Contents

Chairman's report – 2011

Geoff Oxford

This has been a sad year for the YMG. Michael Thompson, whose enthusiasm and inspiration led to the formation of the Yorkshire Mammal Group in 1970, sadly died in July. Michael's influence on natural history in Yorkshire and beyond was extensive; he provided a superb example of that very British phenomenon – the amateur naturalist. More about Michael's background and contributions to science, particularly his research on bats, can be found in an obituary later in this issue.

We have enjoyed an excellent programme of indoor talks and field activities during the year and I am most grateful for the hard work of Sal Hobbs and Ann Hanson, respectively, for organising these events. During her short tenure Sal acted as a very effective secretary. Unfortunately for us, but fortunately for her, this was a post she soon had to relinquish as a result of being offered a job with Somerset Wildlife Trust. We are still looking for a replacement.

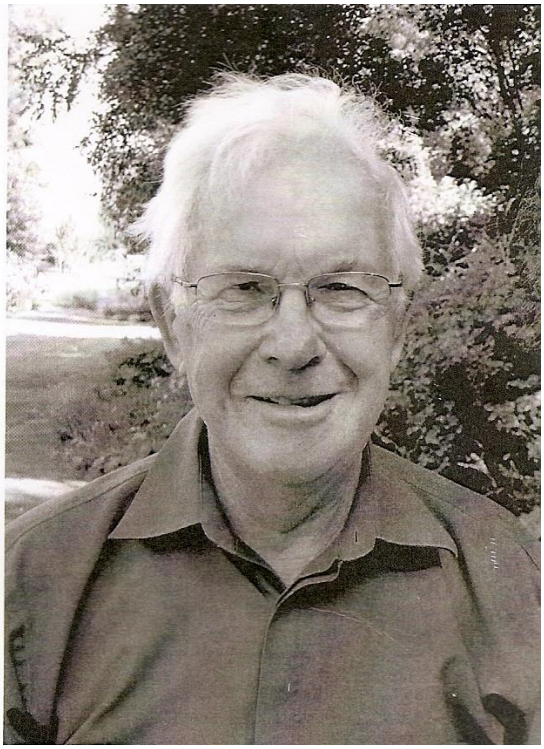
As in previous years we attended two major wildlife events, at Dalby Forest and at 'Wild about Wood' at the Arboretum, Castle Howard. Ann Hanson and Rob Masheder manned the fort at Dalby and Sian Abbey, Sal Hobbs, John Ray, Liam Russell and Mary Youngman kindly helped with the activities at Castle Howard (see later). These events do serve to showcase the work of the YMG and, importantly, educate the public a little about mammals. This year, thanks to our lottery grant in 2010, we were able to provide YMG cotton shopping bags as competition prizes during these events – both useful to the recipient and free advertising for the Group.

Our move to The Black Swan, Peasholme Green, York for our indoor meetings has worked very well. I'm not sure we have attracted the anticipated larger audiences but the venue is certainly more atmospheric than the YWT headquarters, and with a far wider range of drinks!

Progress with our *Atlas of North Yorkshire Mammals* has been slower than anticipated. However, I hope things are now on track so that we can move this important project towards completion.

Finally, I'd like to sincerely thank all those who have contributed to this volume of *Imprint* and Andrew Halcro-Johnston, who kindly agreed to act as editor for a second year.

Obituary



Dr Michael J. A. Thompson

30 April 1933 – 26 July 2011

Geoff Oxford and Gordon Woodroffe

It is with great sadness that we report the death of Michael Thompson, the founding father of the Yorkshire Mammal Group (YMG). A GP by profession, Michael had a lifelong fascination with the living world, becoming a highly skilled naturalist with particular interests in dragonflies, amphibians and reptiles and, of course, mammals. As a boy his passion for natural history was nurtured at Sidcot Quaker School. While on holiday visiting his parents in Lebanon, he collected insects for the school museum. At the end of the visit he was given a small dead snake which was later identified as a rarity by the Natural History Museum, South Kensington. This led to him being asked whether he would collect reptiles for the NHM if he returned to the area.

The foundation of the YMG and its early days were described by Michael in an article for *Imprint* to mark the Group's thirtieth anniversary (Thompson, 2001). Briefly, in 1969 Michael became involved with the updating of a booklet, initially produced by Bootham School Natural History Society in 1956, on the history and natural history of the parish of Skelton, York, where he was then living. He was primarily concerned with the natural history sections and wanted to add mammals, amphibians and reptiles to the other groups of fauna and flora the Bootham schoolboys had surveyed. He found very little information on small mammals and so, with the help of Colin Simms (Yorkshire Museum), Neil Cowx (at what was St John's College) and his then wife, Christine, he initiated a number of autumn and spring live-mammal traps at Moorlands, a Yorkshire Wildlife Trust reserve within the parish. The book was eventually published by the Sessions Book Trust (Stapleton & Thompson, 1971).

The trapping sessions were very successful and in 1970 it was decided to 'set up a mammal group of both amateur and professional mammalogists based in York to carry out scientific field work in Yorkshire.' (Thompson, 2001). This was the first local mammal group in the country. The logo of the otter footprint was adopted almost immediately. The Group carried out a number of long-term trapping studies at several sites including Overton Wood, Howsham Wood and Hopewell House Farm, Knaresborough. The results from the Howsham Wood work was published in *The Naturalist* (Aspinall & Thompson, 1973), and is thought to be the first such study on a small mammal community carried out in Yorkshire (Howes, 1999).

Within a few years of the foundation of the YMG, bats became Michael's major interest and he contributed enormously to our knowledge of these mammals and their distributions in Yorkshire. In collaboration with Bob Stebbings, Sheila Walsh, Edna Shann and Lesley Helliwell, he initiated in 1977 a longitudinal study of pipistrelle bats (then considered a single species) in the Vale of York, which ran for 14 years. This was pioneering work during which over 26 colonies were located and nearly 3000 bats ringed. The assessment and statistical analysis of the data gathered contributed towards an M.Phil. awarded to Michael by the University of York in 1984 (Thompson, 1984). This work led to the publication of a number of important papers, most notably Thompson (1987, 1992). The first of these concerned the longevity of female pipistrelles and represents one of the earliest attempts to construct a life table for a bat. The second paper documented philopatry (roost faithfulness) of female pipistrelles and showed that almost all females return to the same roost site year on year. These influential papers have been cited by workers across the world. It

was his bat studies that inspired Michael to enter the Kenneth Allsop Memorial Natural History essay competition. He was runner-up and, following that, was invited to write the bat section in *The RSPCA Book of British Mammals* (Boyle 1981).

Within the YMG, Michael took on most of the key roles over the years including secretary, chairman, treasurer and mammal recorder. It was during his occupancy of the latter post that it was decided to collect distribution records in a more intensive way and, eventually, to publish an *Atlas of North Yorkshire Mammals* (see Oxford *et al*., 2007). It is a real shame Michael did not live to see the fruition of this project. As well as his involvement with the YMG he was also active in other naturalists' organisations including the Ryedale Naturalists, where he acted as mammal recorder, the Yorkshire Wildlife Trust, the Mammal Society and the Yorkshire Naturalists' Union (YNU). He was particularly proud to be honoured with the Presidency of the YNU during 1988-1989 and naturally chose bats as the subject of his Presidential address (Thompson, 1990).

Michael published widely on a number of topics including otters, bats and dormice, as well as reptiles and amphibians. `He made major contributions to the bat section of Michael Delany's edited work, *Yorkshire Mammals* (1985), with separate chapters on whiskered, Brandt's, Natterer's, Daubenton's, serotine, pipistrelle and brown long-eared bats. While living at Skelton, he made a special study of the remains of moth wings beneath the feeding roost of long-eared bats and, using a light-trap, was able to compare them with the moth species locally available. His publication on this (Thompson, 1982) became an often cited paper.

In 1996 and 1998 Michael led two natural history tours to Lebanon, Jordan and the West Bank – back to his roots. He later described these journeys in his autobiography, *Al Mashrek* (Thompson, 2000).

Michael will be remembered by all of us as a gentle, kind, supportive and extremely knowledgeable naturalist and friend. His enthusiasm and encouragement, particularly for people just starting out on the study of bats, has enriched many lives. The YMG serves as a lasting memorial of his dedication to the study of Yorkshire mammals. We express our condolences to his wife, Patricia, and to his son Robert and his daughter Claire.

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Tony Lane
East Yorkshire Bat Group

Cruises for Nathusius' pipistrelle

On 23rd May a crew member of a P&O ferry from Zeebrugge, on docking at Hull's King George V dock, found a bat on the deck. The bat was gathered up and taken to the East Yorkshire Bat Group rehabilitation facility. The bat was found to be a female Nathusius' pipistrelle (*Pipistrellus nathusii*) and none the worse for its sea crossing. After three days in care it was able to sustain flight and was suitable for release at Tophill Low Nature Reserve (Yorkshire Water) near Driffield where Nathusius' pipistrelle has been resident for the past three years. This bat was the third such record of the species being found in Hull's dockland area. Should immigration officials be alerted?

Mammal species recorded for the first time at Tophill Low Nature Reserve

The bat box project at THLNR has been operational since September 1992 and it has been interesting to record the species utilising the boxes, which has been predominantly the soprano pipistrelle (*Pipistrellus pygmaeus*). Thus it was a pleasant surprise to discover Nathusius' pipistrelle for the first time in May 2008 and again in subsequent years. On 22nd May 2011 a male brown long-eared bat (*Plecotus auritus*) was found for the first time. Then on 2nd October 2011 a male and female Natterer's bat (*Myotis nattereri*) were found in separate bat boxes. There are known roosts of Natterer's bat and brown long-eared at the nearby village of Watton, less than four miles distant.

Do bats like to be beside the seaside? A study of bat feeding behaviour at Selwick's Bay, Flamborough, East Yorkshire

Tony Lane
East Yorkshire Bat Group

Flamborough Headland has numerous public highways and footpaths, some of which are in close proximity to the North Sea. Preliminary night time studies by Geoff Wilson and members of the East Yorkshire Bat Group, employing bat detectors during cliff top walks along footpaths, suggested that when weather conditions were favourable many bats could be encountered feeding. It was considered worthwhile to identify a suitable location for a planned study to find out what habitat features were favoured by bats. It soon became apparent that Selwick's Bay (grid reference TA 255706) had the required features for a safe nocturnal survey with different habitat features.

Despite many anecdotal reports of birds, moths and bats having been seen flying and feeding close to Flamborough Lighthouse there have not been any reports of a systematic survey for bats in the vicinity. Initial surveys of bat activity during early June close to the lighthouse at dusk revealed pipistrelle bats (*Pipistrellus pipistrellus*) feeding around the gardens of adjacent dwellings. Whilst still light many sand martins (*Riparia riparia*) and swallows (*Hirundo rustica*) were evident swooping over the cliff top where there are many gorse (*Ulex europaeus*) bushes that are able to withstand the wind and maritime environment. Later in the evening, when the birds had dispersed to their night roosts, many bats were seen flying over the cliff top towards the beach.

Fortunately there is a public footpath starting close to the lighthouse and which descends the fifty metres or so down to the beach, with a convenient plateau section midway. Much of the cliff face is well vegetated by grasses and is floristically diverse, being watered by springs. Finally, the last section of the cliff has a sheer chalk face close to the beach and is weathered by the sea. The cliff and associated sheltered coves of Selwick's Bay provide a host of substantial windbreaks from the prevalent winds and facilitate insect abundance in the lee of the cliff.

The study team agreed that it was feasible to survey for a period of six weeks during June and July 2011 at three locations on the footpath. Starting at the top, just below the brow close to the lighthouse, ultrasound bat detectors (Stag Electronics) were employed and bat passes were recorded (an unbroken string of ultrasound). Surveys commenced about 30 minutes after sunset and were for a period of five minutes before relocating to the midway position and then to the beach. Bat activity was not recorded when moving between observation positions. The whole procedure was then repeated from the top of the stairway twice more on each survey date. Because of the possibility of bat feeding activity being adversely affected by factors such as a fall in temperature, high winds or poor visibility, surveys were only conducted when conditions were considered favourable.

Table 1: Total bat passes at each habitat (N = Noctule; P = Pipistrelle)

Date	**10/6**	**17/6**	**24/6**	**1/7**	**8/7**	**15/7**	**Bat passes (Mean+/-SD**
Temp (^{o}C)	11	12	14	14	19	16	
Lighthouse	2N	2P	27P	14P	27P	3N/14P	14.8+/-11.2
Cliff	0	1P	8P	2P	6P	18N/19P	9.0+/-14.1
Seashore	0	9P	2P	6P	10P	4N/12P	7.2+-5.8

It can be seen from Table 1 that when the temperature was only 11^{o}C there was minimal bat activity and this was limited to noctule (*Nyctalus noctula*), which is a larger bat and better able to cope with the ambient conditions. When the temperature was 12^{o}C and above there was predictable bat activity by pipistrelles and on one occasion by a substantial number of noctules. The noctule is the region's largest and strongest flying bat species and incidental observations from nearby Danes Dyke on the Headland suggest that the bat will commute from wooded areas further to the west of Bridlington. It was clear that the noctules exploit high insect abundance at Selwick's Bay but not in adverse competition with pipistrelles. The noctules' feeding strategy was to fly and feed at more elevated levels than pipistrelles, which made short diving swoops onto their prey. On the majority of evenings bats were observed feeding at all locations down the cliff. The highest bat activity on the beach apparently correlated with masses of seaweed washed up on the strand line. Seaweed flies (*Coelopa frigida*) attracted to the rotting organic matter on the warmer evenings were evidently much favoured by the pipistrelles.

In conclusion, this study clearly illustrates the importance of suitable coastal habitat as an important feeding area for both birds and bats. The pipistrelles with convenient daytime roosting sites in the dwellings of Flamborough Headland are well placed to exploit insect abundance. In contrast the noctules commute a significant distance to feed on an insect glut (and this may also indicate a need for salt flavoured insects). These results suggest that bats do in fact like to be beside the seaside and indicates that the maritime habitat should not be overlooked.

An unexpected and fascinating incidental observation was experienced close to the lighthouse when looking up at the rotating beacon with its strong directional beams. At times the four circling beams of the lighthouse would catch the flight path of any large moths drawn to the light and showed up the moth flight as transient white flashes in a remarkable freeze-frame fashion.

Acknowledgement

This study was made possible by the support of the following members of the East Yorkshire Bat Group and gratefully acknowledged by the author: Alan Bott, Beryl Gallagher, Tony Lane, Allison Thurston and Geoff Wilson, who were all much fitter in late July after pounding the stairway.

Yorkshire mammals Down Under – an overview of introduced mammalian pests in New Zealand

James Mortimer

Introduction

New Zealand and Britain are comparable in size, total areas (in square kilometres) being 268,670 and 244,820 respectively. Britain supports 65 species of wild mammal (Battersby 2005), 39 of which are found in North Yorkshire (Oxford *et al.* 2007). Ten of these species have been introduced to New Zealand and have since become well-established (Table 1).

Table 1: Range and estimated population size for mammals with self-sustaining populations in New Zealand, also found in North Yorkshire (Macdonald *et al*. 1993; Oxford *et al*. 2007; Parkes *et al*. 2003; Battersby 2005).

Common name	**Scientific name**	**NZ Range (km^2)**	**Estimated NZ population size**	**Estimated UK population size**
Hedgehog*	*Erinaceus europaeus*	100,000	>10 million	1.6 million
Rabbit	*Oryctolagus cuniculus*	150,000	<10 million	37.5 million
Brown hare	*Lepus europaeus*	150,000	<5 million	817,500
Brown rat	*Rattus norvegicus*	200,000	?	6.8 million
House mouse	*Mus musculus*	200,000	>100 million	5.4 million
Stoat*	*Mustela erminea*	200,000	<200,000	462,000
Weasel*	*Mustela nivalis*	100,000	?	450,000
Red deer*	*Cervus elaphus*	120,600	<250,000	353,500
Sika deer	*Cervus nippon*	6,000	<50,000	11,500
Fallow deer	*Dama dama*	4,995	<10,000	<108,000

* Native to the British Isles.

There were very few land mammals in New Zealand until the arrival of people, the only natives being three species of bat (one now thought to be extinct). Polynesian settlers, who colonised New Zealand around 800-900 years ago, brought with them kiore *Rattus exulans* (small rats), whilst Europeans introduced many species from the late 18th Century onwards. In total, 54 mammal species have been liberated in New Zealand (Wilson 2004), originating from Europe, Australia, North America and Asia. Out of the 31 which currently maintain wild populations, at least 25 species are actively managed as pests (Parkes *et al*. 2003).

Rodents were transported to New Zealand as stowaways on ships and were introduced accidentally, however most mammals were deliberately released. Special efforts were made in the late 19th and early 20th centuries to introduce exotic plants and animals, with the aim of helping to establish British colonies. Acclimatisation societies were formed, which had the purpose of introducing animals and plants considered useful, to establish self-sustaining populations. Ungulates, lagomorphs and marsupials were released into the wild for hunting purposes. Domesticated animals (goats,

pigs, sheep, cattle, horses and cats) were imported as stock or pets, however many escaped into the wild. Predatory mammals (mustelids and hedgehogs) were brought as biological control agents for animal pests.

Effects on native wildlife

The introduction of mammals has been devastating for New Zealand's native fauna and flora. Since human colonisation, over half of the endemic bird species have become extinct, whilst half of the remaining bird species are threatened or endangered. Unlike Britain, New Zealand has been isolated from other land masses for a very long time (around 80 million years). The native fauna are extremely vulnerable to animals such as rats and stoats because they have evolved in the absence of mammalian predators, and therefore do not have the appropriate predator defence strategies. Many are flightless or poor flyers and they are often k-selected, and as such have low reproductive rates and slow growth.

Arguably three of the most important mammal species to be introduced to New Zealand, in terms of the effects they have had (and continue to have) on native wildlife and indigenous habitats, are brown rat, stoat and red deer.

The brown rat, known in New Zealand as the Norway rat, was one of the earlier mammal species to be introduced following European colonisation, the first rats arriving with Captain Cook in the late 18th Century. They have since spread throughout mainland New Zealand and found their way onto many of the off-shore islands. They prey on adult birds plus their eggs and chicks, as well as lizards and invertebrates. In addition, they eat a wide range of fruits and seeds, therefore competing with native animals for food.

Mustelids were imported and released in the 1870s and 1880s in an attempt to control rabbits. Wild rabbits (i.e. not domestic breeds) were introduced to New Zealand around 1850 for fur, meat and hunting. By the 1870s they were widespread and causing problems by over-grazing grasslands intended for sheep, to the extent that some areas were abandoned by farmers. To combat the rabbit plague, the controversial decision was made to introduce stoats and other mustelids, however by the early 20th Century it was obvious that they had failed to control the rabbits. Stoats are important predators of many native species, including the kiwi *Apteryx* spp., one of New Zealand's most iconic birds. Adult kiwis are large

enough to fend off attacks from stoats, however eggs and young birds are extremely vulnerable.

Red deer were first introduced to New Zealand at Nelson in the 1850s. Since then there have been around 300 separate liberations at various locations (Caughley 1983), releasing a total of about 850 animals (Forsyth *et al*. 2001). The deer had no natural predators and were able to disperse into large areas of forest and other habitats, which supplied abundant resources. Populations grew in size rapidly, and with increased browsing pressure, the food supply was soon depleted. Deer populations consequently became reduced in size until they eventually stabilised at the carrying capacity of the habitat (Forsyth *et al.* 2011). Deer pose a threat to indigenous forests and other ecosystems because they browse on the more palatable species, preventing regeneration and in time altering the structure and composition of the habitat.

Solutions

There is a wide range of techniques and tools available for controlling introduced mammals, which can be categorised as either ‘ground’ or ‘aerial’. Ground control involves the use of traps, bait stations (containing poison) or culling, and is by far the most common strategy used by the Department of Conservation (DOC – the government agency concerned with protection of New Zealand's natural and historic heritage). Aerial control is the application of poisoned bait from the air, usually by helicopter, and is required in remote and rugged areas that are too difficult to access on foot.

These tools can be used either to control or completely eradicate the target species. Before beginning an operation however, it is essential to understand the predator-prey dynamics. For example stoats threaten native birds, but they also prey on rats. It may seem sensible to control or remove the stoats, however with fewer predators the rat numbers will increase, resulting in more eggs and chicks of native birds being eaten. Management must therefore carefully consider the potential effects so that appropriate action can be planned accordingly, avoiding undesirable knock-on effects.

Figure 1: aerial poison drop using a helicopter (photo: DOC).

For mammals such as rats and stoats, it is generally agreed that getting rid of them is preferable. However, deciding on how to deal with introduced ungulates, such as red deer, is a little more complex, as their continued presence in New Zealand is very controversial. Conservationists regard them as pests that should be eradicated if possible, whilst the hunting fraternity value them as a recreational or commercial resource.

Eradication

In New Zealand there has been a focus on using islands as refuges for those species that are most vulnerable. Many species translocations have been carried out, relocating native animals from the mainland to predator-free islands. Eradication of mammals from islands therefore provides additional refuges for populations of threatened species.

Brown rats have been subject to many eradication attempts; the first to succeed were on two small islands in the Hauraki Gulf, off the coast of Auckland, in 1964. By 2004, a further 40 successful eradications had been completed, on islands ranging in size from 1 to 11,330 hectares (Clout *et al.* 2006). The eradication of rats from Kapiti Island in 1996 was an important turning point. At 1,965 hectares, this was at the time much larger than any other island upon which rat eradication had been attempted, and until just a few years earlier, it seemed beyond the realms of possibility. However, with the development of new techniques and more effective toxins it became plausible.

Following trials to test which strategy was most likely to work, the decision was made to carry out an aerial drop of brodifacoum (an anticoagulant poison), using a helicopter carrying a large bucket fitted with a bait spreader. Several native bird species were potentially at risk from the poison, therefore a number of transfers of these were made to nearby islands. They were then returned after the operation was complete. In total, around 32,000 kg of pellets containing the poison were dropped across the island. When the island was surveyed for rats two years later none were found, and the eradication was declared successful. The success of this was important because it gave pest managers greater confidence to attempt similar operations for even larger islands.

Eradication is often just the beginning, however. Many islands are not far from the mainland, and are therefore within swimming range of several mammal pests. Brown rats are easily capable of swimming distances of over 1 km, and in favourable conditions may even swim up to 2 km (Russell *et al.* 2005). Other excellent swimmers include red deer (up to 2.4 km; Brown 2005) and stoats (over 1 km; Elliott *et al.* 2010). Re-invasion is a constant threat, not only from animals that are good swimmers, but also from those that might be accidentally transported to the island by visiting boats. To combat this, ongoing monitoring is required, usually in the form of traps or poison bait stations.

Sustained control

Meanwhile, on the mainland, eradication is not usually realistic, and instead programmes of continual control (by trapping or poisoning) are implemented. Research has shown that many native species can co-exist with introduced mammals, providing that they are kept at relatively low densities.

To help safeguard kiwi populations, DOC has created five kiwi sanctuaries covering a total of 59,000 hectares. In these areas there is intensive predator control to keep stoat populations at low numbers. After five years of regular trapping of stoats at two of these sanctuaries, up to 70% of chicks were surviving to more than six months old (by which time they were large enough to defend themselves against stoats). In comparison, at unmanaged sites only 11% were surviving this long. The increased survival rate has enabled these kiwi populations to increase at around 13% each year (DOC 2011). Other sanctuaries have used different strategies, including the use of poisons to control stoats and captive rearing of kiwi chicks, also with good results.

Figure 2: setting a stoat trap (photo: J. Mortimer).

All this control and eradication comes at a cost. For example, to maintain its network of over 180,000 stoat and rat traps across New Zealand, DOC spends over $5 million every year (DOC 2011). When you add the costs of poison operations, research and biosecurity from DOC and other organisations, the annual total is far greater. However, considering that this is almost certainly preventing the extinction of numerous threatened endemic fauna and flora, most would agree that it is money well spent.

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A mammal survey at Lindholme Island, Hatfield Moors, near Doncaster

Ann Hanson

Introduction

On 10 and 11 June 2011, YMG carried out a mammal survey on Lindholme Island, Hatfield Moors, as part of the Peter Skidmore Memorial Survey organised by the Thorne & Hatfield Moors Conservation Forum. The moors are part of the Humberhead Peatlands National Nature Reserve and have a diverse range of habitats including lowland heath, lowland raised mire, acid grassland, birch scrub and ancient woodland. The surveys were carried out on Lindholme Hall Estate and Jack's Piece, by kind permission of Rangjung Yeshe UK and Mr D. Lyon respectively. Surveys included live trapping of small mammals, direct observations, searching for mammal tracks and signs and a bat survey using heterodyne bat detectors.

Methods

Fifty Longworth traps were placed in a variety of habitats around Lindholme Hall Estate and Jack's Piece, baited with wheat, peanuts, sunflower seeds, carrots and blowfly pupae, and with a ball of hay for bedding.

Trap locations:

1. Pond – a small pond to the south-east of Lindholme Hall, surrounded by willow trees (5 traps).
2. Oak trees – an area of ancient oak trees to the south-west of Lindholme Hall (16 traps).
3. Quarry – an abandoned quarry to the south of Lindholme Hall, with dense grassy vegetation (19 traps).
4. Track side – along the track leading to Jack's Piece in birch/oak woodland with bracken ground flora (10 traps).

Traps were set on the evening of Friday 10 June and checked on Saturday 11 June from 9.30am onwards.

In addition, direct observations and mammal tracks and signs were recorded during the day on 10 and 11 June, and bat surveys were carried out on the evening of 10 June.

Results

Mammal records from Lindholme Island, Hatfield Moors, 10 and 11 June 2011.

Species	Grid ref.	Location	Notes
Wood mouse	SE 70900626	Pond edge, Lindholme Hall (Location 1)	Adult male (27.5g), Longworth trapping record
Bank vole	SE 70710618	Oak trees, Lindholme Hall (Location 2)	Adult male (28.5g), Longworth trapping record
Fox	SE 71050662	Track adjacent to Jack's Piece	Droppings
Badger	SE 71070590	Pine woodland, Lindholme Hall	Sett
Roe deer	SE 69820680	Lindholme Bank Road	2 adults, sighting
Rabbit	SE 70710618	Oak trees, Lindholme Hall	Burrows and sightings
Common pipistrelle	SE 70810632	Trees adjacent to Lindholme Hall	1 foraging around trees, bat detector record
Mole	SE 70750630	Grassland near Lindholme Hall	Molehills on path to oak trees
Brown hare	SE 71250667	Field adjacent to Jack's Piece	2 adults, sighting
Grey squirrel	SE 70810632	Trees adjacent to Lindholme Hall	1 adult, sighting
Grey squirrel	SE 71000571	Woodland at south end of Lindholme Island	1 adult, sighting

The weather during the survey was warm, dry and breezy.

Discussion and conclusions

Ten species of common mammals were recorded during the survey, with two species being recorded from the Longworth trapping survey. Despite the low catch in the live traps, we did add another small mammal to the list for Hatfield Moors as only wood mice (*Apodmus sylvaticus*) and common shrews (*Sorex araneus*) have been caught in previous YMG traps on Lindholme Island (Imprint No. 24, 1997) and Poor Piece (Imprint No. 36, 2009).

Thanks are due to Helen Kirk of Thorne & Hatfield Moors Conservation Forum for organising the Skidmore Memorial Survey and to Rob Masheder and several other surveyors for helping with the Longworth trapping. Special thanks must go to the Rangjung Yeshe UK caretakers at Lindholme Hall for their wonderful hospitality and excellent food over the two days of the survey.

A Wild Workshop at Askham Bog Nature Reserve, near York

Ann Hanson

Introduction

YMG carried out a Wild Workshop on Small Mammal Survey Techniques on behalf of the Yorkshire Wildlife Trust on Saturday 9 July 2011. The day started with a Longworth trapping survey at Askham Bog YWT Reserve, followed by an indoor session at the YWT office in York including a talk on small mammal ID and alternative survey techniques, and training in identification of mammal remains from owl pellets.

Askham Bog Nature Reserve comprises approximately 45 hectares of fen, bog, wet woodland, ponds and ditches located to the south-west of York (grid ref. SE 575481), with excellent habitat for a range of small mammals, including less common species such as harvest mouse and water shrew. The reserve is a Site of Special Scientific Interest (SSSI), designated for its relict fen and bog flora and fauna.

Admiring a water shrew: photo by Rob Masheder

Methods

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

Trap locations:

1. Near Wood – large area of fen meadow, grazed by cattle and Exmoor ponies, with traps being placed around patches of bog myrtle and saw sedge to avoid damage by livestock (20 traps).
2. Near Wood – vegetation along pond edge adjacent to boardwalk (10 traps).
3. Middle Wood – adjacent to east boardwalk with tall fen on one side and wet woodland on the other (10 traps).
4. Middle Wood – adjacent to south boardwalk with tall fen on one side and wet woodland on the other (10 traps).

Traps were set on the evening of Friday 8 July and checked on Saturday 9 July from 9.30am onwards.

Results

Summary of small mammals captured at Askham Bog Nature Reserve.

	Site 1	**Site 2**	**Site 3**	**Site 4**
Wood mouse	0	1	3	0
Bank vole	2	2	5	1
Common shrew	0	1	0	0
Water shrew	1	0	0	0

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

Discussion and conclusions

Four different species of small mammal were caught at Askham Bog Nature Reserve, including bank vole (*Myodes glareolus*), wood mouse (*Apodmus sylvaticus*), common shrew (*Sorex araneus*) and water shrew (*Neomys fodiens*). The majority of captures were bank voles, which were found at all the sites that were trapped. Sub-adult and juvenile bank voles were caught, as well as two pregnant females, indicating the breeding season was well underway. Wood mice were caught at two sites, with an adult common shrew being trapped next to the pond and a juvenile water

shrew in the fen meadow. The best catch rate was at site 3, the area of tall fen alongside the east boardwalk in Middle Wood, which was also the area with the most ground cover. Harvest mice (*Micromys minutus*) have been recorded on the reserve in previous surveys, but unfortunately none were caught on this occasion.

Thanks are due to Rosie Adcock at YWT for organising this event and to Lizzie Dealey (YWT) and Rob Masheder (YMG) for helping on the day. Thanks also to all the course participants for their interest and enthusiasm when faced with yet another bank vole.

Appendix I

Table of results: Small mammal survey at Askham Bog NR, 9 July 2011.

Weather: Overcast, warm and damp on the day of the trap. Heavy rain showers previous day and overnight.

Site	**Species**	**Sex M/F***	**Age A/SA/J***	**Weight (g)**
Fen meadow (1)	Bank vole	M	A	22.0
Fen meadow (1)	Water shrew	?	J	12.0
Fen meadow (1)	Bank vole	F	A	27.0
Pond edge (2)	Bank vole	F	A	31.0
Pond edge (2)	Wood mouse	F	SA	21.0
Pond edge (2)	Bank vole	M	A	28.0
Pond edge (2)	Common shrew	?	A	8.0
Fen by boardwalk (3)	Bank vole	F	A	25.0
Fen by boardwalk (3)	Bank vole	M	A	21.0
Fen by boardwalk (3)	Wood mouse	M	A	26.0
Fen by boardwalk (3)	Wood mouse	M	A	23.0
Fen by boardwalk (3)	Bank vole	F	J	13.0
Fen by boardwalk (3)	Bank vole	M	A	20.0
Fen by boardwalk (3)	Bank vole	F	SA	20.0
Fen by boardwalk (3)	Wood mouse	F	SA	21.0
Fen by boardwalk (4)	Bank vole**	?	?	?

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

A small mammal survey at Hayburn Wyke Wood, near Scarborough

Ann Hanson

Introduction

Hayburn Wyke Wood is an area of ancient woodland on the North Yorkshire coast situated about 4 miles to the north of Scarborough (grid ref. TA 007972). The wood is owned and managed by the National Trust and YMG were asked to carry out a small mammal survey of the wood to help with management decisions.

Methods

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

Trap locations:

1. Grass field – a field of long, dense grass adjacent to the wood, with traps being placed beside a track running through the field (15 traps).
2. Hayburn Beck – a small beck running through the wood down to the sea, with traps being placed close to the water along the edge of the beck (10 traps).
3. Woodland – mixed deciduous and coniferous ancient woodland, with traps being placed at the base of trees and under fallen trees alongside the North path (25 traps).

Traps were set on the evening of Friday 30 September and checked on Saturday 1 October from 9.30am onwards.

Results

Summary of small mammals captured in Hayburn Wyke Wood.

	Site 1	**Site 2**	**Site 3**
Wood mouse	0	5	1
Bank vole	1	0	5
Common shrew	0	0	1

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

Discussion and conclusions

Three different species of small mammal were caught at Hayburn Wyke Wood, including bank vole (*Myodes glareolus*), wood mouse (*Apodmus sylvaticus*) and common shrew (*Sorex araneus*). Bank vole and wood mouse were the most common species captured, with only one common shrew being recorded. Bank voles were mainly caught in areas with good ground cover in the grass field and within the wood, whereas wood mice were mainly found alongside the stream where there was very little in the way of ground cover. This distribution could be relevant as wood mice are almost strictly nocturnal and not so reliant on cover, whereas bank voles tend to be active 24 hours a day and prefer areas with good cover. Most of the small mammals captured were sub-adults, which would be expected towards the end of the breeding season.

Other mammals recorded during the survey included common pipistrelles (*Pipistrellus pipistrellus*) foraging in the car park at Hayburn Wyke Hotel (TA 007968) and along Hayburn Beck within Hayburn Wyke Wood (TA 007972), and molehills in the field adjacent to Hayburn Wyke Hotel. Hayburn Beck appears to offer suitable habitat for water shrews (*Neomys fodiens*) and future surveys may well record this more elusive small mammal.

Thanks are due to Bill Blake of the National Trust for organising the survey and to Rob Masheder and Mary Youngman of YMG and Bill, Zoe, Dave, Mack and Adam of the NT for helping with the survey. And due to unseasonably hot weather and a mass exodus to the coast on the Friday evening, an excellent time to discover that trap setting by head torch can actually be a lot of fun!

Appendix I

Table of results: Small mammal survey at Hayburn Wyke Wood, 1 October 2011.

Weather: Hot, sunny and dry. No rain for a week before the survey.

Site	Species	Sex M/F*	Age A/SA/J*	Weight (g)
Grass field (1)	Bank vole	M	SA	15.0

Hayburn Beck (2)	Wood mouse**	?	?	?
Hayburn Beck (2)	Wood mouse	M	A	23.0
Hayburn Beck (2)	Wood mouse	M	SA	17.0
Hayburn Beck (2)	Wood mouse	F	A	21.0
Hayburn Beck (2)	Wood mouse	M	SA	16.0
Woodland (3)	Bank vole	F	SA	15.0
Woodland (3)	Bank vole	F	J	13.0
Woodland (3)	Bank vole	M	SA	16.0
Woodland (3)	Bank vole	F	SA	15.0
Woodland (3)	Wood mouse	M	SA	18.0
Woodland (3)	Common shrew	?	SA	6.0
Woodland (3)	Bank vole	F	SA	14.0

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

A small mammal survey at Heslington Hill, the University of York

Ann Hanson

Introduction

YMG carried out a small mammal trap on the campus of the University of York as part of an ongoing programme of wildlife recording taking place at the University. The survey took place in an area of woodland and grassland on Heslington Hill on the north-western edge of the campus (grid ref. SE 623508).

Methods

Fifty Longworth traps were placed in woodland and grassland on Heslington Hill, baited with wheat, peanuts, sunflower seeds, carrots and blowfly pupae, and with a ball of hay for bedding.

Trap locations:

1. Woodland – mature/semi-mature sycamore woodland with elm regeneration and limited ground flora (15 traps).

2. Woodland edge – interface between sycamore/elm woodland and long grass habitat (18 traps).
3. Long grass – an area of long, coarse grass lightly grazed by horses (17 traps placed in pairs).

Traps were set on the evening of Friday 21 October and checked on Saturday 22 October from 9.30am onwards.

Small mammal survey at York University: photo by Rob Masheder

Results

Summary of small mammals captured at Heslington Hill, York University.

	Site 1	Site 2	Site 3
Wood mouse	2	2	2
Field vole	0	0	1

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

Discussion and conclusions

Two different species of small mammal were caught at Heslington Hill, York University, including wood mouse (*Apodmus sylvaticus*) and field vole (*Microtus agrestis*). Wood mice were caught in similar numbers at all the trap sites, including woodland, woodland edge and grassland. The field vole was caught in the long, coarse grass, which is their preferred habitat.

All the small mammals that were captured were sub-adults, which is not unusual at this stage of the breeding season.

Thanks are due to Guy Wallbanks for organising the survey and to Rob Masheder, Mary Youngman and Geoff Oxford of YMG and several York University students for helping on the day.

Appendix I

Table of results: Small mammal survey at Heslington Hill, York University on 22 October 2011.

Weather: Warm and dry with a light breeze.

Site	Species	Sex M/F*	Age A/SA/J*	Weight (g)
Woodland (1)	Wood mouse	F	SA	19.0
Woodland (1)	Wood mouse	F	SA	17.0
Woodland edge (2)	Wood mouse	M	SA	20.0
Woodland edge (2)	Wood mouse	M	SA	21.0
Long grass (3)	Wood mouse	M	SA	20.0
Long grass (3)	Wood mouse	F	SA	21.0
Long grass (3)	Field vole	F	SA	18.0

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

"I may be some time…" – a report of YMG mammal recording walks 2011

Ann Hanson and Rob Masheder

Kirkham Priory and the River Derwent – 15th January 2011

After parking up at Kirkham Priory, our first records of the year were some molehills in a field alongside the road (SE 739657). These were swiftly followed by badger tracks on a roadside bank and a sett in woodland at the appropriately named Badger Bank near Westow (SE 746654). The same location also yielded more molehills and the distinctive aroma of a fox in the roadside hedge. The track leading into Howsham Wood yielded rabbit

droppings and burrows and yet more molehills (SE 747653), with some excellent badger tracks a little further along (SE 748651). Following the track south through Howsham Wood we found more badger tracks, some badger hair and another sett (SE 747647). Further records in Howsham Wood included a common shrew hiding under a piece of board (SE 748645) and another batch of badger tracks (SE 747642).

After leaving the wood, we recorded molehills near the bridge over the beck (SE 741634) and also in fields alongside the track leading to Church Farm (SE 742631). As we walked down through Howsham village we spotted a grey squirrel and its drey in a strip of woodland (SE 737627). Heading down to the river we found more molehills and field vole runs in grassland next to Howsham Bridge (SE 732625), and molehills with fox droppings on top in a field next to Howsham Mill (SE 730626). After stopping for lunch at Howsham Mill, we crossed the bridge and started to head back to Kirkham Priory along the River Derwent. Our walk back along the river revealed numerous molehills (SE 729627, SE 731631, SE 739636, SE 744642, SE 740654), several fox scats (SE 738636, SE739636, SE 744642, SE 740654) – mostly on top of the molehills, some rabbit burrows (SE 744646), roe deer tracks (SE 741638), and several areas of rough grass with field vole runs and burrows (SE 732631, SE 739636, SE 744646).

More interesting small mammal records included a couple of harvest mouse nests, one in a patch of reed canary grass (SE 743642) and another lying on the path alongside the river (SE 744645), probably washed out of the vegetation by the winter floods. In addition, an owl pellet discovered under a large tree contained the skulls of two wood mice (SE 745649). However, the most exciting finds of the day were otter spraint and fresh tracks alongside a wet ditch leading down to the river (SE 745649) and further along, opposite Kirkham Priory, some more otter spraint on a rock by the river's edge (SE 735655).

Gilling West near Richmond – 20th February 2011

A slightly damp start to the day, but not to be deterred we set out from Gilling West and recorded some molehills in the children's play area on the edge of the village (NZ 185048), swiftly followed by molehills with fox scat on top and some badger footprints in a field alongside Gilling Beck (NZ 189043). Further along the beck were more molehills with accompanying fox scat (NZ 191043) and, more interestingly, some fresh otter spraint on a rock at the edge of the beck (NZ 192042). Molehills, fox

scat and badger snuffle holes were located where a small bridge crosses the beck (NZ 195037) and a very obvious badger latrine alongside the track leading to Gascoigne Farm (NZ 195035).

Rabbit burrows and droppings were recorded under a hedge beyond the farm (NZ 193032) and another badger latrine alongside the track leading to Olliver (NZ 188030). More otter spraint was recorded where the road bridge crosses the Aske Beck (NZ 181030) and numerous molehills in the parkland in front of the stables at Aske Hall (NZ 182036). Heading back across the fields towards Gillingwood Hall we recorded badger footprints (NZ 176041) and fox scat (NZ 175042), with more molehills just beyond the hall (NZ 165051). More badger footprints were recorded alongside Smelt Mill Beck near Hartforth (NZ 168060). Last records of the day included another fresh otter spraint on a ledge under the bridge over Gilling Beck in Gilling West (NZ 183053), with of course some molehills on the grass nearby.

Staithes on the North Yorkshire coast – 20th March 2011

A dead common shrew on the path alongside the allotments on the edge of Staithes was the first mammal we spotted (NZ 783183), followed by molehills on the path to Seaton Hall (NZ 782179). A little further along were rabbit burrows and droppings (NZ 781177) and more molehills in the caravan park (NZ 781176). As we walked through the woodland in Borrowby Dale we recorded a fox scat on a tree stump and more molehills (NZ 783168) and roe deer tracks on the path (NZ 783166). At the footbridge over Mounter Beck we found some squirrel nibbled hazel nuts and a positive smorgasbord of tracks in the mud next to the beck, including brown rat, fox and otter (NZ 781166).

Heading out of the woodland, we recorded more molehills at Keld Hill (NZ 777163) and two brown hares running across arable fields in the distance near Old Man's Knoll (NZ 785152). Near Borrowby we found bank vole and squirrel nibbled hazel nuts on a wooded bank (NZ 772156) and some roe deer droppings nearby. Walking across the fields near Scroggs Wood we recorded rabbits and molehills (NZ 772154 and NZ 771151). We popped out onto Moor Lane to head back towards Staithes and found field vole holes in the verge (NZ 767152), some molehills (NZ 768154) and evidence of a molecatcher at work by the remains of about 40 dead moles hanging on a fence by the road (NZ 775162).

Some bones on the verge of Borrowby Lane, near Keld Hill, turned out to be domestic cat, followed by another row of dead moles on a fence (NZ 776167). Our last record of the day was rather more encouraging, being several dollops of otter spraint under the road bridge over Dales Beck, near the confluence with Staithes Beck at Dalehouse (NZ 777179).

Malham and Malham Tarn, the Yorkshire Dales NP – 17th April 2011

We had to walk up to Malham Cove from the village before spotting our first record of the day – molehills (SD 897640). Walking up along Ing Scar we recorded rabbit burrows and droppings (SD 891649) with molehills and a distinctly foxy smell at Comb Hill (SD 892650). More molehills were noted when we stopped for lunch and an ice cream next to a very sunny Malham Tarn (SD 900662). As we headed back away from the tarn we recorded more molehills at Seaty Hill (SD 904655) and five hot cross bunnies in the fields at New Close (SD 907651).

Walking down towards Gordale Scar, we recorded molehills, fox scats and rabbit droppings (SD 913644). Then, after discovering it is impossible for a labrador to negotiate the climb at Gordale Scar, we headed across country to rejoin the road back down to Malham village (YMG fieldwork rule no. 2 – "Never leave a man (or dog) behind". Rule no. 1, just in case you wondered, is "Never get separated from your lunch" – courtesy of Gordon Woodroffe many years ago). Our route back to the road found some rabbit burrows and molehills at New Close Knotts (SD 912638). Last record of the day was a rabbit skull also near New Close Knotts (SD 911639). We then rounded the day off with a well earned trip to a tea shop in Malham for tea and cake.

An evening walk along the Rive Ouse from Acaster Malbis – 7th June 2011

First record of the evening was a dead wood mouse on the path near the weir at Naburn Lock (SE 592445). Wandering along the river bank a little further we became very distracted when we started to find tansy beetles in just about every clump of tansy we passed and decided to record them all along South Ings. We did however manage to tear ourselves away from the tansy beetles for long enough to spot some possible water vole holes in the opposite bank of the river near Bell Hall (SE 596438). We rounded off the evening with a well deserved pint in the Ship Inn at Acaster.

Coverdale, near Leyburn in the Yorkshire Dales – 11th December 2011

In a desperate attempt to do anything apart from Christmas shopping, a hardy group headed out for a walk in Coverdale in the dead of winter. First records were molehills and rabbit droppings in the car park at Pinker's Pond (SE 114869). Heading down towards the river we spotted more molehills (SE 115866 and SE 110864), and yet more at the remains of Coverham Abbey (SE 106865). Stopping off at Coverham Church we recorded rabbit droppings in the churchyard and bank vole remains in some kestrel (or possibly little owl) pellets found next to the church (SE 103863). In fields near Coverham Bridge we spotted more molehills (SE 104862) and rabbit burrows alongside the road (SE 106861). As we turned off Hanghow Lane to follow the footpath towards Caldbergh, a big brown hare ran off across the fields (SE 107859) and a bit further along we recorded molehills and rabbits (SE 100856). More molehills were spotted in fields near Caldbergh (SE 097858), followed by rabbit burrows alongside the track back down to the river (SE 097859). Last records of the day were molehills and rabbit burrows near Greens Beck at Holme Hill (SE 100863). A quick walk back to the cars and we found our way to Leyburn for a well earned tea shop stop.

Thanks again to everyone who came out with us in 2011 and we hope the walks (and tea shops…) will not disappoint you in 2012.

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

Twycross Zoo

Gordon L. Woodroffe

It must have been about 15 years since the YMG visited Twycross Zoo, near Tamworth, Leicestershire. When Lorna and I revisited the zoo in October 2011 it had undergone a remarkable transformation. Approaching the entrance building from the car park we were at first struck by an enormously high caged roof dominating the skyline. This turned out to be the roof of a splendid Himalayan styled enclosure, occupying an area of about 850 m^2, and housing endangered snow leopards (*Panthera uncial*). The entrance building containing the 'regulation' gift shop and a series of cafeterias allows access to the entrance turnstiles. More interestingly, one

side of this building is a wall of armoured glass stretching its whole length and makes up one side of the snow leopard enclosure; so one can watch these animals, over a cup of coffee or lunch, without having to go into the actual zoological gardens.

The snow leopard enclosure

Twycross has always been renowned for its record on breeding and keeping apes and monkeys. The zoo has now been designated The World Primate Centre. It is the only zoo in the UK to care for four species of great apes and the only zoo in the UK with bonobos (*Pan paniscus*). To help this endangered species, Twycross is supporting the bonobo sanctuary Lola Ya Bonobo in the Democratic Republic of Congo, as well as keeping a healthy and safe captive colony to back up the wild population.

It is also interesting to experience the sights and vocalisations of the gibbons, which comprise one of the largest collections outside South-east Asia. The impressive range of monkeys includes marmosets and tamarins (*Leontopithecus rosalia*), spider monkeys (*Ateles hybridus*), woolly monkeys (*Lagothrix lagotricha*), red titis (*Callicebus cupreus*), white faced sakis (*Pithecia pithecia*), black and gold howler monkeys (*Alouatta caraya*), guenons, black and white colobus (*Colobus guereza*), langurs and lemurs. Many of these exhibits are the subject of endangered species breeding programmes with other zoos.

Apart from the snow leopards the only concessions the zoo makes to keeping carnivores are the critically endangered Amur leopards (*Panthera pardus orientalis*), endangered dholes (*Cuon alpinus*), bat eared foxes (*Olocyon megalotis*) and the old standbys: Asian small-clawed otters (*Aonyx cinera*), South American sea lions (*Otaria flavescens*) and meerkats (*Suricata suricata*).

The four Asiatic elephants (*Elephas maximus*) (endangered) deserve a special mention. They are housed in what must rank as one of the best elephant compounds in the zoo world. There is plenty to keep them

occupied. At one end of the enclosure is a large lake for bathing and each morning the elephants have a full body scrub, which is vital to keep their skin healthy. Contrary to public belief, elephants have quite delicate skins and if bathing is prevented their skin loses its pliability and becomes coarse and rugged. A very good guide to the animals' health is the state of the tail, which should have a long tuft of bristles at the end and quite thick hairs. If bathing and grooming are prevented the hairs fall out and the tail becomes tuftless and cracked, resembling a length of old rope. In fact to call them pachyderms is somewhat misleading. In addition to their full body scrubs the elephants have their feet and nails trimmed regularly. To achieve this standard of care requires complete trust between the elephants and their keepers. I have to say, the Twycross quartet looked extremely healthy.

These are amongst the highlights. Unfortunately we did not have time to visit The Tropical House or The Borneo House. The former recreates the Amazon Rainforest and an experienced guide will lead small parties through the house, pointing out the free-roaming birds, bats, turtles, monkeys and sloths. In conclusion, Twycross zoo shares the high standards in caring for endangered species with such well established breeding centres as The Jersey Wildlife Preservation Society and Howletts and Port Lympne zoos in Kent. It is far removed from the old style 'stamp book collection', to coin the late Gerald Durrell's description of so many classic zoos.

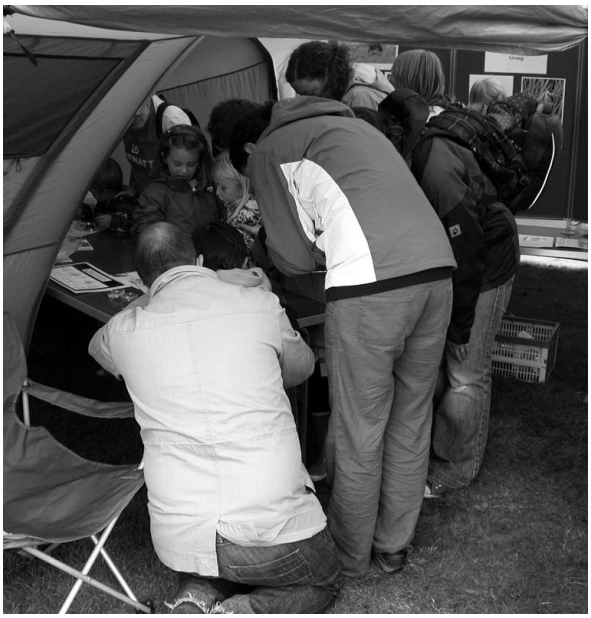
Wild about Wood Festival

Geoff Oxford

This was the third year of the Wild about Wood Festival, and the third the YMG has attended. As usual we were part of the 'Discovery Zone', which is designed particularly for children to explore various wood-based themes. There were about 15 activities so we were up against pond dipping, coracle paddling, mini-beast hunts, mollusc madness, survival techniques, storytelling, mobile making and a rather befuddled horse demonstrating its

log-moving prowess. Our practical sessions asked the question, 'What did the owl have for breakfast?'. The answer, of course, was gained by dissecting owl pellets and identifying the remains within.

As in previous years we were in sumptuous accommodation – a large tent kindly supplied and erected by Steve and Sian Abbey. As well as the activity, we had a display of YMG photographs and, of course, the ever-fascinating mammal skulls. The contents of a milk bottle (three common shrews), carelessly thrown down in the countryside, provided an important lesson to many of our young visitors about taking litter home. Between the scheduled pellet-shredding, everyone was encouraged to identify the jaws of four small mammals mounted on plastic. The prize bait for perseverance, and roughly the right answers, was a much-coveted YMG shopping bag.



Crowded, but fun. An owl-pellet session in full swing.

The practical activity seemed a great success, with many children excitedly extracting lower jaws and pulling out teeth to check species identity. For those not *au fait* with jaw juggling, the presence of roots differentiates bank voles from field voles, and the number of root holes distinguish species of mice. Even some of the parents, at first rather apprehensive, joined in and got hooked, carrying on even if their offspring lost interest.

We found a good trove of mammal species from three batches of pellets. Top prize went to a sample provided by John Ray from a farm at Scoreby which contained seven species: common and pygmy shrews, field and bank voles, wood mouse, brown rat and water vole. Another sample from Goathland contained a water shrew as well as all the other 'usual suspects'. All records were grist to the mill of the Atlas. One lady likened owl pellet analysis to archaeology, where one peels back layer on layer to reveal the skeletons beneath. Spot on.

The weather this year was not as kind at it could have been with one or two showers and strong, blustery winds. The latter precluded the activity from taking place outside the tent – Petri dishes and pellets were flying all over the place – so we were all sardined inside. Not ideal, but we managed. It's difficult to say how many visitors we had, but fewer than last year and more than in the first year.

Finally, very many thanks to those who volunteered to help with our display and the owl pellets *viz*. Sian Abbey, Sal Hobbs, John Ray, Liam Russell and Mary Youngman. A very special thanks to Steve and Sian for their logistical support with shelter, tables and chairs and their expertise in putting up and taking down a bewilderingly-constructed tent.

Roma Oxford kindly commented on a draft of this piece.

Reasons to be optimistic

Peter Franklin

As a teenager, knocking on for 50 years ago, I read many books about British wildlife. My favourite was British Wild Animals by H. Mortimer Batten. Most of his encounters were in the Scottish Highlands, especially the carnivores, but his home village was Burnsall in Wharfedale and some of his anecdotes were based there. The ones that most readily come to mind are him seeing dead polecats hanging on a gate near Grimwith Reservoir, caught by members of the Daggett family, and another was of him sitting on the banks of the Wharfe listening to the calls of otters up the little River Dibb. This at a time when otters were still plentiful in the Wharfe. He described a flat rock in the river below Garelgome Wood, which was used as an otter table and always had remains of fish. With my imagination stirred, I found this rock and visited it on several occasions but never found any fish remains as obviously the otters had gone.

Fast forward nearly half a century and I have a completely different tale to report. I now live closer to the River Ure than the Wharfe so now tend to wander more frequently along the banks of this river. The prints of otters are now commonplace although I have yet to see one in the flesh. Our local river, the Laver, which is a tiny tributary of the Ure, regularly has otter prints under the village bridge and the river Skell has its own

sightings. But what prompted me to write this article is what I saw yesterday. While investigating an island in the river I came across a half eaten salmon surrounded by otter prints. You could even see where it had started eating it and where it had finished by a trail of salmon eggs on the ground. About 50 yards further up the river was another dead salmon in the shallows but this appeared intact. This really was a double whammy for me. Otters in ascendance in the Dales and the Ure a real salmon river again.

But this isn't the only dramatic change in my lifetime. I was raised in the outskirts of Leeds, where we had healthy populations of brown hares, grey squirrels and water voles, but we didn't see much else apart from the occasional stoat or weasel and rarely, a water shrew. Even rabbits had been decimated by myxomatosis, although there were still a few around. Nowadays you can see roe deer almost at will, red squirrels are back in the Dales and dormice have been reintroduced. Pine martens have been frequently sighted and it won't be long before the polecat is back. The only negative seems to be the loss of the water vole.

Other successes include the red kite, which is really common between Leeds and Ripon, and the return of the buzzard and other raptors that along with our larger carnivores were trapped and killed to the edge of extinction.

I'm sure that H. Mortimer Batten would be pleased at the progress made in preserving our wildlife over the last 50 years. At the time of writing his book he believed that the only place where the pine marten was not extinct was the most inaccessible parts of the Highlands of Scotland. We now know that this was not the case.

The original dormouse reintroduction – a final update

Geoff Oxford

This is, I think, the end of an era. In 1999 dormice were re-introduced to Yorkshire at a location near Helmsley. The fortunes of this population have regularly been reported in *Imprint* over the years. In 2005 we were, for the first time, unable to confirm breeding and the numbers of dormice and nests recorded in the boxes fell (Oxford, 2006). By 2009 no animals at

all were found during monthly box checks between May and October. That state of affairs has continued. In May 2009 we put out 46 dormouse tubes in woodland and hedgerows adjoining the release wood to see if animals had simply dispersed away from the grid of monitored nesting boxes. No traces of dormice have been found in them.

During the last People's Trust for Endangered Species (PTES) nationwide dormouse survey – the Golden Great Nut Hunt – in autumn 2009, a gnawed hazel nut was picked up in a wood just to the south of the re-introduction site. In the opinion of the 'Chief Nutter', who scrutinised the nuts submitted to the PTES survey, it was '60%' likely to have been eaten by a dormouse, whatever that might mean. As a result, in April 2011, we put up 20 new dormouse boxes in what looked like ideal habitat around the nut location (see photograph). This October the boxes were checked, but all were completely empty with not even a bird's nest to lighten the gloom. Although we will continue to check boxes and tubes in October for another year or so, reports on this re-introduction will cease unless 'something exciting' happens.

Very many thanks to all who helped with the logistics of the re-introduction and subsequent box checks over the years. We did our best.

Reference

Oxford, G. (2006) The original dormouse re-introduction – update for 2005 and 2006. *Imprint* **33**: 11-15.

West Tanfield dormouse report 2011

Mary Youngman

This year's West Tanfield dormousing activity started in April when a small group turned out on a beautiful warm day to place 20 more dormouse tubes in hedgerows adjacent to Peter Wood.

The June box check turned up just two dormice in the usual 'hot spot' along the disused railway track; a female and a male found only six boxes apart, a potential breeding pair. It was very tempting to give nature a hand and introduce them to each other, but we resisted the urge and duly returned each back to their respective box.

August turned out to be a day of very heavy rain showers. We completed the box check in Heslett Wood, becoming increasingly soggy from the downpours. Finding no dormice we decided to skip lunch and head straight to the disused railway track, but even this prime location disappointed. By this time we were all literally soaked to the skin and eventually we admitted defeat and retired dripping back to our cars, leaving Peter Wood unchecked and lunch uneaten. Bit of a wash-out both figuratively and literally.

In October we were joined by a team from Northumberland National Trust, eager to learn the art of dormouse handling. Happily our efforts were rewarded with a boxful of dormice – 2 adult females and 2 juvenile males. Once again they were located on the disused railway track. Our October session is also the time we check all of the hedgerow tubes. These were now well hidden amongst the hawthorn and blackthorn, not to mention the live electric fence which had to be traversed (Ann intrepidly tackled that one). The Heslett Wood tubes turned up little of interest, but in the new tubes by Peter Wood we discovered one tube packed with blackthorn leaves and another containing green leaves – which is a characteristic of dormouse nests. Very exciting as it indicates that the dormice are using the hedgerow habitat as well as the woodland.

So just six dormice this year, but again we found several probable dormouse nests. Plus there were the usual close encounters with nesting birds, startled wood mice, and speedy shrews to enjoy.

Colin Howes

At considerable expense the National Gallery is hosting a fabulous block-buster art exhibition entitled **LEONARDO DA VINCI: Painter at the Court of Milan**. The doors are open to the art-loving masses (with sufficient cash) from 9 November 2011 to 5 February 2012 with tickets advertised from £16 full price to £8 OAP and £6 student/jobseeker, or selling on the web from CityTicketService.co.uk from £110 to £150 each!!

Of over 90 paintings and drawings[1] borrowed from museums and collections around the globe, one of the most significant is the portrait, painted in oil on board [walnut] and entitled ***'The Lady with an Ermine'***. This work, the gem of the collections of the Princess Czartoryski Museum, Kraków, Poland[1] is deemed to be one of Leonardo's greatest masterpieces. It is the portrait of the 16 year old Cecilia Gallerani, mistress of Ludovico Sforza, Duke of Milan [Lodovico il Moro] and painted around 1489-90. In conveying a sense of the sitter's inner life through its twisting pose and nuanced expression, this remarkable work is regarded by art historians as being the first truly modern portrait.

According to medieval bestiaries it was believed that an ermine would face death rather than soil its white coat. Thus in the realms of courtly and religious symbolism, ermine is associated with purity and honour and in the iconography of European renaissance portraiture, these noble, even saintly qualities are conferred to the subject of the portrait and become central to the interpretation of the work. Ermines were also emblematic of pregnancy and childbirth, leading art historians to conclude that Leonardo painted Cecilia in 1489 when she was carrying Ludovico's child. Thus, generations of art historians have dutifully referred to the white furry beast, being cradled by young Cecilia, but incongruously the size of a small short-haired Dachshund, as an ermine (a stoat in white winter pelage).

Even when academics have been aware that the animal doesn't look like an ermine and is proportionally too large to be an ermine, these discrepancies are explained away under the heading of symbolism – presumably the larger the icon, the greater the saintly qualities of the subject of the portrait. Or as art historian A.N. Wilson notes, Leonardo filled sketchbooks with numerous detailed anatomical studies, thus it is possible he lifted such drawings from his sketchbooks onto portraits resulting in errors of proportion[2]. Art historians have even identified Leonardo's sketches of dog paws as being preparatory for this work, and that a sketch of a bear's head with pointed snout, broad cranium and rounded ears seems to have served as the source of the head of the ermine[1].

In addition to these anomalies, the animal in question has distinctly albino, rather than ermine winter whitening qualities. Its rhinarium (the fleshy tip to its nose) is creamy white rather than black and its eyes are poorly pigmented rather than black. Also its fur is short and sleek as in a summer pelage, which rather reflects the low neckline of Cecilia's gown, hardly winter garb. The fur quality of a winter stoat in ermine would be thicker and more insulatory.

For centuries, possibly deferential to the high prestige of this, one of Leonardo's most significant works, and to the reputations of its succession of grand and regal owners, no one has dared to say ***"nay, yon ermine's nobut a ferret!"***. In rather more courteous terms this was first authoritatively suggested in public by Dr Derek Yalden, President of the Mammal Society[3].

Perhaps the subtext of this work needs to be reviewed in the light of the cradled animal being an albino ferret rather than a stoat in ermine. Perhaps Cecilia's penetrating and 'thin-lipped' stare, reflecting the direction of gaze

of the ferret, could equally be read as endowing Cecilia with the predatory determination and resourcefulness of a ferret... probably a necessary survival strategy in courtly circles of 15th century Milan!

But whatever the secrets behind the symbolism, any self-respecting ferret-keeping inhabitant from our South or West Yorkshire pit villages would instinctively know that ***The Lady with an Ermine*** is in fact ***'our lass wi' t' ferret'***.

References

1) National Gallery (2011) Guide to Leonardo da Vinci: Painter at the Court of Milan, 9 November 2011 – 5 February 2012, London.

2) Wilson, A.N. (2011) Decoding a da Vinci masterpiece: Behind the secret symbols of The Lady with an Ermine. *Daily Mail Online* 9 November 2011.

3) Yalden, D.W. (2011) The real identity of the animal in 'Lady with an Ermine'. *Daily Telegraph* 26 November 2011.