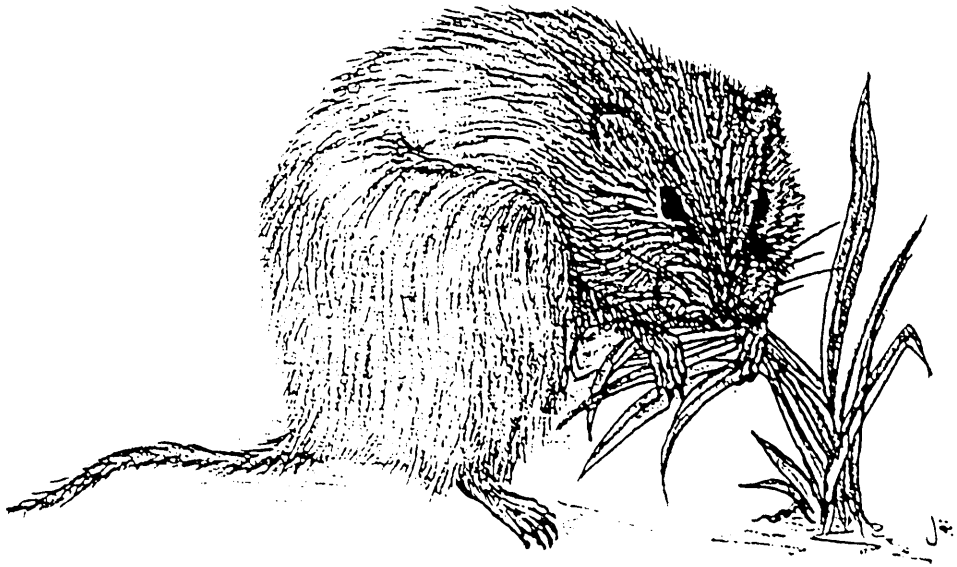
Imprint

The Yorkshire Mammal Group - Newsletter

ISSN 0264-6781



No.23 1996

Editor

Beryl Cronin
16 Hethermoor View
Bingley
West Yorkshire
BD16 4HG.

Copy date for next issue: 31st August 1997

Cover illustration: *'Water vole'* by Julie Hanson

'Pawtraits' of people's pets can be drawn from photographs and make lovely presents. Details from Ann Hanson.

Contents

EDITOR'S REPORT

It was a mild, blustery autumn day when we discovered the harvest mouse nest in a far corner of Wheldrake Ings. In order to follow up 20 year old records in the area for the Mammal Society survey, seven members had met earlier at the reserve bridge one fine Sunday morning. For me, the day emphasised what the Yorkshire Mammal Group is all about - the camaraderie and enjoyment of practical fieldwork in pursuit of scientifically important data.

This pleasure is revealed again in our report on Mammalaction's Summer Expedition to the North York Moors. It tells of young people getting a lot of pleasure from being out in the countryside searching for mammal signs; sitting patiently in woodlands to see badgers emerge in the evening; getting up at dawn in the hope of catching sight of roe deer; waiting at Kirkham Abbey at dusk to see the bats fly out.

'To travel hopefully is a better thing than to arrive' said R.L.Stevenson and certainly this is often the case for mammalogists, for many hours may be spent searching, watching and waiting before a footprint is found or a whisker seen. Indeed, many such sorties may be completely fruitless, but the pleasure gained in the pursuit and the feeling of involvement is a joy to the true mammalogist.

In the coming year, YMG is looking forward to taking an active part in the *Look Out For Mammals* project. In October, Gillie Sargent, Development Officer for the Mammal Society, will talk to the group explaining the aims and details of this new recording scheme. Already individual species record cards are available for members to record signs or sightings in the Yorkshire area. Next summer also promises to be full of activity, with a proposed water vole survey taking place, searching Yorkshire's waterways for signs of this seldom seen mammal. The summer months are of course, the busiest time for the Bat Group and John Drewett will be keeping us informed of their activities via his newsletter.

So with a full programme of indoor speakers and lots of interesting fieldwork planned, we look forward to sharing these activities with old friends and new ones in 1997.

BERYL CRONIN

MAMMAL NEWS

Threat to mountain gorillas

A quarter of a million refugees camped on the border of the Rwanda Mountain Gorilla National Park are believed to pose a threat to its continued stability. The 48sq km national park is the only area in the country which has not been cultivated and fears are that it may suffer the same fate as the Akagera National Park where refugees have returned and made permanent human settlements. Trees have been cut down to provide building materials and fuel and to clear the ground for food prduction, while government forces have slaughtered wild animals in order to protect the inhabitants' cattle. Overgrazing and over-harvesting have led to the park becoming a wasteland.

Poisoned deer

Examination of carcasses by government veterinary laboratories has shown a cluster of liver cancers among roe deer in Kielder Forest. It is suggested that poisons in their diet in the form of unknown chemicals from imported sitka spruces may be responsible.

Manatee deaths

A Red Tide of algal blooms is thought to be responsible for the deaths of 158 West Indian manatees off the coast of Florida earlier this year. Sea grasses which form a large part of the animals' diet concentrate toxins from the algae and seem to have had an unusually severe effect on this endangered species. Cold northern weather forced the manatees south to the Florida waters just before an unusually large algal bloom hit the area.

These animals also face threats from lock gates which control water levels in Florida's labyrinth of canals and waterways. Detectors are to be introduced on the gates so that animals do not become trapped.

Delinquent elephants

The annual elephant cull in the Kruger National Park has been suspended following reports of delinquent behaviour in young male elephants. Orphaned males were brought to Pilanesberg Game Reserve in South Africa following the slaughter of adult elephants in the 1980s. But a number of attacks on tourists visiting the park and on white rhinos who share the park suggests that the stress suffered by the animals combined with a lack of parental discipline is responsible for this aggressive behaviour. In the normal herd situation, older bull elephants will discipline aggressive young bulls while nurturing by the matriarchal cows is a central feature of family life. In future, families will be kept together and moved to other game reserves if necessary.

New Scientist Nos. 2028, 2033, 2038, 2039

Mother love

Following the 'juvenile delinquent' report, another example of the similarity between elephant and human behaviour was seen in the summer when a frenzied mother destroyed a swimming pool in order to save her young calf from drowning. The youngster fell into the pool at a game reserve in Northern Namibia and its mother frantically tore up trees, shrubs and garden furniture, throwing them into the water in a rescue attempt. Finally, she ripped up the tiles surrounding the pool and trampled down the sides creating a ramp for the calf to escape.

Daily Mail, July 1996

Tennis balls

Slazenger has donated 11,000 tennis balls to the Mammal Society in an attempt to monitor the harvest mouse population in Britain. The modified balls, each drilled with 2 holes and mounted on a bamboo stick will be filled with bedding and seeds and left at selected sites for the summer. In autumn, these artificial homes will be checked for occupancy. Such measures are required as harvest mice cannot be recorded by conventional trapping methods such as Longworth traps.

Beavers

Researchers at the Institute of Terrestrial Ecology at Banchory are looking at the possibility of re-introducing the Eurasian Beaver *(Castor fiber)* to Scotland. Suitable habitats would include woodland with plenty of willow, birch and alder and waterways with abundant aquatic vegetation. It will be necessary to assess the impact of the beavers' lifestyle on their new environment. Valuable trees may be destroyed during the building of dams and flooding may be caused. At 90 sites in Europe however, beavers have been re-introduced successfully and have brought benefits to the wildlife environment. Their dams slow down the water flow and enhance water quality, thereby providing benefits for other wetland species.

Babysitting whales

Research on groups of sperm whales near the Galapagos Islands has revealed a 'babysitting' arrangement. Adult animals can dive to depths of 400m for up to 40 minutes in order to obtain food, and obviously mothers cannot take their calves with them on these sorties. Observations have shown that youngsters left on the surface will be guarded by other adult members of the group and are rarely alone for more than 5 minutes. There is a change in communal group behaviour when calves are present, such that adults make regularly spaced dives ensuring that there are always some on guard duty. This behaviour must lead to improved survival prospects for the sperm whale.

Water voles

As part of a species action plan, the translocation of water voles from healthy populations and the release of animals bred in captivity are proposed in areas where populations have declined. Before this can happen, it is obviously important to identify the reasons for the decline of the original population and to correct the problem. It is also important to maintain genetic integrity throughout the UK and to this end, researchers at Aberdeen University are carrying out DNA tests on

as many samples as possible. They are able to extract DNA from a very small amount of tissue, so anyone finding such water vole tissue is asked to contact Xavier Lambin (Tel. 01358 789 631).

Mammal News No. 106, Summer 1996

EDITOR

Hero among shrews

Early this century in central Africa, a naturalist observed an astonishing sight. During a traditional ritual, a large man (about 73kg in weight) stood on a shrew with one foot. When the foot was removed the shrew ran off, apparently uninjured. Until recently very little was known about the species concerned, *Scutisorex somereni*, the so-called 'hero shrew' (for obvious reasons!). As well as withstanding huge pressures, the 23cm-long insectivore was also said to be able to bend itself sideways into a U-shape with its snout nearly touching its hind feet. At a meeting of The American Society of Zoologists last December, a graduate student, Dennis Cullinane reported a study which could go some way towards explaining both of these extraordinary mechanical feats. Stimulated by the story outlined above, he raised funds to travel to Uganda and returned to the United States with one shrew. He filmed it moving in plastic tubes little wider than the animal itself and confirmed its ability to bend 180° to its side. Usually the lower spine of mammals is stiff, to accomodate forces generated by the hind legs. X-ray photographs of the hero shrew showed it to have 11 vertebrae in this region, rather than the normal five, and these extra bones may provide enhanced flexibility. Super strength might be produced by the large bony, interlocking buttresses that stick out to the sides of each vertebrae making them three times wider that those of a normal shrew, but this has still to be proved. The ecological and evolutionary advantages of these adaptations are far from obvious. As well as addressing the unique properties of this strange shrew, these studies might throw light on the evolution of more ordinary spines, like yours and mine.

Science (1996) 271: 149

GEOFF OXFORD

Rabbit virus

According to expert Roger Trout, the virulent rabbit viral haemorrhagic disease (RVHD) is set to wipe out 50% of the country's rabbits. Although this could be good news for farmers, the loss of so many rabbits could have serious implications for other aspects of wildlife. Rabbit grazing helps to maintain the botanical status of traditional heaths, dunes and grasslands, while it is an important prey species for polecats, buzzards, red kites etc. The Wildlife Trusts are critical of government proposals to end the 'notifiable disease' status of RVHD, which would effectively allow the virus to spread unmonitored throughout the country. They suggest that a major research programme be implemented immediately by the Department of the Environment or MAFF.

Polecat revival

Trapped to the brink of extinction in the last century, the polecat is making a comeback. From remnant populations in Wales, this mammal has spread slowly eastwards since the 1960s and is now being recorded in Northamptonshire and Oxfordshire. Johnny Birks has been monitoring the polecat population since 1993 as part of the Vincent Wildlife Trust Study. Examination of road casualties formed a large part of the assessment and was quite difficult because of the similarities between polecats and feral or cross-bred ferrets. The polecat is an opportunistic feeder and takes a wide range of prey items although rabbits and rats usually form a large part of the diet. As so many animals were found as road casualties, it is thought that vehicular traffic may pose the biggest threat to the population.

Red rope

The Isle of Wight is so determined to preserve its 1500 red squirrel population that a special rope bridge has been erected across the busy Ryde to Bembridge road to help the animals cross in safety. Normally there are about 20 road casualty deaths each year.

Natural World, Autumn 1996

Bechstein's breeding roost

During the summer, a Bechstein's bat was found by a Dutch holiday-maker in the New Forest in Hampshire. The 3-week old baby was injured and later died, but its discovery helped Rosanne Sparshot of English Nature to track down a rare nursery roost. After searching many trees and several nights' work with an image enhancing bat detector, the roost was discovered. This is only the second Bechstein's breeding roost to be discovered in Britain - the first being found in the last century, also in the New Forest. This rare bat is a difficult one to study. An elusive species, it flies high in the sky and emits little sound, making it hard to follow with a bat detector; radio tracking would probably be more successful. In summer, colonies move from one roost site to another after only a few nights. This latest discovery has however, given batworkers important information about the kind of habitat the bat prefers.

Commuting otter

In the first positive record of the species for many years, otter spraint has been found on the Isle of Wight. It is believed that rather than being resident on the island, an animal may have swum across the Solent from Hampshire. In recent years, otter numbers have increased in the county, animals are believed to have spread there from Dorset.

English Nature, Southampton

EDITOR

FIELDWORK REPORTS

NATIONAL BADGER SURVEY - UPDATE

Back in March, several members of the YMG once again headed out into the countryside around York to complete surveys of two more 1km squares for the National Badger Survey. This survey has been run for the past couple of winters by Professor Stephen Harris of Bristol University, with the support of the People's Trust for Endangered Species.

The survey methods, self classification and badger signs to be searched for are all detailed in *Imprint No. 22*. Although we found no setts in our squares on this occasion, we did find badger footprints in both squares surveyed, so confirming our suspicion that badgers are actually doing quite well in the York area.

Habitat data was once again collected and will be used to give an idea of habitat use and preferences of badgers. The overall survey should give an indication of badger numbers and activity levels in the different areas surveyed.

Many thanks to all YMG members who came along and helped with these surveys, and to the landowners and farmers who kindly allowed us access to their land.

BADGER WATCHING - OR NOT - AS THE CASE MAY BE!

On a very chilly April night, a handful of YMG members went along to a large badger sett near Tadcaster, where Mr and Mrs Taylor from the York Badger Group very kindly showed us around the sett and found us a suitable spot to wait for the badgers to emerge.

The sett itself is very impressive, with the main sett consisting of well over 20 holes and with smaller annexe setts nearby. In one place an old tree has fallen down and the badgers have been systematically tunnelling into the recumbent trunk, making a tunnel through which to

chase each other and look for grubs and insects. A very impressive piece of work!

About an hour before dusk, we found ourselves suitable trees to lean against and settled down to wait for the badgers to emerge. Dusk came and went, and not even a nose appeared from the holes we were watching. A light breeze was blowing and may well have given our scent away to the badgers, or perhaps they had decided it was just too cold to come out early! As darkness fell and frostbite set in, we decided to call it a night and stumbled back to our cars through the dusky woodland.

It was disappointing not to have seen the badgers themselves, but seeing the sett was an experience and spending a couple of hours sitting out in the woods is probably far more interesting than watching the latest goings on in Eastenders or Coronation Street!

Thanks and apologies to all who did turn out on such a cold evening, many thanks to Mr and Mrs Taylor for showing us around, and slapped paws all round to the badgers!

Better luck next time.....

ANN HANSON

LEEDS UNIVERSITY FARM AGROFORESTRY PROJECT

For background information and results of previous traps see *Imprint Nos. 17 to 22* .

Background

The agroforestry treatment areas at Leeds University Experimental Farm consist of production hedges containing timber trees with an intermediate storey of hazel bushes. These are interspersed with arable strips 12m wide, which are being cropped with a rotation of combinable crops. The site was planted in spring 1988, and during 1990 grass was sown in the 2m production hedge strips. Abutting onto the agroforestry

treatment areas are forestry control plots, and surrounding the whole area is a windbreak hedge.

The above planting is replicated four times. Near to each, but far enough away to minimise microclimatic interactions, are areas of arable control treatment.

The site is being monitored to compare arable yields, tree growth, microclimatic and soil moisture measurements in the experimental and control treatments. Extensive micro and macrofaunal monitoring is also underway, and the YMG will be participating in small mammal studies over a long period of time.

Procedure

The object of the trapping sessions is to compare small mammal use of the experimental and control treatments. We hope to investigate how this changes in the future as the site becomes more established.

Traps were laid in a slightly different pattern to previous trapping sessions at this site, but still with sets of traps in the production hedges, arable strips, forestry control areas and arable control areas of two agroforestry blocks. Traps were also laid in four established field hedges adjacent to the agroforestry blocks. Traps were set on Friday and Saturday evenings, and checked on Saturday and Sunday mornings.

Twelfth Trap
3rd - 5th November 1995

Participants: Chris Wright, Ann Hanson, David Freer, Mary Youngman, Gordon Woodroffe, David Laughton +1, John Drewett +1
Results: 4.11.95
Weather: Cold, frosty night. Clear, sunny, cold morning.

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & Condition*
Established hedge 1	Clethrionomys glareolus	F	A	13.0	

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & Condition*
Established hedge 1	Sorex araneus	-	A	-	Dead in trap
	Apodemus sylvaticus	F	J	16.0	
	Apodemus sylvaticus	F	J	14.0	
	Clethrionomys glareolus	F	A	14.0	
Established hedge 2	Clethrionomys glareolus	M	A	16.0	
	Clethrionomys glareolus	F	A	13.0	
BLOCK I					
Forestry control	Clethrionomys glareolus	M	A	19.0	
Forestry control	Apodemus sylvaticus	M	J	16.0	
Arable control	Apodemus sylvaticus	-	A	-	Dead in trap
BLOCK II					
Forestry control	Apodemus sylvaticus	F	J	15.0	
Forestry control	Apodemus sylvaticus	F	J	13.0	

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & Condition*
Agroforestry hedge 1	Apodemus sylvaticus	F	A	19.0	
Agroforestry hedge 1	Apodemus sylvaticus	M	J	14.0	
Established hedge 4	Apodemus sylvaticus	M	A	17.0	
	Apodemus sylvaticus	M	A	17.0	

Results: 5.11.95
Weather: Cold, frosty night. Clear, sunny, cold morning.

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & condition*
Established hedge 1	Apodemus sylvaticus	M	J	16.0	
	Apodemus sylvaticus	M	A	17.0	
	Clethrionomys glareolus	M	A	15.0	
	Clethrionomys glareolus	F	J	14.0	
Established hedge 2	Clethrionomys glareolus	F	A	14.0	
	Clethrionomys glareolus	M	A	13.0	

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & condition*
BLOCK I					
Forestry control	Clethrionomys glareolus	M	J	12.0	
Forestry control	Apodemus sylvaticus	-	A	-	Dead in trap
Forestry control	Apodemus sylvaticus	F	J	15.0	
Agroforestry hedge 1	Sorex araneus	-	A	-	Dead in trap
BLOCK II					
Forestry control	Sorex araneus	-	A	7.0	
Agroforestry hedge 3	Apodemus sylvaticus	M	J	14.0	
Agroforestry hedge 1	Apodemus sylvaticus	M	J	13.0	
Agroforestry hedge 1	Apodemus sylvaticus	F	A	18.0	
Established hedge 4	Mus musculus	M	J	13.0	Caught near shed
	Apodemus sylvaticus	F	A	17.0	
	Apodemus sylvaticus	M	A	16.0	

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & condition*
Established hedge 3	Clethrionomys glareolus	M	J	12.0	
	Clethrionomys glareolus	M	A	13.0	

Comments

During this trap, the agroforestry strips and surrounding arable fields had been recently sown with winter cereal crops, so the ground was quite bare. This could account for most of the animals being trapped in the established hedges, forestry control areas and agroforestry hedges. No animals were captured out in the agroforestry strips, and only one woodmouse in the arable control areas.

Both woodmouse and bank vole populations seemed quite healthy, with large numbers of juveniles present. Common shrews however, were quite scarce compared to previous years' results. A notable capture was a house mouse in one of the established hedges, although this was adjacent to an old shed which it could have been using as a refuge. The results of this trapping session do show the importance of the established field hedges in the area, as reservoirs for small mammals when food and cover become scarce in the agroforestry plots.

Thirteenth Trap
19th - 21st April 1996

Participants: Chris Wright, Ann Hanson, Kamel, David Freer and Mary Youngman
Results: 20.4.96
Weather: Warm night. Warm, dry, sunny morning

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & condition*
BLOCK I					
Agroforestry hedge 1	Apodemus sylvaticus	M	A	24.0	
Agroforestry strip 3	Apodemus sylvaticus	F	A	19.0	Ticks present
Agroforestry strip 4	Apodemus sylvaticus	F	ImA	22.0	Immature adult
BLOCK II					
Forestry control	Apodemus sylvaticus	F	ImA	28.0	Immature adult
Forestry control	Apodemus sylvaticus	F	ImA	23.5	Immature adult
Established hedge 2	Clethrionomys glareolus	M	A	18.0	
	Apodemus sylvaticus	M	A	22.0	
	Apodemus sylvaticus	M	A	26.0	
	Apodemus sylvaticus	M	A	25.5	
	Apodemus sylvaticus	F	A	23.0	

Results: 21.4.96
Weather: Warm, damp night. Warm, dry, sunny morning.

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & condition*
BLOCK I					
Forestry control	Apodemus sylvaticus	F	J	18.5	
Agroforestry hedge 1	Apodemus sylvaticus	M	A	23.0	
Agroforestry strip 3	Apodemus sylvaticus	F	ImA	23.0	Immature adult Recapture
BLOCK II					
Agroforestry hedge 3	-	-	-	-	Trap sprung
Agroforestry hedge 3	Apodemus sylvaticus	M	A	24.0	End of tail missing
Agroforestry hedge 3	Apodemus sylvaticus	F	ImA	29.0	Immature adult Recapture
Agroforestry hedge 2	Apodemus sylvaticus	F	A	23.5	
Established hedge 2	-	-	-	-	Trap sprung
	Apodemus sylvaticus	F	A	22.0	Recapture

Site	*Species*	*Sex (M/F)*	*Age (J/A)*	*Weight (g)*	*Notes & condition*
Established hedge 2	Apodemus sylvaticus	M	A	25.0	Recapture
Established hedge 1	Sorex minutus	-	A	4.5	

Comments

The overall catch for this trap was about average for the time of year, and consisted mainly of adults, which would be expected in early spring. The main species captured was the woodmouse, and animals seemed to be using both the agroforestry plots and established hedgerows in the area. Once again shrews were conspicuous by their absence, in contrast to previous years when very large populations were encountered in the agroforestry areas. As invertebrate food supplies seemed to be adequate, the decreasing shrew population remains unexplained. A notable capture for this trapping session was a pygmy shrew in one of the old established hedgerows adjacent to the agroforestry plots.

ANN HANSON
FIELD STUDIES ADVISOR

NORTH YORKSHIRE BAT GROUP

The past year has once again proved busy with a number of successes and one or two failures.

The less successful aspect of our work has been our indoor talks programme. Excellent talks on the *Biology of the Pipistrelle Nursery Colony* and *Batting in Wakefield* were very enlightening but enjoyed by an embarrassingly small audience. A similar fate befell my own presentation on *Hibernation*, although we were fortunate to get a reasonable attendance for Stephanie Wray's talk about *Action Comores'* work to conserve the Livingstone's fruit bat.

By contrast, our summer walks programme was far more successful. The outing to Clifton Bridge in June allowed a large group to watch the emergence of pipistrelles from the bridge as well as a number of noctules hunting overhead. Two weeks later another good sized group watched the emergence of Daubenton's bats at Kexby Bridge. Lesley Helliwell also had good numbers to her walks at the atmospheric Kirkham Priory in July. Our joint event with the RSPB at Fairburn Ings in late July filled the visitor centre and corridor to overflowing for the pre-walk talk. Later, on the reserve, we were able to watch pipistrelles and noctules in good numbers, with the occasional passing whiskered/ Brandt's and Daubenton's for those who stayed later.

During the year we have joined forces with the East Yorkshire Bat Group to explore a number of caves. On the first of these visits, a group from East Yorkshire visited the windypits at Ashberry where they found a single hibernating whiskered bat. A few weeks later, an exploration of some caves and tunnels at Fountains Abbey revealed nothing, but we went on to the Knaresborough area later in the day where a single whiskered bat was found in one of the caves in Abbey Road.

These two visits highlighted how difficult the caves can be to find even if you have a map and map reference. We therefore held a trip to search for some of the windypits in Duncombe Park in August and again proved this to be true. A simple map reading error near the beginning led us on a very long and unintentional walk, although this did provide the opportunity to check out a bridge. A couple of expert cavers descended one windypit during the day, but saw no bats.

Over the past few years a number of bat workers from the North and West Yorkshire groups and the Wakefield Bat Group have answered calls from Lotherton Hall estate near Aberford. We know of at least two pipistrelle roosts on the estate as well as the presence of whiskered/ Brandt's. This year, we decided to organise a joint survey evening to try to get to grips with the status of bats at Lotherton. There was a good turnout of bat workers, although not of bats. The evening was unfortunately rather cool and breezy so even though a large roost had been counted out a few days previously, only a handful of bats were seen on the night.

The summer season in general started off reasonably quietly with few bat calls, but this picked up in July and August when English Nature calls led to the discovery of several new pipistrelle roosts. At one period this led to a long waiting list of calls, so that by the time we were able to get to the property, the bats had usually left the day before.

The late start to the season did allow some considerable progress to be made in computerising the vast pile of Edna Shann's bat records dating from the 1980s. This has already had two benefits. Firstly, it has considerably reduced the stack of paper. More importantly, it has enabled us to identify those properties which have previously been visited, to be identified before making English Nature visits. There is still considerable work to be done on the records, but it is hoped to complete this during the coming winter season.

We have also followed up a number of the 'York pipistrelle survey' roosts to ascertain if they are still there. Once this information has been analysed, it will provide some indication as to how pipistrelle numbers are holding up. Next year it is hoped to do a more comprehensive survey of old roosts to establish a more reliable indication of changes in bat numbers.

Finally, early in the year we re-established a bat group sub-committee. This has proved invaluable in co-ordinating our activities and improving the flow of information between batworkers in the county. I am very grateful for the support of my fellow committee members over the past year.

JOHN DREWETT

BADGERS IN SOMERSET . . . . . .

It is hard to say what was the highlight of the Badger Weekend spent with Michael Woods on his local patch in Somerset.

Was it the Saturday afternoon visit to the Secret World Wildlife Centre where we walked around the paddock with three badger cubs scampering about our feet, or the badger watch on Saturday evening when 15 hopeful participants sat in silent anticipation to see badgers emerge from a woodland sett? Or was it even the cream topped ice cream enjoyed in the warm sunshine in Cheddar village on Sunday afternoon?

Whichever it was, 14 people came away from the weekend knowing a lot more about badgers, their lifestyle and the tell-tale signs they leave about the countryside.

Following a very informative slide lecture on Friday evening, Saturday was spent visiting local setts and familiarising ourselves with 'badger signs'. We looked for tracks, snuffle holes and dung pits, for pathways and bedding trails. We learnt to recognise the tell-tale signs of hair on barbed wire fencing, and saw an excellent example of a day nest in the shelter of a large rocky outcrop. We visited setts in a wide variety of situations. One appeared to have been dug in pure sand, others in much heavier soil. We saw setts in woodlands and fields, in hedgerows and in caves - when the course hand-out said 'some agility required' - it wasn't joking! Some were on high ground and another on the much lower and potentially wetter, Somerset Levels. One had been dug beneath the foundations of a long vanished building.

After a very pleasant lunch at a local hostelry, we arrived at the Secret World Badger and Wildlife Rescue Centre where we were privileged to have a personal guided tour from Pauline Kidner who, together with her husband Derek has been caring for injured and orphaned badgers at New Road Farm since 1984. New arrivals are kept under close watch in comfortable pens and then transferred to an observation sett where members of the public can enjoy watching the badgers without disturbing them. During the visit we were introduced to Glade, a young male badger for whom attempts at a return to the wild had not been successful. He suffered attacks from other animals and seemingly

made his way thankfully back to New Road Farm and the pampered lifestyle of a television star. Not yet fully grown, he weighed about 7kg and was quite an armful when Pauline picked him up! However, most of the 'return' attempts are successful with the animals graduating to an artificial sett with an outside run and all human contact ceasing for 2 months prior to release.

Just before leaving, we were introduced to the 3 cubs whose antics had already featured in a local TV programme. They were full of energy and took great delight in chasing their human companions such that photographing them was almost impossible. Finally, we visited the farmhouse 'kitchen' which was full of cages containing all kinds of casualties. Apart from a young badger cub which had collapsed on someone's drive the day before, a hedgehog, rabbit, crow and a young deer looked comfortably at home. Even while we were there, a phone call came through to warn of another badger cub casualty which was on its way!

After an early dinner, we made our way to a local woodland sett where Michael tested the wind direction and then sat us down under various trees. Badgers have poor eyesight, but acute senses of smell and hearing, so it was important to sit downwind of the sett and to make no noise. We had been instructed to bring dark coloured, non-rustly clothing, but avoiding the crisp dried leaves on the woodland floor was difficult. Although it was a fairly bright June evening, the badgers emerged quite early at about 7.30pm, so we were rewarded with some good views of 3 adults and 2 cubs.

On Sunday morning, 2 more setts were visited, this time with a view to making an official record. We were given forms from the Somerset Trust Badger Group and asked to survey the sett before us. At this point it became clear that counting holes at a large sett is not always as easy as it sounds and to the untrained eye there may be a fine distinction between 'partially used' and 'disused' holes.

The course ended, all too soon it seemed after lunch, but not before we had all expressed our thanks to Michael for sharing some of the treasures of his local patch with us. As with many such courses, it was the tutor's enthusiasm for his subject and thorough knowledge of the species acquired through many years of observation that made the

weekend so special. 'Seeing live badgers this weekend is guaranteed' the course leaflet had declared, and we had certainly not been disappointed.

The course was organised by the University of Nottingham Department of Continuing Education as part of their 'Learn at Leisure' programme and is one of many such courses they run on a wide range of topics.

EDITOR

..... AND OTTERS IN SHROPSHIRE

About eight weeks after the badger weekend, I found myself again sitting with baited breath, attired in the same dark non-rustly clothing this time beside a river in Shropshire. With 7 companions, I was again hoping for a mammal sighting, this time of an otter.

I had arrived at the Field Studies Council Centre at Preston Montford for 'The Otter' weekend in a rather sceptical frame of mind. To see badgers in the wild - yes - but otters? Well maybe a print or spraint.....

Imagine then my amazement when shortly after 9pm and still in reasonable daylight, an otter was seen making its way upstream near the far bank. I could not believe my eyes - but yes - there it was, nosing about, turning over stones, stopping for a scratch. It was about 20 yards away when we first saw it, gradually working its way towards us, and past, finally disappearing from view about 50 yards upstream: a very good sighting lasting about 10 minutes.

As we made our way back to the minibus, I was full of admiration for our tutor, Andrew Crawford. Obviously I had underestimated him, he knew his patch and was familiar with otter movements in the area. It was only later that he admitted to us that it was the first time an otter had been seen on the course!

The following morning saw us kitted out with waders and walking, albeit rather gingerly, downstream in the river where we had had our sighting the previous night. Andrew suggested crayfish as the possible prey items beneath the stones and several spraints confirmed this

theory. During the day, we looked into hovers and holts, scrambled around tree roots, clung onto branches and waded through reeds - did someone mention *'The African Queen'*? Another delight of this warm, summer afternoon was the profusion of banded agrion damselflies which distracted us from time to time.

Sadly, another 'watch' on the Saturday evening proved negative for otters, but a heron flying in for some serious fishing and landing rather too close for comfort got a bit of a shock when 8 pairs of eyes turned on him! He soon realised his mistake and took off again.

Sunday morning was spent analysing the spraints which had been collected and learning a little more about the habits of otters and their lifestyle.

Another great weekend in good like-minded company with excellent mammal sightings as an added bonus.

EDITOR

THE OTTER SURVEY OF ENGLAND 1991 - 1994

The Vincent Wildlife Trust published the results of the third Otter Survey of England in June 1996. Out of 3188 full survey sites (each was 600m long) Rob Strachan found otter signs at 22% of them. He also made 112 spot checks by searching and looking under bridges and 45 (40%) of these were positive. It is interesting to compare the results with those of the previous surveys: 6% positive in 1977-79 and 10% in 1984-86. While the recovery of the English otter population suggested by the 1984-86 figures has continued, 78% of the riparian sites in England are still without otters. In fact, the populations of the midlands, central, southern and south eastern England are still very small and have a fragmented population. The main stronghold is still the south western region, principally Devon and Cornwall, which has a 67% occupancy. It also appears that otters have spread eastward into the Wessex region and westward to the toe of Cornwall and now occupy a number of coastal sites.

It is disappointing that Yorkshire still has such a poor overall showing. Apart from the Yorkshire Derwent, which was the area for an otter reinforcement programme between 1990 - 1993, there are few signs of a comeback. For example, the Swale and Ure which were prized otter strongholds in the 1950s have shown no significant increases in the number of positive sites. It might have been expected that the Ure, in particular, would have made a better recovery than the others because it was the only survey river in Yorkshire showing otter activity in the previous national surveys. This suggests that the population has become so fragmented on the Yorkshire rivers that breeding opportunities are few and that recolonisation is going to be a very slow process. Although I must add that this is pure speculation. Up to date intensive surveys along all these Yorkshire rivers are urgently required. The only reason why 275kms of the Derwent catchment are now being colonised is because sufficient animals were systematically released through the region. Certainly, the first five years have seen otters successfully established but the next five are critical to see if the population is self-sustaining.

One of the problems in otter surveying is in the interpretation of field signs. Positive survey sites are based on finding footprints and/or spraints (faeces). Otters deposit spraints and sometimes jelly-like secretions at prominent places throughout their range. These can be found along rivers and streams on large rocks, fallen tree trunks, logs, grass tufts on top of river banks and tree roots. Hollows under tree roots and ledges under bridges are especially favoured. Unfortunately sprainting, as a means of communication, is poorly understood. Some otters spraint in the water; there is also some evidence that otters at low density mark very infrequently. We have also found that throughout most of the Derwent catchment, sprainting is highly seasonal; more spraints being found in late winter/early spring than in the summer (Woodroffe & Winter, unpubl.). While spraints are one of the few reliable methods showing that otters have used or are using an area, they are no indication of the number of animals present nor are they a reliable indicator of preferred habitat. Furthermore, if surveying is carried out at the wrong time of the year spraints may be much harder to find. As so much of our otter knowledge is dependent on the presence or absence of spraints we need a much clearer understanding of what spraints are really signalling. It is good news therefore, that one of the many laudable aims in *A Framework for Otter Conservation in the*

UK: 1995-2000 (JNCC,1996) is to support research into the development of agreed methods to allow quantification of population levels, or the production of population indices, from current surveys. In other words to improve knowledge of ecology and conservation through appropriate research. This will require substantial funding.

GORDON L. WOODROFFE

A Framework for Otter Conservation in the UK: 1995 - 2000 is published by the Joint Nature Conservation Committee, Peterborough.

THE DORMOUSE IN YORKSHIRE

There have been many references in past editions of *Imprint* to the dormouse in Yorkshire and its present status, or non-status. There have been also, several attempts by individuals or groups, not least the Yorkshire Mammal Group, to find the dormouse in the county. Members took part in the Great Nut Hunt organised by the Mammal Society and English Nature, to find evidence of the dormouse in England. Various nuts were sent for analysis by the experts, but the majority of these proved to have been nibbled by woodmice, bank voles or grey squirrels. Certainly here in Yorkshire no evidence of dormice was found from nibbled nuts, but in other parts of the country, especially in the south and south-west, dormice were located in areas where they were not previously known. It would seem that this delightful little rodent is confined to southern England with small isolated pockets in the north.

These isolated pockets are in Cumbria and Northumberland, but the populations are small and extremely vulnerable to climatic changes, fragmentation of habitat and disappearing food supplies. The Cumbrian population for instance, is found in one or two isolated south facing valleys in the southern Lake District. At the turn of this century dormice were commonly recorded on the southern corallian limestone slopes of the North York Moors. Frequent records came from the south facing woodlands around the Rievaulx and Helmsley districts. So the question being asked is why did they disappear from these areas when they are still to be found to the north and north west? It has been noted

that other of our British native fauna and flora have also disappeared from these areas. For example, the lesser horseshoe bat was once recorded from Helmsley. These declines have been subjected to a long-term study by Dr Pat Morris of the Royal Holloway College, London, one of Britain's experts on the dormouse. He is about to have an important paper on this subject published in the next edition of *Mammal Review.*

Pat Morris was commissioned this summer by English Nature to visit those counties in England in which the dormouse was previously present, but has now disappeared. From old records there would appear to be six such counties, and they include Yorkshire. One of the objectives of his visits was to find suitable woodlands into which captive bred dormice could be released. An expensive captive breeding programme and subsequent release of dormice has been mounted during the past 3 years, in such counties as Kent and Cambridgeshire. These releases are not without their problems, but have also had their successes. Thus in his searches, prime habitat for dormice had to be looked for.

Hence in the summer, Pat Morris accompanied by his wife Mary visited Yorkshire. In July they were joined by Gordon Woodroffe and explored woods around Helmsley, and in August I joined them and we went to Glaisdale in the Esk Valley. We visited woods where local naturalists (and previous records) told us there had been dormice. What we found was not very encouraging, for although in the most part the woods were still there, they had not been properly managed and certainly not managed with the dormouse in mind.

According to Pat Morris, a suitable wood would need an intermediate height canopy with some mature trees and ample ground foliage of suitable food plants such as bramble. Hazel is an important ingredient of the dormouse diet, but not essential, for dormice eat a whole range of seeds and fruits along with certain insect species. To achieve such a habitat in a woodland requires a certain amount of light to penetrate the upper canopy down to ground level. This means the upper canopy must be open in places. The woods we visited in Glaisdale had not been managed for a long time; most of the mature trees were tall and lanky, with a dense upper canopy and little ground flora. In a properly managed woodland it is impossible to see from one end to the other and

it would have a varied mixture of trees of different ages. There would also be the need for suitable nesting material to be available to the dormouse, such as the creeper Old Man's Beard.

Of the woods we visited only one or two were found to be suitable and sufficiently remote to be well away from human interference. These were in the Helmsley area. Pat Morris will eventually be reporting his findings and will decide if a release programme is feasible in North Yorkshire. We await his report with interest and hope the Yorkshire Mammal Group can be involved in some way. The boxes in the grounds of Rievaulx Abbey will probably have to be relocated.

MICHAEL THOMPSON

MAMMALACTION SUMMER EXPEDITION
North York Moors 26th - 31st July 1996

The Junior Section of the Mammal Society, Mammalaction, held their summer expedition at Sutherland Lodge this year. The Lodge, situated deep in Cropton Forest north-west of Pickering, was an ideal base for the thirteen members to visit mammal locations in the area. Their three leaders, James Packer, Julia Hanmer and Susan Sharifi were assisted by various members of the Yorkshire Mammal Group during their stay.

On the first evening of their visit, Peter Bryan of the North York Moors National Park told them about the park and the various animals, particularly mammals, which could be found within its many habitats. Next day, the group joined Charles Critchley in the forest and were shown badger setts and signs of roe deer, and checked some of the numerous forestry bat boxes, finding a male 45kHz pipistrelle in one of them. That evening they went in their minibus to Kirkham Abbey for an evening of 'batting' with Michael Thompson. Three species of bat were demonstrated in flight and with the use of bat detectors. They were 55kHz pipistrelles, noctules and the Daubenton bat nursery colony in the old priory itself.

Sunday was spent in the company of Gordon Woodroffe, looking for signs of otter and water vole. Otter signs were found under a bridge,

along with an otter slide. Spraints were smelt, and compared with scats of mink. Gordon took the company to a traditional water vole site, but none were seen in spite of their waiting quietly for some to appear.

The following day there was an early morning rise at 3.45am for a dawn foray into the forest. The aim was to see roe deer, but only rabbits put in an appearance. Not too disappointed, the group was later transported down to Peter Smithson's wildlife filming studio at Slingsby, to see and handle some of his wild mammal 'film stars' such as water voles, mink, badgers and brown rats. All were fascinated by Peter's film sets and by being able to get so close to some of Britain's mammals. In the evening there was a choice between watching badgers or nightjars. The nightjars were both seen and heard churring.

On the final day, there was an opportunity to do some Longworth trapping. On this occasion, a further three species of British mammal were handled and examined, namely the common and water shrews and a wood mouse. One of the water shrews, which had been fur clipped put in four appearances! The last evening of Mammalaction's expedition was spent badger watching; cubs emerged from their sett and started charging around the undergrowth, screeching and playing. Those who opted to watch nightjars that evening were also successful. Besides other interesting species of birds in the locality were 49 species of moth, including elephant and poplar hawkmoths.

It would seem that the expedition was a great success and a great time was had by all. Certainly, many of Britain's mammals were seen.

EDITOR

THE BIODIVERSITY TREATY AND MAMMALS

Following the Earth summit in Rio de Janeiro at which Britain was a signatory to the Biodiversity and Agenda 21 Treaties, the Government has been involved in a prolonged consultative process about the conservation of Britain's wildlife, including our native species of mammals. Starting with their *Biodiversity - the UK Action Plan* which was published in January 1994, the Government established a steering group of wildlife conservationists, industrialists and other interested

parties representing the Government Departments of Environment and MAFF and the then statutory body, the National Rivers Authority - now incorporated into the Environment Agency. Their task was to consider the next phase in taking forward Britain's commitment to the Biodiversity Treaty. Meanwhile in 1995, the voluntary sector represented by the RSNC, RSPB, Plantlife, Friends of the Earth, Butterfly Conservation and WWF - UK, produced a second edition of a volume entitled *Biodiversity Challenge* on conservation in Britain. Finally, taking up a number of the suggestions made in this document, the government's steering group produced a series of recommendations in an expensive document called *Biodiversity - the UK Response*, which was published in December 1995 in two volumes. On 15th May 1996 the government accepted these recommendations and it is hoped, their financial implications.

In the second edition of the steering group's report are three lists: a long list of some 1250 species which are under conservation concern, a middle list extracted from the long list of just under 300 species for which action plans will be produced during the next three years and a short list of 116 for which action plans have been produced. Various criteria for establishing the long list of species and plants have been worked out. They include endemic or globally threatened species, species in which the UK holds the world's or appropriate bio-geographical populations, species that show a decline of more than 25% in 25 years, species found in fewer than fifteen 10km squares in Britain and those already protected by the EU Birds and Habitats Directive, the Bonn, Berne or Ramscar Conventions and the Wildlife and Countryside Act 1981.

The first tranche contains 11 mammal species. They include the otter, the water vole, the greater horseshoe bat, the mouse-eared bat, the pipistrelle bat, the brown hare, the dormouse, the harbour porpoise, the red squirrel, the pine marten and the wildcat. The pipistrelle bat, although it is still considered to be common, has declined by 70% in the last 20 years and is thus eligible under the criteria for inclusion. The mouse-eared bat has become extinct in Britain, but action plans are in place if it should be rediscovered. New to this list are the water vole and brown hare; the latter is now considered to number fewer than a million in Britain and has shown a marked decline. The badger, which is not mentioned in this list is already the subject of extensive protection

under British law and is not under any immediate threat nationally, although it may be locally.

Everywhere, on a local basis, local authority and non-governmental organisations such as the Wildlife Trusts are being encouraged to produce Species Action Plans (SAPs), as well as Habitat Action Plans (HAPs) in which there are several types of habitat listed. Some conservationists believe that it is more important to protect the habitats than the individual species, for without the habitats the species will not survive. Several Wildlife Trusts have already produced documentation to say how they will implement the Biodiversity Treaty requirements on a local basis. Unfortunately here in Yorkshire, due to lack of staff, the size of the county and lack of funding, the Yorkshire Wildlife Trust has not so far done this, but I am hoping it will be achieved in the near future. All Trusts were encouraged to produce these plans on a local and regional basis at the Wildlife Trusts' Conservation Conference in Exeter last year which I attended with Stephen Warburton.

Here in North Yorkshire, the Ryedale District Council are modifying their environmental plans to incorporate the requirements of SAPs and HAPs. Martin Hammond has been commissioned to look at these plans and approached me to consider how they would be applicable to mammals. Looking at the first list, I decided that SAPs should be prepared for the otter, water vole, pipistrelle bat and brown hare, all of which are to be found in Ryedale. To these I added dormouse and red squirrel because both at one time were found locally and could be subjected to re-introduction programmes. The rest I considered not applicable. Preparing such plans can be costly in time and effort as well as funding. Some people question their validity thinking that the money could be used more wisely. I think not, for if properly prepared and then implemented, they should lead to a greater variety of life - or biodiversity.

MICHAEL THOMPSON

BOOK REVIEWS

MAMMAL DETECTIVE by ROB STRACHAN

Published by Whittet Books at £7.99, 128 pages

This book is a guide to the field crafts needed to detect British mammals. The text is readable and enlivened with Rob Strachan's personal anecdotes. There are line illustrations throughout the book, both informative and humorous. It is divided into two sections:

Detective skills and equipment
Covers tips on trapping and tracking, forensic analyses (eg dissecting owl pellets) and an overview of hi-tech surveillance.

Clues
This section is an identification field guide. There are comparative annotated drawings of droppings and tracks. The 'Scratch and Sniff' key that Rob Strachan envisaged for this section had to be omitted - it was feared readers would be overpowered by the smell. There is also an 'Identity Parade' with notes on each species, but unfortunately no Latin names are provided.

Overall I found the book both enjoyable and informative.

MARY YOUNGMAN

BATS - BIOLOGY AND BEHAVIOUR by JOHN D. ALTRINGHAM

Published by Oxford University Press at £35
262 pages with line drawings and diagrams

John Altringham, who is a lecturer in the Department of Biology at Leeds University, is well known to a number of the members of the Yorkshire Mammal Group. Not only has he lectured to the group on bats, but he also helps out regularly in the Dalby and Cropton Forest bat box survey and bat ringing scheme, organised by Charles Critchley. He has now written a book on bats based on his long experience of dealing with these mammals. In the preface to the book, John states that it is

aimed primarily at undergraduates and graduate students wishing to learn about bats. The text covers every aspect of bat biology both in Britain and abroad. Much of the contents contains statistical evidence and is well covered by line drawings by Tom McOwat and Lucy Hammond. There are now several books available on bat biology, but this book provides an up-to-date and accurate picture of how bats spend their lives. It will be an indispensable reference work for both professional and amateur naturalists. I am glad to have it on my book shelves and will I am sure, refer to it constantly.

MICHAEL THOMPSON

URBAN WILDLIFE by PETER SHIRLEY

Published by Whittet Books at £7.99, 128 pages
ISBN 1 873580 231

Urban Wildlife is one of the latest additions to the Whittet Natural History Series. The author, Peter Shirley of the Birmingham Urban Wildlife Trust has produced a most informative book on the wildlife which can be found in our cities and gardens. As the author explains: "Unlike 'natural habitats' such as woodland, acid bog or neutral grassland, the urban habitat has been created as a result of human activity rather than by natural processes." Towns are in fact generally warmer and drier than the surrounding countryside and in many cases they have micro-climates which are beneficial to a number of wildlife species.

Peter Shirley gives a brief description of 'K' and 'r' strategists in his explanation of the ways in which plants and animals reproduce in relation to their environment. 'K' strategists, for example are characterised by slow development, delayed reproduction, large body size and the ability to reproduce more than once in a lifetime. On the other hand 'r' strategists develop rapidly, reproduce early, have a small body size and generally reproduce only once in a lifetime. He then goes on to give a brief snapshot of the natural history of animals as diverse as houseflies, wasps, butterflies, bats, hedgehogs, badgers, foxes, squirrels, water voles, gulls, geese, starlings and how the special conditions of towns can be beneficial to them. The chapter on how to improve your garden for wildlife is particularly useful as indeed are the ones

concerned with giving first aid to injured animals, and wildlife and the law.

Urban Wildlife fills an important niche by enabling readers to understand, enjoy and help the abundant wildlife on their doorsteps and hopefully become involved in the broader aspects of wildlife conservation.

GORDON WOODROFFE

THE WATER VOLE by GORDON WOODROFFE
Published by The Mammal Society
Sponsored by the NRA
24 pages illustrated with colour photographs

Gordon's own booklet for the Mammal Society Series is now available from the Mammal Society Office at £2.50 plus postage and packing (50p for 1 copy, £1 for 3 or more)

EDITOR

THE CURRENT STATUS OF THE BROWN HARE (*Lepus Europaeus)* IN BRITAIN by MICHAEL R. HUTCHINGS and STEPHEN HARRIS
Published by JNCC, February 1996 at £12.50
A4 size softback, 78 pages

On the evening in March 1996 when Stephen Harris addressed the joint meeting of the Yorkshire Mammal Group and the York University Natural History Society at York University, he received his own complimentary copy of this important study of which he is a co-author. He encouraged his listeners to get a copy, telling all of us that all he was about to say was within the publication. This is certainly the case.

This book presents the results of a national survey of brown hares, carried out between 1991 and 1993, in which a number of the members of the Yorkshire Mammal Group took part. It discusses the findings of

the survey in relation to previous knowledge about this species. The book is full of statistical analyses, from which tentative conclusions are drawn about the factors influencing the size and health of Britain's brown hare population, which since the mid-1960s has been in decline. It is because of these findings that the brown hare has been placed in the first tranche of British mammals to be given special measures to help its recovery, under Britain's response to the *Biodiversity Treaty 1992*. Everyone concerned with the conservation of Britain's mammals should read this book.

MICHAEL THOMPSON

This JNCC Publication is distributed solely by:
Natural History Book Services Ltd.,
2-3 Wills Road, Totnes, Devon TQ9 5XN
Price: £12.50 plus postage and packing (£4 per copy)

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MAMMAL MAGIC 1997
Chester Zoo
Saturday 22nd February 1997
10am - 5pm

The third annual meeting of the North West Regional Branch of the Mammal Society - a provisional programme so far includes:

Behaviour and ecology of feral cats - Paul Chipman
Colonisation of hedges by small mammals - Richard Woods
Grey seals in the Dee Estuary - Vicky Seager, Emma Roscoe
The Wallabies of the Peak District - Derek Yalden
Return of the dormouse to Cheshire - Sarah Thompson
Captive breeding of endangered mammals at Chester Zoo
Re-habilitating chimps to the wild - Barry Stevens-Wood
Re-introduction of pine martens to Galloway - Terry Smithson

Tickets £8 (includes free entry to Chester Zoo) available from:
Ged Ryan, 56 Hawthorn Close, Congleton, Cheshire CW12 4UF
Tel: 01260 271 275

YORKSHIRE MAMMAL GROUP PROGRAMME 1997

January 2nd *'Illegal Poisoning of Wildlife'*
Sonia Donaghy of ADAS on the Wildlife Incidents Investigation Scheme

February 6th *'The Making of the BBC Film - Bats Need Friends'*
Peter Smithson (helped by Michael Thompson)

March 6th *'Bats in Art'*
Clem Fisher from Liverpool Museum

April 3rd *'Should Wolves be Reintroduced to Britain?'*
Martin Gorman of Aberdeen University

May 1st *'The Work of Foxwatch'*
David Hall of Hinckley, Leicestershire

June 5th Evening field trip to Hopewell House Farm near Knaresborough

During the summer months, there will be events organised by the Bat Group and it is also hoped to carry out a water vole survey, visiting sites in the York area and along the River Derwent.

October 2nd *'Look Out For Mammals'*
Gillie Sargent, Development Officer for the Mammal Society will talk about this new project for recording mammals.

November 6th *'Mammalaction'*
Michael Woods will talk about the work of the Junior Section of the Mammal Society

December 4th **AGM**
'Mammal and Wildlife Photography'
Peter Richman of YMG

All indoor meetings are held in the Common Room of the Biology Department, York University and start at 7.30pm.

YORKSHIRE MAMMAL GROUP COMMITTEE MEMBERS

CHAIRMAN	Geoff Oxford 519 Huntington Road York YO3 9PY Tel: (01904) 760422
SECRETARY	Michael Thompson 'Burwood', Railway Street Slingsby, North Yorks, YO6 7AN Tel: (01653) 628620
TREASURER	David Laughton 2a Melrosegate York YO3 0RP Tel: (01904) 423564
FIELD STUDIES OFFICER	Ann Hanson 'Red Loam', Occupation Lane Bramham Crossroads, Nr Tadcaster West Yorks, LS24 9NW Tel: (01132) 813877
PUBLICITY OFFICER	Denise Ray Barn House, North Farm Scoreby, York YO4 1NP Tel: (01759) 371167
IMPRINT EDITOR	Beryl Cronin 16 Nethermoor View, Bingley West Yorks, BD16 4HG Tel: (01274) 562154
COMMITTEE MEMBERS	Gordon Woodroffe 'Finnoch', Croft Green, Sinnington North Yorks, YO6 6SJ Tel: (01751) 432416
	John Drewett (Bat Section Rep.) 64 Pinfold Garth, Sherburn-in-Elmet, Leeds, LS25 6LE Tel: (01977 681898)