Contents

Chairman's report – 2015

Charles Critchley

After the seven years of Geoff Oxford's Chairmanship, his second term in post, I did not plan to be standing down from the Committee after only twelve months. It was an honour to hold the post and I regret that I cannot continue in the role. Apart from this Chairman's length of service, I believe YMG has continued to serve the interests of mammals and members very well indeed in 2015.

The upstairs room at The Bay Horse Inn, Marygate, York has proved an excellent venue for an interesting programme of talks. This year's varied subjects were: camera traps and Yorkshire wildlife; bat conservation in Mediterranean landscapes; dormice from Yorkshire to Japan; underground life of badgers; alien invasive mammals; vocalisation in chimpanzees; chronic wasting disease in North American deer. Audiences peaked at 29 for camera traps in March and 30 for the badger talk in October.

The 2015 programme of mammal recording walks organised and led by Ann Hanson (Field Studies Officer) together with Rob Masheder, reads like a gazetteer of God's Own Country: Snilesworth; Allerthorpe Common; Arkengarthdale; Nidderdale AONB; Flamborough; Harewood; Harlow Carr; Ripon Skell and Ure. The November hunt for harvest mouse nests at Middlethorpe and Fulford Ings had to be cancelled due to flooding.

In addition to the talks and walks already mentioned, there were a number of other events where YMG was either represented or responsible: the annual dormouse box checks at West Tanfield in May and October; a stand exhibiting owl pellet analysis at Dalby Explorer Day in July; two evening events, 'Bats and Moths' and 'Bats at t'Mill' in August; a small mammal survey at Rawcliffe Meadows in September. All the foregoing events were organised and attended by Ann and Rob. In September there were small mammal surveys at Flamborough and Bempton Cliffs organised through Jack Whitehead jointly with Filey Bird Observatory and Group. In November YMG played host to the Yorkshire Naturalists' Union AGM at the University of York, also attended by Ann and Rob!

Your Committee was busy behind the scenes as well: John Ray (Mammal Recorder) updating the mammal database and continuing to build the

Yorkshire Mammal Atlas whilst sorting out various IT issues (and introducing me to http://www.gridreferencefinder.com thereby saving many hours poring over maps with ruler and magnifying glass!); Rob Masheder (Treasurer) keeping tabs on finances; Gill Sinclair (Speaker Programme Organiser) lining up and confirming arrangements with speakers; Amy-Jane Beer (Publicity Officer) exercising social media and, along with Gill, creating posters to advertise talks; Natasha Hambly (Secretary) together with John Drewett (Membership Secretary and Chairman of North Yorkshire Bat Group) producing and circulating the monthly Newsletters that advertise events and keep us all informed. Mary Youngman has taken on a newly identified role as YMG Archivist and, within a matter of weeks, has scanned and digitised back copies of Imprint and indexed volumes 37 to 41. Last but by no means least, Andrew Halcro-Johnston (Imprint Editor) continues to produce this important record.

The above brief account cannot hope to do full justice to the efforts of your Committee. On behalf of the YMG membership, of Yorkshire mammals and of myself, I wish to thank them all.

153rd AGM of the YNU (hosted by the Yorkshire Mammal Group)

14th Nov 2015: The 'Lakehouse', Ron Cooke Hub, University of York

Charles Critchley

On behalf of the Yorkshire Mammal Group it is my pleasure to welcome you all to the 153rd Annual General Meeting of the Yorkshire Naturalists' Union. Before the formalities of the AGM, I should like to say a few words about the Yorkshire Mammal Group, established in 1970 as the first local mammal group in Britain.

My first contact with the Group came when I moved to Pickering in 1978. The Forestry Commission was starting a bat box scheme in forests on the North York Moors and Bob Stebbings introduced the YMG's active bat workers, Sheila Walsh and Edna Shann, and Michael Thompson, then editing the Group's newsletter *Imprint*, was monitoring bat roosts in and around York and Wheldrake that led to his important paper on pipistrelle roost philopatry. There was great excitement when one of Michael's

Wheldrake pipistrelles turned up in a bat box in Dalby forest! We were to return the compliment some years later when anecdotally a ringed noctule was found amongst a roost of noctules from a fallen tree alongside the river Ouse in the middle of York. Unfortunately, the ring number was not recorded and so provenance could not be proved. Of course such distance might be small beer for a noctule. Or as years later when John Altringham's University of Leeds team were to demonstrate with a Natterer's bat that seasonal movements across Yorkshire could extend at least from the Hambleton Hills to the Humber. This to me was, lesson one: **landscape scale**.

Another highly significant memory of contact with the Group came sometime in the 1980's when Gordon Woodroffe asked the status of water vole in and around the forests of the North York Moors. I bragged I could show him plenty of evidence but to my horror every location we visited that had formerly been occupied by water vole was deserted. It had happened so quickly. I was aware of the arrival of mink and, in those days, had no thought that otter could return. By the 1990's Gordon was reintroducing rehabilitated otters to supplement what remained of the wild population on catchments of the Derwent, Esk and Rye and today evidence of otter is quite commonplace. Lesson two: **how quickly things can change**. You only need to look at Delany's Yorkshire Mammals published in 1985 and even the 4th Edition tome of the Mammal Handbook from 2007.

And this brings us to what - I don't need to tell you - must surely be the most important, ongoing work of any natural history study: painstaking and reliable recording. Yorkshire Mammal Group (and of course now its sibling North Yorkshire Bat Group) are mainly focussed on North Yorkshire. This poses real difficulty when trying to build and maintain an accurate atlas of mammal distribution with the ambition of covering the whole of Yorkshire, work that was started by your President, Geoff Oxford and the YMG Committee some years ago. Obviously, The Mammal Society's National Mammal Atlas is in the same boat and the last date for records to contribute to the current National Atlas is the 31st December 2015. I am pleased to say that Yorkshire Mammal Group and The Mammal Society are sharing records and I would urge you all to visit their respective websites and enter records with this in mind. Lesson three: **particularly visit the Yorkshire Mammal Group's website, see the active events calendar, enter your Yorkshire mammal records, attend some of the talks and walks, participate and enjoy! Oh, and why not join us on Facebook and Twitter?**

How can we change our gardens to help conserve the European hedgehog?

Report summary

Isobel Austin

Background

It is widely accepted that populations of the well-loved, charismatic, European Hedgehog (*Erinaceus europaeus*) are in decline in the UK. Although exact causes remain uncertain, these declines are often attributed to anthropogenic factors such as pesticide poisoning or road deaths. With continuing pressure from intensive agriculture in the countryside, gardens are an increasingly important habitat to Hedgehogs. This is supported by a study by Haigh et al., 2012[1] which found the second highest proportion of Hedgehog sightings nationwide to be in gardens, coming a close second to road verges.

Due to the potential conservation importance of gardens, it is important to understand which garden characteristics make them most useful and appealing as a habitat for Hedgehogs. However, there is confusion and contradiction as to what these garden features are, despite recent booms in interest regarding conservation of this mammal.

This paper addresses this knowledge gap by investigating associations between indicators of hedgehog presence and garden characteristics. York is used as a study area but it is anticipated that conclusions from the project can be used to inform the management of gardens nationwide.

Methods

Citizen science was used to investigate these associations. This use of volunteers to collect data provides a means of monitoring gardens which are normally off-limits to surveys. Citizen science also serves an important educational role for the public regarding conservation, whilst highlighting possible social constraints to conservation efforts**.**

Volunteer participants completed questionnaires to provide information on hedgehog sightings and garden characteristics such as garden structure, food source availability and the presence of other species. They were also

invited to provide any other comments in relation to hedgehogs and their garden.

Approximately half these participants also placed mammal footprint tunnels in their gardens over 5 consecutive days. These tunnels provided evidence of hedgehog presence overnight, whilst also giving an indication of hedgehog activity (measured by percentage cover of insert papers in tunnels by hedgehog footprints) and the frequency with which hedgehogs visited the garden (percentage of survey days that hedgehog footprints were found).

Data on hedgehog sightings, presence, activity and visit frequency were analysed in relation to different garden characteristics.

Results

Many garden characteristics were significantly associated with indicators of Hedgehog presence (Table 1). A significantly greater proportion of participants whose gardens were accessible saw hedgehogs, found hedgehog footprints and experienced greater hedgehog activity (percentage cover of inserts) and more frequent Hedgehog visits over the study period. A significantly greater proportion of participants who fed hedgehogs in their gardens saw Hedgehogs, found Hedgehog footprints in their mammal footprint tunnels and experienced a higher frequency of Hedgehog visits over the study period. Hedgehog visit frequency and hedgehog footprints were also significantly correlated with the presence of compost heaps whilst hedgehog footprint presence, hedgehog activity and hedgehog sightings were associated with hedgerow presence. Other garden characteristics (paved areas and log piles) were associated with either hedgehog sightings or visit frequency.

Table 1: A summary of garden characteristics which were significantly associated with at least one indicator of Hedgehog presence.

	Garden characteristic					
Indicator of hedgehogs	Accessi-bility	Hedgerows	Food provided	Paved areas	Log piles	Compost heap
Sightings	✓		✓	✓	✓	
Presence (footprints)	✓	✓	✓			✓
Activity	✓	✓				
Visit frequency	✓	✓	✓			✓

The comments made by the participants in their questionnaires uncovered several themes regarding public perceptions of hedgehog conservation. A main theme was an unwillingness to feed hedgehogs due to fears that this would encourage pest species or be disadvantageous to their own pets. Also, many people feed Hedgehogs food which makes them ill including milk.

Discussion and conclusions

The research has revealed a number of garden characteristics that encourage Hedgehogs. Feeding hedgehogs, efforts to preserve and plant hedgerows and having compost heaps can provide food sources for Hedgehogs as well as the latter two factors providing sites for nesting and mating. Other significant characteristics (paved areas, log piles) indicate this need for suitable food sources and nesting sites for hedgehogs. It is not surprising that accessibility was significant with every indicator of Hedgehog presence, as if Hedgehogs are not able to enter gardens it does not matter how 'hedgehog-friendly' the garden is. Therefore, all gardens must be accessible to help hedgehogs, especially as Hedgehogs tend to span several gardens in a night.

In conclusion, people seeking to encourage Hedgehogs in their gardens should feed hedgehogs and ensure that their gardens are accessible to them. They could also add in features which provide food sources and habitats for hedgehogs such as hedgerows, log piles and compost heaps. To achieve this, social barriers highlighted through qualitative data, such as the fear of pest encouragement will have to be overcome. A potential solution could be increased education about hedgehogs, the threats that they face and the benefits that they bring, such as helping to control garden pests.

Acknowledgements: Thanks are due to Piran White and Toni Bunnell for their continued support and all volunteer groups who took part in the project.

The completed paper will be available by September, 2016.

Reference

[1] Haigh, A.J., Butler, F. and Ramsay, R., 2012. An investigation into the techniques for detecting hedgehogs in a rural landscape. *Journal of Negative Results*, *9*(1). 15-26

Yorkshire polecats update

Peter Franklin

The Vincent Wildlife Trust survey of polecat distribution ended at the end of December 2015 and we now have a presence on the distribution map around the Ripon area.

Although I haven't found as many road casualty polecats as in 2014 I have received some interesting information.

The first carcase I found was on 3rd August along my old reliable stretch of road from Ripon to Boroughbridge near the turn off to Marton le Moor. The next was on 19th August on the Boroughbridge to Helperby road not far from Thornton Bridge over the river Swale. The third and final carcase I found in 2015 was on 7th September on the road from Kirkby Malzeard to Grewelthorpe. I reckon that it would be about 15 miles between the furthest of these road casualties.

About the same time as these sightings I was speaking to some locals in Thornton Watlass near Bedale and they had heard reports that polecats had been seen near Thirn on the road to Newton le Willows. I also heard that a part time gamekeeper who shoots around my own village of Laverton had seen polecats on his travels. When I eventually got to speak to him he told me he had seen four animals all on separate occasions but he thought that two of them could have been ferrets.

The final and most encouraging news was a copy of an email that had been sent to our own Ann Hanson from an old aquaintance of hers who happens to be an ecologist. While travelling from Markington towards Fountains Abbey last September as she approached the abbey in her car she saw 3 polecat kits playing on the road. She got out of the car to take a photograph but they disappeared into the undergrowth. As she drove off again they reappeared. She is convinced that they were polecats and not polecat ferrets. Let's hope that they continue to prosper and spread over the rest of the county.

Slaughter in Swaledale

Geoff Oxford

On Saturday 8th August 2015, during the Yorkshire Naturalists' Union VC65 field meeting at Ravenseat, north-west of Keld in Swaledale, two examples of gamekeeper's gibbets were encountered. The first comprised three dead weasels stuffed in a crack in the top of a dry-stone wall (NY864025) and, a little way on, a fourth in a more decomposed condition. Presumably predator control here was to protect game birds. Without a fence on which to advertise the efficiency of the gamekeeper, a stone wall had to suffice.

Near Ravenseat farmhouse (and café) was a more traditional gibbet comprising moles strung along a barbed wire fence (NY861032). The line stretched for 30m or more and contained some two hundred bodies. Mole-catchers are usually paid per animal (apparently £5 is the going rate). The corpses are displayed for all to see to avoid the catcher claiming an artificially high success rate. This charnel house is unlikely to act as a deterrent to a myopic, subterranean mammal.

Photos: Geoff Oxford and Terry Crawford

Harvest mice in the North York Moors National Park

Derek Capes

1) Introduction

A project to investigate the distribution of the harvest mouse in the North Yorks Moors National Park is being undertaken by the author. The background to the work together with early results, was described in 'Imprint' No. 41, (2014). The purpose of this brief note is to report on the progress of the work to the end of 2015. The method used previously ie the analysis of owl pellets to find evidence of harvest mice, has continued unchanged.

2) Method

A total of 51 batches of pellets has been analysed, including 24 sites which were being sampled for the first time, increasing the total for the project to 46 sites. The mean number of pellets/sample was 22, with a range between 1 and 68. The work has located 6 new sites where harvest mouse remains have been revealed, to add to the total of 10 at the end of 2014. These new sites were at or near to, Ruston, Cawthorne Moor, Fangdale Beck, Glaisdale, Egton and Ingleby Greenhow. In addition, there were three sites at which remains were found again as they had been in previous years analyses; at Hinderwell (2nd consecutive year), a site near Egton Bridge (4th consecutive year), and a site near Sneaton (2 out of 3 years positive).

Although this survey has not set out to find harvest mice nests, where they are brought to the attention of the author, they are recorded. In 2015 one such nest was found near Keys Beck in Cropton Forest in late September by Andrew Hutchinson.

Table 1 summarises the main features of the survey to date.

3) Comments

As shown in Table 1, the number of samples analysed increased markedly from below 20/year in the previous 2 years, to 51 in 2015, and the number of new sites showed an approximate threefold rise. One reason for this increase may have been the successful breeding season for owls in 2014,

with the young of that year dispersing to establish their own territories in 2015. However, this was not translated locally into a significantly greater breeding success rate; local reports put it at average but with very few second broods, but nationally it was generally considered to be poor due a shortage of field voles, the owl's principal prey. In the area covered by this work however, out of 49 samples only 6 had field vole contents of below 50%, (Fig 1). It would appear that the majority of local owls had a more consistent and adequate food supply than those further afield.

It is not unusual to encounter the remains of birds in owl pellets. An owl at Ugthorpe has developed quite a taste for them. From 5 samples, 4 contained bird remains and in 2 of these samples, each contained 11% of the diet. The identification of the prey bird species is problematical for the writer, but in one case, the owl had captured a bird which conveniently had a BTO ring on its leg, from which it was found to have been a swallow, ringed at Retford in Nottinghamshire.

Another reason for the increase in the number of samples analysed was the recruitment of another pellet donor who obtained a number of samples of pellets from the southern part of the Park – an area not previously covered. Much of the southern and all of the western parts of the National Park remain yet to be explored as far as this survey is concerned and will be the target for 2016.

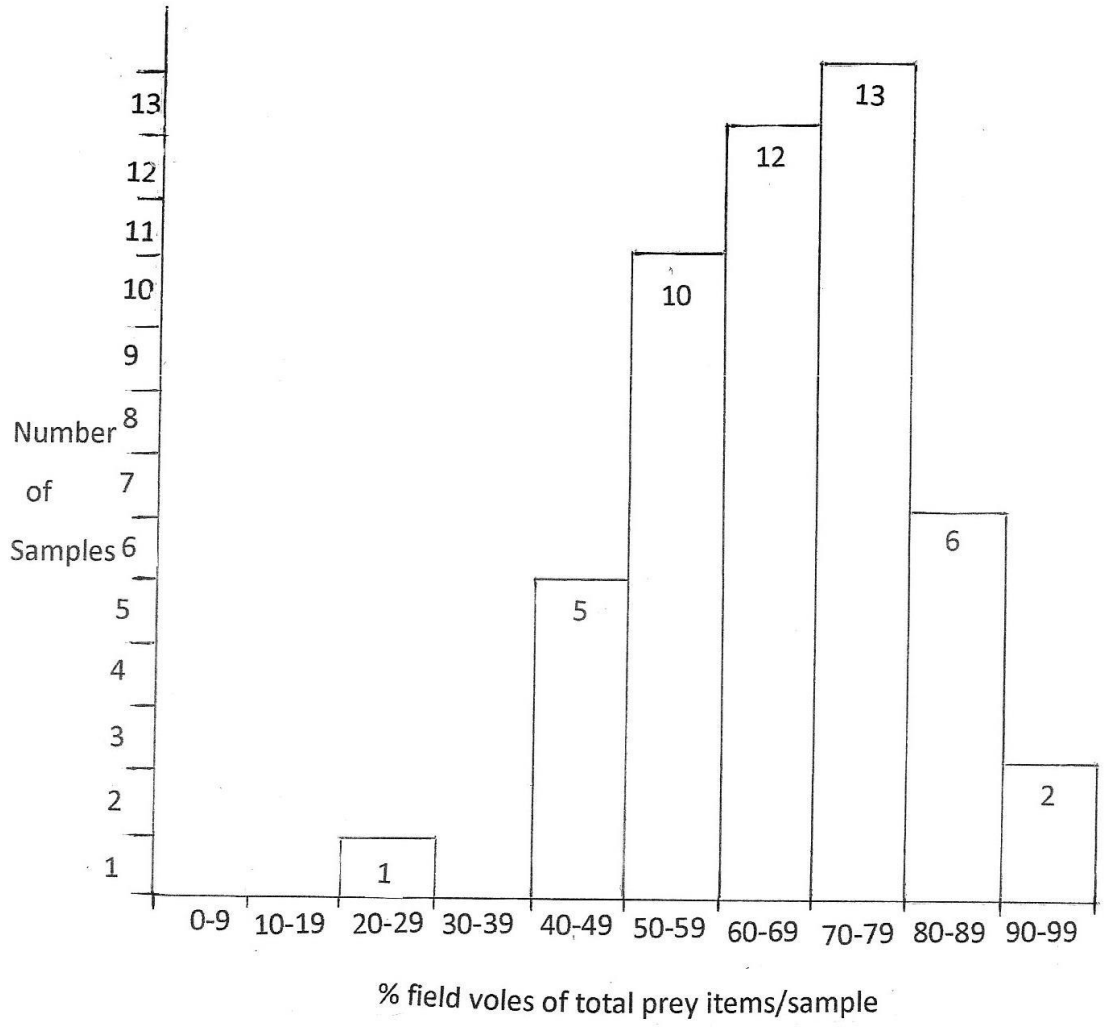
The running totals at the end of 2015 stand at 16 sites from which harvest mice remains have been recovered, out of a total of 46 sites from where pellet samples have been taken ie 34.8% positive. This compares favourably with the results of similar work carried out by the Suffolk Wildlife Trust in 2009 – 2011, when 4081 pellets from 226 sites were analysed (but they did have more than 100 workers and volunteers I might add!), resulting in 36% of sites producing evidence of harvest mice.

Table 1: Harvest Mice in the North York Moors – 2015

A	B	C	D	E	F
2008 – 2012	10	6	13	2 – 36	3
2013	18	9	17	1 – 43	2
2014	19	7	28	10 – 50	5
2015	51	24	22	1 – 68	6

Key:

A: Year
B: Number of Samples
C: Number of New Sites
D: Number of Pellets/Sample – Mean
E: Number of Pellets/Sample - Range
F: Number of New Sites Positive for Harvest Mice



Distribution of results of field vole content in owl pellets from North York Moors, analysed in 2015 Fig 1

Bempton RSPB discovery weekend

Saturday 5th and Sunday 6th September 2015

Jack Whitehead

Yorkshire Mammal Group was invited to take part in a weekend of wildlife-related events which included bird ringing and a detailed presentation on owl pellets. The event was based in the new RSPB Visitors Centre at Bempton, East Yorkshire and the mammal trapping took place around the nearby overflow car park.

Thirty BioEcoss tube traps and fourteen Longworth traps were positioned in rank grassland, wet marsh and scrubby woodland edge on Wednesday 2nd September, baited with blow-fly pupae and wild-bird seed and stuffed with hay for bedding. On Friday 4th September the traps were checked and replenished and the doors were set to trap and this was repeated on the Saturday night. Overnight conditions were mainly dry, partly clear, and the temperature dropped to 10°C on Friday night and 9°C on Saturday night.

Saturday was treated as a practice day for the public event on Sunday; the traps were opened from 9am both mornings and the blustery cold northerly winds of Saturday gave way to a sunny autumnal morning on Sunday, much appreciated by a good crowd of keen spectators.

Results

This was a very successful weekend trap, dominated yet again by Bank Voles and Wood Mice but also featuring Common Shrew and Pygmy Shrew on both days. Following a trap at Flamborough Living Seas Centre in July (when shrew deaths were high) we changed from re-hydrated mealworms to vacuum-packed blow-fly pupae for this weekend; shrew numbers were low but even Pygmy Shrews weighing as little as 3gms survived the cold nights.

Thanks to Mike Day and Sue Hull for helping with the trap, and to Joanne Allen who organised the event and invited us to attend. A public trapping session is planned for 8th May 2016, using the same format; it will be interesting to compare the results and give us the opportunity of building a clearer picture of the status of small mammals on this part of the coast.

		SATURDAY 5th			SUNDAY 6th		
		SPECIES	SEX /WEIGHT	NOTES	SPECIES	SEX / WEIGHT	NOTES
1	Tube	Bank Vole	Male 14g		Bank Vole	Juv 10g	
2	Tube	Bank Vole	Juv 10g		Bank Vole	Male 13g	
3	Tube	FALSE DROP			Bank Vole	Juv 10g	
4	Tube	NO TRAP			NO TRAP		
5	Tube	Common Shrew	8g		Bank Vole	Juv 11g	
6	Tube	NO TRAP			Bank Vole	Female 16g	
7	Tube	Wood Mouse	Male 17g		Common Shrew	7g	
8	Tube	Bank Vole	Female 13g		FALSE DROP		
9	Tube	Bank Vole	Juv 9g		Bank Vole	Male 17g	
10	Tube	Common Shrew	7g	Dead	Bank Vole	Male 18g	
11	Tube	NO TRAP			Wood Mouse	Male 21g	
12	Tube	Wood Mouse	Male 20g		Wood Mouse	Male 20g	
13	Tube	Pygmy Shrew	3g		FALSE DROP		
14	Tube	NO TRAP			FALSE DROP		
15	Tube	Wood Mouse	Male 21g		Wood Mouse	Male 20g	
16	Tube	NO TRAP			NO TRAP		
17	Tube	Bank Vole	Female 14g		Bank Vole	Female 14g	
18	Tube	NO TRAP			Wood Mouse	Male 21g	
19	Tube	Pygmy Shrew	3.5g		Pygmy Shrew	4.5g	
20	Tube	NO TRAP			Wood Mouse		Escape
21	Tube	NO TRAP			NO TRAP		
22	Tube	Wood Mouse	Female 22g		FALSE DROP (SLUG)		
23	Tube	NO TRAP			Bank Vole	Male 18g	
24	Tube	FALSE DROP (SLUG)			NO TRAP		
25	Tube	FALSE DROP (SLUG)			NO TRAP		
26	Tube	Wood Mouse	Male 21g		Wood Mouse	Female 18g	
27	Tube	FALSE DROP (SLUG)			Bank Vole	Juv 12g	
28	Tube	NO TRAP			NO TRAP		
29	Tube	Bank Vole	Female 14g		Bank Vole	Male 15g	
30	Tube	NO TRAP			FALSE DROP		
31	Long	NO TRAP			Bank Vole	Male 11g	
32	Long	Bank Vole	Male 14g		NO TRAP		
33	Long	NO TRAP			Bank Vole	Male 13g	
34	Long	Bank Vole	Female 15g		Wood Mouse	Female 29g	Pregnant
35	Long	Bank Vole	Female 15g		Bank Vole	Male 16g	
36	Long	NO TRAP			NO TRAP		
37	Long	Bank Vole	Female 15g		Bank Vole	Male 18g	
38	Long	Bank Vole	Male 15g		NO TRAP		
39	Long	Wood Mouse		Escape	Bank Vole	Female 15g	
40	Long	Common Shrew	7g		NO TRAP		
41	Long	FALSE DROP			Bank Vole	Male 15g	
42	Long	Wood Mouse	Male 25g		NO TRAP		
43	Long	NO TRAP			NO TRAP		
44	Long	FALSE DROP			NO TRAP		

Talk on pine martens by John Martin, given to the Wharfedale Naturalists Society

January 26th 2016

Peta Constable

John Martin is one of UK's leading experts on Pine Martens, becoming fascinated by this smaller mustelid as a student in 1972. He works with the Vincent Wildlife Trust especially in the Galloway Forest and also in the Fleet basin. His talk covered an introduction to pine martens and their ecology; their historical decline and then recovery in Britain, current pine marten distribution and conservation, the Galloway population, pine martens and squirrels, the Fleet Basin project and living with pine martens. (The Galloway project has been so successful that 20 Scottish pine martens are being translocated to Wales).

Ecology

A member of the mustelid family, the pine marten is the only marten native to UK (the stone marten is found in Europe but not here). It is bigger than a polecat and has longer legs and tail than ferrets, weasels and stoats and is less sexually dimorphic. It also has no 'stink' defence. It has non-retractable claws and extremely strong front legs – essential for this expert tree climber. It has excellent faculties of smell, sight and hearing. Its moult always starts with the nose and spreads downwards. Its summer coat is darker than its winter coat.

John showed us a distribution map showing how there are only very rare spots in England, a small population in Wales but a high density in the Highlands and in Galloway. (There is also a small population in the Bialowieza forest in Poland.) He described the pine marten as preferring 3-D habitat, favouring the boreal forest, extensive woodlands and mountain crags. It is very sensitive to woodland fragmentation and needs old growth for denning. Its main predators are foxes and golden eagles. Predator evasion is thus an important aspect of its behaviour, especially as red foxes are apparently 30% more abundant now than in Mesolithic times.

A fierce and efficient predator, it is nevertheless omnivorous feeding on small mammals, birds, nuts, and plunders fruits with a special penchant for raspberries! They do also predate red squirrels and poultry (but see further

on the impact on red and grey squirrels where pine martens are present in numbers). It is mostly ground feeding and needs 140-160 grams of food per day. Pine martens need a diverse and all year round food supply, though they may hoard. Their range is from 2 to 23 km, the range varying according to the availability and variety of food. The Galloway forest is its largest habitat. They are more active in summer than winter and have a low reproductive rate producing usually no more than 3 kits per litter. The maximum of kits recorded being five but can be as low as one. Pine martens also need den and birth sites that are above the ground. The new spruce plantations that have replaced the ancient trees have reduced the number of suitable natal den sites though the martens will nest in crevices and crumbling buildings – risky behaviour.

Their courtship behaviour is boisterous, noisy and physically rough (where it has taken up residence under people's roofs, it is not always a welcome visitor). They mate in the late summer but the female can delay implantation as actual gestation of 30 days starts only in the spring with the kits born in late March or April. The kits emerge from the den after about 10 weeks, i.e. in late May or June. The female hunts for and feeds them. The female has the unexplained habit of defecating on the roof where she has denned in a provided nesting box. Presumably she has den hygiene uppermost in her mind rather than the risk of attracting predators. John showed us photographs where the roof of the nest box looked more like a serious and copious midden than a cosy home. However, she always leaves a small area free of poo so that she doesn't dirty her feet.

Field signs are tracks, (five toes but often only 4 register), bigger than a foxes tracks but, unlike a fox tracks, they zigzag around, and scats which are variable in size and shape and quite difficult to identify with certainty though they smell far sweeter than a cat or polecat.

Historical decline and recovery

6,500 years ago, post glaciation, when there was plenty of woodland it has been estimated that there were 147,474 martens in Britain – a very precise calculation! They were once the second most numerous carnivore whereas now they are second only to the wild cat as rarities. By 1577 they had suffered a long decline and had become as rare as beavers owing to deforestation during Tudor times. From the mid 1800s they were actively persecuted (and still are by some agents) until by 1915, when woodland cover had been reduced to only 5% there were only 3 isolated refugia in Britain.

Things started to improve in the 1980s when more trees were being planted and old forest growth was retained instead of cleared. Better detection techniques were also being developed. By 2012 pine martens had spread all over the Highlands. Scotland remains the stronghold in Britain though the animals are spreading and are already close to the border with England though they were (are) still sparse in England and Wales. 20 pine martens from Galloway are due to be transported to Wales to boost the local population.

Galloway Forest

John Martin has worked with this project since 1980, one of his tasks being to train dogs in pine marten scat detection. At first, when martens were re-introduced in the 1980s, this project was rather ad hoc. But since 1994 the project has been fully monitored with scat surveys and DNA analysis from hairs collected by the ploy of enticing the animals into tubes baited with food where they rub against sticky patches that painlessly remove a few hairs. Scat analysis is tricky as the scats resemble those of a fox so DNA by hair analysis becomes the more important method of establishing populations.

One focus of the project has been on designing, providing and improving suitable denning boxes. At first 40 den boxes fitted with infra-red cameras were erected. But the martens objected and trashed both boxes and cameras. (In Europe Martens have also taken to chewing up the plastic bits on cars rendering themselves somewhat unpopular.) The team then tried to improve traditional nest boxes and found that the martens preferred those that were smaller (and presumably warmer). It had also found that nest boxes with holes at the top were not popular as heat escaped through the aperture. The idea for a new design was found in the Netherlands where it was found that holes excavated by Black woodpeckers were just the right size. Since there are no Black woodpeckers in UK, boxes were human designed to be of just that size. The boxes had double entrances, both at the bottom, thus reducing heat loss whilst keeping the box well aerated.

50 boxes were erected in different parts of the Galloway forest and the resulting huge amounts of faeces on the tops of the boxes showed that they had found favour with female martens. Under licence, the kits were briefly removed from the boxes and their biometrics recorded. The kits showed themselves to be cooperative being passive and not struggling. The Galloway Forest population is now estimated to be about 60 adults. More recently, new lighter weight plastic boxes have been developed and 50

installed in the Fleet Basin and at least 19 of these are known to be occupied.

Pine martens and squirrels

Pine martens exist in unusually high numbers in the Irish Midlands where there have been interesting but not fully explained findings: There has been a profound decline in grey squirrel numbers and a recolonising of the area by red squirrels which are returning to the woods vacated by the greys. Here, at least, it seems pine martens do no predate red squirrels but presumably do predate the grey. This has led to a cautious hypothesis that pine martens might be used as an agent for controlling grey squirrels in other locations. Research is needed before it is possible to see if this could be the case in Scotland and elsewhere in Britain. The mechanism is not yet fully understood though there is anecdotal evidence from Scottish game keepers who have noticed an increase in red squirrel numbers in areas where there are known to be pine martens and a decrease in the numbers of greys. DNA analysis will be essential and this will be mostly of scats and tracks as not all animals will enter a tube with sticky patches where they conveniently leave some hairs.

Living with Pine martens

John ended on a cautious note. Most of us would be delighted to find these engaging creatures in our vicinity but re-introducing any predator is always a vexed issue. There are those who love them and those who don’t. The recovery of a predator is never simple. Some people fear conflict with human activity. A creature that raids your raspberry canes, occasionally helps itself to a chicken or two and copulates noisily in your roof space when you are trying to sleep, is not always the choicest of cohabitants. People in Ireland and Scotland complain of these things that go bump in the night. Conservationists need to acknowledge that there IS a nuisance element and come up with a conflict resolution plan. Do we welcome them as the return of the native or as an alien?

Dat's a T'rap - Small mammal trap at Yorkshire Arboretum, Castle Howard

15/16th August 2015

John Ray

When we arrived at the Arboretum on the Saturday evening to set the traps, we were greeted with a sign stating that a rapper advertised on social media as performing there on Sunday would not be coming.

In order to avoid disappointment for anyone turning up expecting to hear the rapper on Sunday, we were prepared for them:

We is at d'Arboretum
We set de traps, now we's gonna release 'em
Yo get on down to this gaff
Dem critters may be small, but dey ain't naff.

A total of 50 Longworth small mammal traps, baited by Ann and Rob, were set at seven sites within The Yorkshire Arboretum on the Castle Howard Estate.

Site	**Vegetation**	**Number of Traps**
1	long grass near visitor building	10
2	long vegetation beside lake	6
3	reed canary grass near lake	6
4	long grass near centre of Arboretum	6
5	exotic willow clump	6
6	white willow scrub, coarse grass understorey	6
7	beside dew pond	10

The next morning we retrieved the traps in the same sequence and released any mammals found, after weighing and recording them.

Site	Species	Sex	Age	Weight (g)	Comment
1	field vole	M	Adult	31	
1	bank vole	F	Adult	31	pregnant
1	bank vole	M	Sub-adult	18	
1	wood mouse	M	Sub-adult	22	
1	field vole	F	Adult	28	
2	common shrew			9	boisterous
5	wood mouse	M	Sub-adult	15	
5	wood mouse	M	Sub-adult	18	
6	bank vole	M	Adult	23	

Apart from the trapped mammals, a brown hare was seen on the Saturday and molehills on both days.

Bank vole

Wood mouse

Common shrew

Field vole

Small mammal survey at Three Hagges Jubilee Wood, Escrick, 2015

Ann Hanson

Introduction

A second annual survey was carried out by YMG in August 2015 as part of a long term study on changes in small mammal populations at Three Hagges Jubilee Wood, a newly created wood-meadow, located at Escrick Park Estate, near York (grid ref. SE626395). See Imprint No. 41 (2014) for a description of the site and results from the first survey carried out in August 2014.

Methods

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

Trap locations were the same as in 2014 (see map in Appendix I):

1. Coup 12 (downy birch and alder), with un-cut dense vegetation beneath the young trees (10 traps).
   Grid ref. SE6279939456 to SE6776939422
2. MG4 meadow, cut for hay July 2015 with light re-growth (10 traps).
   Grid ref. SE6273839477 to SE6269639464
3. Coup 9 (oak, hazel and wild orchard), cut late 2014/early 2015 with substantial re-growth (10 traps).
   Grid ref. SE6275039502 to SE6273439541
4. Coup 6 (oak, hazel, wych elm), with un-cut dense vegetation beneath the young trees (10 traps).
   Grid ref. SE6267239586 to SE6265239623
5. Pond edge. Pond constructed spring 2014. Water level low. Area around pond cut mid-July 2015. Dense un-cut vegetation at bank top (10 traps). Grid ref. SE6268139929 to SE6269439938

Traps were set on the evening of Friday 21st August and checked on Saturday 22nd August from 9.30am onwards. Traps were re-set on the Saturday evening and checked on Sunday 23rd August from 9.30am onwards.

Results

Summary of small mammals captured at Three Hagges Wood, Escrick, August 2015.

	Site 1		Site 2		Site 3		Site 4		Site 5	
	Sat	Sun	Sat	Sun	Sat	Sun	Sat	Sun	Sat	Sun
Wood mouse	0	0	0	0	0	0	2	1	0	0
Bank vole	0	0	0	0	0	0	0	0	0	0
Field vole	0	0	0	0	1	0	1	2	0	0
Common shrew	0	0	0	0	1	0	0	0	0	0
Water shrew	0	0	0	0	0	0	0	0	0	0

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

Discussion and conclusions

Three species of small mammal were caught at Three Hagges Wood, Escrick, in 2015, including wood mouse (*Apodmus sylvaticus*), field vole (*Microtus agrestis*) and common shrew (*Sorex araneus*), all in relatively small numbers. Both species diversity and the number of captures were considerably reduced compared to the survey in 2014. This is partly due to the fact that 2014 was a peak year for field vole populations, which have now crashed and should start to build up again over the next couple of years. Animals were only captured at sites 3 and 4, both of which had dense vegetation providing a good food supply and excellent cover. In addition, a common toad (*Bufo bufo*) was found enjoying the blowfly pupae in a trap adjacent to the pond (Site 5) on Saturday morning.

Moles (*Talpa europaea*) and rabbits (*Oryctolagus cuniculus*) were also recorded in Three Hagges Wood, with grey squirrel (*Sciurus carolinensis*) recorded at the entrance to Hollicarrs.

A bat survey of Three Hagges Wood was carried out on the evening of Saturday 22nd August, using heterodyne and frequency division bat detectors. A walk around the site recorded a soprano pipistrelle (*Pipistrellus pygmaeus*) foraging along the eastern boundary, a noctule bat (*Nyctalus noctula*) commuting across the site, and common pipistrelles (*Pipistrellus pipistrellus*) and a *Myotis* species foraging over the car park adjacent to the site.

In addition to surveying small mammals and bats, we are now surveying reptiles and amphibians on the site. 10 reptile/amphibian refuges have been placed around the site and are being monitored at regular intervals across spring, summer and autumn. In 2015 the refuges produced 2 common toads, but we are hopeful for grass snakes in the future as one has been spotted on the site previously.

Thanks are due to the Hagge Woods Trust for inviting us to take part in the project, especially to Lin Hawthorne for help with the surveys. Thanks also to Rob Masheder and Mary Youngman of YMG for helping with the survey and to everyone who came and joined in on Sunday morning.

Appendix I – see map on next page

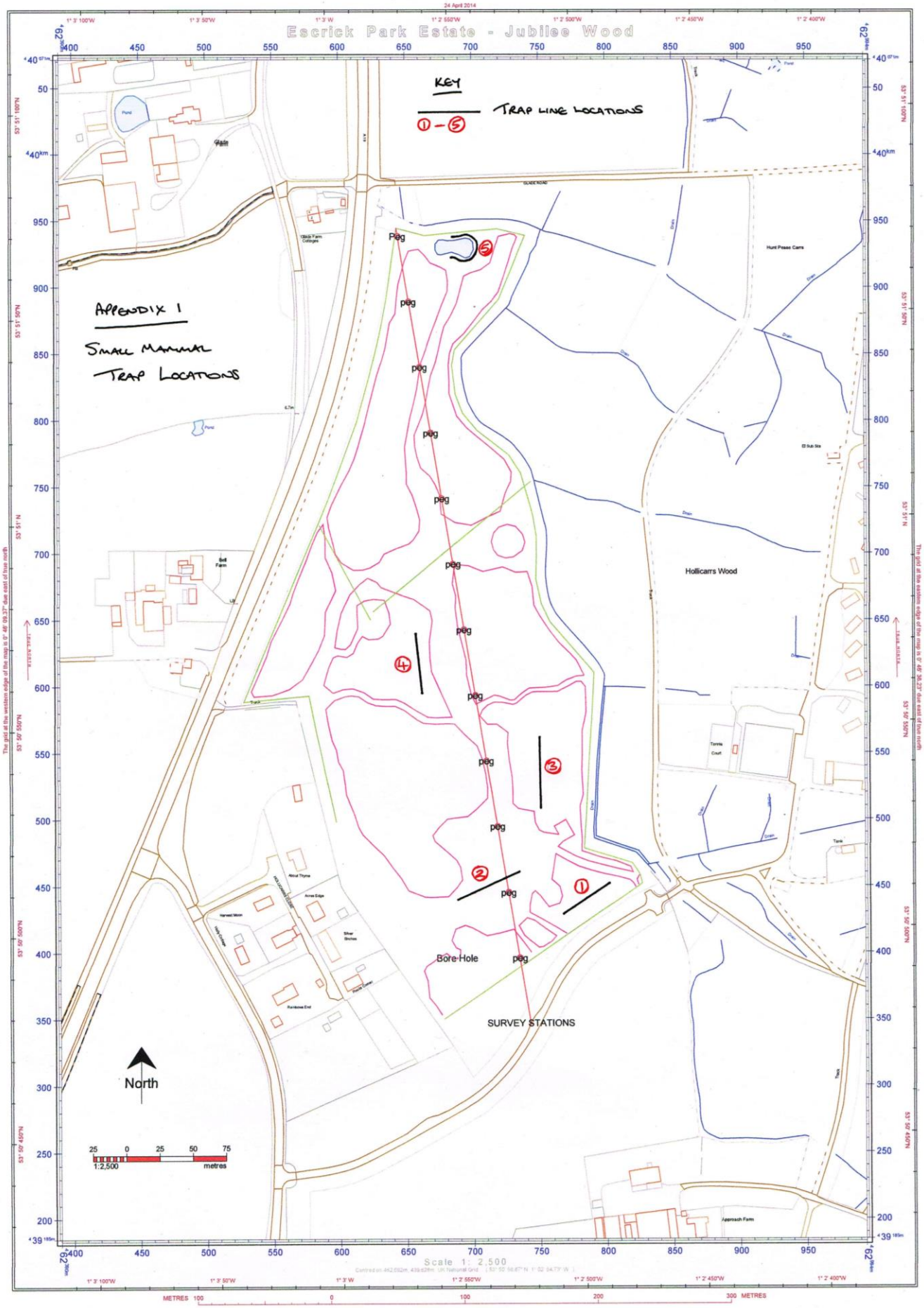
Appendix II

Table of results: small mammal survey at Three Hagges Wood, Escrick, August 2015.

Weather: Warm, dry and humid Saturday morning; torrential thunderstorms Saturday afternoon/evening; fine, warm and dry Sunday morning.

Site	Species	Sex M/F*	Age A/SA/J*	Weight (g)
22/08/2015				
Coup 9 (Site 3)	Common shrew	?	A	9.0
Coup 9 (Site 3)	Field vole	F	SA	23.0
Coup 6 (Site 4)	Wood mouse	M	SA	20.0
Coup 6 (Site 4)	Field vole	M	A	31.0
Coup 6 (Site 4)	Wood mouse	M	SA	22.0
Pond edge (Site 5)	Common toad			
23/08/2015				
Coup 6 (Site 4)	Field vole	M	SA	21.0
Coup 6 (Site 4)	Field vole	F	A	32.0
Coup 6 (Site 4)	Wood mouse	F	SA	21.0

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


Escrick Park Estate - Jubilee Wood
KEY
TRAP LINE LOCATIONS
①-⑤
APPENDIX 1
SMALL MAMMAL
TRAP LOCATIONS
Peg
peg
Hollicarrs Wood
Bore Hole
SURVEY STATIONS
North
25 0 25 50 75
1:2,500
metres
Scale 1: 2,500
METRES 100 0 100 200 300 METRES

Small mammal and water vole surveys at Rawcliffe Meadows, York

Ann Hanson

Introduction

Rawcliffe Meadows are situated on the outskirts of York, alongside the River Ouse (Grid ref. SE579540), and have been managed by the Friends of Rawcliffe Meadows, a group of volunteers, since 1991, resulting in an area rich in native flora and fauna.

See https://rawcliffemeadows.wordpress.com/ for further information.

YMG were asked to survey for water voles (*Arvicola amphibious*) in the Reservoir Basin, a 2 hectare area of wet grassland, fen meadow, ponds, scrapes and ditches. This flood basin is a man-made feature, originating as a borrow-pit when the adjoining washland embankments were upgraded in 1979. The Reservoir Basin is managed by cattle grazing during the summer months and contains an excellent range of wetland wildlife. It is bounded by allotments to the east, a bridleway and arable field to the north, the flood bank and Rawcliffe Meadows to the west, and Blue Beck to the south. Rawcliffe Ings used to have a thriving water vole population, but predation by American mink (*Neovison vison*) and extensive ditch management meant that water voles had not been recorded in the area for several years.

YMG also carried out a small mammal survey of the Reservoir Basin in September 2015 with help from the Friends group.

Small mammal survey – Methods

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

Grazing cattle had trampled much of the habitat within the basin, so traps were placed in areas away from cattle interference, including around fenced off ponds and under scrub on the steep bank adjacent to the allotments.

Trap locations:

1. Phalaris pond – dense wetland vegetation around a large pond dominated by common reed (14 traps).
2. Typha pond – dense wetland vegetation around a medium-sized pond with abundant common bulrush, yellow loosestrife and water mint (6 traps).
3. Tussocky dry grass beneath mature hawthorn and blackthorn scrub on a steep bank adjacent to the allotments (30 traps).

Traps were set on the evening of Friday 4th September and checked on Saturday 5th September from 9.30am onwards.

Results

Summary of small mammals captured in the Reservoir Basin, Rawcliffe Meadows, York, September 2015.

	Site 1	Site 2	Site 3
Bank vole	0	0	1
Wood mouse	0	0	3
Common shrew	1	1	3
Water shrew	1	0	1

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

Discussion and conclusions

Four species of small mammal were caught in the Reservoir Basin at Rawcliffe Meadows, including bank vole (*Myodes glareolus*), wood mouse (*Apodemus sylvaticus*), common shrew (*Sorex araneus*) and water shrew (*Neomys fodiens*). Common shrews were captured at all three trapping locations, with a beautiful pale leucistic common shrew being captured under the scrub at Site 3. Wood mice and bank voles were only captured in the drier grass under the mature scrub at Site 3, with water shrews being captured alongside the Phalaris pond (Site 1) and on the dry bank (Site 3).

Other mammals recorded during the survey included a very fine fox (*Vulpes vulpes*) spotted sunning itself on the dry bank on the Friday evening, mole (*Talpa europaea*) hills on a drier part of the site, and roe deer (*Capreolus capreolus*) droppings on a reptile refuge under the scrub on the dry bank.

Water vole survey – Methods

On 8th June 2015, 21 water vole rafts were placed in several locations around the Reservoir Basin including in Blue Beck, in the damp ditch along the western boundary of the site, and in the Phalaris pond. Appendix II shows the initial raft locations. The rafts were checked for water vole droppings on 2nd and 25th July 2015 and the rafts were then relocated to locations in Blue Beck, the Phalaris pond and the Typha pond (both within exclosures) to avoid trampling damage when the cattle were allowed into the Reservoir Basin in August. Appendix III shows the new raft locations. The rafts were checked again and removed on 5th September 2015.

Results

No signs of water voles were found on any of the rafts on 2nd July.

Water vole signs on rafts at the Reservoir Basin, Rawcliffe Meadows, York, 25th July and 5th September 2015.

Date	Raft No.	Location	Evidence
25/07/15	16	Damp ditch	Small water vole latrine
25/07/15	19	Phalaris pond	1 water vole dropping
25/07/15	21	Phalaris pond	Large water vole latrine covering most of raft surface
05/09/15	18	Phalaris pond	2 water vole droppings
05/09/15	20	Phalaris pond	Several water vole droppings
05/09/15	21	Phalaris pond	Large water vole latrine covering most of raft surface
05/09/15	22	Phalaris pond	Several water vole droppings
05/09/15	23	Phalaris pond	Several water vole droppings
05/09/15	24	Typha pond	Several water vole droppings
05/09/15	25	Typha pond	Small water vole latrine
05/09/15	26	Typha pond	Small water vole latrine

In addition, a small number of water vole droppings were also found on the edge of the new scrape adjacent to the Phalaris pond on 25th July and rafts 24, 26 and 27 contained small numbers of water shrew droppings on 5th September.

Appendices II and III show the results for 25th July and 5th September.

Discussion and conclusions

Numerous water vole droppings and latrines were found on rafts in the Reservoir Basin, Rawcliffe Meadows, during July and September 2015, providing evidence that water voles are resident on the site. No signs were found on rafts located on Blue Beck on the southern boundary of the site and it was noted that water levels in the beck were very unpredictable even over the summer months, being prone to sudden flashes which could make the beck less desirable to water voles. Most signs were found in the Phalaris pond and the Typha pond, both of which are fenced off from livestock, have very dense bank side vegetation and a more constant water level. One raft in the damp ditch along the western edge of the site also contained a small water vole latrine with the raft floating on just a few centimetres of water in July, although this area had been trampled by cattle later in the summer. The new scrape adjacent to the Phalaris pond also had small numbers of water vole droppings on its edges in July, but again this area was trampled by cattle over the summer.

The provision of additional exclosures around ponds in the Reservoir Basin may provide further suitable habitat for water voles, with less cattle damage to the vegetation, a good food supply and cover, and more reliable water levels.

Thanks are due to Mick Phythian and volunteers from the Friends of Rawcliffe Meadows, several members of YMG and Gareth Barlow from Radio York for help with the small mammal survey. Thanks also to Anne Heathcote and Rob Masheder for help with the water vole raft surveys.

Water vole latrine on raft

Photo: Robert Masheder

Appendix I

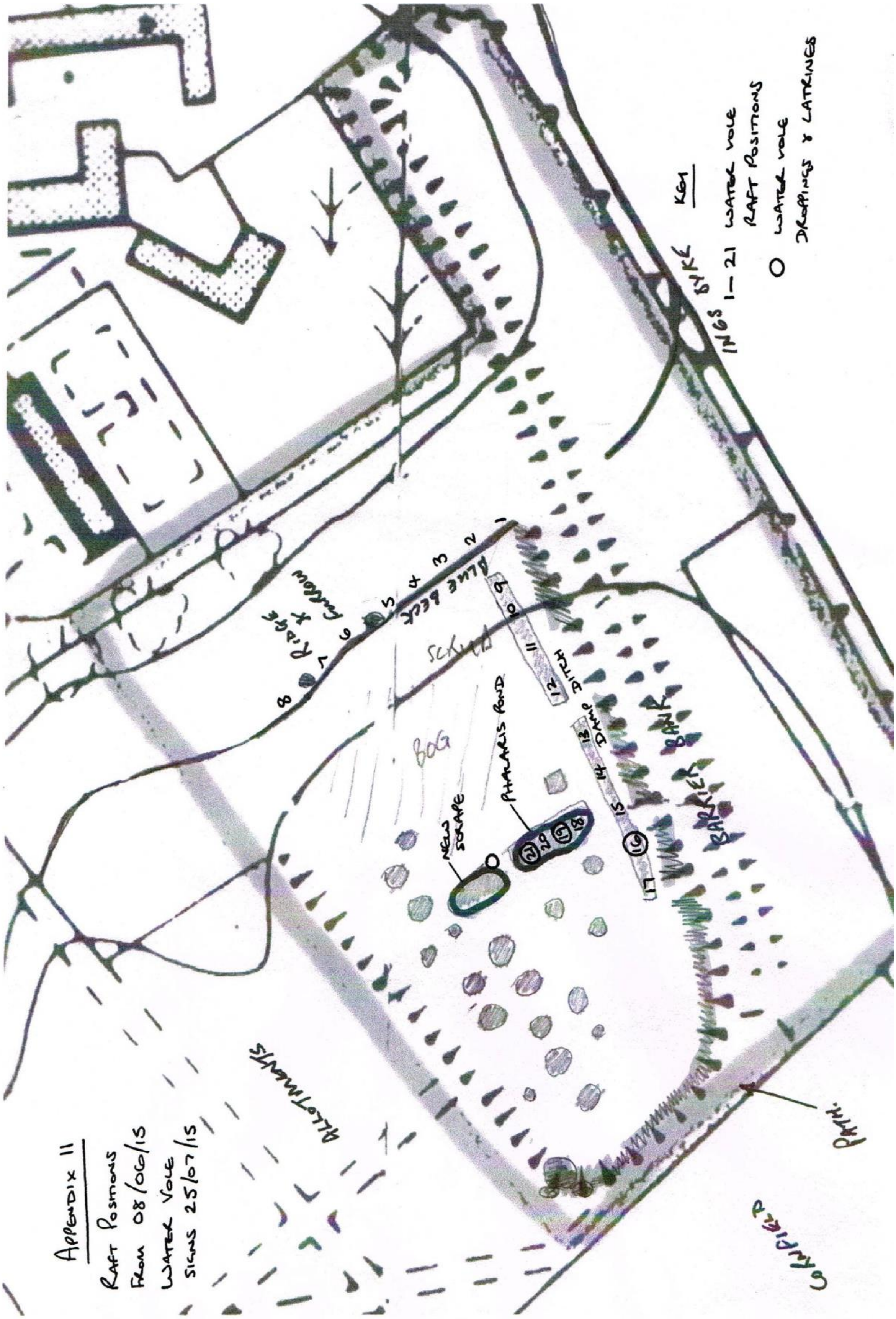
Table of results: small mammal survey in the Reservoir Basin, Rawcliffe Meadows, York, September 2015.

Weather: Cloudy, warm and dry.

Site	Species	Sex M/F*	Age A/SA/J*	Weight (g)
Phalaris pond (site 1)	Common shrew	?	SA	7.0
Phalaris pond (site 1)	Water shrew	?	A	14.0
Typha pond (site 2)	Common shrew	?	A	8.0
Grass/scrub (site 3)	Common shrew	?	SA	7.0
Grass/scrub (site 3)	Bank vole	M	SA	17.0
Grass/scrub (site 3)	Wood mouse	F	A	21.0
Grass/scrub (site 3)	Common shrew	?	A	8.0
Grass/scrub (site 3)	Common shrew	?	A	8.0
Grass/scrub (site 3)	Wood mouse	M	A	23.0
Grass/scrub (site 3)	Water shrew	?	A	13.0
Grass/scrub (site 3)	Wood mouse	F	SA	18.0

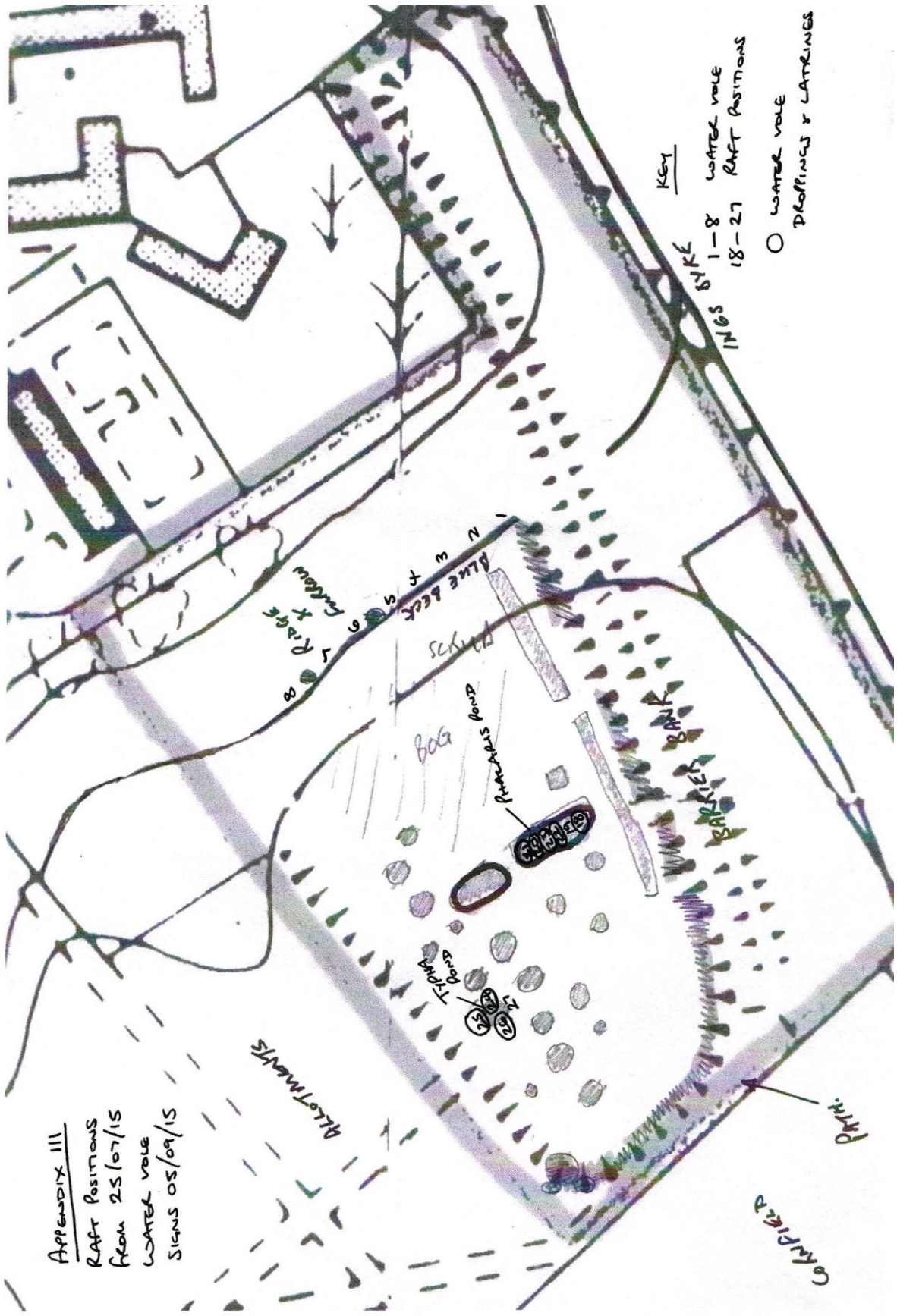
* M = male; F = female; A= adult; SA = subadult; J = juvenile

Appendix II



Appendix II
Raft Positions
From 08/06/15
Water Vole
Signs 25/07/15
Ings Syke
Key
1 – 21 Water Vole Raft Positions
O Water Vole Droppings & Latrines
Blue Beck
Ridge x Furrow
Scrub
Bog
Phalaris Pond
New Scrape
Damp Ditch
Barrier Bank
Allotments
Path

Appendix III



Small mammals at Ledston Luck Nature Reserve

Kate Wright

Introduction

Ledston Luck Nature Reserve is located in the Lower Aire Valley (centred at grid reference SE43133098) next to the village of Ledston Luck, near Leeds. The site is owned by Leeds City Council and is managed in partnership with Yorkshire Wildlife Trust.

The reserve consists of 17 hectares of meadow and woodland and includes several ponds. It is situated on the site of the former Ledston Luck coal mine which closed in 1986. Most of the habitats on the site were created in the early 1990s as part of a landscape improvement scheme.

The reserve is noteworthy for its orchids, and amphibian and dragonfly surveys also take place.

The small mammal population was surveyed by YMG in 2014 using fifty Longworth traps place overnight on 19/20th September in three different habitats to the north of the site:

1. Edge of focal pond with dense bank-side vegetation consisting of rough grass and rush (25 traps)
2. Semi-mature woodland with sparse ground flora (10 traps)
3. Boundary of meadow and young hawthorn scrub (15 traps)

Five species of small mammal were found on site:

	Site 1	**Site 2**	**Site 3**	**Total**
Wood mouse	2	8	4	**14**
Bank vole	0	0	6	**6**
Field vole	2	0	0	**2**
Common shrew	4	0	1	**5**
Water shrew	1	0	0	**1**

The site was surveyed again in 2015, though concentrating on the south of the site.

Methods

Twenty three Longworth traps were placed in three different habitats at the southern end of the reserve. These were baited with a mix of wild bird seed, oats, raisins, peanuts, apple and blowfly pupae, with a ball of hay for bedding.

The aim was to set the traps on two consecutive nights, with a public session on the second morning. The first trap night took place on 21/22nd August. Traps were located as follows:

1. Tall (chest high) grass and hawthorn scrub near centre of limestone plateau (8 traps)

2. Semi-mature woodland with grass and bramble ground flora (8 traps)

3. Meadow area of knee-height grass and wild flowers close to the boundary with the industrial units and alongside a damp ditch (7 traps)

Examining the traps (Kate Wright)

On the first morning, just three of the traps had sprung. There were no signs of small mammals at site 1, so the traps were moved to an area further east on the plateau – the edge of a *Typha* reed bed with adjacent tall vegetation, predominantly great willowherb.

The traps were locked open during the day, with a visit planned that evening to re-bait and set the traps. However, there were heavy rainstorms across the region that afternoon and evening. With roads flooded, we were unable to reach the site so had to leave the traps open overnight.

Plan B saw us on site early on the morning of the 23rd August to set and bait the traps. The public event/trap check was delayed until lunchtime.

Results

Summary of small mammals captured at Ledston Luck NR in August 2015.

	Site 1	Site 2	Site 3	Total
Wood Mouse	0	0	1	**1**
Bank Vole	0	1	1	**2**
Field Vole	0	0	0	**0**
Common Shrew	0	2	3	**5**
Water Shrew	0	0	0	**0**

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

Discussion and conclusions

Three species of small mammal were caught at Ledston Luck: wood mouse (*Apodmus sylvaticus*), common shrew (*Sorex araneus*), and bank vole (*Myodes glareolus*).

The trap rate was just 17%, which is low compared to the 56% achieved in 2014. This may have been down to the appalling weather overnight and the relatively short time that traps were set on day 2. There were also 3 sprung traps with no catch.

The heavy rain meant that the second session did not run as planned. Although we had to abandon the traps overnight on the 22nd/23rd August, they were locked open. When the traps were checked early the next morning, none had been flooded and the hay inside was surprisingly dry. At sites 2 and 3 there were signs that small mammals had been sheltering in several of the traps overnight. Although the remaining faeces were too wet to confirm the species, these seemed to be a mix of shrew and vole. Fresh bedding and food was provided, and the traps were set.

The traps were left in place for the morning (approximately 6 hours). As the second trapping session took place during the day, we expected to find fewer wood mice as these are nocturnal. This proved to be the case, and none were trapped on the second day.

We thought there may be a different species composition in the three different habitats but this was not so.

Wood mice normally dominate the woodland (site 2), but here we found only bank voles and shrews. Wood mice are normally nocturnal and this may explain their absence on the second day. The other species that are active during the day will have been helped by the abundance of ground cover.

All three species were found at site 3 (the meadow). This may be due to the variety of habitats in close proximity including scrub and woodland around the border of the site.

It's not clear why nothing was trapped on the plateau (site 1). Perhaps the vegetation is too coarse and the traps were placed above runs at ground level?

Field voles were noted by their absence, as they were found on site last year. Field signs including runs and latrines have been seen around the reserve so we expected to catch more voles. The two bank voles captured appeared from their size to be mature adults.

Water shrews were not captured, and this may be due to the change in location. Last year the water shrew was trapped adjacent to the focal pond, where 25 traps were set. This session concentrated on the southern part of the site, away from the ponds. Although 7 traps were placed close to a ditch this had all but dried up, despite the torrential rain.

Thanks to Kate Phillips and the Lower Aire Valley volunteers from the Yorkshire Wildlife Trust, and students from the University of Leeds for their help with the survey.

Juvenile common shrew in wood (Mark Williams)

Possible pygmy shrew by ditch (Mark Williams)

APPENDIX I

Summary of all trappings during small mammal survey at Ledston Luck

Date: Friday 21st/Saturday 22nd August 2015
Weather: Warm, overcast, humid;
slight drizzle at end of session but overall dry.
Temperature: Min. 13.5°C / Max. 21.5°C

Site	**Species**	**Sex M/F**	**Age A/SA/J**	**Weight (g)**
Woodland (2)	Common Shrew	?	A	-
Meadow & ditch (3)	Wood Mouse	M	SA	-
Meadow & ditch (3)	Common Shrew	?	A	-

Date: Sunday 23rd August 2015
Weather: Warm, dry, sunny;
very heavy rain on the evening prior.
Temperature: Min. 17.0°C / Max. 24.0°C

Site	**Species**	**Sex M/F**	**Age A/SA/J**	**Weight (g)**
Woodland (2)	Common Shrew	?	SA	8.5
Woodland (2)	Bank Vole	M	A	34.0
Meadow & ditch (3)	Common Shrew	?	A	9.0
Meadow & ditch (3)	Bank Vole*	?	A	?
Meadow & ditch (3)	Common Shrew	?	A	8.0

Notes:

Due to time constraints, weight was only measured on the second day.

* escaped during handling so gender and weight not taken.

M = male; F = female; A= adult; SA = sub-adult; J = juvenile

"A decade of detecting" – a report of YMG mammal recording walks 2015

Ann Hanson & Rob Masheder

2015 marked our tenth year of regular mammal recording walks, with numerous records generated from far flung corners of North Yorkshire and beyond.

Our first walk of the year was from **Staveley near Knaresborough on 25th January**. Molehills in the village churchyard were our first record of the day and the year, followed by more molehills, rabbit burrows and a fox scat on Staveley Nature Reserve. A badger sett in scrub near West Lake also had a distinctly foxy smell around one of its holes. Following the River Tutt along the edge of the reserve we located an otter spraint near the footbridge and yet more molehills with a fox scat on the top! The tussocky margin of the arable field alongside the river also contained field vole feeding signs and runs. Making our way across the fields to the north we set up four lovely roe deer from a field corner and spotted a big brown hare as well as some rabbit burrows and more fox scat in the hedge bottom. The fields towards Roecliffe Lodge contained further field vole signs, followed by a grey squirrel drey in Kettlewell Carr. Near the footbridge over the Holbeck we found fox scat, molehills, field vole runs and a possible otter spraint on a stone where a smaller stream ran into the Holbeck. Looping round by Moor Farm and Low Covert we recorded roe deer slots and badger footprints along the field edge, followed by fresh mink tracks near the next footbridge over the Holbeck. An owl pellet under an oak tree near Foster Flatts Farm yielded two field vole skulls, with a live vole running across the field margin in front of us. Carr Lane provided the distinctive smell of a fox and yet more molehills. Last record of the day was a fairly fresh otter spraint on a rock in the River Tutt near the foot bridge at Carr Top Farm on the edge of Staveley Nature Reserve. The day ended with a quick dash to Boroughbridge for tea and cake.

Field vole latrine

February 22nd found us at Snilesworth near Osmotherley on the edge of the North York Moors. Parking up at Locker Low Wood we recorded molehills and rabbit burrows, swiftly followed by bank vole and grey squirrel nibbled hazelnuts and brown rat burrows and droppings under a wall. More molehills near Lower Locker Farm were followed by another bank vole nibbled hazelnut near Locker Beck and rabbits at the ruined barn near Far House. Following the valley we recorded further grey squirrel nibbled hazelnuts at Cow Wath and some squirrel nibbled fir cones in Ellers Wood. Near the picnic site in Ellers Wood we found a dead rabbit and molehills, with further molehills at Hagg House Farm and several dead moles in a field at Birk Wood Farm. A very welcome tea shop stop in Hawnby was followed by a brown hare record as a very fine hare ran across the road at Gill Hag near Brandsby.


Basking adder

A walk from **Allerthorpe Common near Pocklington on 22nd March** recorded the obligatory molehills near the car park next to Common Lane. Following the southern edge of the common we recorded roe deer slots and droppings, grey squirrel nibbled pine cones and the sharp smell of a fox. Mary spotted a roe deer running across the Nature Reserve on the common and we were lucky to have an excellent view of a basking adder on a ditch bank adjacent to the reserve. Other records from the Nature Reserve included fox scat, rabbit droppings and digging, and several owl pellets which were found to contain 16 field vole skulls. Heading out southwards across the fields we recorded roe deer slots on the headlands, plus molehills and brown rat holes in a ditch bank near Warren Farm Cottages. We recorded further molehills at Waplington Hall, stopped for a quick coffee at the pub in Allerthorpe and then recorded more molehills near Manor Farm. A field of rough grass adjacent to Tank Plantation yielded field vole runs and fox scats, with the final records of the day being squirreled pine cones and a disused badger sett in the south-east corner of the common.

On **26th April a walk from Langthwaite in Arkengarthdale** turned into two walks when three of us wandered off part way through the afternoon and finally found our way back to the main group and the car park after a

Rabbit bones

couple of hours. Whatever happened to never leaving a man (woman or dog) behind! An excellent first record for this walk was otter spraint on a rock in the Arkle Beck near Langthwaite village, followed by a rabbit skull on the river bank. Molehills and squirreled fir cones were found near the old mill, with rabbit burrows just past the disused lead mine. Molehills, a dead field vole and a dead rabbit were recorded at Storthwaite Hall. The woods above Langthwaite yielded bank vole nibbled hazelnuts, grey squirrels and an awful lot of rabbits that were causing serious damage to trees within the woodland. A large pile of rabbit skeletons on the moorland edge along Windegg Lane indicated that rabbit control was being undertaken. Once the wanderers had been found, a tea shop stop in Reeth was followed by a quick detour to Healaugh where otter spraint was recorded under Barney Beck High Bridge.

Otter sprainting site, River Nidd

Summerbridge near Pateley Bridge was the starting point for our walk on 10th May. The footpath through the fields near West Wood yielded molehills, rabbit droppings, fox scat and a badger track going over a wall. Heading northwards we recorded more molehills near Hill Top Farm, then rabbit droppings, fox scat and a grey squirrel in Old Spring Woods. Further along we spotted a female roe deer in Braisty Woods, with molehills at Low Wood House near Smelthouses, near the bridge over Fell Beck and at Low Laithe. Heading down to the River Nidd we found otter spraint and rabbit burrows near the footbridge and further otter spraint at the weir. Final records of the day were molehills and rabbit burrows at New York on the way back into Summerbridge for a well earned cup of tea.

On **2nd June we had an evening walk along the River Rye at Rievaulx**, led by Gordon Woodroffe. Meeting at Rievaulx Bridge we soon located some fresh otter spraint under the bridge, followed by two further sprainting sites on a logs alongside the river near Briery Hill Wood and the ox-bow island near Hollins Wood. We set up a big brown hare in a field opposite Briery Hill Wood, followed by a beautiful, dark coloured female fallow deer in a field between Spring Wood and Quarry Bank Wood. A brief downpour on the way back left us with an amazing rainbow to admire over the ruined abbey – a fitting end to a lovely evening walk.

After a summer break, **18th October found us walking from South Landing at Flamborough Head, near Bridlington**. After a quick coffee in the excellent YWT visitors centre we headed for the cliffs and recorded a badger sett high up in the ravine above South Landing. Heading towards Danes' Dyke and keeping an eye on the sea for signs of cetaceans, we recorded molehills and rabbit burrows alongside the coastal path. Dyke wood revealed further molehills and grey squirrels, which were the last records as we headed back to South Landing via Flamborough village. A coffee stop at Sewerby Hall provided a few more records of molehills and grey squirrels as well as several llamas.

After our harvest mouse nest hunt alongside the River Ouse at York was cancelled due to extensive flooding in November, our last walk of the year was on **6th December at Harewood near Leeds**. Heading off through North Park we recorded molehills and a dead rabbit. Further molehills were recorded at Home Farm and at Stank near the lake. Heading east through Piper Wood we recorded rabbit droppings and grey squirrel nibbled pine cones, with yet more molehills at Lodge Hills. After crossing Harrogate Road we found field vole feeding signs, runs and droppings in tussocky grass on the road verge near Lofthouse Farm. Following the bridleway eastwards we recorded molehills on the path and a brown hare in an arable field next to Wike Wood. Turning onto the bridleway heading north we found some badger fur on a fence under a hedge next to Spring Wood. After crossing Harewood Avenue, molehills and rabbit burrows were the last records of the year on the bank above Stockton Grange Farm. Finally it was back to Harewood for some well earned tea and cake in the Muddy Boots Café.

Many thanks to everyone who joined us on the recording walks in 2015 and here's to the next 10 years of walks, records, good company and of course, tea shops!

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

West Tanfield dormouse box check 2015

Mary Youngman

The stalwart team of box checkers returned to the wood in June and October with fingers crossed after the disappointing results of the previous year when no dormice were found. Unfortunately, 2015 turned out to be just as dispiriting – no dormice. Several woodmice, shrews, a pipistrelle bat and rather gruesomely a dead stoat wedged in the hole of one box. We did however continue to find nests that we identified as dormouse-made, but with varying degrees of confidence.

So twelve years after the reintroduction, the status of our dormouse population at West Tanfield is looking very uncertain. Also the state of the boxes has reached a critical stage; the list of boxes that are missing lids or need to be completely replaced is extensive. So shall we put in the effort to replace and repair all the degraded boxes, or should we have a rethink, perhaps put fresh boxes up in other areas of the woodland? Maybe reduce the number of boxes that we check in order to have more time searching for hazelnuts on the woodland floor? Yet as great as finding a dormouse chewed hazelnut would be, it just wouldn't have the same charm as seeing an actual dormouse.

No dormice to be found here – just a dead stoat!

But to finish on a positive note, although our little teashop in West Tanfield has closed down, we did discover that coffee and pudding whilst sitting in the Bull Inn pub garden overlooking the River Ure is a very pleasant way to finish the day.

Dormouse monitoring in Freeholders' Wood 2015

Ian Court[1] & Ian White[2]

[1]Wildlife Conservation Officer, Yorkshire Dales National Park Authority and [2]People's Trust for Endangered Species

Introduction

A reintroduction of 35 captive bred Hazel Dormouse *Muscardinus avellanarius* into Freeholders' Wood, Aysgarth was undertaken in 2008 and has previously been documented by White and Court (2012). Dormouse monitoring data from local sites across the country is usually collated at the end of the monitoring season which, at most sites, is in November or December when the Dormice have started to hibernate. The deadline for the submission of this local data to Peoples Trust for Endangered Species (PTES) to contribute to the national dataset is February the following year and so, there is a year's delay in being able to compare local site data with the national dataset.

This report provides a comparison between the results from Freeholders' Wood in 2015 and the national dataset. It also includes details of the monitoring work undertaken at Freeholders' Wood in 2015 and compares it with the 2015 data from Briddlesford Woods, a 160ha semi ancient natural woodland on the Isle of Wight that is owned by PTES and is one of the key sites in the National Dormouse Monitoring Programme (NDMP).

Methodology

The monitoring work was undertaken in accordance with the NDMP survey guidelines (PTES, 2011), with licensed fieldworkers 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 (grey-brown fur and eyes open).

Photos: © Ian Court YDNPA

A summary of weather conditions during the season have been derived from national monthly summary data provided by the Met Office (2015).

The results from monitoring at Freeholders' Wood have been compared to those from the NDMP elsewhere in the UK.

Photo: © Ian Court YDNPA

Results

A comparison between the results of the 2015 NDMP at Freeholders' Wood and sites in the Northern Counties, Wales, the Midlands and nationally are shown in Table 1.

The monthly national weather summary for 2015 was as follows:

April

It was an unsettled month with some rain at the start of the month but, as high pressure moved in, the weather became warmer and sunnier. After a few days of mixed weather mid-month, more settled conditions returned and continued until late in the month, when colder conditions led to some sharp frosts and snow across high ground.

Table 1. The number of Hazel Dormice found per 50 boxes checked in Freeholders' Wood, the Northern Counties (Cumbria, North Yorks), Wales, the Midlands (Cheshire, Derbyshire, Shropshire, Warwickshire, Staffordshire and Nottinghamshire) and nationally as part of the NDMP in 2015.

No. of Dormice per 50 boxes in wood or area recorded for the National Dormouse Monitoring Programme (NDMP) in 2015					
	Freeholders' Wood	**Northern England**	**Wales**	**Midlands**	**National**
Max. no. sites checked	1	4	29	14	355
Total no. boxes checked	1020	3170	5801	5431	71,119
Month					
May	1.18	1.00	1.13	0.39	1.59
June	0.39	0.56	1.70	0.69	1.84
Sept	3.53	2.24	2.07	1.84	3.41
Oct	1.76	0.88	2.30	1.06	4.08

May

The airflow was primarily from the north-west during May resulting in wet and cool conditions, particularly during the early part of the month. Daytime temperatures were low resulting in what was provisionally the coldest May since 1996. In addition to this, rainfall was with almost double the monthly average in many places.

June

An intense low pressure system at the start of the month brought rain and unseasonably strong winds to the UK. This was followed by more settled weather but with a consistent westerly or north-westerly flow, temperatures remained low until warmer weather moved in during the last few days of the month.

July

A humid southerly airflow gave rise to warm temperatures at the start of the month but this was soon displaced by a series of weather fronts from the west, bring cool and more unsettled weather with frequent showers including torrential rain and hail storms mid-month. The monthly rainfall totals ended up higher than average with the mean temperature just below the long term average.

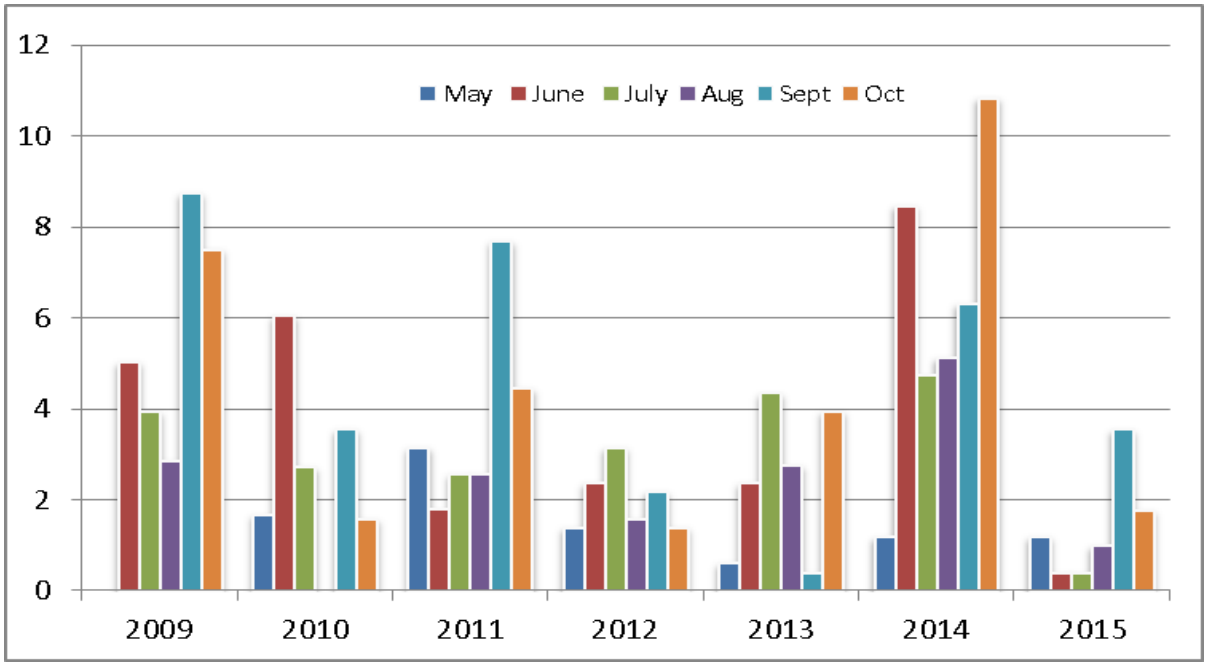
August
The weather continued to be influenced by low pressure systems and remained cool and unsettled for most of the month. Although there were a few warm days, temperatures were mostly below average. During the latter half of the month there were some periods of heavy rain resulting in a very wet month overall.

September
After an initial cool and showery start to September, the arrival of a high pressure system resulted in a period of dry weather with some welcome sunshine. This was relatively short-lived with a return to more changeable weather from mid-month. A fine spell then followed leading to some high daytime temperatures but cool nights. Overall, the sunshine levels were below average for the month.

October
Weather conditions were relatively settled during October and apart from a few wet days at the start, and during the latter third of the month, there were a numerous sunny days albeit with overnight frost and fog. Mean temperatures were above average for most of the month and across the country, it was the driest Oct since 2007.

The number of Dormice and empty Dormice nests found during monitoring work between 2008 and 2015 are shown in Figure 1.

Figure 1. The number of Dormice found per 50 boxes checked at Freeholders' Wood, Aysgarth between 2008 and 2015.



The total number of Dormice found at Freeholders' Wood during monthly counts in 2015 and, selected monthly counts from Briddlesford Wood are shown in Table 2.

Table 2. The number of Dormice and empty Dormice nests found during monthly monitoring work at Freeholders' Wood and selected months from Briddlesford Wood in 2015.

Freeholders' Wood				
Survey date	Total no. of Dormice	No. of empty nests	No. of boxes checked	No. Dormice per 50 boxes checked
20/05/2015	6	2	255	1.18
17/06/2015	2	4	255	0.39
22/07/2015	2	12	255	0.39
19/08/2015	5	2	255	0.98
15/09/2015	18	8	255	3.53
21/10/2015	9	13	255	1.76
Briddlesford Wood				
May 2015	23	27	541	2.13
Jun 2015	30	50	538	2.79
Sep 2015	47	93	539	4.36
Oct 2015	105	137	500	10.50

Discussion

The prolonged periods of warm and dry weather throughout most of the Dormouse season in 2014 resulted in the some of the highest monthly totals recorded at Freeholders' Wood since the original re-introduction in 2008. In contrast, the cool wet weather conditions in 2015, particularly early in the season, resulted in some of the lowest Dormice numbers recorded at the site.

In 2015 during the nest box check in May there were six Dormice found in five occupied boxes with three boxes found with no nest material at all, and two with only very few leaves present. There were also only two boxes containing partial half-built nests. In comparison in May 2014 nine Dormice were found in seven occupied boxes with only one with no nest at all. This suggests that food may have been in short supply and/or that with the poor weather limiting foraging time, they may have spent limited periods of good weather feeding rather than collecting nest material.

The different weather conditions between years also resulted in differences in fecundity. Breeding occurred much later in 2015 with the first breeding not recorded until Sept when four females with pinks were found. In contrast, in 2014 seven females with young were recorded on the June survey visit.

The number of breeding attempts, i.e. the number of females with young that were classed as pink or grey eyes open but excluding any adult with juveniles that may have moved from a another breeding location, also differed between years. In 2015 there were a total of five breeding attempts; four in Sept and one in Oct. In 2014 there were a total of 19 breeding attempts: five in June, two in July, four in both Aug, Sept and Oct.

Bright *et al*. (2006) indicate that juveniles need to reach a minimum weight of 15g by late October in order to survive hibernation. Five juveniles were recorded at Freeholders' Wood on the Oct survey visit with body weights of 12g, 14g, 14.5g, 15.5g and 22g. However, given the above average temperatures in Oct and Nov it is likely that there will have been sufficient time for any individuals to continue feeding and gain weight before being forced into hibernation.

In comparison the number of juveniles on the Oct monitoring date was higher in 2015 than 2014, with six weighing over 15g; four were between 10 and 14.5g with six less than 10g.

The data in Table 1 shows that the numbers of Dormice recorded at Freeholders' Wood in Spring and Autumn were either higher or comparable with records in Northern England and the Midlands. The active period for Dormice in the northern part of the country is generally less than for those animals in the south and so while the figures recorded in May at Freeholders' may be high, the figures recorded in June would not be considered unusual.

It appears that poor weather throughout much of the country delayed Dormouse breeding although this was more pronounced in the south than the north – all the litters recorded in the northern sites in 2015 were noted in the month of September only. Nationally between 1990 and 2014, 15% of litters were recorded in July, 26% in August, 38% in September and 14% in October; in 2015 the proportion of litters recorded in July, August and September decreased while litters recorded in October increased to 36%.

To date the Dormouse population at Freeholders' Wood has shown the expected trend in the years following a re-introduction, with a decline in the second year after release followed by a gradual increase over subsequent years. The low numbers in 2015 are due to the poor weather throughout most of the period May to Oct. Despite this disappointment, the population increase recorded during 2014 when favourable weather conditions prevailed show that the habitat at Freeholders' Wood can sustain a viable population of Dormice.

Acknowledgements
The monitoring work was undertaken by licensed fieldworkers Roger Gaynor, David Preston and Paul Sheehan, with assistance from Suzannah Barningham, Meghann Hull and Briony Davey. We would also like to thank Ann Williams for proof-reading this report.

References

Bright, P., Morris, P. and Mitchell-Jones, T. (2006). *The Dormouse Conservation Handbook.* Second Edition. Natural England, Peterborough.

PTES. (2011) National Dormouse Monitoring Programme Survey Guidelines and Recording Forms 2011. London.

Met Office (2015). UK Climate. http://www.metoffice.gov.uk/climate/uk/summaries.

White, I. and Court, I.R. (2012). The Hazel Dormouse release project at Freeholders' Wood in the Yorkshire Dales National Park. *The Naturalist* 137: 82-88.

YDNPA and PTES (2012). Dormouse Monitoring in Freeholders' Wood 2012. Yorkshire Dales National Park Authority, Grassington.

Where have all the ~~flowers~~ wood mice gone …?

Geoff & Roma Oxford

First of all, apologies to Pete Seeger for adulterating his famous song title but it's relevant, as you'll see. The dead bodies of wood mice and indeed other mammals and birds have a number of fates, one of which is fascinating and the subject of this article – consumption by Sexton beetles. This group of beetles comprises seven species in Britain, most of which are black with conspicuous patches of orange. All bury carcasses for provisioning their young in an underground cavity with suitable dead bodies detected at a distance using highly sensitive antennae.

On the morning of June 22nd 2014, one of us (R) found the body of a wood mouse on our allotment and put it on the wire mesh of a vegetable cage. Later that day two Sexton beetles (*Nicrophorus vespillo*) were seen on the corpse. The corpse plus beetles were put on soil within a plant pot, returned home and placed in an insect cage. Although we were very aware of Sexton beetles we'd never seen them 'in action' before and were keen to observe what would happen. The beetles immediately began excavating soil from beneath the mouse and by the next day the body was completely buried. That night one of the beetles was seen on the surface with its hind legs stretched straight and its rear end extended as far as possible into the air. We speculated that this might be a female trying to attract more males by releasing pheromones (in retrospect, it was almost certainly the male).

This highly stereotypic behaviour was observed repeatedly over the following nights. We tried adding a couple of uncooked chicken wings in case the mouse carcass was insufficient for their needs. One was drawn underground by the next day but the other was only half buried two days later. On a couple of evenings we put the cage and displaying beetle outside in the hope that others might be attracted, but without success. As time went on the larger of the two beetles began to fly around the cage and this was repeated on subsequent nights, and at times it was joined by its partner. Since the beetles normally stay below ground and tend to their brood, it began to look as if no eggs had been laid. On July 6th we moved

both beetles to a new carcass (part of a road-kill rabbit) in another pot but they made no attempt to bury the corpse. The next day we took pity on them and they were released to the wild back on our allotment.

Meanwhile the original flowerpot was excavated. The mouse was represented by a golf-ball-sized sphere of flesh right at the bottom of the pot: the beetles had moved it down through 14 cm of soil. The sphere was hairless – the fur had been stripped off and used to line the compressed-soil walls of the crypt. We discovered later from the literature that the naked ball is coated with antibacterial and antifungal oral and anal secretions which delay decomposition and prevent the corpse smelling and thereby attracting competitors. We can confirm that the mouse – dead for two weeks at the height of summer – did not smell! The body had around its base a passage (crypt) within which the adults had lived (see diagram). There was no sign of eggs or larvae so our anticipation had been in vain.

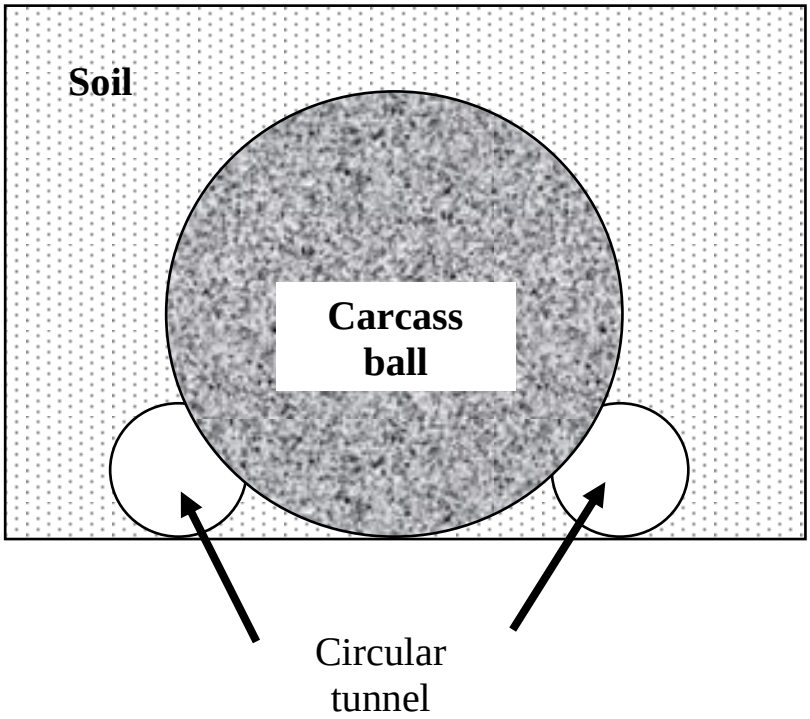
What normally happens is that the female lays her eggs in the soil around the crypt. After a few days the larvae hatch and migrate into a depression made in the carcass by the parents. Although the larvae can digest the mouse's flesh directly they also show begging behaviour whereupon the parents regurgitate pre-digested food, which may speed up their development rate. In some species regurgitation is essential for the survival of the brood. Early on the parents may cull their young so that their number is commensurate with the size of the corpse, thus ensuring that food isn't limiting. The adults continue to protect the larvae for a few days but then leave, the male after c. 14 days and the female after c. 24 days (this varies with time of year). When the carcass ball is entirely used up the larvae pupate in the surrounding soil. They emerge as adult beetles (about 10 from a dead mouse) and make their way to the surface to disperse. The entire process takes about 70 days, but is season- and temperature-dependent. Apart from the social hymenoptera and termites, this level of parental care is rare among insects.

So that is where at least some wood mice go when they die.

A note about nomenclature. Why, given the proclivities of these beetles, isn't the genus *Necrophorus* (*nekros* = a dead body: *phör* = movement) rather than *Nicrophorus*? It seems the taxonomist who named the genus made a spelling error and so we are forever lumbered with a name that just doesn't makes sense.

Acknowledgements:
Sincere thanks to Mike Denton for identifying our *Nicrophorous* specimens.

Cross-section of the carcass ball at the bottom of the flowerpot, showing the circular tunnel (crypt) around its base.



Nicrophorus vespillo (male?) – length c. 20 mm. (Photo: Geoff Oxford)

Male *Nicrophorus vespillo* in stereotypic display pose with head down and abdomen held high in the air. (Photo: Geoff Oxford)

Mammal Society publications for sale

FOR SALE: Mammal Society publications: reasonable offers considered and happy to split.

Bulletins: Number 4 (July 1955) through to No 15 (July 1961), 18 (Sept 1962) to 20 (Sept 1963) – all in pale blue/green covers

Bulletins: Number 21 (May 1964) to Number 32 (Oct 1969) – missing Number 28; rusty staples otherwise very clean
Separate Indexes to Bulletins 1-10 and 11-20

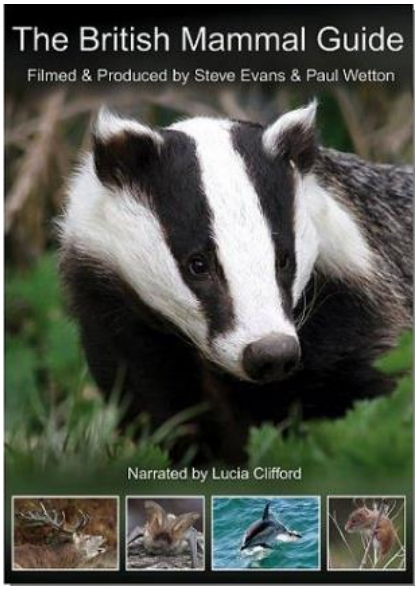
Notes from the Mammal Society Numbers 25 to 29

Mammal Review, as follows:
Vol 1 all 8 parts plus separate title/contents page
Vol 2 through to Vol 6 – all 4 numbers each year (some issues cover 2 numbers)
Vol 7 numbers 1 and 2

Duplicates
Mammal Review: Vol 1 (no's 3, 4/5 [2 copies], 7/8), Vol 3 (no's 2, 3 & 4), Vol 4 (all 4 no's), Vol 5 (no's 1, 2)

CONTACT: Steve Holliday, Northumberland 01670 731963 or email steveholliday@hotmail.co.uk

DVD review



The British Mammal Guide - Twin DVD Set

Filmed and produced by Steve Evans & Paul Wetton; narrated by Lucia Clifford

£19.99 including UK postage – www.britishmammalguide.co.uk

Clearly a significant amount of time has been devoted to producing a comprehensive guide to 78 mammals found in the wild in and around Britain:

- **Bats** - 18
- **Terrestrial**
  Rodents - 15
  Onsectivores - 6
  Lagomorphs - 3
  Carnivores - 9
  Even-toed ungulates - 10
  Odd-toed ungulate - 1
  Marsupial - 1
- **Marine**
  Cetaceans - 13
  Seals - 2

The DVD guide aims to enable the viewer to identify all of these mammals, and the DVDs are sectioned by species within mammalian order.

The start of each species shows a distribution map, followed by some excellent footage of the live mammal(s), usually in their natural environment. This is accompanied by an informative narrative of their distinguishing features and ecology, ending with a description of droppings (terrestrial mammals and bats) and footprints (terrestrial).

The photography is very good. Some of the smaller mammals appear to have been filmed in a stage set, presumably in order to obtain clear and illustrative footage.

At times it is quite apparent that the narrator is reading from a script; occasionally terms could be more descriptive, for example “unpleasant smell” of certain droppings.

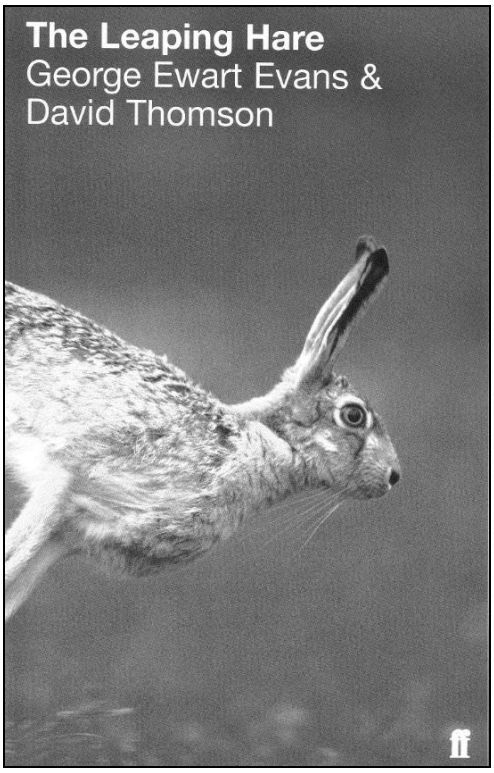
The distribution maps do not always tally with this reviewer’s understanding of particular mammal distribution, for example the otter map show them as absent from Yorkshire.

Time devoted to signs, e.g. footprints and droppings, is brief. A separate section containing those stills might have been useful, to enable comparison of similar species, with the pointers to differentiate them.

This DVD guide is suitable for use as a reference, rather than watching, as one would a documentary, in a single continuous session.

John Ray

Book reviews



The Leaping Hare by George Ewart Evans & David Thompson. 1972, reissued 2002. Pp.262. £10.99. Fabre & Fabre, London. ISBN 9780571106301.

I first came across George Ewart Evans in the 1960s when an undergraduate friend lent me a copy of his *Ask the Fellows Who Cut the Hay* (1956), a wonderfully written, evocative history of the inhabitants of the remote Suffolk village of Blaxhall. Rather than delve into written archives, he chose to sit, listen to and record the reminiscences of the old people of the village. Indeed, Evans was a pioneer of the oral approach to documenting recent history.

The Leaping Hare, co-authored with his friend David Thomson, a BBC Third Programme producer, uses the same technique. It is definitely not a scientific text on hare biology but more a broad-brush exploration of the role of the hare in nature, poetry, folklore, history and art. Much of the information comes from the memories of gamekeepers and poachers, many of whom were still alive when the book was written. First published in 1972, this minor classic was reissued in 2002 and found its way to me as a Christmas gift in 2015.

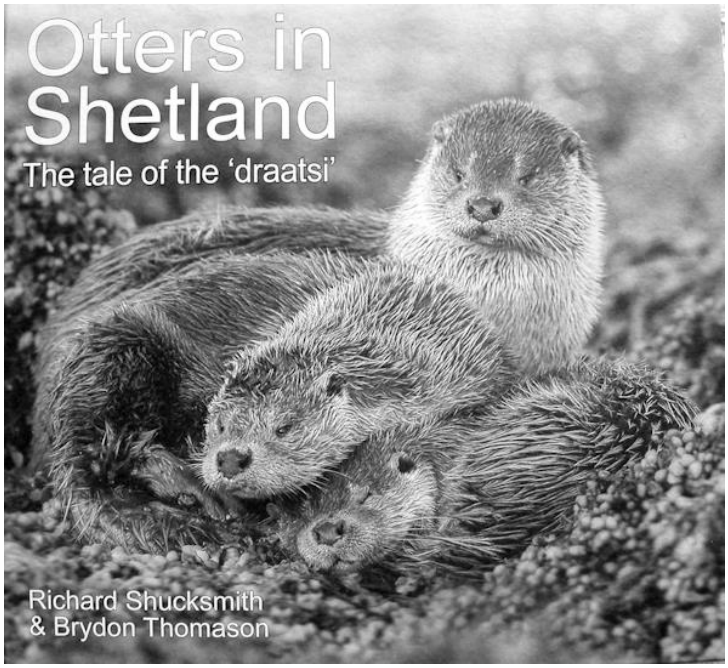
The book opens with the question Why the hare? The answer is that the hare is the subject of myth and folklore across so many cultures and in

myriad contexts. The second chapter covers the natural history of the hare both in the present day (well, 1972) and in antiquity. Why, for example, are hares attracted to airfields? My one and only sighting of massed Irish hares was on landing at Belfast's Aldergrove airport in 1967 (my very first flight) to attend a Mammal Society meeting – it was an impressive display. Although the jury is out, several ideas are discussed, some more fanciful than others!

After considering the separate characteristics of the Mountain, Irish and Common hare, the authors explore old country ways of hunting and cooking hares ('from stubble to stewing pot' as one previous review put it) and hares in mythology and religion. They address, for instance, why there is an association between hares and the moon. This particular link occurs in myths and folklore tales from India, China, Africa, Mexico, North America and Europe. Evans and Thompson suggest that it may have to do with the nocturnal activity of the hare and the fact that they are more obvious on moonlit nights. Another explanation involves a parallel between the ancient coupling of the moon and madness (lunacy) in humans, and the 'mad' behaviour of hares in early spring. A third possibility is that the gestation period of the hare is about four weeks – a lunar cycle. Other myths considered include those linking the hare with fire, witches, being a trickster and a symbol of increase; each in a separate chapter. The book winds up with sections on the names of hares, hares in captivity and a poem or two.

The Leaping Hare is a narrative rather than a scientific text and the language and typeface feel dated. The direct transcripts of conversations with the likes of Archibald Tebble, head gamekeeper of the Helmingham Estate, Suffolk, are a delight. If you'd like a gentle ramble through the totality that is 'the hare', this book is well worth reading.

Geoff Oxford



Otters in Shetland: The tale of the 'draatsi'

Richard Shucksmith & Brydon Thomason

Published by The Shetland Times Ltd., Lerwick, Shetland.

It has been a privilege to review this beautifully illustrated book devoted to Shetland's otters. There have been a number of 'otter books' in recent years but the clarity and detail of Richard and Brydon's photographs and the way in which the animals are shown in a powerful and challenging marine environment, are unique. The detailed captions to these images provide a most informative life story of otters in Shetland based on current scientific knowledge of the animals.

Although the Shetland Islands are home to the highest density of otters in Europe they are not easy to see at close quarters and even more difficult to photograph. As Hans Kruuk points out: 'a whiff of human scent and the animal in front of you just disappears, a huge bed of kelp providing all the camouflage an otter may need.' Indeed, to obtain the images illustrating this text requires expert field craft, total dedication, as well as very high quality photographic equipment.

It is also interesting that the authors interviewed some of the Shetlanders who trapped otters in the traditional 'otter houses'. They, too, were part of the otter environment, highlighting the dangers posed to otters of persecution by the islanders for the fur trade. The use of gin traps and/or leg-hold traps reduced otter numbers to levels much lower than they are at present. However, as one of the islanders commented: "I wouldn't care how much I was offered for a skin nowadays for it most certainly looks better on the animal."

This book is highly recommended to anyone with an interest in natural history, and especially the behaviour and ecology of such an iconic species.

Gordon L. Woodroffe