

# Autumn 2019 Dorset Bat Group Newsletter



## Chatter from the Chair

Welcome to the Autumn edition of the Dorset Bat Group Newsletter 2019.

Amongst the many interesting articles is one written by Ian Baker on filming Greater Horseshoe Bats at Bryanston.

The bats may be thinking about hibernation but the DBG Committee is busy planning activities for next year. Jan Freeborn has rejoined the Committee as the Bats in Churches Project Officer. We are hoping she is going to tell us all her plans at the AGM in April.

Nick Tomlinson is organising a second **Dorset Bat Conference** for April or May next year. If you would like to be involved please let Nick know:

[nick@elephantsears.org](mailto:nick@elephantsears.org)

Nick and Steve Masters are planning more radio tracking next year.

Our **Christmas Social** will be on Wednesday 4<sup>th</sup> December, 7:30 at Brooklands Farm, Forston, Dorchester, DT2 7AA. Adrian Bicker will be telling us about his Nathusius Project. There will also be mulled wine, mincepies, sausage rolls, cheese and onion rolls, etc. and a **Raffle! All raffle prizes will be gratefully received.**

Thank you for your continued support.

Hope to see you in December

Sheila Dyason

DBG Chair

# Volunteer Bat Roost Visitor (VBRV) Training

We've been having a great turn out for our recent training sessions, with between twenty and thirty enthusiastic trainees braving some horrible driving conditions. In the two sessions so far John has been an entertaining wealth of knowledge and Pete has been on standby with an endoscope!

Our next sessions are on bat id with Colin, and the roost visit process with Jan.

Hopefully we will get plenty of visit opportunities from our current roost visitors to enable our trainees to get the experience they need for a license.

**For further training details contact George Lee on [geodbg@gmail.com](mailto:geodbg@gmail.com)**

## More EU Migrants Reach Dorset Coast

This autumn, I have been running 14 AudioMoths and a SM4BAT FS at key locations along the Dorset coast, trying to add to our knowledge of the Nathusius Pipistrelle migration.

While checking files, I came across two with very low Pipistrelle-type calls. One with indistinct, almost flat calls at 31kHz, the other with hockey stick calls peaking at 33 kHz. Too low for Kuhl's and Nathusius Pipistrelle.

Could it be Savi's Pipistrelle? This is a Mediterranean bat. But the Dietz and Kieffer book says that it is expanding its range, especially in Austria and the Czech Republic, with individuals migrating up into northern Germany.

Experts in the UK and France agree that the calls in these files are not of a UK bat species and are a good match for Savi's, but caution that they may be atypical calls made by another species. I am pretty confident!

Going through these files and the spring migration files again, I find more that I believe are Savi's Pipistrelle, from two locations on Chesil Beach.

On the 15<sup>th</sup> September, both sites had a single Savi's file recorded – just ten minutes apart. It could have been the same bat, following Chesil Beach west at an average speed of 18kph!

I think we also had a Kuhl's Pipistrelle flying high over the Portland Bird Observatory on the 3<sup>rd</sup> of May. The SM4BAT FS was at the top of the old lighthouse. There are strong echoes that follow 27ms after the calls. The echoes, bouncing off the flat roof below, travelled 9m further than the calls so the bat was probably as high as the light!

These calls peak at 37kHz with a strong FM "chirp". We have had similar Nathusius Pipistrelle passes there with the peak frequencies over 40kHz (as high as 42kHz). So these potential Kuhl's calls are what I expect from Nathusius Pipistrelle, but shifted down 5kHz. They may look like clutter calls, but here, I think it is more about flying high and fast into unfamiliar territory.

There is so much overlap between the frequency range of Nathusius and Kuhl's Pipistrelles that it

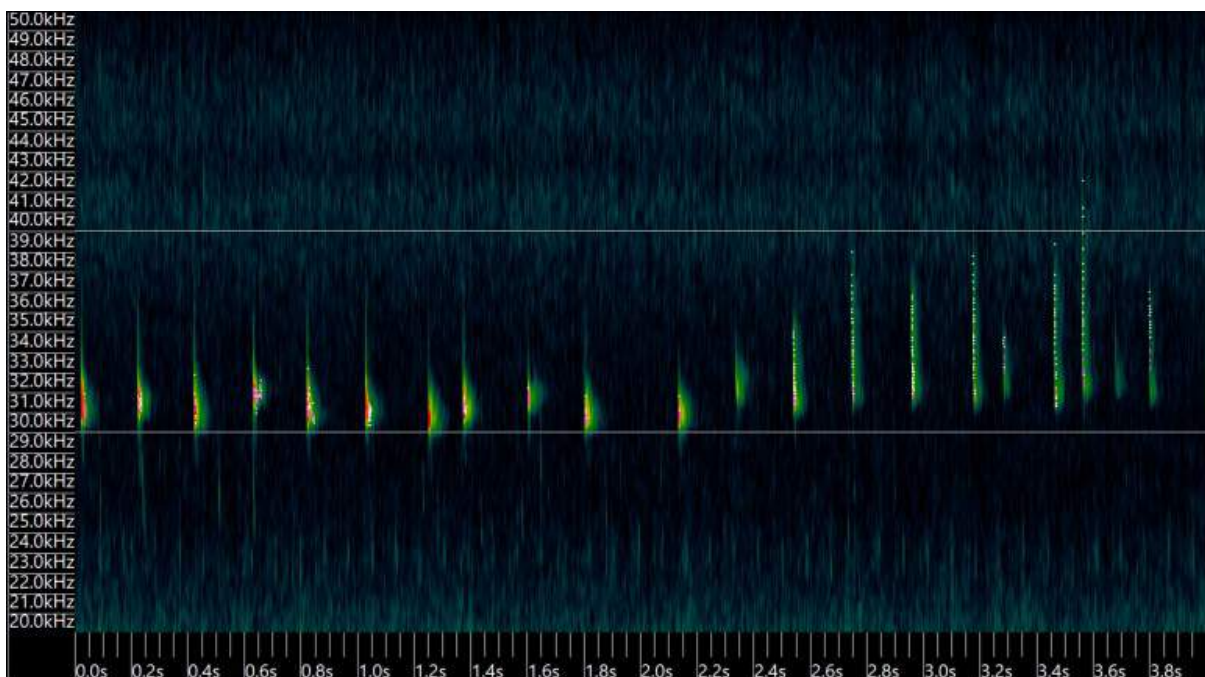
can be hard to separate the two species. But I think that we can be more confident of Kuhl's with very low calls that have lots of FM.

In Michel Barataud's book on the Acoustic Ecology of European Bats, he suggests that these strong FM calls from Nathusius Pipistrelle range from 39-42kHz and similar calls for Kuhl's from 37-40kHz.

Having 1,900 Kuhl's files from the Brittany coast (from the spring migration survey) many with the distinctive low, slow chow-chow social calls gives me confidence as does finding very similar calls at Fort Victoria and Norton on the Isle of Wight this spring.

I think we will be finding both Kuhl's and Savi's Pipistrelles in Dorset from here on. On the continent, Kuhl's have dramatically extended their original Mediterranean range over the last forty years and are now the second most common Pipistrelle species in Brittany.

Example Savi's Pipistrelle file, with grid lines at 30kHz and 40kHz.



Breaking news - more probable Kuhl's Pipistrelle files on 9<sup>th</sup> October at Stanpit Marsh and at Chesil Beach on 13<sup>th</sup> and 16<sup>th</sup> October.

Adrian Bicker



**East Dorset Bat Rescue needs you.....**

**Can you spare an hour or two a week?**

**Do you want to help bats?**

**Are you over 18?**

**We are looking for dedicated volunteers to join our rescue and rehabilitation headquarters.**

**We have several opportunities to get involved from collecting injured bats, help with rehabilitation, attending public events / talks to simple admin tasks and record keeping.**

**If you would like more information then please give us a call. 07746 743221**

## Greater Horseshoe bats at Bryanston

This is an account of our filming session in July-August 2019 of the Bryanston GHB roost.



Bryanston is an independent boarding school that owns 400 acres to the South of the River Stour near Blandford Forum. In the late 1700s a large country mansion was built overlooking the river valley on a wooded ridge. It was demolished in 1890, because of damp, except for one wing formerly used as a kitchen. Greater Horseshoe bats were discovered there 70 years ago and since then 'The Kitchens' have been developed as a year-round roost by digging out deep caves into the hillside. The site is currently managed by the Vincent Wildlife Trust. Summer bat counts exceed 400 which is testament to the success of the habitat improvement. A BBC 4 documentary "Inside the Bat Cave" will feature the roost and we were commissioned to do the night time filming using our thermal cameras. The roost is behind the thick foliage and protected by a high fence.



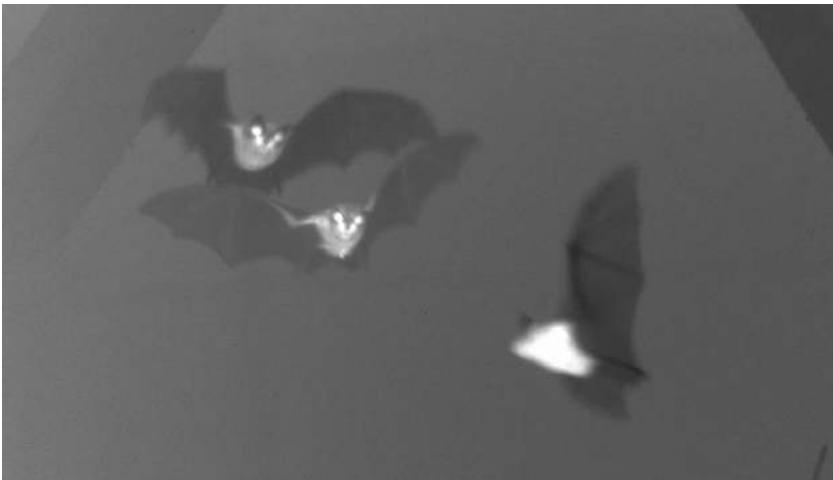
The roost itself has many chambers but the main feature is a large room that the bats use for light testing and socialising. The bats exit in the gap between the wall and roof at this corner. On 16<sup>th</sup> July the emergence count was 389 but on 7<sup>th</sup> August it was 518 supplemented by pups.

The theme of the BBC documentary was to track the life of a pup from birth to independence and low light level cameras had been installed to monitor the roost throughout the summer. Hopefully the documentary will be broadcast on Halloween.

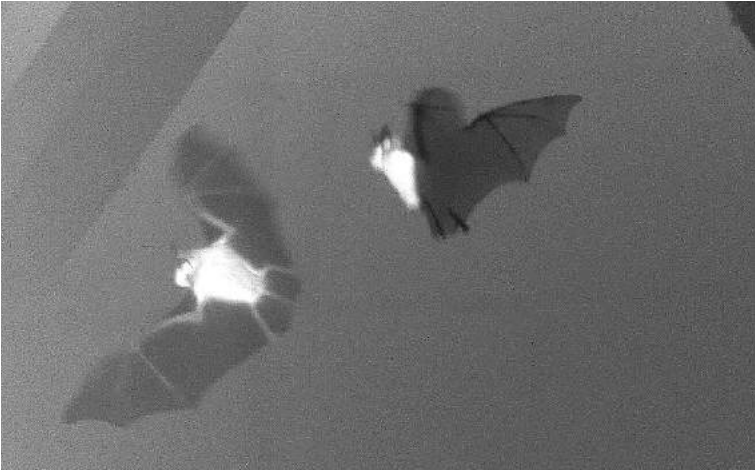
Our task was to film the pups when they became mobile. There were three filming opportunities, inside the Kitchen, along the wall on the outside and in the surrounding countryside. We were given permission to film inside on three nights and used the Merlin camera at three different zooms.



Around sunset bats begin to fill 'The Kitchen' and swarm. It was a memorable experience being in a chamber with more than 50 bats. You could see on the camera display the bats swarming but it was completely silent. Even the bat detector was quiet. Later the playback showed a bat hovered within feet but we were unaware. The swarming is frantic and you get the impression of excitement before a night out. Small groups fly in formation then break away and join another group. There are occasional collisions but bats skilfully dodge around each other. Slow motion shows their heads moving continuously – they can snap their heads in  $1/50^{\text{th}}$  second. These are fairly big bats up to 30 grams and 400mm wing span but they are very agile. This is a typical image with two stalling bats as a bigger one swoops by. You can see the characteristic sharp ears. GHSs have a V shape heat pattern on the face.



This image shows how the wing heat pattern varies. The left-hand bat has just started flying and still has warm wings. After flying for some while the wings of adults become cold as in the right-hand bat but pups retain the heat in the wing muscles presumably because they are still developing. This is a useful way to separate pups from adults.



Our instruction was to look for Mum-pup interactions but the pups tended to keep together. The very small ones kept high and out of the way and explored their new-found wings.

Adults started to emerge about 10 minutes after sunset and headed down into the darkness of the woods at speeds up to an astonishing 6 metres a second. This is presumably a defence against bird predators as they slowed down when it got dark. Most bats had left in the next 30 minutes. Pups were last and often emerged in pairs with an adult. The adults dispersed into the woods but pups tended to stay around and often revisited the roost entrance as in the photo below, maybe they prioritise learning the local landmarks to navigate home.



Later, after the emergence had petered out, some pairs of bats flew in tandem, pulling sharp turns around the trees. Close ups showed an adult and a pup and what appeared to be a flight training session. After the bats dispersed into the trees they were rarely seen again. Although the Horizon camera can see a GHS from a km our surveys showed no sign of them. 500 bats had just disappeared. We were able to see pairs flying away but not able to see them feed.

A summary video of our Bryanston experience can be seen here:

<https://vimeo.com/357186144>

**Password: Bryanston**

Ian Baker

# Greywell Swarming Survey

Dr Paul Hope led a research team to assess the bat swarming activity at the east portal of the Greywell disused canal tunnel on 25<sup>th</sup> September, with spectacular results.

This was a feat of organisation and teamwork! It is necessary to have a boat in the water near the canal entrance, but this year the water level was low and aquatic vegetation particularly dense, so the boat crew had a challenge to reach the area.

Paul reports that:

“We caught and processed **262 Natterer’s bats, 2 Whiskered bats, 2 Daubenton’s and 2 Bechstein’s bats**. We had to release **117 Natterer’s** from the trap unprocessed due to the sheer number of bats caught.

Daubenton’s numbers were very low this year, which is worth mentioning and could possibly represent a decline. However we know that Daubenton’s swarming usually peaks in August (from past studies at Greywell and other swarming sites). So the low numbers of Daubenton’s this year may be, at least in part, due to the fact that the survey was conducted 10 days later than usual. We will need to keep an eye on future numbers.

To catch two Bechstein’s and two Whiskered bats this year was very nice.”

Hampshire Bat Group

## Swarming Surveys

In September this year we undertook our second large scale swarming survey, covering seven sites on the Friday and six on the Saturday. Friday was an amazing night, with 285 bats. For some reason (wind, cold or moon, perhaps?) Saturday was not so busy ('only' 68 bats), but still a great night, with ten species of bats being caught across both nights. Species caught were common pip, brown long-eared, grey long-eared, barbastelle, greater horseshoe, Bechstein’s, Natterer's, whiskered, Daubenton's and serotine).

As well as ringing many of these, we also got nearly 30 retraps, recoveries and controls. A Retrap is one of our animals caught at the same site it was ringed while a Recovery is one of our animals caught at a different site to which it was ringed and a Control is someone else’s animal caught at one of our sites.

These captures give us lots of information about individual site use (most are at the same site we ringed them, but some change sites), how far the bats travel (maximum is 20km at the moment, but that probably reflects where bat box schemes are, rather than a true reflection of how far bats travel to visit the Purbecks) and how often they visit the site, and when (some bats have been caught across the season, some are usually within the same few days each year). This all really helps us better understand their use of the site and even the interchange between sites, but we still have a huge way to go.



Overall there were around 40 people involved which, across the two nights, equates to around 650 survey hours! If this was costed at Heritage Lottery Fund rates it would equate to between £15,000 and £20,000, a remarkable achievement!

Our data over the last eight years hints that there may be some difference in the sort of sites some species use and, in order to try and understand more our mass swarming weekend will be in August next year, so watch out for the emails announcing the dates – you don't need any experience to take part, you just need to be happy to stay up until the wee hours!

## Bat Boxes

Each year we undertake bat box checks across six sites, over two days, checking around 120 boxes, and we do this each month, at a weekend, between March and September. On a bad day we might see just a handful of bats, but on a good day we might find well over 100 and, as we are ringing many of them as part of a long term study, we can get to handle 70 or 80 bats. Sometimes its just one or two species, other times we might see five, including Bechstein's, so it's a great way to gain experience, or just have a great time.

Next year's dates are not set. Normally they will be a Saturday (based around Dorchester and one site in North Dorset) and a Sunday (based around Dorchester). This year is the same, apart from the June checks which will be a Friday and a Saturday. The dates are 28<sup>th</sup>/29<sup>th</sup> March, 25<sup>th</sup>/16<sup>th</sup> April, 23<sup>rd</sup>/24<sup>th</sup> May, 19<sup>th</sup>/20<sup>th</sup> June, 18<sup>th</sup>/19<sup>th</sup> July, 22<sup>nd</sup>/23<sup>rd</sup> August and 19<sup>th</sup>/20<sup>th</sup> September.

Places are limited, and its first come first served, but with a caveat that we try and make sure everyone has a chance to come on at least one visit so, if you fancy coming along, let me know ([nick@elephantsears.org](mailto:nick@elephantsears.org)) but don't leave it too long – the dates fill up fast!

## Dorset Bat Conference

Last year we ran our first Dorset Bat Conference, at the Brownsword Hall in Dorchester, and it was a great success, with around 80 people coming along for the day and some really interesting talks. The event was so well received that we are doing it again next year! We are going to use the same venue, and the date is Saturday 9<sup>th</sup> May 2020. There may be a small charge (£5-£10) to cover costs and simple catering, but we'll know more in the new year. There will be some fantastic talks on a range of subjects, so pop the date in your diary and look out for more info through the regular updates.

# Facebook

Did you know the group has a facebook page! Well it does, and has had for a while. One of the reasons for setting it up was that it is a great way to communicate, but we need people to use it. We're still getting it off the ground, and will try and get our events on there, as well as posting write ups of surveys and activities BUT its your page as well. If you've done something, seen something or have a question (about bats!) then please make use of the page. The more it is used the more it will get used and it's a great way to share info and piccies, so get posting!

Nick T

## Bats and mobile phones

Bats and the internet was my original title for this article but I found the amount of information daunting as there is a huge amount of data available out there, so hence the new title.

Here are a few favourites that I have found whilst searching. Most of them are free or available for a small fee without adds.

### **BatLib**

This app is only available on Android but it is a very good app. It contains images and sound and a chance to record from USB microphones.

The BatLib App plays the different ultrasonic calls of the most common european bat species transformed into the audible space with the heterodyne mixer method.

This is especially useful to compare with the live output produced with the BATSCANNER device for species identification. There is a brief description of each part with the sound file for each and it is made by the company Elecon who also have programs for PC and also make bat detectors.

### **Bat Recorder**

This is a dedicated bat sound recording app that uses the output from your detector to show spectrograms recorded in real time and so help identify which bat species you are detecting.

This app works in conjunction with a separately purchased USB ultrasonic microphone to record and analyse ultrasonic bat echolocation calls (and thus can be used as a bat detector).

### **Echo Meter Touch**

Another good one will be known to owners of the Echo Meter Touch.

It is available on both platforms and is by wildlife acoustics and works with the Echo Meter Touch gadget, which is a device which turns your phone into a bat detector.

I hope to do an in depth view of the best apps I can find and I will try to show how to navigate around the programs as some are not intuitive. I will sort out some for computers as well although most of them are available as a time limited trial.

Colin Banfield

# Beginners Bats Session

Jan Freeborn is hoping to put on a beginners bats session sometime in the new year in east Dorset looking at British bat species and bats in buildings. If you are interested in attending then email Jan (janfreeborn@hotmail.co.uk) so she can determine if it will be viable.

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