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Chair's Chat

Welcome to our latest newsletter, we hope it finds you well and enjoying the longer days.

Our amazing Harvest Mouse Officer, Sarah Butcher, has had another fantastic survey season with lots of repeat and new records of Harvest Mouse nests. Sarah has been very busy leading group nest searches and training sessions, many of which have been in new areas of the county, with new surveyors taking up the reigns.

After a slightly nail-biting few months, we received some wonderful news in March. The Harvest Mouse Project has been granted funding from the Devon Environmental Foundation, so we can all look forward to another year of Harvest Mouse data collection, reports, and surveys in 2023/2024.

We are so grateful to all those who have helped to fund and support the project since it began, both in person and financially. We can all be very proud of this project, as it is making a notable contribution to Harvest Mouse conservation and awareness in our region.

We look forward to seeing some of you at our upcoming AGM and talks. Do keep an eye out for emails with updated information on locations and bookings for these.

*Helen Calver
Chair - DMG*

Thanks go to members George Bemment, Emma Scotney and Hilary Marshall for contributing articles to this newsletter. Please send any articles you think would interest our readers to:

suesmallshire@gmail.com

Coming up this spring and summer:

Pips and Pints - May 2nd

More information to follow

Yarner Wood Discovery Day - May 14th

www.dartmoor.gov.uk/enjoy-dartmoor/events/events-list/npa-events/lookwild-at-yarner-wood

Rowden Open Day - July 16th

More information to follow

Meldon Wildlife Festival - August 22nd

www.dartmoor.gov.uk/enjoy-dartmoor/events/events-list/npa-events/meldon-wildlife-festival

If you would like to help out at any of these events, please contact:

contact@devonmammalgroup.org

Return of the Polecat?



Animal in Mink trap near Torquay (c/o J.Aylett).

We have been hearing a lot about Pine Martens in recent years and there is good evidence that the species is slowly recovering areas of its former distribution, aided in part by reintroduction schemes. But what about the Pine Marten's smaller relative, the Polecat? The answer is that it seems to have been making a rather quieter comeback without the fanfare.

Within the last 10 months, I had a spectacular early evening sighting of a Polecat running along a narrow lane in the South Hams. Then my ex-husband brought me a fresh road kill specimen (yes, really - see photo below) and I have had three more reports since then.



Road traffic accident (RTA) near Newton Abbot (GB)

The Western Polecat (*Mustela putorius*), to give its full name, is a member of the Mustelid family. It is smaller than the Pine Marten, roughly similar to the American Mink across its weight and body length range (both species are sexually dimorphic) but larger than the Stoat. It used to be widespread across Britain but almost completely disappeared due to persecution in the 1800s and first half of the 1900s. It probably only survived due to the social changes following the First World War and the decline in the number of gamekeepers.

Central Wales and the neighbouring English counties remained the Polecat's refuge for decades but there have been significant problems in documenting its distribution and range expansion since then due to hybridisation with Ferrets and the resulting problems of identification. We know from genetic studies that the ferret is basically a domesticated form of the Western Polecat so it is hardly surprising that they cheerfully breed together. The original Ferret was albino or pale in form and easy to distinguish but after many hundreds of years many ferrety animals can look frustratingly similar to Polecats and what appear to be true Polecats with the defined Polecat phenotype may not in fact have a pure Polecat genotype. The experts suggest that this probably doesn't matter. The Polecat phenotype appears to dominate and the genotype is not diluted in the same way that the Scottish Wildcat has been affected. We just need to accept that the Polecat is now just a wee bit more varied in its appearance than it once was.



The Vincent Wildlife Trust produced a useful guide in 2014 - "Polecats & Ferrets; how to tell them apart" - which was written before the genetic studies but it is still the best guide for assessing what may be considered to be a "good Polecat" vs. a ferrety animal.

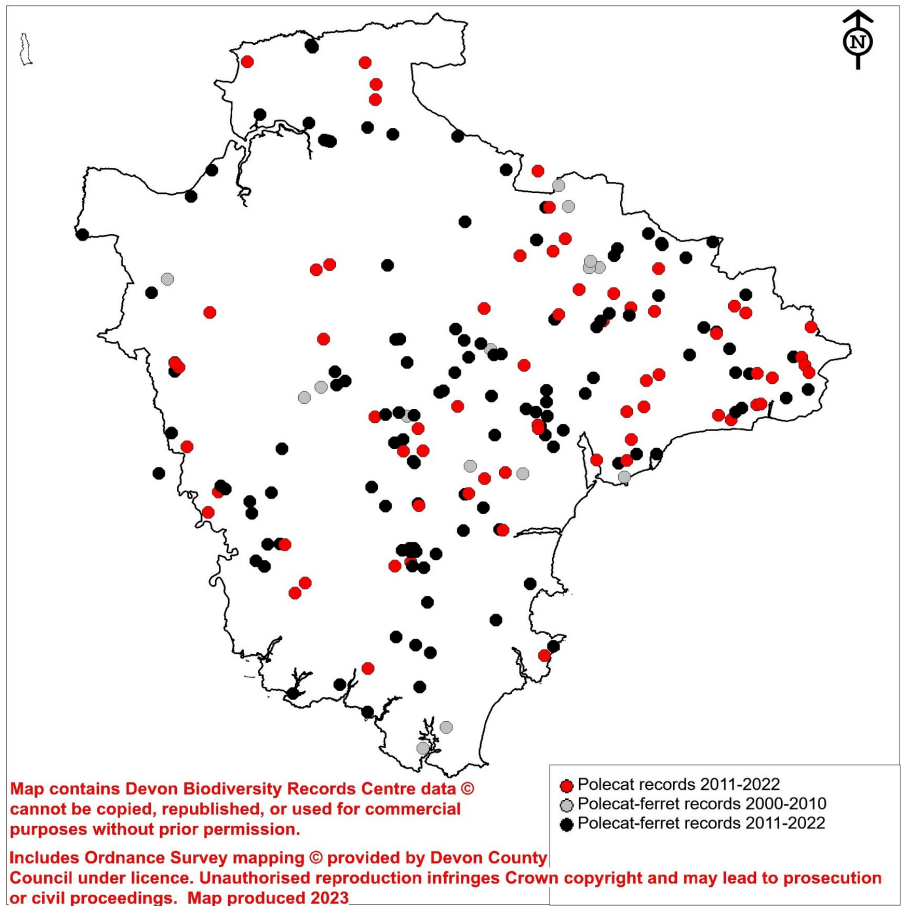
So what is the status of the Polecat in Devon? The Devon Biodiversity Record Centre currently has over 120 records of polecats and Polecat-ferrets - with at least a third of these being deemed to be true Polecats - and they come from across the county from Chardstock to Lifton and from the edge of Exmoor to Plymouth. The early records were not well connected across the county and were clearly quite

separate from the core areas of expansion from Wales and the neighbouring counties so it is highly likely that they originated from one or more unofficial reintroductions. Most of the records come from the last 10 years though and really do suggest a natural population increase and expansion. Without the fanfare.

Key characteristics to look for: dark fur on face extends to the nose; pale cheek patches and possible frontal band contrast with the darker face mask; the darker dorsal fur has no scattered white guard hairs; no pale throat patch (or it is at least <50mm); and dark fur to the paws. Photos of good Polecat specimens can be found in VWT 2014.

References: Birks, J. 2015. *Polecats*. Whittet Books.
Harris, S. & Yalden, D. W. (eds). 2008. *Mammals of the British Isles*. The Mammal Society.
VWT. 2014. *Polecats and Ferrets: how to tell them apart*. The Vincent Wildlife Trust.
(www.vwt.org.uk/wp-content/uploads/2015/04/polecat-ferret-leaflet-.pdf)

George Bemment



Mammal Society's 68th Annual Conference

Friday 4th - Sunday 6th
August 2023
Nottingham Trent University



BOOK HERE

[Annual Conference – The Mammal Society](#)

New Mammal Society CEO, Matt Larsen-Daw

Matt has spent the past five years at WWF, leading education programmes – recently around the new Sir David Attenborough BBC series Wild Isles. He is looking forward to working with, and for, the invaluable network of local mammal groups that form the foundations of the Society’s work, and would love to hear any questions, ideas or suggestions about the Society’s next phase of development. In his spare time, he’s likely to be found in a wood with his wife Kate, daughters Solstice and Rowan, and his camera!



Local Mammal Projects



Bat Box Scheme at Burrator Reservoir

Our large bat box project started back in 2010 and was funded by South West Lakes, South West Water and the Devon Bat Group. Every year since (except when Covid-19 restrictions were in force) South West Lakes and South West Water check these boxes every month between April and October.

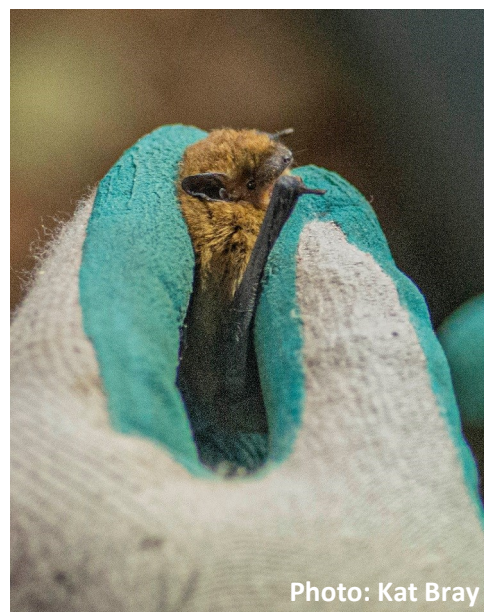
We have 120 boxes of four designs which create a variety of spaces for bats to use throughout the year. Two of the designs are made from woodcrete (2FN and 1FF) and the other two designs are made from wood

(Chapman/Devon Bat Box and slot box). Our volunteers at Burrator Reservoir sustainably make our replacement wooden bat boxes from fallen trees around the site.

All 120 boxes have been used by bats at some point since 2010. This project has allowed us to understand which species of bats are using our boxes, what designs of boxes they use most often (indication of preference) and how our woodland management practices can help bats.

We have found a total of eight species using our boxes since 2010: Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared, Daubenton's, Natterer's, Whiskered, Barbastelle and Noctule. In 2022, we found seven of these species (we did not find Barbastelle) and counted over 360 bats.

Here are some photos of the bats we found in 2022. Any disturbance to bats, like opening used boxes, using torches and handling them, requires a licence from Natural England. Our surveyors from South West Lakes and South West Water hold the appropriate bat licences which allow us to undertake these surveys.



In 2022, the most common species of bat in our boxes was the Natterers Bat. Natterers belong to the genus *Myotis* (*Myotis nattereri*) which also contains some of our trickiest bats to identify (such as Whiskered, Brandt's and Alcatheo) for beginners and for those with plenty of experience!. Not only is it nice to see good numbers of Natterers, they do make a great bats for teaching the general characteristics of this often difficult genus to our volunteers.

We often get a large amount of Natterers in our boxes and this year, in one box, our highest count was 33 individuals. We do not have any evidence that they are using the boxes as a maternity roost and with so many bats in one box we do not take any individuals out to identify sex or age, as the risk of the bats 'exploding' from the box in daylight is too high. We hypothesise that the Natterers have a large maternity roost close by and use these boxes as a general roost space (which might contain mostly males and non-breeding females), although, to prove this theory we would need to catch and radio track them to see where they go and if it did indeed lead us to a maternity roost.



Photo: Emma Scotney

Natterer's

From photos taken in August 2022, you can see that the hair colour of some of the Natterers is much lighter and appears more grey in colour, indicating that these could be juveniles. We have also observed fleas on the Natterers which are often associated with bats in a major roost.



Photo: Kat Bray

As well as noting down what species we have in our boxes, when we can, we also weigh the bats, identify sex, age and breeding condition, always with the wellbeing of the bat in mind.

We are privileged to have nearly half of the UK's bat species using our boxes and in good numbers. Not only do these checks provide important data for us, which helps us understand more about the bats on our sites, we also use this opportunity to engage people with nature and provide experience

and knowledge to those who want to learn more about bats. We always encourage as broad a range of people as possible to come along to our bat box checks and our volunteers are usually a mixture of wardens and rangers, consultant ecologists, students and people who are simply really interested in wildlife.

We welcome anyone from the Devon Mammal Group to come along to these surveys. We send out all of the dates via our Wildlife Surveys mailing list, which I can add you to if you email me on escotney@swlakestrust.org.uk.

Emma Scotney

Photo: Thai National Parks/Wikipedia



Porcupines in Devon

In January this year I was talking to local resident, Roger Lancaster, who was involved in trapping Porcupines in Devon in the 1970s. He mentioned that the other person who worked in the field with him, Jim Pritchard, had recently died. I thought that some record of their activities would be interesting.

In 1969 two Himalayan Porcupines *Hystrix brachyura* escaped from a collection near Okehampton. They

successfully bred and persisted in the wild for about 10 years becoming established on the Okement and main river Torridge catchments. www.hows.org.uk/inter/birds/exotics/gbm.htm

Whilst foraging they caused damage to conifer plantations (both directly by debarking, and indirectly while digging for bryony roots) and MAFF (Ministry of Agriculture, Fisheries and Food) decided that they should be culled.

The field workers used swede-turnips as bait, these being pegged out across a valley where there was activity. A hole was drilled in the swede and it was pegged to the ground with a forked stick. Only one person worked on a site so that the animals got used to their scent. The swedes were checked first thing in the morning 7 days a week and the tooth marks showed where there was Porcupine activity and the relative size of the animal. If left later in the day the vegetable would have dried out slightly and the measurements of tooth width would have been less useful. The feeding signs showed where the traps should be deployed. This was a few decades before trail cameras were readily available.

During the 1970's four, one male and three females, were trapped and two were found dead, so a minimum of 6 were present. They were trapped in 8' long cage traps. Two of the captured porcupines, one male and one female, were taken to a MAFF facility in Norwich and kept in captivity to learn more about their biology. The female and one of her female offspring had 8 litters over 5 years (Gosling 1980).

As far as I am aware no further signs have been observed in Devon so the clearance was successful. Gosling, L.M. (1980) *Journal of Zoology* 192: pages 546-549.

Smallshire, D. and Davey, J. W. (1989) *Feral Himalayan Porcupines in Devon*. Nature in Devon: volume 10, pages 62-69.

Hilary Marshall

Bird Flu in Mammals!



After 5 dead seals on a Cornish beach were confirmed as having died from Bird Flu this March, it is evident that the virus can spread to mammals. According to a Government website, confirmed cases so far have included, Otter, Red Fox, Grey Seal, Harbour Seal, Harbour Porpoise and Common Dolphin. (See link below).

www.gov.uk/government/publications/bird-flu-avian-influenza-findings-in-non-avian-wildlife/confirmed-findings-of-influenza-of-avian-origin-in-non-avian-wildlife

Dog walkers are warned to be vigilant and not to let their animals stray near any carcasses.

Those of us working with, and handling mammals should be aware, report dead animals and clean equipment and PPE between surveys and sites.

[Dead and injured animals \(dacorum.gov.uk\)](http://dacorum.gov.uk)

Sue Smallshire

Glow in the Dark Dormice

The Garden Dormouse (*Eliomys quercinus*), a small European rodent species, has joined a growing list of animals known to display photoluminescence – but the reason for the phenomenon is a mystery.

Garden Dormice may not seem particularly flamboyant. In fact, the small, brownish-white rodents spend much of their life trying not to be seen. But new research shows that under the right light, these animals shine with bright pinks and greenish-blues.



Dormouse fur shines under UV light, appearing purple, or red when viewed through a yellow filter (Karmel Ritson and Grete Nummert)

Photoluminescence occurs when a substance absorbs photons of ultraviolet light and re-emits them at longer wavelengths, often as visible colours. It occurs in many marine animals, some insects and millipedes and in the plumage of some birds. It encompasses two processes: fluorescence, when photons are re-emitted almost immediately, and phosphorescence, which can last for several minutes.

After seeing recent studies that found photoluminescence in nocturnal mammals, such as flying squirrels and springhares, Grete Nummert at Tallinn Zoo in Estonia wondered if Garden Dormice display it too. She made a high-stakes bet with a colleague that this would be the case: “The losing one would bake a cake,” says Nummert.

She and her team gathered a few of the Garden Dormice kept at Tallinn Zoo, while they were sleeping, and shone ultraviolet light on the animals.

Most of the mice’s fur glowed a bright purple colour, which looked reddish pink in photographs taken with a yellow filter on the camera lens. The feet and the nose, on the other hand, were bluish green.

To expand their observations, the researchers examined dead dormice stored at the Estonian Museum of Natural History under the UV light. These specimens also displayed photoluminescence, though their colours had faded over the years.

Nummert, who says the cake she won was “delicious”, isn’t sure yet why the dormice are photoluminescent. Some parrots use photoluminescence to signal to potential mates. Springhares have a patchy photoluminescence that may help camouflage them among plants that reflect light in a similar way, depending on what kind of creatures are looking.

It is also possible that the photoluminescence exhibited by dormice and other rodents is just a by-product of something they eat or some other natural process. It isn’t even clear if the dormice can perceive these colours themselves — humans certainly can’t without the help of an intense, artificial source of UV light.

“There is a whole world we cannot see,” says Nummert. “Animals perceive the world differently from us.”



Garden Dormouse
Photo: Jiri Bogdahl

Joshua Rapp Learn
(for the New Scientist)



Latest News

“Right up until the middle of last week it looked like this could be the last ever Devon Harvest Mouse Project season. However, it is super exciting to be able to announce that the Devon Environment Foundation has agreed to fund the project for another year. This is wonderful news: with over 390 people involved in some way, lots of data and interesting discoveries, it is really good to know that we have the chance to do it all over again next year“, says Project Officer Sarah Butcher.

In particular Sarah says a huge thank you this season to John Valters, who has been looking after one of the project trail cameras. He has been uploading photos, checking 1000s of shots and saving the interesting ones as well as , topping up the food. He also hosted a survey, where 9 breeding nests were found. “I know John has spent hours on this, and I really appreciate the hard work he has put in” she says.

Thanks also go to Liz at East Coombe, Richard at RHS Rosemoor and Pascale at the Donkey Sanctuary (Branscombe) for the time and care they have spent babysitting the other camera traps this season. The cameras are expensive so need to be placed in a safe place and need the food topping up and regular checking, so Sarah finds this help invaluable.

Over her time as Project Officer, Sarah has enthused hundreds of volunteers, professionals, communities and those who just want to do something for the wildlife around them. She has been an inspiration and a leading force through her work on Harvest Mice, now widened out into a national project. This year’s survey has nearly doubled the number of nests she recorded last year, but credit must go to Cornwall Mammal Group who have found 222 nests this season with fewer surveys! Well done Cornwall.

These surveys are really valuable and quite addictive, as anyone who has taken part will tell you, so let’s keep looking. With the national data now being collected and the research being carried out, we will begin to see what habitats are of particular importance to Harvest Mice, how we can, through raising awareness, encourage farmers and landowners to set aside some of these crucial areas, and what effect climate change may be having on the species.

We are delighted that Sarah can continue her work for at least another year, **Thank you Sarah for the amazing work you are doing.**

Further information on Harvest Mouse projects, both local and national can be found below.

<http://devonmammalgroup.org/harvest-mouse-project.html>

[HARVEST MOUSE NEST SURVEY | cornwallmammalgroup](#)

[National Harvest Mouse Survey – The Mammal Society](#)

Sue Smallshire

