

Spring 2017 Dorset Bat Group Newsletter



Chatter from the Chair

Soprano Pipistrelles were seen flying over Blashford Lakes in the daytime again this year. Butterfly numbers have been good so far so hopefully moths and aquatic flies will be equally successful.

It was good to see Jan, Nick, Pete, Jackie and Cathy at the Regional Bat Conference and Jan and Cathy at the Mammal Conference. The Nathusius' Pipistrelle Day was a great success as you can read in two further articles. It followed on perfectly from Jan and Adrian's talk at the AGM.

Two exciting projects starting this year are the Nathusius' Surveys being led by Nick in the west and Jan in the east. Also, Jan is leading the BCT *Putting UK Bats on the map* project.

George is busy organising the next round of VBRV training, so if you are interested in helping BCT and Natural England survey for bats, let him know.

Nick has been busy organising bat talks and socials. The next event will be the summer social at Lorton on 21st July.

Hope to see you soon
Sheila

Minutes of the Dorset Bat Group Annual General Meeting

at Brooklands Farm 20st April 2017

Welcome

Sheila welcomed everyone and pointed out the fire exits, etc.

Apologies: Angela Mills, Nick Tomlinson, Katie Pollard, Sally Humphreys, Louise Lowans, Emily Newton and George Lee.

Annual Report

Over the past year the Bat Group has been on BBC Autumnwatch and Winterwatch. Chris Dieck showed bats to presenter Gillian Burke, and Nick and the Winspit Team showed Gillian how to trap bats.

There was a Regional Bat Conference in Devon and Sheila gave a 5 minute Bat Group update for Dorset.

There will not be a National Bat Conference this year but there will be one in 2018.

Nick has been busy organising some speakers for over the winter months. Our next social is the BBQ at Lorton on Friday July 21st. This will be followed by trapping and possibly radio tracking. More details will be sent out nearer the time. If you are interested in attending please let Nick know.

Sheila apologised for the lack of up-to-date information on the website but this should hopefully be sorted out imminently. (Since the meeting, Sally Welbourn at DWT has offered assistance and changes will be made in June. Thank you Sally.)

George Lee would like articles for the Newsletter as soon as possible.

There are 2 new bat projects for 2017. Dorset is going to join in with *The National Nathusius' Project* – Jan is going to lead in the east and Nick is going to lead in the west. Jan talked more about this after the AGM.

The second project is also going to be led by Jan and it is called *Putting UK Bats On The Map*. BCT is currently setting up this project.

Nomination of the Committee

Sally Humphreys mentioned at the last AGM that she would like to step down from the Committee and Liz Watkinson offered to be Bat Care Coordinator and to act as a liaison between the Bat Group and EDBRR.

Pete Banfield proposed Liz as Bat Care Coordinator and Tina Wright seconded this. The rest of the Committee wished to remain in office for another year. The Constitution states that the Chair (Sheila Dyason), the Secretary (Catherine Dyason) and the Treasurer (Steve Masters) need to be re-elected every year. Colin Morris proposed that the Officers remain in place and John Langdon seconded this.

Catherine Dyason offered to be Membership Secretary as well as Minute Secretary. This was proposed by Steve Masters and Colin Banfield seconded this.

The Treasurer's Report

Steve Masters gave a powerpoint presentation on the Accounts for the year. The Group spent £521 more than came into the bank account last year. At the end of this financial year the Group had £3700 in the bank plus £1600 in a savings account. £835 came in from Voluntary Bat Roost Visits and a similar amount came in from Membership fees. A lot of money was spent last year on projects and equipment.

At the moment, on the Bat Group Constitution, 2 people have to sign a cheque which is not really practical when the Treasurer lives in the west of the county and the Chair and Secretary live in the east of the county. It was agreed that one person could sign a cheque for up to £500. For larger amounts two signatures would be required. Thanks to Steve for his hard work.

AOB

It was agreed to put the membership fee up from £5 to £8 for everyone. One £8 fee per household.

It was agreed that Jan could purchase 2 radio tags from Biotrack and she would send Steve the invoice.

Catherine Dyason

Minute Secretary 27/04/2017

Volunteer Bat Roost Visitor (VBRV) Training

This is your chance to do your active bit for Bat conservation and gain a Class Licence through Natural England to become a VBRV.

The next round of training begins again this autumn, starting in October and running through to February. Sessions run once a month on a Wednesday evening, from 7:30 to 9:00 at Brooklands Farm (DWT Headquarters) near Dorchester, and are led by our wonderful and experienced members Jan, John, Pete and Colin.

The material covered ranges from Bat ID to biology, conservation law and how to conduct a visit, including a sample roost visit, and of course health and safety. The final session is an informal interview with the course leaders to see if you are licence ready.

If you started the course before but didn't get your licence then do join us again and with the extra experience you should get it this time.

Dates and further information will go on the website shortly.

Do check out the Natural England website section on Bats for further licence information.

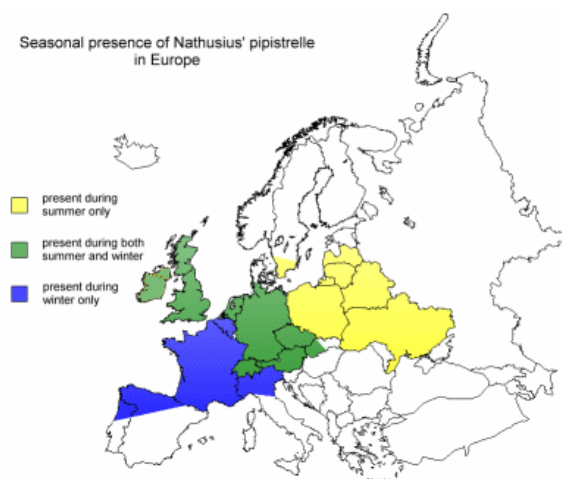
For further training details contact George Lee on geodbg@gmail.com

The Nathusius' Pipistrelle *Pipistrellus nathusii*

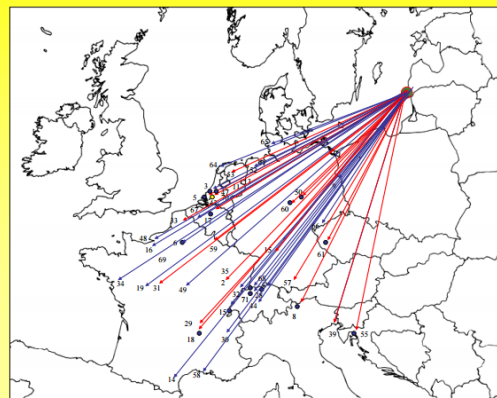
A long distance migrant



In Europe the Nathusius' pipistrelle is known to display long distance migratory behaviour in Autumn, travelling long distances from eastern Europe to central western Europe, with some bats reaching northern Spain and Italy. These bats return to eastern Europe to breed in Spring. This behaviour was revealed by ringing studies, which also suggested that in Germany and France there are resident populations augmented in winter by bats returning from their summer breeding sites in eastern Europe. There may therefore be a transitional area in Europe where resident populations mix with migrating populations. After their first migration males usually stay in mating roosts along migration routes or in hibernation areas. Female bats usually return to the breeding areas.



Flights of *Pipistrellus nathusii* males (blue lines) and females (red lines) captured and banded in Pape

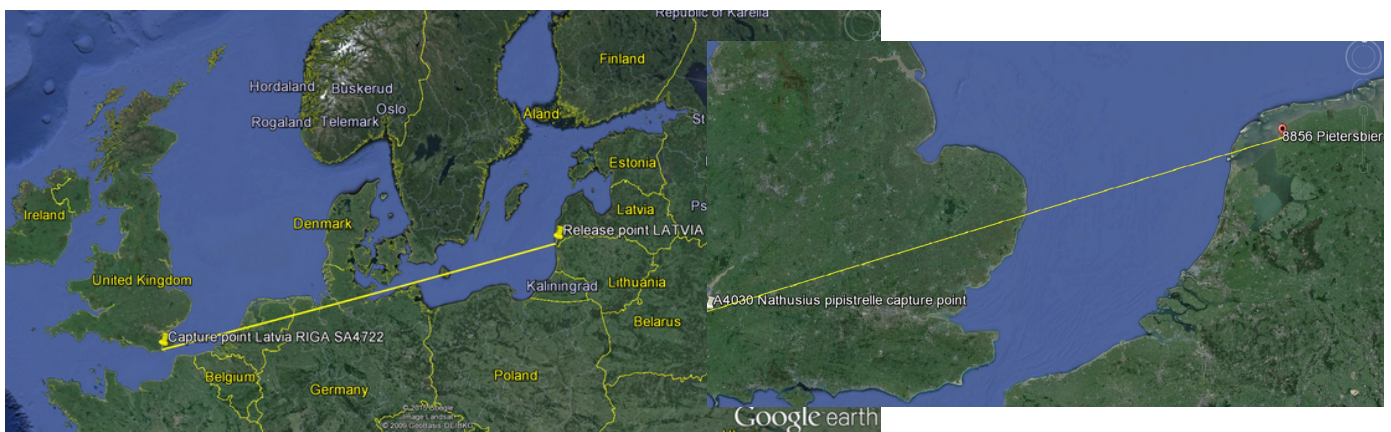


More recently, it has been suspected that *Nathusius' pipistrelles* may continue their Autumn south-west migration in the UK and Ireland where winters are relatively mild and it was in Ireland that the first maternity roosts were identified. This suggests that some bats may relinquish migratory behaviour in favour of a more sedentary lifestyle and that male bats may be the first to do so. The UK and Ireland may therefore lie in a transition zone where resident bats may be supplemented during Winter by migratory individuals returning from their north-east summer range in Europe.

In 2015 a *Nathusius' pipistrelle* ringed in Latvia on 20 August 2015 was captured at Rye Harbour, Sussex having travelled 1458 kms in 50 days (direct flight) and probably had flown further.

Example of migration from Latvia to UK

Example of migration from UK to Europe



Evidence of bats returning from the UK to Europe was obtained when a *Nathusius' pipistrelle* ringed at Blagdon Reservoir on 14 October 2012 was recovered in Friesland, Netherlands 500 metres from the coast on 23 December 2013. This bat had flown a direct journey of nearly 600 kms but is likely to have flown a further distance.

This information about the migratory behaviour of *Nathusius' pipistrelle* has become available as a result of the large scale ringing projects which have been ongoing in eastern Europe and the Netherlands for many years. At coastal bird ringing stations, researchers have been capturing and ringing *Nathusius' pipistrelles* in large numbers. Over a period of 10 years, *Nathusius' pipistrelles* by far outnumbered other bats species in the capture statistics.

Species composition 1985-1996 Migratory species shown in bold

Open-air species		Clutter species	
Nathusius' pipistrelle	13146	Daubenton's	101
Common pipistrelle	350	Brandt's	66
Noctule	591	Whiskered	13
Leisler's	9	Pond bat	7

Parti-coloured bat	96	Natterer's	5
Northern bat	83	Greater Mouse eared	1
Serotine	1	Brown Long-eared	59
		Barbastelle	9
98.2%		1.8%	

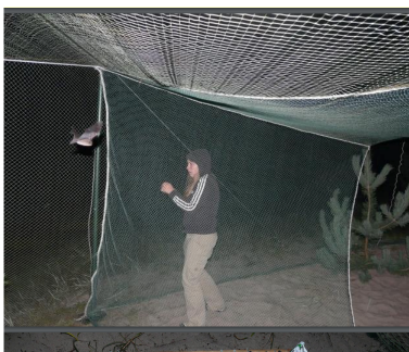
An important coastal ringing station at Pape is on the Baltic Heligoland peninsula where bats are captured in large Heligoland traps into which they fly and then settle to roost in timber panels with wire fronts. These timber panels are then moved to the processing areas where biometric measurements are taken and the bats are ringed. This method is very successful in capturing and ringing the large numbers of bats necessary to collect data about their migratory movements.



Location of Pape ringing station (marked with red dot)



Heligoland



Bat flying within Heligoland trap



Capture panel with sleeve for removal of bats

The Dorset Bat Group will be participating in the The Bat Conservation Trust Nathusius' pipistrelle project and further information can be found on http://www.bats.org.uk/pages/nathusius_pipistrelle.html. Further information about Nathusius' pipistrelles can be found on <http://www.nathusius.org.uk/>.

Jan Freeborn

Bat Foraging Around Eyeworth Pond



Abstract

This investigation explored the hypothesis that there would be no difference in the level of bat foraging over the pond, woodland and heathland habitats around Eyeworth Pond, in the New Forest, Hampshire. The number of bat passes actually recorded were: Pond 8508, Wood 1895, Heath 1447. Four species of bats were regularly heard and three other species were occasionally heard. $P=0.015$ (Kruskal-Wallis) and the null hypothesis was, therefore, rejected and the conclusion was that there was a very significant difference between the average number of bat passes over the different habitats.

1. Introduction

In the UK, bat populations have declined considerably in the past century due to changes in agriculture and loss of habitat that have affected the availability of bat roosting sites and the amount of insect food available.

2. Literature Review

Other studies have compared bat activity over different habitats but none have studied the same bats using different adjacent habitats over an evening and over a year as the Author has done.

1. Frazer (2006) compared riparian, heathland and coniferous woodland in NE Hampshire. 5 bat species were recorded. *Myotis* and *Pipistrelles* preferred riparian habitat. All three habitats used by some bats.
2. Luxmoore (2009) compared 4 habitats: deciduous wood, wetland, semi-improved grassland and unimproved grassland. Foraging was higher in the wetland. Bat species diversity was highest in wood and wetland. Only Common *Pipistrelles* foraged over grassland.
3. Downs and Racey (2006) found more bat activity over ponds with little surrounding vegetation.
4. Russ and Montgomery (2002) found bats preferred water bodies with bankside vegetation.

3. Methodology

Three Wildlife Acoustics, first generation, Echo Meter Touch (EMT) Bat Detectors were attached to three iPads. The EMT was used as a static detector to record the echolocation calls of the bats as they flew past.

4. Results

Chart 1: Summary for Common Pipistrelle

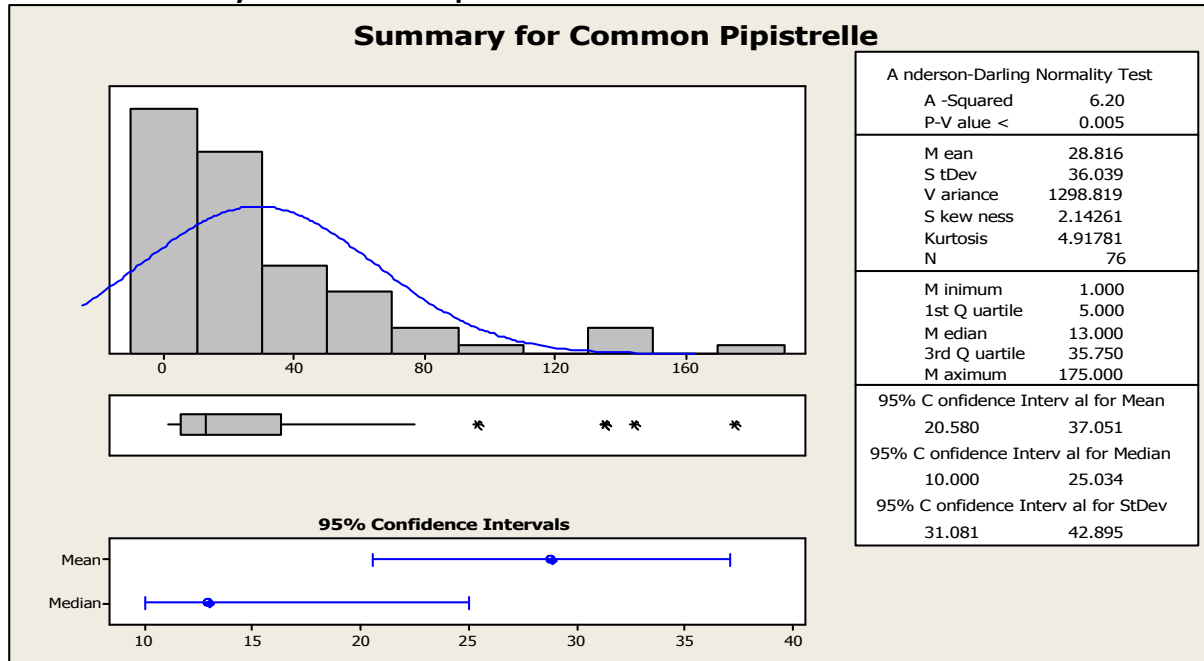
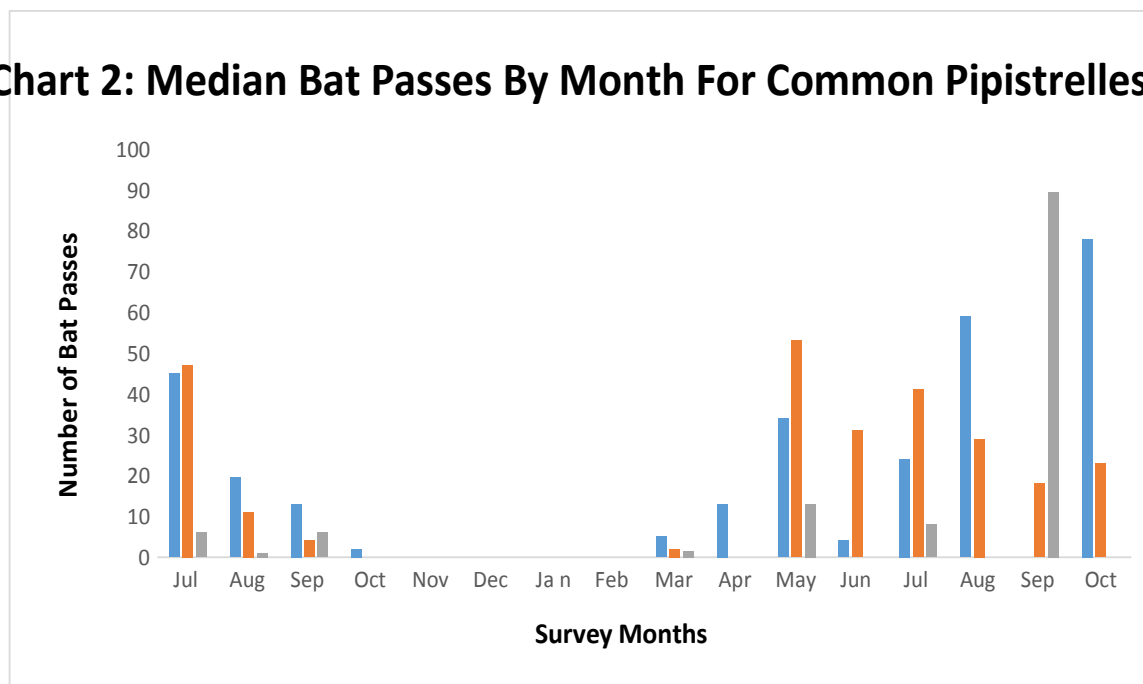


Chart 2: Median Bat Passes By Month For Common Pipistrelles



Spearman's Rank was used to test the correlations between the temperature and the insects over the wood. A coefficient of 1.68 indicated a very strong correlation (Fowler & Cohen, 1995, p.132).

5. Application to industry

The results could be used as a baseline of bat foraging to assess the impact of future habitat management.

6. Conclusion

*Most bat foraging took place over the pond because of the abundance of aquatic invertebrate prey.

*The effect of atmospheric conditions was difficult to assess because there were many variables such as insect abundance, wind speed and temperature (Chart 3).

*The results for the project are valid but the sample is too small to have an impact in the wider world because it is not possible to generalise the results.

*Generally, more bat passes were recorded at the pond than the heath and the wood but all of the habitats are important for bats.

*Noctules appear to forage over the pond when the Mayflies emerge.

7. Further research

*The Tawny Owls may be affecting bat foraging because they do predate bats, so further research is warranted in this area.

*For future studies it is recommended that a more representative sample of the night-time foraging activity of bats is considered and not just two hours from sunset. More activity from Long-eared bats might have been recorded as their main prey, moths, peak at midnight.

*To test whether the wind on the water surface has an effect on bat foraging the number of feeding buzzes could be counted on days with no wind and days with stronger wind.

*It might be possible to ascertain which are the most cold-hardy bats by plotting bat appearance with increasing temperature.

References

Downs, N. C. and Racey, P. A. (2006). Use of bats of habitat features in mixed farmland in Scotland. *Acta Chiropterologica* (Impact Factor: 1.13). 03/2006; 8(Apr 2006):169-185. DOI: 103161/1733-5329(2006)8[169:TUBBOH]2.0.CO;2

Frazer, L.E. (2006). The bats of Whyndams Pond: Activity, environmental preferences and implications for conservation *Earth & Environment*, 2: 1-28.

Luxmoore, K. J. (2009). Foraging activity of bats in four different habitats within Paignton Zoo Environmental Park. Retrieved from <http://www.wwct.org.uk/userfiles/pagefiles/conservation-research/south-west-uk/clennon/Research%20report%202010%20-%20%20foraging%20of%20bats%20Clennon.pdf>

Russ, J. M. & Montgomery, W.I. (2002). Habitat associations of bats in Northern Ireland: implications for conservation. *Biological Conservation*, 108, 49-58.

Cathy Dyason

Bats at Wessex Water

Utility companies have lots of small buildings scattered across the region. At Wessex Water, a team of ecologists is investigating many of the company's buildings and structures for the presence of bats. Currently all structures that have had surveys or an historic bat record are being re-surveyed to make sure that there is an up-to-date record of all of our known bat roosts. Using this up-to-date information, the aim is to prioritise the roosts for conservation monitoring in future.

The team has found at least 20 active bat roosts in the first year of this project, with several of these roosts being used by more than one species or functioning as more than one different type of roost. These roosts have been found in structures ranging from wildlife hides, small pumping station huts, water treatment works, water towers and sewage treatment works to reservoir dam walls and extensive tunnel systems.

Examples of WW structures found to have bat roosts



Species found include; lesser horseshoe, common pipistrelle, brown long-eared, Nathusius' pipistrelle, serotine, soprano pipistrelle and Daubenton's. All of these species have been confirmed by DNA analysis on droppings found at the roosts.

There are several more buildings and other structures to investigate this year, and following this exercise building investigations will be supplemented by emergence and re-entry surveys, where necessary to build a complete picture of the roosts.

This work is part of Wessex Water's Conservation, Access and Recreation (CAR) project. The CAR project implements conservation, access and recreation initiatives across the region. You can download the latest CAR report here: <http://www.wessexwater.co.uk/car/>

Sarah Williams

Nathusius Training Day,

Upshire Village Hall

A big **Thank You** to Essex Bat Group for organising the day with Daniel Hargreaves and Katherine Boughey.

The aim of the day was to listen to the other Bat Groups that had already taken part in The National Nathusius' Project and then to go out with the experts to try to catch some bats. Jan will talk about this in her article. Dorset and Cornwall Bat Groups were welcomed to the project.

Northumberland Bat Group found a grounded Nathusius in January 2007 which was overwintering. In 2011 they carried out a river transect as some had been heard there. They tried unsuccessfully to find out where they were coming from. They were recorded in every month from April to October, and therefore, they assumed they must have a resident population. They were mainly on the coastal plain where there are a lot of water bodies. Some birders saw a Nathusius coming off the North Sea in September, so presumed it was a migrant. It crash landed and was rehabilitated and released.

In 2013 they tried trapping but did not catch any Nathusius but they heard them. They tried a detector survey on a ferry crossing the migration route every night but that did not work for Nathusius but it did tell them that there were Greater Horseshoe's out there.

In 2014 they trapped 10 Nathusius bats: 3 adult males, 4 juvenile male and 3 juvenile females.

In 2015 they caught 20 Nathusius: 11 adult females, 2 were pregnant and 9 lactating, 7 adult males, 2 juvenile males, 3 recaptures of bats ringed locally. They found two mating roosts. They tracked two post lactating females so they would take them to the maternity roost but they took them to the mating roosts. They think they move on quickly through their cycles before possibly migrating. However, no further information was found about migration.

In 2016, 22 Nathusius were trapped: 7 adult females, two of which were pregnant, 12 adult males, 2 juvenile males, a juvenile female. They found two maternity roosts by radio tracking the pregnant females. They still did not know anything new about migration.

The maternity roosts were either just Nathusius or with Soprano Pipistrelles.

They consisted of:

A single storey barn conversion with an east-west alignment. The entrance was behind a timber fascia board, facing south;

A single storey building on the coast with a north-south alignment. The roost was under a flat roof on the east side of the building. It was less than 100m from the high tide mark;

A single storey modern brick bungalow with an entrance behind UPVC boards at the gable end of the building, between the roofing felt and the tiles.

They found that tagged bats often go to a panic roost and are not found for a few days.

Unrelated to this, in one roost the bats disappeared on 10th June and came back 8th July. They do not know where they went.

Nathusius do not always echolocate under 40 kHz. They have recordings of males echolocating at 41 or 42 kHz, then doing a male advertisement call and going back to 41/42. If it had not been for the advertisement call it would have been classed as a Common Pipistrelle. Also, they do not

always echolocate when they emerge from a roost. In a mixed roost they emerge later than the other species. When they emerge they do not hang around like other pips. They fly straight off. Recorders may miss them in a mixed roost. E.g. they might count the sopranos and then stop counting. Some mating roosts start off with one male at dusk and by dawn it is a different male.

Nottinghamshire Bat Group found Nathusius in fresh water lakes next to rivers.

Kent Bat Group found their first Nathusius in 1993. Their first detector record was in 2001. In 2000 and 2004 bats were found hibernating. Kent is nearly all coastline and estuary. Grounded bats are all found on the coast but detector records are all over the county. They wondered if any of the detector records were Kuhl's Pipistrelle as they are difficult to tell apart on the detector. There is a maternity roost in Lydd and a lekking roost in bat boxes nearby.

Sheila Dyason

Bobby the Brown Long-eared Bat made some new friends at school!

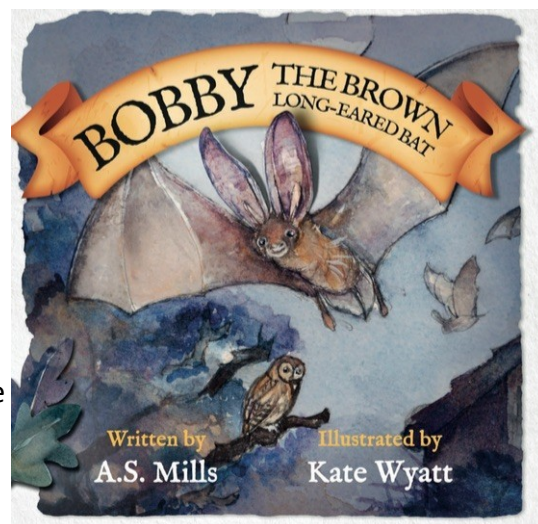
For World Book Day, in March this year, bat group member Angela Mills attended Upton Junior School to read her recently released children's book, 'Bobby the Brown Long-eared Bat' to get children excited about bats, conservation or perhaps even writing.

Bobby went down a treat; the children were engaged and had done their homework, as they knew quite a few of the answers to the batty questions I put to them. Thank you to school for the bat themed classes and to BCT for providing the Young Bat Worker Magazines in advance.

School then invited EDBRR to visit, and the children were so enthralled to see some live Brown Long-eared Bats, School promptly adopted one! Thank you to all the children and staff at Upton Junior School for supporting bats!

www.bobbythebrownlong-earedbat.co.uk

Angela Mills



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