



Rabbit in a field of rape seed ©Dave Hudson



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CMG held our 2021 AGM at Woodland Valley Farm, Ladock home of the Cornwall Beaver Project. Our first real live meeting for nearly 2 years! Sixty people came along to hear our guest speaker Gillian Burke, Springwatch presenter, talk about her personal journey through the world of nature. Kate Hill and Gillian then presented Jen Bousfield with our CMG Award for all her work on Dormice in Cornwall. This was followed by a lovely lunch prepared by Felicity and her team and a chance to chat with people without the old '....you're on mute...' problem. There was a chance to browse the CMG stand and displays from Cornwall Wildlife Trust, Cornwall Bat Group, Cornwall Seal Group Research Trust. Jen Bousfield had also brought along her amazing dormouse display as well.

After lunch we held the AGM, reviewing the past year and our financial situation and our new committee was elected. Afterwards it was on with the wellies and down to the beaver enclosure for a tour by Chris and Tom and lots of discussion. The weather was kind and the open-sided barn was a great venue for these strange times.



Jen Bousfield receives the CMG Award from our speaker Gillian Burke

Events for Winter/ Spring 2022:

For our online events you need access to the internet. If you have any issues then please get in touch.

- **February 16th**

Acoustic Monitoring for Small Mammals – a talk by Dr Stuart Newson, Bat and bird ecologist. Booking through Eventbrite – details will be circulated before the event. This event is organised with Cornwall Bat Group.

- **March 2nd**

Mad March Hares: Ecology, conservation, magic and mythology of hares - a talk by Dr Steph Wray, Chair of the Mammal Society. Booking through Eventbrite – details will be circulated before the event.

- **March 12th**

Truro College and online.
 Marine Strandings Network Forum

- **May 15th**

Pentillie House, Callington.
 Tamar AONB Bioblitz.

Notes from the chair: Dave Groves

Here we are in 2022 and the usual question of how January lasts at least 6 weeks.... So the AGM in November went extremely well, great turnout, great weather, great speaker and great venue. Now we have our new committee and are ready to face the challenges of the new year.

Our first focus has been harvest mice – after several false starts we have been working really hard getting out in the field (quite literally) in search of nests to improve our understanding of the distribution of this often overlooked rodent. After a couple of chilly training days (thanks to Sarah and Pete) we have been sharing the learning around a team of about 30 volunteers and heading out in loosely organised bunches to sites around the county. It's been great to get some practical surveys done and even better to be finding plenty of evidence – even helps to overcome the frankly evil weather we have had to face. We have been working closely with Emma and the South West Lakes Team (SWLT) as well and getting records in from around the South West Water (SWW) reservoirs. I hope the upcoming talk from Frazer at the Mammal Society will include our recent findings from field surveys and barn owl pellet analysis. The beaver day was over-subscribed and well worth the frostbite to learn so much and see the Devon fenced site looking so good.

We have been working hard to get a nice programme of events lined up for everyone – online talks are in the pipeline on harvest mice, brown hares and novel survey methods. Talking of on-line, we held our long-awaited county dormouse study group meeting in January which, like the parson's egg, was good in parts. Those of us that managed to get through the IT chaos enjoyed an educational and inspirational series of talks and discussions but there was a lot of confusion over access which seemed to originate in some conflicts in the Eventbrite software – apologies to all concerned but it wasn't our fault, honestly... Thanks to Matt, Charlotte and Ellie especially for bearing with us.

We have other things to look forward to this year – more field work anticipated with the national otter survey – helping to fill in the blank squares. Our dormouse monitoring will continue, alongside training, and we hope to support some new long-term monitoring sites. Hedgehog surveys will be back, and the harvest mouse monitoring will return at the end of the year. We already have one Bioblitz collaboration planned for May with the Tamar AONB but if you want to set up surveys of any description get in touch and we can try and help out.

Thanks to everyone who has been along to surveys, attended events (or at least tried to...), supported our social media, used the website or sent in records – it all helps us and Cornwall's mammals!

- Dave Groves

Yep Yep Rabbit Rabbit

I recently moved house from between Truro and Falmouth to the north Lizard. After moving, we spent a lot of time exploring the area and finding new walks with our dog and I noticed there seemed to be loads of rabbits everywhere (as did our dog). It made me wonder if there's something different about the rabbit population here; whether it's a bigger population here than where we used to live, whether it's something to do with the habitats in which we're walking or if we've just noticed more of them as we're somewhere different.

Rabbits have had a bit of a mixed history in the UK. Despite there being evidence of rabbits during at least one ice age, they were not reintroduced to the UK until the 12th and 13th century and initially to just some isolated sites. It wasn't until the 19th century that, with our own habitat management, rabbits started becoming a pest species. Numbers peaked in the 1950s, but the introduction of myxomatosis at this time caused at least 99% mortality in some rabbit populations. However, soon the mortality rate declined which led to the question of whether this was due to evolution of increased resistance in the rabbit population or evolution of a less harmful virus (this sounds a bit familiar doesn't it?!). Interestingly, experiments with lab rabbits and wild rabbits and viruses from successive years demonstrated that there was evidence of evolution of both the wild rabbit population and the virus which led to the reduction in mortality (I think our lifespan might be a bit long for us to evolve to evade our current pandemic!). As a result, the rabbit population increased, but remained substantially lower than prior to the virus.



Image ©Dave Hudson

There is now recent evidence from the British Trust for Ornithology (they also collect data on mammals!) that rabbits have suffered further severe declines over the last 20 years (with a decline of 64% recorded between 1996 and 2018), again apparently mainly due to disease, but now with the addition of the effects of Rabbit Haemorrhagic Disease Virus. Given rabbits are non-native in the UK, it seems counter-intuitive to be concerned regarding their population status. In fact, on some islands, overgrazing by rabbits had

a severe effect on the floral communities, which only recovered with the introduction of myxomatosis. However, myxomatosis also provided an opportunity to understand more about the importance of rabbits in the UK ecosystem as, where there was high mortality, we could monitor the effects of the loss of rabbits. It's now recognised that an intermediate level of grazing by rabbits can be beneficially in helping to prevent succession and to maintain a wide range of habitats which, in turn, maintain populations of invertebrates and vertebrates. For example, declines in the large blue butterfly occurred with the decline in the rabbit populations as its caterpillar is dependent on red ants which are themselves dependent on short grassland. Of course, rabbits are also important prey for many species of mammals and birds. Aside from the evidence of their importance in maintaining some ecosystems in the UK, since 2018 rabbits have been listed as endangered in their native Iberian range on the IUCN red list, which perhaps provides further justification for considering the populations status of rabbits outside of their native range.

So what might my anecdotal observations of rabbits in Cornwall mean regarding their population status? It is likely that it is just observer bias (I love where we've moved and I wouldn't be surprised if I was just imagining an Eden full of lots of happy creatures), but it would be interesting to know if there are potential places of refuge for rabbits, perhaps if this might be dependent on habitat type or relative isolation from disease transmission. My little anecdotes (and proper research from the BTO!) really highlight to me the importance of citizen science in helping to monitor wildlife populations. We can be a bit consumed with monitoring our rarer and protected species (I'm usually just on the lookout for otters), but it's possible that some of our important habitats depend on the ecosystem engineering of our common (and in this case non-native) species and so opportunities to record these species should not be missed.

- **Dr Kelly Moyes**

(University of Exeter)

If you're interested in reading further on this subject then the following might help:

Harris, S.J., Massimino, D., Balmer, D.E., Eaton, M.A., Noble, D.G., Pearce-Higgins, J.W., Woodcock, P. & Gillings, S. (2020) The Breeding Bird Survey 2019. British Trust for Ornithology.

Lees, A. & Bell, D.J. (2008). A conservation paradox for the 21st century: the European wild rabbit *Oryctolagus cuniculus*, an invasive alien and an endangered native species. *Mammal Review* 38: 304–320.

Ross, J. (1982) Myxomatosis: the natural evolution of the disease. In Edwards, M. A. & McDonnell, U. (eds) *Animal Disease in Relation to Animal Conservation*, pp. 77-95, *Symposia of the Zoological Society of London* No 50. Academic Press, London.

Sumption, K. & Flowerdew, J. (1985). The ecological effects of the decline in Rabbits *Oryctolagus cuniculus* L. due to myxomatosis. *Mammal Review* 15: 151–186.

Hedgehog *Erinaceus europaeus*

Beyond their charismatic cuteness, there's a lot to discover about these wonderfully unique creatures – they have secret superpowers!

We often take hedgehogs for granted as they are such a familiar creature from story books and now internet videos, but when was the last time you saw one with your own eyes?

Hedgehogs are often in the press these days because of their population decline which is becoming a well-known fact for important reasons, but what about some of the facts that make these animals so interesting in the first place? We shouldn't overlook the well documented population decline but let's first learn about these animals to understand why they are so important to our native ecosystems and why we should aim to protect them and influence positive changes to help their population to recover.

Hedgehogs have always fascinated people and this dates back to the Neolithic Period – proven from a carved toy hedgehog that was found buried next to a grave unearthed near Stonehenge dating back some 3,000 years!

The earliest known member of the hedgehog family lived about 58 million years ago. There are now seventeen species of hedgehog in five genera found through parts of Europe, Asia, and Africa. The smallest hedgehog that ever existed was a species called *Silvacola acares* that lived 52 million years ago in rainforests of northern British Columbia. It was about 2 inches long! All species are now extinct in the Americas – maybe due to their small size?

Slightly more recently... hedgehogs were actually domesticated by the Romans who were well known for using European mammal species for all sorts of things. As a result of Roman conquests we now have species such as rabbits and 'edible' dormice in our countryside (not to be mistaken with the hazel dormouse). We have always had Cornish hedgehogs but the Romans made the most of them during their travels using their spines as quills for writing - as well as an occasional snack apparently!

FUN FACTS:

“There are somewhere between 5,000 to 7,000 spines on an average adult hedgehog – that's a lot of roman pens!”

“A hedgehogs’ spines do come off under certain circumstances. Much like our baby teeth, young hedgehogs shed their baby spines, which are replaced with adult ones.”

The hedgehog can thank its spines, which are modified hairs, for its signature look and they use these for defence by rolling into a characteristic ball when threatened. The hedgehog was part named for their other defensive talents - while defending territories they often emit snorts, squeals and grunts – just like pigs and hence the use of ‘hog’ in their name.

This kinship to pigs has been solidified in literature by Shakespeare who mentions hedgehogs in *The Tempest* and *Midsummer Night’s Dream* as "hedgepigs" and "urchins" due to their spiny exterior.

Hedgehogs also forage and truffle, like pigs, through natural habitats including ‘hedges’ which is the reason behind the other half of their name. They seek their prey in the undergrowth and this is where their SUPERPOWERS come in handy! Hedgehogs are omnivores and make the most of the countryside larder - including insects, berries, bird eggs, mushrooms, mice and amphibians. They also eat reptiles and make the most of juvenile snakes...but this comes with a risk as they can also come across adders during their exploits.

Adders are Great Britain’s only venomous snake and well known for their ability to bite dogs and cats in Cornwall. Hedgehogs being a lot smaller than our domestic pets would lead us to think they would be at risk from adder strike but **HEDGEHOGS ARE RESISTANT TO ADDER VENOM.**

This is due to a protein called *erinacin* in the hedgehogs’ muscular system which offers antihemorrhagic healing properties - this prevents blood haemorrhage if bitten - genius! This gives them a serious advantage during their nocturnal activities and mistakenly coming across an adder nest.

Other hedgehog superpowers include their super speed - they can run up to six feet per second (4mph) which is impressive for their size. They also have the ability to camouflage themselves from predators! They do this by “anointing” certain objects or food by licking the substance until a frothy saliva forms. They then rub the saliva onto their skin and spines which is believed to make them smell less palatable to predators.

This ability is particularly useful for Leucistic or 'blonde' hedgehogs which occasionally occur in the wild. Leucistic hedgehogs are extremely rare but there are places, including the Channel Island of Alderney where around 25% of the population is thought to be blonde.

So, hedgehogs are AMAZING ANIMALS that have been around for time immemorial and we want this to continue! They are also an indicator of environmental health. If hedgehogs exist in a habitat, then all the food they eat, lower down the food chain, must also exist to sustain them. They must also be able to connect to other areas to breed to keep the population going. Farming pesticides, habitat fragmentation and roadkill are the biggest threats to hedgehogs and has resulted in a significant population decline.

DECLINE FACTS:

“Of approximately 30 million hedgehogs that existed in Great Britain in 1950 under a million are now left struggling to exist.”

“It's estimated that more than 100,000 hedgehogs are killed every year by vehicles on Britain's roads alone!”

Unfortunately no superpower can save hedgehogs without human intervention. Cornwall Wildlife Trust, as part of Operation Hedgehog (a Cornwall based hedgehog partnership), is working to understand where hedgehogs still exist in Cornwall with our partners the Cornwall Mammal Group and Prickles and Paws Rescue Centre. We aim to build this population back up to strength with local initiatives to reverse the population decline across the county.

We need to do a lot more for our Cornish hedgehogs before they are lost forever. If you would like to help then please visit:

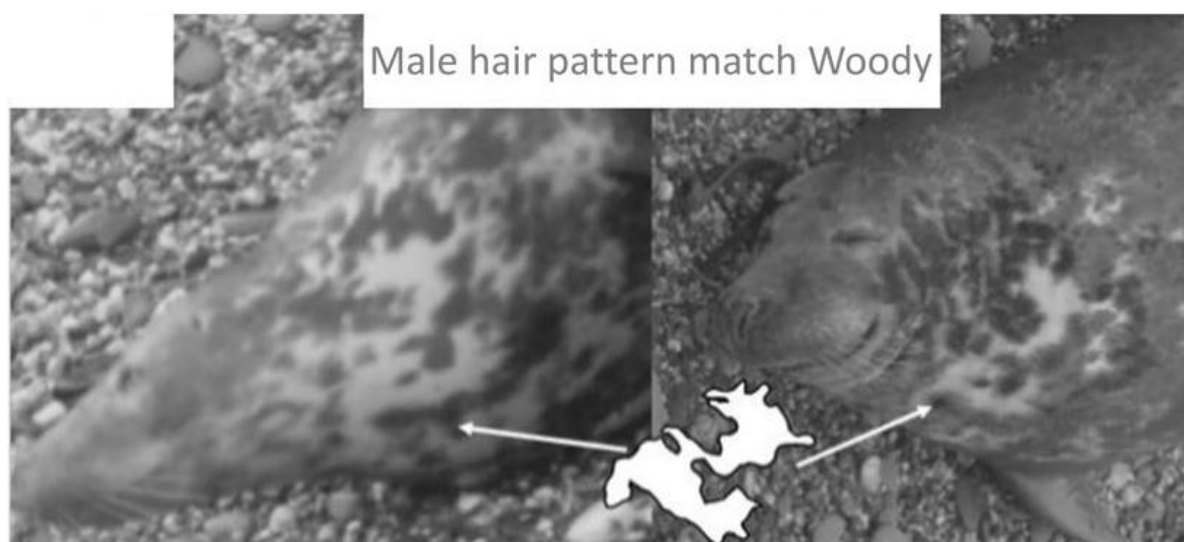
<https://www.wildlifetrusts.org/hedgehogs.pdf>

- **Tom Shelley**

(Cornwall Wildlife Trust)

Monitoring seals around wild coastlines is always a wonderfully uplifting experience and identifying individual seals from their fur patterns is hugely rewarding for Seal Research Trust (SRT) rangers and volunteers. Knowing a seal's life story, movements and behaviours is a real privilege. Whilst most people are interested in discovering these stories, there is one group of dedicated people who have invested heaps of time, energy and commitment into giving these seals a second chance...the rescue and rehabilitation teams – for example from British Divers Marine Life Rescue, the Cornish Seal Sanctuary (CSS) and RSPCA West Hatch Wildlife Hospital. Knowing that you can make these amazing people smile with relief and pride is fantastic after all their hard work helping seals in trouble.

Together, we collaborate as partners, sharing our wild sightings with their rescue, rehabilitation and release data and in 2021 we finally got our shared research findings published in the Marine Mammal Science journal. Covering an incredible 19 years, our paper included sightings from around the southwest UK region.



Woody – one of 391 individual seals that SRT can identify through their unique fur pattern or rear flipper tags.

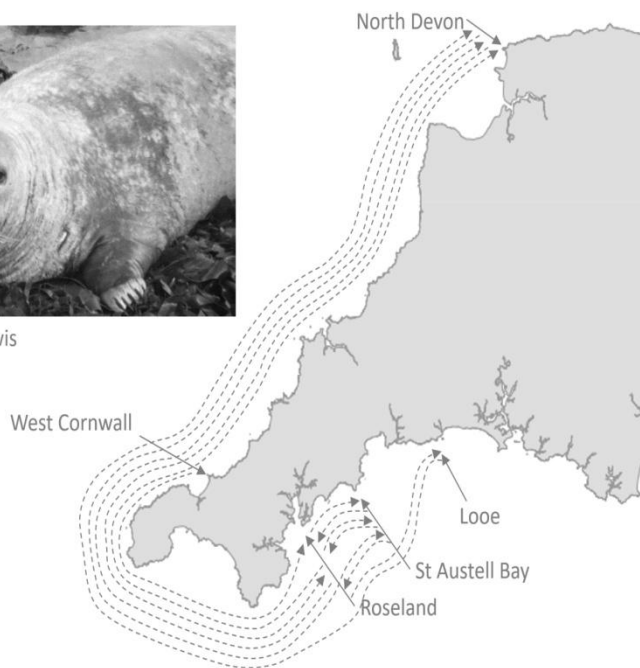
We identified a total of 391 different ex rehabilitated seals from a combination of unique fur patterns and rear flipper tags. This included 188 seals that could be traced back to specific rescue, rehab and release data. The longest surviving RSPCA seal was male called 'Bauble' who Sue Sayer (Director of SRT) saw being released back in 2007 and she continued to identify him 11 years later.

Most of the seals in rehab were male and spent an average of 113 days there with no correlation between time in rehab and length of post release sightings. Released at 15 different locations around the SW, the rehabilitated seals had a similar movement range to their wild counterparts, linking Cornwall to the Isles of Scilly and SW Wales (although not Devon and Dorset).

Lewis was the longest identified CSS taggie and his 17 year post release history has seen him routinely swim between Looe in SE Cornwall and north Devon. Overall, for seals released before 2013, 35% were known to survive for 5 years or more. This is a great testament to the excellent treatment and care protocols adopted by all our rehabilitation centre staff, who go above and beyond to give these lucky seals a second chance.



DP193 Lewis



Incredibly 94% of the seals released from 13 of the 15 sites were seen near St Ives Bay, showing the critical role this site plays in the lives of seals from around the SW. There was no significant association between release site and the location of subsequent resightings.

Despite the incredible experiences these resilient rehabbed seals have survived, it is a sad fact that once back in the wild, they face the same cumulative threats as their wild counterparts.

To read our paper, please follow this link:

www.cornwallsealgroup.co.uk/2021/2021/12/rrr-really-works

- Sue Sayer

(Director - Seal Research Trust)

“We have an open barn with lots of piles of wood and when I went up there that morning I saw this little chap had got himself trapped in a bucket. I took a couple of pictures before releasing him at the edge of our field where there is dense undergrowth and a couple of hazel trees, which I believe is somewhere they live. It was amazing to see one as I know they are so rare. I have seen one here once before, a few years ago but they are not a common sight at all. After finding this little one we got two dormouse nesting boxes on the suggestion of a wildlife rehabilitation friend of ours, which we plan to put up on the hazel trees very soon.”

- Debbie from North Cornwall



Badger Vaccination in Cornwall

Widespread badger culling is coming to an end. In 2022 the government will issue its last large scale culling licences meaning that 2026 will be the last active year. With 86% of land in the Southwest currently covered by cull licences, our local badger population has suffered greatly but the future is looking much brighter and here in Cornwall our vaccination project is leading the way.

The Cornwall Badger Vaccination Project is run by the Zoological Society of London (ZSL) and our initiative, led by Professor Rosie Woodroffe, is at the forefront of The Government's move away from culling and towards vaccination. We have been conducting research on bovine tuberculosis (bTB) in badgers and cattle since 2012 and have learned a huge amount about how the disease works and how to control it. After a global shortage of BCG vaccine, we resumed badger vaccination in 2018, it became our primary focus and last year we vaccinated 188 badgers with large areas of expansion already planned for this coming season.



A young Cornish badger receives its vaccination.

Image ©Kelly Astley

We are currently working in three main areas across the county; Penwith is one of the last areas in Cornwall not to be subjected to a cull, and so it is an ideal location to collect data on how badger vaccination works in an uncultured population. We vaccinated our first badgers there in 2014 and now cover a large area working closely with the National Trust, Cornwall Wildlife Trust and local landowners. Our project covering parts of Clay Country in mid Cornwall is about to enter its fourth year, we were approached by a group of farmers seeking an alternative to culling in their area and this became **the first farmer led vaccination project in the country**. Our second farmer led vaccination project began last year in the River Cober catchment area.

To vaccinate a badger, first you must catch them. This is a time-consuming process. They are caught using cage traps which are placed in areas of badger activity (e.g. setts and runs). The traps are locked open and bait is placed in them every day for 7



A vaccinated badger being released from its cage trap. Image ©Kelly Astley

– 10 days moving progressively towards the back of the trap so the badgers get used to going in and out. We then set the traps to catch and return at first light to vaccinate any that have been caught, we clip a small amount of fur and mark with stock spray so that we can recognise that animal if it caught again the next day. We usually trap for two successive nights.

As a research project we don't just vaccinate the badgers, some badgers (144 in 2021) are briefly anaesthetised (under Home Office licence), blood and other biological samples are taken, and morphometric data recorded. These results form the basis of our research project. Vaccination has been shown to reduce disease in the badger population, but more research is needed on its efficacy in the field and if the reduction of prevalence of disease in badgers leads to a reduction of bTB in cattle.



Blood samples taken from an anaesthetised badger under a Home Office licence. Image ©Kelly Astley

We are currently signing up landowners (big or small) in Penwith, Cober/Stithians area and mid Cornwall Clay Country area to receive FREE badger vaccination. If you are interested or know anyone who would be please email badgers@zsl.org or phone 07891476996. Or for more information visit <https://www.zsl.org/conservation/species/mammals/badger-vaccination>

- Kelly Astley

(Cornwall Badger Vaccination Coordinator, ZSL)

Water Shrews in Cornwall

What do we know about the water shrew (*Neomys fodiens*) in Cornwall? Well, like most small mammals – not a lot.

Probably one of our least known mammals and although classified as being of Least Concern in the latest IUCN red list, the Mammal Society's 2018 review indicated a likely decline in the national population from the current (very rough) estimate of 714,000. Deteriorating habitat and declining water quality are the likely reasons.

Water shrews are thought to be widespread in Cornwall, but their patchy distribution makes them particularly tricky to survey.

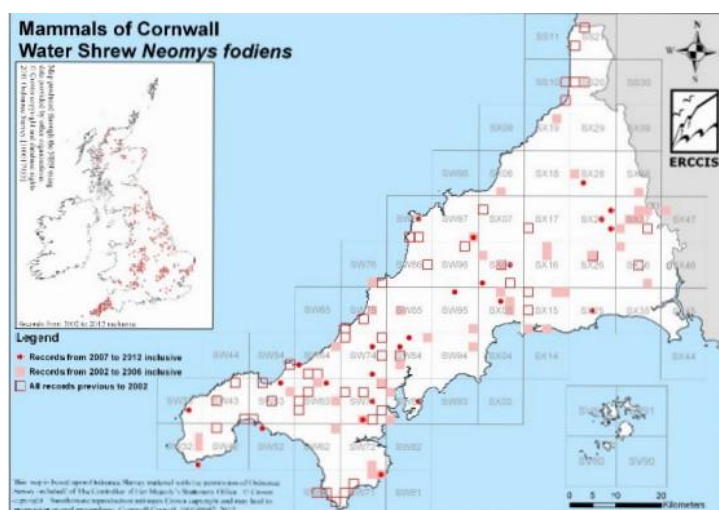
Longworth trapping is very labour intensive for such a sparsely distributed species.

However, targeted surveys using simple

baited tubes can be used to collect shrew scats (droppings) and this is the most widely used method. The Mammal Society used this approach to conduct a national survey over 4 years published in 2006 by the Environment Agency, and many records on the ERCCIS database have been collected in this way.

Water shrew scats are larger and paler than those of other shrew species and on inspection they include the remains of aquatic invertebrates. Our own Kate Stokes and Alex Howie used this method to collect large numbers of water shrew records in the early 2000s and more recently students from Exeter University have been using the approach. There is an element of 'chicken and egg' in surveying for water shrews, in that they are primarily amphibious predators and have a number of adaptations to hunting in rivers, streams and ponds. Consequently, surveys usually take place near water. However water shrews are found some distance from water where habitat is suitable and this may also reflect dispersal behaviour and their apparently nomadic behaviour. There are indications that water shrews range more widely than other shrews and populations may disappear from areas only to reappear a couple of years later.

Barn owls are thought to be one of the major predators of water shrews (Harris & Yalden, 2008) although they do not form a large part of the owl's diet. Examination of owl pellets is an excellent way of collecting water shrew distribution data. Our recent collaboration with the British Trust for Ornithology (BTO) and Cornwall Birders collected 72 records of water shrew from 23 different sites over 5 years and although it biased by recording from the location of owl roosts it does show their presence across the surveyed area. Our challenge using this approach is to find more barn owl roosts in mid- and East-Cornwall. However, it is



Water shrew distribution in Cornwall (Groves, 2012)

good to see the area between Penzance and the Lizard, with so few recent records in the atlas map, well represented in the pellet studies.

Shrews of all flavours often feature in the prey of domestic cats and this is another very reliable way of recording the species. Water shrews are our largest shrew, they are black



Water Shrew, *Neomys fodiens*, with its distinctive black back and white underbelly and showing the white ear tufts. Image © David Chapman

above with a white belly (although occasional all black individuals occur) and many have white ear tufts. The tail also black and white.

Sometimes water shrews can be seen hunting underwater where the layer of air trapped in the fur gives them a silvery sheen. Water shrews hunt on land but they have several adaptations

to aquatic habitats, although their feet are not webbed there are fringes of stiff hairs which increase their surface area and

assist with swimming, along the tail a keel of long, stiff hairs act as a keel and help with propulsion. Their sensitive whiskers are used to detect prey underwater and prey is usually brought back to the bank before being eaten. Water shrews have been shown to produce a neurotoxin which can paralyse or stun the prey. Bites from water shrews can cause irritation even in humans. Their main prey items are freshwater crustaceans such as Gammarus and caddis larvae. They also hunt on land for a similar range of invertebrate prey as common shrews.

Water shrews occupy linear territories of 100-250 m² often in small, localised populations. Perhaps only at 5 or 10% of the typical density of common or pygmy shrews. They rarely live for more than 12 months and the females produce 2-3 litters of 5-7 young. The breeding adults rarely survive the winter and the young of the year overwinter, remaining active and foraging throughout the winter.

This distinctive shrew is easily identified – so if you find one, or more likely come across a little corpse, please let ERCCIS know either directly or through the ORKS website. A photograph will always be appreciated!

- **Dr Dave Groves**
(CMG Chairman)

Easy Peasy Trifle

Deliciously indulgent but really easy to 'whip' up.

Will serve at least 4, or get yourself a big spoon and tuck in for a pudding for one!

Ingredients

Pack of 4 chocolate muffins

Raspberry conserve

250g raspberries

2 Tbsp rum

50g dark chocolate

Tub of ready made custard

300ml of double cream



Method

This really doesn't need to be followed to the letter, whatever you have will do ... mix up the fruit (used tinned or fresh or frozen) and vary the flavour of muffins and leave out the dark chocolate or replace with white chocolate. My favourite Summer version is plain fairy cakes (shop bought), sherry, tinned mandarins and vanilla custard and cream on top ... i.e. even easier than this version!!!

Slice muffins horizontally into four and sandwich two pieces together with the raspberry conserve. Line a suitable trifle bowl with the muffin sandwiches and pour over the rum.

Scatter the raspberries over the layer of muffins.

In a small saucepan gently warm custard and chocolate together until chocolate has melted. Allow to cool a little and then pour over the muffin and fruit layers.

Pop into fridge to cool.

Whip cream and spread it over the top

....or get really fancy by creating multiple layers as per the picture making sure the custard layer is cold, each time, before you put the cream on top

You're done...*Enjoy!!*

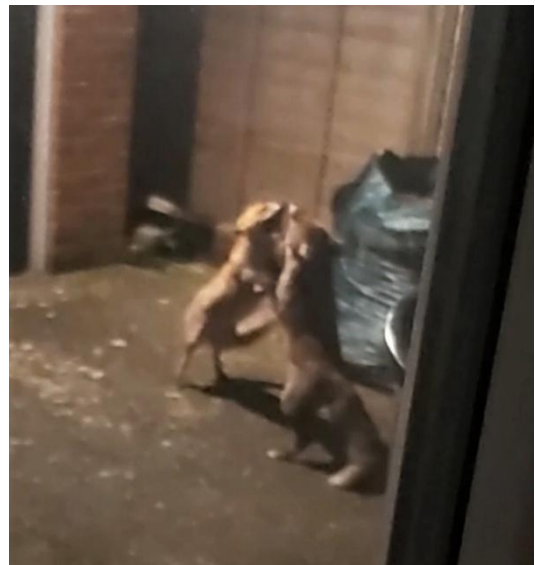
What Does the Fox Say?

I normally spend three quarters of my year sleeping out in the open or under canvas, surrounded by nature, falling asleep listening to various noises in the dark. Thankfully, over the years I've learnt to distinguish many of the welcome sounds of wildlife to those of unwanted visitors (hunters approaching my tent after midnight has happened on more occasions than I'd like). If you've ever heard wildlife communicating at night it can appear terrifying at first. Foxes calling to each other can sound like women screaming. Hedgehogs 'puffing' can be incredibly loud for such a tiny creature, especially during copulation. Maybe it's all the spines!

I've been lucky enough to be woken by sniffing around my tipi and once I crept out, I was faced with three young badger cubs, totally oblivious or uncaring of my presence as they bickered their way through the woodland. On another occasion, a friend came to stay and she too heard snuffling around the edges of the tipi that sounded "larger than a mouse but smaller than a fox". The next morning I investigated and sure enough, in amongst the deep leaf litter, I found hedgehog faeces. It's likely I would never have known they were in the woodland, sharing space alongside the badgers, if she had not heard them. I'll be putting out hedgehog tunnels (a method of recording tracks without harming or disturbing the hedgehog) soon just to try and get a better idea of where they move through.

This winter I've spent some time staying with my mum over Xmas and the new year, staying in a relatively urban area compared to the natural locations I usually find myself in. I thought it might be quieter here and I'd finally get a full night's sleep without the woodmice running circles around and over me, but January proved to be the noisiest time of the year yet. Foxes and hedgehogs are regular visitors to my mum's garden. All through the early hours in the first couple of weeks of January, the foxes vocalising were louder than kicking out time at The Red Lion. I initially thought that my mum's cat had gotten itself stuck in somewhere and was making a ruckus screaming and fighting to get out. I crept round to where the noise was coming from to be confronted with a vixen jumping back and forth on top of the fence screaming out in search of a mate. Early January is when foxes tend to mate and we'll see cubs born around March/April.

A couple of weeks later, I was woken by a faint trilling sound "trrr, trrr, trrr". I peered through the curtains out into the dark and their movement set the security light off. Two males were on their hind legs, wrestling with each other. A smaller fox (male?) slunk away and left these two squaring up to each other and chattering in something that is known as 'gekking'.



Two foxes 'gekking'. Image ©Angie Nash

Gekkering is a series of growls and yips which are thought to occur between two male foxes when they are in close proximity to one another or actively engaged in aggressive conflict, although confusingly, they are also known to do this during play. Considering the time of year and the vixen calling for a mate only a fortnight earlier, I would think it more likely that these two males were actively trying to defend their territory.

Foxes can be very vocal and studies have identified that they produce at least 28 different vocalisations to communicate with other foxes and with other animals. As they mature their sound repertoire broadens and gets louder and fox cubs have unique sounds they use to communicate to their siblings and parents. Domesticated foxes have been noticed to produce even more sounds than wild ones, but it's likely we are missing many of the wild fox vocalisations

The more recognisable sounds include:

Barks

As with most canines such as dogs, wolves and coyotes, barking is the main sound they make to communicate to other canines and other animals. Foxes bark when they feel surprised (a single 'yip') or to indicate danger (a series of drawn out barks). And so, by barking, they warn their cubs or other foxes in the area of possible danger.

Growls

Growls are warning threats to other foxes and other animals that a fox is on alert, currently in a defensive posture and is willing to fight rather than back down or try to escape. As is common in other canines, growls are made low in their throat and the guttural sound is meant to be heard only at close range.

Whines and Whimpers

Whines between adult foxes are made to communicate submission when dealing with other foxes they don't wish to force to aggression. Fox cubs use whines to alert their parents they are hungry, cold or in need of some sort of attention. Whimpers are like whines, but never loud and strident. They are strictly used to communicate among other foxes, most often between family members. Whimpers are thought to mean to be soothing, to keep pups quiet and content or to signal all is well.

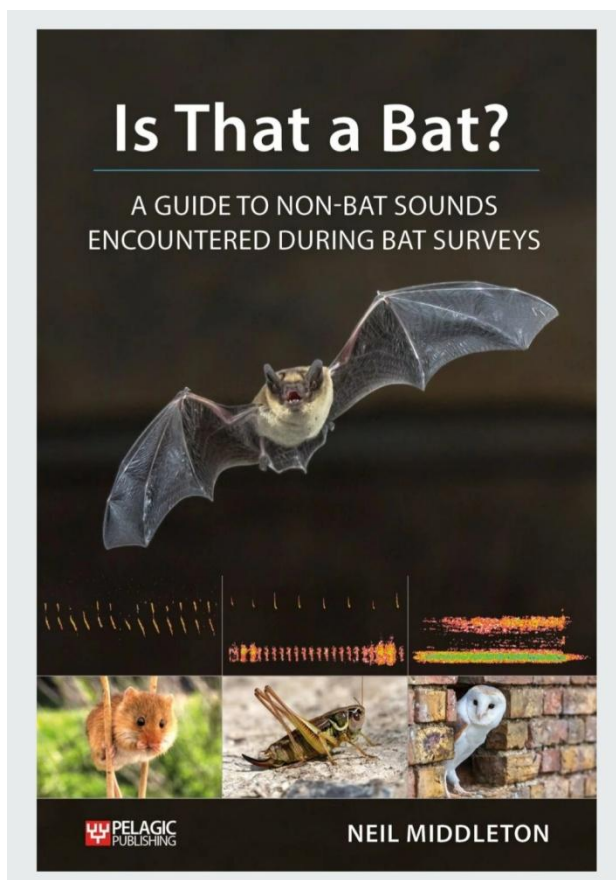
Screams

Screams are the most common sound you hear, and notably during the mating season. These screaming sounds are made by female (vixen) foxes when calling a male fox for mating. Although males also sometimes produce screaming sounds, researchers are still not sure why do they do it.

Wildlife communication is a fascinating subject, and as I find myself surrounded by small mammals, I often get close encounters and have heard all manner of vocalizations. Dr Stuart Newson and his colleagues have been working on acoustic monitoring of small mammals and we are very fortunate that he has agreed to give an online presentation to Cornwall mammal group on 16th February 2022 at 19.30. Dr Newson works for the BTO but his first love is bats and he has been working to develop citizen science as an approach to extensive bat monitoring – using static detectors and a cloud-based analytical tool (the BTO Pipeline) to understand the distribution of bat species. He has now developed a reference library of small mammal ultrasonic calls which allow a similar approach to surveying for species with characteristic social calls. This is particularly useful in the search for dormice but can also be used to identify other rodents and shrews. This could be a hugely valuable alternative to labour-intensive trapping or nest box surveys.

If you too are interested in this subject, then please come along to our talk jointly hosted by CMG and Cornwall Bat Group. Tickets are free and can be booked through Eventbrite on:

[Acoustic monitoring of small mammals - a talk by Dr Stuart Newson Tickets, Wed 16 Feb 2022 at 19:30 | Eventbrite](#)



If you are interested in learning even more about this subject, then Dr Newson and his colleagues are working on a book on the subject and are keen to hear any clear recordings you may have. These can be sent to neil.middleton@batability.co.uk.

Neil has already produced a book on the subject which you might be interested in.

- Angie Nash

(CMG Newsletter Editor)

The Ramblings of a Newbie...

There I was, sat out in my rural countryside garden one evening enjoying a Pimms (remember THOSE days when it didn't rain every single day?!), when I heard the snuffling and shuffling of a little being nearby. I tell you what, I have never been so excited to see a hedgehog in all my life (and I used to volunteer at Prickles and Paws!).

We had moved from the town of Launceston out to the middle of nowhere near North Petherwin and less than a couple of months into enjoying our new abode, we were being rewarded with the joys of nature. We have fed and watered our visitors (at least 4) every night since, we also fed and watered the local bloomin' cats for a while (thanks Mum for whipping up a perfect little hog, cat resistant shelter!) We have unfortunately had to see the sadder side of nature as well after having to take one of our resident hogs to Castle Vets, who cleaned his wound up and sent him on his jollies to a local rescue, where he is doing well and awaiting warmer days to be released back here.

I'm a newbie committee member at CMG, and got involved after meeting and chatting with Dave Groves about rewilding his local churchyard on a walk with Launceston Wildlife Group. I'm a churchyard fanatic - I did my undergraduate dissertation on how the habitat composition and management of churchyards affects bird communities within them and I'm hoping to expand on this for my Masters thesis. Through my studies in churchyards, I am on the committee for a local group in South Petherwin, where we are a few years into managing the churchyard there for wildlife (rather successfully, if I do say so myself!). We held a Bioblitz at St Paternus church in the Summer and Dave kindly came along to help us look for small mammals. We were also very lucky to have Tony and Mary Atkinson come and do a moth survey for us, which fascinated everyone, especially the kids!



Tony Atkinson conducting a moth survey as part of St Paternus Church bioblitz. Image © Kayleigh Hunt

If anyone out there is wondering whether their local churchyard could be managed in a way that benefits nature – please do give me a shout, I'd love to have a chat! You only had to be at Dave's talk at Laneast church, on that freezing cold night in November 2021 to see the diversity of life that can be found in our churchyards.

I digress. Since joining CMG I have taken the reigns of the Instagram page (please do send anything over that you think may be good for the page!). I have also caught and weighed my first small mammals when we went trapping at Greena Moor. I was like a kid in a sweet shop! As well as amazing experiences, I have been made very welcome and have made connections with many wonderful people, so I'd like to just say thank you and point out what a cracking group CMG is!



Image© Jen Bousfield

Unfortunately, I couldn't make the AMG but I am so looking forward to meeting you all properly at an event/meeting soon! We are incredibly lucky in the South West to be surrounded by a plethora of mammals; otters (although I'm still yet to see my first one!), hedgehogs, dolphins, seals, mice, shrews and voles of all kinds and not to mention BEAVERS! There is nowhere I'd rather call home and I'm chuffed and honoured to be a part of CMG.

Happy New Year to you all and I look forward to seeing you all soon!

- **Kayleigh Hunt**

(CMG Instagram Editor)

If you've been keeping a close eye on the CMG Facebook page recently, then you might have noticed some lovely images by Andy Wilson and Adrian Langdon of an otter at Walmesley marshes. Adrian has shared a great blog post on our FB page that you might enjoy. When I spoke to him he said that the otter has been around for over two months and has been seen at all times of the day and even by moonlight. That must have been wonderful to see!

There have been sightings of a small family group and as you can see from one of Adrian's images, sometimes you don't get to see the otter but you know it's there by following the trail of air bubbles breaking the surface of the water.



Tracking the otter underwater by following the air bubbles. Image © Adrian Langdon

Dave Groves has taken some spraint samples away to investigate what it might be feeding on which helps us to understand these animals better .



Otter at Walmesley Marshes. Image © Adrian Langdon

Beaver Day Review

On 22nd January 10 members of CMG headed into Devon to attend a Beaver Information Day organised by the Tamar Beaver Management Group and supported by the Devon Environment Foundation. Mark Elliot, Beaver Project Lead for the Devon Wildlife Trust and Jake Chant, Field Officer for the River Otter Beaver Trial led the day's event.

We started with an introduction to the recent history of beavers in the UK hearing about the first captive site at Ham Fen in Kent back in 2003, the early reintroduction at Knapdale in western Scotland and the free-living population on the River Tay that now includes perhaps 1000 individuals.

We heard about the experiences of the River Otter Beaver Trial and the enclosed sites in the county and focussed on the 20 or so territories of free-living beavers now thought to be present in the River Tamar catchment. Mark brought us up-to-date on current regulations, guidance and licensing and changes in management and funding which is anticipated.

Discussion of beaver ecology included their favourite winter food (willow) and the use of GIS and Lidar to map likely dam locations and impacts.

We looked at the impacts of beaver activity, both positive and negative, and discussed the biodiversity benefits revealed by studies to date. Beaver water engineering has benefitted invertebrates and amphibians and their clearance of scrub has changed plant communities.



Dams, which are fairly dynamic in spatey streams and rivers, enhance salmonid spawning gravels and provide shelter and ponds for fry. The issue of animal movement along catchments and between catchments was discussed and we learnt that mostly this is 2 year old animals leaving parental territories. Although importation of beavers from Europe is now prohibited, animals are moved between UK sites on occasion, partly to ensure a degree of genetic mixing which may strengthen resistance to disease and stress. The impact and likely impact on agriculture and property was considered with discussion of appropriate measures to remove dams or bypass them with 'beaver deceivers', in many cases in the Southwest any flooding is limited because of the steep-sided valleys.

We finished the day with a trip to see the long-standing fenced site at Boldventure, learning about field signs and admiring the extensive wetland that the beavers have created from a field of willow scrub. A great event and very educational, I hope the attendees will do their best to share their learning with others and apologies to the many people who were on the waiting list.

Dr Dave Groves

(CMG Chairman)

Whose Poo are you?

For this edition, it's a bit of fun looking at some wild animal sign that was found during one of the CMG events that was held over this winter. 'C' is a bit harder to work out, but you're looking at the sign circled within the gorse bush.

See if you can identify which animal made them and answers will be available in the next newsletter.

If you're interested in tracking then an international organization called CyberTracker is running its first symposium (online) this month, details below. It's not affiliated with CMG but it might be of interest to you and features internationally renowned speakers within the wildlife tracking community.



International Tracker Symposium

This is an online event over the weekend of 25th, 26th and 27th February 2022.

For more details visit www.europeanwildlifetracking.com

2021 is looking pretty busy with plenty of survey work planned and several online events to look forward to. Since our last newsletter in September we have also had plenty on. Our collaboration with CWT on Operation Hedgehog continued and a few of our members used our hedgehog footprint tunnels to look for signs of hogs around the county. Dormouse surveys and training of licencees continued and half a dozen members successfully submitted their applications to Natural England after a full season of trudging around muddy woods. Pete Cooper led what I think is the eighth small mammal survey at Woodland Valley Farm with support from a couple of CMG members. After a couple of false starts we began our harvest mouse survey work to support the national program developed by the Mammal Society. We have continued to run online events and Dave Hudson's Christmas quiz made a very enjoyable distraction from Christmas preparations (congratulations to Terry for his big win!). Of course, the major event was the AGM (reported elsewhere in the newsletter) which was our first in-person meeting since 2019 and with a turnout of over 60 people, a great success.

Harvest mouse survey work began on 7th November when Sarah Butcher, Devon Harvest Mouse Officer, (supported by her tiny colleagues Pop and Corn) led 7 members on the South West Lakes Trust site at Tamar Lakes. Sarah showed attendees what to look for, and where to search for the characteristic woven breeding nests and the tiny day nests (which are empty at this time of year, so no mice were harmed or inconvenienced). Three nests were found during the training and it is good to know that harvest mice are still present at the site. A couple of weeks later Pete Cooper led a dozen enthusiastic surveyors out into the rough grassland around the Cornwall Beaver site at Woodland Valley Farm. Three nests were found around the margins of the first field (where horses had been grazing) and a further 3 nests found in a nearby large un-grazed and tussocky field. Plenty of field vole nests as well, so a useful day.

We now have three informal harvest mouse survey groups across Cornwall and we are trying to get as many surveys conducted before the winter weather breaks up the old nests. To date there have been about half a dozen sites surveyed and a further dozen surveys are in the diary.

We have been involved in a couple of collaborative events as well, including talks to several local wildlife groups and a presentation on the coastal otter work to Suffolk Otter Group.

By the time you read this we will have probably held the Cornwall Dormouse study group meeting online (26th Jan) and also attended the beaver survey training day with a couple of lucky CMG members.

Dr Dave Groves

Upcoming Events

Unfortunately, by the time this newsletter reaches you, some of these events have already passed. Please do look out for our emails, social media pages and at the events list at the top of this newsletter for ways that you can become involved in future events so that you don't miss out.

Saturday 22nd January. **Beaver ecology and survey training** in collaboration with the Tamar Beaver Management Partnership, Devon Wildlife Trust and Devon Mammal Group. North Devon – Pre-booked places only.

Wednesday 26th January, 19:00 to 21:00. Online meeting. **Cornwall Dormouse Study Group**. Review of local dormouse study sites for 2021 season, presentations on local dormouse-related research and updates from the National Dormouse Monitoring Programme by Ian White of the PTES. Booking through Eventbrite. Contact Dave Groves for more details: cornwallmammals@btinternet.com

Thursday 27th January, 10:00 start. **Harvest mouse nest survey** with SWLT at Drift Reservoir (near Penzance). For more details of harvest mouse surveys please contact Dave Groves to be added to the local survey team contact list.

Saturday 30th January, start time tbc, **mammal survey** at Stoke Climsland – contact Dave Groves or Tony Atkinson for details.

Saturday 5th February, from 10:00. **Dormouse and bat box workshop** at Golberdon Village Hall with Cornwall Bat Group and South Hill Bat Project.

Tuesday 8th February, 10:00 start. **Harvest mouse nest survey** with SWLT at Siblyback Reservoir (near Liskeard). For more details of harvest mouse surveys please contact Dave Groves to be added to the local survey team contact list.

Wednesday 9th February, 19:30 online event. **Harvest Mice** – a talk by Dr Frazer Coomber, Science officer of the Mammal Society and co-ordinator of the national survey. Booking through Eventbrite – details will be circulated before the event.

Wednesday 16th February, online event. **Acoustic monitoring for small mammals** – a talk by Dr Stuart Newson, Bat and bird ecologist. Booking through Eventbrite – details will be circulated before the event. This event is organised with Cornwall Bat Group.

Wednesday 2nd March, online event. **Mad March Hares: Ecology, conservation, magic and mythology of hares** - a talk by Dr Steph Wray, Chair of the Mammal Society. Booking through Eventbrite – details will be circulated before the event.

Saturday 12th March. Truro College and online. Marine Strandings Network Forum

Sunday 15th May, Pentillie House, Callington. Tamar AONB Bioblitz.