



# HEREFORDSHIRE MAMMAL GROUP

## SPRING/SUMMER NEWSLETTER

(May-August 2017)

### What's Inside?

Title	Page
Summer Events	1
New members	2
Membership	2
News in Brief	2
Seals (Talk Review)	6
Ten Good Things about Bat Box Schemes (Talk Review)	7
All About Moles (Talk Review)	9
A Winter Flurry of Hedgehogs	10
Bat Co-ordinator Update	14
Dormouse Co-ordinator Update	16
HMG Contacts	16

### SUMMER EVENTS

(Events are subject to being updated – please check the website and Facebook regularly)

#### MAY 2017

Friday 19 to Sunday 28 May 2017

##### Woolhope Dome Bat Tracking Project

Radio-tracking 5 bats in the Woolhope Dome area. If you are interested and would like to be involved please contact Denise Foster.

Monday, 1 May 2017, 10:00

##### Dormouse Box Check - Chase Wood

Chase Wood, Ross-on-Wye

Meet at SO603229 at top of unmade track

Contact Denise Foster.

Sunday, 7th May 2017 at 10:00

##### Bat and Dormouse Box Check – Frith Wood

Frith Wood, Wellington Heath

Two teams required - meet at wood entrance at SO723405. Contact Denise Foster.

Tuesday, 16 May 2017 at 21.00

##### Woodland Bat Trapping and Acoustic Survey

Wigmore Rolls, Grid Reference TBA

Trapping Site will be determined on the day.  
Contact Denise Foster.

Thursday, 18 May 2017 at 21.00

##### Woodland Bat Trapping and Acoustic Survey

Childer Wood. Meet at Gate SO66444365

Numbers and cars will be limited on site

Contact Denise Foster.

Friday 19 or Sunday 21 May 2017, 21.00

##### (Part of May's Bat Tracking Project)

##### Woodland Bat Trapping and Acoustic Survey

Devereux Park, Nr Woolhope– meet inside wood

Entrance to the wood is at SO 61200 37900 and there are driveable tracks.

Contact: Denise Foster

Saturday, 20 May 2017 at 21.00

##### (Part of May's Bat Tracking Project)

##### Woodland Bat Trapping and Acoustic Survey

Main's Wood, Putley. Meeting Place TBA

Numbers and cars will be limited on site

Contact Denise Foster.

Monday, 22 May 2017 at 10:00

##### (Part of May's Bat Tracking Week)

##### Bat Box Check - Lea and Paget's Wood

Meet in lay-by at the side of road at SO595346

Contact Denise Foster.

#### JUNE 2017

Sunday, 4 June 2017 at 10:00

##### Bat Box Check - Lea and Paget's Wood

Meet in lay-by at the side of road at SO595346

Contact Denise Foster.

Monday, 5 June 2017 at 21.00

##### Woodland Bat Trapping and Acoustic Survey

Whitman's Hill Coppice, Malvern Hills

Meeting in Wood at SO74864839

Contact Denise Foster.

Saturday, 17 June 2017 at 10:00

##### Bat Box Check - Nupend Nature Reserve

Meet at reserve entrance at SO580355 (room for

2 cars only so car sharing is essential)  
Contact Nick Underhill-Day via HMG as numbers  
will be limited

## **JULY 2017**

Sunday, 30 July 2017 at 10:00

### **Bat and Dormouse Box Check**

Two teams required

Frith Wood, Wellington Heath

Meet at wood entrance at SO723405

Contact Denise Foster.

Saturday, 15 July 2017 at 10:00

### **Bat Box Check - Nupend Nature Reserve**

Meet at reserve entrance at SO580355 (room for  
2 cars only so car sharing is essential)

Contact Nick Underhill-Day via HMG.

Saturday, 15 July 2017 at 10:00

### **Dormouse Tube Check**

Credenhill and Babnage Woods

Contact Ann Bowker.

## **AUGUST 2017**

Saturday 5 to Sunday 13 August 2016

### **Berrington Hall Bat Tracking Project**

Radio-tracking 2 bats at Berrington Hall first  
week of August. If you are interested, please  
contact Denise Foster.

Friday, 4 August 2017 at 10:00

### **Bat Box Check - Lea and Paget's Wood**

Meet in lay-by at the side of road at SO595346

Contact Denise Foster.

Saturday, 5 August 2017, 20.30

### **Woodland Bat Project - Bat Trapping Event at Berrington Hall**

Meet at lake. Directions are on National Trust  
Website. Contact Denise Foster as numbers are  
limited.

Saturday 26 or 27 August 2017 at 19.30

### **HWT Member's Event - Bodenham Lake, Bat Trapping and Acoustic Survey**

Meet at SO523511 - Numbers and cars will be  
limited on site. HMG members who are  
interested in attending please contact Denise  
Foster.

## **NEW MEMBERS**

We would like to welcome the following new  
members to HMG:

Kate Bishop, Gemma Cone, Andrew Strong,  
Jenny Gatward, Harriet Robins, Ric Morris, Jacqui  
Capaldi, Alex Perry, Tom Richards, Liz Overstall,  
Alan Tucker, Richard Toft

## **MEMBERSHIP**

**Leigh Russell, Membership Secretary**

We currently have 70 paid up members in HMG  
and 235 followers on Facebook. Remember, if  
join the Mammal Society and get HMG subs  
free!

Facebook - HMG has an active Facebook page  
where we post all our events past and present:  
[www.facebook.com/groups/222077991279736/](http://www.facebook.com/groups/222077991279736/)

## **NEWS IN BRIEF**

### **HMG Member Questionnaire Results**

The committee would like to thank those HMG  
members who completed our questionnaire! So  
far, a third of the membership responded, so a  
big thank you to the 22 who took part. There is  
still time to complete the questionnaire if you  
have not already done so; we really value your  
comments. The questionnaire is still available to  
complete and will be close at the the end of the  
year, so please visit  
[www.surveymonkey.co.uk/r/ZC5XFB9](http://www.surveymonkey.co.uk/r/ZC5XFB9).

Please find below a summary of the survey  
results so far.

### **Winter Talks**

60% of our members attend winter talks and  
67% thought that the Bunch of Carrots was a  
good venue; leaving 33% who thought it was  
either too far to drive, too expensive or too  
noisy! It was reassuring to know that 95% of you  
thought the entrance fee associated with putting  
on talks is good value for money.

In the past HMG has not routinely put on winter  
workshops like the Barn Owl Pellet Workshop, so

it was interesting to hear that 76% of you wanted more winter workshops to be organised.



Two Barn Owl Pellet winter workshops took place this year and both were fully booked, and with a waiting list!

### Field Events

Our field meetings are generally well attended so it was no surprise to learn that 85% routinely attend field events and 79% of you find them both interesting and enjoyable.

HMG generally focusses on two mammal groups, bats and dormice mainly because they are the species of interest for our most active leaders. We asked members of their other species of interest and this is what you said:

18% bats  
24% dormice  
0% Small Mammals  
47% Mustelids  
0% lagomorphs  
6% Ungulates

The number of members who wanted to learn more about mustelids was a great surprise to the committee, so we will consider at least one winter workshop looking at their ecology followed by a field signs and tracks session. Generally, surveying for mustelids is very difficult.

Biological records are submitted by 75% of you which is very encouraging. HMG now has a new online recording form which is very easy to complete, and there is also a new link to find grid references too. Please check out our online recording form at <http://ham.btck.co.uk/OnlineRecordForm>.

Remember you do not need to have a GPS or mobile phone but you will need access to a computer. Grid references are easy to find online so have a look at Grid Reference Finder at [www.gridreferencefinder.com/](http://www.gridreferencefinder.com/). Any members that require more assistance or training please get in touch with a member of the committee.

It was encouraging to hear that 48% enter records via the Herefordshire Biological Records Centre (HBRC) particularly as HMG obtains their records from the HBRC and the NBN for producing the Mammal Atlas.

We asked about other areas of interest which would assist the event leaders and the committee in our work, such as fundraising, outreach, scribing at events, representing HMG at county/village shows, driven road transects, using your carpentry skills, proof-reading and writing articles for the newsletter. We invite all those people who responded to this question to get in touch as we do need some assistance in these areas.

Putting together the group's newsletter is very labour intensive so we were delighted to find that 100% of you actually read it and find it interesting and informative.

Overall 100% of you rated both field and indoor events as excellent and thought the membership good value for money.

Listed below are priorities which have arisen from the survey which includes:

- the need to provide more winter workshops covering basic training needs, improving skills around bat, dormouse and mustelid work and entering biological records.
- To engage and retain a greater number of younger members.
- To make better use of member's skills and knowledge, particularly those members not currently involved, with the aim that you will want to be!

## Future Newsletters

With immediate effect, our newsletter will be reduced from four issues per annum to three. We will be producing a spring/summer issue in May, an Autumn issue in September and a winter issue in January. If you are interested in contributing articles for future newsletters or would like to be involved in the production of the Newsletter please get in touch with Denise Foster.

## Swift Project

The Bats and Swifts in Churches project is considered a great success but we feel that more can be done for swifts, particularly as they are in Europe for such a small amount of time. We have been successful in engaging members of the Herefordshire Ornithological Club (HOC) to survey their local churches for swift activity so we are in a position to help retain important nest sites should church repair works take place. HMG will be then able to produce a suitable database for nest sites to pass on to the Diocese, the Church and Architects.

## Barn Owl Workshop – February and April 2017

Our 3<sup>rd</sup> and 4<sup>th</sup> Barn Owl Pellet workshops were held and hosted by the Herefordshire Wildlife Trust in February and April. Ten HMG members attended each session including our new member Ric Morris - a well-known bone specialist who was a great asset to both evenings.



In February, we dissected 38 pellets collected from 9 Herefordshire sites and counted a total of

139 small mammals and one amphibian (frog or toad).



Photo: A total of 9 skulls were found in this one pellet

The most exciting find was the remains of 2 water shrews in pellets from Evesbatch and Bredenbury which are new records for the area. As we are looking to ramp up our surveying efforts for water shrews this year these two records are a good start. The total number of small mammals found in Herefordshire's barn owl pellets, by species were as follows:

88 × Field Vole (*Microtus agrestis*)  
1 × Bank Vole (*Clethrionomys glareolus*)  
15 × Unidentified Shrew (*Sorex* sp)  
15 × Common Shrew (*S. araneus*)  
4 × Pygmy Shrew (*S. minutus*)  
2 × Water Shrew (*Neomys fodiens*)  
11 × Mouse (*Apodemus* sp)  
3 × Rat (*Rattus norvegicus*)  
1 × Frog or Toad

By animal groups, 64% of prey species were voles, 26% were shrews, 8% Mice and 2% were rats.

In April, we dissected a total of 40 pellets collected from 7 Herefordshire sites and counted a total of 147 small mammals as follows:

117 × Field Vole (*Microtus agrestis*)  
1 × Bank Vole (*Clethrionomys glareolus*)  
17 × Common Shrew (*S. araneus*)  
2 × Pygmy Shrew (*S. minutus*)  
10 × Mouse (*Apodemus* sp)

By animal groups 80% of prey species were voles, 13% were shrews and 7% Mice.



Two really successful events and great fun too and we have been able to collect new records for the Mammal Atlas.

### **Brilley Green Village Day**

HMG had a good day at the Brilley Green Village Day in March, where Leigh Russell and Jacqui Capaldi manned a stand. Jacqui's knitted hedgehogs were a talking point too. We are hoping this knitting project will be extended to other mammals!



Photo: Jacqui Capaldi's knitted hedgehogs.

### **The Royal Mint's 50 pence Coin of 2016, Mrs Tiggy-Winkle**



This is the fourth coin in the series that celebrates the wonderful world of Beatrix Potter. Mrs. Tiggy-Winkle is dressed in a gown and petticoats and resembles a prickly washerwoman.

The hedgehog is instantly recognisable, with every quill captured in fine detail

### **Insectivore and Lagomorph Atlas**

Two new baseline Atlases are now available to download free from our Website; Insectivores and the Lagomorphs. The mustelid baseline atlas is currently being prepared.

### **Steve Parker of South Lancashire Bat Group Raises Money for Bat Conservation Trust**

Steve Parker, member of the South Lancashire Bat Group took part in this year's London Marathon to raise money for BCT's Kate Barlow Award, an award with aims to encourage postgraduate students to conduct a substantive bat research project and to honour the late Kate Barlow's contribution to bat conservation

Steve completed his run in 4hrs 47 minutes and raised over £7,000.



Photo: Steve Parker at the end of the race (Photo taken by Kit Stoner)

## Seals – A talk by Mike Bailey

HMG member Mike Bailey, a marine specialist, gave the second talk of our winter season which was all about Seals.

Herefordshire, unlike Worcestershire, is not able to boast about having seals on their waterways! In 2012, a grey seal, named “Keith” by the locals, turn up in the River Severn in Worcestershire. Even though many of us do not focus our attentions on marine life in Herefordshire, it certainly was useful to know that when we do visit our coastlines we are able to confidently identify the two most common species of seal that we have in the UK, namely Common and Grey Seal!

Mike started the talk by giving an overview of the taxonomy classifications and their evolutionary common ancestors, which happens to be bears and mustelids. The Pinnipeds are divided into three main groups; Phocidae (true seals), Otariidae (fur seals and sea lions) and the Odobenidae (Walruses’). Basically the true seals, wriggle on their stomach, furred seals and sea lions have flippers and are able to walk on land.

In the UK, there are two species of seal that breed on our coastlines, the common seal and the grey seal. However, there have been a small number of records and sightings for vagrant species visiting UK coastlines such as the ringed seal, bearded seal, hooded seal, harp seal and the walrus. The number of records for each the vagrant species is between 6 and 25 records.

The Common Seal is widely distributed, particularly around the coast of Scotland, in the Hebrides, Orkney and Shetland, and on the east coast of England, in the Wash. Despite its name, the common seal is less common in British waters than the grey seal! The grey seal, which is the largest carnivore in Britain is also widely distributed and can be found all around the UK coastline particularly on the east coast where high numbers of animals are found.

The grey and common seal can be confidently identified, particularly using binoculars by some distinguishing features. When they are out of the water, common seals can be identified by their banana shape, their spotted dark backs

compared to their lighter underbelly. In Essex, there is a small population of common seals that are bright orange. This is not a sub species but the colouring is because of the iron oxide found in the water. Identification is a bit trickier when the seal is in the water so the best diagnostic feature is the V-shaped nose, the concave shape of the muzzle and the distance between the nose, eyes and ears which are all equal.

The Grey Seal, also known as the sea pig, can be recognised by its facial shape and pig-like nose, hence its alias name. When out of the water, compared to the common seal, grey seals have very few spots and the diagnostic feature is the distance between the ears to eye which is much shorter than in the common seal.

### Differentiating Common and Grey Seals

To separate Common Seal from Grey Seal reliably, attention should be focused on the head of the animal in question.

Grey Seal typically has a convex, or at least flat, long muzzle, giving a doleful, Roman-nosed appearance.

The alignment of the nostrils when viewed head-on is diagnostic – Grey Seal nostrils are vertically aligned parallel slits when closed.

Grey Seal – female



Grey Seal – male



Grey Seal – male



Common Seal



Compare also the position of the eyes when the head is seen in profile. Grey Seal eyes are halfway between the tip of the muzzle and the back of the head; Common Seal eyes are set one third of the way back from the muzzle to the back of the head – much further forward than in Grey Seal.

Common Seal



Common Seal has a much more concave or ‘dished’ face with a shorter, neater muzzle – they look ‘friendlier’.

Common Seal nostrils are diagonal, forming a small, neat V shape. (This feature is easily recalled if one imagines a derogatory two-fingered hand-gesture as being common...)



Other differences are more subjective, but may be helpful for more distant views. Grey Seals (front) are larger and bulkier than Common Seals (behind), and tend to be more two-toned – distinctly dark on the upperparts and pale on the underparts, and with darker spots mostly on the upperparts. The Common Seal’s pelage is more uniformly spotted all over. The ‘Grey’ part of the Grey Seal’s name is unhelpful, as both Grey and Common Seals vary in colouration – and this natural variation is compounded by the differences in colour depending on whether the animal is wet or dry, or whether it is moulting.

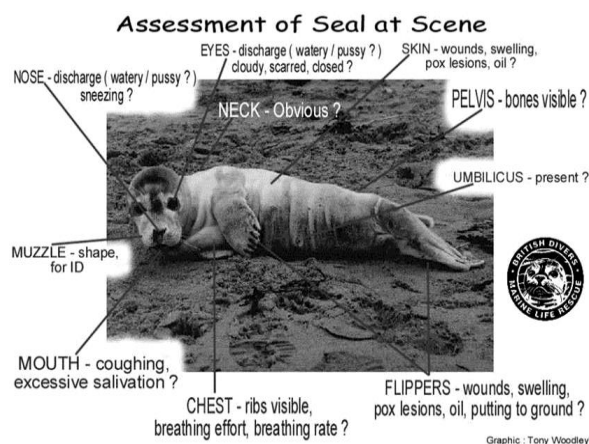
52

Mike went on to explain about his role as a Marine medic and told us stories of seal rescues. The British Divers Marine Life Rescue (BDMLR) receive many calls from the public where sick or injured seals are encountered; pups generally get into trouble and cause the public the most concern.

Mike talked us through the process of how to assess an injured or sick animal. The first check is to observe the neck; is it dipped or does it



have a sunken effect? If so, then the animal will be suffering from malnutrition and will need to be brought into care. However, like with all rescues, the public can sometimes be over cautious. Seals get knocks and scrapes when they are out in the ocean. They also produce a lot of tears so staining under the eye is normal and should not to be mistaken for illness or injury. Mike demonstrated the art of approaching a sick animal from behind with a toy seal (which is harder than the real thing – so he says). Seals have large eyes and will see you approaching from behind so any capture has to be quick and efficient otherwise the animal will very quickly take to the sea. The key is to take control of the neck and then cover the face with a towel and to get total control of the head before assessing any injuries.



It is important to remember that seals carry all sorts of zoonotic diseases and one should avoid being bitten at all costs. Not only do they have sharp teeth and strong jaws but if you get bitten you cannot rely on anti-biotic treatments as these are not always effective. The message is always treat them with respect, keep a safe distance and if an animal is in trouble call the experts.

Conservation issues, which is always a depressing subject, were briefly discussed, particularly conflicts between seals and humans. Seals are not fisherman's friends and when they threaten fish stocks there are tensions. Discarded monofilament fishing lines and other plastic rubbish in our oceans is causing considerable injuries and distress to these animals. Hunting of seal pup pelts, particularly in Newfoundland still goes on today and the statistics show that it more prevalent today than

ever, despite the outcry from the public in the 1970s. Finally the effect of climate change was talked about and how this affects the Pinnipeds, particularly the melting icecaps which ultimately effects breeding and feeding grounds.

Mike finished by telling us about the latest research on seals and the current tracking study where seals are favouring feeding around the structures of wind turbines, which may be attracting large numbers of fish. So wind turbines structures may be beneficial to at least one species of animal; it is a pity we cannot say the same for other species, particularly birds and bats.

## Ten Good Things About Bat Box Schemes – a talk by Dr Dani Linton

Dr Dani Linton has been monitoring bat roosts in Wytham Woods, Oxfordshire for over a decade and has carried out a total of 40640 checks of the 1273 boxes which are present inside the wood.



Photo: A domed great-tit box which is free hanging

Wytham Woods is semi-natural woodland with some areas of ancient woodland in some 400 ha.

There is a mix of plantation and broad-leaved trees and it is situated on a hill surrounded by water; the River Thames on 3 sides and Farmoor reservoir on one side. In 1942, Wytham woods was gifted to Oxford University with the condition that it is preserved and used as a research site for the university. It has public access, but dogs are not allowed inside the wood.

There are two types of Schwegler tit boxes in the wood; a flat topped blue tit box and a domed great tit box. monitored by the Edward Grey Institute. The majority of boxes are located in heavily shaded environments and no more than 3 metres high with some boxes being at head height or even lower. Boxes are placed in a grid system, one on each tree with random aspects. Boxes are checked for bats at the end of May onwards, after the birds have fledged and July/August are when boxes are mostly used by bats. Wytham Woods exhibit extraordinary occupation rates by three species, Natterer's, Daubenton's and brown long-eared bats, where a total of 1070 (84%) of the boxes are used.

In 10 years since this woodland has been monitored, Dani has ringed over 8000 bats and seen 7531 Daubenton's bats (891 roosts), 6452 Natterer's bats (775 roosts) and 2115 brown long-eared bats (287 roosts). One Natterer's bat was ringed in 2007 and has been encountered 40 times and 28 times with one particular bat. However, there are a lot of bats ringed that are never seen again.

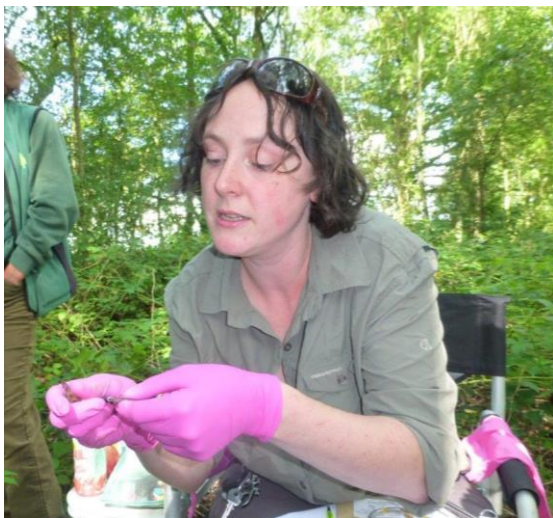


Photo: Dani Linton checking ringed bats

The social network in the wood shows 7 maternity colonies of Natterer's bats (males

roost singly), 6 maternity colonies and 1 male colony of Daubenton's bats which can sometimes include non-breeding females. Dani has also observed maternity roosts that have split with some mums and their senior pups in one box and mums with junior pups in another. Male Daubenton's bats are encountered more frequently than the females but with Natterer's bats, females are seen more than the solitary males. Adult female and juvenile female Daubenton's bats are the first to disperse from the wood, leaving the juvenile males behind. Brown long-eared colonies are not seen as often as the Myotis, but males tend to roost with the breeding females.



Photo: A maternity room of Natterer's bats

In Spring, Daubenton's bat turn up in the wood first and give birth around the end May/early June. Natterer's bats breed two weeks later and brown long-eared bats two weeks after that. The 50:50 ratio of Male to Females juvenile bats seems to be shifting to a ratio of 60:40 that is biased towards males.

Dani's research has also found that female Natterer's bats aged 3 years old and above breed more successfully than younger females. The younger breeding females can often abandonment or dump pups. Younger females are not able to control their pregnancy or slow it down should it be necessary. Pregnant females that are 1 year old tend to fail, but at 2 to 3



years old they are getting better at motherhood. Overall, there is a 62% success rate generally.

Weather patterns, particularly in spring have shown a significant effect on what happens for the rest of the year with April being the key month when predictions can be made of how the bats will fare for the remainder of the year.

Dani compared her results with other similar schemes such as Finemere Wood, a SSSI site located in the Aylesbury Vale. At Finemere, there is a bat box scheme in place which is currently monitored by the North Bucks Bat Group and has been for over ten years. There are a number of different style Schwegler bat boxes which includes the larger maternity boxes such as the Schwegler 1FS. In Finemere, between 50 and 70 bats can be found using the larger boxes compared with group sizes of 20 in Wytham Woods that use the smaller Schwegler bird boxes. However, the data for breeding success compared well for both woods.


This talk gave us a fascinating insight into the private lives of 3 species of bats using Wytham Woods. Apart from the similarities and differences between other box schemes and how the weather can affect a bat's year, bat box schemes do get you out in the woods for some fresh air and enables bat workers to gain experience during daylight hours.

## Moles – a talk by Rob Atkinson

Herefordshire  
Mammal Group

# All about Moles

Beset by floods, frozen soil, drought, predators  
and vengeful humans, moles live hard lives.



With Dr. Rob Atkinson,  
author of 'Moles', as your guide,  
find out how these remarkable  
little animals not only survive  
but flourish!

Wednesday 8th March 7:30pm  
Bunch of Carrots, Hampton Bishop, HR1 4JR  
Admission: Members £3, Non-members £4

The last of our winter talks was delivered by local zoologist and author, Rob Atkinson. Rob has led a distinguished career studying and working with both wild and captive animals including elephants, jackals and our humble mole, which was the subject of his talk. Rob is in fact the leading authority on the European mole (*Talpa europaea*) in the UK, if not the world, and is the author of volume three of the Whittet British Natural History Collection 'Moles'.

Moles are thought to have descended from shrew like creatures some 45 million years ago and first arrived in what is now mainland Britain 350,000 years ago. Despite being thought of as primitive mammals, they are very successful, and there are as many moles in the UK today as there were 5,500 years ago. Moles are about 14cm in length with a longish pig-like nose at one end and a short hairy upright tail at the other. Their black fur is short and uniform in length, and can be brushed in either direction, making it easy for them to reverse in tunnels. The ears and eyes are small and hidden beneath the fur. The skeleton is basically the same as other mammals but with some extraordinary exceptions. The humerus sticks up from the shoulder with the radius and ulna hanging down from the elbow. Muscles from the shoulder blade and chest plate attach to the humerus nearer to the elbow than the shoulder, giving incredible extra strength which enables the mole to exert a pushing force 24 times its own body weight.

The front feet are large and an extra bone, parallel to the thumb gives added width and strength for digging. The vertebrae at the front end of the spine can turn an astonishing 90 degrees, allowing the mole to turn around in tunnels not much wider than itself.

Moles live a solitary life in underground tunnel systems, only coming together during the mating season or to defend their territories. Densities can vary from between 10 per hectare, to 1 every 4 hectares depending on soil quality and invertebrate abundance. A territory can have up to 1000 metres of tunnel, with each metre taking around an hour to dig. Excess soil is pushed to the surface creating the familiar mole hills which give away their presence. Females start to become fertile in February and after a short pregnancy of four weeks, most young are

born in April. Litters of typically three or four are born in underground nests of grass and leaves and they are ready to leave and set up their own territories by the time they reach eight weeks. Dispersal is usually over ground where they are very vulnerable to predation from foxes, stoats & weasels and birds of prey. The young mole will construct a brand-new tunnel system or take over a vacant one if it is lucky, where it will spend the rest of its life searching for beetles, grubs and worms (worms can make up to 90% of a moles diet).

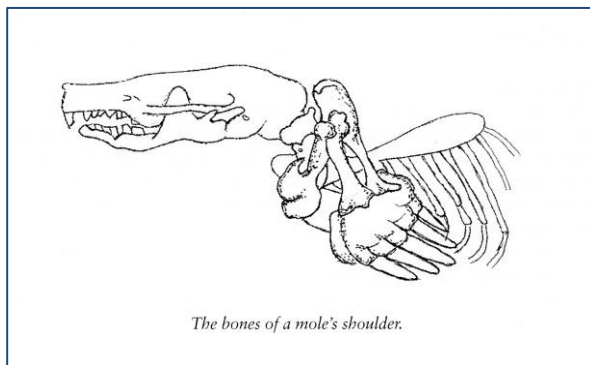


Image taken from Rob's book, *Moles*

Despite their solitary subterranean lifestyle, moles still come into conflict with humans. Gardeners and grounds keepers have issues with the numerous mole hills which can appear overnight damaging lawns, greens and sports fields. Generally speaking they are not a serious agricultural pest but mole hills can contaminate silage and in extreme cases up to 10% of grass can be covered in pasture fields. The soil from freshly made mole hills can also harbour unwanted weeds such as thistles. Moles have very little legal protection and can be lawfully killed by pest controllers, in fact it wasn't until 2006 that the use of strychnine to poison moles was banned. Professional mole catchers are now reduced to using traps to kill moles. There are a few traps available on the market but unlike other traps there are no legal requirements for mole traps to ensure they kill humanely. Many non-lethal methods of mole control have been trialled over the years, most of which don't work and some which actually make matters worse by causing the moles to abandon sections of their tunnels and dig new ones, thus creating more mole hills.

Part of Rob's work, when he was studying moles, was to look at possible ways of translocating moles rather than killing them. Release sites where surveyed for existing populations and

prey abundance prior to release. Rob's team then dug holes and built nest chambers underground which they furnished with grass and leaves. Enough worms for three to four days were cut in half and left in the chambers so the newly released animals would have plenty of food to see them through while they were digging out their new territories. The results of these trial translocations were inconclusive but no dead moles were found and new mole hills did appear near to the release chambers. Rob's thoughts on the trial is that it was promising and worthwhile but more research is needed before further translocations are carried out. Any students out there looking for a project might want to consider following on from Rob's research and helping these fantastic little animals find new homes when they are unwanted elsewhere.

## A Winter Flurry of Hedgehogs by Denise Foster

This winter was a little unusual, particularly for hedgehogs and hedgehog rescue centres! When hedgehogs should have been getting ready to hibernate this year, a high number of animals were observed foraging in very cold temperatures!

In 2016, there was a particularly mild spring which led to hedgehogs waking up much earlier than usual, which resulted in them breeding early in the season. Subsequently, some females had a late, third brood which meant that this later brood of offspring did not have enough time to fatten up before the winter.



Photo: One hog I took into care this winter

Hedgehogs, as small as 100g, were observed foraging during the day and night desperate to find enough food to build up fat reserves in order to hibernate. Sadly many of these animals did not survive the winter months, as they would not have had enough fat reserves to see them through and they were unlikely to wake up from hibernation. Rescue centres around the UK were full to bursting with underweight hedgehogs which were brought to them by the general public.

I live just outside Ledbury and I noticed that hedgehogs of many different sizes were visiting my garden early winter and scavenging under my bird feeders for leftovers from spilt seed. They all looked healthy enough but they were all on the small side. So I had to make the decision of whether to leave well alone or to interfere! My maternal instinct told me to interfere.



**Photo: It is vital to have access to an interested vet if you want to get involved with hedgehog rescue.**

I wasn't totally sure how many hedgehogs were visiting, but according to Pat Morris he suggests that as many as 9 or 10 animals can visit an individual garden each night – this appeared to be the case in my garden. It would be interesting to know whether the lack of badgers in my area is having a positive impact on the numbers of hedgehogs! I had at least 10 hedgehogs visiting the garden in late autumn/early winter, four were observed at any one time on my trail camera! I had at least 2 hedgehogs that were over 1kg in weight (I weighed them) and a third hog probably in the region of 700g. However, I also had smaller ones visiting ranging from 300g to 400g.

I did not want to burden our local Hedgehog Carers because I knew they already had more

hedgehogs that they could deal with! So, I made the decision to care for them myself, but taking regular advice from more experienced carers. I had an animal shipping crate and two cat baskets which were deemed as suitable housing, so I didn't need to go to much trouble. I adapted the cat baskets so that any hedgehogs desperate to escape could not damage their fragile feet on the wire doors trying to dig their way out! I taped a piece of cardboard as a liner on the inside of the door and this worked very well. I was already equipped with old newspapers, pet feeding bowls and tins of dog food so it couldn't have been easier or could it?

I knew that hedgehogs needed to be between 450g to 600g to survive hibernation; this figure varies depending on whose book or website you read. Some hedgehog carers suggest an even higher weight just to be sure! The hedgehogs I took into care, a total of 4, weighed between 300g and 400g.

Sadly, 1 hedgehog died after 10 days; I cannot rule out that this may have been due to my inexperience of dealing with these animals. I had a steep learning curve ahead of me and I could not let that experience put me off. However, the death of this animal did have an emotional effect on me.

The first night each of my four hedgehogs spent in captivity, they all had good appetites and ate everything I offered to them – but this lulled me into a false sense of security! Their ferocious appetites were short-lived and from the second day onwards, I noticed their weights either remained static or started to drop! The hedgehogs were kept in an unheated utility room, after all they are wild animals and appeared healthy apart from being underweight. The utility room was rarely visited so disturbance was minimal.

Since I was struggling to get them to eat much, I brought heat into the utility room, a heat pad (normally for cats) and an oil filled portable radiator which I purchased very cheaply. Keeping them warm did make a difference but it was not enough to get them to eat at the same rate they did on the first night.

Having consulted with local carers I realised very early on that I had to deal with the parasites if I



had any chance of succeeding. Hedgehogs are susceptible to an abundance of health issues of which I was totally oblivious. I wanted this experience to be easy – one wormer to fix all, but clearly this was not going to happen!

All wild hedgehogs have a worm loading, but they develop a sort of immunity when they are outside, so they are able to control worm build-up. However, should their immunity be compromised in any way by injury, disease, starvation AND the stress of being in captivity, the worms multiply which leads to the decline of the animal. So basically, if I had left the hedgehogs well alone to fend for themselves in the garden, they would surely have died of starvation, but by rescuing them and putting them under stress conditions they could still die from their parasites, so I was in a lose-lose situation. As soon as you take a hedgehog into care, you have to control the common parasites to have any chance of success.



**Photo:** Derek Stoakes, my local vet who is very keen to help our wild hedgehogs – I am so lucky to have such a sympathetic and helpful vet.

Hedgehogs have an abundance of different parasites, and to write about them all would be an epic so I have mentioned the most common ones which I experienced!

Hedgehogs defecate regularly so there were a few occasions when I was confronted with “green poo”, which is quite alarming for a beginner. Green poo is caused by bile, a substance produced in the liver and stored in the gall bladder which is required for digestion and fat absorption. In hedgehogs, bile is produced as a green colour but is converted to brown in the bowel. This process of colour change can be reduced by medication or stress so the green bile will sometimes turn up in the animal’s faeces. Hedgehogs have a rapid gut transit time so intermittent green poo can be quite normal. However, only if the animal is losing weight or condition should a course of antibiotics be recommended.

**External parasites** such as fleas (*Archaeopsylla erinacei*) need to be treated with a non-toxic flea treatment such as pyrethrum-based flea powder or Johnson’s Insecticidal powder. Other treatments like Frontline and aerosol sprays used for cats and dogs should be avoided. Hedgehog fleas will not infest your house or your pet cat or dog! They prefer their host!

If there are small numbers of Hedgehog Ticks (*Ixodes hexagonus*) present, then it is best to leave these alone. However, large numbers can lead to anaemia so they should be removed with a specially designed tick removal tool or tweezers. It is very important not to leave the tick’s mouthparts embedded in the skin as this can lead to infection.

Hedgehogs can suffer with mites, of which there are several species. These appear as a dust around the animal’s face and ears, causing the skin to become scabby and flaky and in severe cases, the spines and hair may fall out. There are various treatments for mites depending on the species!

Ringworm is a fungal infection which can cause hair and spine loss and treatment is normally a bath containing a fungicidal wash.

**Endoparasites** cannot be treated effectively unless they are identified which is normally carried out by analysing fresh faecal matter using a microscope. This really needs to be done immediately hedgehogs come into captivity so they can receive the correct treatment.

The only way to give treatment to hedgehogs is by sub-cutaneous injection, a procedure I was not entirely happy about. Initially I tried to give wormers orally but this proved impossible! I was extremely lucky that my local vet offered to carry out the microscopy work for me and he also trained me give the injections.

One of my hedgehogs had intestinal fluke (*Brachylaemus erinacei*) which is caused by eating slugs and snails. This particular hedgehog was passed on to a more experienced carer as I was struggling with its parasites. The treatment for intestinal fluke is Praziquantel (Profender spot-on for cats). I can report that this hedgehog is doing well and I am hoping to get it back in the spring.

My remaining two hedgehogs both received two different types of wormers Dectomax and then Levacide. Dectomax, a one-off dose by injection, and controls gastrointestinal roundworms, lungworms, eye-worms, warbles, lice and mange mites (in cattle and sheep)! A course of Levacide treatment, an effective treatment for lung worm, was necessary as both animals still had evidence of lung worms in their faecal matter. Lungworm and Lung threadworm appear to be very common in hedgehogs. They cause wheezing, coughing and general respiratory distress, causing a loss of appetite and weight loss.

One of my remaining hedgehogs also had Coccidia protozoan, an intracellular parasite that lives and reproduces within an animal cell in the intestines. My vet recommended that both my remaining hedgehogs were put on a course of antibiotics for secondary infections. Norodine, a broad spectrum antibiotic, was recommended so I had to give daily injections for 7 days.

#### **So where do all these parasites come from?**

Roundworms are consumed directly or from eating earthworms, tapeworms are ingested from eating dung or soil eating beetles and other insects, intestinal fluke and lungworm is ingested from eating slugs and snails and Coccidial protozoans is passed through faeces and found in the soil.

#### **What did I learn from this experience?**

- I learnt that parasites have to be treated immediately!
- Get your local vet to look at their faeces for parasites and treat accordingly or do it yourself if you have a microscope and you are competent to know what you are looking for! I came across this document produced by Vale Wildlife Hospital which may be useful if I care for hedgehogs again. [www.wildlifeonline.me.uk/downloads/vale-fecal-samples.pdf](http://www.wildlifeonline.me.uk/downloads/vale-fecal-samples.pdf).
- Ticks should be removed efficiently using a special removal tool or tweezers making sure that the mouth parts are not left embedded in the animal.
- Keep hedgehogs separate as they do fight – I learnt the hard way!
- Keep them warm – put them next to a radiator or Aga or have heat pads. Electrical heat pads should not be used inside the cage with the animal as they dig and urinate. I have a metal plated heater which I placed externally, underneath the box.
- Be aware that when heat is removed, the animal's weight can drop drastically by 20-30g per day.
- Keep them clean – clean cages at least once or even twice a day – they are incredibly messy animals! You will need plenty of newspaper – I used old T-shirts for their bedding, making sure that they could not get trapped in tight arm holes or sleeves. This worked well for me as I washed the T-shirts daily – sometimes twice a day. I found shredded newspaper just too messy.
- Make sure their water bowl cannot overturn.
- Feed them a variety of food stuffs as this is what they are used to in the wild. Cat biscuits (either Chicken and Duck or Turkey and Vegetable) were a favourite. It has been reported that fish varieties can cause gastrointestinal upsets but this depends on who you ask! Also hedgehogs generally don't like the fishy biscuits. Obviously no bread and milk!
- Other foodstuffs I tried were sultanas, raisons, Weetabix, dried mealworms, sunflower hearts, and fresh fruits like apples, strawberries etc which they seemed to like. One hedgehog loved raw minced

beef too but he was getting expensive! They all seem to have their different likes and dislikes!

- Suet pellets, digestive biscuits and wet cat/dog tinned food were not generally favoured, but the tinned wet food was routinely consumed by hedgehogs in the back garden.
- Weigh animals daily because if there is an issue with their weight, this can be addressed immediately. I learnt the hard way!

There is a lot of helpful information on the web about hedgehogs and about treating their injuries. Vale Wildlife Hospital, St. Tiggywinkles, and the British Hedgehog Preservation Society all have an abundance of good information should anyone want to become involved in hedgehog care. However, initially it is better to work with a carer for a specific time period to gain the experience about their injuries, diseases and general husbandry. You do need a decent amount of space for housing and they do eat a lot! Some people say they are smelly animals but personally I really did not notice much odour at all, apart from the general wild animal aroma, which is not that unpleasant. However, because I regularly cleaned my hedgehog housing it was not an issue.



**Photo:** My hedgehogs were placed in a housing at sunset with food and water just before release.

Both my hedgehogs were released just before Christmas at 600g. There are different views about whether to release them when they are up to weight or whether to keep them until the spring. I am always loathed to hang onto wild animals for too long – the same with bats. There is the danger they will become too reliant on humans and become tame. I took advice from

Vale Wildlife Hospital who told me to release both animals on a mild spell and leave out supplementary food which I did. However, even though both animals were marked with paint, I never encountered them after release, but I am still hopeful.

I commend all hedgehog carers out there – they are doing a fantastic job; they are unsung heroes. The amount of time, effort, and money that goes into caring for these animals is mind boggling. I only had 4 in care, one sadly died; one was shipped off to another carer so I ended up with just two which is all I could manage to be honest. Many carers have boxes piled high in their own living quarters – I don't know how they do it!

Hedgehogs are really lovely creatures but despite this fondness for the species and generally finding the whole experience of caring for them both rewarding and enjoyable, I am not going to become a hedgehog carer in the foreseeable future. However, I am prepared to take in the odd one or two should there be another Winter Flurry of Hedgehogs.

## **Bat Co-ordinator Update by Denise Foster**

### **Bats and Swift in Churches Project**

Two church visits took place in February - Moreton-on-Lugg where we just made access a little easier for the long-eared bats who have to negotiate the meshing in the porch to reach their roost.



**Photo:** David Lee installing a 2FN bat box on a mature tree on the church yard boundary of Docklow Church.



The second church was at Docklow where we installed 5 bat boxes to provide alternative roosting area for Natterer's bats that are causing the church community some anxiety. There is no money left in the kitty for bat boxes from the HLF funded project so the church community raised a few bob to purchase 1 x Maternity colony box (1FS) and 4 x second hand 2FNs boxes. We now have 11 churches with bat and swift boxes and hoping we will get some success in uptake in 2017.



Photo: A 1FS Maternity Bat Box installed inside the tower at Docklow Church

### Endoscope Training looking for Bat Roosts at Lea and Paget's Wood



Photo: The course attendees (Courtesy Giles King-Salter)

Mike Bailey organised a very successful training session which took place at Lea and Paget's

Wood on 11<sup>th</sup> March 2017. Ten members attended the training which was lead by Nick Underhill-Day and Dave Smith. The course content included; when and where is it appropriate to use an endoscope, legal issues (incl. disturbance of bats/birds) and licensing, good practice guidelines - how to use an endoscope, introduction to the Bat Tree Habitat Key, types of PRF, Health and Safety followed by a practical session evaluating and recording PRFs using endoscopes.

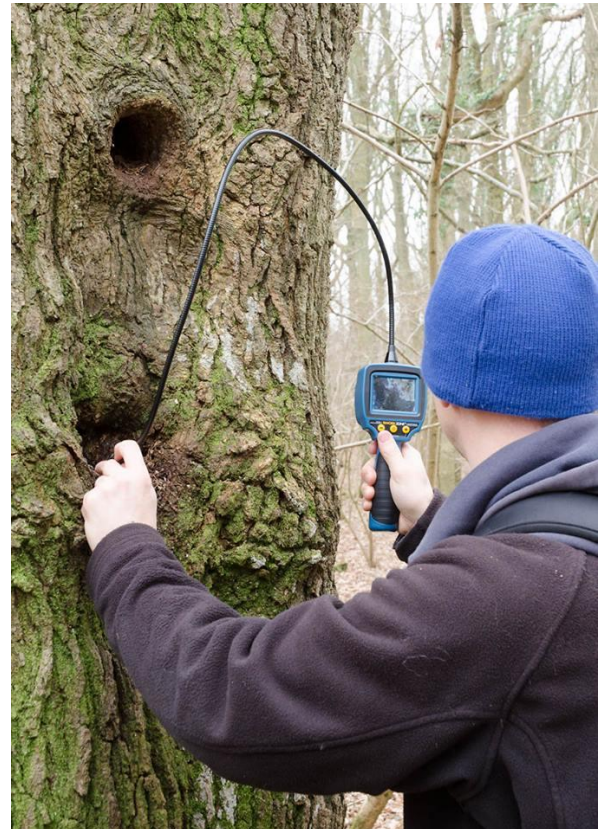


Photo: Courtesy Giles King-Salter – Mike Bailey finding a suitable PRF



Photo: Courtesy Giles King-Salter – Dave Smith checking out the brown long-eared roost we found last summer

## **Dormouse Coordinator Update by Ann Bowker**

We are really on the way with this year's surveys now. On Saturday 22nd April we put 50 tubes up in Credenhill Park Wood and Badnage Wood. Very many thanks to those who came along to help. Felicity and I have been to look at the Garnstone Estate woodlands and put our proposal to the Estate Manager. I expect final agreement in the week beginning 24th April. The tubes will go in on Saturday 6th May for which we have Felicity and Joe and three other helpers.



**Photo: Two torpid dormice found in one box at a HMG box dormouse box check.**

Checking the tubes is planned for July 8th (Garnstone), July 15th Credenhill and Badnage and 2nd September when we hope to do all three.

I am hoping to do the final check and taking the tubes down on either 28th September or 4th November depending on the weather. I am grateful to all those who have offered help on these various dates.

We can squeeze one or two more in for the checks, but do please email me on [ann.bowker@clara.co.uk](mailto:ann.bowker@clara.co.uk) so that I can confirm details nearer the time and I know who to expect.

## **HMG CONTACTS**

**Chairman, Bat Co-ordinator and Newsletter**

**Editor** – Denise Foster

Email: [sweetchildofmine@btinternet.com](mailto:sweetchildofmine@btinternet.com)

**Secretary and Training Co-ordinator**

Mike Bailey

Email: [mikebailey34@googlemail.com](mailto:mikebailey34@googlemail.com)

**Treasurer** - Mike Coleman

Email: [mike.hereford@btinternet.com](mailto:mike.hereford@btinternet.com)

**Small Mammal Co-ordinator** – Dave Smith

Email: [davetreesmith@aol.com](mailto:davetreesmith@aol.com)

**Membership Secretary and Event's Co-ordinator** – Leigh Russell

Email: [leigh\\_russ2003@yahoo.co.uk](mailto:leigh_russ2003@yahoo.co.uk)

**Committee Member** - David Lee

Email: [davidlee@thespis.eclipse.co.uk](mailto:davidlee@thespis.eclipse.co.uk)

**Co-opted Committee Member (Dormouse Co-ordinator)** - Ann Bowker

Email: [ann.bowker@clara.co.uk](mailto:ann.bowker@clara.co.uk)

**HMG Main Email:**

Email: [hmg2013@btinternet.com](mailto:hmg2013@btinternet.com)