

Newsletter Winter 2014/2015

Monitoring and Enhancing Hibernation Sites



Grays Deneholes SSSI, Jan 2015
[Photo: P Cunningham]

Essex has just a few known hibernation sites and the most important of these (those holding the greatest numbers of bats) are monitored every winter. The old chalk mines at Grays

Deneholes are designated as a Site of Special Scientific Interest on account of their over-wintering bats, which have to negotiate a twenty metre deep vertical shaft to get in and out, as do the surveyors! There are several tunnels in disused chalk quarries, also at Grays, which are used by smaller numbers of bats, and seventeen converted air raid shelters at



Long-eared bat in converted pill box, Lee Valley Jan 2015
[Photo: A Palmer]

Coggeshall which boast barbastelle in addition to the Natterer's bats, Daubenton's bats and brown long-eared bats which make use of all of these sites. One of the Grays tunnels is notable for its use by pipistrelles, which are rarely found in such places. Smaller sites include a few cellars and church crypts and a small number of converted second world war pill boxes in the valleys of the rivers Stour, Colne and Lee.

Houses, churches, other buildings and trees probably house the vast majority of hibernating bats in Essex, but there must also be a large number of as yet undiscovered hibernation sites, such as ice houses and cellars, which could be improved for use by bats. Some of our known sites could also be enhanced further and several have security issues which need addressing, such as vandalism of protective grilles. As for sites which could be converted for use by bats, we have a huge number of pill boxes in our county, including some where we already have land owner permission to install doors, block up firing slots and install roost features.



Grays Chalk Quarry tunnel
[Photo: P Hatch]

Therefore, Essex Bat Group is launching a new project aiming to locate, conserve and enhance bat hibernation sites and ensure they are regularly monitored and well managed. As well as helping to conserve bats, it is hoped that this will enable more people to take part in surveys.



Converted pill box with added roosting features
[Photo: A Palmer]

Woodland Bats

Graham Hart with a summary of a recent national symposium on bats and woodland

Five EBG members attended the Bat Conservation Trust's Woodland Bat Symposium in November at Warwickshire College in Rugby. One of us had received it as a birthday present! That's a delightful batty gift indeed. Most of us drove up the night before and had an interesting evening

seeking out a restaurant that was open on a Monday night in Rugby. The following morning we made our way to the modern conference facilities at the college and the day began...

The agenda was a packed one with many interesting talks. EBG's very own Helen Miller (and BCT's Woodland Officer) kicked off proceedings with a bats and woodland overview. A very hard act to follow indeed! If anyone was up to the task, it was Oliver Rackham and he delivered one of his trademark talks on the history of British woodlands in his own inimitable style.

This was followed by a number of short talks on some fascinating topics. Being active in woodland surveys through the Weald Project, I was particularly keen on most of the talks, especially the one by Matt Zeale on the barbastelle, a key species at Weald, and also to hear about John Altringham's work on a standardised method for surveying and monitoring of woodland bats. This will certainly interest anyone keen on surveying woodlands for EBG.

Colin Morris gave a fascinating talk on 16 years spent ringing Bechstein's bats. Over that time, 660 bats have been ringed and Colin informed us that more than 70% of the females return to their bat boxes to breed and that males are rarely seen again. Where do they go? Daniel Whitby gave a talk on advanced survey techniques for woodland bats, of particular interest to those EBG members beginning to trap using acoustic lures as part of our licensed surveys.

I really enjoyed Henry Andrews' talk on reliable tree roost indicators. For the last six years Henry has been mapping and inspecting trees for bats, recording over 136 bat roosts of barbastelle, Bechstein's, Daubenton's, Natterer's, whiskered, noctule, common and soprano pipistrelles and brown long-eared bat. There was much to interest those EBG members there as some have been working in this area over the last few years and we have much to learn from Henry. During lunch we invited him to Essex to see some of our woods and share his experience with us. We hope to follow this up in 2015. Henry also had some lively and entertaining discussions with Oliver Rackham during a number of Q&A's throughout the day.

After a wonderfully tasty buffet lunch, over which we networked with fellow bat workers new and familiar, there were some further talks from The Woodland Trust and The Forestry Commission. Keith Kirby gave an insightful talk on the ecological effects of woodland management, which provided some food for thought for those of us contributing to the management of woodland sites for bats in Essex.



Hatfield Forest, favoured haunt of Oliver Rackham and home to ten bat species

At the end of the day there was a chance for everyone to discuss and debate a selection of topics raised by attendees. Interestingly, my own subject was given a lot of attention - the effect on bats of proposed ancient woodland restoration as a mitigation strategy in development. Controversial...

I found the symposium a fabulously motivating event. I will take a lot of what I learned into my work with the Weald Project in future years. As a day of talks concentrating in one area, it worked very well because there is so much to debate, discuss and find out about bats and woodlands. It was also a day to meet up with new bat workers and make new friends. For an abstract on the talks please email me at thehart@btinternet.com.

Publicity Officer

New Committee member **Ella Barnett** gets busy spreading the word

As the new EBG Publicity Officer my first task was setting up social media accounts. Social media is a powerful resource in reaching out to a wide and varied audience and we are hoping to use this to raise

awareness, not only of the Group but of bats in general. We don't mind if we're not just reaching the people of Essex; if we're spreading a positive word about bats then that's got to be a good thing whether it's to someone in Southend or South Africa!

In October 2014 the Facebook and Twitter accounts for the Group were set up and since then we have over 500 likes on Facebook and over 100 followers on Twitter. However, these are not the only people that see our posts; people can like, share, re-tweet and 'favourite' our posts, sharing them with their own networks. Our most popular posts have been seen by over 15,000 people! If you haven't yet done so please 'like' us on Facebook (www.facebook.co.uk/essexbatgroup) or follow us on [Twitter@EssexBatGroup](https://twitter.com/EssexBatGroup). We also have a closed Facebook group especially for EBG members to share information. If you would like to be a part of this group then search for Essex Bat Group on Facebook and request to join.

I have also been looking into holding displays at libraries throughout the county. Libraries are great places to reach local people who maybe don't have access to social media. To start with we are touring libraries in Thurrock, south Essex, during the Easter school holidays. These will include displays giving information on bats, of the bat care team and of the different projects of the Group. We will also be giving talks to audiences which will hopefully end with the chance to meet live bats. If this tour goes well we could be heading to a library near you!

We are also aiming to hold stalls at more of the larger country shows, such as the Orsett Show, Essex Country Show and Essex Young Farmers' Show which have tens of thousands of visitors over various weekends of the year.

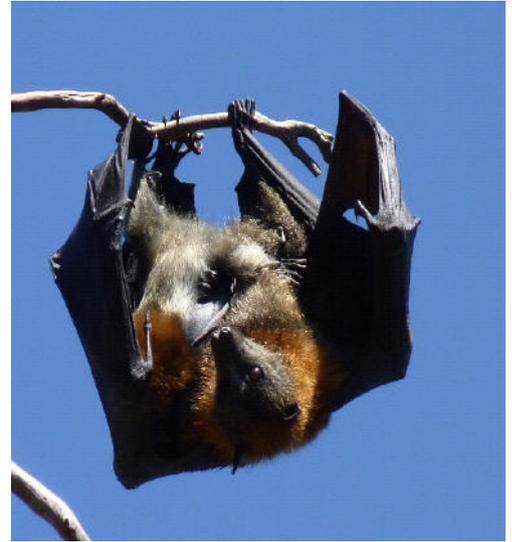
The next step is contacting local radio stations and newspapers to advertise upcoming events and the work of the Group. If you have any other ideas of how we can further publicise the Group or events that we hold then please contact me on ebgpublicity@gmail.com.



Batting Down Under

Colin Edwards on his recent Antipodean adventures

2014 was a year of turmoil for me though it did end on a high with a new job with an Australian company based in Melbourne. As part of the induction to the company I was invited down to get to know the company better, with the invitation extending for more than three weeks, so with three weekends to myself, I could not ignore the opportunity to take my batting kit with me.



The first opportunity I had to get connected to the web I started to look at whether there were any 'bat based' activities taking place during the time I was there, and to my surprise I found an advert from a guy working at Melbourne University who was looking for volunteers to assist in a roost count at a local public golf course. A quick call to get the meeting location confirmed and to check availability and I was checked in.

Down under in December is leading into summer and temperatures in Melbourne fluctuate from around 15 to 35 Centigrade with the weather changing rapidly. The evening of the count started at the higher end and changed by more than 10 degrees over a period of one hour ending in a thunder storm. The evening started in true Aussie fashion with a barbie and beers followed by a raffle. Being the person from furthest away I was invited to pull the winning ticket....so I promptly managed to pull my own ticket....a good finish to the pre-count activities.

As the light began to fade Rodney (the organiser) gave a quick overview as to the 13 locations across the park that we would collect counts from after which we would reassemble to look at average counts for each location to give an overall estimation to the colony size. All seemed easy, counters were handed out and we all dispersed in groups of 3 or 4 to our given locations.

On approach to the count location you could hear the noise from the bats (grey-headed flying foxes - *Pteropus poliocephalus*) getting more and more prominent. They really are a noisy bunch! The instructions were to stand at 90 degrees to the roost location and to count groups of ten bats passing over an imaginary line running at a tangent to the roost. Ten bats being 1 count on the clicker. Also to take account of ten bats flying back across the line in the direction of the roost to subtract from the count at the end of the bat exodus.



Sounds easy, and it starts easy but then the numbers increase to the awesome extreme scale making it quite a difficult task. The roost exit took between 25 and 30 minutes during which time I had a count of 798 on my clicker equating to 7,980 bats.... take off the estimated 80 bats heading back towards the roost left me estimating 7,900 bats for my location. The estimates for the 13 locations was a count nearing 30,000 bats. Bearing in mind these bats are Australia's largest, with wingspans up to 1.5 metres, the whole experience was just mind blowing.



I went back to the site during the day time to get a better view of the bats themselves and I was not disappointed. The bats occupy a large area populated with gum trees which are situated a few hundred yards either side of the Yarra river that meanders through the golf course and these trees are heavily laden with bats constantly squabbling for position.

The roost is a maternity roost and has recently been moved by Rodney and his team of volunteers from the Melbourne Botanical Gardens to this Yarra Bend Park location. No mean feat moving 30,000 bats but none the less a successful one achieved by creating noise as the bats come into roost which prevents them settling and then continuing night after night until the bats eventually get to the location required. They are now monitored to ensure they stay and do not return to the original roost site.

These are megabats, also known as fruit bats, but their food is fairly varied. For sure they can devastate an orchard of fruit but their favourite food is eucalyptus blossom. They also like nectar, pollen, flowers and are known to eat the leaves of some 201 species of tree! They are the most southerly of all the megabats. They have no tail and have a claw on the second finger, similar to the one on the thumb. Pups are born during September and October after a six month gestation. Pups are weaned by March and mum carries the pup around with her during the early weeks and may fly up to 50km from the roost each night in search of food.

Rodney also linked me up with a team of guys taking care of some bat box projects which just so happened to be taking place on the next two weekends... perfect! The following Saturday was the Organ Pipes National Park bat box check. A site supporting 43 bat boxes of which all but one have been frequented by up to five species over 21 years of being monitored. The method sees the bats collected from each of the boxes and placed into bags (each labelled with the relevant box number so the bats can later be returned to the same box). Once about 50 bats are bagged up the team splits up and one team takes the bats back to the education centre for processing whilst the other team continues the box collections. This time around there were only two species in residence, Gould's wattled bat (*Chalinolobus gouldii*) and white-striped freetail bat (*Austronomus australis*). The processing involves taking the weight, forearm measurement, recording any ring numbers and ringing any new Gould's with forearms over 40mm, checking tags in the freetails and tagging any that were untagged, checking sexual condition and in new Gould's taking a small sample from the tail membrane for DNA testing.



Gould's wattled bat

The tags used with the freetails are tiny electronic chips with a unique code which allows individuals to be identified.

As an inoculated volunteer I was invited to help out with measuring and weighing, with the ringing and tagging carried out by the team experts. Some interesting facts were gathered this time around.



White-striped freetail bat

A dead Gould's bat was recovered from beneath a bat box, one that had been tagged over 11 years previously. It had been checked in October and was then pregnant. Gould's bear twins as a norm, single births are rare and many of the Gould's processed had pups attached and the odd one or two were yet to give birth. This December's count saw the first time that freetail pups had been recorded at the site and a couple of these were assumed to be less than 24 hours in age. One had the placenta still attached and another had undeveloped wings.



Baby Gould's wattled bats

Numbers of Gould's for the December count were down on the previous three years. A total of 267 bats were processed - 104 adult females, 16 adult males, 73 juvenile females and 74 juvenile males. Numbers of freetails were up by over 50% and saw a total of 23 bats - 18 adult females, 3 adult males, 1 juvenile female and 1 juvenile male.



The day finished with the bats being returned to the boxes from which they had been taken. The boxes were blocked for around 30 minutes to allow the bats time to settle. An interesting finding from the research thus far has shown that Gould's bats forage up to about 15km from their roost and separate colonies which roost within a kilometre of each other, and which have overlapping foraging grounds, do not seem to intermix. Thus far only a single male has been recorded as moving from one colony to another and this record was found this December.



Freetail pups

A week Sunday saw a similar bat box project at a site to the east of Melbourne called Ivanhoe. A similar process was involved, but with only twenty boxes to check this time around. Again, Gould's wattled bats formed the majority of those recovered from the boxes, at thirty seven bats in all.



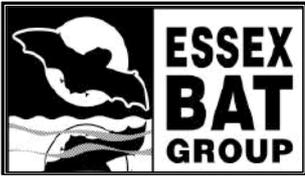
[Reading the chip in a freetail bat]



However, there were also five eastern broad-nosed bats (*Scotorepens orion*) in amongst them (three adults and two pups). A notable record as this was the first time the species has been recorded at the site.

One thing that differs from bat box checks in the UK is the abundance of other wildlife some of which co-exist with the bats. One of which was a 'big' surprise was the grey huntsman spider. Several bat boxes had huge specimens within... one of which jumped out of the bat box protecting its egg sack. It landed a short distance from me so I couldn't resist a photo. Apologies to those of you who don't like spiders but this one was bigger than my hand and I couldn't resist!





Committee members and other contacts

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Membership Form

You can use this form to renew your membership
or recruit a friend

Send to: Helen Miller, 16 Hogarth Avenue, Brentwood, Essex CM15 8BE

Name Address

Email Telephone

Using e-mail means we can send your newsletter and other correspondence electronically. Your e-mail address will not be passed on to any other organisation or used for any other purpose.

How did you hear about EBG? (internet, local bat walk, EWT, friend etc):

Please tick as appropriate:

Standard membership of the group is just £5 for 1 year

or £12 for 3 years

I would also like to make a donation of £

I enclose a cheque for £ (made payable to Essex Bat Group)

*Your first year's membership will run until 31st December 2015.