

# Newsletter Autumn 2014



## In Search of Blackbeard

**Andrew Palmer** on his tireless quest for a little treasure in north west Essex

Tempting as it was to travel to the West Indies in search of a notorious pirate, my budget would only stretch to bimbaling around the immediate Essex countryside in search of another that might be known as 'Blackbeard'. For the barbastelle derives its name from the Italian for beard: 'Barba'. Although I've never seen a barbastelle's beard (it is more of a goatee!), it certainly would be black, if it had one. Stelle is Italian for stars and although I have never heard a formal connection, this suggests 'beard under the stars' or 'beard seen at night'. Those ears are certainly reminiscent of Jack Sparrow's hat...

With so few recent records it is very tempting to categorise barbastelle (aka barbs) as a rare species. Prior to the new millennium there had been only very occasional records and you would have to wait 20 years for the next one. And then like the proverbial bus, a whole convoy of records from the early 2000's arrive together. Are barbs on the march?, increasing? or had the technological advantage imparted by new detectors made them easier to find? Whilst I favour the latter, there are others that claim the range expansion theory. Whatever is behind the increase in records, increase they have. Nevertheless, there remain large parts of the county with apparently suitable habitat and yet still no records. Why is this important? Around the M11 corridor and Stansted airport there is going to be a great deal of development over the coming years to add to that which has already occurred. It has to be a concern that we do not know such basic information concerning species distribution, let alone on population dynamics and vulnerability. So exploration is important for conservation, as well as idle curiosity. My survey aimed to establish that there are populations of this supposedly rare bat in our midst that we know virtually nothing about. Of course that is only the beginning, but it is an important first step.

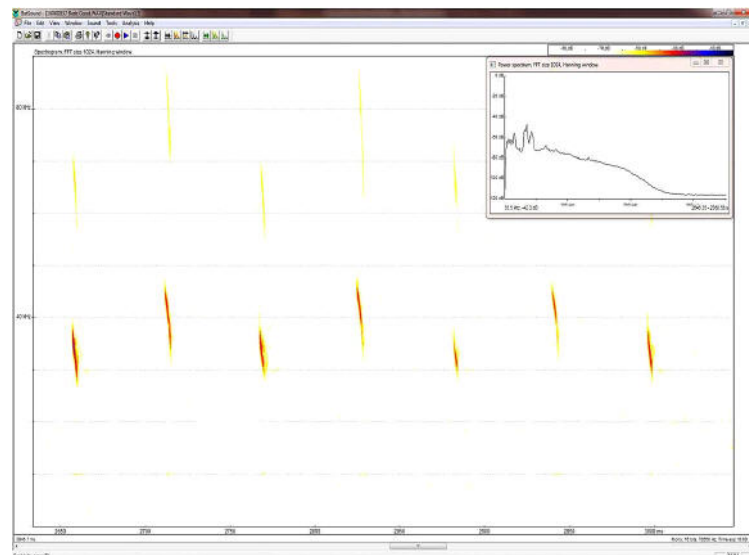
Back to my bimbaling, or bumbling as some would have it. Living in Bishop's Stortford and having had some success finding barbastelles in Hertfordshire (they occasionally fly through my garden!), I decided to survey the north west of Essex within reasonable driving range. So I picked the area north of the A120 and west of Great Dunmow. This deliberately excluded Hatfield Forest, as Colin Edwards is already undertaking survey work there.



**Deadline for next issue, Winter 2014/15: 10<sup>th</sup> January 2015.** [pathatch@live.co.uk](mailto:pathatch@live.co.uk)

I split my survey area into nine sectors and picked 2-3 likely woods in each. Having found barbs in Herts, I compared Google Earth images of woods I knew held barbs with some likely survey sites. In my simplistic, non-scientifically valid way, this involves looking for woods with big green broccoli heads (big trees indicating some age and of a deciduous nature) and a few dead trees - nothing more sophisticated than that.

Then I look for inter-connectivity. The woodlands themselves do not need to be large, but they ideally need to connect to similar areas and have good hedgerow connectivity in the nearby landscape. I look to find an accessible spot on the edge of the woodland (accessible by footpath), where I think bats will depart on their way to foraging areas. This has proved to be fairly reliable in practice. I rarely survey within woodlands, as it is too easy to miss bats.



I use full spectrum real time or time expansion detectors (Elekon Batlogger, BatBox Griffin and Pettersson D500x). These have sensitive microphones and produce very clear sonograms. Barbastelle produce one of the most distinctive echolocation calls of British bats and it is readily discernible. Calls may include the classic two part call (one oral, one nasal) or just one or the other, depending on the situation/behaviour. BatClassify auto-identification software is proving accurate with

their calls too and this helps when analysing large numbers of calls very quickly.

As I left it rather late to find and write to each woodland owner to gain access, I decided to use public right of ways in the first instance. Not everyone likes to use PRoW's as, theoretically, there is only the 'right to pass'. But you can also stop and admire nature and so long as you don't trespass or cause a nuisance, then no one is likely to be too bothered. If there is likely to be game shooting in the area it is always advisable to get permission and I usually wear high visibility clothing and go with someone else. Fortunately, a number of my prospective sites were also owned by hospitable organisations and access was formally granted.

The area I had chosen had relatively few records that I was aware of, although many more un-submitted do exist. John Dobson's Mammals of Essex (1999) has just two around Littlebury and Wendens Ambo from around 1949. I was aware of seven other records, including a maternity roost in a building, a rescued bat, a couple of detector survey records and a couple of individual bats found in barns during consultant's surveys.

In early April I selected and visited a woodland that was not far, and, more importantly, within 3 km of a maternity record. This wood looked somewhat marginal from aerial images, which was confirmed when I arrived: the trees around the footpath did not look great and my expectations were low. Batlogger in hand, I found a spot to stand and started recording just after sunset. 23 minutes later (30 minutes after sunset) a barbastelle shot past. It was the only one I recorded in an hour and a half. As barbs are known to emerge around 20-25 minutes after sunset, this bat had not travelled very far from its roost at the time it flew by.

Next I picked a woodland in the far north around 4 km from where a single individual had been found in a barn. This wood looked good from the perspective of broccoli heads and access was more straight forward. 29 minutes after sunset the first barbastelle flew past; then another, and another. In all 20 flew by me going away from the wood and I was able to record interesting sequences of echolocation calls, including some that were almost certainly produced as bats sonically inspected me! In the second half of April with this many barbs your mind begins to think of a potential maternity colony. I wrote to the owner to see if further access was possible, but so far they have not replied.

My third site was West Wood near Thaxted, which is owned by the Essex Wildlife Trust and has no previous records and none particularly close. Here we picked up barbs 23 minutes after sunset! Three passes in what is marginal habitat. Now I am starting to think that some of these small woodlands may only be used by small numbers of males, but three out of three hits in very different parts of my survey area was a good start.

Next another wood back towards Stansted: seven barb passes. Then off to a church roost visit in the north again: two barb passes. Next came another EWT site, Shadwell, again with no previous records: four passes coming from within the site or very close. Then back north to a private site where permission was granted and very kind hospitality provided. A number of us were involved and again barbs were recorded (five passes) from 30 minutes after sunset.

For reasons beyond my control I had to pause at this point. For two months (April and May) I had surveyed a handful of woodlands distributed throughout the north west of variable habitat quality (based upon what I know of their preferences, which I admit is incomplete) and every site had barbs and in almost all cases bats were encountered shortly after the time that you would expect them to be emerging from roosts. Other enquires led to more records which has gone a long way to filling in the gaps, including a conversation with a consultant who has recorded widespread activity in the south of my survey area in several woodlands.

With all of the limitations of this type of casual 'snapshot' survey, I believe that it is still reasonable to conclude that although this may be a scarce bat, it is widespread throughout this part of the county. Based on other records and current surveys it is probably widespread over much of the county. They may well be flying through your garden too! With so much to discover about our bats, these are exciting times. New technology makes surveys by unlicensed volunteers even more rewarding and valuable. Who needs to go to the Caribbean, when we have our own Blackbeard to chase right on our doorstep!

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**News** Winter Bat Talk Friday 21st November, 7.45pm at Boreham Village Hall. Dani Linton will give us a fascinating account of her bat box monitoring project at Wytham Wood, Oxfordshire. Displays, refreshments and a chance to mingle. Non-members welcome.

**in** EBG Committee would like to express its gratitude to Essex & Suffolk Water for funding the Essex Nathusius' Pipistrelle Project to the tune of £2,000 under their Branch Out Fund. This money will go towards the cost of harp traps and acoustic lures.

**brief** Plans are afoot to construct a second flight cage for the rehabilitation of bats by our Bat Care Network. Hopefully to be located at Hanningfield, the new cage will take the pressure off the existing facility at Harlow and, it is hoped, will be large enough to fly noctules, which currently have to be taken to Norfolk for their exercise.



# Conservation Officer

Tim Sapsford reports on his first year fulfilling a new role on the Committee

At the start of this year I joined the Committee and took on the role of Conservation Officer. It had been thought for some time that the Bat Group should be more active in local conservation. Advising land owners about habitat management, promoting awareness of, and understanding of bats in Essex.



Lower Dairy Farm, Stour Valley

Back in February the Bat Group was approached by Chatham Green Project, which is run by the Wilderness Foundation as a conservation and educational initiative set in a 400 acre farm near Chelmsford. A small team of us carried out an initial daylight

assessment of the farm and noted all the potential roosting, feeding and commuting areas. We then returned one evening to carry out a detector survey and accompanying bat walk with members of the Project. A report was produced and sent to the Project's leader with our recommendations for habitat management and the species recorded on the survey.

In April my wife Sarah and I manned the Bat Group stall at an EWT volunteer open day at Writtle College, where we always meet some very interesting people, two of whom invited us to advise them on the type and placement of bat boxes at Wivenhoe Cemetery. A detector survey was carried out, during which we also looked at the foraging habitat and bat roost potential. I compiled a report recommending enhancement and management measures as well as a detailed list of possible bat boxes for the site and best positioning.

As well as the larger sites, I also undertake advice for householders too. A recent request by a couple who own a converted barn in Barling was made during the RSPB Wallasea Island event EBG had a stall at. This was to help with the sighting of bat boxes on their property. During the survey I was able to identify a number of good potential roost features, including a very good loft space for brown long-eared bats. This was due to be covered in to stop the mess left by swallows covering what was stored in the building. After some advice on how to make the roof more beneficial for the swallows to nest but also keep the mess out, the roof space is now left open and available for roosting bats.

At the end of this season the Bat Group was invited to an old fashioned 90 acre cattle farm just north of Colchester. Here we conducted a daylight survey of the old wooden barns, where a roost was found in one of the mortise joints. The adjoining fields were surveyed in which we found a number of very nice old oaks, all with good roost potential. A night survey was then carried out a few weeks later, with a noctule and serotine both recorded, as well as common and soprano pipistrelle. The farm is an ideal habitat for serotines, so it was very pleasing to actual see one foraging.

2014 has been a successful first year; however, I will be looking to increase the Bat Group's involvement in habitat management, I already have a few leads to pursue this coming spring. We are looking to get involved in a number of new bat box schemes as well as taking on the monitoring of existing ones. Looking forward to 2015.

Frances Donovan relates some recent experiences in bat care and public events

# Natterer's in Care

Having not seen a Natterer's bat all summer, like buses, two came along at once. On 27<sup>th</sup> September, travelling on our way back from Wisbech, we took a detour to stop at Great Abington to pick up a grounded bat. The finder had popped it into a cardboard box and was waiting outside, eager for us to take it as they were keen to begin their



[G Ragg]

Saturday evening jaunt. On retrieving it from the box, the bat latched itself onto my (gloved) finger and spun itself over to reveal a white belly and large feet - "always assume it's a Daubenton's, until confirmed otherwise" I could hear Jan Ragg telling me. By the time Jan examined it an hour or so later at Harlow Bat hospital, it had calmed down and Jan was pleased to tell us it was in fact an adult male Natterer's, who had a swelling of some sort on its right forearm (see photo), possibly a wasp sting. It refused to eat and unfortunately died the next morning. Unsure as to the cause of death, Jan sent it off for post mortem, results awaited.



[S Donovan]

Four days later Jan took a call from South Woodford, where an adult female Natterer's had been found in the underground car park of a block of flats; it had been on a wall for a week, so, not surprisingly, was starving. How it got there was a mystery, although there were air vents through which it may have climbed. After being fed, watered and flown in the flight cage over the course of a week, Steve and I returned it for release (once we had found the location - the satnav took us to a bus lay-by on the north circular!), a short distance away on the edge of Epping Forest.

# Paradise Wildlife Park

On Friday 19<sup>th</sup> September, Chester Jones, Steve Donovan and myself presented a bat talk and walk at Paradise Wildlife Park in Broxbourne, which was well attended by both the public and volunteers and staff of the park.



[F Donovan]

Although there weren't many bats detected, it was nice to walk around the park at night and have the opportunity to go into their "bat cave" of Egyptian fruit bats. The keeper also rounded off the evening by giving a short presentation on their captives. The money raised on the evening's raffle was donated to the Harlow Bat Hospital, which was really appreciated.





# Computer says... 'well, probably'

Andrew Palmer gives us an insight into recent developments in the analysis of bat echolocation calls and auto-ID computer programmes

The idea that in the not too distant future bat detectors will tell us accurately which species just flew past is enormously attractive and one that many bat surveyors will have dreamed of. The software capable of reliable real time auto-identification in the field may still be a little way off, but surely it will happen before the end of the decade? Automatic identification software has been promoted for a number of years now, with Kaleidoscope Pro, SonoBat and BatExplorer being prime examples. These have been met with mixed reactions as their identification accuracy has not always been consistently reliable.

For those attending John Altringham's workshop at the National Conference in September, another auto-identification programme with claimed high reliability was introduced. BatClassify (by Chris Scott of School of Biology, University of Leeds) has been written to auto-classify passing bats as part of a monitoring protocol for bats in woodland habitats. Because it is free to download (follow the instructions on this link: <https://bitbucket.org/chrisScott/batclassify>) and I own a suitable recording bat detector, I thought I would give it a try on a recent trip to Devon and retrospectively with my recordings from this year.

The software was configured to be used with full spectrum (Time Expansion or Direct Sampled) files and specifically those generated by Pettersson D500X (DS) and D240X (TE) detectors. It works with other suitable detectors and I get good results with the Elekon Batlogger M (DS) and to a lesser extent with the Batbox Griffin (TE). These are expensive detectors (£1,500+) and there are not too many volunteers or groups with them. But there are signs that prices of suitable technology are falling. The Pettersson M500 microphone, which plugs into a tablet, is £370 and produces files comparable with the D500X (they share the same microphone).

1	FileName	Bbar	Malc	Mbec	MbraMmys	Mdau	Mnat	NSL	Paar	Ppip	Ppyg	Rfer	Rhip
21	15120020	0	0	0.01	0.08	0.02	0.11	0	0.01	0.98	0.36	0	0
29	15120028	0	0.06	0.08	0.26	0.06	0.1	0.22	0.01	0.98	0.18	0	0
30	15120029	0.01	0	0.02	0.33	0.02	0.09	0.21	0	0.98	0.08	0	0
31	15120030	0.99	0.2	0.36	0.12	0.24	0.12	0.03	0.01	0.98	0.21	0	0
32	15120031	0	0	0.01	0.23	0.05	0.03	0.22	0.01	0.98	0.09	0.01	0
33	15120032	0.03	0.05	0.05	0.08	0.04	0.03	0.04	0.01	0.05	0.97	0	0.13
34	15120033	0	0.02	0	0.01	0	0	0.01	0	0.98	0.97	0	0
35	15120034	0	0	0.01	0.21	0.03	0.04	0.23	0.01	0.98	0.28	0.05	0.01
36	15120035	0.99	0	0	0.06	0	0.1	0.03	0.03	0.66	0.02	0	0
37	15120036	0.97	0.02	0.01	0.05	0.02	0	0	0.03	0.14	0.38	0.01	0
38	15120037	0.48	0.01	0.02	0.13	0.02	0.03	0.15	0.01	0.98	0.24	0.01	0.03
39	15120038	0	0	0.01	0.04	0	0.01	0.09	0.01	0.98	0.31	0	0
42	15120041	0	0.18	0.03	0.04	0.01	0.01	0.01	0.01	0.08	0.97	0	0
43	15120042	0.03	0.05	0.01	0.01	0	0	0.14	0.01	0.21	0.97	0	0
44	15120043	0.99	0	0	0.02	0	0	0	0.01	0.82	0.02	0	0
45	15120044	0.99	0	0.02	0.12	0.01	0.5	0.08	0.04	0.96	0.03	0	0
46	15120045	0	0.05	0.08	0.16	0.1	0.03	0.09	0.02	0.98	0.09	0	0
47	15120046	0.95	0.04	0.03	0.28	0.1	0.25	0.02	0.1	0.15	0.43	0.01	0
48	15120047	0.97	0.03	0.04	0.1	0.05	0.01	0	0.02	0.36	0.34	0.01	0.01
76	15120075	0.99	0.02	0.01	0.06	0.02	0.03	0.02	0.16	0.93	0.32	0.01	0.01
77	15120076	0.99	0	0	0.02	0	0.02	0	0.02	0.23	0.01	0	0
78	15120077	0	0.32	0.24	0.27	0.02	0.11	0.15	0.01	0.98	0.48	0.02	0
79	15120078	0	0.01	0	0.05	0.02	0	0.12	0.01	0.98	0.34	0	0
80	15120079	0.99	0	0	0.01	0	0.01	0	0	0.48	0.02	0	0
81	15120080	0	0.04	0.04	0.8	0.72	0.77	0.08	0.01	0.57	0.14	0	0
82	15120081	0	0.01	0	0.04	0.01	0	0.13	0.01	0.98	0.29	0	0
83	15120082	0.01	0.01	0.11	0.64	0.44	0.61	0.01	0.04	0.23	0.16	0	0
95	15120094	0.03	0	0.01	0.04	0.01	0.01	0.03	0	0.97	0.04	0	0
96	15120095	0.01	0.05	0.04	0.17	0.02	0.03	0.02	0.03	0.95	0.38	0	0.02
97	15120096	0	0.08	0.07	0.31	0.06	0.92	0.23	0.01	0.98	0.4	0	0
101	15120100	0	0.1	0.14	0.43	0.02	0.18	0.24	0	0.98	0.39	0	0.01
102	15120101	0.01	0	0.02	0.47	0.3	0.84	0.09	0.03	0.34	0.07	0	0
103	15120102	0	0.56	0.6	0.21	0.02	0.07	0.23	0.01	0.98	0.87	0	0.15
117	15120116	0	0	0.01	0.71	0.62	0.87	0.17	0.01	0.98	0.14	0	0
118	15120117	0.01	0.05	0.03	0.16	0.03	0.02	0.24	0.01	0.98	0.23	0.03	0

You start by pointing BatClassify in the direction of your full spectrum WAV files folder and it produces a CSV file (spreadsheet compatible) indicating the probability of a bat being one of a number of species (barbastelle, alcaethoe, Bechstein's, Brandt's/whiskered (not distinguished), Daubenton's, Natterer's, noctule/serotine/Leisler's (not distinguished), common pip, soprano pip, greater and lesser horseshoes). The probability that they were recorded is expressed from 0 (so unlikely as to be impossible, although that may be down to the recording, not the bat) to 1 (as certain as the software can be).

Some judgement is required when working out what is an acceptable probability score to apply.

Values in the 0.9's appear to be accurate, whilst more caution is required with values below the mid to high 0.8's. I still look at every call manually, but I now always run this programme as a supplement and compare the results. In the illustrated example I have applied conditional formatting to colour cells with high values green, whilst low values are pale blue. This makes assessing the CSV file (opened here in MS Excel) very easy. In this example there are lots of common pipistrelle passes, ten by barbastelle and five by soprano pips. It successfully identified three definite Natterer's passes, plus another two unidentified Myotis. If you end up with a surprising result have a look at the quality of the calls as faint Myotis recordings can throw up unexpected (and usually inaccurate) results.

BatClassify whizzes through large numbers of files pretty quickly. For a number of these species the reliability is very high. In my experience it has been pretty much faultless with barbs, pips (doesn't do Nathusius' yet) and horseshoes. It cannot separate 'big bats' yet as it was written primarily for woodland species. With Myotis species my results have been variable, but are promising and if it suggests whiskered/Brandt's in Essex then I take a real good look at the sonograms. I am finding good recordings of Daubenton's and Natterer's to be mostly fine. Accuracy will improve as more samples are added to its 'training'.

The times they are a changin'...

## EBG Committee News

Robin Cottrill has stood down from the Committee after ten years service and will be sorely missed by all of us. He and his wife Philippa are moving to France to take up residence in a house frequented by greater and lesser horseshoe bats.

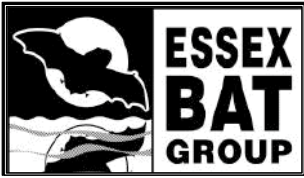


Robin and his bat cake at September's meeting

Robin helped with the Group's re-launch in 2004 and has played an active part in the Bat Group ever since, including ably fulfilling the roles of Minutes Secretary and Vice-chair. His good humour and commitment have always been appreciated by his fellow Committee members.

Andrew Palmer was welcomed on to the Committee at the September meeting. Andrew has recently secured funding for the Essex Nathusius' Pipistrelle Project (see page 3) and a bat box scheme at Lee Valley Park (see Summer 2014 Newsletter) and will be looking into further funding possibilities. Andrew ran a highly successful barbastelle survey in the woods of north west Essex this year (see page 1).

Ella Barnett has volunteered to join the Committee and is due to be co-opted at our next meeting. Ella has been an active Bat Group member for several years and is in the process of acquiring a survey licence and Voluntary Bat Roost Visitor licence. She has been involved in a wide range of activities, including bat care, NBMP surveys, hibernation site monitoring, radio tracking and running stalls at public events. Ella joins the Committee as Publicity Officer, a new role which will help us to spread the message of bat conservation in the media and elsewhere.



## Committee members and other contacts

Bat Conservation Trust  
Partner Group



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### Other Contacts

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### EBG Clothing

Essex Bat Group clothing is now available, featuring our evocative emblem of a bat flying over moonlit water

Sweat Shirt £16; Polo Shirt £15; T-shirt £12; Fleece £25; Gillet £20; Cap £9

Please send your order to Sue Burton, 2 Mellish Way, Hornchurch. Essex RM11 2GU, enclosing a cheque made payable to EBG for the total amount, including £2.35 per item post and packaging. Please allow 3-4 weeks for delivery. If you can collect your clothing from Harlow, Hornchurch or Ingatestone please let Sue know and omit the postage charge.



### 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 31<sup>st</sup> December 2015.