID feature is to be used as a guide rather than to be relied upon. The use of these was supported with Bat Box Duets and Batbox III detectors allowing volunteers to hear for calls during the transects.
- d. An increasing number of volunteers are using their own bat detecting equipment and submitting their results which increases the confidence in the data being captured by the National Landscape Teams equipment.
- e. Facts and figures:
 - i. Number of volunteers engaged in monitoring: 17
 - ii. Number of volunteer hours (training, transects, analysis): 93 Hours

4. Analysis

a. For 2024 all call recordings collected have been analysed with Kaleidoscope (v4.5.5). The National Landscape Team uses the freeware version of the software as this allows volunteers to also download and undertake analysis. The auto ID function used by Echo Meter / Kaleidoscope provides an indication but all calls are analysed. Many calls contain more than one call set and some contain more than one bat species. This seems particularly true for pipistrelle calls where some contained both Common and Soprano Pipistrelle calls in the same recording and in many case Barbastelle's or myotis species.

5. Transects – Field Surveys.

- a. <u>Methodology.</u> The monitoring followed the Bat Conservation Trust (BCT) field survey methodology with surveyors identifying species and counting the number of bat passes – A bat pass is defined as a sequence of greater than 2 echolocation calls made as a single bat flies past the microphone. While the BCT Field Survey methodology primarily aims to collect data on 4 species (Noctule, Serotine, Common and Soprano pipistrelle) the National Landscape Teams transects would aim to identify other species, where possible, using Kaleidoscope analytical software. In 2016 we increased the number of stops on the transects to ensure the methodology was fully compliant with BCT survey techniques. The transect consists of continuously recording while walking and while at each stop point (at each stop point there is a 2-minute period to observe / record bat activity).
- b. <u>Fyne Court</u>. The Fyne Court transect is 1.7km / 1.05 miles long, reaches an elevation of 215m and passes through deciduous woodland and pasture. Due to the parkland setting there are a number of copses and veteran trees on or nearby the transect as well as small streams and ponds. The transect passes through the courtyard of Fyne Court, which contains a number of historic buildings that offer potential roost sites. In 2019 the transect was changed from walk 7 to walk 10. This was due to concerns over the step slope and uneven ground. While the route has changed much of the habitat is still being surveyed and the stops are at similar locations.



c. <u>Cothelstone Hill</u>. The Cothelstone Hill transect is 2.3km / 1.5 miles long and passes through deciduous woodland and extensive grassland. The woodland is a mix of high closed canopy with dense understorey with some areas of more open understorey. The transect follows the woodland / open hill boundary, elevation 270 – 310m, which is primarily short grasses and short scrub trees.



d. <u>Ramscombe</u>. Ramscombe transect is in Great Wood, a large woodland site owned by the Forestry Commission on the east side of the Quantock Hills. The transect is 3.7km / 2.3 miles long and has an elevation range from 200-250m. The habitats are different to other Quantock Hill transects with conifer plantation, of varying ages, sessile oak woods and amenity grassland. There is also a section of the transect which follows a small stream system. In 2017/18 there was significant clearfell which impacted on stop 2 to stop 4.



e. <u>Broomfield Common.</u> A new transect for 2022 was created by the Quantock Landscape Partnership Scheme who wished to see the effects of woodland management on Broomfield Common. Broomfield Common is within the rolling farmland and settled combes at the south of the Quantock Hills. It is a mixed broadleaf woodland with mainly ash standards. Due to no active management of the woodlands for many years there is significant understorey but little species or age diversity. It is relatively small site at 21.10Ha and is at relatively high elevation ranging from 145m to 190m. As well as favourable woodland features for bats the site contains small stream corridors, open rides and glades and is bounded by pasture and other water features such as ponds. The first year transect included many of the features and will be developed in 2023 to take account of lessons learnt in the first year of monitoring.



6. Transects – Woodland Surveys.

Woodland Surveys are undertaken on behalf of the Bat Conservation Trust (BCT) and Natural England (NE) and are a specific monitoring programme centred on Special Areas of Conservation (SACs) in England that have bat species as a primary reason for selection of the site. For the Exmoor and Quantock Oakwoods SAC Barbastelle, *Barbastella barbastellus*, are the species that are the primary reason for selection of the site. The Exmoor and Quantock SAC is 1,895Ha in size and covers six areas stretching from west Exmoor through to the north Quantock Hills. The four areas of SAC on the Quantock Hills are approximately 309Ha in size.

<u>Methodology</u>. The survey methodology is slightly different to the Field Survey in that there are no stops, but the transect is undertaken at a continuous walk along and back a linear route. For the purposes of the Woodland Survey only confirmed or possible Barbastelle calls are identified with recordings sent to BCT at the end of the survey season.

- a. <u>Hodders Combe</u>. Sessile oak woodland stretching south west from Holford. The transect is 1.26km from elevation 145m 190m, following a bridleway along the combe floor, alongside a stream and passes a number of small glades. The woodland is predominately mature oak with an understorey of holly in places. Regeneration is low due to lack of light and high browsing pressure.
- <u>Holford Combe.</u> Very similar to Hodders Combe with sessile oak woodlands being dominant and little understorey. The transect is 1.35km long, elevation from 150m – 205m, heading south from Holford following a bridleway which is adjacent to a small stream.



c. <u>Alfoxton Woods</u>. The transect is 1.42km in length with elevations from 115m – 195m, passing through sessile oakwood with significant understorey of holly before passing through Alfoxton Park, which is mainly grass parkland with a good number of significant veteran trees. This transect is more open than either of the other Woodland survey transects.



7. Results.

Transect	First year of	Total No of	Ave No of	202	2023		24	Trend
	monitoring*	Species	calls/yr	No of species	No of calls	No of species	No of calls	
Fyne Court	2013	10	181	8	379	8	295	1
Cothelstone Hill	2014	10	150	7	314	6	122	\checkmark
Ramscombe	2015	9	255	8	275	5	244	\checkmark
Broomfield Common	2023	7	119	7	119	-	-	N/a
Hodders Combe	2018	11	514	8	533	9	1,049	1
Holford Combe	2018	9	363	6	533	5	63 ¹	\checkmark
Alfoxton	2018	10	215	8	318	8	314	1

Table 1: Summary results for all transects.

*First year of monitoring by the Quantock Hills National Landscape where recordings have been able to be analysed by the Team

1 – Only one survey was undertaken on the Holford Combe transect in 2024 due to reduced number of surveyors. The one survey also returned low number of calls recorded.

Summary. 2023 saw an increase in total number of calls across all transects. Number of species recorded was also high. This may relate to the favourable weather conditions especially in the spring. 2024 saw a drop in both number of calls recorded and number of species with only Hodders Combe bucking the trend with a significant increase in numbers of calls recorded. Late winter and early spring 2024 saw a number of storms and significant periods of wet and windy weather which may have impacted bat activity. Some transects such as Cothelstone Hill and Ramscombe have had management activity over the previous 3-5 years including woodland thinning and felling which may impact bat activity as the number of calls being recorded in areas that have been worked has decreased. Broomfield Common was not surveyed in 2024, with both survey evenings aborted due to access issues on the transect. While the site is still considered to be a valuable site to monitor a different survey methodology may prove more effective.

Appendix 1 contains more detailed results including species recorded at the different sections of the transects.

7.1 Fyne Court

	No of													
Transect - Fyne Court	Sp	10	6	5	4	4	6	8	7	7	4	7	8	8
Year	Total	Ave	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Common pipistrelle	1638	136.5	65	161	126	147	115	125	166	55	74	180	238	186
Soprano pipistrelle	286	23.8	8	14	21	27	23	15	16	2	13	8	100	39
Nathusius pipistrelle	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Gr Horseshoe	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Ls Horseshoe	1	0.1	0	0	0	0	0	1	0	0	0	0	0	0
Noctule	37	3.1	3	0	3	1	0	2	1	1	0	1	4	21
Leislers	20	1.7	0	0	0	0	0	0	0	2	0	0	4	14
Serotine	51	4.3	2	10	0	0	3	9	0	7	1	6	2	11
Myotis sp	76	6.3	1	4	2	0	6	10	2	1	15	3	26	6
Daubentons	11	0.9	0	0	0	0	0	10	1	0	0	0	0	0
Natterers	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Whiskered	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Brandts	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Bechsteins	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Barbastelle	39	3.3	1	5	0	3	1	0	1	3	0	10	1	14
Brown Long-eared	16	1.3	0	0	0	0	1	3	3	0	0	1	4	4
Grey Long-eared	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass Count	2175	181.3	80	194	152	178	149	175	190	71	103	209	379	295

Table 2. Fyne Court – number of calls of different species over time.

<u>Findings</u> – figures were higher in 2024 compared to the average figures (295 bat passes, compared to an average of 181), though not as high as 2023. Common pipistrelle, were recorded at higher numbers than in previous years with 186 bat passes compared to the average of 137. Large bats such as the Noctule, Serotine and Leislers were recorded in significant numbers showing the importance of the woodland and surrounding pasture land for roosting and foraging. Barbastelle calls recorded continue to increase showing an

increasing trend. The species diversity was higher than in previous years with eight species - taking into account myotis sp are counted as one species due to difficulties of identification -

7.2 Cothelstone Hill

Transect - Coth Hill	No of Sp	10	4	5	5	4	7	6	6	6	6	7	6
Year	Total	Ave	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Common pipistrelle	749	68.1	46	83	96	110	87	50	27	21	41	136	52
Soprano pipistrelle	651	59.2	48	111	36	42	18	62	74	51	35	113	61
Nathusius pipistrelle	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Gr Horseshoe	1	0.1	0	0	0	1	0	0	0	0	0	0	0
Ls Horseshoe	5	0.5	0	1	1	0	0	0	0	1	2	0	0
Noctule	25	2.3	0	0	0	0	10	2	2	1	3	4	3
Leislers	2	0.2	0	0	0	0	0	0	0	0	0	2	0
Serotine	17	1.5	0	0	4	0	10	1	0	0	0	2	0
Myotis sp	133	12.1	5	16	1	3	9	1	47	2	4	43	2
Daubentons	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Natterers	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Whiskered	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Brandts	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Bechsteins	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Barbastelle	53	4.8	2	2	0	0	8	3	5	13	3	14	3
Brown Long-eared	9	0.8	0	0	0	0	6	0	2	0	0	0	1
Grey Long-eared	0	0.0	0	0	0	0	0	0	0	0	0	0	0
Total Pass Count	1645	149.5	101	213	138	156	148	119	157	89	88	314	122

Table 3. Cothelstone Hill - number of calls of different species over time

<u>Findings</u> – Numbers of calls recorded across both survey evenings on Cothelstone Hill were significantly lower in 2024 than previous years, though still greater than 2021 and 2022. The late survey period was also noticeable in that number of bat calls recorded in the

woodland section of the transect was very low. This may be due to the increased working of the woodland in this area with more coppicing of hazel coupes having taken place over the last five years.

7.3 Ramscombe

Transect - Ramscombe	No of sp	٩	6	6	7	6	7	6	6	7	g	ц
Year	Total	Ave	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Common pipistrelle	2176	217.6	89	146	122	144	296	337	344	243	223	232
Soprano pipistrelle	210	21.0	21	18	58	7	8	34	14	31	16	3
Nathusius pipistrelle	0	0.0	0	0	0	0	0	0	0	0	0	0
Gr Horseshoe	0	0.0	0	0	0	0	0	0	0	0	0	0
Ls Horseshoe	4	0.4	1	1	1	0	0	0	0	0	1	0
Noctule	44	4.4	0	0	0	13	6	1	1	5	17	1
Leislers	2	0.2	0	0	0	0	0	1	1	0	0	0
Serotine	24	2.4	6	11	2	0	1	0	0	3	1	0
Myotis sp	28	2.8	4	1	5	4	4	3	0	4	3	0
Daubentons	0	0.0	0	0	0	0	0	0	0	0	0	0
Natterers	0	0.0	0	0	0	0	0	0	0	0	0	0
Whiskered	0	0.0	0	0	0	0	0	0	0	0	0	0
Brandts	0	0.0	0	0	0	0	0	0	0	0	0	0
Bechsteins	0	0.0	0	0	0	0	0	0	0	0	0	0
Barbastelle	36	3.6	0	1	1	6	1	4	6	9	2	6
Brown Long-eared	22	2.2	1	0	3	3	6	0	1	4	2	2
Grey Long-eared	0	0.0	0	0	0	0	0	0	0	0	0	0
Total Pass Count	2546	254.6	122	178	192	177	322	380	367	299	265	244

Table 4. Ramscombe – number of calls of different species over time.

<u>Findings</u> – bat calls recorded in 2024 continue to reduce with previous 'hotspots' returning low numbers of calls, especially stop 2 to stop 3. This part of the transect follows a stream corridor and has recently been cleared of invasive species and it may be too open currently for bat activity. The species diversity was reduced with a reduction in large bat species, notably the Noctule. Barbastelle were recorded in the upper section of the transect (stop 4 – stop 8) as would be expected due to the close proximity of sessile oak woods.

7.4 Hodders & Somerton Combe

Transect - Hodders	No of Sp	11	5	8	7	6	6	8	9
Year	Total	Ave	2018	2019	2020	2021	2022	2023	2024
Common pipistrelle	2877	411.0	244	295	325	432	320	402	859
Soprano pipistrelle	175	25.0	19	29	16	17	11	30	53
Nathusius pipistrelle	2	0.3	0	0	0	0	1	0	1
Gr Horseshoe	6	0.9	0	0	0	0	0	3	3
Ls Horseshoe	0	0.0	0	0	0	0	0	0	0
Noctule	54	7.7	0	1	3	3	4	22	21
Leislers	1	0.1	0	0	1	0	0	0	0
Serotine	10	1.4	0	2	0	0	0	1	7
Myotis sp	285	40.7	33	59	24	33	36	51	49
Daubentons	3	0.4	0	3	0	0	0	0	0
Natterers	0	0.0	0	0	0	0	0	0	0
Whiskered	0	0.0	0	0	0	0	0	0	0
Brandts	0	0.0	0	0	0	0	0	0	0
Bechsteins	0	0.0	0	0	0	0	0	0	0
Barbastelle	169	24.1	14	56	5	18	8	20	48
Brown Long-eared	17	2.4	1	2	1	1	0	4	8
Grey Long-eared	0	0.0	0	0	0	0	0	0	0
Total Pass Count	3599	514.1	311	447	375	504	380	533	1049

Table 5. Hodders & Somerton Combe – number of calls of different species over time.

<u>Findings</u> – Bat calls recorded were significantly higher than the previous year and average figure being over twice the average figure. This is due to the number of Common pipistrelle calls recorded at 859. Barbastelle calls recorded were also significantly higher at 48, though not as high as in 2019. Greater Horseshoes were again recorded as in 2023. As in previous years calls were recorded in all sections of the transect.

7.5 Holford Combe

Transect - Holford	No of Sp	9	5	7	5	5	6	7	5
Year	Total	Ave	2018	2019	2020	2021*	2022*	2023	2024*
Common pipistrelle	1972	281.7	401	355	329	206	227	406	48
Soprano pipistrelle	167	23.9	45	61	10	17	6	28	0
Nathusius pipistrelle	2	0.3	0	0	0	0	0	2	0
Gr Horseshoe	0	0.0	0	0	0	0	0	0	0
Ls Horseshoe	0	0.0	0	0	0	0	0	0	0
Noctule	16	2.3	0	1	4	1	3	7	0
Leislers	3	0.4	0	0	0	0	2	0	1
Serotine	8	1.1	1	1	0	0	0	4	2
Myotis sp	316	45.1	54	63	34	54	41	61	9
Daubentons	0	0.0	0	0	0	0	0	0	0
Natterers	0	0.0	0	0	0	0	0	0	0
Whiskered	0	0.0	0	0	0	0	0	0	0
Brandts	0	0.0	0	0	0	0	0	0	0
Bechsteins	0	0.0	0	0	0	0	0	0	0
Barbastelle	51	7.3	6	10	7	0	3	25	0
Brown Long-eared	9	1.3	0	3	0	3	0	0	3
Grey Long-eared	0	0.0	0	0	0	0	0	0	0
Total Pass Count	2544	363.4	507	494	384	281	282	533	63

Table 6. Hodders & Somerton Combe – number of calls of different species over time.

*Note – in these years not all three survey nights were undertaken.

<u>Findings</u> – Unfortunately only one survey evening was undertaken on this transect due to reduced number of surveyors. The one survey evening also returned low numbers of bat calls recorded. Species recorded were lower than usual as well with no Barbastelle's being recorded. Holford Combe usually has higher numbers of myotis species recorded however in 2024, even with the reduced survey effort, number of myotis species recorded was very low.

7.6 Alfoxton

Transect - Alfoxton	No of Sp	10	7	8	8	8	8	8	8
Year	Total	Ave	2018	2019	2020	2021	2022	2023	2024
Common pipistrelle	680	97.1	56	96	113	81	73	131	130
Soprano pipistrelle	259	37.0	24	9	28	17	44	61	76
Nathusius pipistrelle	0	0.0	0	0	0	0	0	0	0
Gr Horseshoe	1	0.1	0	0	0	1	0	0	0
Ls Horseshoe	1	0.1	0	1	0	0	0	0	0
Noctule	67	9.6	1	0	2	14	17	23	10
Leislers	8	1.1	0	1	2	0	2	1	2
Serotine	105	15.0	6	8	17	8	30	8	28
Myotis sp	145	20.7	19	23	27	9	12	38	17
Daubentons	0	0.0	0	0	0	0	0	0	0
Natterers	0	0.0	0	0	0	0	0	0	0
Whiskered	0	0.0	0	0	0	0	0	0	0
Brandts	0	0.0	0	0	0	0	0	0	0
Bechsteins	0	0.0	0	0	0	0	0	0	0
Barbastelle	214	30.6	22	25	31	15	22	55	44
Brown Long-eared	25	3.6	2	2	7	2	4	1	7
Grey Long-eared	0	0.0	0	0	0	0	0	0	0
Total Pass Count	1505	215.0	130	165	227	147	204	318	314

Table 7. Hodders & Somerton Combe – number of calls of different species over time.

<u>Findings</u> – Alfoxton is one of the best transects for Barbastelle passes and 2024 was no exception with 44. There were a significant number of large bat (Noctule, Serotine, Leisler) passes in 2024 at 40 which follows previous years trends. Overall bat passes were relatively high for this transect at 314. The species diversity of this transect is high with at least eight species (myotis are recorded as one due to difficulty in identification from calls alone).

Acknowledgements:

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By far the most important group to thank are the volunteers who committed their time and effort, especially at unsocial hours, to undertake the transects and analysis of the recordings.

Appendix 1: Full Transect results.

Key to species

CP	Common Pipistrelle	BLE	Brown Long eared	Му	Myotis Species	Uk	Unknown	Le	Leislers
SP	Soprano Pipistrelle	No	Noctule	Se	Serotine	Da	Daubenton's		
NP	Nathusius Pipistrelle	Ba	Barbastelle	GHS	Greater Horseshoe	LHS	Lesser Horseshoe		

Bold entry – Species of particular interest.

Fyne Court Transect. 2014 – 15.

Transect		S	pecies (number of passe	es)	
Location	02/07/14	09/07/14	23/07/14	08/07/15	18/07/15
Stop 1	CP(1)	CP(1)			CP(1)
Walk 1	CP(3) SP(5)	CP(1) SP(1) My(1)	SP(1)	CP(3) SP(4) My(2)	
Stop 2	CP(8) SP(13)	CP(11) SP(1) Ba(5)	CP (4) SP(9)		
Walk 2	CP(32) SP(32) My(1)	CP(31) SP(33) My(1)	CP(26) SP(24) My(2)	CP(5) SP(10)	CP(11)
Stop 3	CP(13) SP(4)	CP(8) SP(1) My(1)	CP(2) SP(5)	CP(14) SP(3)	CP(1) SP(2)
Walk 3	CP(6) SP(3)	CP(8) SP(1)	CP(10) SP (1)	CP(6)	CP(1) SP(1)
Stop 4			CP(1)		
Walk 4					CP(1)
Stop 5					No(1)
Walk 5			CP(1)		CP(3) No(2)
Stop 6		Se(3)		CP(1)	
Walk 6	SP(5)	CP(1) Se(5)	CP(4) SP(4)	CP(25) SP(1)	CP(1)
Stop 7	CP(1)	CP(13)	CP(5) SP(2)		CP(5)
Walk 7	CP(12) SP(4)	CP(7)	CP(2) SP(1)	CP(3)	CP(1)
Stop 8	CP(4) SP(1)	CP(12)		CP(18)	CP(29)

Transect	Species (number of passes)								
location	05/07/16	22/07/16							
Stop 1	SP(3)	CP(9) SP(7)							
Walk 1	CP(7) SP(4)	CP(4) SP(6)							
Stop 2	CP(22)	CP(1)							
Walk 2	CP(6)	CP(2)							
Stop 3		CP(2)							
Walk 3	CP(6)								
Stop 4	CP(5)	CP(1)							
Walk 4	CP(22) SP(5)	CP(1)							
Stop 5									
Walk 5		Ba (2)							
Stop 6									
Walk 6	No(1)	CP(1)							
Stop 7		CP(1) Uk(1)							
Walk 7		Ba(1)							
Stop 8									
Walk 8		CP(5)							
Stop 9		CP(11) SP(2)							
Walk 9		CP(7)							
Stop 10									
Walk 10	CP(9)	CP(10)							
Stop 11	CP(1)								
Walk 11	CP(7)	CP(1)							
Stop 12	CP(1)	CP(10)							

Fyne Court 2016 – Transect amended in 2016 to create more stops to bring transect into line with standard BCT survey methodology

	Species (number of passes)												
Transect	7/7/17	21/7/17	06/07/18	26/07/18	03/07/2019	23/07/19	08/07/20	17/07/20	14/07/21	20/07/21	14/07/22	26/07/22	
location													
Stop 1	CP (10) SP(5) My(2)	CP(2)	CP (3) SP (1)	CP (9) SP (2)	CP(1)	CP(1)	CP(4) No(1)	CP(1)	CP(3)		CP(3)	CP(2)	
Walk 1	CP(8)	CP(1) SP(1)	CP(8)	CP(11) SP(10)	CP(10)	CP(4)	CP(5)		CP(4)	CP(1)	CP(3)	CP(7)	
Stop 2	CP(6) Uk(1)	CP(2) SP(3) Uk(4)	CP(13)	CP(18)	CP(4)	CP(2)			CP(11)	CP(1)	CP(21) No(1)		
Walk 2	CP(6) Uk(1)	CP(4) SP(1)	CP(4)	CP(12) Se(2) SP(1)	CP(18)	CP(21)		CP(4) SP(1) Se(4)	CP(5) SP(4)	CP(13) My(14)	CP(10)		
Stop 3	Ba (1) My(1)		CP(3)	BLE(3)		CP(2)	CP(1) SP(1) Ba(1)	CP(9)	CP(8)	CP(5)		CP(3)	
Walk 3		CP(2) SP(3)	CP(1) Se(5)	CP(4)	CP(2)	CP(1) SP(1)				CP(2)	CP(1) SP(1)	CP(10) SP(1)	
Stop 4		CP(25)	CP(4)	CP(2)	CP(14) BLE(3)							CP(6) Ba (1)	
Walk 4		CP(19) SP(1) Se(1)	My(4) CP(2)	CP(3)	CP(1)	CP(24) Ba(1) My(1)		CP(1) Ba(1)	My(1)	CP(2) SP(3) Se(1)	CP(22) SP(1) Ba(3)	CP(14) Ba(1) My(1)	
Stop 5		Uk(1)	CP(1)			CP(6) SP(2)	CP(3) Ba(1)		CP(1)	CP(1)	CP(1)	CP(4)	
Walk 5		CP(3) SP(5) Uk(1)	CP(3) SP(1)	CP(6)	CP(3) SP(2)	CP(7) SP(7)	CP(2)		CP(1)	CP(3) SP(1)	CP(2) SP(1)	CP(4) BLE(1)	
Stop 6	CP(6)	CP(1)		My(1) Se(1)	CP(1)	CP(12)							

Walk 6		SP(1)		My(1)		CP(10)						Ba(1)
		Se(1)		No(1)		SP(1)						
Stop 7				CP(1)		SP(2)		SP(1) Se(1)				
Walk 7			No(1)	My(1)		CP(3) SP(1)	CP(1)		CP(1) SP(5)		CP(2)	CP(1) Ba(1)
Stop 8	Se(1)	SP(2)		My(1) CP(1)	CP(2)	CP(4)	My(1)	CP(1)	CP(1)	CP(1)	CP(7) SP(1) My(1)	CP(2) Se(1)
Walk 8	CP(2)	SP(1)				CP(4)				CP(3)	CP(5) SP(1)	CP(5)
Stop 9				Se(1)		CP(6)						
Walk 9	CP(2)		CP(1)								CP(1)	
	My(1)											
Stop 10	CP(1)							CP(2)			SP(1)	
Walk 10	CP(7) BLE(1)		CP(2)			CP(1)	CP(2) Le(1) *	CP(1)		CP(1)	CP(4)	CP(7) Se(2)
Stop 11	CP(7) Uk(1)			LHS(1)	CP(2)	CP(3) No(1)	CP(4)	CP(1)		CP(3)	CP(2)	CP(1)
Walk 11	CP(1)	CP(1)	My(2) CP(2)		Da(1) CP(6) My(1)	CP(1)	CP(3)	CP(1)			CP(1)	CP(12) SP(1)
Stop 12	My(1) Uk(3)		Da(10) CP(1)	CP(8)	CP(4)	CP(4)	CP(8) Se(2)		CP(3)		CP(2)	CP(15) Se(3) Ba(2) My(1)

Fyne	Court	2023	- 2024
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Transect		Species (numb	er of passes)	
location	06/07/23	20/07/23	09/07/24	17/07/24
Stop 1	CP(7) SP(10)	CP(10) SP(11)		CP(19) SP(5)
Walk 1	CP(3)	CP(3)	CP(4)	CP(10) SP(10)
Stop 2	CP(10) SP(10)	CP(11) No(1)	CP(21) SP(2) Ba(4)	SP(2)
Walk 2	CP(4)	CP(9) SP(1)	CP(7) SP(2) Ba(6) My(1)	CP(20)
Stop 3	CP(3)	CP(2)	CP(2) SP(1)	CP(3)
Walk 3	CP(4) SP(1)	CP(5) Se(1) SP(5)		
Stop 4	CP(3)	CP(9) SP(3)	Ba(4)	CP(2) SP(1)
Walk 4	CP(4)	CP(25) Ba(1) My(1) SP(1)	CP(4) My(3) No(1)	CP(5) SP(3)
Stop 5	CP(3) SP(2)	CP(16) SP(2)	CP(2)	CP(3) SP(4) BLE(3)
Walk 5	CP(12) SP(7)	CP(28) SP(2)	CP(4)	CP(2) SP(1) Se(1)
Stop 6	No(1)		CP(7)	
Walk 6	SP(1)	SP(1) CP(1)	CP(3)	CP(1) No(2) Se(3) My(2) BLE(1)
Stop 7	SP(1)	BLE(1)	No(1)	No(1)
Walk 7	SP(1)		No(2)	
Stop 8		CP(1)	CP(3) No(2)	Le(2)
Walk 8	CP(3) SP(1)	CP(7)		CP(1) Le(3)
Stop 9	CP(3) SP(4) My(1)			No(2) Le(1)
Walk 9	CP(2) SP(19) My(13)	CP(2) My(1)		No(3) Le(2)
Stop 10	CP(1) SP(8) My(5)	CP(2) No(2)	CP(1)	
Walk 10	CP(6) SP(7) My(3)	CP(4) Se(1)	CP(2) SP(7) Se(7) No(6)	CP(12) Le(1)
Stop 11	CP(6) BLE(3) Le(1)	CP(2) SP(1)	CP(7) Le(5)	CP(12)
Walk 11	CP(9) SP(1) Le(3)	CP(2)	CP(8) No(1)	CP(9)
Stop 12	CP(10) My(2)	CP(6)	CP(4)	CP(8) SP(1)

Cothelstone Hill 2014 - 2015

Transect		Species (number of passes)											
location	02/07/14	09/07/14	23/07/14	11/07/15	29/07/15								
Stop 1	CP(1)												
Walk 1	CP(11)	Uk(1)											
Stop 2	CP(1)	SP(1)			CP(2)								
Walk 2	CP(1)		SP(2)	My(1)	SP(1)								
Stop 3	Ba(1)				CP(4) Ba(2)								
Walk 3	SP(2)				SP(5) My(3)								
Stop 4	CP(3) SP(4)	CP(3) SP(2)	SP(1)		SP(15)								
Walk 4	CP(8) SP(5) My(2)	SP(3)	SP(9)	CP(6) SP(2) LHS(1) My(3)	SP(8) My (2) Uk(1)								
Stop 5	CP(4) SP(4) My(1)		SP(11)	CP(14) My(4)	CP(1) Uk(1)								
Walk 5	CP(8)	My(1) Uk(1)	CP(2) SP(9) Uk(1)	My(1)	CP(4) SP(27)								
Stop 6				CP(1) SP(1) My(1)	CP(2) SP(2)								
Walk 6			CP(4) SP(1) Ba(1)	CP(11) SP(7)	CP(22) SP(18) Uk(3)								
Stop 7	Uk(1)		My(2)	CP(3) My(1)	CP(5) SP(9)								
Walk 7	CP(2)		My(1) Uk(4)	SP(1)	CP(8) SP(15)								
Stop 8		SP(1)	CP(1)										

Transect				Spec	ies (number o	f passes)				
Location	07/07/16	26/07/16*	14/07/17	27/07/17	09/07/18	23/07/18	13/07/19	23/07/19	08/07/20	17/07/20
Stop 1	CP(1)								SP(1)	
Walk 1		Uk(1)	SP(1)		CP(1)		No(1)			
Stop 2										
Walk 2		My(1)	SP(4) CP(6)	SP(4) CP(1)		CP(2)	No(1) SP(3)			
Stop 3	CP(1) Se(1)		SP(17) CP(1) Se(1)	SP(5) CP(2)	CP(1)			SP(9)		CP(1)
Walk 3	Se(1)		CP(19) BLE(1)	Se(1) CP(3)		CP(5)	SP(3)	SP(11)		
Stop 4	SP(1)	SP(10)		CP(2)	Ba(1)		CP(1) SP(2)	SP(2)	SP(4)	SP(1)
Walk 4			BLE(2)	CP(4)	CP(2)	CP(3)	SP(3) Se(1)	SP(2)		
Stop 5	Uk(1)		CP(3)	CP(2)	CP(3)	CP(6) No(1)	SP(1)			
Walk 5	CP(11)		SP(7)	CP(1)	CP(2)	CP(11)	CP(2) SP(5)	CP(3) SP(1)	CP(1) SP(28) Ba(1) My(16) No(1)	CP(1)
Stop 6	CP(31) SP(6)	Se(1) CP(2) Uk(2)	SP(1) CP(1)			Da(2) CP(2)	CP(10)	CP(7) SP(3) Ba(2)	CP(9) SP(20) Ba(3) My(8) BLE(2)	My(7)
Walk 6	CP(6) SP(1) Se(1)	Uk(1)			CP(1)	CP(1)	CP(7)	CP(4) SP(9)	My(1)	SP(12) My(14)
Stop 7	CP(7)		LHS(1) My(2)	Ba(1)				SP(1)		SP(4)
Walk 7	CP(1)			My(1)	CP(6)	CP(5)	SP(2)	CP(1) SP(2)	CP(1) SP(1)	CP(8)
Stop 8	CP(3) SP(1)	Uk(1)		CP(2)	CP(4) Ba(1)	CP(3)				CP(1)

Cothelstone Hill 2016-2020

Walk 8	CP(17)			CP(7) My(1)	CP(4)	CP(3) My(1)	Ba(1)	SP(1)	SP(3)	CP(2)
	SP(16)				BLE(1)		SP(1)			
Stop 9	CP(2)	CP(1)		CP(2)	CP(5)	CP(4)	My(1)			
Walk 9	CP(3)	SP(1) CP(1)	CP(21) SP(3)	CP(22)	CP(17)	CP(20)	CP(2)			CP(1)
					SP(2)	My(1) SP(2)				
					Ba(1)					
					No(1)					
Stop 10		CP(3)	CP(4)	CP(2)	CP(2)	CP(3)	CP(1)			My(1)
Walk 10	CP(1)	CP(2)	CP(3)		CP(5)	CP(8) No(2)		SP(3)		CP(1)
					BLE(1)			Ba(2)		No(1)
Stop 11		CP(1)	CP(5) SP(1)	CP(1)	CP(3)	CP(4) Ba(1)	CP(1)			CP(1)
							SP(1)			
Walk 11		LHS(1) CP(1)	CP(2) SP(5)	CP(3) SP(8)	CP(7)	CP(1) No(1)	CP(1)	CP(1)		Ba(1)
				My(1)	SP(2)					
Stop 12		CP(1)		SP(5) My(1)	Ba(2)	No(8) CP(1)	CP(6)	CP(3)		
					BLE(1)					

* 27/07/2016 Rain from stop 6 onwards. Recording had lots of 'noise' which complicated analysis.

Cothelstone Hill 2021-2024

Transect				Spec	ies (number of	^r passes)			
Location	13/07/21	20/07/21	14/07/22	26/07/22	13/07/23	27/07/23	10/07/24	18/07/24	
Stop 1									
Walk 1			SP(4)	SP(4)			SP(2)		
Stop 2	CP(1)			SP(4)	SP(9)	SP(11)	SP(9)		
							Ba(1)		
Walk 2			SP(9)	SP(6)	SP(6) Ba(4)	SP(8)	SP(1)		
Stop 3			SP(1)		CP(2) No(1)	SP(3)	CP(1)		
Walk 3			My(1)		SP(3) Ba(1)	SP(2)		CP(2)	
			Ba(1)						
Stop 4	SP(5)	SP(13)	SP(4)	CP(1)	SP(6)	SP(7)	SP(8)	CP(15)	
								SP(5)	
Walk 4	SP(11)	SP(1)	SP(4)	CP(1)	SP(8) CP(1)	SP(2)	SP(3)	CP(2)	
	No(1)			SP(2)	Ba(4)		Ba(1)	SP(5)	
Stop 5		CP(1)	SP(4)	SP(3)	SP(1) My(1)	Se(1)	SP(1)	CP(1)	
								SP(3)	
								No(1)	
Walk 5	SP(1) My(1)	SP(1)	SP(3)	SP(3)	CP(16)	CP(2) My(1)	SP(3)	CP(1)	
			My(1)		SP(8) My(2)			SP(4)	
Stop 6	CP 4) SP(4)	SP(6) Ba(12)	SP(1)	CP(2)	CP(8) SP(7)	SP(1) No(1)		CP(3)	
	LHS(1)			SP(3)	Ba(2) My(8)	Ba(1)		SP(6)	
Walk 6	SP(1)	CP(8) SP(6)		CP(1)	CP(9) SP(5)			SP(6)	
0. 7						0.00(0)		NO(2)	
Stop /	00(1)	OP(1)			CP(5) SP(2)	CP(2)	0.00(0)	SP(T)	
waik /	SP(T)	CP(6)		CP(5)	CP(17)	CP(1) SP(1)	CP(2)		
					SP(10)	NO(2) Se(1)			
Ctop 0		00(1)			WIY(13)				
		SP(1)				CP(3)	CP(4)		
walk 8			LP(4)	CP(3)	OP(7) SP(3)		CP(1)		
							SP(1) $M_{V}(2)$		
Stop 0			CD(2)	CD(2)			r(z)		
Stop a			07(3)	66(2)	000000000000000000000000000000000000000		3P(1)		

Walk 9		SP(13)	CP(3)	CP(12)	CP(3) SP(1)			
		SP(3)		My(3)	My(1) Le(1)			
		My(1)						
Stop 10		CP(2)	CP(4)	CP(5) Ba(1)		CP(2)		
		Ba(1)						
Walk 10		CP(4)	SP(5)	CP(7)	CP(7) My(2)	CP(2)	Ba(1)	
		LHS(2)			SP(2)			
		Ba(1)						
Stop 11		CP(1)	CP(2)	Ba(1)	CP(6)		SP(1)	
							BLE(1)	
Walk 11		CP(6)	CP(4)	My(3)	CP(7) My(1)	CP(12)	CP(1)	
		My(1)					SP(1)	
Stop 12		CP(8)	CP(2)		CP(7)	CP(3)	. /	
-		SP(2)	SP(1)					
		No(3)	. ,					

Ramscombe 2015

Transect	Species (numbe	er of passes)
location	03/07/15	17/07/15
Stop 1		Un(1)
Walk 1	CP(2)	CP(2)
Stop 2	CP(2) Uk (2)	
Walk 2	CP(7) SP (8)	CP(3) SP(8)
	BLE(1) Uk(1)	
01		
Stop 3	CP(6)	
Walk 3	CP(2)	CP(8) Uk(2)
Stop 4	Uk(1)	
Walk 4	CP(2)	CP(1)
Stop 5		
Walk 5	CP(3) Uk(1)	CP(19) LHS(1)
Stop 6		CD(2)
	$\Omega_{\tau}(0)$	$\frac{\nabla \Gamma(3)}{\nabla \Gamma(2)}$
Walk 6	Se(2)	CP(6) SP(5)
Oto = 7	$OD(0) O_{2}(0)$	
Stop /	UP (2) Se(2)	
Walk 7	Se(2)	CP(11) My(1)

Ramscombe	2016 - 2019
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Transect		Species (number of passes)											
location	09/07/16	27/07/16	14/07/17	27/07/17	09/07/18	23/07/18	2/07/19	25/07/19					
Stop 1	Uk(1) My(1)						CP(1)						
							No(1)						
Walk 1	CP(4) SP(1)		SP(1)		CP(1)		CP(2)						
	Se(2)						No(1)						
Stop 2	CP(2)							CP (6) SP(1)					
Walk 2	SP(1)	Se(4) CP(1)	SP(4) CP(6)	SP(4) CP(1)		CP(2)		CP(7) SP(1) Ba(1) BLE(1)					
Stop 3	CP(5) Se(1)	CP(2)	SP(17) CP(1) Se(1)	SP(5) CP(2)	CP(1)								
Walk 3	CP(2) SP(1)	C (5)	CP(19) BLE(1)	Se(1) CP(3)		CP(5)	CP(12)	CP(11)					
Stop 4	CP(4) SP(1) Se(1)	Uk(1)		CP(2)	Ba(1)		CP(1)	CP(6)					
Walk 4	CP(11) SP(1)	CP(3) Se(2)	BLE(2)	CP(4)	CP(2)	CP(3)	CP(7)	CP(5)					
Stop 5	CP(7) Se(1)	SP(2)	CP(3)	CP(2)	CP(3)	CP(6) No(1)	CP(36) No(2)	CP(2)					
Walk 5		SP(2)	SP(7)	CP(1)	CP(2)	CP(11)	CP(15)	BLE(1)					
Stop 6			SP(1) CP(1)			DA(2) CP(1) CP(1)	CP(17)	CP(1) Uk(1)					
Walk 6		CP(1)			CP(1)	CP(1)	CP(27) SP(3)						
Stop 7			LHS(1) My(2)	Ba(1)			CP(3)						
Walk 7	CP(16)			My(1)	CP(6)	CP(5)	CP(9) SP(1)						
Stop 8				CP(2)	CP(4) Ba(1)	CP(3)							
Walk 8	CP (1)			CP(7) My(1)	CP(4) BLE(1)	CP(3) My(1)	CP(2)	CP(3)					
Stop 9				CP(2)	CP(5)	CP(4)		CP(11) SP(2)					
Walk 9	CP(11) Ba(1)	CP(37) SP(6)	CP(21) SP(3)	CP(22)	CP(17) SP(2)	CP(20)	CP(1)	CP(45) My (1)					
					Ba(1) No(1)	My(1) SP(2)		Se(1)					
Stop 10	CP(1)	CP(4)	CP(4)	CP(2)	CP(2)	CP(3)		CP(13) My(2)					
Walk 10	CP(13)	CP(1) Uk(1)	CP(3)		CP(5) BLE(1)	CP(8) No(2)		CP(20) No(2) BLE(2)					
Stop 11	CP(5) Uk(1)	CP(6)	CP(5) SP(1)	CP(1)	CP(3)	CP(4) Ba(1)		CP(13)					

Walk 11	CP(3) LHS(1)	CP(7) SP(3)	CP(2) SP(5)	CP(3) SP(8) My(1)	CP(7) SP(2)	CP(1) No(1)	CP(20) My(1) BLE(2)
Stop 12		Se(1)		SP (5) WBA (1)	Ba(2) BLE(1)	No(8) CP(1)	

Ramscombe 2020 – 2023

Transect	ct Species (number of passes)											
location	14/07/20	20/07/20	08/07/21	22/07/21	13/07/22	26/07/22	13/07/23	27/07/23	10/07/24	18/07/24		
Stop 1		CP(9) SP(1)			CP(1)	CP(2)			CP(7)	CP(1)		
Walk 1	CP(4)	CP(21) SP(2)	CP(12) SP(1)	CP(4) SP(1)	CP(2) SP(4)	CP(1)	CP(2) No(3)		CP(4)	CP(1)		
					Ba(1)	SP(1)			NP(6)			
Stop 2	CP(16)	CP(31) SP(4)	CP(2) SP(3)	CP(10) No(1)	CP(1) SP(8)	CP(11)	No(3)					
	SP(2)					SP(8)						
Walk 2	CP(20) SP(9)	CP(8) SP(8)	CP(17)	CP(12) SP(2)	CP(10)	CP(20)	CP(5) SP(1)					
					SP(1)	SP(6)	No(1) Se(1)					
						Ba(1)						
Stop 3	CP(24)	CP(14)	CP(3)	CP (1) Ba (1)	CP(10)	CP(15)	CP(1) SP(2)					
					SP(1)							
Walk 3	CP(15)	CP(8) Ba(3)	CP(33) Ba(3)	CP(34) SP(1)	SP(10)	CP(11)		CP(4)	CP(25)	CP(57)		
					Se(1) Ba(2)			Se(1)	SP(3)			
								No(5)	Ba(1)			
Stop 4	CP(17)	CP(6) Ba(1)	CP(15)	CP(2)	Se(1) Ba(1)	CP(1)						
Walk 4	CP(7)	CP(6)	CP(5)	CP(1)	CP(3) Ba(1)	CP(2)			CP(3)	CP(1)		
										Ba(1)		
Stop 5	CP(2)	CP(11)	CP(11)	CP(2)	CP(9) Ba(1)	CP(2)		CP(2)		CP(5)		
								No(2)				
Walk 5	CP(7)	CP(3)	CP(8) Ba(1)	CP(9)	CP(2)	CP(6)		CP(1)				
					BLE(2)							
					My(1)							
Stop 6	CP(2)	CP(7)	CP(3)			CP(2)		SP(1)				
						My(1)						

Walk 6	CP(7)		CP(3)	CP(12)	CP(10)	CP(4)	CP(3)	CP(5)	CP(17) No(1)	
									Ba(2)	
Stop 7	CP(11) My(2)				My(1)		CP(1)		CP(1)	
					BLE(1)					
Walk 7				CP(21)	CP(1)	CP(3)	CP(2) LHS(1)		CP(1)	Ba(1)
Stop 8	CP(3)		CP(1)	CP(1)	CP(3)					
Walk 8		CP(1) SP(1)	CP(13)	CP(4) Ba(1)	CP(9)		CP(1)	CP(3)	CP(10)	CP(4)
Stop 9	CP(1)	CP(1)	CP(2)	CP(2)	CP(3)	CP(1)		CP(3)	CP(5)	
Walk 9	CP(23)	CP(23)	CP(31) SP(4)	CP(27) SP(1)	CP(43)	CP(11)	CP(63) SP(4)	CP(45)	CP(36)	CP(13)
	SP(2)				No(3)	SP(1)	Ba(1)	BLE(2)		
								No(1)		
Stop 10	CP(1)	CP(1)	CP(3)	CP(4)	CP(7)		CP(3)	CP(3)	CP(9)	CP(5)
	My(1)									
Walk 10	CP(7)		CP(1)		CP(9) Ba(1)	CP(1)	CP(6) My(1)	CP(26)	CP(17)	CP(4)
	Le(1)*				My(1)	Se(1)	Ba(1)	My(1)	BLE(1)	
					BLE(1)			No(1)		
Stop 11	CP(11)		CP(14)	CP(3) BLE(1)	CP(4)		CP(5) My(1)	CP(12)	CP(1)	
Walk 11	CP(7)	SP(1)	CP(7) Le(1)	CP(8)	CP(9)	CP(1)	CP(22)	CP(3)		CP(3)
					No(2) SP(1)			SP(4)		
Stop 12	CP(2) SP(4)			CP(3) SP(1)		CP(3)	SP(2)	CP(6)		BLE(1)
	No(1)							SP(2)		
								No(6)		

Broomfield Common 2022-2023

Transect	Spe	ecies (number of passe	s)
location	11/08/22	06/07/23	20/07/23
Stop 1			
Walk 1	CP(1)		CP(2) SP(4)
Stop 2			CP(3) My(1)
Walk 2	CP(2)		CP(1)
Stop 3	CP(3) No (1)	No(2)	My(2)
Walk 3	CP(6) SP(15)	SP(1)	CP(1)
Stop 4			My(1)
Walk 4	Ba(3) CP(13) SP(2)	CP(9) Se(3) No(1)	CP(7) SP(4) Ba(1)
		Ba(1)	My(1)
Stop 5	CP(1)	SP(3) CP(1)	CP(3) SP(1)
Walk 5	Ba(3) CP(22)	CP(17) No(1)	My(1)
Stop 6		CP(5) SP(9)	
Walk 6		CP(5) My(4) BLE(1)	CP(2) CP(2) Ba(1)
Stop 7		SP(8) CP(4) My(4)	CP(2)

Hodders & Somerton Combe

					Sp	ecies (num	ber of passe	es)				
	07/08/19	15/08/19	05/09/19	28/07/20	12/08/20	27/08/20	03/08/21	18/08/21	26/08/21	27/07/22	17/08/22	01/09/22
Start	CP(6) Ba(1)	CP(9) My(5)	CP(7) My(3)	CP(16) My(1)		CP(3) No(2)	CP(12) My(1)	CP(23) SP(6)	CP(12) My(1)	CP(7) Ba(2)	CP(17)	CP(20) My(6)
Loc 1		ва(11)		SP(1)				ва(т)		SP(1)		5P(2)
Loc	CP(2)	CP(10)	CP(33)	CP(20)	CP(1)	CP(10)	CP(6)	CP(25)	CP(24)	CP(5)	CP(25)	CP(9)
1-		Ba(8)	SP(13)	SP(4)		My(2)		SP(1)	Ba(2)	My(1)	My(2)	My(1)
Loc		SP(2)	Ba(6)	Ba(1)		SP(2)		My(1)	No(1)		SP(1)	
2				CD(11)			00(20)	00(26)	SP(1)	CD(6)	CD(10)	00(22)
2 -	GP(9)	SP(1)	SP(3)	GP(11)		SP(5)	$M_{\rm V}(7)$	$M_{V}(A)$	Ba(6)	NP(1)	$M_{V}(A)$	$M_{V}(2)$
		Ba(7)	$M_{V}(4)$			$M_{v}(1)$	Ba(2)	Ba(4)			Ba(1)	iviy(<i>Z</i>)
3		Du(7)	1013(-1)			1013(1)	54(2)	BLE(1)			SP(2)	
Loc	CP(9)	CP(11)	CP(12)	CP(11)	CP(22)	CP(14)	CP(2)	CP(16)	CP(16)		CP(20)	CP(10)
3 –	Ba(3)	Ba(8)			My(1)	My(2)	My(1)	My(1)	My(1)		My(5)	My(3)
Loc 4	My(3)	My(2)			Ba(1) SP(2)		SP(1)				Ba(2)	Ba(1)
Loc	CP(31)	CP(8)	CP(13)	CP(22)	CP(36)	CP(8)	CP(15)	CP(21)	CP(17)	CP(5)	CP(9)	CP(21)
4 -	Ba(1)	Ba(2)	My(2)	Le(1)	My(5)	My(1)	SP(1)	Ba(1)		SP(1)	My(2)	My(1)
Loc 5		My(1)			BLE(1) No(1)	Ba(1)	Ba(1)					
Loc	CP(23)	CP(16)	CP(18)	CP(19)	CP(20)	CP(12)	CP(33)	CP(26)	CP(24)	CP(8)	CP(39)	CP(12)
5 –	Barb(1)	My(6)	My(1)		My(1)	My(3)	My(5)	No(2)	Ba(1)		My(3)	My(2)
Loc	My(3)	Se(1)						My(2)	SP(1)		Ba(2)	No(1)
6		No(1)						SP(1)	My(1)		SP(1)	
		Ba(2)										
Loc	CP(18)	Ba(3)	CP(19)	CP(11)	CP(30)	CP(18)	CP(10)	CP(25)	CP(16)	CP(3)	CP(29)	
6 -	My(2)	CP(3)	SP(5)	SP(2)	My(2)			My(1)	My(3)	My(1)	My(2)	
	Ba(2)	SP(3)		My(2)					SP(1)			

Loc	SP(1)											
7												
Loc	CP(12)	My(4)	CP(5)	CP(10)	CP(19)	CP(3)	SP(2)	CP(9)	CP(14)	CP(5)	CP(26)	CP(3)
7 -	My(15)	CP(4)	SP(1)	My(1)	My(2)	SP(1)	My(1)	My(2)	SP(2)	No(1)	SP(3)	No(2)
End	Ba(1)	Se(1)	My(4)						My(1)		My(1)	
		BLE(2)										

					Species	s (number o	f passes)			
	07/08/23	17/08/23	07/09/23	06/08/24	15/08/24	03/09/24				
Start	CP(33)	CP(13)	CP(25)	CP(26)	CP(55)	CP(32)				
-	Ba(1)	My(5)	BLE(1)	Ba(1)	SP(2)	SP(1)				
Loc 1		Ba(2)	Ba(1)	My(1)	My(3)	NP(1)				
			No(5)		No(1)	Se(1)				
			Se(1)			Ba(2)				
Loc 1	CP(25)	CP(\$)	CP(49)	CP(23)	CP(29)	CP(96)				
– Loc	SP(4)	SP(1)	Ba(2)	My(1)	SP(2)	BLE(4)				
2	Ba(1)		My(3)	Ba(1)	My(3)	My(7)				
					No(1)	SP(3)				
						Ba(2)				
Loc 2	CP(7)	CP(16)	CP(39	CP(26)	CP(20)	CP(59)				
– Loc	SP(4)	Ba(7)	No(4)	GHS(1)	SP(5)	SP(2)				
3	Ba(2)	SP(2)	My(3)		Ba(8)	No(4)				
	My(7)	No(1)	Ba(2)		My(2)	My(7)				
	GHS(3)					Ba(4)				
Loc 3	CP(3)	CP(9)	CP(24)	CP(17)	CP(31)	CP(13)				
– Loc	SP(5)		My(2)	SP(4)	Ba(1)	SP(6)				
4				Ba(8)		My(1)				
				My(1)						
Loc 4	CP(9)	CO(20)	CP(25)	CP(51)	CP(52)	CP(31)				
– Loc	SP(4)		No(6)	SP(14)	No(2)	SP(2)				
5	BLE(3)			Ba(17)	Ser(1)	Ba(1)				
				No(2)						

Loc 5	CP(19)	CP(8)	CP(2!)	CP(27)	CP(53)	CP(44)			
– Loc	No(1)	My(4)	No(4)	SP(1)	SP(1)	BLE(1)			
6	My(4)	Ba(1)	My(3)	Ba(2)	My(4)	SP(1)			
	SP(4)			My(4)	Se(1)	My(3)			
				BLE(2)	No(4)	No(1)			
					Ba(1)				
Loc 6	SP(19)	My(3)	CP(9)	CP(29)	CP(35)	CP(22)			
– Loc		SP(1)	SP(4)	SP(3)	No(2)	SP(2)			
7			No(1)	BLE(1)	Se(1)	My(2)			
				No(4)					
Loc 7	CP(1)	CP(10)	CP(9)	CP(10)	CP(39)	CP(39)			
- End	My(13)	My(13)	My(3)	GHS(2)	My(2)	SP(2)			
	Ba(1)	Ba(1)		Se(2)	Se(1)	My(8)			
	SP(1)	SP(1)		SP(2)					

Holford Combe

	Species (number of passes) 07/08/19 15/08/19 05/09/19 29/07/20 11/08/20 27/08/20 03/08/21 18/08/21 26/08/21 27/07/22 17/08/22 01/09/22											
	07/08/19	15/08/19	05/09/19	29/07/20	11/08/20	27/08/20	03/08/21	18/08/21	26/08/21	27/07/22	17/08/22	01/09/22
Start -	CP(4)	CP(3) SP(1)	CP(2)	CP(5) My(1)	CP(5) SP(1)	CP(3) No(2)		CP(1)	CP(1) SP(1)		CP(3) No(1)	
Loc 1												
Loc 1 – Loc 2	CP(11) Ba(3)	CP(7) Ba(4) My(1)	CP(26) MY(7) No(1) SP(1)	CP(1) My(2)	CP(41) No(2) Ba(1)	CP(17) My(2) Ba(1) SP(2)		CP(8) My(1)	CP(17) SP(3) My(1)		CP(14) My(2) SP(1)	
Loc 2 – Loc 3	CP(4) My(1) SP(1)	CP(22) SP(12) My(4) Ba(1) Se(1)	CP(18) SP(10) My(9) Ba(1) BLE(1)	CP(8) Ba(1)	CP(16) My(5)	CP(5) SP(4) My(3)		CP(15) My(3)	CP(22) My(14) SP(1)		CP(37) My(13) Ba(2)	
Loc 3 – Loc 4	CP(30) SP(4) My(3)	CP(12) SP(10) My(4) Ba(1)	CP(18) SP(5) My(3)	CP(15)	CP(39)	CP(14)		CP(25) My(5) BLE(1)	CP(26) SP(2)		CP(38) My(6)	
Loc 4 – Loc 5	CP(36) SP(11) My(2) BLE(2)	CP(23) SP(1)	CP(34) SP(2) My(3)	CP(11) Ba(2)	CP(32) My(3)	CP(12) Ba(1) My(1)		CP(16) My(6) BLE(2)	CP(37) My(5) SP(4) No(1)		CP(62) My(8) No(2) SP(3)	
Loc 5 – Loc 6	CP(19) SP(1) My(6)	CP(20) SP(2) My(3)	CP(7)	CP(14) My(3)	CP(27) My(6) Ba(1)	CP(12) My(3)		CP(8) My(2) SP(1)	CP(5) My(10) SP(2)		CP(51) My(10) SP(2) Ba(1)	
Loc 6 –	CP(21) SP(1) My(12)	CP(17) My(1)	CP(5)	CP(5) My(1)	CP(14) My(3) CP(1)	CP(13)		My(5) CP(4)	CP(13) My(2)		CP(17) My(2)	

Loc 7									
Loc 7 -	CP(10)	CP(6)	CP(6)	CP(2) SP(1)	CP(12) SP(2)	CP(7) SP(3)	CP(1)	CP(5) Le(2)	
End					My(1)			.,	

					Species	s (number o	f passes)			
	07/08/23	17/08/23	07/09/23	06/08/24	15/08/24	03/09/24				
Start	CP(3)	CP(4)	Ba(1)							
-		SP(2)	My(1)							
Loc 1		My(1)	SP(7)							
			CP(1)							
Loc 1	CP(6)	CP(15)	Ba(5)							
- Loc	Ba(1)	SP(3)	My(6)							
2	No(1)	My(5)	CP(18)							
Loc 2	CP(11)	CP(21)	Ba(5)	CP(7)						
– Loc	No(1)	My(1)	My(4)	My(3)						
3	SP(4)		SP(1)	Le(1)						
	My(3)		CP(21)	BLE(1)						
	Ba(2)									
Loc 3	CP(27)	CP(24)	CP(28)	CP(16)						
– Loc	Ba(2)	My(2)	My(4)							
4	My(4)									
	NP(2)									
Loc 4	CP(40)	CP(16)	CP(37)	CP(5)						
– Loc	Ba(1)	SP(6)	My(22)	My(5)						
5	My(1)	No(1)	No(1)							
			SP(1)							
Loc 5	CP(27)	CP(31)	CP(13)	CP(8)						
- Loc		My(2)	My(2)							
6		No(1)	Ba(1)							

Loc 6	CP(11)	CP(19)						
– Loc	My(1)	SP(2)						
7	Ba(2)	Ba(2)						
	SP(2)	My(1)						
Loc 7	CP(23)	CP(9)	CP(1)	CP(12)				
- End	Se(4)	Ba(3)	No(1)	Se(2)				
	No(1)	My(1)		BLE(2)				
				My(1)				

Alfoxton

	Species (number of passes)											
	07/08/19	15/08/19	05/09/19	28/07/20	12/08/20	27/08/20	03/08/21	18/08/21	26/08/21	27/07/22	17/08/22	01/09/22
Start -	CP(2) Ba(2)	Ba(4) My(3)	Ba(14) CP(3)	CP(11) My(7)	CP(10) Ba(5)	CP(2) Ba(3)	CP(10) My(1)	CP(3) SP(1)	CP(15) SP(15)	CP(17) Ba(1)	CP(1) Ba(2)	Recorder not
Loc 1	SP(7) My(1)	CP(1) SP(1) Se(1)	SP(1) My(1)	Ba(7) SP(2)	My(7) SP(7) Se(2)	My(2) SP(2)	Ba(1) Se(1) No(1) SP(1)	Ba(6)	No(9) Se(6) Ba(4)	My(1) No(1)		working
Loc 1 – Loc 2	CP(3) SP(3)	SP(1) My(1)	CP(13) Se(3)	CP(5) SP(5) Se(2) Ba(2) BLE(1)	CP(1) SP(5) Se(3)	CP(4) SP(1) Ba(3)	CP(11) No(1) SP(1) Ba(1)	CP(5) SP(1) My(1)	CP(6) SP(8) No(2) My(1)	CP(2) My(5) Ba(4) Se(5)	SP(8) Ba(1) No(1)	Ba(2) No(2) Le(1)
Loc 2 – Loc 3	CP(14) LHS(1)	CP(6) Ba(1)	Se(3) CP(1) Ba(1)	CP(1)	CP(2) SP(2) Se(6) Ba(1)	CP(8) Se(1) Ba(1)		CP(1) BLE(2) GHS(1)		CP(14) Se(9) SP(10) Ba(1) My(1)	CP(2) SP(5) Se(2) Ba(1)	Le(1)
Loc 3 – Loc 4	Se(2) CP(3)	CP(9) My(2)	CP(15) Ba(1) My(1) Le(1)	CP(14) SP(2) Ba(3) My(1)	CP(4) Ba(1)	CP(1) Ba(1) My(2)		My(1)	CP(1)		SP(5) No(3) My(2) Se(1)	Se(5) BLE(1) No(1) Ba(1)
Loc 4 – Loc 5	CP(4) My(1)	My(3) CP(1)	CP(4) My(4) SP(2) BLE(1)	CP(7) SP(3)	CP(2)	CP(2) My(1)		My(3)	CP(7) Ba(2)		Se(6) Ba(1) My(1) SP(1)	
Loc 5 – Loc 6	My(3) CP(8) Ba(2)	CP(4)	My(2)	CP(1) Ba(1) BLE(3)	CP(6) BLE(3) My(2) Ba(1)	CP(7) Le(1)		CP(3) My(1)	CP(2) SP(1)		CP(10)	CP(4) SP(2) No(2) My(1)

Loc 6 -	CP(1) MY(1)	CP(2)	CP(1)	CP(11)	CP(3)	CP(1) Ba(2)				SP(9) No(2) Se(1)	CP(1) No(2)
7										Ba(1) BLE(2)	
Loc 7 - End		BLE(1)	CP(1) SP(3)	CP(4) SP(3) My(4) Se(1) No(2)	CP(3) SP(1) Se(2)	CP(3) My(1) Le(1)	CP(1) My(1) Ba(1)	CP(5) SP(3)	CP(21) No(2) Ba(1)	SP(4) Ba(5) No(1) Se(1) My(1) BLE(1)	CP(1) Ba(1)

	Species (number of passes)											
	07/08/23	17/08/23	07/09/23	06/08/24	15/08/24	03/09/24						
Start	CP(1)	CP(13)	CP(5)	CP(3)	Se(8)	CP(16)						
-	Ba(8)	SP(8)	Ba(12)	My(5)	Ba(1)	Ba(5)						
Loc 1	My(10)	My(4)		Ba(4)	CP(1)	Se(5)						
	BLE(1)	No(2)		SP(5)		SP(12)						
	Se(2)	Se(2)										
Loc 1	CP(5)	CP(8)	CP(8)	CP(4)	CP(8)	Ba(1)						
– Loc	SP(2)	SP(7)	Ba(4)	Ser(3)	Se(2)	My(1)						
2		No(2)	My(1)	SP(1)	Ba(1)							
		Ba(1)			SP(3)							
Loc 2	CP(1)	CP(7)	CP(6)	CP(10)	CP(1)	CP(3)						
- Loc	My(1)	SP(5)	No(6)	Ba(1)	BLE(1)	SP(1)						
3	Ba(4)	No(1)	SP(4)	Le(1)	Ba(7)							
		Se(1)	My(2)		My(1)							
			Se(1)									
Loc 3	CP(5)	CP(6)	SP(12)	CP(2)	CP(9)	CP(3)						
– Loc	My(4)	Ba(1)	CP(2)	My(3)	Ba(2)							
4	Ba(1)		No(4)	Ba(3)								

Loc 4	My(1)	CP(1)	CP(24)	CP(8)	Ba(1)	CP(24)			
– Loc	Ba(1)		My(5)	My(1)		No(3)			
5			Ba(7)	No(1)		BLE(1)			
			SP(8)			My(1)			
Loc 5	CP(16)	My(1)	My(2)	CP(13)	CP(6)	Se(1)			
– Loc	Ba(1)	Le(1)	CP(8)	Ba(4)	SP(3)	My(1)			
6		No(1)	SP(8)		Ba(1)	CP(1)			
			Ba(1)		BLE(1)	No(1)			
					No(1)				
Loc 6	My(5)	CP(2)	CP(7)	Se(3)	CP(9)	CP(20)			
– Loc	SP(1)	No(1)	SP(1)	My(3)	BLE(1)	CP(3)			
7			No(1)	CP(1)	Se(1)	Le(1)			
				Ba(1)	SP(1)	Ba(2)			
						BLE(1)			
Loc 7	No(1)	Ba(12)	SP(5)	SP(21)	No(1)	SP(6)			
- End	CP(1)	No(1)	No(3)	Ba(9)	Se(3)	BLE(2)			
	Ba(1)	My(1)	CP(4)	CP(2)	CP(2)	Ba(1)			
		CP(1)	Se(2)	My(1)	SP(3)	Se(1)			
			Ba(1)	Se(1)		CP(1)			
			My(1)	No(3)					