Jenny Harris

Bat activity was recorded in every month from April to December, although this last record was represented by a single grounded bat found on 29 December (see Table 4). Hibernaculum and roosts counts were carried out during the year and the results sent to the National Bat Monitoring Programme (NBMP), organised by the Bat Conservation Trust (see Tables 1 and 3) and a third year of surveying at Rutland Water for the National Nathusius' Pipistrelle Project is reported in the section covering this species. Jenny Harris continued to care for grounded bats found in the county and a summary of records is shown in Table 4.

A cool, wet spring through to the end of June was thought to have delayed parturition, at least in pipistrelle species, but warmer weather from July to September inclusive could have aided juvenile survival.

In the classified species accounts, the order of species follows that found in Schober and Grimmberger 1989. The status of each species refers to Rutland only unless otherwise stated. Reference: Schober, W. and Grimmberger, E. 1989. Hamlyn, London.

The East Rutland hibernaculum was surveyed twice during the winter of 2016. Table 1 records what was found.

Hibernaculum counts January & February 2016

Date	24 Jan 16	21 Feb 16
Surveyors	4	6
External temperature	10 °C	10.5 °C
Lowest internal temperature	9 °C	9 °C
Daubenton's bat	-	1
Whiskered/Brandt's bat	-	1
Natterer's bat	5	6
Pipistrelle sp.	1	-
Total bats seen	6	8

Species reports

TABLE 1

Daubenton's bat Myotis daubentonii

Status: uncommon; no maternity roosts currently known. One bat was recorded in the east Rutland hibernaculum. The first record of the year was of an adult male caught during the National

Nathusius' Pipistrelle Project (NNPP) in a harp trap in Hambleton Wood on the south shore of the Peninsula on 04 June. Two juvenile males were caught during the survey on 24 July. This species was seen and heard foraging over the River Chater at Sinc Bridge, Aldgate, and around the road bridge in Station Road, Ketton on 11 July. Bats were observed foraging over Rutland Water at Barnsdale Creek and the south shore of Hambleton Peninsula on 12 October. These were the last records for the year.

Brandt's bat *Myotis brandtii* Status: rare, no roosts of any kind are currently known for this species.

A female small Myotis caught in a harp trap in Burley Wood at the western end of Compartment 23 (near the deer hide) on 14 May was recorded as a Brandt's bat. She had given birth at some time in the recent past (parous). This is only the third record of the species for Rutland and as the species is not known to be migratory, the record is likely to prove breeding in the locality.

Whiskered bat Myotis mystacinus	Status: uncommon; only one maternity roost is known. However, this small Myotis may be under-recorded.				
	Bats were confirmed to be present at the maternity roost in Seaton on 27 June. Eight bats were observed emerging but a full count was not carried out. Four male whiskered bats were caught in harp traps at two locations on the Hambleton Peninsula during the NNPP survey on 02 October. Two were adults; a further two were sub-adults (probably born in 2016 and not sexually mature).				
Whiskered/Brandt's bat	A small Myotis species that could not be attributed to either whiskered or Brandt's bat, was recorded in the east Rutland hibernaculum during the NBMP survey on 21 February.				
Natterer's bat Myotis nattereri	Status: uncommon. Two roosts are known in Rutland. The species was present in the east Rutland hibernaculum (see table) where it is the main species encountered. No grounded bats were recorded in 2016.				
	Three male bats were caught in harp traps on the Hambleton Peninsula woods: an adult male on 24 July and two males during the overnight survey of 02 and 03 October. One was a sub-adult, for the other age was not determined. They were caught at three different locations around the Peninsula. The maternity roosts recorded at Whissendine and Stoke Dry churches were counted for the NBMP (see table of roost counts). However, it is not certain that Natterer's still breed in Stoke Dry church; it proved very difficult to see whether bats were emerging from the church itself, although Natterer's were definitely foraging around the building.				
Noctule bat Nyctalus noctula	Status: uncommon but possibly widespread in suitable woodland habitats. Two maternity roosts located in 2016.				
	On 19 April five passes by noctule bat were heard during a bat watch at the deer hide on the main east/west ride in Burley Wood and a bat was seen flying over the ride at about 9.0pm. On 08 May noctules were heard at a distance and one bat flew along the ride between compartments 26 and 16. On 16 August a tree roost was found in compartment 25, with an estimated 30 bats present. Another tree roost was found in Barnsdale Wood during the summer, and on 12 October a male was social calling to attract females at a tree roost in Barnsdale Wood. On 03 May a large bat was seen and identified as noctule in Tunneley Wood at 8.30pm; this is a new record for the wood. One bat was heard passing north of Hambleton church on 22 August. A female noctule was caught in one of the harp traps in the parkland area of Hambleton Wood south of Hambleton village on 24 July.				

Common Pipistrelle Pipistrellus pipistrellus

Status: common and widespread, but less likely to be found in wetland and woodland habitats than soprano pipistrelle. Few maternity roosts were counted for the NBMP but bats of this species were more often found grounded than soprano pipistrelle (see Tables 3 and 4).

A few common pipistrelles were heard in Burley Wood at the deer hide and along the ride between compartments 15b and 17 on 19 April and 8 May. The species was recorded foraging over Oakham gardens in Barmstedt Drive from 6 May to 30 May and in Woodland View throughout the summer. Up to eight bats were recorded foraging under tree canopy in The Valley, Ketton Quarry on 5 July and several were seen in Aldgate/Station Road, Ketton, on 9 July. Several were foraging at Hambleton village on 29 May, around Hambleton church on 22 August and in Barnsdale Wood and Hambleton Peninsula on 12 October, which was the last report of the year.

A single maternity roost was counted for the NBMP was confirmed ass common pipistrelle; six grounded bats were of this species (see Tables 3 and 4 for details). Only two of the 90 bats captured during the various trapping sessions in Burley Wood and Hambleton Peninsula for the NNPP were of this species; a female on 24 July and a male on 02 October.

Status: common and widespread; especially likely to be found in wetland and woodland habitats. Five maternity roosts were counted for the NBMP, including in Reeves Lane, Wing, formerly thought to be a common pipistrelle roost (see Table 3 for details). Only one of the nine grounded bats recorded during the year was a soprano pipistrelle (see Table 4).

Foraging bats were heard in Burley Wood on the east/west ride near the deer hide on 19 April, 08 May and 14 May. They were also heard in the churchyard at Hambleton on 22 August and occasionally among trees in gardens in Woodland View, Oakham. A total of 59 soprano pipistrelles were caught in harp traps during surveying for the NNPP, only one of which was caught at Burley Wood in May.

Three maternity roosts were counted for the NBMP, at Braunston and Egleton churches and in Reeves Lane, Wing; but two further roosts formerly counted, at Exton and Rutland Watersports, no longer contained bats (see Table 3). A new maternity roost was observed but not counted in Ketton, and a colony was still thought to be present (from droppings on a wall) at Gunthorpe. This is in spite of radical renovation work on the building but this had been carried out with appropriate mitigation measures. A single grounded bat was rescued, a female which gave birth in captivity and was released with its young (see Table 4). The last record of the year was of foraging bats at Barnsdale Wood and Hambleton Peninsula on 12 October.

Nathusius' Pipistrelle Pipistrellus nathusii

Status: the rarest of the three pipistrelle species known to be present in the UK; a few maternity roosts are present along the east and south-east coasts of England and in Ireland.

A third consecutive year of surveying for P. nathusii, using mainly harp traps, was carried out at Rutland Water over the summer of 2016, under licence from Natural England. Previous trapping in 2014 and 2015 had shown that Hambleton Peninsula was the only reliable site for catching this species at the reservoir, so three trapping sessions were planned there. However, it was also known that a potential maternity roost was present in Burley Wood but in recent years the bats have always moved away after an initial 'gathering' period in April/May. We were keen to catch some of the bats at the Burley Wood roost to see if they were the elusive breeding females, or just a summer roost containing only males. In previous years only one female had been caught at Rutland Water, but it was hoped that if one could be trapped and radio-tagged in spring she could lead to maternity roosts around the reservoir.

Four visits took place at Burley Wood, with the first on 19 April to ascertain whether there were bats present in the roost, which was confirmed when four bats emerged. During the first trapping visit on 1May, nine bats emerged from the roost, but it proved impossible to catch them using a hand-held net as the bats emerged erratically in all directions and could be seen easily avoiding the net. Two harp traps (see Fig. 1 in LRR 12, p. 41) were hastily set up nearby but only caught a small male Nathusius'. On 8 May, the author and Joelle Woolley observed 10 Nathusius' emerge so a further trapping session was carried out on 14 May, using nets around the roost (an old deer hide) and two harp traps. This resulted in two males being caught, one of them originally caught on 1 May. Survey effort switched to the reliable sites at Hambleton Peninsula and Wood, employing up to five harp traps with artificial acoustic lures playing P. nathusii social calls. Surveys took place on 4 June, when two male Nathusius' were caught; 23 July, when four were caught; and 2 October when eight bats were processed including one female. As before processing each bat included placing a uniquely numbered ring on the forearm (females on the left and males on the right) and taking a clipping of fur for stable hydrogen isotope analysis. No trapping took place during the period between early June and late July to avoid the risk of handling females in late pregnancy or lactation. The only female caught was not radio-tracked, since in October she was unlikely to lead us to a maternity roost. The results of the survey have still not proved that Nathusius' pipistrelle is currently breeding in Rutland, although the

2016 Nathusius' Pipistrelle Project 2016 results at Rutland Water

		Male s/adult	adult	B/C*	Female s/adult	
Burley Wood						
SK 889 094	01 May	-	1	-	-	very small
SK 889 094	14 May	-	2	_	_	one a retrap
Hambledon						
SK 902 070	04 June	-	1	_	_	
SK 902 070	05 June	-	1	_	_	
Hambledon						
SK 902 071	23 July	-	_	2	-	
Hambledon						
SK 924 069	24 July	-	_	2	-	
Hambledon						
SK 902 071	02 Oct	-	2	-	-	
SK 906 067	02 Oct	1	_	-	-	
SK 904 070	02 Oct	2	1	-	-	
SK 911 067	02 Oct	-	1	_	1	

NOTES (*) breeding condition

presence of four sub-adult bats (i.e. born in the current year) out of eight caught in October could be a sign that there is still a maternity roost nearby.

In 2016, in addition to the 17 Nathusius' pipistrelle captures (representing 14 bats after taking re-trapped individuals into account) a further 73 bats of seven species were caught. These were common pipistrelle, soprano pipistrelle, Daubenton's, Brandt's, whiskered and Natterer's bats and noctule. Two of the Nathusius' pipistrelles caught and ringed at different trap locations in June were re-trapped in October in exactly the same traps as before. The five trapping sessions (Burley Wood and Hambleton) involved a total of 22.25 hours trapping time, starting just after sunset, with most bats caught before midnight. The surveys around Rutland Water over three years have been organised by Matt Cook, who is the technical lead for the NNPP for Nottinghamshire Bat Group and Rutland Water. Over this period there have been 30 Nathusius' pipistrelle captures (representing 25 individuals) including two females, with most bats being caught each year in early October. Rutland Water is one of 13 wetland sites that Nottinghamshire Bat Group have surveyed for the NNPP, and to date 16 trapping sessions have been carried out there, handling a total of 326 bats of nine species. Only one of these 13 sites, Hoveringham Country Park in Nottinghamshire, has recorded as many species.

Through this trapping effort six species have been proved to be breeding at Rutland Water or nearby: common pipistrelle, soprano pipistrelle, Daubenton's, Brandt's, whiskered and Natterer's bats and noctule. Breeding by brown longeared bat Plecotus auritus had already been recorded nearby. The richness of the bat fauna can be attributed to the reservoir's large size, the mixture of wetland, woodland and sheep-grazed habitats around its shores and the proximity of several rural villages with churches and old houses.There were several other records of the species at sites around Rutland Water during 2016. On 18 May, Jon Russ, the national Nathusius' pipistrelle expert, heard a male calling from the roof of a house in High Street, Hambleton but none were heard on 29 May. Bats were heard foraging on 12 October in Barnsdale Wood and at Hambleton Peninsula. On 27 October, during a check of bat boxes at Rutland Water, Joelle Woolley found five Nathusius' in box number 26, a Schwegler wood-crete box, sited between Lagoon 2 and Lagoon 3. Three of these bats were un-ringed females. A week later a male was in box number 50 in Barnsdale Wood. The status of Nathusius' pipistrelle in Rutland remains something of a mystery, and we are still some way from determining whether the species is currently breeding in Rutland. Further trapping effort is proposed for the 2017 season.

References:

Harris, J. 2016, LRR 12, p. 41

Cook, M. 2016. National Nathusius' Pipistrelle Project, 2014 to 2016. http://www.nottsbatgroup.org.uk

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Brown Long-eared bat Plecotus auritus

Status: widespread and probably common, although likely to be under-recorded because of its very quiet echolocation calls. One roost counted for the NBMP (see table 3) but none recorded in 2016 at the Rutland hibernaculum. The first record of the year was of droppings observed at the Wing roost on 19 April. The bats at this colony were counted for the NBMP; roosts were also recorded at Greetham and Wardley churches. Several probable long-eared bats emerged from Braunston church on 14 June. The only grounded bat of the year was an injured male found in Ashwell on 29 December (see Table 4).

Unidentified bats, including possible Pipistrelle sp. Pipistrellus sp.

The first recorded activity by small bats was at a roost in Wing known to be occupied in summer by pipistrelles, where droppings were noted on 15 April; said to be 'copious' by 19 April. Foraging was seen at this site on 23 April. One or two bats recorded in a Barrowden garden on 20 April, 04 May, 05 May and in June could well have been pipistrelle as there is a maternity roost nearby. In Tunnely Wood on 03 May two small bats that were seen at around 8.30pm could have been pipistrelle sp., but other, less common, small bats roost and forage in woodland, so whiskered, Brandt's and Daubenton's cannot be ruled out.

A small bat found clinging to a wall in Reeves Lane, Wing, on 08 August was identified as pipistrelle species; it was rescued and later released.

Although not identified to species, these records of bat activity are important indicators of where future surveys with bat detectors could result in new species identification.

The National Bat Monitoring Count routinely surveys bat roosts, ten are within Rutland. Two counts were made for each location during June. Table 3 records the larger count recorded during these visits, together with 2015's figures (in brackets).

Numbers counted at Egleton church, were well down on 2015. Another great loss is the absence of any bats at the Fox and Hounds pub in Exton. This was very significant roost, with over 800 recorded in 2014. Renovation work carried out without following appropriate advice has resulted in the the roost being abandoned. It will now be deleted from the NBMP register.

TABLE 3

Location	Species	Count		Comments		
Braunston-in-Rutland church	Soprano pipistrelle	e 554	(429)	Bats emerged from a different location this year (1		
Egleton church	Soprano pipistrelle	e 506	(998)	Significant reduction ⁽²⁾		
Exton, Fox and Hounds pub	Soprano pipistrelle	e 0	(3)	Surveyed, no bats were present		
Morcott (house)	Common pipistrell	e 74	(NC)	Numbers had fallen to 57 in July (3)		
Rutland Watersports	Soprano pipistrelle	e 0	(0)	Surveyed, no bats were present		
Seaton, house	Whiskered bat	NC	(NC)	Present but not counted		
Stoke Dry church	Natterer's bat	NC	(7)	Present ⁽⁴⁾		
Whissendine church	Natterer's bat	44	(45)	Present		
Wing, house	Sp. pipistrelle	30	(NC)	Numbers had risen to 79 by 20 July		
Wing, house	Brown long-eared	2	(6)	Present 13 July		

NOTES

- (1) It is thought the bats are using the same roost sites inside the church but most were seen emerging from access points not used previously
- (2) It is hoped roof repairs take the presence of this important bat maternity roost into account.
- (3) Counts in July are usually expected to be higher, since it should include newly-flying juveniles. At Morcott the reduction in numbers during July to 57 on 7 July, and down to four by 18 July, suggests that most of the colony had moved before the young began to fly.

(4) Seen foraging around church, but access sites could not be determined

TABLE 4

Date	Species	Location	Age	Sex	Weight	Outcome	Comments
05.6	Soprano pipistrelle	Preston	Ad	F	6.4 g	Released (1)	Pregnant, trapped
14.7	Common pipistrelle	Uppingham	Juv	F	3.7 g	Retained in care (2)	Just-flying, location unknowr
26.7	Common pipistrelle	Oakham	Ad	М	4.8 g	Died E	Wrist swollen, possible head injury
01.8	Common pipistrelle	Oakham	Ad	F	5.0 g	Died E	Thin, broken forearm
14.8	Pipistrelle sp.	Wing	-	-	n/k	Released	Found clinging to wall at ground level
30.8	Common pipistrelle	Oakham	Ad	F	3.8 g	Died E	Broken forearm, membrane damage
01.9	Common pipistrelle	Uppingham	Ad	М	4.5 g	Died	Holes in both wing membranes
20.9	Common pipistrelle	Oakham	Ad	М	4.3 g	Died E	Broken forearm, membrane damage
29.12	Brown long-eared	Ashwell	Ad	М	7.2 g	Died E	Injuries to wings & abdomen

KEY & NOTES

Ad - Adult; Juv - Juvenile; M - male; F - female; E - euthanasia by vet

- (1) Found trapped by one wing in a wrought iron gate. The skin of her forearm was manipulated back into place by a vet and secured with veterinary glue. She gave birth on 15 June, by which time she was a good weight and flying well in the lounge. It was imperative that she be returned to her maternity roost before the baby became too heavy for her to carry. I released her in an area of community grassland in Preston, and she flew off in the direction of the house where she had been found.
- (2) We do not know where the bat was found, so were unable to release it near its roost where it might be suckled and be shown where the maternity group forage. Would likely have starved if released without this support so has been retained.

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