



Newsletter Spring 2017

New Community Project

This year we are launching a new project under which bat surveys will be carried out by other organisations and individuals outside the Bat Group. Essex Community Bat Survey will involve more people in bat recording in the county than ever before, with equipment, training and support provided by the Bat Group.



Funding provided by Essex Recorders' partnership has enabled the purchase of full spectrum bat detectors, which will be lent out for short-term and long-term use. In this way, the number of surveyors and surveyed sites will be increased significantly and further progress will be made in establishing the distribution of species across the county.

The project will involve the gathering of bat records by staff and volunteers of land-owning organisations and by private individuals. All kinds of sites will be surveyed, including country parks, town parks, nature reserves, private landed estates, farms and state-owned land, including Ministry of Defence sites. Several organisations have already agreed to take part in the new project. The National Trust will use static detectors to survey all of their Essex sites, from Rayleigh Mound to Dedham Vale and Hatfield Forest. The Essex Wildlife Trust warden at Colne Point and Holland Pits will survey his own nature reserves and also hopes to use his local contacts to gain access to several privately owned sites in the Tendring district. Essex County Council rangers and other site staff have also agreed to participate and hand-held detectors will be used by EWT and other organisations which run public bat walks and other nocturnal events. Approaches are being made to other potential participants.

It is hoped that the use of full spectrum detectors and thorough analysis of recordings will improve the quality of local bat records. Those willing to learn about sound analysis will be given training and support, but participation in this aspect of the project will not be a requirement, as we recognise that some people will not have the necessary time or inclination.

Other projects are sure to benefit from our new venture. Recording at coastal locations may well yield additional records of Nathusius' pipistrelle of interest to our study of this migratory species. Our woodland project will also benefit from ECBS as wooded sites will be included.

We are now in possession of five new hand-held full spectrum detectors and these will be available for loan shortly. The static detectors are currently being designed and built.

If you are interested in taking part in the new project, please let us know. If you work for a land-owning organisation, have your own land or have access to a site or sites which you think may be of interest, please get in touch.

Woodland Project

Graham Hart with news of our sylvan survey

Many of you will be aware of the Bat Group's Woodland Project, which was launched last year. Following our introductory presentation at Langdon Nature Reserve in May 2016, we had a workshop at Thorndon Country Park in Brentwood to go through the process of deploying them. Most of us had never deployed static bat detectors in trees before and we were soon to learn a great deal about the logistics around this. I was given the task of leading in south Essex and these are some of my experiences from the first year, good and bad!



BatLogger and microphone up a tree [G Hart]

Although I work full time and have lots of other commitments at weekends, I had decided to scope the best looking static detector locations ahead of their deployment. It's essential to study some maps before heading out to do this. Google Maps, Ordnance Survey and the landowner's own maps proved essential in deciding where to look. Scoping also allowed for a quick assessment of bat activity in these areas, although this isn't necessarily essential and I wouldn't be swayed from avoiding a potential static detector location just because it was a quiet night when I was scoping. It can be an added bonus though, if time allows, and we actually discovered barbastelle during a scoping visit at Blakes Wood in Danbury. It may not be possible if time scales are tight and, as summer progressed, more sites were being identified for the project, so I made use of the lighter mid-week evenings to scope sites on the same day as the deployment.

The lessons from the mistakes made during the first deployments were many but some particular favourites of mine are:

- check you've actually turned the detector on before you cable tie it high up a tree;
- don't leave your camo netting on the woodland floor - you might not see it again;
- be careful not to delete the programme files on the SD card.



Spotting a camouflaged BatLogger [G Hart]

There were plenty of things that went well though and all those who came to help with deployments and retrievals learned a lot very quickly. Although the detectors have serial numbers I ended up giving them names - Duck and Camo. Duck always goes up first followed by Camo. I've become rather attached to them as they compete against each other for the best bat calls. I often feel the envy of one over the other when perhaps Duck goes up at a better looking location. I think I may be starting to lose a little sanity!

The Woodland Project moves into Year 2 and I'm sure there will be new faces as well as the regulars returning from last year. I already feel the anticipation and excitement about the summer ahead and what we may discover.

I want to thank all those who helped in 2016 and contributed so much to making the first year of the project such a pleasure, even when we didn't find our target species, the barbastelle.

The static deployments became a way of life last summer and it was full of wonderful bat experiences in some beautiful locations with some great company. An abiding memory will be the looks on other people's confused faces when they saw us walking deep within the woods with a ladder. Questions about what we were up to were initially met with the answer "We're here to clean the leaves!". I look forward to seeing all you fellow leaf cleaners in 2017.

To register your interest, contact Graham at: woodlandbats@essexbatgroup.org.

Bat Care Update

Frances Donovan with the latest news from our indomitable Bat Care Network

This year got off to a tricky start. Having over-wintered around three dozen bats between the carers meant that we have had to try to clear the decks before this season's casualties started coming in. All have been going to the flight cage in Harlow, where they have been regularly assessed by our group of loyal volunteers.



Trainers and trainees at Parndon Wood, Harlow

Over a month we managed to get the numbers down, although admittedly some are now PCs (permanent captives), the bats that came in during the winter having done that much better than last year's exceptional over-spill.

The phone calls to the EBG helpline have now started in earnest, although luckily the few we have had come to us have been quick turn arounds, which we were relieved about, so far... There are still gaps in certain parts of Essex, meaning ambulance drivers are sometimes having to drive some distances to pick up the bats.

To help the principal carers, we again ran an "Introduction to Bat Care & Ambulance Driving" on 1st April at Parndon Wood Nature Reserve in Harlow, where we had a dozen attendees. The carers Kim, Sarah, Steve and myself were able to give them an insight into what is involved in both roles; these candidates, along with our newbies from last year, were then invited to a workshop given by bat expert Gail Armstrong from the North Lancashire Bat Group at Hanningfield on 29th April, who expanded on the first learning session.

Following on from that we are now in the process of matching up the new volunteers with their nearest mentor, who will continue the training in both group sessions and 1:1s. All we can now do is hope that some of these group members will continue to support the Bat Care Network in the coming busy months. Already some of last year's newbies have been brilliant in their approach to bat care and proved that, following Jan Ragg's example, an apprenticeship is the best way forward.

Publicity Officer Update

Nathan Jenkinson outlines his plans to raise our profile in social and other media

Hi there Essex Bat Group members. For those of you who I haven't crossed paths with yet, let me start by introducing myself; I'm Nathan Jenkinson, I have been an EBG member since 2015 and I have recently joined the Committee as Publicity Officer. I will be promoting the group's work using on-line platforms (such as Facebook, Twitter and You Tube), talking to local media outlets, helping Andrew manage the website and starting a blog that I would like all of you to contribute to!

The blog is for everyone and anyone who is a member of the bat group and would like to write something about their experience volunteering with the group. We are yet to get a debut article out there, so please get in touch if you would like to write something. It can be anywhere from 100-500 words long and on almost any bat related topic of your choosing.

Keep an eye on the group's Facebook and Twitter pages for facts about bat conservation in the UK and across the globe. The Essex Bat Group You Tube channel is getting a facelift, and you can expect to see the talk given by Stacey Waring on Breathable Roofing Membranes, along with the talk from Gail Armstrong of North Lancashire Bat Group and her talk on bat care and rehabilitation, appearing on the You Tube channel over the next few weeks.

The channel will also have some videos of bats filmed on the group's new camera. The camera is a high spec piece of kit and is excellent for capturing footage of bats, such as that filmed recently by Ella Barnett at the Hanningfield Reservoir soprano pipistrelle roost.

In the meantime, if you have any pictures or videos for me to upload to our various social media platforms, if you have any ideas about how our social media could be improved or if you would like to write a short article as a guest blogger for the group, please get in touch with me via the Essex Bat Group publicity email address: publicity@essexbatgroup.org.

Essex Hosts National Nathusius Conference

EBG and London BG hosted a national conference in April at which attendees from around the country reviewed progress in the nationwide study of this migratory species. Training workshops were held for new participants and trapping sessions were carried out during the evening, with seven bats caught and ringed at two Essex sites and others ringed at several London locations.

The project has proved migration between Britain and continental Europe, but work is still needed to identify migration routes and locate maternity roosts. We have a roost to monitor near Hanningfield in the hope of maternity use and, once trapping resumes in August, we will be targeting Thameside sites as the river is thought to be a migration corridor. We will also continue to support Suffolk Bat Group following a successful joint trapping session at Alton Water in May, at which four Nathusius were ringed.



Daniel Hargreaves addresses the conference at Upshire, near Epping [Matt Cook]

Are introduced parakeets having an impact on tree-roosting bats?

Having spotted ring-necked parakeets at Weald Country Park, Brentwood and Hangman's Wood, Grays, I wondered whether these hole-nesting newcomers were a threat to tree-roosting bats, in particular the noctule, which shares an interest in



woodpecker holes and similar cavities. A cursory search of the internet revealed no great concern among conservation bodies but there was mention of potential competition with certain native bird species for nest sites. At the time, several Bat Group members had volunteered to carry out some research for our hibernation project, a role already ably filled by Kate Mann, who has since joined the Committee. One of these was Laura Patience, wanting to help if she could although living in New Zealand. So I asked her to look into the matter of competition between introduced parakeets and native wildlife and to see if she could find any publications or opinions relating to bats in particular. Laura's findings are given below.

*The Ring-necked Parakeet *Psittacula krameri* and possible competition with noctules*

Ring-necked parakeets *Psittacula krameri* (sometimes called rose-ringed parakeets) are fierce, medium sized birds (120-140g) (Butler et al 2013) which have established beyond their native range (Butler 2003). While native to sub-Saharan Africa and India (Clergeau et al 2011), they are now found across at least 35 countries and four continents (Butler 2003) (Lever 2005). It is possible that agriculture may be facilitating their spread (Sailaja et al 1988) as their diet includes cereal grasses, seeds, fruits, nuts, flowers, nectar, cultivated citrus fruits, sunflower and maize, all of which are common crops (Clergeau et al 2011). Their numbers have increased substantially in Britain (Parau et al 2016), where it has few predators (possibly only the grey squirrel, whereas in its native range predators include snakes, crows, and owls (Shwartz et al 2009)). Nest failure due to cold conditions may be the primary factor limiting the population growth of ring-necked parakeets (here on referred to as RNPs) in Britain. However, it has been suggested that, if this is the case, climate change may facilitate the spread of RNPs in Britain in the future (Shwartz et al 2009). There is little information available pertaining to how introduced parrots interact with native mammals. More information pertains to their interactions with native avifauna (Hernandez-brito et al 2014). However, there has been one documented case of aggression towards a bat, detailed later in this review.

RNP Nesting Requirements

A competitive advantage for the RNP is its early breeding phenology (Strubbe and Matthysen 2009). In the northern hemisphere, they can start egg laying as early as late February (but median date for first egg is the 23rd of March) (Butler 2003) which means it would likely occupy any available nest cavity before other cavity nesting birds in the area (Strubbe and Matthysen 2009). Clutch size can be between 2 and 6 eggs, but more often between 3-4 eggs are laid (Shivanarayan N et al 1981). Usually only one clutch per season is laid, however the removal of this clutch will usually result in pairs having a second attempt, and a second clutch will result (Lambert et al 2009). They cannot enter holes smaller than 40mm (4cm) (Strubbe and Matthysen 2009) but in a couple of instances they have been observed enlarging hollows,

which Orchan et al (2013) suggest may render these hollows unsuitable for other bird species. Their preferred size of cavity entrance is 4-8cms (Hernandez Brito et al 2014). The RNP nest will remain active until the chicks fledge at around the end of May (long after many native birds have begun breeding attempts (Butler 2003). Strubbe and Matthysen (2009) conducted a study and found that 96% of RNP pairs which they observed nested in a cavity with an entrance size of 4-8cms. They also found that 92% of pairs nested in cavities positioned on the tree trunk (as opposed to branches) and 75% of pairs used cavities of woodpecker origin. Many of their birds used hollows located between 0-5 metres off the ground, in the lower parts of the tree. This last figure they found surprising, but it could be explained if the lower cavities were larger and perhaps this is a feature preferable to height (Strubbe and Matthysen 2009). These findings, however, should not be considered absolute, as Butler et al 2003 found that nests were an average of 8.1 +/- 3.8 metres above the ground and in trees with an average diameter at breast height (DBH) of 73.7 +/- 4.1 cm. They also found that most nests were in old woodpecker holes but some were in natural cavities. Only in once instance did Butler find a RNP enlarging a pre-existing cavity (which happened to be a great spotted woodpecker hole) (Butler et al 2003). Butler et al's study was conducted near London and measured details regarding the nest site, while Strubbe and Matthysen conducted their study in Brussels, Belgium and used an experimental design to observe nest choice before and after blocking access to previously used cavities.

Despite these precise measurements, the RNP does not seem too particular about its nesting requirements, as when tree cavities are in short supply, it has been known to use crevices in walls or rock exposures as nesting sites (Lamba 1996) (Mori et al 2017). This has been reported in its native range and anecdotally across Europe (Mori et al 2016).

Competition with Other Species for Tree Hollows

RNPs are rather fierce birds (Butler et al 2013) and they are known to compete with other cavity nesters and users (Strubbe, Matthysen and Graham 2010). There are many papers outlining their competition with other birds for nest hollows. Strubbe et al found that, in Belgium, RNPs compete with native nuthatches for nesting cavities. Swartz et al 2009 found that competition for cavities was observed mostly between RNP and the common myna *Acridotheres tristis* and the native house sparrow *Passer domesticus*. They also found that RNP will constantly guard the nest in order to protect the brood.

There are observational accounts, from Europe, of RNPs harassing or displacing native species (both mammals and birds) from nest sites (Hernandez-brito et al 2014) (Menchetti et al 2014). For instance, In Seville, Spain, aggressive interspecific interactions and cavity modifications by RNPs caused a decline in the number of roosting greater noctules *Nyctalus lasiopterus* in urban parks (Hernandez-Brito et al 2014). These authors also detected a pattern of mutual spatial segregation between breeding parakeets and the remaining roosting bats. Menchetti suggests that RNP may displace and even kill bats which compete for nest sites.

Dodaro and Battisti (2014) found that RNPs had the competitive advantage over starlings, being of a larger size, and so would occupy the highest hollows, with the starlings then occupying the lower ones. The authors suggest that this may leave the starlings at higher risk of predation (DEFRA 2010) (Dodaro and Battisti 2014).

Aggression

RNPs have an aggressive nature and it is unlikely that they are usurped during breeding (Butler 2003). They have been reported attacking black rats, which in some instances resulted in death of the rats. This has been reported in Seville, Spain, and also on the Canary Islands. "Solitary parakeets would attack rats but more often it was groups of them, sometimes as many as 18 at once. When more than two, parakeets would be 'recruited' from surrounding breeding pairs. Attacking would occur when rats climbed trees in close proximity to nests (either the same tree or nearby trees). Most attacks ended when rats moved to the ground, but in two instances attacks resulted in death as the rats fell to the pavement. When a rat was detected, a RNP would emit loud alarm calls and then chase and attack the rat using physical aggression. Sometimes RNPs would bite the rats, producing visible wounds. All attacks observed were of solitary rats." (Hernandez-brito et al 2014).

There have also been reports of the RNPs attacking and killing an adult red squirrel in France (Clergeau et al 2009) and a fatal attack on a Leisler's bat *Nyctalus leisleri* in Italy (Menchetti et al 2014). RNPs have also been reported attacking and killing little owls *Athene noctua* (Mori et al 2013a). There has also been an observation of a flock of 60 RNPs mobbing a booted eagle *Aquila pennata* in Maria Luisa Park in 2008 (Hernandez-Brito et al 2014b). Harassment and attacks on native birds within or near cavities have mostly been observed during the breeding period, and mostly when trunk cavities were a limiting resource (Menchetti and Mori 2014).

On Bats...

The attack on the Leisler's bat occurred in Southern Tuscany, Italy. The RNP entered a trunk cavity, where an adult male bat was roosting. The parakeet attacked the bat and extruded it from the cavity. Once on the ground, the bat died after a few minutes. Observation revealed wounds in the head and abdomen. (Menchetti et al 2014). Gebhardt 1996 first stated that RNP may displace *Myotis* bats from tree holes but provided no details, so this account by Menchetti et al provides good insight. Menchetti et al (2011) suggested that competition and aggression between birds and bats in hollows may be common, albeit difficult to observe, and so may be overlooked by the literature.

While some greater noctules do hunt small passerines while migrating at night (Ibanez C, et al 2001) they are not able to kill birds inside their nests (J. Juste et al 2001) and are even less able to kill a much larger parrot like the RNP, whose body mass (116g) is more than twice that of a noctule (Hernandez-Brito et al 2014). Given that parakeets are known to win most aggressive encounters with larger-bodied competitors, such as feral pigeons and even powerful jackdaws, they would also be expected to win most aggressive encounters with much smaller bat species (Hernandez-Brito et al 2014). It can be expected that the RNP's strong beak is capable of seriously injuring noctules to the point of killing them or impeding their flight by irreversibly damaging their patagium (J. Juste et al 2001). Hernandez-Brito et al suggest that the expansion of RNPs will threaten bat populations and Mori et al (2017) suggests man-made nest boxes (which exclude RNPs) for species of conservation concern in areas where RNPs may be competing for nest hollows.

[A full list of references is available on request]





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, 176 Abbotsbury Road, Morden SM4 5JS

Yes, I would love to become a member of EBG for 2017*/ 2018 / 2019 (delete as appropriate)

Name _____ Address _____

Email _____ Telephone _____

Using e-mail means we can send your newsletter and correspondence electronically, saving on postage and stationery so more of your membership money is used for bat conservation. 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

Group / organisation membership is available for a minimum subscription of £30

I would also like to make a donation of £_____

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

If you wish to pay by BACS please contact Helen at membership@essexbatgroup.org