Contents

Chairman's report – 2013

Geoff Oxford

Another year and another full programme of events thanks to the hard work of our secretary, Natasha Hambly, and our fieldwork 'team' of Ann Hanson and Rob Masheder.

Indoor sessions have, as always, covered a wide range of topics, including Dr Virpi Lummaa's discussion of grandmother and grandfather effects in pre-industrial Finnish societies (perhaps our first talk on *Homo sapiens*), Jon Traill's efforts to conserve water voles in East Yorkshire, Professor Terry O'Connor's fascinating story of the history of domestication, and Dr Philip Stephens' proposals for extracting the maximum information out of existing and future mammalian datasets. All-in-all it was an excellent and very stimulating programme.

Field work has also been varied and included a number of mammal recording walks (e.g. at Helmsley), small-mammal surveys (e.g. at Roseberry Topping) and, as encouragement to the next generation of mammalogists, help with Norton Watch Group's quest to find harvest-mouse nests near Howsham Mill. Reports of all these events are included later on in this *Imprint*.

The YMG was present at two public events during 2013 – Dalby and Stillingfleet nurseries. Wild about Wood at Castle Howard unfortunately was missed in September because of an incautious holiday booking! I thank Ann, Rob and Mary Youngman for representing us at Dalby, and to Natasha and Ellie Cowle for manning the fort at Stillingfleet.

For much of the year Mary Youngman acted as temporary Publicity Officer but Amy-Jane Beer has now volunteered to take on this role. Thank you to both Mary and Amy; we are now back to a full complement of officers. The whole YMG committee has functioned extremely smoothly over the past 12 months – your efforts are all much appreciated.

Lastly, as always, I'd like to sincerely thank all those who have contributed to this volume of *Imprint* and Andrew Halcro-Johnston (with help from Mary) for putting the whole thing together.

The elusive otter

Peter Franklin

The Laver is a small river that rises on Dallowgill Moor and flows through my home village of Laverton on its way to join the river Skell in Ripon and on to join the river Ure.

Two winters ago I noticed the prints of an otter along the banks of the river in a light dusting of snow. The river runs only 50 yards from my home so I decided to try and take a photograph of my new neighbour. With this end in mind I purchased a 'Wildview' camera trap.

The camera was attached to a small tree on the river bank next to Laverton bridge, pointing at a sandy bank under the bridge where I discovered regular otter prints. When the river rises after heavy rain this sandbank is wiped clean of any tracks by the rising water level, so new tracks are easily spotted.

The camera has its own memory that enables it to store up to 15 images. The first download of the camera was the first of many disappointments. There were many images showing absolutely nothing but the river bank and the stonework of the bridge – nothing that could have activated the camera unless a bat had flitted by. There were daylight images of the sun glistening on the ripples in the water, so I pointed the camera more towards the bridge. On one occasion I had 15 images of a plastic fertiliser bag flapping in the breeze. I had many images of rabbits and rats, dogs, the back legs and tail of a cat, children paddling in the river and one of a young roe deer, but no otter.

On one occasion there were new otter prints just in front of the camera and I was certain I must have an image. Unfortunately no photos had been taken. It would seem that on setting up the camera I had switched from test mode to active too quickly and this stops the camera from working.

On another occasion the camera took 15 images when fresh otter prints were present but the river level had risen during the night and swamped the battery compartment. Mistakenly I removed the batteries to dry them and this obliterated the memory.

All these trials were frustrating but the most disappointing scenario was when new otter prints appeared in exactly the right place in front of the camera but still no photograph was taken. I can only assume that there is a slight delay before the camera operates and by then the subject has left the frame.

Anyhow 15 months later and innumerable pictures of my head as I checked the camera, I obtained a picture of an otter. I still check under the bridge regularly for tracks, especially after heavy rain and there are nearly always otter tracks and occasionally spraint there. It would appear that there is at least one resident otter on this stretch of the river and not just an itinerant.

Ignore the time and date on the photos as, with so many disappointments, I thought I was wasting my time resetting it.

Were there ever ‘Horseshoes’ in the Swale Valley?

Colin A. Howes

In the church of St Mary the Virgin in Richmond, North Yorkshire is a set of choir stalls kitted out with sixteen exquisitely carved misericords. These date from 1515 and evidently originated from Easby Abbey a few miles further down the River Swale valley, no doubt salvaged at the time of the dissolution of the Monasteries.

Amongst the menagerie of creatures, both real and fabulous, depicted in the carvings is an exquisite, if disquieting, image of a bat. Although numerically uncommon, they are not unknown in medieval church carvings, for instance elsewhere in Yorkshire examples are to be found in Beverley Minster (1520) and St Andrews, Middleton-in-Pickering (15th Century).

The particular significance of the Richmond carving is that it may be a representation of a Horseshoe bat (see Figure 1).

Figure 1: Image of a bat in the church of St Mary the Virgin in Richmond. Carving viewed from under the misericord seat looking up at the carving. From http://www.misericords.co.uk/images/Richmond/

Although depicted with its wings spread out and not in the closed rolled-up ‘umbrella’ mode typical of the Rhinolophidae when at roost, other elements are indeed reminiscent of the Horseshoe bats.

Though the face is rather menacingly humanoid (see Figure 1), this is possibly an artefact of the contemporary carving tradition but note the proportion and precise shape of the ears and the presence of a protuberance on the forehead between and above the eyes. This may be an attempt by a naive but highly skilled medieval craftsman at interpreting the strange and baffling ‘lancet’ or upper peak of the nose-leaf. The bulbous nose and high cheek bones may also be an attempt at rationalising elements of the nose-leaf. Also the shape of the maxillae (upper lips) is very similar to the anterior nose-leaf or lower part of the horseshoe-shaped face which gives the bat its name.

No doubt because of received interpretation of the anatomy of various categories and ranks of Angels and winged quadrupeds from the medieval bestiaries (Dragons, Griffins, Wyverns), the wings are additional to the four limbed plan. This otherwise carefully observed bat has in the end been invested with hind limbs and a tail, a magnificent pair of wings plus an independent pair of front limbs with paws and claws. This perhaps was a demonstration that the anonymous wood carver found it impossible to break free from the medieval mind set. Indeed what we ourselves observe in life we subconsciously rationalise by comparison with our cultural expectations… makes you realise how independent minded Albrecht Durer (1471-1528) was in his illustrations of nature.

Since most of the misericord and choir stall carving in North and East Yorkshire during the late 15th and early 16th centuries was undertaken by a team of itinerant craftsmen bases in Ripon, their experience of contemporary wildlife would have been based on local examples.

If indeed the Richmond carving does represent a Horseshoe bat, the likelihood is that in the experience of the craftsman it would have been a Lesser Horseshoe bat *Rhinolophus hipposideros*. Its presence in the Richmond area may be significant in that during the first quarter of the 16th century, this species may have extended widely across the previously more wooded Dales and North Yorkshire uplands and beyond. There was even claimed former presence in Upper Teesdale (Ashby 1965) and into County Durham and Northumberland (Millais 1906), both now disregarded (Bond 2012).

As we now know, by the late 19th and first half of the 20th centuries, its distributional range had receded to isolated and beleaguered populations in the Craven Dales in the west and upper Ryedale in the east (Delany 1985).

Although a wide range of vertebrates is depicted in medieval and later church carvings, I've yet to come across a misericord image of a Dormouse *Muscardinus avellanarius*; but over the border in Durham, in Durham Cathedral, there are three magnificent Red Squirrels *Sciurus vulgaris* carved during the late 17th century, complete with prominent ears and bushy tails that Beatrix Potter would have been proud of. They are also appropriately associated with acorns and pine cones, the carver even capturing the Fibonacci series in the spirals of the cone bracts.

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Misericords of the World http://www.misericords.co.uk/images/Richmond/

Albino hedgehogs

Toni Bunnell

Extract from the book 'The Disappearing Hedgehog' by Toni Bunnell, published 2014.

Available: www.tonibunnell.com

On July 11, 2012, I received a phone call from York RSPCA Animal Home. One of the RSPCA inspectors had brought in a juvenile hedgehog

with a difference. This one was white and a true albino. In all the years that I had been doing hedgehog rescue I had never once seen an albino hedgehog. I had seen a few blonde hedgehogs with black eyes and pale colouration, but none that were albino with red eyes.

I contacted the finder to say that I was now looking after the albino hedgehog that he had found. Two days later I received a call from him to say that he had found another in his garden in the same place. Amazingly this one was also albino and turned out to be the sister of the first one. I collected her from the finder, named her Sun and put her with her brother, Snow.

The gene that causes albinism is recessive meaning that its effects are only seen when two copies of the gene are present in a hedgehog. This means that an albino hedgehog will inherit one copy of the albino gene from each parent. The likelihood of two hedgehogs meeting, that both possess the albino gene, is rare, hence resulting in few sightings. When both parents possess the gene for albinism there is a 1 in 4 probability that they will have a baby that is albino. Two albinos born to the same litter suggests that there were more than four babies born in the same litter as Snow and Sun, with the others having normal colouration.

Both Snow and Sun were found outside during the day indicating that they were in need of care. Snow weighed 325 g on arrival and Sun, his sister, 345 g, when she was collected two days later. During the course of their stay with me, at York Hedgehog Rescue Centre, they required treatment for intestinal worm infestations including nematodes and lung worm.

On July 7, 2012, Snow and Sun were released to the wild. Snow weighed 727 g and Sun weighed 563 g. They were released to an open, but protected area that I am monitoring on a long-term basis using remote Infra-Red cameras. Footage from the cameras showed regular appearances by both Snow and Sun, with Snow appearing more often at the feeding station. Hedgehog houses are in the area and food and water available at all times, in addition to natural food.

On October 7, 2012, Snow no longer appeared on the cameras while Sun was around until mid-November. There was no further sign of Snow until April 9, 2013, when he appeared at the feeding station and most nights from then on. Sun appeared on no cameras but has been sighted on a regular basis by the resident of the house overlooking the area. Apparently both Snow and Sun appear in the evening at similar times but from

different directions. It would seem that Sun no longer passes in front of any of the cameras and hence has not appeared on any footage in 2013. In March 2014 Snow appeared again on the cameras, having survived a second winter.

This is a remarkable success story for two hedgehogs who might have been expected to have a limited prospect of survival. Clearly, their reduced camouflage has not rendered them prey to the foxes that frequent the area and they are living a life in the wild – free.

Sun and Snow, albino hedgehogs

Small mammals on Filey Nature Reserves

Sue Hull and Jack Whitehead

Filey Brigg Ornithological Group (FBOG) manage small areas of land in the Filey area primarily as areas for breeding and migrating birds, but this also creates valuable habitat for small mammals. As part of the ongoing monitoring of the area, we borrowed 50 Longworth traps from Yorkshire Mammal Group and aimed to determine which mammal species occurred in each of the FBOG managed areas. We were also interested in whether or not the different microhabitats on the reserves supported the same mammal species.

We investigated four sites, each on a separate weekend. Filey Dams (a Yorkshire Wildlife Trust reserve) is a wetland area with ponds and marsh and a small woodland (abbreviated to D). East Lea (EL) is FBOG owned land at the back of Filey Dams and the area investigated within this reserve is a *Phragmites* marsh backed by rough ungrazed grassland. The Rocket Pole Field/Country Park site (RPF) is an area of grazed cliff top pasture containing small ponds (Rocket Pole Field) bordered by managed short grassland (Country Park) and scrub with hedgerows along the field edges. The RPF site was surrounded by broad bean crops. The Tip (TIP) is a cattle pasture area with ponds bordered by hedgerows and this links to Parish Wood (a new mixed woodland planted in 1996). This site was also surrounded by broad bean crops.

Each site was trapped over a weekend. On each occasion, 53 traps with hay bedding were pre-baited with pupae and grain and positioned on the site on Wednesday evening and locked open. The traps were checked nightly and finally set to trap on the Friday evening and checked the following morning. After processing the mammals, all traps were re-baited and set to trap Saturday night and the mammals processed on Sunday morning. All traps were then removed. Over all four of the weekend traps the overnight temperature did not drop below 11˚C and the weather overnight was a mixture of partial cloud with clear patches.

Overall 211 individual mammals from 7 different species were trapped across the four different sites in Filey. The trap rates varied between sites with the Dams having the highest (70%), followed by East Lea (59%), Tip/Parish Wood (40%) with the lowest trap rate at the RPF/Country Park site (32%). The number of false drops was between 12-14% across all sites. Whilst the lowest trap rate was seen at the RPF/Country Park site, this site had the most species with the major surprise being 2 noisy Weasels (*Mustela nivalis*) on the Sunday morning (Table 1).

Table 1. Summary of the number of individuals trapped in 53 Longworth traps at each site over two nights.

Mammal Species	RPF / Country Park	East Lea	Filey Dams	Tip / Parish Wood
Myodes glareolus	11	6	23	9
Microtus agrestis	0	3	2	0
Sorex araneus	14	1	2	20
Sorex minutus	4	0	0	0
Mustela nivalis	2	0	0	0
Apodemus sylvaticus	2	36	42	13
Neomys fodiens	1	16	4	0

The presence of Weasels in the area may certainly have affected the trap rate. Common Shrew (*Sorex araneus*) was the most abundant small mammal at the Tip/Parish Wood site and also at the RPF/Country Park site where 4 Pygmy Shrew (*Sorex minutus*) and a single Water Shrew (*Neomys fodiens*) were also trapped.

Wood Mouse (*Apodemus sylvaticus*) was abundant both at Filey Dams and East Lea and Water Shrew occurred on East Lea in the highest numbers seen in the last 5 years (Table 1). The number of Field Voles (*Microtus agrestis*) trapped was very low this year and Bank Voles (*Myodes glareolus*) were also not as abundant as in previous traps, but good numbers were still trapped at Filey Dams.

We also decided to compare the number of mammals caught in each microhabitat between the different sites. We classified these as being; Marsh which was the damp areas and reed beds in the wetlands, Hedge, Wood and the ungrazed pasture areas as Field. Figure 1 shows the number of individuals of each species in the different microhabitats from each site.

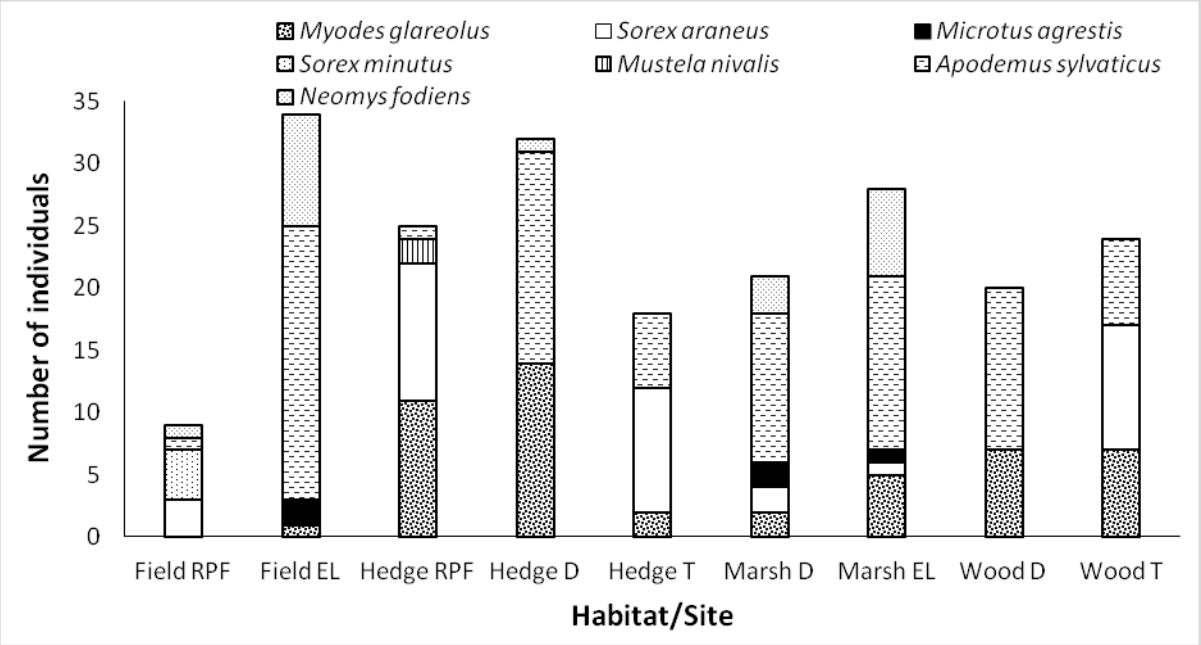


Figure 1. Total number of individuals of each species trapped in each habitat from each site in Filey (RPF=Rocket Pole Field/Country Park; D=Filey Dams; EL= East Lea; T= Tip/Parish Wood).

The woodland area at the Tip had more Common Shrews than the same habitat at the Dams where Wood Mouse and Bank Vole dominated (Figure 1). Common Shrews were abundant in the Hedge microhabitat at the Tip/Parish Wood and Rocket Pole Field/Country Park site, whereas this

microhabitat was again dominated by Wood Mouse and Bank Vole at Filey Dams. The overall number of mammals caught in the Marsh at East Lea was slightly higher than that at the Dams, but the community of small mammals was very similar between the sites (Figure 1). The fields (East Lea and Rocket Pole Field) supported slightly different mammal communities and numbers were far lower on the Rocket Pole field. Water Shrews were found up to 30m away from the Marsh edge at East Lea and Wood Mouse was the commonest species found. We also observed that both Bank Vole and Wood Mouse would occur in the wet Marsh areas in the reed beds.

Overall, the trap revealed that this was an excellent year for Shrews possibly because mortality rates are lower in drier summers. Whilst communities thrived in the Marsh areas, fields and hedges surrounded by the broad bean crops had lower mammal numbers. This could reflect lower food availability for granivores than that found when wheat/barley is planted in the surrounding fields. Or the thriving Weasel population could have scared everything away! We would like to thank the Yorkshire Mammal Group for the loan of the traps for the duration of the work.

Dawn of the red

Amy-Jane Beer

Adapted with permission from an article first published in BBC Wildlife Magazine, September 2013 (available at www.discoverwildlife.com)

The future for our red squirrels looks rosier at last. Pioneering reintroduction projects and the targeted control of greys by an army of rangers and volunteers are helping these much-loved mammals to bounce back.

We're perched on a fragment of Hadrian's Wall in a fierce wind, and conservationist Nick Mason is telling me the story of a great battle. Not Romans against Picts this time, but the landscape below is a front line once more.

Grey squirrels have been resident in Britain for 137 years, having been imported and deliberately released between 1876 and 1929. They spread

rapidly, inexorably displacing native red squirrels from most of England and Wales, and from parts of southern and central Scotland. By the 1990s, there was a sense of helplessness about the reds' fate.

A faint hope that the grey tide might be checked as it reached this part of northern England, where the abundance of coniferous woodland might give red squirrels a competitive advantage, proved to be overly optimistic. The devastating impact of squirrel pox virus – lethally pathogenic to reds but harmless to greys, which carry and transmit it – meant that, in many places, the former species disappeared much more quickly than expected.

The small relict population at Thetford Forest in East Anglia dwindled to nothing just over 10 years ago, despite an attempt to boost it with translocated animals, and the population at Formby Point in Lancashire came uncomfortably close to extinction during a pox outbreak in 2007–2008. By then we knew that the north was far from safe. Grey squirrels and squirrel pox were threatening the last great red strongholds in England, from which Scotland would be theirs for the taking.

Fighting back

Kielder Forest lies about 15km to the north-east of our viewpoint, beneath gathering rain clouds. Anywhere else, this vast and almost unrelenting monoculture of Sitka spruce would be bad news for local biodiversity. But Kielder is a fortress – one of 17 conifer plantations identified as red squirrel strongholds in England.

"Coming here reminds me of the scale of our challenge," says Nick. The sweeping vista between us and Kielder is of hummocky hills, sun-dappled pastures and fells, all crisscrossed by a dense network of hedgerows, wooded valleys and dry-stone walls. In a country where intensive agriculture is blamed for so many threats to native wildlife, it looks pretty close to the conservation ideal, I venture. "Exactly!" Nick laughs at the irony. "Dispersing grey squirrels are spoilt for choice. We can't wish all this habitat connectivity away, but it presents us with a problem."

In 2009, a report by Natural England identified failings in previous squirrel conservation and challenged interested parties to work together. Modelling work by Peter Lurz of Newcastle University had predicted the likely pattern of grey squirrel advance, and identified areas where control was likely to be most effective. The result, in 2011, was a new partnership: Red Squirrels Northern England (RSNE).

Nick leads the project, with a remit to co-ordinate grey squirrel control efforts around the remaining red squirrel strongholds of northern England, and to monitor populations of reds and greys in Northumberland, Cumbria, Durham, Lancashire, North Yorkshire and Merseyside. Nick is clearly proud of the cooperation the RSNE has already achieved between conservationists, funders, landowners, farmers, gamekeepers and members of the public.

Monitoring and morals

The monitoring is extraordinarily thorough. Twice a year, for two months, staff and volunteers walk transects, deploy trail cameras and hair tubes (baited pipes that snag hairs from the backs of small mammals that enter) and observe feeding stations at 300 sites across northern England. In addition, public sightings are logged year-round via the RSNE website (www.rsne.org.uk).

"But it's not just about the numbers," explains Nick. "We're killing animals, so have a moral obligation to prove that the control is worth doing. That's why the monitoring is so intensive – we're going for maximum overlap of results to minimise any scientific bias."

I meet up with Jamie Stewart, a ranger who came to conservation via careers as shepherd, gamekeeper and pest controller. I ask how his morning has gone. The wry smile accompanying his reply – "Seen some squirrels; killed some squirrels" – suggests it's what he always says.

And this is the crux of it. Saving red squirrels invariably means killing their grey cousins. Control of greys is likely to be at the heart of all future red squirrel conservation in this country (see Agenda Analysis, June 2012).

Cull or contraception?

Most of the control effort relies on cage traps, which attract both reds and greys. The traps are checked at least once daily – reds are released; greys are shot, or killed with a blow to the head. Some free shooting also takes place. Such frankness about lethal control is unusual in a conservation outfit. In the past, wildlife groups have been understandably squeamish about publicly embracing cull policies. Several animal-welfare organisations are inevitably opposed, and propose alternatives such as contraception for greys.

The stumbling block is that a suitable contraceptive must be both long-lasting and administered by bait not injection (the law on non-native species forbids grey squirrels captured for treatment from being released back into the wild). And it must not affect other species – including, of course, the closely related red squirrel.

You might not guess from Jamie's obvious love of wildlife that he has been killing things for a living for a long time. "The killing isn't nice. But I take pride in doing it well – that is, quickly and humanely." His experience is invaluable to RSNE. "Jamie can think like a squirrel," says Nick. "He spots where trapping will be most effective."

"I look for pinch points," Jamie explains. "I'm helped by the fact that the squirrels are very predictable." These places include wooded river valleys hemmed in by craggy outcrops, disused railway lines edged by trees and narrow necks of woodland bordered by open fell. Dispersing squirrels are funnelled through such areas, so trapping there can be highly successful.

Winning hearts and minds

All of this raises the question: how does the public react to the new openness about grey squirrel control? It seems that some people, typically in areas where the demise of reds is beyond living memory, have learned to love the interlopers. Grey squirrels are smart, entertaining and active by day where they can easily be watched. But attitudes to the invaders are more hostile in the RSNE heartlands where reds have been displaced by greys quite recently – many Northumberland estates have lost their red squirrels within the last five years, for instance.

The picture is similar in Cumbria, where for several years greys have been controlled with gusto by forest managers, red squirrel groups and members of the public. This effort has been instrumental in allowing red squirrels from Cumbria to become re-established in the Yorkshire Dales, where they now continue to expand, protected and monitored by another branch of the RSNE team.

Throughout its range, the RSNE's strength is massively boosted by volunteers. They help with monitoring and often also with control. Some volunteers shoot greys themselves, while others keep traps in their gardens and call a ranger when a squirrel is caught.

Rapid results

I arrange to spend an afternoon with Jamie on his rounds through woodland alongside the North Tyne. The traps and feeders are all empty today, but Jamie tells me that last year he caught only greys here. Now, he sees a pair of reds most days. From a high point above the village of Bellingham he points out dozens of other sites where the balance of power lies in his hands. "That wood has greys. That one is now mostly reds again. Over there I'm seeing both."

The results of grey control are startlingly fast – dispersing reds often rediscover the available habitat within a couple of months. A new RSNE study starting this autumn hopes to discover exactly how the dispersal and recolonisation takes place – which reds move and how, and, conversely, how fast greys return if trapping is not continued.

Jamie's experience is that trapping squirrels 24/7 is counterproductive. "I trap an area intensively for a week, then leave it for a few weeks," he says. "Visiting every day creates a significant disturbance, for both reds and greys. It might put the reds off settling, or encourage greys to move somewhere they would otherwise not have gone."

By now it has dawned on me that Britain's red squirrel is not a run-of-the-mill threatened species. It's not a top predator, nor naturally rare. It has no really specialist needs, and areas of suitable habitat remain plentiful. It is not somehow 'unfit', as is sometimes implied when it loses out to competition with a species that it should never have encountered in the first place.

Red squirrels are prolific breeders, versatile foragers, and for millennia they have taken advantage of the wide range of wooded habitats across Britain. They shouldn't need mollycoddling, supplemental feeding or reintroducing.

Their rodent nature – curious, intrepid, opportunistic and fecund – means they are more than capable of expanding to fill available habitat themselves. Treeless landscapes can be crossed, and road verges, hedges, walls and bridges all used as dispersal routes. There are 10,000–15,000 red squirrels in northern England – that's a lot of colonisation potential. All they need is for grey squirrels not to be in the way.

My visit has been exhilarating – I have never heard such optimism about red squirrels. But I'm left in no doubt that defending them is incredibly hard work. I hardly dare to ask the obvious question: if RSNE can successfully hold this 'thin red line', is it possible to then turn the tide? The answer seems to be a cautious "Yes."

The situation in Britain is often compared to that in New Zealand, where introduced mammals have wreaked havoc on the ecology of the mainland, and many native species are kept from extinction purely by rigorous defence of tiny populations on offshore islands. But things here are not quite that dire. Though the eradication of greys nationwide is impossible, talk of surrendering our mainland wholly to grey squirrels is premature. The RSNE's work shows that preserving the range of reds, and helping their natural re-expansion, are achievable goals.

"It's good to know that red squirrels are back here because of what I'm doing," says Jamie, gesturing to the quiet ranks of auburn Scots pine trunks glowing against a rampantly green understorey. "But I know that if I were to stop my work, in a matter of months those little guys will be gone again."

Find out more

Websites: www.cornwallredsquirrels.co.uk, www.redsquirrels.info, www.rsne.org.uk and www.rsst.org.uk

Best books:

- *Red Squirrels* by Tom Tew and Niall Benvie (Colin Baxter Photography, 1997)
- *Squirrels* by Jessica Holm (Whittet, 1987)
- *The Eurasian Red Squirrel* by Stefan Bosch and Peter Lurz (Wolf, VerlagsKG, 2012)

Captive-breeding centres:

- Belfast Zoo www.belfastzoo.co.uk
- Kilnsey Park, near Skipton, North Yorkshire www.kilnseypark.co.uk
- Paradise Park, Hayle, Cornwall www.paradisepark.org.uk
- Welsh Mountain Zoo, Colwyn Bay, Conwy www.welshmountainzoo.org
- Wildwood Trust, Herne Bay, Kent www.wildwoodtrust.org

A return to Nosterfield Local Nature Reserve near Ripon

Ann Hanson

Introduction

Nosterfield Local Nature Reserve is an area of lakes, wetlands, wet grassland and silt lagoons, located near West Tanfield to the north of Ripon on an area of former sand and gravel extraction (Grid ref. SE278796). The reserve has been created over a number of years and is managed by the Lower Ure Conservation Trust. For more information about Nosterfield LNR and the Lower Ure Conservation Trust see their website at www.luct.org.uk.

YMG last carried out a small mammal survey on the reserve in October 2010, when the catch included 20 wood mice (*Apodmus sylvaticus*), 6 bank voles (*Myodes glareolus*) and 1 common shrew (*Sorex araneus*). The group was invited to survey the reserve again in July 2013 as part of a Yorkshire Naturalists' Union excursion, involving botanists, entomologists, ornithologists and every other sort of "ist" you can imagine.

Methods

Fifty Longworth traps were placed in a variety of habitats around the reserve, baited with wheat, peanuts, sunflower seeds, carrots and blowfly pupae, with a ball of hay for bedding.

Trap locations:

1. SE27518009 – willow scrub and reed canary-grass on the edge of the lake at the northern end of the reserve (12 traps).
2. SE27558048 – species-rich, mature hedge with adjacent rough grass at the northern end of the reserve (10 traps).
3. SE27558050 – rough grass near gateway at the northern end of the reserve (3 traps).
4. SE27957977 – area of dense horsetail, numerous orchids and scattered willow scrub along the south-west edge of the East Silt Lagoon (15 traps).
5. SE27957981 – grassy knoll alongside the south-west edge of the East Silt Lagoon (2 traps).

6. SE27967985 – dry bank with abundant brambles along the north-west edge of the East Silt Lagoon (8 traps).

Traps were set on the evening of Friday 5 July and checked on Saturday 6 July from 9.30am onwards.

Results

Summary of small mammals captured at Nosterfield Local Nature Reserve, July 2013.

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Common shrew	0	2	0	1	0	0

Appendix I shows a comprehensive table of results for this trap.

Discussion and conclusions

The small mammals at Nosterfield LNR were definitely playing hard to get in July 2013, as only 3 common shrews were caught at two different locations on the reserve, although one of the shrews was heavily pregnant and weighed in at a whopping 15g. Compared to the fairly numerous wood mice, handful of bank voles and single common shrew caught in October 2010, this was a bit disappointing. However, the plethora of other wildlife recorded by various YNU members and the amazing show of orchids on the reserve (not to mention the glorious sunny weather!) made the survey very enjoyable, despite the low numbers of small mammals.

Other mammals and mammal signs recorded during the survey included a fox (*Vulpes vulpes*) scat by the silt lagoon at SE27977986, and numerous rabbits (*Oryctolagus cuniculus*) all over the reserve. Small mammals previously recorded from barn owl pellets on the reserve include water shrew (*Neomys fodiens*), wood mouse, bank vole, field vole (*Microtus agrestis*), common shrew, pygmy shrew (*Sorex minutus*), brown rat (*Rattus norvegicus*) and mole (*Talpa europaea*). Harvest mouse (*Micromys minutus*) is the only small mammal yet to be recorded on the reserve.

Thanks are once again due to Simon and Jill Warwick for their help with this trap. Thanks also to the Nosterfield LNR volunteers, YNU members and members of YMG who joined us.

Appendix I

Table of results: Small mammal survey at Nosterfield LNR, 6 July 2013.

Weather: Hot, sunny and dry.

Site	**Species**	**Sex M/F***	**Age A/SA/J***	**Weight (g)**
Mature hedge (2)	Common shrew	F	A	15.0**
Mature hedge (2)	Common shrew	?	A	9.0
East Silt Lagoon edge (4)	Common shrew	?	A	12.0

* M = male; F = female; A= adult; SA = subadult; J = juvenile
** Pregnant

A small mammal survey at Roseberry Topping, North Yorkshire

Ann Hanson

Introduction

Roseberry Topping is a distinctive landmark situated on the border of North Yorkshire and Cleveland and owned by the National Trust (Grid ref. NZ575126). Habitats on the hill include mature oak woodland on the lower slopes, with rough grass, bracken and heather on the more open, upper slopes. YMG was invited to carry out a small mammal trap on the hill in the autumn of 2013.

Methods

Forty-nine Longworth traps were placed in a variety of habitats, baited with wheat, peanuts, sunflower seeds, carrots and blowfly pupae, with a ball of hay for bedding.

Trap locations:

1. Wet area in mature oak woodland, with a large fallen ash tree (8 traps).

2. Mature oak woodland with holly and sycamore. English bluebell, bracken and bramble understory (10 traps adjacent to woodland path).
3. Clearing in mature oak woodland, with bracken, bramble and long grass (16 traps).
4. Upper slopes – open area with long grass and bracken (15 traps).

Traps were set on the evening of Saturday 31 August and checked on Sunday 1 September from 9am onwards.

Results

Summary of small mammals captured at Roseberry Topping, September 2013.

	Site 1	Site 2	Site 3	Site 4
Bank vole	1	6	7	2
Common shrew	0	1	2	1

Appendix I shows a comprehensive table of results for this trap.

Discussion and conclusions

Two species of small mammal were caught at Roseberry Topping, including bank vole (*Myodes glareolus*) and common shrew (*Sorex araneus*). The majority of captures were bank voles, 16 in total, which were found at all the sites that were trapped. Common shrews were caught in lesser numbers, 4 in total, at three of the trap sites, being absent from the wet area in the woodland. The most unusual observation regarding the survey was the lack of wood mice (*Apodemus sylvaticus*) in what should have been prime wood mouse habitat. A previous Longworth trapping session conducted at Roseberry Topping in September 2005 by Derek Capes of Great Ayton recorded bank vole, wood mouse and common shrew. Derek has also previously recorded rabbit (*Oryctolagus cuniculus*), grey squirrel (*Sciurus carolinensis*), brown hare (*Lepus europaeus*), mole (*Talpa europaea*), roe deer (*Capreolus capreolus*) and fox (*Vulpes vulpes*) on the site.

Thanks are due to Gareth Wilson of the National Trust, numerous NT volunteers and several members of YMG who helped with this survey. Special thanks to Gareth for helping with organisation and for rescuing your Field Studies Adviser when her van broke down on the way to

Roseberry Topping. And thanks to Rob for bravely sorting the van out while we were all having fun up the hill!

Appendix I

Table of results: Small mammal survey at Roseberry Topping, 1 September 2013.

Weather: Overcast, warm and dry.

Site	**Species**	**Sex M/F***	**Age A/SA/J***	**Weight (g)**
Wet area in wood (1)	Bank vole	F	A	29.0
Mature oak wood (2)	Bank vole	M	J	16.0
Mature oak wood (2)	Bank vole	M	SA	20.0
Mature oak wood (2)	Bank vole	M	SA	16.0
Mature oak wood (2)	Bank vole	M	SA	19.0
Mature oak wood (2)	Bank vole	M	A	22.0
Mature oak wood (2)	Bank vole	M	A	19.0
Mature oak wood (2)	Common shrew**	?	A	7.0
Clearing in wood (3)	Common shrew***	?	?	?
Clearing in wood (3)	Bank vole	F	A	20.0
Clearing in wood (3)	Bank vole	F	A	21.0
Clearing in wood (3)	Bank vole	F	A	23.0
Clearing in wood (3)	Bank vole	M	A	23.0
Clearing in wood (3)	Bank vole	M	A	18.0
Clearing in wood (3)	Common shrew	?	A	8.0
Clearing in wood (3)	Bank vole	F	A	25.0
Clearing in wood (3)	Bank vole	F	A	20.0
Upper slopes (4)	Bank vole	M	A	19.0
Upper slopes (4)	Common shrew	?	A	8.0
Upper slopes (4)	Bank vole	M	A	21.0

* M = male; F = female; A= adult; SA = subadult; J = juvenile
** Dead in trap
*** Escaped during handling

A small mammal survey at Howsham Mill, near Malton, with Norton Wildlife Watch Group

Ann Hanson

Introduction

Howsham Mill is a beautifully restored 18th century watermill situated alongside the River Derwent near Malton, North Yorkshire (Grid ref. SE730627). The mill is cared for by the Howsham Mill Renewable Heritage Trust and is used as an environmental education centre as well as generating renewable energy using a waterwheel and an Archimedes Screw. For more information about Howsham Mill visit the Renewable Heritage Trust website www.howshammill.org.uk.

Howsham Mill is used by Norton Wildlife Watch Group for various activities and YMG was invited to carry out a small mammal survey with the Watch Group on the land around the mill in autumn 2013.

Methods

Fifty Longworth traps were placed in a variety of habitats, baited with wheat, peanuts, sunflower seeds, carrots and blowfly pupae, with a ball of hay for bedding.

Trap locations:

1. Mature woodland near the mill race, with nettle ground flora (22 traps).
2. River bank with mature trees and ground flora of nettle, Himalayan balsam, butterbur and comfrey (10 traps).
3. Long grass, nettle, Himalayan balsam and great willowherb adjacent to an outgrown hedgerow alongside the footpath to the mill (18 traps).

Traps were set on the evening of Friday 27 September and checked on Saturday 28 September from 9.30am onwards.

Results

Summary of small mammals captured at Howsham Mill, September 2013.

	Site 1	Site 2	Site 3
Wood mouse	2	3	7
Bank vole	11	2	0
Common shrew	1	0	1

Appendix I shows a comprehensive table of results for this trap.

Bank vole

Discussion and conclusions

Three species of small mammal were caught at Howsham Mill, including wood mouse (*Apodemus sylvaticus*), bank vole (*Myodes glareolus*) and common shrew (*Sorex araneus*). Wood mice were caught at all three trap sites, being most numerous in the long grass adjacent to the outgrown hedge. Bank voles were most common in the mature woodland near the mill race, with just two common shrews being caught in the mature woodland and the long grass beside the hedge. The small mammals displayed a good range of ages, indicating a successful breeding season. The woodland adjacent to the mill and the river has a rather impoverished ground flora and contains a lot of nettle. The habitat could be improved for small mammals by planting grasses such as reed canary-grass and tufted hair grass in some of the more open areas near to the river to create better ground cover and possibly attract less common species such as harvest mice (*Micromys minutus*).

Lesley Helliwell has previously recorded bats along the river at Howsham Mill, with soprano pipistrelle (*Pipistrellus pygmaeus*), Daubenton's bat (*Myotis daubentonii*) and Natterer's bat (*Myotis nattereri*) being present.

Thanks are due to Howsham Mill Renewable Heritage Trust for allowing us to carry out the survey, to Sue Holmes and Norton Wildlife Watch Group, and to several members of YMG for their help and enthusiasm.

Appendix I

Table of results: Small mammal survey at Howsham Mill, 28 September 2013.

Weather: Sunny, warm and dry.

Site	**Species**	**Sex M/F***	**Age A/SA/J***	**Weight (g)**
Mature woodland (1)	Bank vole	F	A	27.0
Mature woodland (1)	Bank vole	M	A	21.0
Mature woodland (1)	Bank vole	M	SA	15.0
Mature woodland (1)	Bank vole	M	A	17.0
Mature woodland (1)	Wood mouse	M	A	21.0
Mature woodland (1)	Bank vole	M	A	17.0
Mature woodland (1)	Bank vole	M	A	20.0
Mature woodland (1)	Bank vole	F	J	13.0
Mature woodland (1)	Common shrew**	?	A	?
Mature woodland (1)	Bank vole	M	A	20.0
Mature woodland (1)	Wood mouse	M	A	23.0
Mature woodland (1)	Bank vole	M	A	22.0
Mature woodland (1)	Bank vole	F	SA	18.0
Mature woodland (1)	Bank vole	F	SA	16.0
River Bank (2)	Wood mouse	M	A	23.0
River Bank (2)	Wood mouse***	F	?	?
River Bank (2)	Bank vole	F	A	23.0
River Bank (2)	Bank vole	F	SA	19.0
River Bank (2)	Wood mouse	F	J	15.0
Long grass/hedge (3)	Wood mouse	M	SA	17.0
Long grass/hedge (3)	Wood mouse	M	A	23.0
Long grass/hedge (3)	Wood mouse***	?	SA	?
Long grass/hedge (3)	Common shrew	?	SA	7.0
Long grass/hedge (3)	Wood mouse	F	A	25.0

Long grass/hedge (3)	Wood mouse	M	A	25.0
Long grass/hedge (3)	Wood mouse***	?	?	?
Long grass/hedge (3)	Wood mouse	M	A	28.0

* M = male; F = female; A= adult; SA = subadult; J = juvenile
** Dead in trap
*** Escaped during handling

The hunt for the harvest mouse at East Keswick Marsh

Ann Hanson

Introduction

YMG has carried out small mammal surveys previously with East Keswick Wildlife Trust in 2009 and 2012. East Keswick Wildlife Trust is a local group of wildlife enthusiasts who manage several sites within the parish of East Keswick, near Harewood, for their flora and fauna (see www.ekwt.org.uk). On this occasion we decided to concentrate on trapping East Keswick Marsh (Grid ref. SE360440). The battered remains of a possible harvest mouse nest had been found in reed canary-grass adjacent to one of the ponds in the marsh during winter 2012, and EKWT were keen to try and confirm the presence of harvest mice on the site.

Methods

Fifty Longworth traps were placed in a variety of habitats in the marsh, baited with wheat, peanuts, sunflower seeds, carrots and blowfly pupae, with a ball of hay for bedding.

Trap locations:

1. Dry bank between two areas of wet fen, with great willowherb, angelica and nettle (18 traps).
2. Fen meadow with reed canary-grass, meadowsweet, great burnet, great willowherb and angelica (17 traps).
3. Dense reed canary-grass adjacent to pond (8 traps).
4. Edge of pond near to stream with coppiced alder on banks (4 traps).
5. Large willow trees on stream bank (3 traps).

Traps were set on the evening of Friday 4 October and checked on Saturday 5 October from 9.30am onwards. Traps were re-set on the Saturday evening and checked on Sunday 6 October from 9.30am onwards.

Results

Summary of small mammals captured at East Keswick Marsh, October 2013.

	Site 1		Site 2		Site 3		Site 4		Site 5	
	Sat	Sun	Sat	Sun	Sat	Sun	Sat	Sun	Sat	Sun
Wood mouse	0	1	0	6	0	0	1	1	0	3
Bank vole	0	4	1	3	0	3	0	0	0	0
Common shrew	1	0	0	1	0	0	0	0	0	0
Harvest mouse	0	0	0	0	0	1	0	0	0	0

Appendix I shows a comprehensive table of results for this trap.

Harvest mouse (photo - Steve Elliott)

Discussion and conclusions

Four species of small mammal were caught at East Keswick Marsh, including wood mouse (*Apodmus sylvaticus*), bank vole (*Myodes glareolus*), common shrew (*Sorex araneus*) and harvest mouse (*Micromys minutus*). The majority of captures were wood mice and bank voles, with just a couple of common shrews and a single harvest mouse. Only three

small mammals were caught on Saturday morning, compared to twenty-three on Sunday, showing that in such good habitat it can take a couple of days for small mammals to enter the traps. Wood mice were found at all the sites, except for the very dense reed canary grass around the pond at site 3. They were the only small mammal caught at sites 4 and 5 where ground cover was very sparse and their nocturnal habits gave them an advantage. One of the traps containing a wood mouse at site 5 had been placed up a large willow tree, demonstrating the arboreal habits of some small mammals. Bank voles were caught in good numbers at sites 1, 2 and 3, all of which had good ground cover, and common shrews were found at sites 1 and 2. The harvest mouse caught at site 3 in the reed canary-grass beside the pond was a juvenile female weighing in at a suitably minute 5.5g, so confirming the presence of this delightful species in the marsh.

Thanks are once again due to the members of East Keswick Wildlife Trust for another very enjoyable weekend of mammal surveys. Thanks also to Rob Masheder and several other YMG members for their help and enthusiasm.

Appendix I

Table of results: small mammal survey at East Keswick Marsh, October 2013.

Weather: Sunny, warm and dry.

Site	**Species**	**Sex M/F***	**Age A/SA/J***	**Weight (g)**
05/10/2013				
Dry bank (1)	Common shrew	?	A	8.0
Fen meadow (2)	Bank vole	F	A	19.0
Pond edge (4)	Wood mouse	M	A	19.0
06/10/2013				
Dry bank (1)	Bank vole	F	SA	15.0
Dry bank (1)	Bank vole	F	A	27.0
Dry bank (1)	Bank vole	F	SA	17.0
Dry bank (1)	Bank vole	M	SA	19.0
Dry bank (1)	Wood mouse**	?	SA	?
Fen meadow (2)	Bank vole	M	SA	16.0
Fen meadow (2)	Wood mouse	M	A	26.0
Fen meadow (2)	Wood mouse	F	J	15.0

Fen meadow (2)	Wood mouse	F	A	18.0
Fen meadow (2)	Wood mouse	M	A	30.0
Fen meadow (2)	Bank vole	F	SA	18.0
Fen meadow (2)	Wood mouse	F	A	18.0
Fen meadow (2)	Bank vole	F	SA	17.0
Fen meadow (2)	Common shrew	?	A	9.0
Fen meadow (2)	Wood mouse	M	SA	20.0
Reed canary-grass (3)	Harvest mouse	F	J	5.5
Reed canary-grass (3)	Bank vole	M	SA	16.0
Reed canary-grass (3)	Bank vole	M	A	17.0
Reed canary-grass (3)	Bank vole	F	SA	16.0
Pond edge (4)	Wood mouse**	?	?	?
Stream/willow (5)	Wood mouse	F	SA	16.0
Stream/willow (5)	Wood mouse	M	A	20.0
Stream/willow (5)	Wood mouse	M	SA	15.0

* M = male; F = female; A= adult; SA = subadult; J = juvenile

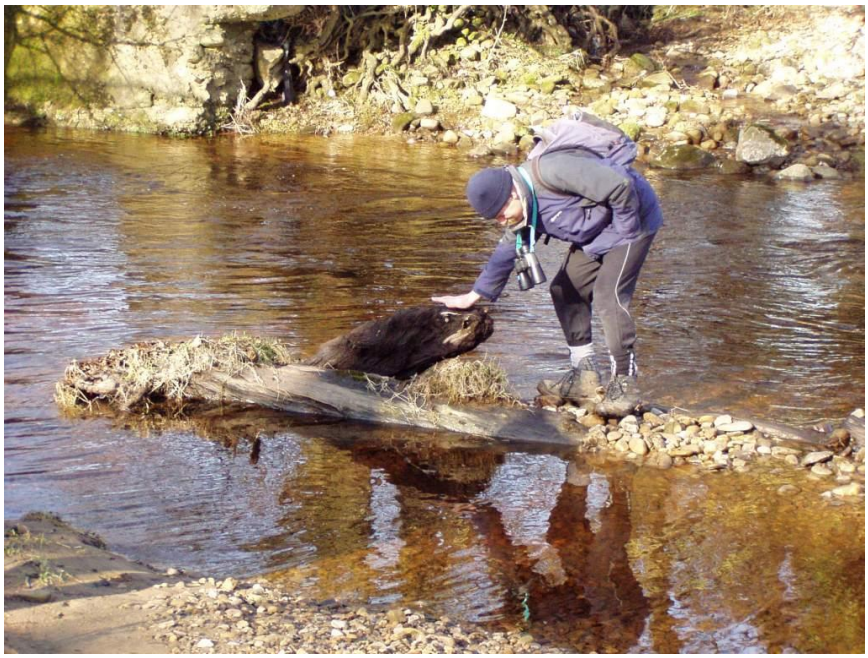
** Escaped during handling

"Are we there yet?" – a report of YMG mammal recording walks 2013

Ann Hanson and Rob Masheder

Heavy snow in January put paid to our first walk of the year, but we were rewarded with a beautiful sunny day for our second attempt at **Masham in North Yorkshire on the 17th February**. In fact, some of us were so keen to get out and about that we arrived early enough for a quick coffee in the Suncatchers Cafe before the walk even started (the first and probably the last time this is likely to happen…). Once assembled, we struck out to the south heading for the River Burn, recording several sets of molehills, a rabbit skeleton up a tree (believe it or not the second time we've recorded this strange phenomenon on a YMG walk) and a fox scat en route. On reaching the river Rob quickly located a fresh otter spraint near Low Burn Bridge and suggested our work was done and we should head back to Masham for lunch. We carried on, locating more molehills and field vole runs in grassland near the river, then three more splodges of otter spraint beside the river near Maister's Wood. We stopped for lunch under a majestic veteran oak tree in a small pasture by the river and were treated to the sight of a stoat running along a drystone wall nearby.

Dead rabbit up a tree near Masham



Rob bravely pats a giant otter in the River Burn

Setting off again, we recorded a grey squirrel, some fox scat, rabbit droppings and some more molehills, before locating yet another otter spraint under Shaws Bridge. Heading away from the river on a small country road, we recorded molehills on Swinton Moor and then spotted a big brown hare in the wonderfully named Speculum Plantation. Near Swinton Saw Mill we found some roe deer tracks and recorded rabbit burrows and molehills. Low Moor Lane contained more molehills, field vole runs and a rabbit skull, with the last part of our walk back to Masham locating a rabbit skeleton and the obligatory molehills.

Our March walk was once again thwarted by heavy snow, but a rather pleasant **13th April found us walking along the River Ure from Boroughbridge**. Molehills were the most prevalent mammal record on this walk, but we also managed to locate some otter spraint by the river at Aldborough Ings. A lunch break on the banks of the river at Hall Arm resulted in a few people who happened to be looking the right way seeing an otter swim across the river! Those of us who happened to be looking the wrong way were just very, very disappointed. After lunch, another otter spraint was located near Ellenthorpe Lodge, with a hare's foot followed by four very lively hares near Holbecks Drain. Last record of the day was not a mammal at all, but a rather sad squashed toad on Soursikes Field Road.

5th May found us heading out from a very busy Helmsley into the surrounding countryside. As the footpath crossed a small bridge over a tiny stream near Linkfoot Lane, the eagle-eyed Gordon Woodroffe spotted an otter spraint on a rock – an excellent start to the day. This was followed by molehills and rabbit burrows near Monk Holme Wood. Moving into Riccal Dale Wood we recorded molehills, a roe deer frayed sapling, fallow deer slots in the mud beside the River Riccal and a grey squirrel nibbled hazel nut. A bit further along where the river had become dry, we found several more splodges of otter spraint (one on top of a molehill) and a possible otter holt. Riccal Dale Wood also yielded some badger footprints and hair, roe deer droppings, molehills, rabbits, the scent of a fox and a huge wood ant nest! Heading back towards Helmsley we recorded squirrel nibbled hazelnuts, field vole runs and three very lively brown hares in the fields near Rea Garth Farm. Our remaining walk back down Riccal Dale found rabbit burrows, a fox earth, a badger sett and latrine, and a squirrel drey, before we treated ourselves to well earned tea and cake in Helmsley.

Possible otter holt on the River Riccal near Helmsley

Our evening walk on **6th June was a return to the River Foss at Strensall**. A select gathering of one set off along the Foss on a gorgeous sunny evening and recorded numerous water vole burrows and latrines between Strensall New Bridge and Strensall Bridge. I was also treated to the sight of a water vole happily munching on vegetation beside the river before briefly liaising with our committee member without portfolio near the old tannery. The Foss also seems popular with otters as I recorded three lots of spraint along the way, including some very fresh spraint on a ledge under Strensall Bridge. I had a thoroughly enjoyable evening and it was good to see that water voles are still thriving on the Foss.

Water vole latrine alongside River Foss, Strensall

The last walk of the year was from **Ampleforth Abbey and College on 10th November**. This actually turned into two walks as a bit of a mix up with car parks and a lack of mobile phone signal meant that Geoff never did meet up with the rest of us, but gamely did a walk of his own. Our first record was a grey squirrel in the car park, followed by molehills, rabbits and another grey squirrel near the sports fields. A brown hare ran into the woods on Agars Bank and several sets of molehills were recorded on the way to Gilling East. Walking up Pottergate past Gilling Castle we found a dead grey squirrel and a wonderful badger track heading from the wooded bank across an arable field near Park House. After a walk around the stunning Lower Fish Pond, we headed back up to Ampleforth recording molehills and rabbits en route to the Abbey tea rooms. Meanwhile, Geoff had walked northwards from the abbey and recorded several molehills, a rabbit warren and droppings and fox scats, as well as enjoying a rather splendid view.

Badger track across arable field (photo - Mary Youngman)

Lower Fish Pond, Ampleforth

Thanks once again to everyone who joined us (or even attempted to join us) on our walks in 2013. I hope a good time was had by all and our knowledge of the tea shops of North Yorkshire will stand us in good stead for 2014.

Ann Hanson (Expedition Leader) and Rob Masheder (Navigator)

West Tanfield dormouse report 2013 – teapots and dormice

Mary Youngman

The reintroduced population of dormouse at West Tanfield was as usual monitored three times during 2013.

Dormice aside, a highlight of the year was the opening of a teashop in the village, giving the group the incentive of tea and cake if the box checks were completed before closing time.

This year only the June box check turned up any dormice. Four pink babies in one box (with no adult present), one torpid female 18g and one active male 17g. Also in June, Ann made the exciting discovery of a dormouse nest in a clump of tufted hair grass. Additionally we identified several nests found in the boxes as dormouse nests; 16 nests in June, 17 in August and 14 in October. All together these finds provide evidence that a dormouse population continues to exist within the wood.

Dormouse nest in tufted hair grass

Other small mammals occupying our boxes include woodmice, common shrews and pygmy shrews, and as usual the boxes provided a home for many bird nestlings, bees and wasps.

We'll be back in the woodland again later this year, so why not come along to help and have the opportunity to see these charismatic animals.

Holding a torpid dormouse (photo - Nicky Butler)

Dormouse monitoring in Freeholders' Wood 2013

Ian Court

Wildlife Conservation Officer, Yorkshire Dales National Park Authority

Introduction

A reintroduction of 35 captive bred Hazel Dormouse *Muscardinus avellanarius* into Freeholders' Wood, Aysgarth was undertaken in 2008 and has been documented by White and Court (2012). This report provides a summary of the 2013 monitoring season and additional woodland and hedgerow planting that has been undertaken to increase the Dormouse network around Aysgarth.

Methodology

The monitoring work was undertaken in accordance with the National Dormouse Monitoring Program (NDMP) survey guidelines (PTES, 2011) with licensed fieldworkers each supervising two trainees checking nest boxes once each month from May to October. The numbers of boxes that contained distinctive Dormouse nests but where no Dormice were present were recorded. Where Dormice were found the sex, weight, breeding condition and whether the animal was active or in torpor were also recorded. The Dormice were also aged as an adult (i.e. an animal that has survived at least one winter) by the orange-brown colour of the fur, or as a juvenile (i.e. independent young in their first year with a weight of >10g) with more brownish fur than an adult. The number of young were counted, weighed where appropriate, and classed as pink (no fur), grey (grey fur and eyes still closed) or eyes open (with grey-brown fur and eyes open).

Monthly weather summaries for 2012 have been derived from seasonal summaries provided by the Met Office (2013).

Results

The number of Dormice and empty Dormice nests found during monitoring work in 2013 is shown in Table 1 and Figure 1.

Table 1. The number of Dormice and empty Dormice nests found during monthly monitoring work in 2013.

Survey date	Total no. of Dormice	No. of empty nests	No. of boxes checked	No. Dormice per 50 boxes checked
20/05/2013	3	0	254	0.6
17/06/2013	12	6	254	2.36
15/07/2013	22	12	254	4.33
19/08/2013	14	11	254	2.75
16/09/2013	2	9	254	0.39
22/10/2013	20	15	254	3.94

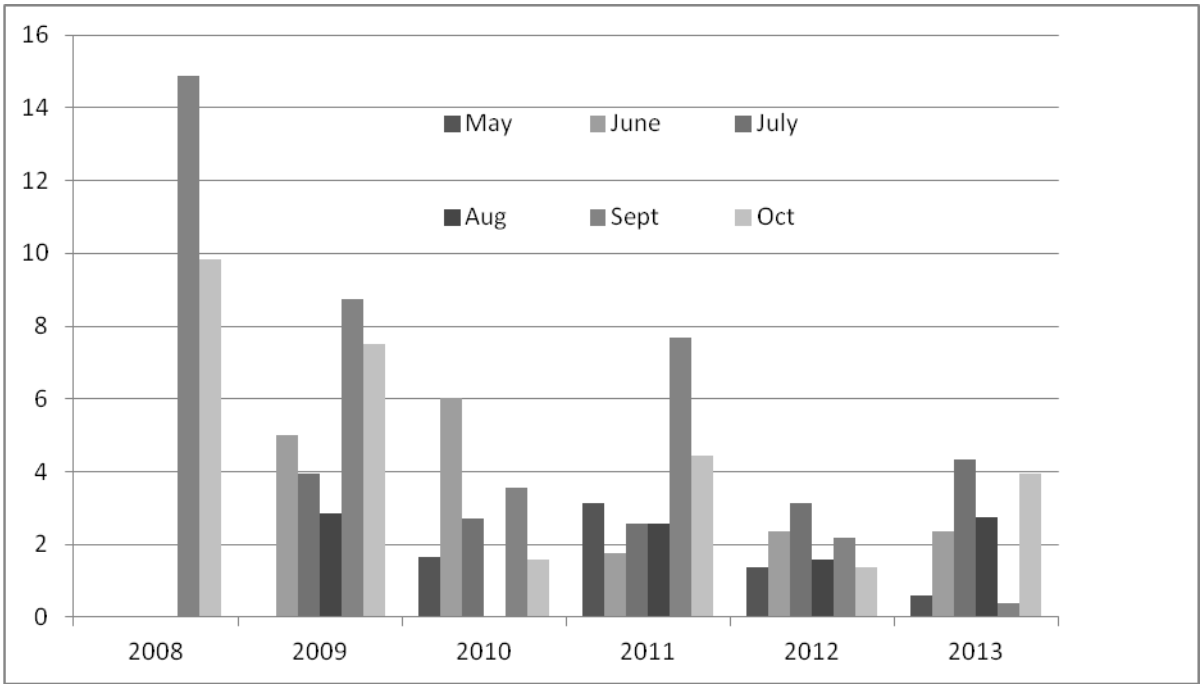


Figure 1. The number of Dormice found per 50 boxes checked at Freeholders' Wood, Aysgarth in 2013.

The monthly weather summary for 2013 was as follows:

May – the cool weather from earlier in the year continued into May and was exacerbated by predominantly northerly winds, with temperatures general below average for much of the month. It was also unsettled at times, particularly mid month, but despite a few warmer days, overall it was the coldest May across the UK since 1996.

June – a high pressure system over the UK resulted in some prolonged sunny periods. However, temperatures rarely above their seasonal averages and resulted in rather a cool month with below average rainfall.

July – the high pressure continued during the month resulting in high temperatures and the first heat wave since 2006. Rainfall was generally quite low making it the driest July since 2006. However, thunderstorms during the last ten days resulted in localised heavy rain in some places.

Aug – initially there was some unsettled weather at the start of the month, with showery rain over the first few days. There was plenty of fine sunny weather during the month with near average temperatures throughout.

Sept – a variable month that started with fine, warm, sunny weather followed by more unsettled and cooler conditions and a brief stormy period

mid-month. The latter half was more settled resulting in below average rainfall for the month.

Oct – overall a mild month with showers and prolonged periods of rain during the first half of the month. Unsettled weather continued throughout with strong winds and heavy rain at the end of the month.

Discussion

The 2012 results from Freeholders' Wood can be compared to the national results from the NDMP detailed by White (2013) with a comparison of the number of Dormice found per 50 nest boxes checked in the England NDMP and the number found in Freeholders' Wood shown in Table 2.

Table 2. The number of hazel Dormice found per 50 boxes checked as part of the Northern England and Freeholders' Wood National Dormouse Monitoring Program in 2012.

Month	No. Dormice per 50 boxes checked in Northern England NDMP 2012	No. Dormice per 50 boxes checked in YDNP 2012
May	1.78	1.38
June	1.3	2.36
Sept	2.97	2.17
Oct	1.25	1.38

Summary results for England in 2012 detailed by White (2013) are very similar to those recorded in Freeholders' Wood with the adults coming out of hibernation early, but then subsequently less active with breeding delayed until later in the year. The number of young born was below average and there was high infant mortality, however the adult population in autumn was generally found to be a good weight to survive hibernation.

Following the low numbers of Dormice recorded in 2012, there was a welcome increase in the number recorded at Freeholders' Wood during 2013 with a relatively high number of females with young and it would appear that breeding success was also relatively high. The overall status of Dormice in Freeholders' Wood can be classed as stable.

The volunteer training program was also successful with two additional fieldworkers obtaining their full Natural England Schedule 5 licences.

Dormouse Habitat Network

In order to encourage dispersal of the Dormice population from the original release site at Freeholders' Wood there has been on-going work to create and link additional areas of potentially suitable habitat undertaken as part of the Dormice Habitat Network (Geoff Garrett, pers comm). The areas of hedgerow and woodland that have, or will be planted between 2011 and the end of the 2014 planting season area are shown in Figure 2.

Acknowledgements

I would like to thank Roger Gaynor, Mike Moran, David Preston and Paul Sheehan for undertaking the monitoring work and Cathy Bergs, Moira Bullen and Alison Crisp for their assistance with the fieldwork. Also, thanks to Geoff Garrett for coordination of the new woodland planting and provision of the information and Ian White (PTES) for his continued advice and support.

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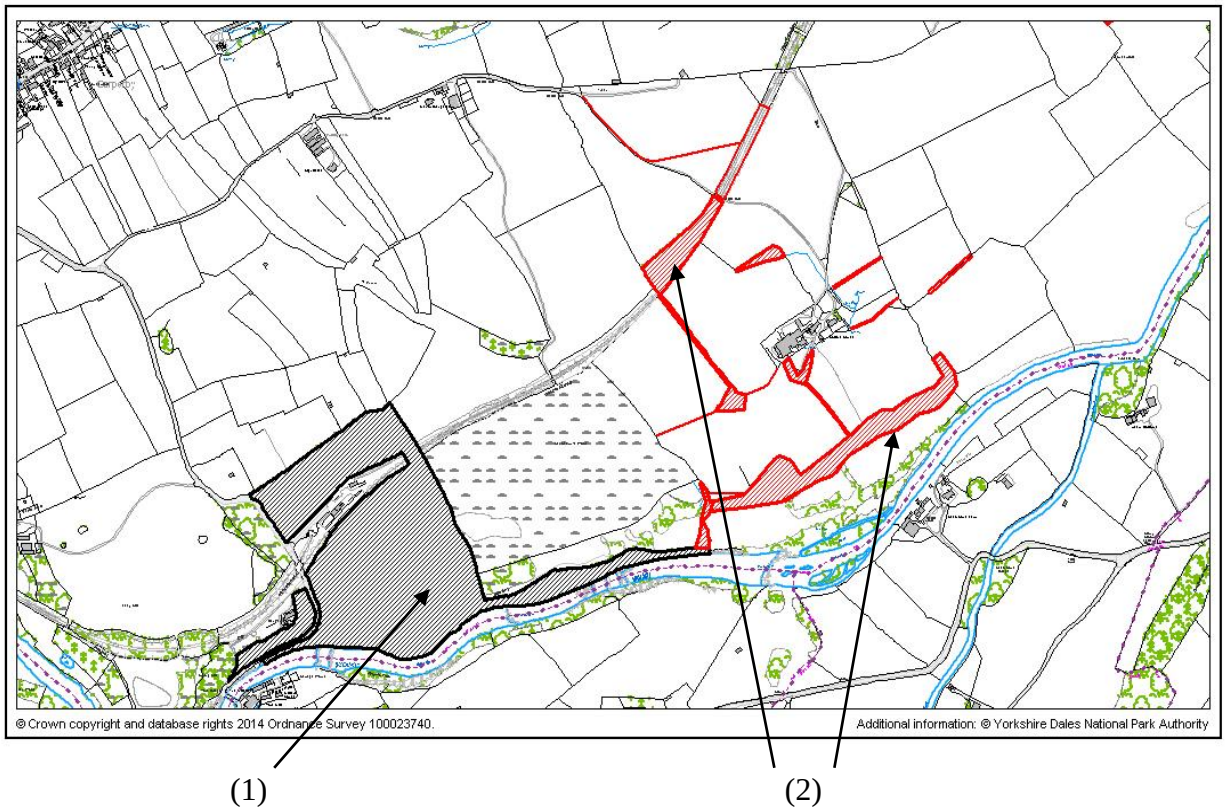


Figure 2. The main Dormice release area (1) and the area of new hedgerow and woodland (2) that will have been, or will be planted between 2011 and spring 2014.

Beavering about in Yorkshire

Colin A. Howes

In addition to the Beaver forming the basis of the place-name 'Beverley', it also features on the illustrated pub sign for 'The Beaver' pub in Beverley market place and on the town's splendid coat of arms (see Phil Penfold's fascinating article in the Dalesman July 2013: 27-28). There is also a carved wooden misericord in the 16th century choirstalls in Beverley Minster which rather alarmingly depicts a beaver castrating itself!

This imagery is based on a myth derived from a play on the Greek name for beaver, 'Castor'. It was enthusiastically repeated in Aesop's Fables in the 6th century BC, by Pliny the Elder in the 1st century AD, Gerald of Wales in the 12th century AD and in a string of medieval bestiaries.

The story goes that beavers were hunted for their testicles which produced an oil (Castoreum) esteemed for its medicinal properties (we're into Unicorn horn territory here folks). When pursued by hunters the male beavers would bite off their own testicles and throw them to the hunters thus evading death. Further, if an already castrated beaver was hunted, it would reveal its genital area, displaying to its pursuers that the objects of their quest had gone (!) and there was no point on continuing the chase.

This mythologized behaviour was moralised into Christian iconography as depicting admirable self sacrifice, hence its depiction in carvings in both Beverley and Ripon Minsters.

On the old Beverley Town Council coat of arms and on the version updated when Beverley RDC merged with Haltemprice in 1974 the beaver, clearly an object of Civic pride, features as a prominent centrepiece. But look closer, for here again it is depicted reaching round toward its haunches. This is not a design feature contrived to neatly fit the image into the allotted space or to show a beaver grooming its coat but is a reference to self castration, though discretely described in one commentary as *'biting at its fur'.*

Interestingly there is probably more evidence of beavers having occurred in Yorkshire than elsewhere in England from prehistoric to Roman times and tantalisingly possibly up to the 18th century. Bone remains have been found at Hornsea, Newtondale (Pifflehead Wood), Seamer (Star Carr), Staple Howe, Stone (nr Roche Abbey), Ulrome, Whenby, Withernsea and York (Fishergate). In addition, the tangled branches of a beaver dam recently eroded into the sea at Skipsea, and at Burton Salmon an area of alluvial soil was realised to have formed in a silted stream bed dammed by beavers in prehistoric times. Similar isolated patches of alluvium associated with small streams and springs on the Magnesian Limestone ridge along the western edge of the Vale of York could well have resulted from prehistoric beaver dams.

References

Hanson, A. (2004) Beavering on the beach at Skipsea 4 September 2004. *Imprint* **31**: 41-42.

Oxford, G. (2002) European Beavers – then and now. *Imprint* **29**: 32-37.

Penfold, P. (2013) *Dalesman* July 2013: 27-28.

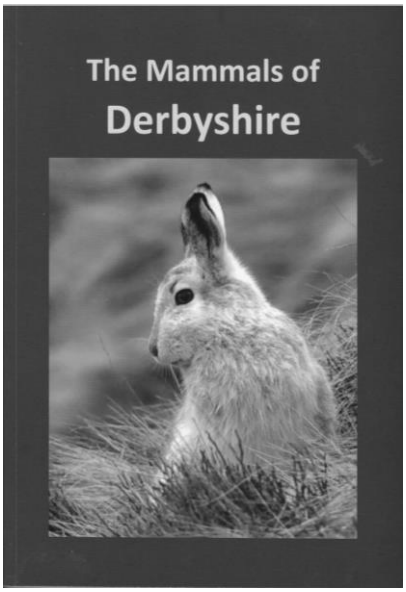
Domestic cats and wildlife

In January 2014 Dr Rebecca Thomas of Reading University gave a fascinating talk to Yorkshire Mammal Group about her research on cat predation and wildlife. The abstract of her most recent study is below.

Thomas, R. L., M. D. E. Fellowes, and P. J. Baker. 2012. Spatio-temporal variation in predation by urban domestic cats (*Felis catus*) and the acceptability of possible management actions in the UK. *PLoS ONE* 7(11):e49369. http://dx.doi.org/10.1371/journal.pone.0049369

Urban domestic cat (*Felis catus*) populations can attain exceedingly high densities and are not limited by natural prey availability. This has generated concerns that they may negatively affect prey populations, leading to calls for management. We enlisted cat-owners to record prey returned home to estimate patterns of predation by free-roaming pets in different localities within the town of Reading, UK and questionnaire surveys were used to quantify attitudes to different possible management strategies. Prey return rates were highly variable: only 20% of cats returned ≥4 dead prey annually. Consequently, approximately 65% of owners received no prey in a given season, but this declined to 22% after eight seasons. The estimated mean predation rate was 18.3 prey cat^{-1} year^{-1} but this varied markedly both spatially and temporally: per capita predation rates declined with increasing cat density. Comparisons with estimates of the density of six common bird prey species indicated that cats killed numbers equivalent to adult density on *c.* 39% of occasions. Population modeling studies suggest that such predation rates could significantly reduce the size of local bird populations for common urban species. Conversely, most urban residents did not consider cat predation to be a significant problem. Collar-mounted anti-predation devices were the only management action acceptable to the majority of urban residents (65%), but were less acceptable to cat-owners because of perceived risks to their pets; only 24% of cats were fitted with such devices. Overall, cat predation did appear to be of sufficient magnitude to affect some prey populations, although further investigation of some key aspects of cat predation is warranted. Management of the predation behavior of urban cat populations in the UK is likely to be challenging and achieving this would require considerable engagement with cat owners.

Book review



David Mallon, Debbie Alston & Derek Whiteley. ***The Mammals of Derbyshire***. Derbyshire Mammal Group/Sorby Natural History Society. pp. 196 (2012) £14.99 (NHBS)

In the last *Imprint* I reviewed *Mammals, Amphibians and Reptiles of the North East*, edited by Ian Bond; I was mightily impressed with it. Here is another, equally wonderful tome devoted to the mammals of Derbyshire. It has been compiled by the Derbyshire Mammal Group (DMG) and the Sorby Natural History Society and is dedicated to the memory of Derek Yalden, who died just as it was going to press. It is a most fitting tribute to the enormous amount of time and effort Derek spent studying mammals (and other groups) in the Peak District.

The book is based on over 85,000 confirmed records covering the 41 species of mammal recorded in Derbyshire since 2000. The Red Squirrel has since disappeared and the status of the Pine Marten remains unclear, leaving 39 species present and correct by the end of 2010.

After a brief introduction to Derbyshire and its topography there is a short consideration of those mammals inhabiting the region from the early Pleistocene (2.4 to 1.7 million bp) to the present, culminating in a useful table of what was here, and when. Then follows an analysis of the database from which the maps are drawn, including species richness measures and population changes, and a consideration of the results of 56 DMG small mammal live-trapping surveys.

The main body of the book is, of course, commentaries on each species with distribution maps and excellent photographs. The maps are particularly interesting because mammal presence, on a 1 km square scale, is superimposed over a standard background showing altitude and waterways. One can see instantly the, not unexpected, correlation between the distributions of Water Shrews and Daubenton's Bat and the major river systems, for example. The map symbols are broken down into those observations made pre- and post-2000. Thus the demise of the Red

Squirrel is abundantly clear, as is that of the Hazel Dormouse (since re-introduced to two locations in the county). It is surprising that the pre- and post-2000 distributions for the Water Vole are not terribly different (although it isn't clear which 1 km squares were recorded as positive in both periods, which is a shame). However, mere presence and absence indications can hide an awful lot of decline and the later records were collected over a two decade period during which we know massive losses have occurred nationally. Derbyshire is no exception as the commentary on the Water Vole makes clear.

Towards the end of the book 'other species' are briefly considered. For example, the recently (2009) extinct Red-necked Wallaby, extensively studied by Derek Yalden, is described, as are Garden Dormice and Lynx. This is followed by short sections on conservation, references, gazetteer of place names, and mammal place-names in Derbyshire.

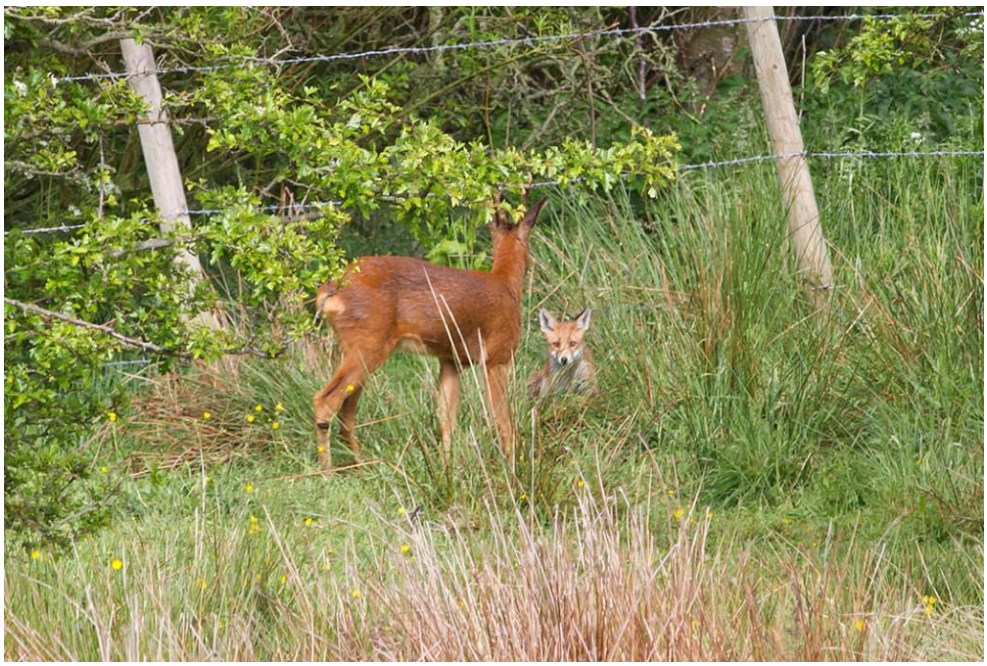
As I said at the start, this is a wonderful book and a great credit to the two organisations who compiled it. It is very well produced, has a clear layout and is illustrated with some stunning photographs.

Geoff Oxford

'That'll be for the coroner to decide – whether it's part of the badger cull or just another gangland killing...'

October 2013 – THE OLDIE 23

Photo gallery



Filey Dams, June 2013. This fox cub dashed up to the roe deer buck, ran once round it and then sat down in front. The buck stamped his feet and that was the end of playtime. Photo: Clive Scholefield.

This is probably the cub's parent pondering on a possible meal. Photo: Mike Day.

Jack Whitehead

Field vole nest with nestlings found beneath a reptile mat, Wykeham Quarry. Photo: Craig Sandham.

Juvenile water vole (one of 23 water voles) translocated to adjacent improved receptor habitat as part of the White Rose Way road improvements. Photo: Craig Sandham.

Grey seal pup at Donna Nook, Lincs (almost a Yorkshire record?). Photo: Craig Sandham.