# BLACKDOWNS 2011 BIG BAT SURVEY

Somerset Bat Group

**Acknowledgements**

The Blackdown Hills Big Bat Survey was run by the Somerset Environmental Records Centre (SERC) with the help and support of the Somerset Bat Group (SBG) and the Blackdown Hills Area of Outstanding Natural Beauty (AONB). It was made possible with the generous financial support of the Blackdown Hills AONB through its Sustainable Development Fund. Without these three bodies it would not have been possible. Equally, the whole survey depended on the enthusiasm and expertise of an army of volunteers giving their time to design and walk transects, stumble about in the dark and spend hours at a computer analysing the results. The mapping and identification of bat "hot spots" was the work of SERC, namely Liz Biron (SERC Training Manager) and SERC trainees in particular Hannah Montag.

The transects design was the work of Cath Shellswell, Lou Pickersgill, Liz Biron and Edward and Helen Wells. The administration and organisation of the survey was carried out by Agni Arampoglou, SERC Ecologist. The analysis of recordings was carried out by the authors of this report and Lou Pickersgill.

Special thanks to

Recorders:

Pete Banfield, Adrian Bayley, Liz Biron, Dave Cottle, Jeremy and Kath Cuff, Paul Kennedy, David Lloyd, Michelle Osbourn, Lou Pickersgill, Tony Serjeant, Helen Wells and Adrian Woodhall.

Other volunteers who took part in the survey:

Gary Alleyne, Christine Banfield, Colin Banfield, Caroline Bedford, Linda Bennett, Alistair Blake, Den Bridel, Keith Broom, Tim Cuff, Chloe Date, Jenny Date, Jenny Devitt, Paul Evans, Harry Fox, Matthew Geen, John Godsmark, Valerie Godsmark, Ty Gordon, Roy Hartnell, Jenette Howard, Rachel Lewis, Gail Lydall, Rob Macklin, Matthew Marshall, Hannah Montag, Lila Morris, Catherine Mowat, Lynn Osborne, Sue Pargeter, John Peach, Alison Pike, Jane Poole, Sophia Priddle, Robert Randall, Amelia Richardson, Nick Richardson, Gordon Robertson, Sue Simpson, Alison Slade, Mike Sparrow, Georgina Timmis, Emma Wake, William Wake, Chris Warden-Poole, Dion Warner, Edward Wells and Carrie White.

All the land holders who allowed the survey to take place around their holding.

All of the people who gave comments on the text of this report.

Cover photograph: Leisler's Bat (*Nyctalus leisleri*) © Paul Kennedy

Report Authors: Edward Wells and Cath Shellswell of Somerset Bat Group

**Supported by the Blackdown Hills AONB Sustainable Development Fund**

## 1. INTRODUCTION

Whilst a number of specific bat roosts within the Blackdown Hills AONB have been known for many years the way in which bats use the landscape of this interesting and varied part of Somerset and Devon has been only sparsely studied. Flight records have been largely anecdotal. Accordingly the AONB commissioned SERC to carry out a Batscape study using aerial photography interpretation and the Integrated Habitat System (IHS) to map and predict areas likely to be suitable for the various British bat species. This work produced predictive maps for a number of species based on their known habitat requirements and on the distribution of known records. There are 17 species of bat known to breed in Britain and 16 of those are recorded in Somerset. A survey for the National Bat Monitoring Programme of the Bat Conservation Trust in 2010 and 2011 revealed a number of sites for the nationally rare Bechstein's Bat (*Myotis bechsteinii*) in and near the Blackdown Hills. Clearly the area could be of great importance for bats.

It is one thing to try and predict where bats might be but another to find out if predictions are right. SERC has undertaken bat activity surveys and Anabat surveys in 2010 and 2011 at possible swarming sites. However, for flight records it was decided to use the Mendip Big Bat Survey model and encourage local people to find the bats with SERC and enjoy a largely hidden element of their local wildlife at the side of experienced bat workers. It was always envisaged that the survey should be reasonably scientific but that it should also give a lot of pleasure to those taking part.

As bats are highly mobile, their presence is a good indicator of the status of habitats and they can be used to monitor changes in the condition of the wider landscape. Intensive land management can deplete the invertebrate population and bats will move elsewhere. The data acquired by the Mendip Big Bat Survey has already been used to support agri-environment agreements and wider landscape management. The way that the different bat species use the environment, particularly in relation to the use of linear landscape features to commute and feed opportunistically, is still a matter of research and debate but it can only help inform that debate to have comparative data covering a number of years showing where in the landscape bats are encountered. The Blackdown Hills represent an outstanding area in which to collect such data with their un-intensive land use and varied mosaic of habitats.

The predictive maps were used to identify potentially good areas to survey but the actual routes used were also conditioned by their practicality. Public paths were an essential part of the transect route and public roads were avoided wherever possible. It was essential that the route prescribed should be safe and able to be negotiated within a reasonable time. It was equally essential that the surveying did not disturb or put at risk any landowners, their livestock or their crops. One intended transect had to be abandoned because of issues over the health and security of the landowner's horses.

The methods used in this survey, whilst providing robust and meaningful data, also provide an opportunity for a large number of people to experience the pleasure of listening for bats in the company of more experienced bat people. Local naturalists have discovered a whole new world in their own neighbourhood, a world which only comes to life when the sun has gone down. Twelve transects were surveyed on 29th of July 2011. The volunteers, some sixty two in all, were divided between those transects so that no team was less than four people. Heterodyne bat detectors were supplied to those who did not have their own. Before the survey took place Edward Wells ran a workshop in July 2011 to help inexperienced volunteers get some idea of how to interpret what they were likely to hear on such a detector. If bats do associate the noises from detectors with their own sounds, and it is unlikely that they do, they show no sign of being affected. Groups of 4 or 5 people walking the transects represent only a very slight and transient intrusion.

## 2. METHOD

The 2011 Blackdowns Big Bat Survey is a landscape survey to collect comparable data across the Area of Outstanding Natural Beauty:

(a) 12 predetermined routes (figure 1) were walked simultaneously comprising a series of 6 walking sections and 6 stationary points. Each team of volunteers listened to bats using heterodyne, time expansion or frequency division bat detectors and listed what they heard in each section.

(b) At the same time one person in each group undertook a continuous recording on to an MP3 player or wave recorder using a frequency division Batbox Duet Bat Detector running continuously. The recordings were assigned to separate tracks for each section and then analysed to count the number of bat passes in each section and, so far as possible, assign those passes to species.

## 2.1 Survey

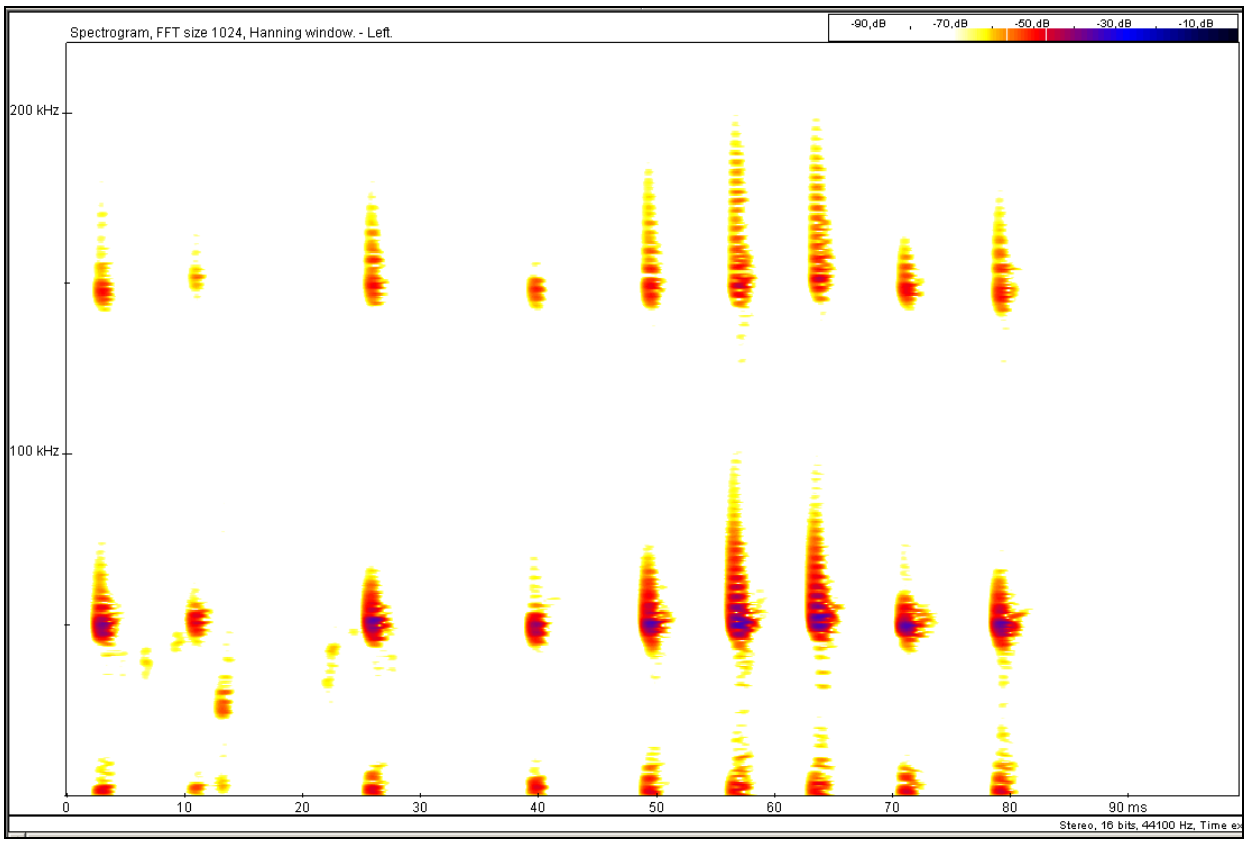
Twelve transects were surveyed. All were completed and good frequency division sound data was collected from each route. Each walk consisted of six stops of 5 minutes and six walked sections lasting an average of about 10 minutes. The stops were chosen strategically where there were potentially significant landscape features and the walks were mainly along established footpaths for the comfort and safety of the volunteers. All landowners along each transect were asked for permission to access their land.

To create each route, a walk was drafted using OS Explorer Map 115, 116 and 128. The transect was subsequently checked to measure the timings of the sections at a steady walking pace and define the different habitats at the stops. The volunteers were provided with maps of the transect they were undertaking, a risk assessment and asked to walk the route in daylight for safety prior to the survey. Further information that was provided to volunteers is available from the Somerset Environmental Record Centre.

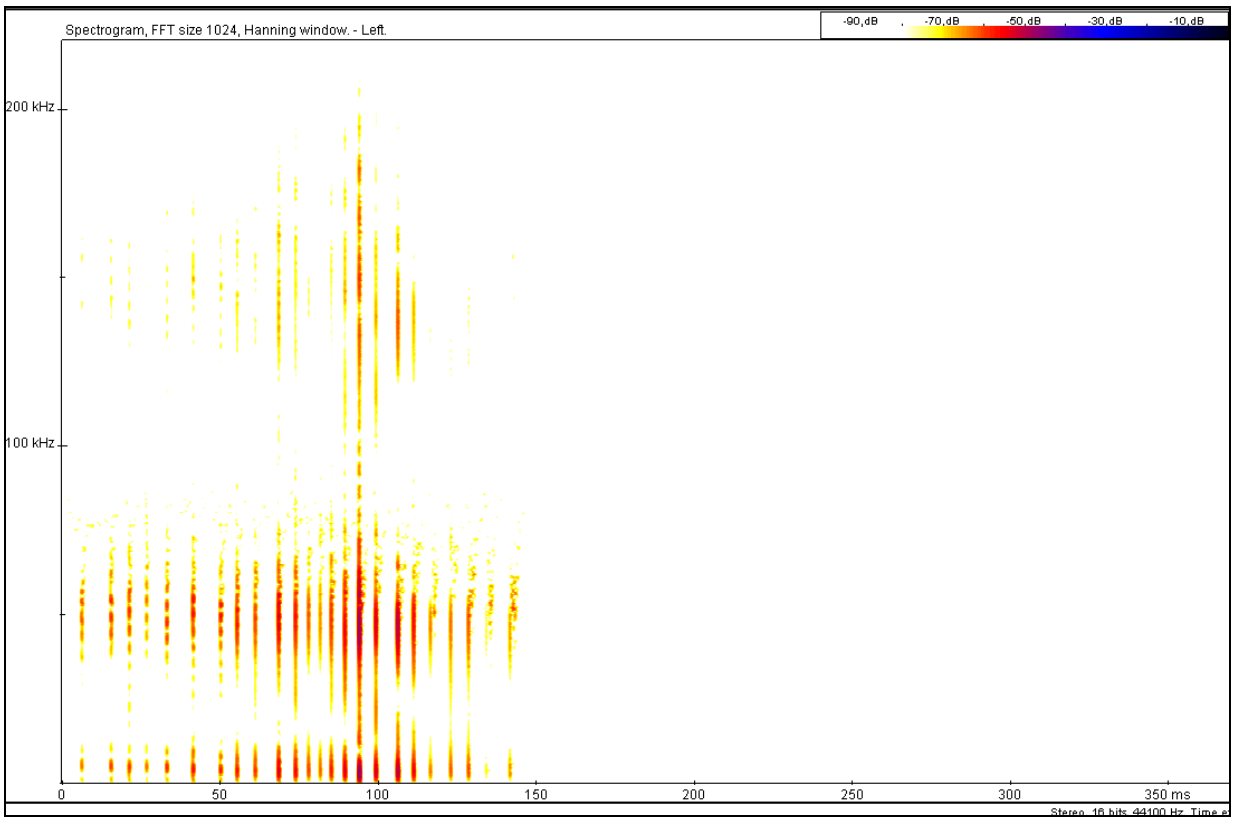
Before starting the surveys, the volunteers met for a brief health and safety talk and then travelled to the beginning of each transect. 4-6 individuals with a mixture of bat experience from beginner to very experienced were assigned to each group. One person in each group recorded the route continuously using a Batbox Duet and either an MP3 or wave recorder. The surveys started at 21:30 and finished at approximately 23:30. A chosen volunteer in each group travelled to the Cricket Pavilion at Churchinford to hand-in the recordings and survey forms.

## 2.2 Sound Analysis

Each transect's recordings were analysed using BatSound software with BatScan software used to confirm some less obvious species identifications. The number of bat passes made by each species or group was counted to provide a measure of bat activity along each walk section and stop section. A bat pass is a continuous stream of echolocation calls indicating a bat flying past. The number of bat passes is therefore best understood as an index of bat activity rather than the absolute number of bats in the area. Except for the bats of the genus *Myotis*, each species has a spectrogram which is usually distinctive. Examples of spectrograms recorded from a Common Pipistrelle (*Pipistrellus pipistrellus)* and a *Myotis* bat are shown below.




Spectrogram of Common Pipistrelle from Transect 3 – Bolham Water




Spectrogram of *Myotis sp.* spectrogram from Transect 3 - Bolham Water

2.3 Limitations of the Survey

There are several factors that may affect the results and comparison between the routes:

- Differences in the range of individual bat detectors – individual detectors of the same type can vary in range depending on factors such as local environmental conditions and battery strength. Changes in environmental conditions such as weather can be compensated by carrying out the surveys at the same time on the same night, and new batteries can be used.
- Analysis of MP3 recordings – MP3 recordings do not record all of a sound, creating the possibility that certain bits of an echolocation call might be missed. The MP3 files require conversion to WAV files for the spectrogram analysis software. This could alter the spectrogram of bat calls and increases the possibility for misidentification of bat passes.
- Observer error misidentifying bat passes and counting the number of bat passes – The standard procedure for counting bat passes was followed; however there is scope for error if more than one bat of the same species / genus is passing the bat detector at one time. There is also the potential to misidentify species, particularly if the call is faint.
- Equipment failure – route 10 Membury experienced a pause in the survey while batteries were changed and the recording of route 12 Whitestaunton failed to record part of the first section (Walk 1). In that section it was necessary to rely at least in part on the written notes rather than the recording. This means that the bats on that section could not be identified through spectrographic analysis and the identification of the bats using heterodyne was subjective and could not be independently verified. There is a greater danger of inaccuracies in identifying species from bat passes from heterodyne recordings, and individual bat passes are more difficult to distinguish if more than one bat is flying past the bat detector at the same time resulting in counting errors.
- Faint recordings - occasionally the echolocation on the recording was too faint to identify the bat species. Where this is the case the bat recording was marked as unidentified on the results.

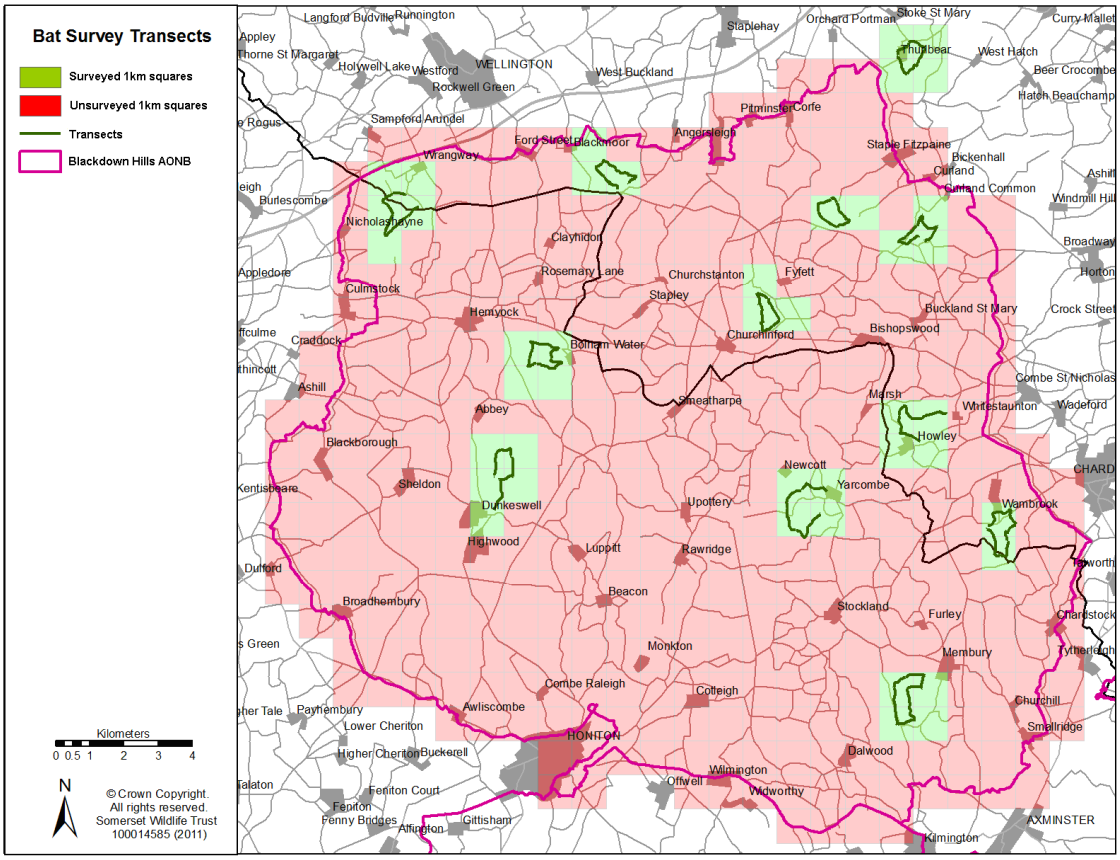



Figure 1: Map of the bat transects undertaken as part of the Blackdowns Big Bat Survey

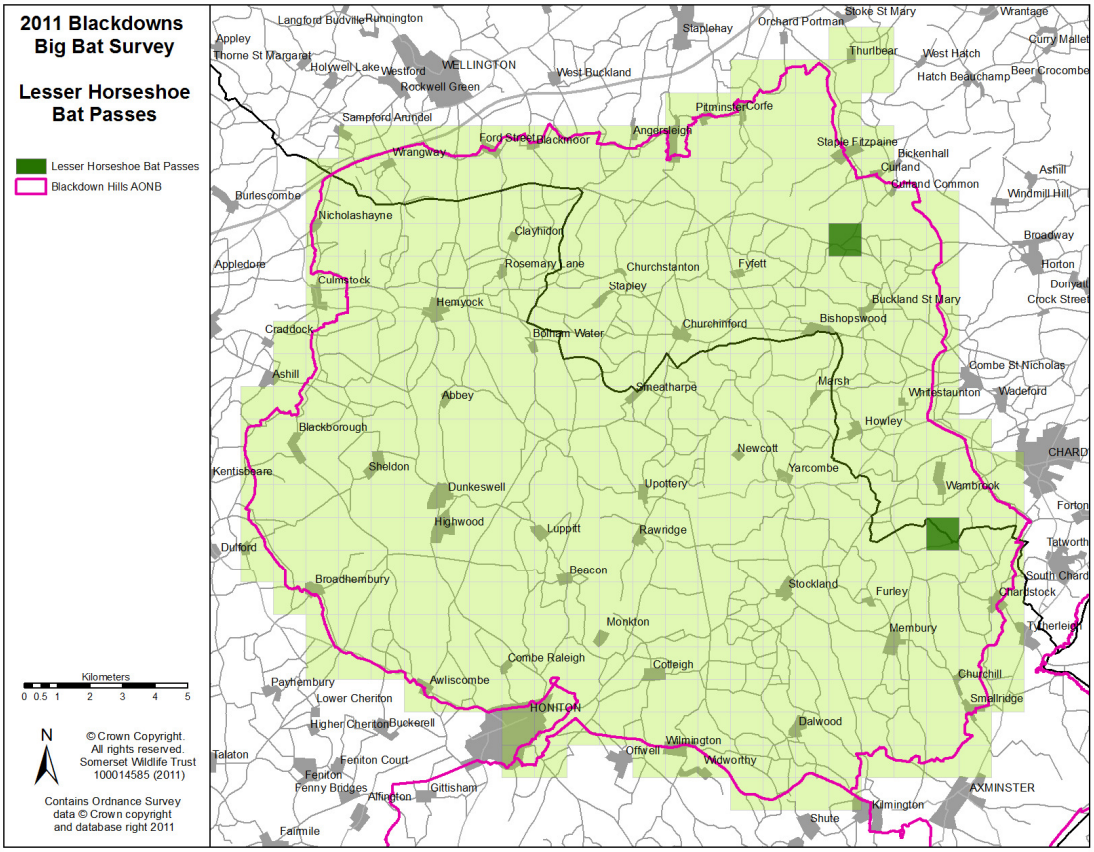
## 3. RESULTS AND SOUND ANALYSIS

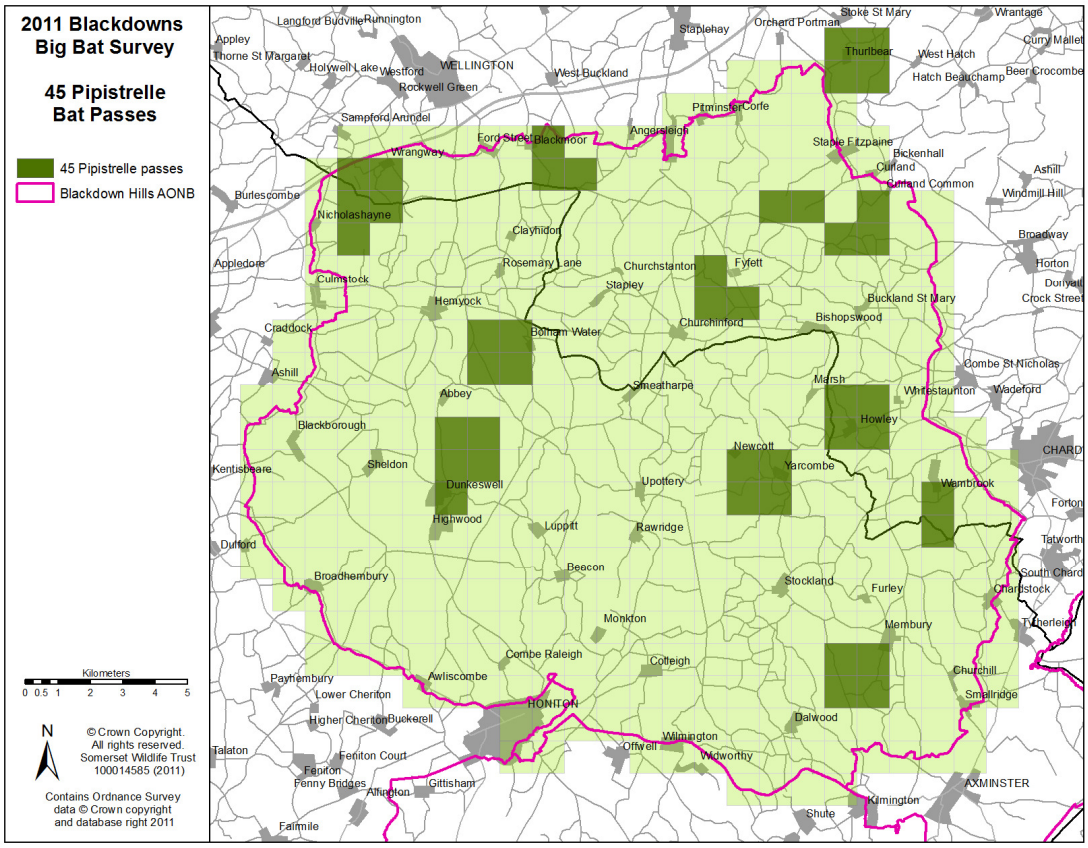
### 3.1 Overall summary

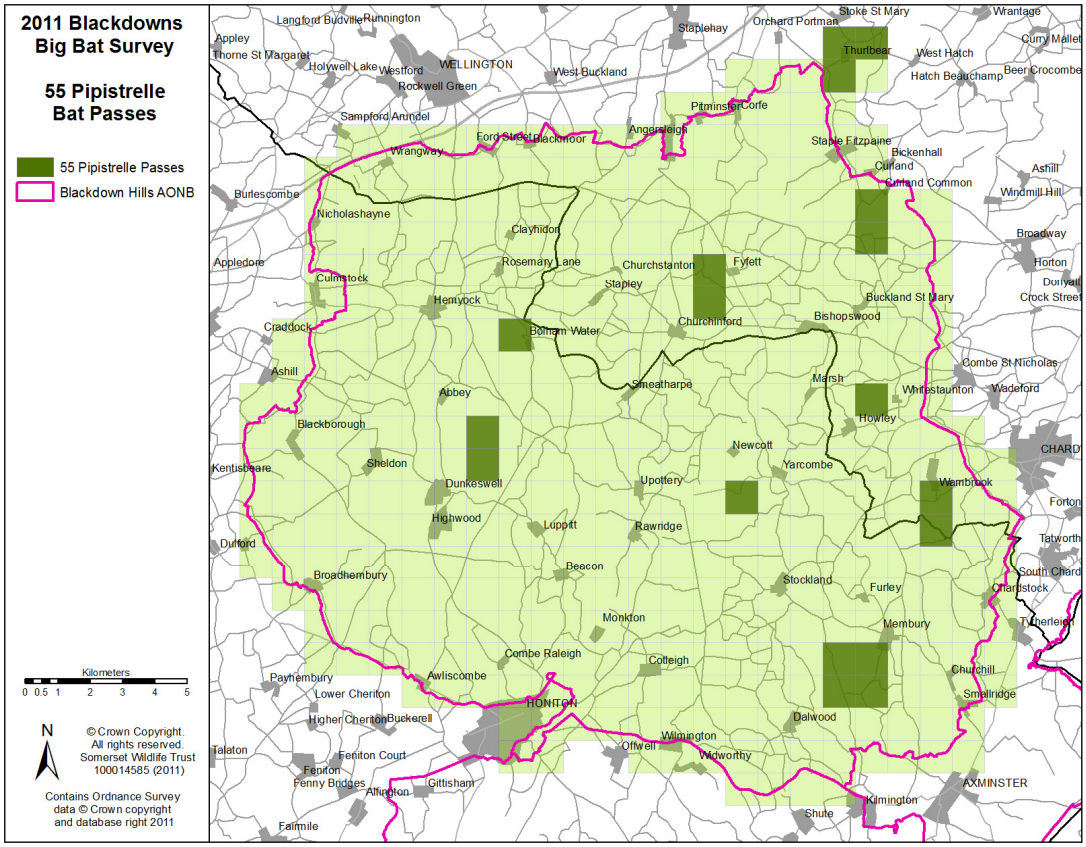
In 2011 the most frequently recorded bat species was the Common 45 Pipistrelle. *Myotis* spp. were recorded the second most frequently, and Soprano 55 Pipistrelle (*Pipistrellus pygmaeus*) and Serotine *(Eptesicus serotinus)* were the third most frequently recorded species. At the other end of the spectrum are Brown Long-eared bats *(Plecotus auritus)* that are generally difficult to record due to their tendency to use passive hearing to catch prey rather than echolocation, Leisler's (*Nyctalus leisleri*) that were only first found in Somerset during 2010 and Lesser Horseshoe (*Rhinolophus hipposideros*) that are known to occupy a few roosts in the Blackdown Hills. Table 1 shows the number of bat passes and proportion of total calls for all the species recorded, and the following maps show the cumulative presence of species recorded across the Blackdown Hills. The results only show presence of bats identified from the recordings and can not indicate the absence of a particular species as the survey does not cover the entirety of each 1km$^2$, and consequently there is the possibility that species may have been missed.

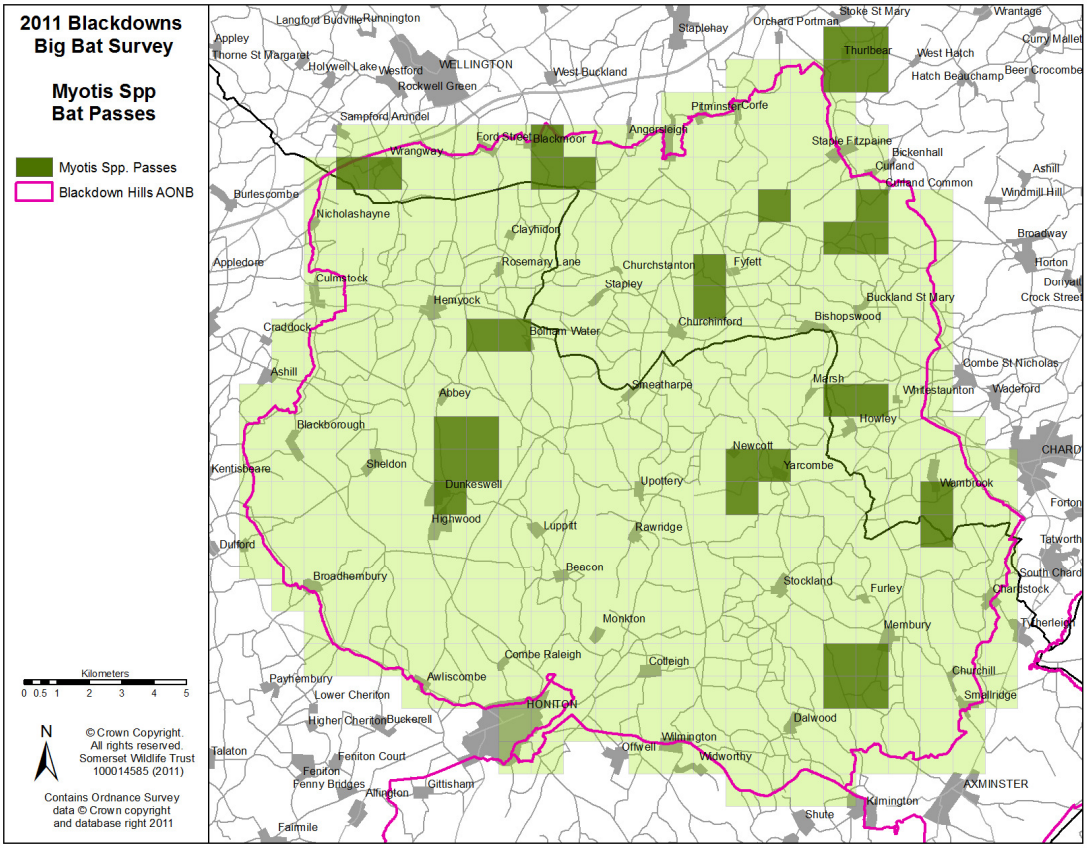
Table 1: Number and proportion of bat passes recorded for each species / group.

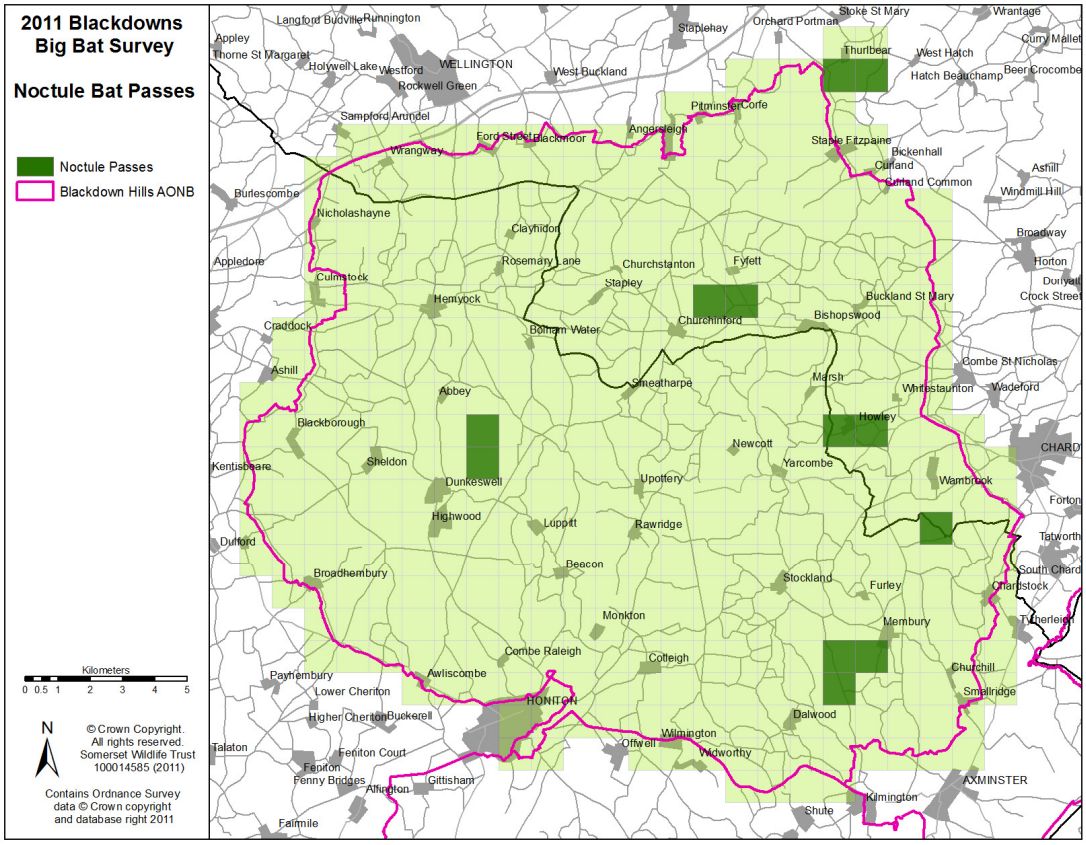
| **Species /Species Group** | **2011 Bat Passes** | **2011 Total (%)** |
|---|---|---|
| Greater horseshoe *( Rhinolophus ferrumequinum)* | 0 | |
| Lesser horseshoe | 5 | 0.2 |
| Common 45 pipistrelle | 1522 | 64.0 |
| Soprano 55 pipistrelle | 125 | 5.3 |
| Pipistrelle spp. (*Pipistrellus spp.*) | 15 | 0.6 |
| Serotine | 125 | 5.3 |
| Noctule (*Nyctalus noctula*) | 15 | 0.6 |
| Leisler's | 5 | 0.2 |
| *Myotis* spp. | 474 | 19.9 |
| Brown long-eared bat | 3 | 0.1 |
| Barbastelle ( *Barbastella barbastellus*) | 23 | 1 |
| Unidentified bat species | 65 | 2.7 |
| **TOTAL** | **2377** | **100** |

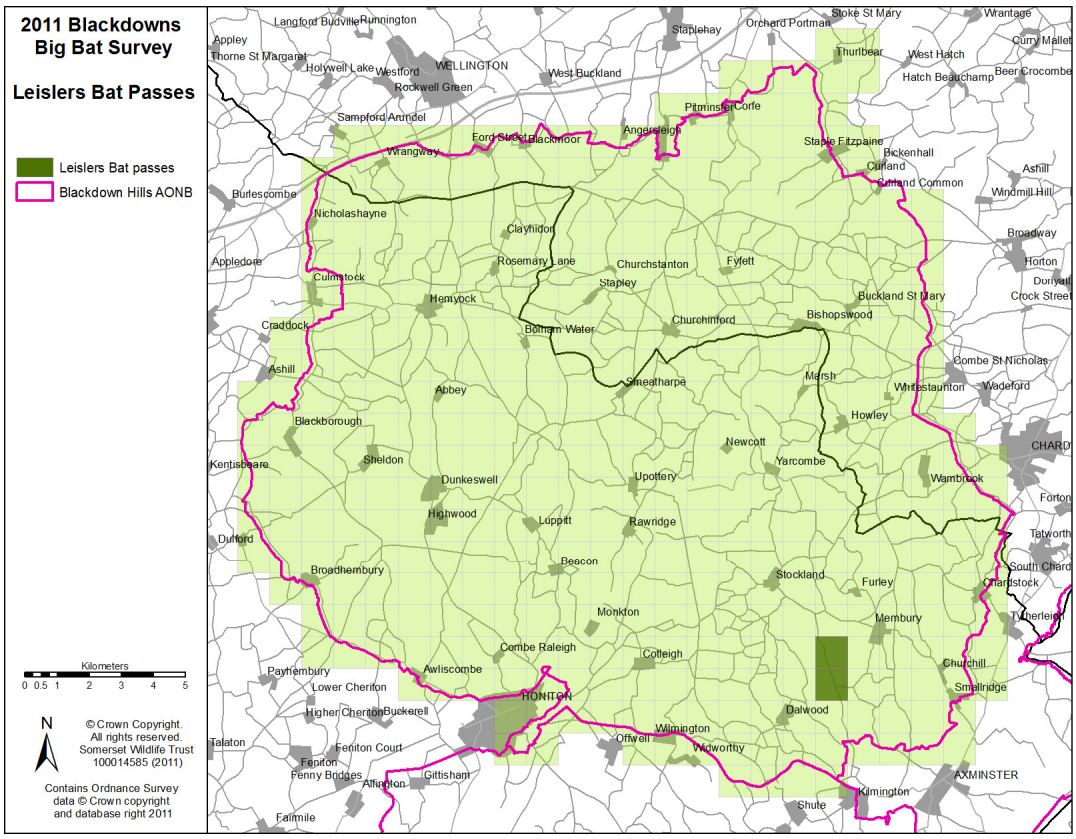

2011 Blackdowns Big Bat Survey
Lesser Horseshoe Bat Passes
Lesser Horseshoe Bat Passes
Blackdown Hills AONB
Kilometers
0 0.5 1 2 3 4 5
N
© Crown Copyright. All rights reserved. Somerset Wildlife Trust 100014585 (2011)
Contains Ordnance Survey data © Crown copyright and database right 2011
Langford Budville
Runnington
Appley
Thorne St Margaret
Holwell Lake
Westford
WELLINGTON
Rockwell Green
West Buckland
Staplehay
Orchard Portman
Stoke St Mary
Wrantage
Thurlbear
West Hatch
Curry Mallet
Hatch Beauchamp
Beer Crocombe
Sampford Arundel
Pitminster
Corfe
Angersleigh
Ford Street
Blackdoor
Wrangway
Staple Fitzpaine
Bickenhall
Curland
Curland Common
Ashill
Windmill Hill
Burlescombe
Nicholashayne
Clayhidon
Broadway
Appledore
Rosemary Lane
Churchstanton
Fyfett
Horton
Culmstock
Stapley
Dowlish
Crock Street
Hemyock
Buckland St Mary
Bishopswood
Craddock
Bolham Water
Churchinford
Combe St Nicholas
Ashill
Smeatharpe
Marsh
Whitestaunton
Wadeford
Abbey
Blackborough
Howley
Newcott
CHARD
Kentisbeare
Sheldon
Yarcombe
Dunkeswell
Upottery
Wambrook
Forton
Highwood
Luppitt
Rawridge
Tatworth
Dulford
Broadhembury
Beacon
Stockland
Furley
South Chard
Chardstock
Monkton
Membury
Combe Raleigh
Colleigh
Churchill
Payhembury
Awliscombe
Lower Cheriton
Smallridge
HONITON
Higher Cheriton
Buckerell
Dalwood
Wilmington
Talaton
Feniton Court
Offwell
Widworthy
Feniton
Penny Bridges
Gittisham
Alfington
AXMINSTER
Kilmington
Shute
Fairmile

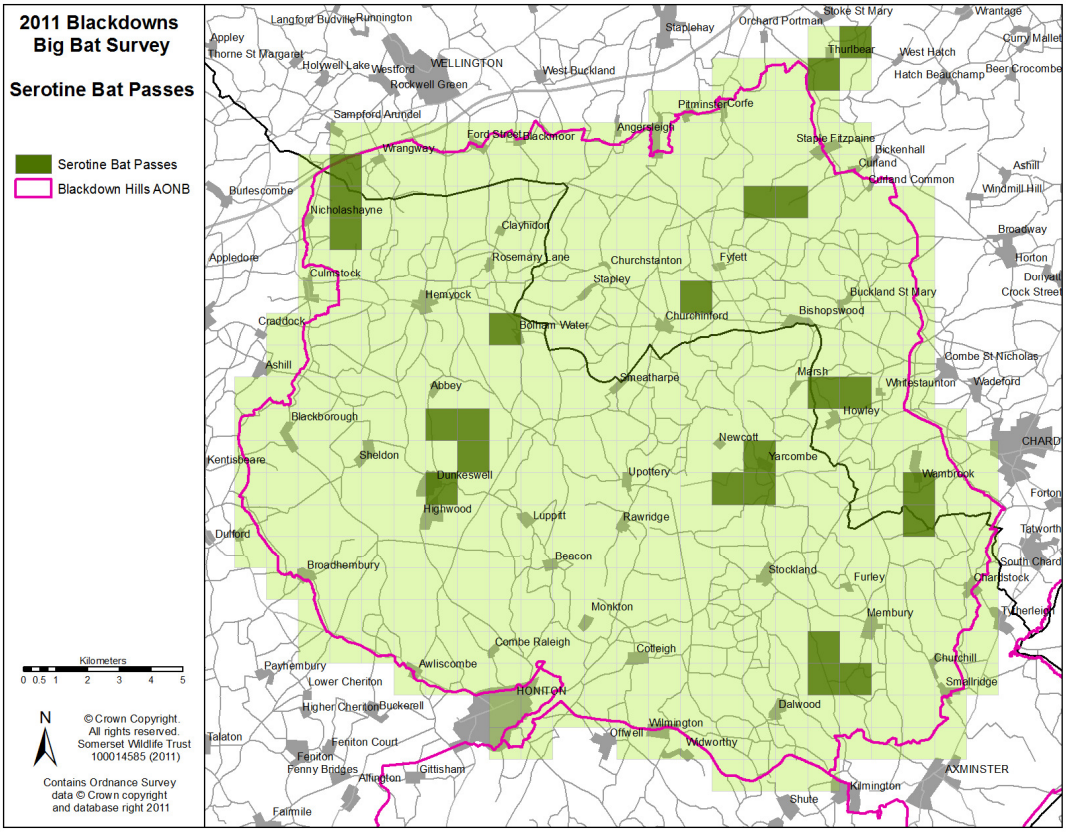

2011 Blackdowns Big Bat Survey
45 Pipistrelle Bat Passes
45 Pipistrelle passes
Blackdown Hills AONB
Kilometers
0 0.5 1 2 3 4 5
N
© Crown Copyright. All rights reserved. Somerset Wildlife Trust 100014585 (2011)
Contains Ordnance Survey data © Crown copyright and database right 2011
Langford Budville
Runnington
Appley
Thorne St Margaret
Holwell Lake
Westford
WELLINGTON
Rockwell Green
West Buckland
Staplehay
Orchard Portman
Stoke St Mary
Wrantage
Thurlbear
West Hatch
Curry Mallet
Hatch Beauchamp
Beer Crocombe
Sampford Arundel
Pitminster
Corfe
Angersleigh
Ford Street
Blackdoor
Wrangway
Staple Fitzpaine
Bickenhall
Curland
Curland Common
Ashill
Windmill Hill
Burlescombe
Nicholashayne
Clayhidon
Broadway
Appledore
Rosemary Lane
Churchstanton
Fyfett
Horton
Culmstock
Stapley
Dowlish
Crock Street
Hemyock
Buckland St Mary
Bishopswood
Craddock
Bolham Water
Churchinford
Combe St Nicholas
Ashill
Smeatharpe
Marsh
Whitestaunton
Wadeford
Abbey
Blackborough
Howley
Newcott
CHARD
Kentisbeare
Sheldon
Yarcombe
Dunkeswell
Upottery
Wambrook
Forton
Highwood
Luppitt
Rawridge
Tatworth
Dulford
Broadhembury
Beacon
Stockland
Furley
South Chard
Chardstock
Monkton
Membury
Combe Raleigh
Colleigh
Churchill
Payhembury
Awliscombe
Lower Cheriton
Smallridge
HONITON
Higher Cheriton
Buckerell
Dalwood
Wilmington
Talaton
Feniton Court
Offwell
Widworthy
Feniton
Penny Bridges
Gittisham
Alfington
AXMINSTER
Kilmington
Shute
Fairmile

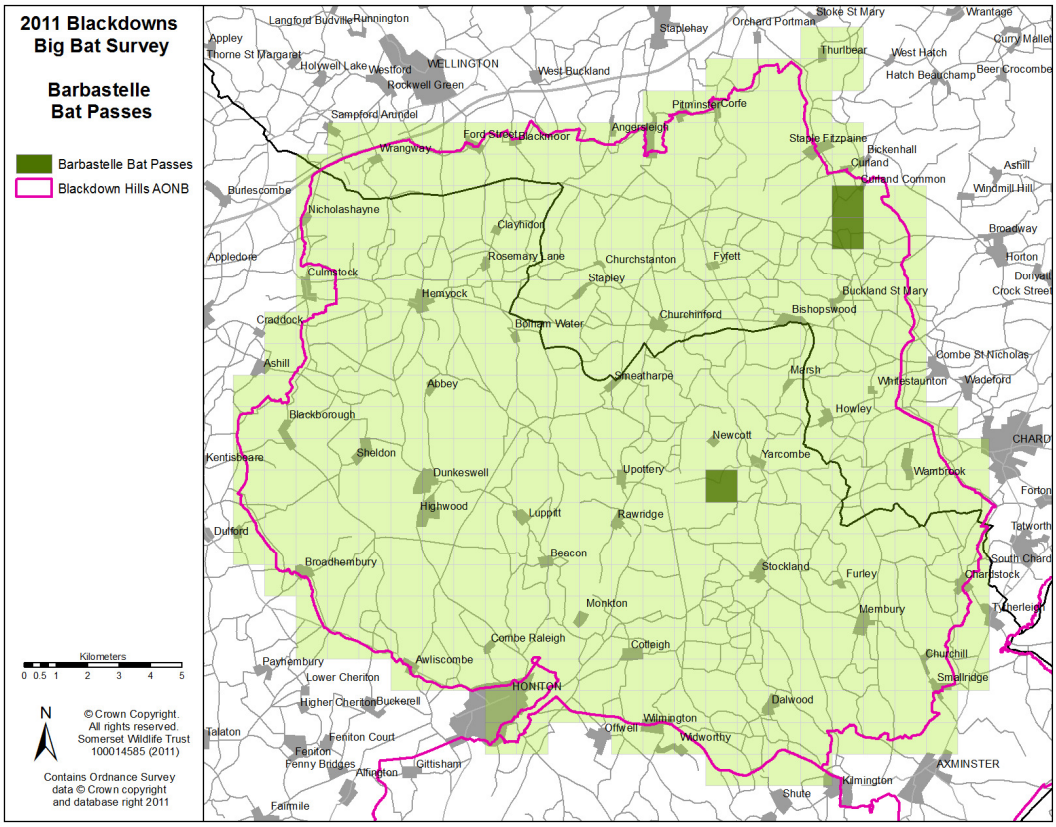

2011 Blackdowns
Big Bat Survey
55 Pipistrelle
Bat Passes
55 Pipistrelle Passes
Blackdown Hills AONB
Kilometers
0 0.5 1 2 3 4 5
N
© Crown Copyright.
All rights reserved.
Somerset Wildlife Trust
100014585 (2011)
Contains Ordnance Survey
data © Crown copyright
and database right 2011
Langford Budville
Runnington
Appley
Thorne St Margaret
Holywell Lake
Westford
WELLINGTON
Rockwell Green
West Buckland
Staplehay
Orchard Portman
Stoke St Mary
Wrantage
Curry Mallet
Thurlbear
West Hatch
Hatch Beauchamp
Beer Crocombe
Sampford Arundel
Pitminster
Corfe
Angersleigh
Ford Street
Blackdown
Wrangway
Staple Fitzpaine
Bickenhall
Curland
Curland Common
Ashill
Windmill Hill
Burlescombe
Nicholashayne
Clayhidon
Broadway
Appledore
Rosemary Lane
Churchstanton
Fyfett
Horton
Dunkeswell
Culmstock
Stapley
Crock Street
Hemyock
Buckland St Mary
Bishopswood
Craddock
Bolham Water
Churchinford
Combe St Nicholas
Ashill
Smeatharpe
Marsh
Whitestaunton
Wadeford
Abbey
Howley
Blackborough
Newcott
CHARD
Kentisbeare
Sheldon
Yarcombe
Upottery
Wambrook
Forton
Highwood
Luppitt
Rawridge
Tatworth
Dulford
Beacon
South Chard
Broadhembury
Stockland
Furley
Chardstock
Monkton
Membury
Tytherleigh
Combe Raleigh
Cotleigh
Churchill
Payhembury
Awliscombe
Smallridge
Lower Cheriton
HONITON
Higher Cheriton
Buckerell
Dalwood
Wilmington
Talaton
Offwell
Widworthy
Feniton Court
Feniton
Penny Bridges
Alfington
Gittisham
AXMINSTER
Kilmington
Shute
Fairmile


2011 Blackdowns
Big Bat Survey
Myotis Spp
Bat Passes
Myotis Spp. Passes
Blackdown Hills AONB
Kilometers
0 0.5 1 2 3 4 5
N
© Crown Copyright.
All rights reserved.
Somerset Wildlife Trust
100014585 (2011)
Contains Ordnance Survey
data © Crown copyright
and database right 2011
Langford Budville
Runnington
Appley
Thorne St Margaret
Holywell Lake
Westford
WELLINGTON
Rockwell Green
West Buckland
Staplehay
Orchard Portman
Stoke St Mary
Wrantage
Curry Mallet
Thurlbear
West Hatch
Hatch Beauchamp
Beer Crocombe
Sampford Arundel
Pitminster
Corfe
Angersleigh
Ford Street
Blackdown
Wrangway
Staple Fitzpaine
Bickenhall
Curland
Curland Common
Ashill
Windmill Hill
Burlescombe
Nicholashayne
Clayhidon
Broadway
Appledore
Rosemary Lane
Churchstanton
Fyfett
Horton
Dunkeswell
Culmstock
Stapley
Crock Street
Hemyock
Buckland St Mary
Bishopswood
Craddock
Bolham Water
Churchinford
Combe St Nicholas
Ashill
Smeatharpe
Marsh
Whitestaunton
Wadeford
Abbey
Howley
Blackborough
Newcott
CHARD
Kentisbeare
Sheldon
Yarcombe
Upottery
Wambrook
Forton
Highwood
Luppitt
Rawridge
Tatworth
Dulford
Beacon
South Chard
Broadhembury
Stockland
Furley
Chardstock
Monkton
Membury
Tytherleigh
Combe Raleigh
Cotleigh
Churchill
Payhembury
Awliscombe
Smallridge
Lower Cheriton
HONITON
Higher Cheriton
Buckerell
Dalwood
Wilmington
Talaton
Offwell
Widworthy
Feniton Court
Feniton
Penny Bridges
Alfington
Gittisham
AXMINSTER
Kilmington
Shute
Fairmile


2011 Blackdowns Big Bat Survey
Noctule Bat Passes
Noctule Passes
Blackdown Hills AONB
Kilometers
0 0.5 1 2 3 4 5
N
© Crown Copyright. All rights reserved. Somerset Wildlife Trust 100014585 (2011)
Contains Ordnance Survey data © Crown copyright and database right 2011
Langford Budville
Runnington
Appley
Thorne St Margaret
Holwell Lake
Westford
WELLINGTON
Rockwell Green
West Buckland
Staplehay
Orchard Portman
Stoke St Mary
Wrantage
Curry Mallet
Thurlbear
West Hatch
Hatch Beauchamp
Beer Crocombe
Sampford Arundel
Pitminster
Corfe
Angersleigh
Ford Street
Blackmoor
Wrangway
Staple Fitzpaine
Bickenhall
Curland
Curland Common
Ashill
Windmill Hill
Burlescombe
Nicholashayne
Clayhidon
Broadway
Appledore
Rosemary Lane
Churchstanton
Fyfett
Horton
Dunyatt
Crock Street
Culmstock
Stapley
Hemyock
Buckland St Mary
Bishopswood
Churchinford
Craddock
Bolham Water
Combe St Nicholas
Ashill
Smeatharpe
Marsh
Whitestaunton
Wadeford
Abbey
Blackborough
Howley
Newcott
CHARD
Kentisbeare
Sheldon
Yarcombe
Dunkeswell
Upottery
Wambrook
Forton
Highwood
Luppitt
Rawridge
Tatworth
Dulford
Beacon
South Chard
Broadhembury
Stockland
Furley
Chardstock
Monkton
Membury
Tytherleigh
Combe Raleigh
Cotleigh
Churchill
Payhembury
Awliscombe
Smallridge
Lower Cheriton
HONITON
Higher Cheriton
Buckerell
Dalwood
Wilmington
Talaton
Offwell
Widworthy
Feniton Court
Feniton
Fenny Bridges
Gittisham
Alfington
AXMINSTER
Kilmington
Shute
Fairmile


2011 Blackdowns Big Bat Survey
Leislers Bat Passes
Leislers Bat passes
Blackdown Hills AONB
Kilometers
0 0.5 1 2 3 4 5
N
© Crown Copyright. All rights reserved. Somerset Wildlife Trust 100014585 (2011)
Contains Ordnance Survey data © Crown copyright and database right 2011
Langford Budville
Runnington
Appley
Thorne St Margaret
Holwell Lake
Westford
WELLINGTON
Rockwell Green
West Buckland
Staplehay
Orchard Portman
Stoke St Mary
Wrantage
Curry Mallet
Thurlbear
West Hatch
Hatch Beauchamp
Beer Crocombe
Sampford Arundel
Pitminster
Corfe
Angersleigh
Ford Street
Blackmoor
Wrangway
Staple Fitzpaine
Bickenhall
Curland
Curland Common
Ashill
Windmill Hill
Burlescombe
Nicholashayne
Clayhidon
Broadway
Appledore
Rosemary Lane
Churchstanton
Fyfett
Horton
Dunyatt
Crock Street
Culmstock
Stapley
Hemyock
Buckland St Mary
Bishopswood
Churchinford
Craddock
Bolham Water
Combe St Nicholas
Ashill
Smeatharpe
Marsh
Whitestaunton
Wadeford
Abbey
Blackborough
Howley
Newcott
CHARD
Kentisbeare
Sheldon
Yarcombe
Dunkeswell
Upottery
Wambrook
Forton
Highwood
Luppitt
Rawridge
Tatworth
Dulford
Beacon
South Chard
Broadhembury
Stockland
Furley
Chardstock
Monkton
Membury
Tytherleigh
Combe Raleigh
Cotleigh
Churchill
Payhembury
Awliscombe
Smallridge
Lower Cheriton
HONITON
Higher Cheriton
Buckerell
Dalwood
Wilmington
Talaton
Offwell
Widworthy
Feniton Court
Feniton
Fenny Bridges
Gittisham
Alfington
AXMINSTER
Kilmington
Shute
Fairmile




## 3.2 Bat passes recorded along each transect route

The recordings from each transect were analysed separately and divided into the walk and stop sections sown in the following tables and maps. It is, of course, impossible to draw any conclusions from one set of data on one night and the following observations must be treated with caution and can at best merely highlight possible areas of comparison for next year and the ensuing years.

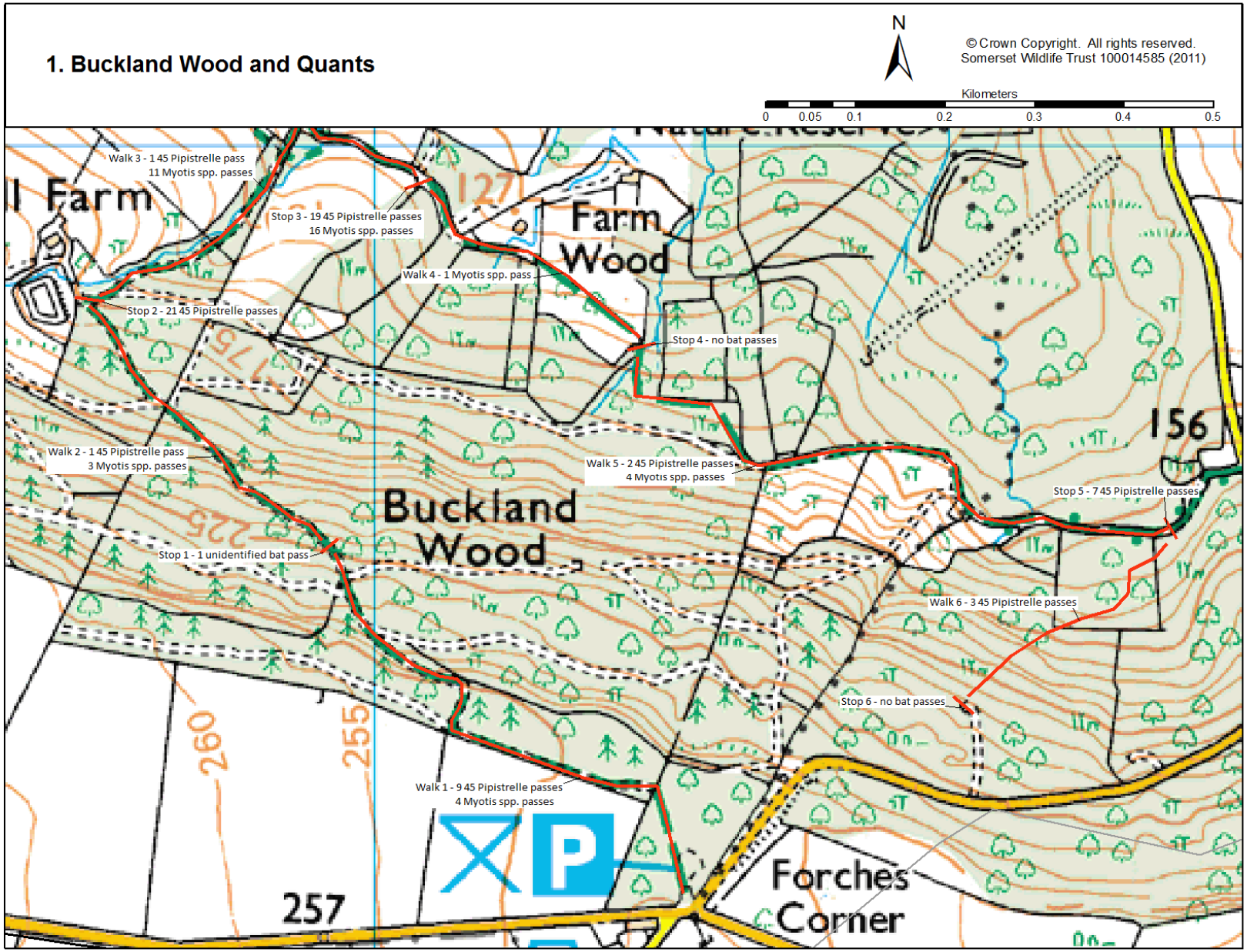
3.2.1 **Transect 1: Buckland Wood and Quants**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 9 | | 1 | 21 | 1 | 19 | | | 2 | 7 | 3 | | 42 |
| | 55 Pipistrelle | | | | | | | | | | | | | 0 |
| | *Myotis spp.* | 4 | | 3 | | 11 | 16 | 1 | | 4 | | | | 60 |
| | Noctule (Noc/Leisler's)* | | | | | | | | | | | | | 0 |
| | Serotine | | | | | | | | | | | | | 0 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | | 1 | | | | | | | | | | | 1 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

Unusual in only having two "species" recorded, 45 pipistrelle and *Myotis sp.* Also unusual in that the *Myotis* activity was more than that of the commoner pipistrelles (sixty passes and forty-two passes respectively). Part of the transect goes through a Somerset Wildlife Trust Nature Reserve which has been targeted by SERC for remote monitoring as a possible *Myotis* "swarming" site. Most of the activity seems to have been at Stops 2 and 3 and on Walk 3 between them. Stop 2 and much of Walk 3 are by a stream which may be significant. It is also worth noting that the transect starts at an altitude of about 250m. Stop 2 is at 175m and Stop 3 at 135m. Even though the night was calm and remarkably warm it raises the possibility that bat activity was concentrated lower down in the valleys.

## 1. Buckland Wood and Quants



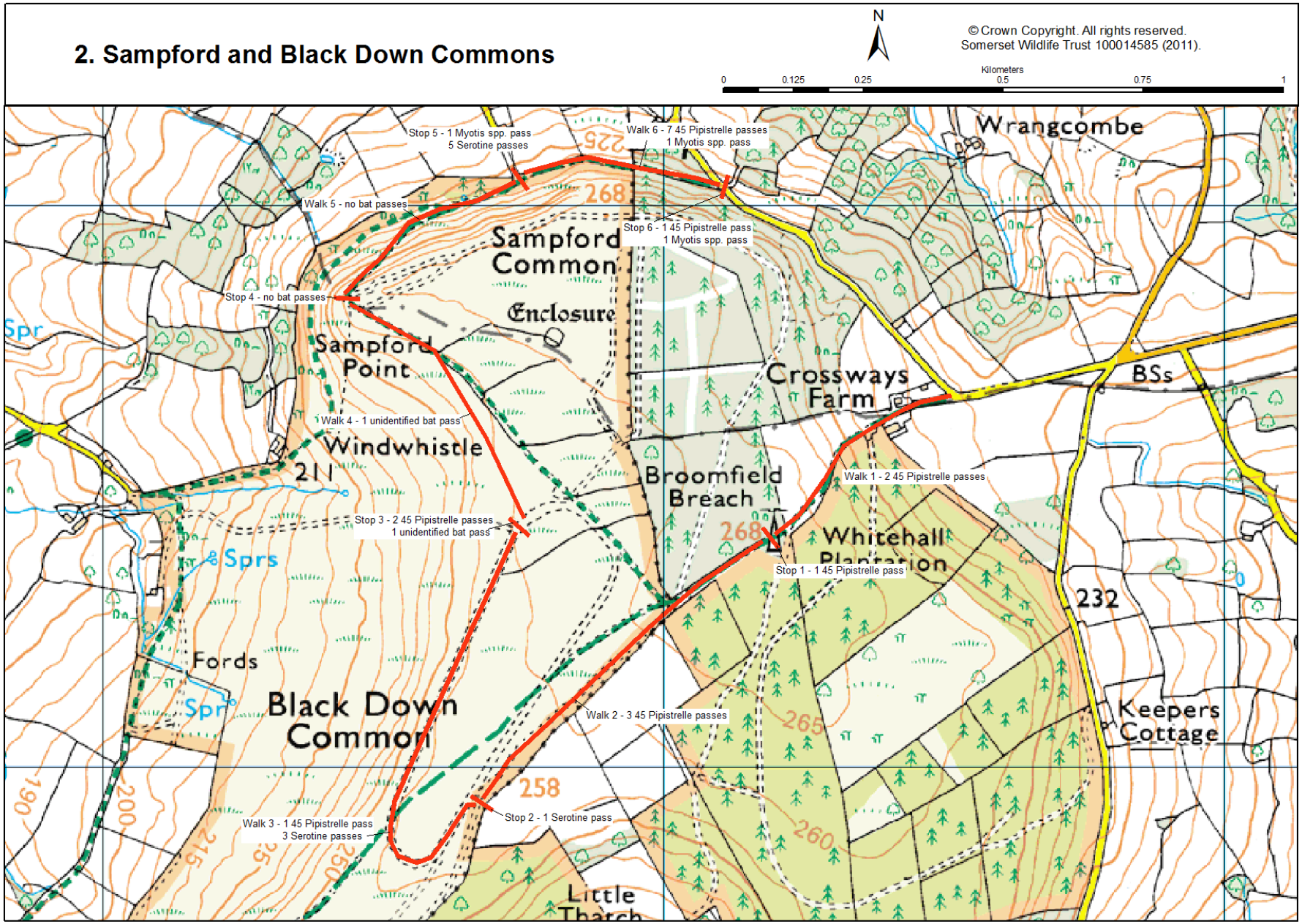
3.2.2 **Transect 2: Sampford and Black Down Commons**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 2 | 1 | 3 | | 1 | 2 | | | | | 7 | 1 | 17 |
| | 55 Pipistrelle | | | | | | | | | | | | | 0 |
| | *Myotis spp.* | | | | | | | | | | 1 | 1 | 1 | 3 |
| | Noctule (Noc/Leisler's)* | | | | | | | | | | | | | 0 |
| | Serotine | | | | 1 | 3 | | | | | 5 | | | 9 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | | | | | | 1 | 1 | | | | | | 2 |

*Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

Most of this transect is above the 250m contour. It was one of the least active and most of the bat passes that were recorded were in the lowest lying parts of the transect. A number of Serotine passes were recorded, four on Walk 3 and five at Stop 5 which is at about 250m. Some *Myotis* passes were encountered at the end of the transect. Since *Myotis* species tend to emerge later than pipistrelles it may be that next year they will be at the other end of the transect.

## 2. Sampford and Black Down Commons



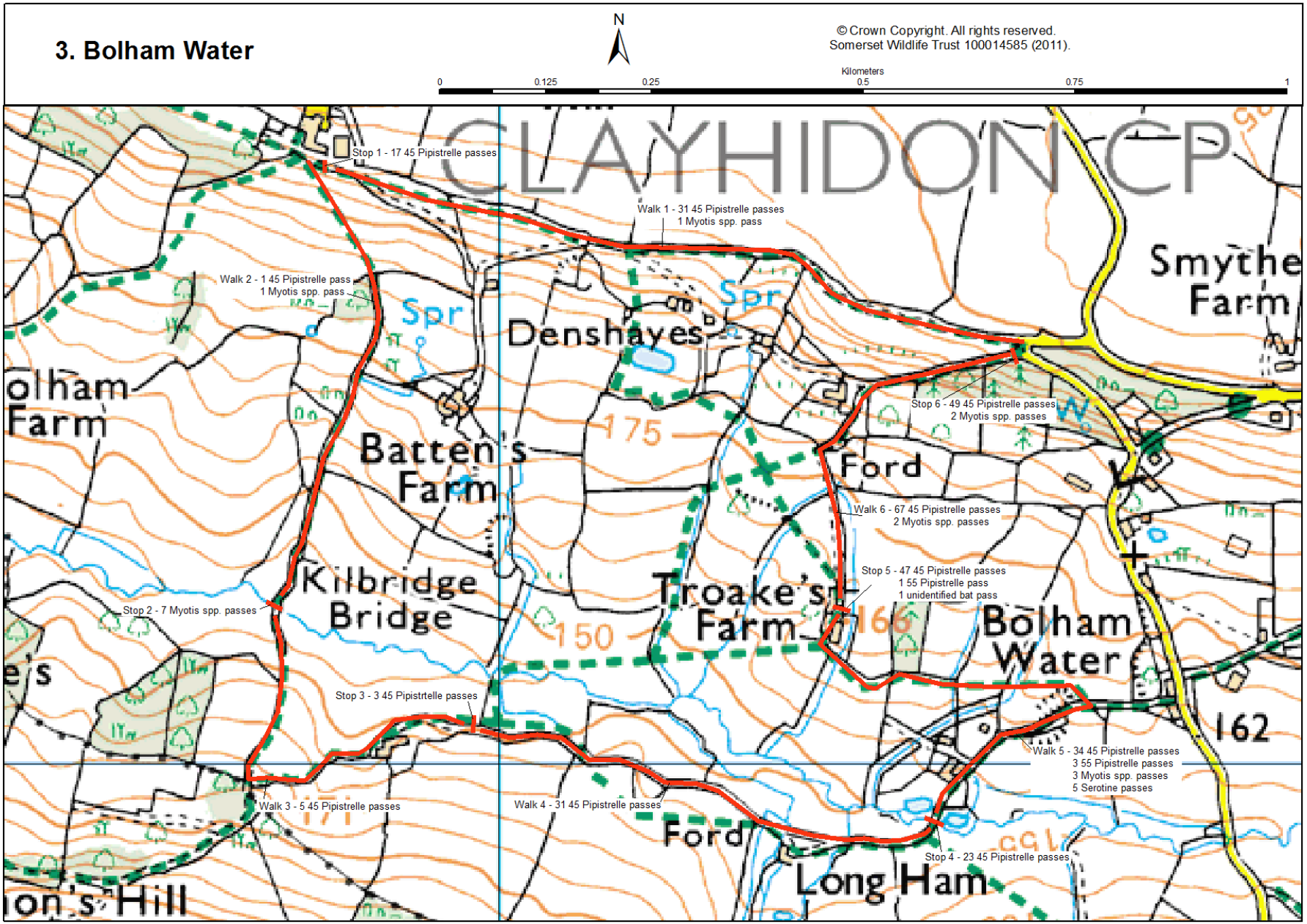
3.2.3 **Transect 3: Bolham Water**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 31 | 17 | 1 | | 5 | 3 | 31 | 23 | 34 | 47 | 67 | 49 | 308 |
| | 55 Pipistrelle | | | | | | | | | 3 | 1 | | | 4 |
| | *Myotis spp.* | 1 | | 1 | 7 | | | | | 3 | | 2 | 2 | 16 |
| | Noctule (Noc/Leisler's)* | | | | | | | | | | | | | 0 |
| | Serotine | | | | | | | | | 5 | | | | 5 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | | | | | | | | | | 1 | | | 1 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

Most of this transect is on or at the bottom of a south facing slope. The comparatively high number of 45 Pipistrelle passes in the first section masks the fact that most of those were at either end of the walk where there was more tree cover and approaching the farm buildings. The third section, Walk 2, was surprisingly sparse. In windier conditions one might expect more of the double hedgeline and stream. The *Myotis* at Stop 2 on the river were probably Daubentons Bats (*Myotis daubentonii*) but recorded generically as *Myotis* passes are difficult to distinguish to species level. The amount of bat activity along the lane and through the hamlet itself was encouraging. Stop 5 at Troakes Farm and the first part of Walk 6 were outstanding for pipistrelles with no less than 114 passes.

## 3. Bolham Water



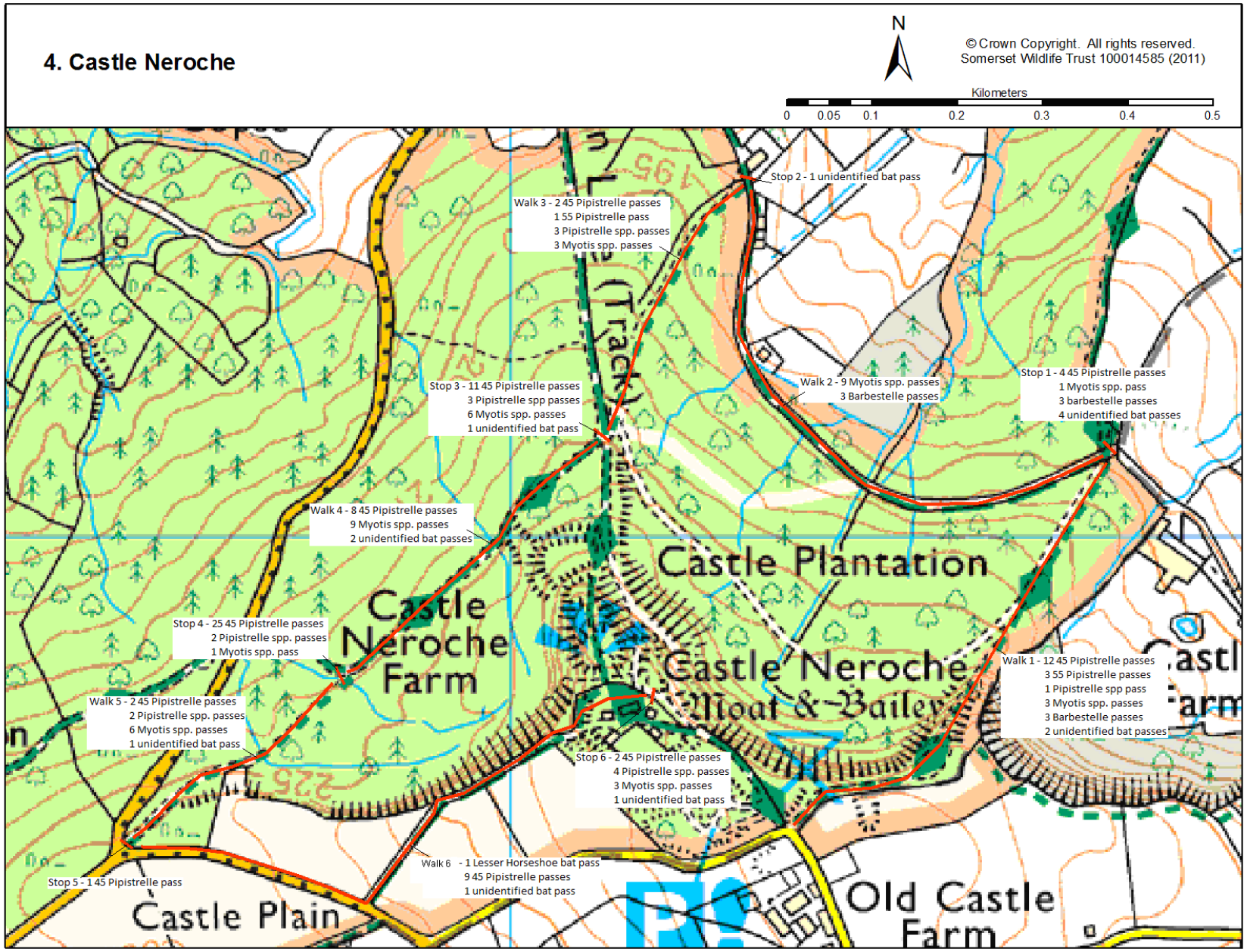
3.2.4 **Transect 4: Castle Neroche**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | 1 | | 1 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 12 | 4 | | | 2 | 11 | 8 | 25 | 2 | 1 | 9 | 2 | 76 |
| | 55 Pipistrelle | 3 | | | | 1 | | | | | | | | 4 |
| | Pipistrelle spp. | 1 | | | | 3 | 3 | | 2 | 2 | | | 4 | 14 |
| | *Myotis spp.* | 3 | 1 | 9 | | 3 | 6 | 9 | 1 | 6 | | | 3 | 42 |
| | Noctule (Noc/Leisler's)* | | | | | | | | | | | | | 0 |
| | Serotine | | | | | | | | | | | | | 0 |
| | Barbastelle | 3 | 3 | 3 | | | | | | | | | | 9 |
| | Unidentified bat passes | 2 | 4 | | 1 | | 1 | 2 | | 1 | | 1 | 1 | 13 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

A very good transect with one hundred and fifty-nine bat passes from at least five different species. Pride of place goes to the three Barbastelle passes in Walks 1 and 2 and Stop 1. These are on the edge of a mature deciduous wood and Walk 1 descends the hill quite quickly. Stop 2 on the wood/farmland boundary was surprisingly quiet and it will be interesting to see if that is a pattern that repeats itself in subsequent years. The Lesser Horseshoe pass on Walk 6 will prompt us to look for its roost especially as that part of the transect is the most open part of the route and it could be presumed that the bat concerned was hunting along the woodland edge.

## 4. Castle Neroche



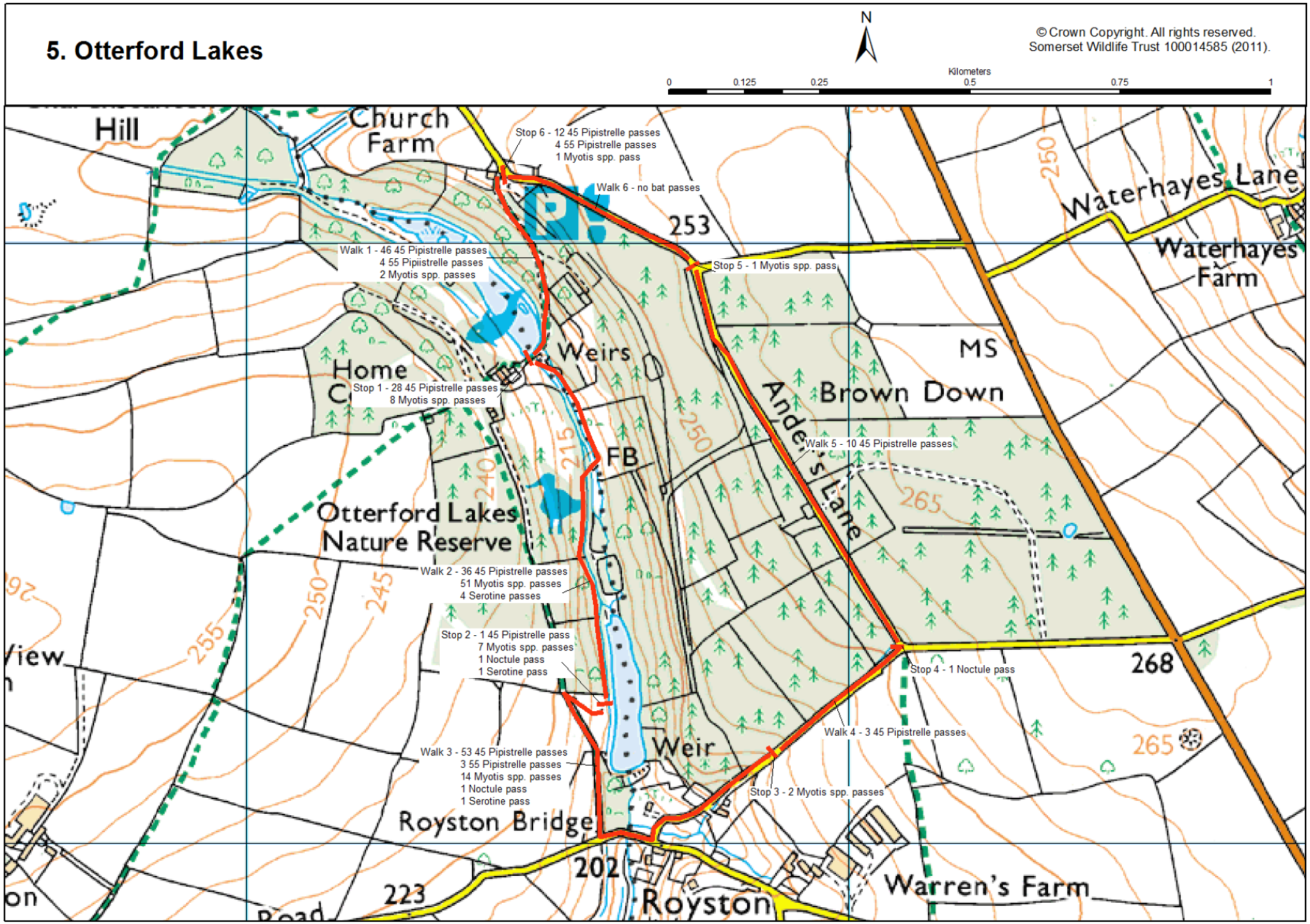
3.2.5 **Transect 5: Otterford Lakes**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 46 | 28 | 36 | 1 | 53 | | 3 | | 10 | | | 12 | 189 |
| | 55 Pipistrelle | 4 | | | | 3 | | | | | | | 4 | 11 |
| | *Myotis spp.* | 2 | 8 | 51 | 7 | 14 | 2 | | | | 1 | | 1 | 86 |
| | Noctule (Noc/Leisler's)* | | | | 1 | 1 | | | 1 | | | | | 3 |
| | Serotine | | | 4 | 1 | 2 | | | | | | | | 7 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | | | | | 1 | | | | | | | | 1 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

The transect is the one of the whole survey which incorporated the most significant amount of water and was bounded by woodland for most of the time on at least one side. From the start it lived up to expectation with no less than forty-six 45 pipistrelle passes between the car park and the lower of the top two lakes. There were further pipistrelles and *Myotis* bat passes at the bridge at Stop 1. On past experience it is probable that the *Myotis* were Daubentons bats but for consistency they are only recorded to generic level. Replicating the experience of a number of bat walks in the past, the walk down the valley between the top lakes and the large one at the bottom of the reserve was particularly good for *Myotis* passes (in this instance fifty-one passes) and more were heard at the bottom lake. Surprisingly the walk away from the water, Walk 3, proved as active especially for Common Pipistrelles. The parts of the transect that were along public roads were much less busy. There were fewer 55 pipistrelles than might have been expected and only two passes by Noctules at a site where they have been conspicuous in the past.

## 5. Otterford Lakes



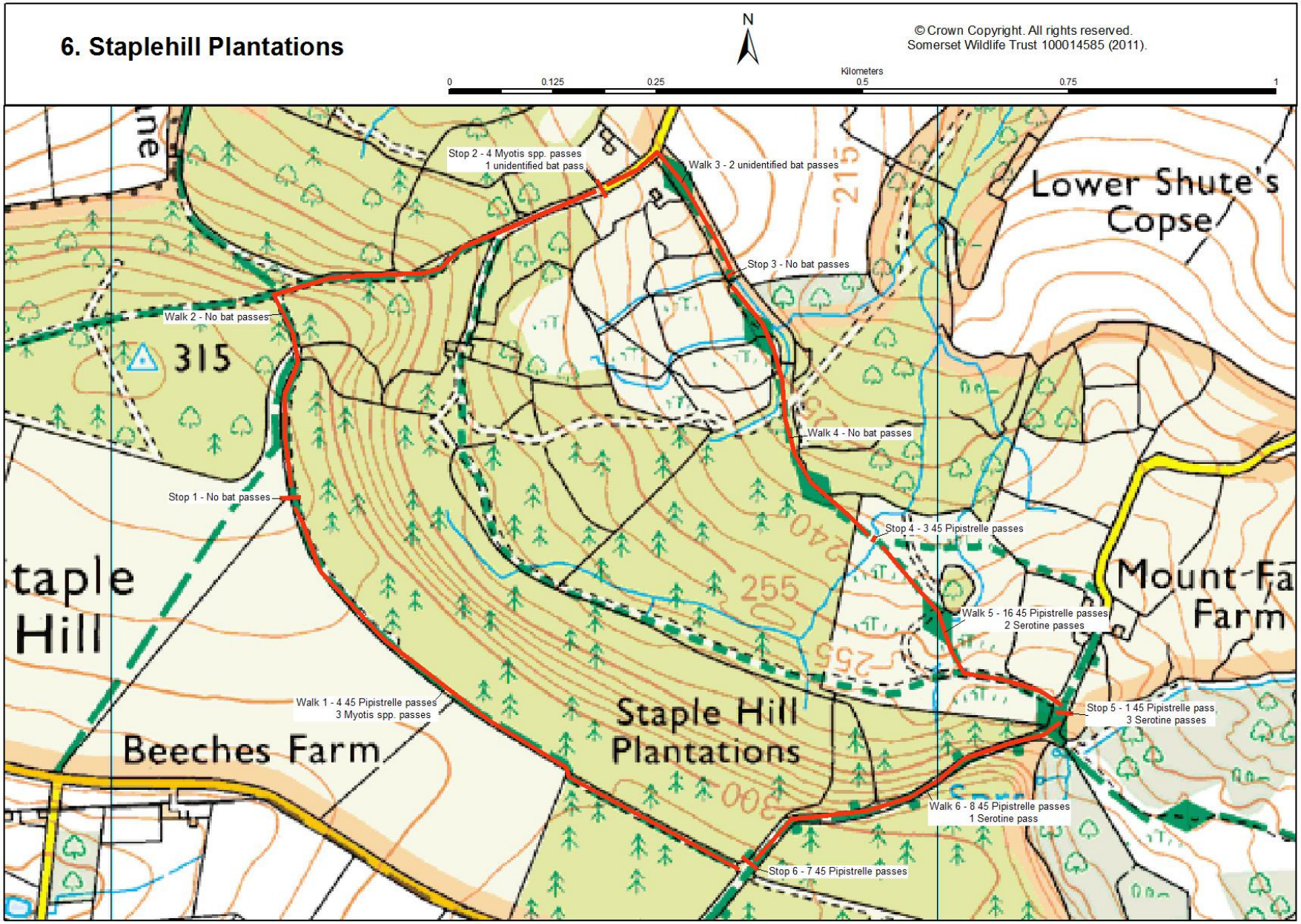
3.2.6 **Transect 6: Staple Hill Plantations**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 4 | | | | | | | 3 | 16 | 1 | 8 | 7 | 39 |
| | 55 Pipistrelle | | | | | | | | | | | | | 0 |
| | *Myotis spp.* | 3 | | | 4 | | | | | | | | | 7 |
| | Noctule (Noc/Leisler's)* | | | | | | | | | | | | | 0 |
| | Serotine | | | | | | | | | 2 | 3 | 1 | | 6 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | | | | 1 | 2 | | | | | | | | 0 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

A rather disappointing transect but one which is comparatively high and which is characterised by plantations largely of conifers. Walk 1 starts at over 300m but nonetheless had a small number of Pipistrelles and *Myotis*. Unsurprisingly the greatest activity was between Stop 4 and Stop 6. Walk 5 across a hollow outside the wood itself was better with sixteen 45 Pipistrelle passes and two Serotine passes. It is likely that this pattern may be reversed if the transect is walked in wetter or windier weather when the bats are more likely to be feeding in the shelter of the wood rather than along the edges. The presence of Serotines may be associated with livestock farming.

## 6. Staplehill Plantations



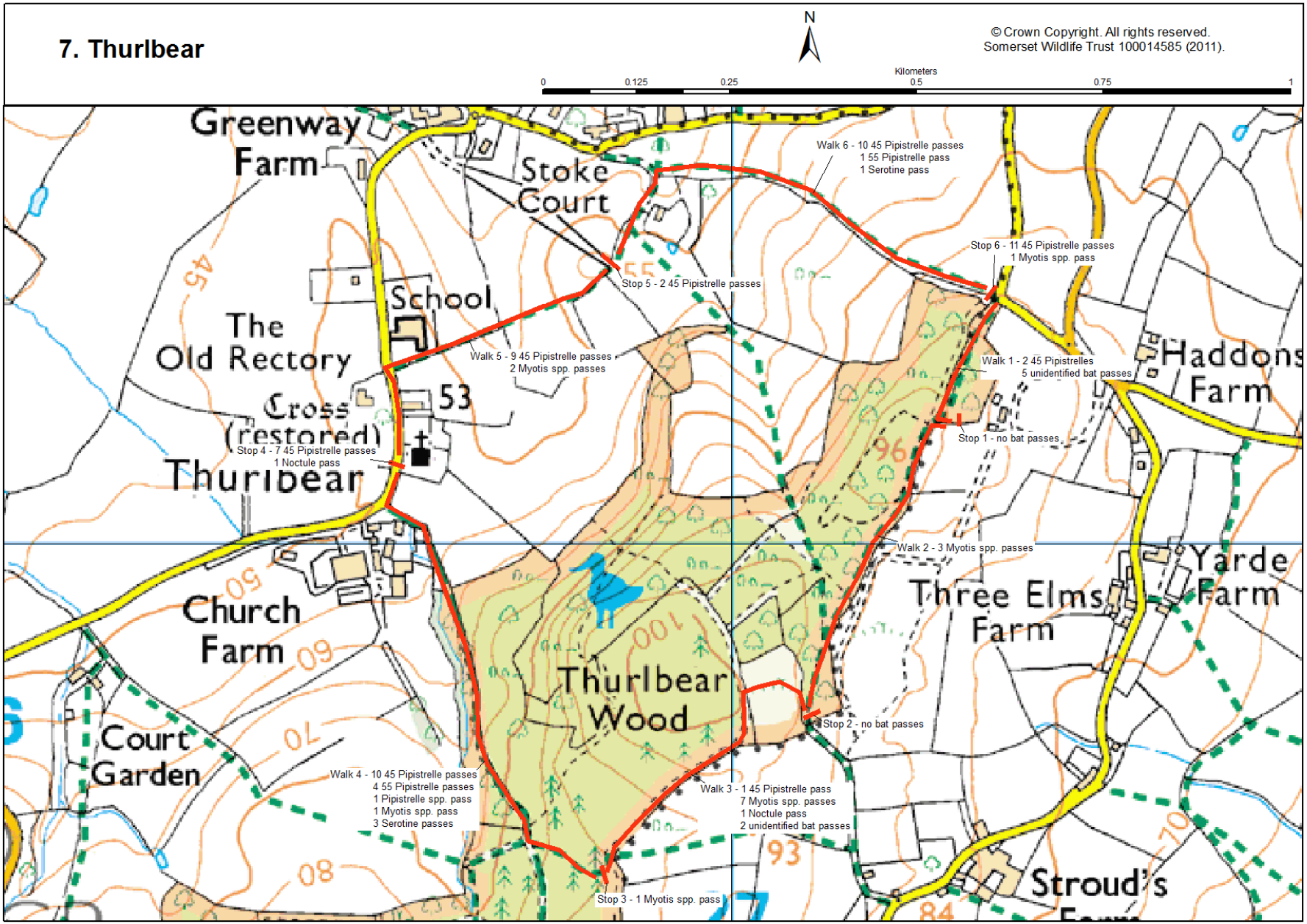
3.2.7 **Transect 7: Thurlbear**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 2 | | | | 1 | | 10 | 7 | 9 | 2 | 10 | 11 | 52 |
| | 55 Pipistrelle | | | | | | | 4 | | | | 1 | | 5 |
| | Pipistrelle spp. | | | | | | | 1 | | | | | | 1 |
| | *Myotis spp.* | | | 3 | | 7 | 1 | 1 | | 2 | | | 1 | 15 |
| | Noctule (Noc/Leisler's)* | | | | | 1 | | | 1 | | | | | 2 |
| | Serotine | | | | | | | 3 | | | | 1 | | 4 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | 5 | | | | 2 | | | | | | | | 7 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

Although strictly outside the AONB this transect was included following the importance of Thurlbear Wood demonstrated by the Bechsteins Bat Survey. There was a malfunction in recording of Walk 1 and although bat passes were heard it is impossible to identify them to species. More *Myotis* passes than Pipistelles were recorded on the long walk down the hill through mixed woodland, Walk 4. The centre of the village had some Pipistrelle passes but more surprising was the success of the open field part of the walk alongside the wood edge, Walk 6, which may again be a feature of a particularly still and dry night. It is to be noted that this transect lies entirely below 100m and Walk 6 starts at 45m rising to 85m at Stop 6.

## 7. Thurlbear


N
© Crown Copyright. All rights reserved.
Somerset Wildlife Trust 100014585 (2011).
Kilometers
0
0.125
0.25
0.5
0.75
1
Greenway Farm
Stoke Court
School
The Old Rectory
Cross (restored)
53
Thurlbear
Church Farm
Court Garden
Thurlbear Wood
Three Elms Farm
Yarde Farm
Haddons Farm
Stroud's
Walk 6 - 10 45 Pipistrelle passes
1 55 Pipistrelle pass
1 Serotine pass
Stop 6 - 11 45 Pipistrelle passes
1 Myotis spp. pass
Stop 5 - 2 45 Pipistrelle passes
Walk 5 - 9 45 Pipistrelle passes
2 Myotis spp. passes
Walk 1 - 2 45 Pipistrelles
5 unidentified bat passes
Stop 1 - no bat passes
Stop 4 - 7 45 Pipistrelle passes
1 Noctule pass
Walk 2 - 3 Myotis spp. passes
Stop 2 - no bat passes
Walk 4 - 10 45 Pipistrelle passes
4 55 Pipistrelle passes
1 Pipistrelle spp. pass
1 Myotis spp. pass
3 Serotine passes
Walk 3 - 1 45 Pipistrelle pass
7 Myotis spp. passes
1 Noctule pass
2 unidentified bat passes
Stop 3 - 1 Myotis spp. pass

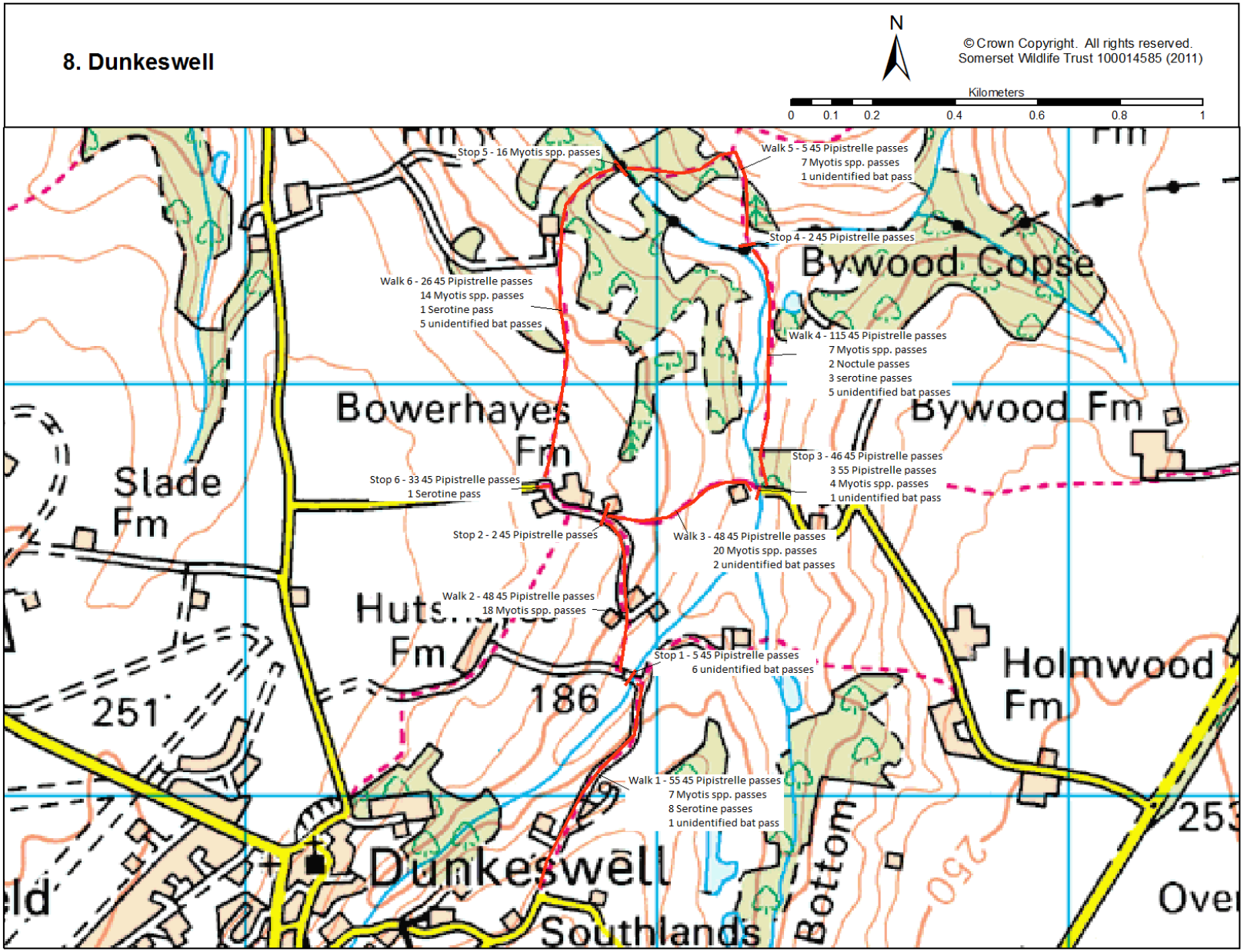
### 3.2.8 Transect 8: Dunkeswell

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 55 | 5 | 48 | 2 | 48 | 46 | 115 | 2 | 5 | | 26 | 33 | 385 |
| | 55 Pipistrelle | | | | | | 3 | | | | | | | 3 |
| | *Myotis spp.* | 7 | | 18 | | 20 | 4 | 7 | | 7 | 16 | 14 | | 93 |
| | Noctule (Noc/Leisler's)* | | | | | | | 2 | | | | | | 2 |
| | Serotine | 8 | | | | | | 3 | | | | 1 | 1 | 13 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | 1 | 6 | | | 2 | 1 | 5 | | 1 | | 5 | | 21 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

One of the least wooded of all transects and one that might therefore have been less favoured by bats. That expectation was clearly wrong with no less than three hundred and eighty-five 45 Pipistrelle passes, ninety-three *Myotis* passes and Serotines particularly at the start. If short on woodland the transect does have water at Stop 3 and Walk 4 and farm buildings on Walk 2. Given the high level of activity generally, one has to wonder why Stops 2 and 4 were so quiet. Stop 4 by the confluence of two streams and at a low altitude produced remarkably little.

## 8. Dunkeswell



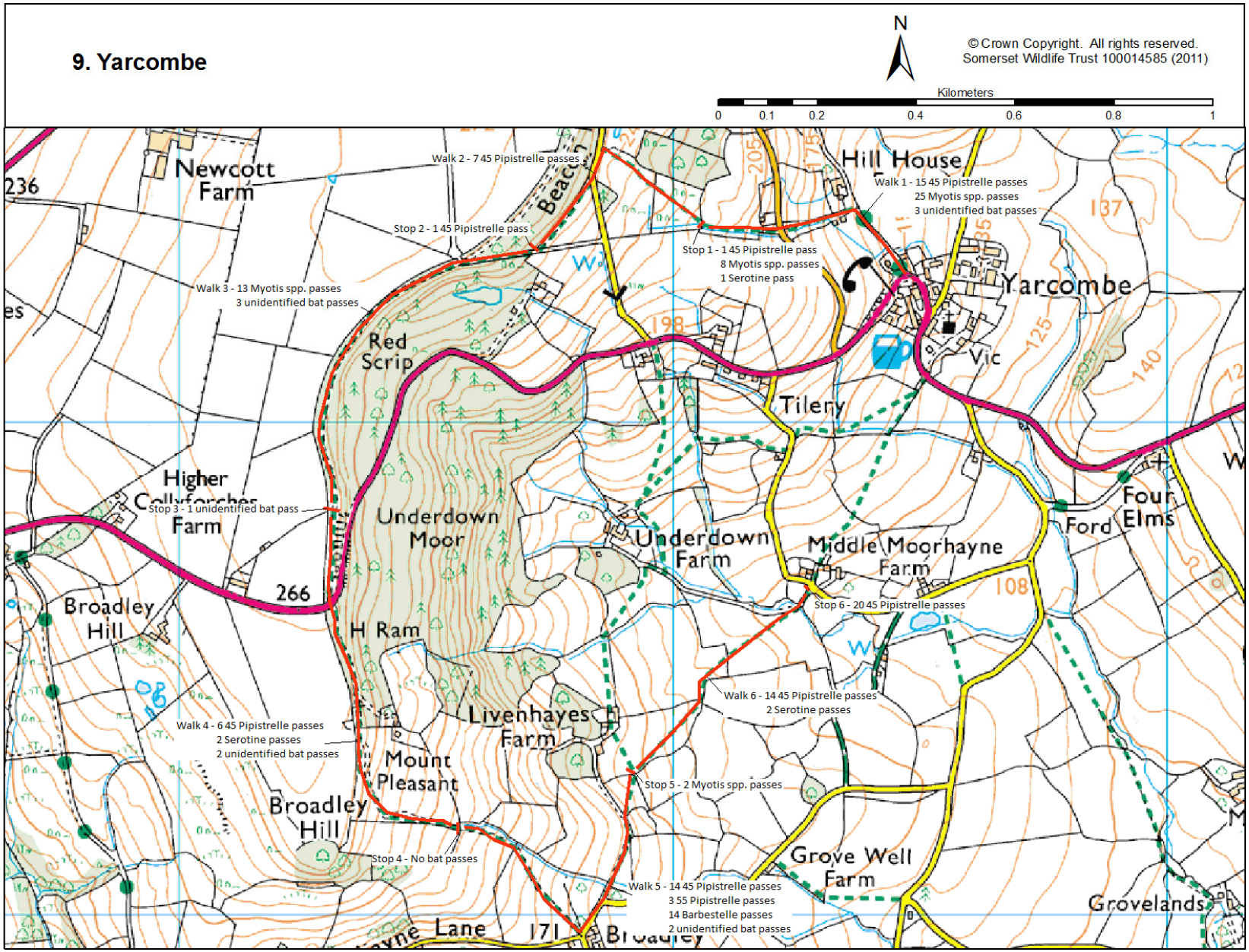
3.2.9 **Transect 9: Yarcombe**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 15 | 1 | 7 | 1 | | | 6 | | 14 | | 14 | 20 | 78 |
| | 55 Pipistrelle | | | | | | | | | 3 | | | | 3 |
| | *Myotis spp.* | 25 | 8 | | | 13 | | | | | 2 | | | 48 |
| | Noctule (Noc/Leisler's)* | | | | | | | | | | | | | 0 |
| | Serotine | | 1 | | | | | 2 | | | | 2 | | 5 |
| | Barbastelle | | | | | | | | | 14 | | | | 14 |
| | Unidentified bat passes | 3 | | | | 3 | 1 | 2 | | 2 | | | | 11 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

The outstanding result was of fourteen probable Barbastelle passes in Walk 5 towards the foot of a steep east facing slope. The initial section of Walk 1 climbs up Beacon Hill from 150m to over 210m at Stop 1. That walk and the latter sections of Walk 6 and Stop 6 in the valley were reasonably active. Unsurprisingly the higher and more exposed sections were quieter.

## 9. Yarcombe


N
© Crown Copyright. All rights reserved.
Somerset Wildlife Trust 100014585 (2011)
Kilometers
0 0.1 0.2 0.4 0.6 0.8 1
Newcott Farm
Walk 2 - 7 45 Pipistrelle passes
Stop 2 - 1 45 Pipistrelle pass
Walk 3 - 13 Myotis spp. passes
3 unidentified bat passes
Hill House
Walk 1 - 15 45 Pipistrelle passes
25 Myotis spp. passes
3 unidentified bat passes
Stop 1 - 1 45 Pipistrelle pass
8 Myotis spp. passes
1 Serotine pass
Yarcombe
Red Scrip
Tiley
Higher Collyforches Farm
Stop 3 - 1 unidentified bat pass
Underdown Moor
Underdown Farm
Middle Moorhayne Farm
Four Elms
Ford
Broadley Hill
H Ram
Stop 6 - 20 45 Pipistrelle passes
Walk 6 - 14 45 Pipistrelle passes
2 Serotine passes
Walk 4 - 6 45 Pipistrelle passes
2 Serotine passes
2 unidentified bat passes
Livenhayes Farm
Mount Pleasant
Stop 5 - 2 Myotis spp. passes
Broadley Hill
Stop 4 - No bat passes
Grove Well Farm
Walk 5 - 14 45 Pipistrelle passes
3 55 Pipistrelle passes
14 Barbestelle passes
2 unidentified bat passes
Grovelands
Lane
236
266
171
205
175
137
125
140
108

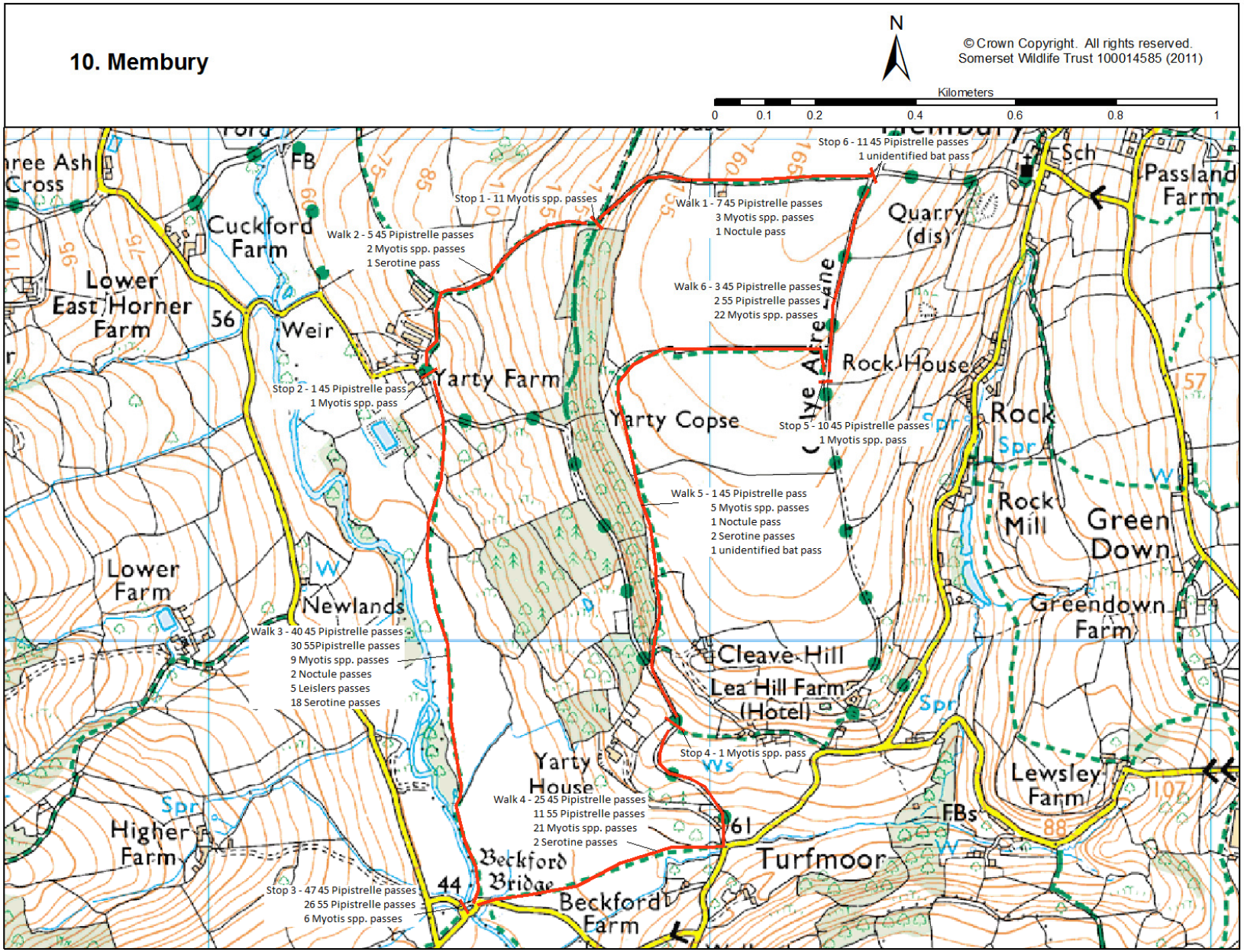
3.2.10 **Transect 10: Membury**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 7 | | 5 | 1 | 40 | 47 | 25 | | 1 | 10 | 3 | 11 | 150 |
| | 55 Pipistrelle | | | | | 30 | 26 | 11 | | | | 2 | | 69 |
| | *Myotis spp.* | 3 | 11 | 2 | 1 | 9 | 6 | 21 | 1 | 5 | 1 | 22 | | 82 |
| | Noctule (Noc/Leisler's)* | 1 | | | | 2 | | | | 1 | | | | 5 |
| | Leisler's | | | | | 5 | | | | | | | | 5 |
| | Serotine | | | 1 | | 18 | | 2 | | 2 | | | | 23 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | | | | | | | | | 1 | | | 1 | 2 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

This transect also revealed the presence of one of our rarer species with 5 passes at Walk 3 confidently ascribed to the Leisler's Bat. Walk 3 is long and runs alongside the River Yarty. It recorded a total of one hundred and four bat passes. Stop 3 at Beckford Bridge was as good as one might expect but the least busy part of the transect was at Stop 4. The *Myotis* recordings seem to be in the second half of the transect particularly on Walks 4 and 6, and possible reasons for this distribution could be attributed to the possibility that they arrive later than other species or to their tendency to favour the higher slope above the copse.

## 10. Membury


N
© Crown Copyright. All rights reserved.
Somerset Wildlife Trust 100014585 (2011)
Kilometers
0 0.1 0.2 0.4 0.6 0.8 1
Stop 6 - 11 45 Pipistrelle passes
1 unidentified bat pass
Stop 1 - 11 Myotis spp. passes
Walk 1 - 7 45 Pipistrelle passes
3 Myotis spp. passes
1 Noctule pass
Walk 2 - 5 45 Pipistrelle passes
2 Myotis spp. passes
1 Serotine pass
Walk 6 - 3 45 Pipistrelle passes
2 55 Pipistrelle passes
22 Myotis spp. passes
Stop 2 - 1 45 Pipistrelle pass
1 Myotis spp. pass
Stop 5 - 10 45 Pipistrelle passes
1 Myotis spp. pass
Walk 5 - 1 45 Pipistrelle pass
5 Myotis spp. passes
1 Noctule pass
2 Serotine passes
1 unidentified bat pass
Walk 3 - 40 45 Pipistrelle passes
30 55Pipistrelle passes
9 Myotis spp. passes
2 Noctule passes
5 Leislers passes
18 Serotine passes
Stop 4 - 1 Myotis spp. pass
Walk 4 - 25 45 Pipistrelle passes
11 55 Pipistrelle passes
21 Myotis spp. passes
2 Serotine passes
Stop 3 - 47 45 Pipistrelle passes
26 55 Pipistrelle passes
6 Myotis spp. passes
Sch
Passland Farm
Quarry (dis)
Cuckford Farm
Lower East Horner Farm
Weir
Yarty Farm
Yarty Copse
Clye Acre Lane
Rock House
Rock
Rock Mill
Green Down
Greendown Farm
Lower Farm
Newlands
Cleave Hill
Lea Hill Farm (Hotel)
Yarty House
Lewsley Farm
Higher Farm
Beckford Bridge
Beckford Farm
Turfmoor
FBs
FB
56
44
61
57
88
107

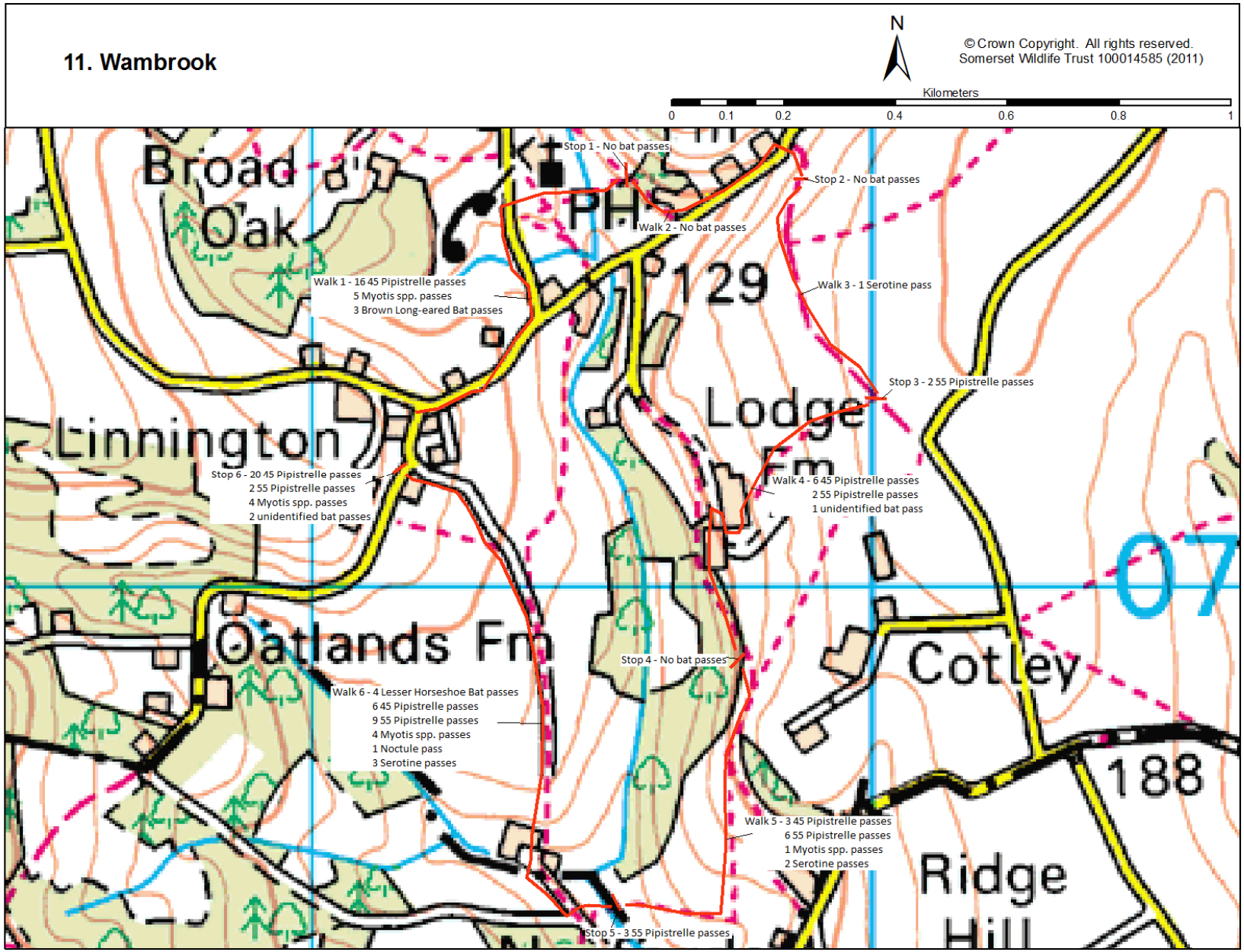
3.2.11 **Transect 11: Wambrook**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | 4 | | 4 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 16 | | | | | | 6 | | 3 | | 6 | 20 | 51 |
| | 55 Pipistrelle | | | | | | 2 | 2 | | 6 | 3 | 9 | 2 | 24 |
| | *Myotis spp.* | 5 | | | | | | | | 1 | | 4 | 4 | 14 |
| | Noctule (Noc/Leisler's)* | | | | | | | | | | | 1 | | 1 |
| | Serotine | | | | | 1 | | | | 2 | | 3 | | 6 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Brown Long-eared Bat | 3 | | | | | | | | | | | | 3 |
| | Unidentified bat passes | | | | | | | 1 | | | | | 2 | 3 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

This transect started well with 45 Pipistrelles, *Myotis* and three passes attributed, with some caution, to a Long-eared species (Most likely Brown long-eared bats although Grey long-eared bats have been found near Yeovil to the east of the Blackdown Hills). These bats are notoriously difficult to hear on a bat detector because much of their echolocation is at very low volume since they can use passive hearing to detect moths. Thereafter, the transect appears to have been very quiet until Walk 4 and it is not easy to see why. Stop 4 on the edge of Cotley Copse had no bats at all even though bats are known to roost in some of the neighbouring buildings. Of the one hundred and six passes recorded only twenty-three were on the east side of the valley. The Lesser horseshoe passes recorded on Walk 6 tie in well with the known maternity roost nearby.

## 11. Wambrook


N
© Crown Copyright. All rights reserved.
Somerset Wildlife Trust 100014585 (2011)
Kilometers
0
0.1
0.2
0.4
0.6
0.8
1
Broad Oak
PH
129
Lodge Fm
Linnington
Oatlands Fm
Cotley
188
Ridge Hill
07
Stop 1 - No bat passes
Stop 2 - No bat passes
Walk 2 - No bat passes
Walk 1 - 16 45 Pipistrelle passes
5 Myotis spp. passes
3 Brown Long-eared Bat passes
Walk 3 - 1 Serotine pass
Stop 3 - 2 55 Pipistrelle passes
Walk 4 - 6 45 Pipistrelle passes
2 55 Pipistrelle passes
1 unidentified bat pass
Stop 6 - 20 45 Pipistrelle passes
2 55 Pipistrelle passes
4 Myotis spp. passes
2 unidentified bat passes
Stop 4 - No bat passes
Walk 6 - 4 Lesser Horseshoe Bat passes
6 45 Pipistrelle passes
9 55 Pipistrelle passes
4 Myotis spp. passes
1 Noctule pass
3 Serotine passes
Walk 5 - 3 45 Pipistrelle passes
6 55 Pipistrelle passes
1 Myotis spp. passes
2 Serotine passes
Stop 5 - 3 55 Pipistrelle passes

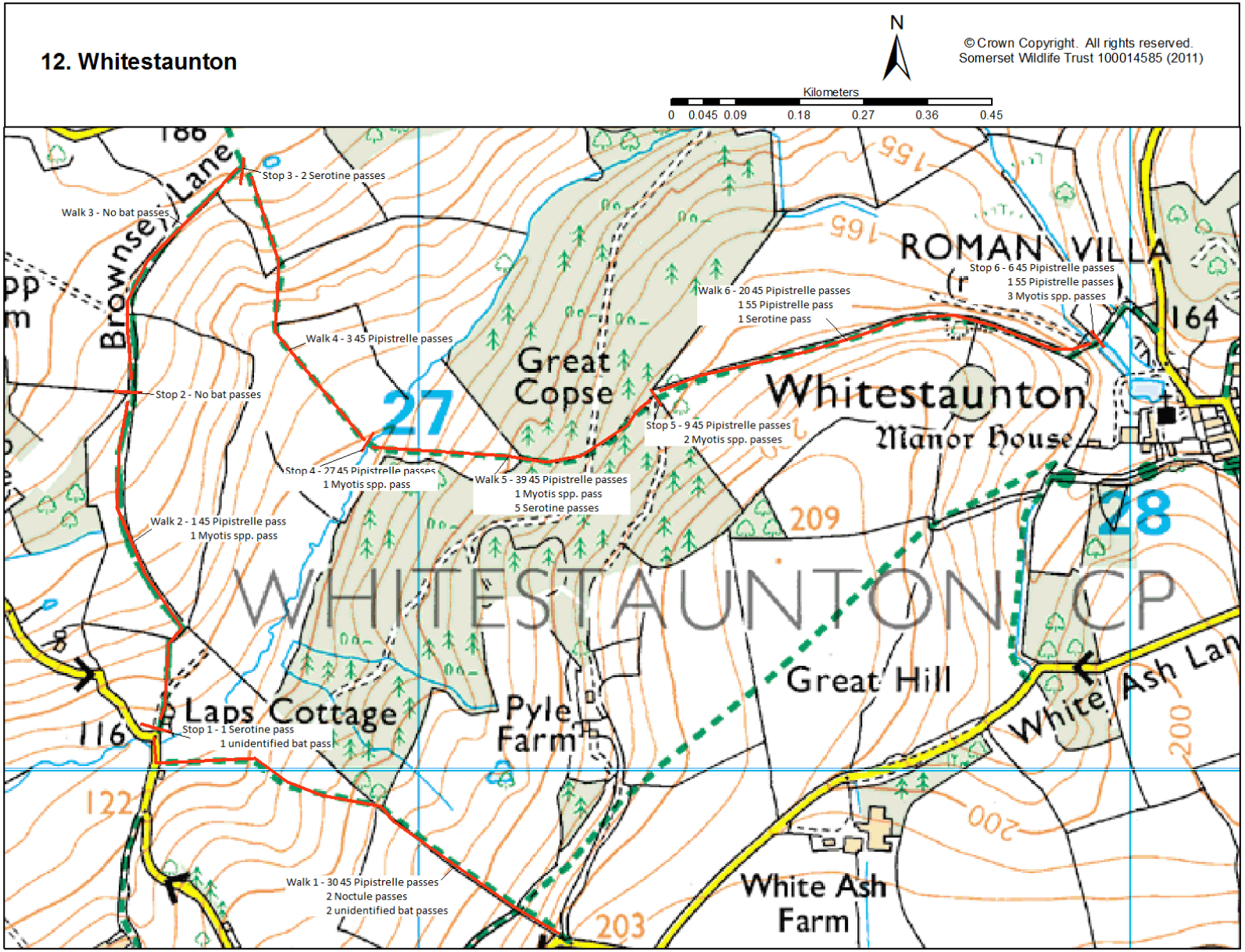
3.2.12 **Transect 12: Whitestaunton**

| Year | Bat Species | Transect Section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Walk 1 | Stop 1 | Walk 2 | Stop 2 | Walk 3 | Stop 3 | Walk 4 | Stop 4 | Walk 5 | Stop 5 | Walk 6 | Stop 6 | Total |
| 2011 | Lesser Horseshoe | | | | | | | | | | | | | 0 |
| | Greater Horseshoe | | | | | | | | | | | | | 0 |
| | 45 Pipistrelle | 30 | | 1 | | | | 3 | 27 | 39 | 9 | 20 | 6 | 135 |
| | 55 Pipistrelle | | | | | | | | | | | 1 | 1 | 2 |
| | *Myotis spp.* | | | 1 | | | | | 1 | 1 | 2 | | 3 | 8 |
| | Noctule (Noc/Leisler's)* | 2 | | | | | | | | | | | | 2 |
| | Serotine | | 1 | | | | 2 | | | 5 | | 1 | | 9 |
| | Barbastelle | | | | | | | | | | | | | 0 |
| | Unidentified bat passes | 2 | 1 | | | | | | | | | | | 3 |

* Number in brackets is the number of additional passes that have a higher frequency than expected for Noctule Bat. A frequency ranged between 25-27kHz is a better range for the rarer Leisler's Bat compared to a Noctule bat that has peak frequencies between 18-24kHz.

Plenty of Common Pipistrelle activity but remarkably little else. There were only 8 *Myotis* passes in total. Most of the activity seems to have been on the North facing slopes with only a modest amount of the other side of the stream (Walk 2 to Walk 4). Stop 4 at the stream itself was good for Common Pipistrelles and Walk 5 was busy. This is the only part with woodland on both sides of the path but the passes were by no means confined to the wooded part of the walk. The surveyors noted that after a calm, dry start there was drizzle by the end. None the less Walk 6 and Stop 6 showed more activity than anywhere between Stop 1 and Walk 4 inclusive.

## 12. Whitestaunton



## 4. FURTHER RESEARCH

To be able to fully determine the distribution of bat species throughout the Blackdown Hills and which habitats are mostly used by bats it is anticipated that at least 6 years of survey results are needed. The 2011 Big Bat Survey was the first large scale survey in the Blackdown Hills and it is considered to be repeated over the future years. Hopefully volunteers of this survey and new volunteers will join in for the future Big Bat Surveys, making them as successful as the 2011 survey. It is planned that new transects will be added in the 2012 survey to fill some of the gaps that haven't been surveyed in 2011.