

# Imprint

*The Yorkshire Mammal Group - Newsletter*



*No. 21*

*1994*

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Copy date for next issue: 31st August 1995

Cover photograph by Gordon Woodroffe

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## EDITOR'S REPORT

1994 has been another busy year for the Yorkshire Mammal Group, with our members participating in long term and short term surveys both locally and nationally.

The conclusions of the National Hare Survey demonstrate the importance of long term monitoring of species and the indirect effects that changes in human life style can have on our wild animal populations. Our continuing involvement with the Leeds University Agroforestry Project displays our local commitment to long term mammal surveying and as the site becomes established, two new species have been found this year.

The Dormouse Survey illustrates the benefit of launching a national campaign to involve the general public. Much interest has been generated that will hopefully benefit the species for some time to come. As with the Hedgehog Roadkill Survey, the use of a simple method of collecting data that requires little specialist knowledge on the part of the collectors can be very effective.

As you will see, a full programme of speakers has been arranged for 1995 and we look forward to welcoming both old and new members to these indoor meetings and to our fieldwork events.

BERYL CRONIN

## MAMMAL NEWS

### Small Mammals in Agricultural Landscapes

Artificially created herb-rich field margins benefit small mammal populations when bordering an existing feature, for example a hedgerow. Animals over winter in the hedge and then move out into the strips to feed. Such margins link existing habitats and have a major role to play in supporting viable populations. These were the conclusions reached by Mike Toms after studying the interaction between short-tailed voles and their habitat at a site in Norfolk. Mike is predominantly interested in the conservation of the barn owl but stresses the importance of ensuring sufficient prey species if nest boxes are erected to boost barn owl numbers. He concludes that managing land for the benefit of small mammals should be an integral part of the barn owl conservation strategy.

Reference: Toms, M. *The Raptor* 1993/4, pp 57-59

### National Hare Survey

This two year survey organised by Dr Stephen Harris of Bristol University was scheduled to run over the two winters 1991/92 and 1992/93 (Lane, 1992, 1993). The full results are shortly to be published and a copy can be purchased from Dr Tom Tew, Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough, PE1 1JY. Meanwhile, here is a precis of the findings (Hutchings and Harris, 1994).

It appears that the size of the hare population in Britain is considerably less than was originally thought, and it may have suffered an 80% decline since the beginning of the century. The population is heavily biased towards arable landscapes with the counties of Cambridgeshire, Norfolk and Suffolk containing nearly 20% of the hare population of Britain whilst constituting a mere 5% of the total land area of the country.

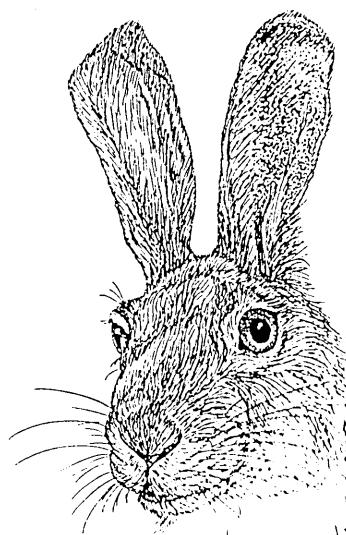
Numbers have declined dramatically in the grassland areas of the west where late last century, hares were abundant in Cornwall, Devon and Wales. Now they are found infrequently and stocking densities and the use of silage cutters may be responsible. Hares avoid fields with livestock in, and both young and adult animals can be killed by the cutting machinery.

Although surviving in greater numbers in the arable monocultures of eastern England, hares seem to be found mainly on estates where they are preserved for shooting. This is due in part to the presence of the gamekeeper acting as a deterrent to poachers. But here too, numbers are falling due to changes in farming methods. Winter cereals are being grown in preference to spring cereals which means there is a shortage of high quality food in summer resulting in poor leveret survival.

It is hoped to repeat the survey in a few years' time.

#### References:

Lane, T. *Imprint* No.19 (1992), pp14-15; *Imprint* No.20 (1993), pp37-38  
Hutchings, M. and Harris, S. *National Hare Survey Newsletter* (1994)



#### Red Alert

The red squirrel (*Sciurus vulgaris*) has disappeared from most of England and Wales in the last 50 years and if conservation measures are not taken soon to halt their decline, they could well be extinct by the year 2040 (Rowe, 1994). Current theories suggest that it is competition with the American grey squirrel (*Sciurus carolinensis*) that has led to this decline. The heavier grey squirrel is better suited to life in broad-leaved deciduous woodlands, while the smaller red squirrel is adapted to live in coniferous forests. Research has shown that reds digest acorns less efficiently than greys, while greys usually eat hazel nuts before they ripen, thus depriving reds of an important food source in deciduous woodlands.

In 1991, the Red Alert North East project was organised by the Northumberland, Durham and Cleveland County Trusts; and by involving members of the public in their survey, they produced a comprehensive picture of where the red and grey squirrels are living. Researchers from Newcastle University have studied the feeding behaviour of reds in large conifer plantations and are also looking at the interaction of the two species in areas where both are found. The Northumberland Trust is concentrating on practical management and together with the Forest Authority has produced a guide to red squirrel conservation. They suggest supplementary feeding of reds in areas where there is competition from greys or where food sources are scarce. The red-only feeding hopper has been designed by Harry Pepper of the Forest Authority's Research Division and works on the principle of weight difference between the two species, thus excluding the heavier grey squirrel.

At the end of 1993, Red Alert North West was launched by the Cumbria and Lancashire Wildlife Trusts. Initially, both red and grey squirrel populations in selected woodlands will be surveyed and monitored for change. Cumbria has a high proportion of broad-leaved woodlands and grey squirrels are well established in the south of the Lake District. Specialised management techniques are being encouraged in appropriate woodlands where for example, new commercial forestry plantations may exclude broad-leaved species such as oak and beech.

In other parts of the country, other Wildlife Trusts are also taking action to support red squirrel populations. On the Isle of Wight and in North

Wales, populations are being studied with a view to drawing up conservation strategies. In Norfolk, English Nature is operating its Species Recovery Programme in Thetford Forest, and Staffordshire is studying the distribution of red squirrels remaining at Cannock Chase. In Dorset, the regeneration of Scots pine on Brownsea Island is planned to support the relict population of 100-200 red squirrels.

Clocaenog Forest in Clwyd was declared a red squirrel reserve 4 years ago when it was realised that the only places where this mammal was surviving was in large scale coniferous forests (Westlake, 1994). Beech trees were cleared from the area which is predominantly Norway spruce, in an attempt to discourage the infiltration of greys. In order to survive, the red population needs to be in an area where there are no large seeded broad-leaved trees, such as oak and beech, because that is the grey squirrels' habitat. Ideally, a very large area of at least 2000 hectares of Norway spruce and pine is needed to supply the high calorie seeds that they eat. Now a radio tracking scheme is planned to assess the size of the population and to monitor movements around the forest so that forestry work can be planned to avoid disturbance.

#### EDITOR

#### References:

Rowe, F. *Natural World*, Spring/Summer 1994, pp 26-28  
Westlake, J. *Forest Life* No. 10, 1994, p17

#### Hedgehog Roadkill Report 1993

Sixty five observers sent in details of 1301 dead hedgehogs seen in the course of driving 30579 miles between July and September 1993. Once again the Isle of Man seemed to be the hedgehog capital of the British Isles, with 57 bodies in 219 miles - a mighty 26 hedgehogs per 100 miles! The average for the rest of the British Isles was a more modest 3.89 hedgehogs per 100 miles which is very similar to the average obtained from the roadkill surveys conducted for the last 4 years. There was again marked variation between regions but with rank order remaining very similar to the earlier surveys. The North East, East Midlands and East Anglia have now been ranked in the top three, with the highest number of hedgehogs per 100 miles, for all 4 years, while the South West has consistently come last. This suggests that there are real differences

in the number of hedgehogs being killed on the roads in different regions, with the North East scoring particularly highly, with 8.8 per 100 miles in 1993 (over double the national average, excluding the IoM) and the highest score in 3 years out of the last 4.

In 1993 sampling effort was distributed more evenly amongst the different regions, and ranged from 26 journeys totalling 1229 miles and 25 hedgehogs in the South East to 76 journeys totalling 3950 miles and 63 hedgehogs in the South West. It is interesting to note, therefore, that despite the greater sampling effort in the South West, it had fewer hedgehogs per 100 miles (1.59) than the South East (2.03). The highest number of hedgehogs (8.88) per 100 miles was recorded in the North East from 61 journeys totalling 3278 miles.

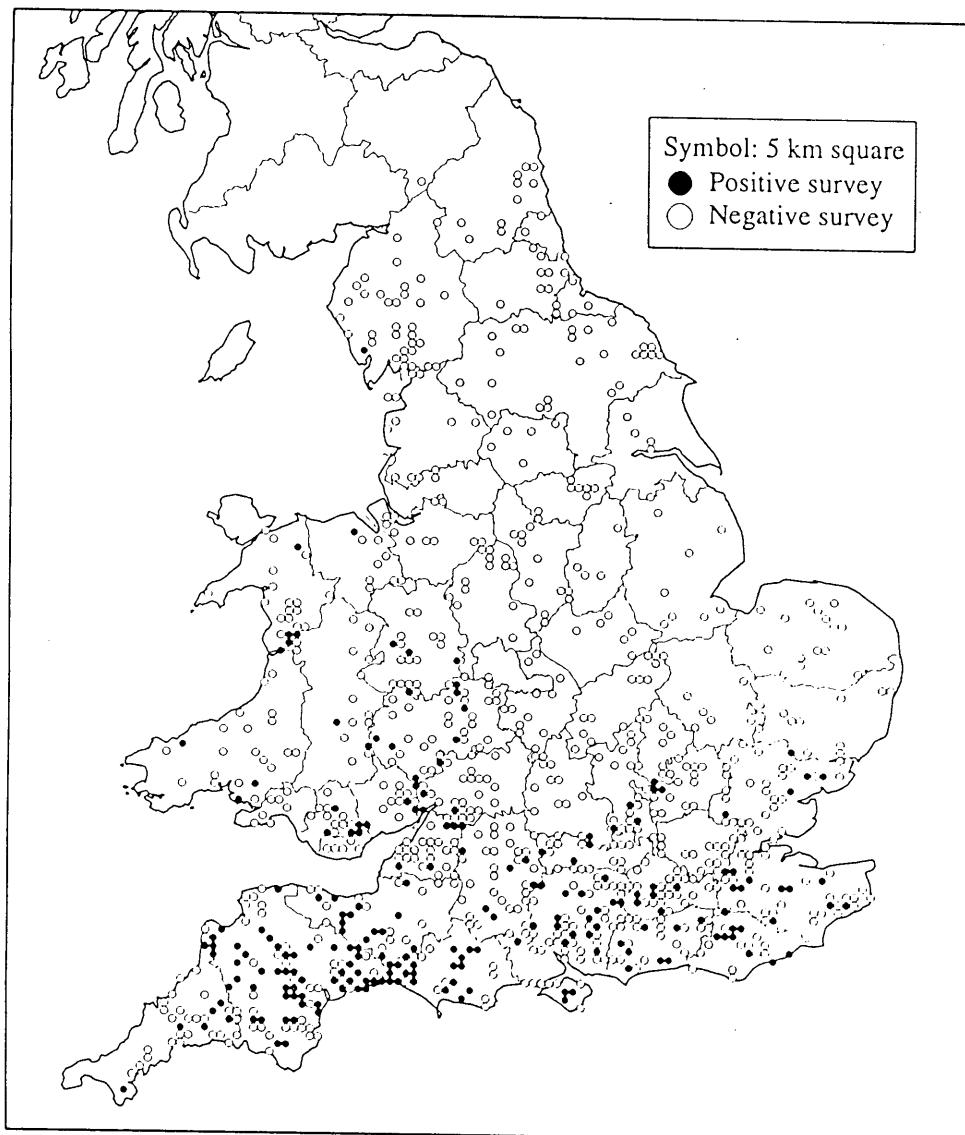
Nearly a third of the hedgehogs came from grassland habitats (31.9%), with the majority of the rest found in arable (27.5%) or urban (22.46%) areas. Woodlands were again found to be poor sources of hedgehogs, with only 13.7%.

There remains the question of whether more dead hedgehogs means fewer left alive or whether more dead ones means more live ones too. There is also the question of annual variation. It will be interesting to see if the very hot dry weather this summer has had an effect. I am not sure if I shall be continuing the study in 1995, but if anyone would like to join in, I'd be glad to have their name on file just in case I carry on.

PAT MORRIS

#### The Great Nut Hunt

The largest survey of the Dormouse (*Muscardinus avellanarius*) anywhere in Europe was launched at the end of 1993 with National Dormouse Week, and the response from the public has delighted the organisers. Much enthusiasm and thousands of hours of dedicated searching have contributed to the project and with nuts still arriving, full results may not be published until 1995.



11,000 survey packs were sent out, and 1,700 survey forms have been returned so far, with nearly 6,000 people taking part. 'Nutters' examined nearly a quarter of a million nuts! 74% of these had been opened and needed careful inspection to identify the nibblers. 9738 nuts were sent in and each one was personally checked by Dr Pat Morris with 8 being sent to Dr Paul Bright for a second opinion. Over 53% of these nuts had been opened by squirrels which shows them to be serious contenders for these hazel fruits. Squirrels leave a jagged edge, or just split the nut open, whereas dormice leave a very smooth hole with the toothmarks, if visible, running around the edge of the hole rather than across it as with mice and voles. Mice had opened 12% of the nuts and voles 10%, with 13% unidentified but definitely not dormice. A total of 1127 (12%) had been opened by dormice. The best batch came from 11 sites in Dorset with 36 nuts all opened by dormice. The dormouse nuts were usually clean in appearance since dormice feed in the tree tops before the nuts have fallen to the ground and become discoloured.

Nuts have confirmed the presence of dormice at 295 sites in England and Wales. This is quite an improvement on the Biological Record Centre's mere 52 records since 1980. Many sites are new ones not discovered in the Mammal Society survey 15 years ago, but sadly there have been no new discoveries in counties where extinction is thought to have occurred such as Yorkshire. Devon emerged as the top county for dormice as can be seen from the distribution map.

1994/95 will see follow-up work with more surveying to give a clearer picture of the type of woods preferred by the dormouse so both positive and negative results will form an important part of English Nature's Species Recovery Programme. A positive effect of the publicity generated by the survey is that owners of woodlands have begun to ask how they can manage their woods to ensure the survival of dormice.

With a nationwide survey of this kind, it is important to build on the enthusiasm generated and sustain some momentum for the benefit of the species. From this interim report it sounds as though any information on dormice will be gratefully received by Dr Pat Morris and his team for the foreseeable future. Once people have become aware of the signs of this absorbing mammal, they can continue to observe and record information.

Reference: Communications & Grants team, English Nature

## YMG Nut Hunt Results

Autumn 1992  
Gillamoor, near Kirkbymoorside

Collected 13 hazel nuts:

5	-	woodmice
3	-	voles
5	-	unknown

'Unknowns' sent to English Nature for identification but returned as 'squirrel/bird'

January 1994  
Hazelwood, near Tadcaster

Collected 242 hazel nuts:

34	-	unopened
120	-	squirrels
40	-	woodmice
12	-	voles
36	-	unknown

Sent 5 of the 'unknowns' to English Nature but again returned as 'squirrel/bird'

EDITOR

THE DORMOUSE (*Muscardinus avellanarius*) AND HAZEL (*Corylus avellana*) IN EAST YORKSHIRE (VC61)  
Surveys during National Dormouse Week (October 27th - November 3rd 1993)

As part of its Species Recovery Programme, English Nature in conjunction with the Vincent Wildlife Trust, has promoted the National Dormouse Week to enlist the participation of the general public in the conservation project led by Dr Pat Morris. Participants were encouraged to find suitable locations with hazels and gather hazel nuts -

'The Great Nut Hunt'. Then using the survey pack which explained how to identify which animal had made the characteristic holes in the nuts, gathered nuts were sorted into various categories: Whole nuts, Dormouse, Wood mouse (*Apodemus sylvaticus*), Bank vole (*Clethrionomys glareolus*), Grey squirrel (*Sciurus carolinensis*), Birds and Unidentified.

Members of East Yorkshire Bat Group decided to participate in the hazel nut foray and focus some attention on VC61, looking in particular at any sites where the dormouse had been previously recorded. In *Yorkshire Mammals* (Delany, 1985) the most recent sightings of the dormouse were reported from the North Yorkshire uplands (Kirkbymoorside) and the Esk valley as recently as 1980. Some 90 Yorkshire localities have been associated with 19th and 20th century records of the dormouse. In contrast to elsewhere in Yorkshire, VC61 records are extremely scarce and limited to three 19th century sightings in the Derwent valley and a possible area close to Market Weighton (SE84, Brattwood near Nunburnholme). The only likely populations of the dormouse occurred in the calcareous woodland of the Derwent Gorge from Stamford Bridge (SE7155), where Teucer (1984) claimed to have seen specimens, to the Kirkham Abbey area (SE7365) and Acklam Brow where they were listed by Walker and Longster (1889). Other references do not apparently bear closer scrutiny, since descriptions resemble those of the woodmouse laying up stores of nuts rather than the dormouse which relies on body fat reserves. Allusions to 'many' in the Neswick area (SE9753) by W B Brigham in Rope (1885) described them 'storing up immense amounts of nuts for winter'. In the Hornsea Mere area, G Bolam (1913) discovered that the creature referred to locally as the dormouse was again the food storing, non-hibernating woodmouse.

The hazel is widely distributed throughout VC61, being recorded in 29 out of 38 10km squares (Crackles, 1990). It occurs largely in scrub, hedgerows and woodland but its occurrence in coppiced woodland is extremely rare. However two such sites were identified at Nutwood (Raywell, SE987303, Woodland Trust) and North Cliffe Wood (SE863371, Yorkshire Wildlife Trust) at which sites nuts were collected on 31st October. On 2nd November, sites in the Derwent Gorge (Howsham Wood, SE745637, southern portion only) and Brattwood (Nunburnholme, SE845484) were visited but no hazels were found at either site. The results for the surveys at Nutwood and North Cliffe Wood can be seen in the Table.

## FIELDWORK REPORTS

### Analysis of hazel nuts from Nutwood and North Cliffe Wood

	Nutwood(%)	North Cliffe Wood(%)
<i>Total number of nuts found:</i>		
Opened	256(78)	371(57)
Unopened	72(22)	283(43)
<i>Number opened by:</i>		
Dormouse	0	0
Wood mouse	12(5)	4(1)
Bank vole	36(14)	42(11)
Squirrel/bird	199(78)	325(88)
Unidentified	9(4)	0

As can be seen from the Table, there was no evidence for dormice at either site. The largest category at both sites was 'Squirrel/bird' and judging from the mode of attack (cracking) the nuts were predominantly dealt with by squirrels. The next largest category was 'Unopened nuts' followed by 'Bank vole' and 'Wood mouse'. Both areas, Nutwood (11 hectares) and North Cliffe Wood (34 hectares) are isolated fragments of woodland in intensively arable farmland and are unlikely to be of sufficient size to harbour dormice. This study does not eliminate the possibility of the dormouse being found in VC61. It is recommended that suitable sites in the Derwent Gorge are identified and searched. The collection and identification of hazel nuts is relatively straightforward and provides an alternative means of obtaining small mammal records indirectly other than by analysis of prey items from bird pellets.

TONY LANE  
COLIN HOWES

### References:

Bolam, G. (1913) *The Naturalist*, p33  
 Crackles, F.E (1990) *Flora of the East Riding of Yorkshire*, p110  
 Delany, M.J (1985) *Yorkshire Mammals*, p132  
 Rope, G.T (1885) *The Zoologist, 3rd Series* 9 (102), p201  
 Teucer (1884) *The Field*, p488  
 Walker, A.W and Longster, T.P (1889) *YNU Circular* p82  
 Wade, E.W (1930) *YNU Circular* p365

### RETURN TO ASHBERRY PASTURES

#### The Dennis Aspinall memorial trap

11th-12th September 1993

Once again the Yorkshire Wildlife Trust Reserve at Ashberry Pastures, Helmsley was the venue for the Dennis Aspinall Memorial Trap, and also an open meeting for members of the Yorkshire Wildlife Trust.

This beautiful reserve lies in a long valley with steep, thickly wooded sides, descending to wet pastures and bogs, with a small stream running along its length.

Traps were set on the Saturday evening in the woodland edge, on the stream bank and in the pasture. The whole area was very wet due to recent heavy rain, although we managed to pick two beautiful, sunny days to trap over. The traps were lifted on Sunday morning, and the animals were shown to members of the Yorkshire Wildlife Trust.

Results: 12.09.93

Participants: Keith Gittins, Ann Hanson, Sarah Bence, Gordon Woodroffe and several YWT members

Weather: Sunny and warm, cloudy overnight

Site	Species	Sex (M/F)	Age (J/A)	Notes & condition
Stream bank	Sorex araneus	?	J	
Woodland edge	Apodemus sylvaticus	M	A	
Woodland edge	Apodemus sylvaticus	M	J	
Stream bank	Sorex araneus	F	J	
Pasture	Apodemus sylvaticus	?	J	

NB: Animals were not weighed on this occasion, as the point of the trap was just to see what was there.

Comments:

The overall catch was disappointingly low, which could possibly be due to the fact that the area was extremely wet, with a lot of standing water, caused by recent heavy rain. Hence the small mammals may have temporarily moved up into the woodland, rather than staying in the wet pasture and boggy areas. However, this is the first record of the common shrew (*Sorex araneus*) for the reserve, and there are plans to trap here again in the future. Many thanks to Keith Gittins of the Reserve Management Committee for all his help during this trap.

ANN HANSON (FSO)

## LEEDS UNIVERSITY FARM AGROFORESTRY PROJECT

For background information and results of previous traps see  
*Imprint Nos 17, 18, 19, 20*

### 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 are laid in two treatment blocks, with eight traps (4x2) in hedges, eight traps (4x2) in arable strips, eight traps in forestry control and eight in arable control in each block. Eight traps are also laid in the original hedge next to agroforestry block 2. The traps are set on Friday and Saturday evenings, and checked on Saturday and Sunday mornings.

### Eighth Trap

15th - 17th October 1993

Participants: Chris Wright, Ann Hanson, Edna Shann, David Freer, Giselle Sharko and Al

Results: 16.10.93

Weather: Very cold with frost overnight, dry and sunny

Site	Species	Sex (M/F)	Age (A/J)	Weight (g)	Recapture	Notes & condition
BLOCK II						
Forestry control	<i>Sorex araneus</i>	?	J	8.5		
Forestry control	<i>Clethrionomys glareolus</i>	M	A	15.0		
Forestry control	<i>Sorex araneus</i>	-	-	-		Dead in trap
Forestry control	<i>Clethrionomys glareolus</i>	?	J	12.0		
Forestry control	<i>Clethrionomys glareolus</i>	?	J	13.0		
Agroforestry hedge 4	<i>Apodemus sylvaticus</i>	M	J	17.5		

Site	Species	Sex (M/F)	Age (A/J)	Weight (g)	Recapture	Notes & condition
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Agroforestry hedge 3 *Clethrionomys glareolus* M A 18.5

Agroforestry strip 2 - - - - Trap sprung

Agroforestry hedge 2 *Apodemus sylvaticus* ? J 12.0

Original hedge *Sorex araneus* ? J 7.0

Original hedge *Clethrionomys glareolus* M A 16.5

Original hedge *Clethrionomys glareolus* ? J 12.0

Original hedge *Clethrionomys glareolus* M A 15.5 Dead in trap

Original hedge *Clethrionomys glareolus* ? J 13.5

Arable control *Apodemus sylvaticus* ? J 15.0

BLOCK IV Forestry control - - - - Trap sprung

Forestry control *Apodemus sylvaticus* ? J ? Escaped

Forestry control *Sorex araneus* ? A 7.0

Forestry control *Sorex araneus* - - - - Dead in trap

Site	Species	Sex (M/F)	Age (A/J)	Weight (g)	Recapture	Notes & condition
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Forestry control *Clethrionomys glareolus* F A 16.5

Forestry control *Clethrionomys glareolus* M J 10.5

Arable control - - - - Trap sprung

NB: Also captured on this occasion was a young hare - caught alive by Gyp the dog and released unharmed - eventually!

Results: 17.10.93

Weather: Very cold, overnight frost, dry and clear

Site	Species	Sex (M/F)	Age (A/J)	Weight (g)	Recapture	Notes & condition
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BLOCK II

Forestry control *Sorex araneus* ? A 8.0 Albino!

Forestry control *Apodemus sylvaticus* F J 10.0

Agroforestry hedge 4 *Apodemus sylvaticus* M A 19.0

Agroforestry hedge 3 *Clethrionomys glareolus* M A - ✓

Agroforestry hedge 1 *Apodemus sylvaticus* F J 16.0

Original hedge - - - - Trap sprung

Site	Species	Sex (M/F)	Age (A/J)	Weight (g)	Recapture	Notes & conditions
Original hedge	-	-	-	-	Trap sprung	
Original hedge	<i>Clethrionomys glareolus</i>	M	A	15.0		
Original hedge	<i>Clethrionomys glareolus</i>	M	J	14.5		
Arable control	-	-	-	-	Trap sprung	
<b>Comments</b>						
During this trap, the surrounding arable fields and the agroforestry strips had been harvested and the ground was bare. This could account for the fact that most animals were found in the forestry control areas and in the original hedge alongside Block II, where there was more cover and food available. Common shrews, woodmice and bank voles seemed to be present in similar numbers, but the very cold nights over this weekend could account for a somewhat lower catch than usual for the time of year. Juveniles were very abundant, as would be expected in the autumn. A few animals were caught in the agroforestry hedges, which are now well grown and provide good ground cover for small mammals.						
<b>BLOCK IV</b>						
Forestry control	<i>Clethrionomys glareolus</i>	?	A	16.0		
Forestry control	<i>Sorex araneus</i>	?	A	6.0		
Forestry control	-	-	-	-	Trap sprung	
Forestry control	<i>Clethrionomys glareolus</i>	M	J	11.0	Two in one trap	
Forestry control	<i>Clethrionomys glareolus</i>	M	J	11.5		
Forestry control	<i>Clethrionomys glareolus</i>	?	J	10.5		
Forestry control	<i>Clethrionomys glareolus</i>	F	J	10.0		
Agroforestry hedge 1	<i>Apodemus sylvaticus</i>	F	A	18.0		
Agroforestry strip 3	-	-	-	-	Trap sprung	
<b>Ninth trap</b>						
15th - 17th April 1994						
Participants: Chris Wright, Ann Hanson, David Freer, Michael Thompson, Mary Youngman, Beryl Cronin, Kate Fuller and Sam						
Results: 16.04.94						
Weather: Cool, dry and sunny						
Site	Species	Sex (M/F)	Age (A/J)	Weight (g)	Recapture	Notes & condition
<b>BLOCK II</b>						
Forestry control	<i>Sorex araneus</i>	?	A	10.0		
Agroforestry strip 4						
Agroforestry hedge 3	<i>Clethrionomys glareolus</i>	M	A	14.0		Trap closed and disturbed, possibly by a mustelid
Agroforestry hedge 3	<i>Clethrionomys glareolus</i>	?	A	?		
<b>BLOCK IV</b>						
Forestry control	<i>Sorex minutus</i>	?	A	?		Escaped

Results: 17.04.94

Weather: Cool, dry and cloudy

Site	Species	Sex (M/F)	Age (A/J)	Weight (g)	Recapture	Notes & condition
BLOCK II						
Forestry control	<i>Sorex minutus</i>	?	A	4.0		Run by Carol and Roger Heap, the Chestnut Centre provides excellent accomodation for its wildlife and the enclosures are designed in such a way that visitors can see the animals and birds to good advantage.
Agroforestry hedge 3	<i>Clethrionomys glareolus</i>	F	A	14.0		A walk through beautiful parkland was made more interesting by well designed and informative labelling, encouraging us to linger and observe the flowers and trees.
BLOCK IV						
Forestry control	<i>Sorex minutus</i>	?	A	5.0		There are breeding programmes for barn owls and sanctuary is provided for many more species of owl, often taken in injured or orphaned.
Agroforestry hedge 3	<i>Clethrionomys glareolus</i>	M	A	19.0		We then came to the otter enclosures, housing Asian short clawed, American river and Eurasian or European otters. However the highlight of the visit was being given a conducted tour of the new enclosure for the latest arrivals followed by being taken to see the pair of Giant Brazilian otters, one of which is on breeding loan. It is easy to see that once in their new enclosure, these two will become the stars of the Chestnut Centre. With faces bearing a strong resemblance to seals and with a very flat tail like the beaver, their fur is chocolatey brown and their skill in water and their sense of fun made them a delight to watch.
Agroforestry strip 2	<i>Apodemus sylvaticus</i>	M	A	28.0		We were grateful to Roger and Carol for sparing time to talk with us and especially for a preview of the Giant Brazilians. Consistently bad weather had held up the building work and although out of quarantine, we saw them in their quarantine quarters. By now they will be on view and for members unable to join the trip on that occasion, a visit to the Chestnut Centre is recommended. It is a serious conservation project and has something of interest for adults and children. It is situated at Chapel-en-le-Frith and well signposted from Baslow. If an early start is made a visit to nearby Chatsworth could be included in the outing. There is a small cafe and shop and ample room for picnics.

#### Comments

During this trap, the arable areas were still quite bare, so as expected most animals were found in the forestry control areas and the agroforestry hedges where cover was still available. The overall catch was quite low, which is to be expected this early in the year when populations are generally low. This trap was significant for the first appearance of the pygmy shrew (*Sorex minutus*) in both agroforestry blocks being studied. Also, students from Leeds University who have been trapping the area over several months, have captured harvest mice on the agroforestry sites, bringing the number of small mammal species trapped there to seven.

ANN HANSON (FSO)

#### FIELD TRIP '94

One misty, moisty morning in May, six intrepid travellers arrived at the Chestnut Centre. Situated amidst the beautiful countryside of Derbyshire's Peak District, the centre houses mainly otters and owls.

Run by Carol and Roger Heap, the Chestnut Centre provides excellent accomodation for its wildlife and the enclosures are designed in such a way that visitors can see the animals and birds to good advantage.

A walk through beautiful parkland was made more interesting by well designed and informative labelling, encouraging us to linger and observe the flowers and trees.

There are breeding programmes for barn owls and sanctuary is provided for many more species of owl, often taken in injured or orphaned.

We then came to the otter enclosures, housing Asian short clawed, American river and Eurasian or European otters. However the highlight of the visit was being given a conducted tour of the new enclosure for the latest arrivals followed by being taken to see the pair of Giant Brazilian otters, one of which is on breeding loan. It is easy to see that once in their new enclosure, these two will become the stars of the Chestnut Centre. With faces bearing a strong resemblance to seals and with a very flat tail like the beaver, their fur is chocolatey brown and their skill in water and their sense of fun made them a delight to watch.

We were grateful to Roger and Carol for sparing time to talk with us and especially for a preview of the Giant Brazilians. Consistently bad weather had held up the building work and although out of quarantine, we saw them in their quarantine quarters. By now they will be on view and for members unable to join the trip on that occasion, a visit to the Chestnut Centre is recommended. It is a serious conservation project and has something of interest for adults and children. It is situated at Chapel-en-le-Frith and well signposted from Baslow. If an early start is made a visit to nearby Chatsworth could be included in the outing. There is a small cafe and shop and ample room for picnics.

LORNA WOODROFFE

## TWO EXHIBITIONS

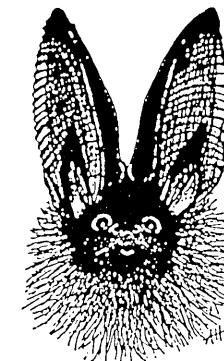
The Yorkshire Mammal Group, along with the Mammal Society, exhibited twice during the summer months in North Yorkshire. The exhibition boards, which had been loaned by the Mammal Society were prepared by Gordon Woodroffe, Sarah Bence, Geoff Oxford and Michael Thompson. The exhibitions depicted the work of both organisations, with particular reference to local field studies. There was also an opportunity to sell products of the Mammal Society and give out information leaflets on the Mammal Group.

The first exhibit was held between the 4th and 5th June at Wheldrake Nature Reserve. It was part of a week of wildlife events for the family on the Lower Derwent Valley National Nature Reserve, organised by English Nature over the week of 30th May to 5th June. Held in a large marquee erected on the Reserve, the exhibit was one of several representing other wildlife organisations. It was manned by various members of the Mammal Group over the weekend, and proved to be a success, in spite of poor public attendance on the Saturday. Considerable interest was shown in Yorkshire's mammals.

The second exhibit was part of the Dalby Forest Festival to celebrate 75 years of the Forestry Commission in Dalby Forest. Using the same materials, but with more emphasis being placed on the work of the Mammal Society, the exhibit was manned from the 2nd to 4th July, mainly by Gordon Woodroffe. Some members helped to set the exhibition up on the 1st July, when the Festival was officially opened by Professor David Bellamy. Like the Wheldrake exhibit, there was a disappointing attendance on the Saturday, but both the Sunday and the schools' day on the 4th July were more successful.

In both exhibits not only was the work of the Yorkshire Mammal Group and the Mammal Society demonstrated, but links with English Nature and the Forestry Commission were strengthened.

MICHAEL THOMPSON



## BAT SECTION

### REPORTS

#### Ryedale

Batting in Ryedale this summer has been quieter than usual, probably due to the fine weather, resulting in fewer orphaned or grounded juveniles having been reported. However there have been plenty of calls from English Nature. An interesting one involved a pipistrelle colony roosting in a cavity wall above a central heating boiler flue, where very small babies were emerging into the house from beneath the boiler. The only solutions were to remove either the boiler or the bats. The owner was quite keen to keep the bats, so the access to the cavity was blocked and a new roost made behind the soffits. The question is - will they use it next year?

The cleaning of the expansion joints in Clifton Bridge, York exposed a nursery colony of Daubenton's bats only inches below the road surface. Unfortunately we were unable to reunite the babies and mothers, so 16 live babies, 4 dead babies and one dead adult were removed. One baby died the same day and 3 the next day. Of the 12 remaining, 5 have been raised to weaning. They have already proved their worth by being used in slow motion flying sequences for Simon King's Christmas production for BBC Television. Filming of some captured brown long eared bats is now in progress for a film about a Welsh nature reserve.

LESLEY HELLIWELL

## Tadcaster

Bat work in the Tadcaster area this summer has been rather uneventful with most of our calls concerning people who required more information about bats. Early in the summer we visited an isolated cottage near Ripley which was being radically converted, but a small colony of brown long eared bats halted the work. There were two cases where householders had blocked the emergence holes in their roofs at a crucial time when baby bats were in situ. However, both were unblocked very quickly, and no harm was done.

There have been several baby bats to care for and also a few injured bats - mainly cat casualties - not many of which survived. These were all pipistrelles. We were asked to investigate a warehouse at the Sherburn-in-Elmet Trading Estate because bats had been seen flying inside the building. There is a small lake nearby and it would seem that the bats were Daubentons, but the factory has been there for fifteen years and it is the first time bats have entered the building. It was in the height of this year's hot summer which may have accounted for their doing so; they could also have been youngsters.

Recently we were asked to survey an old railway tunnel near Harrogate part of which is to be converted into a firing range. However, it turned out to be most unsuitable for bats, being wet and windy and thickly coated in places with sulphur and soot deposits. This was most disappointing.

A female pipistrelle which we have had in captivity for eight years died recently. We do not know how old she was when she came to us from York, so she has had a good life-span. Most of our visits have been on behalf of English Nature. We have also mounted a number of displays at charity and environmental events, and given the usual talks to various organisations and schools.

EDNA SHANN  
DAVID FREER

## MAMMAL CONSERVATION IN NORTH YORKSHIRE

Compared with some countries on Continental Europe, Britain has a rich and varied mammalian fauna. Listed are some 60 land based mammals, some of which have been introduced over the centuries but not all of them are found in North Yorkshire. Some of these mammals are declining in numbers due to human activity. Recently, the Mammal Society of Great Britain has produced *A Red Data Book for British Mammals* by Dr Pat Morris. In this book not only is the status of British mammals described, but also the measures being taken to help those under immediate and long term threat.

Forty eight species of land based mammals are described in a book edited by Professor Michael Delany and published in 1985 called *Yorkshire Mammals*. Again not all these mammals are found in North Yorkshire and some have long since become extinct, such as the lesser horseshoe bat. This article attempts to describe what efforts are being made by various statutory and voluntary bodies, such as the Yorkshire Wildlife Trust, to help some of the more vulnerable of these mammals.

Studying mammals is difficult, for most are nocturnal and rarely seen by the general public. One such is the otter, which in the public's eye is the second most popular mammal after the badger. At one time widespread on our Yorkshire rivers, the otter has gone into rapid decline since the last war, especially from the 1970s onwards. Survey work, particularly by Gordon Woodroffe and Laura Winter on the river systems of the North York Moors and the River Derwent, indicates that the otter had almost completely disappeared by the late 1980s. In 1990, in partnership with the Vincent Wildlife Trust, Gordon embarked on an otter release programme on the Derwent system of rivers.

By 1993 some 25 animals had been released and field survey evidence indicates that breeding has occurred. Unfortunately so far, six otters have been found dead, two drowned in fyke nets without otter guards which had been set to catch eels. These two deaths led to a court case, for the otter is protected by law. Although the defendant was not found guilty, it was decided that attempts must be made to tighten up the by-laws on our North Yorkshire rivers regarding the use of otter guards on fyke nets. This is being pursued by English Nature.

At about the same time as this release programme was being launched, the Trust appointed Lynne Collins as their Otters and Rivers Project Officer, one of several such appointments throughout Britain. She has been responsible for establishing the Yorkshire Otter Forum and a schools education programme.

The badger like the otter, belongs to the weasel family and has long been protected by law. There have been glaring flaws in the law, which thankfully have now been removed. Regretfully the badger is subjected to baiting by human beings, and in certain areas has been almost entirely eliminated, often having to suffer a shocking death. Fortunately in North Yorkshire there are no problems with bovine tuberculosis and the badger, so our local populations have not been subjected to the gassing programmes as carried out by the Ministry of Agriculture in the West Country.

In response to the baiting, badger groups have appeared throughout Britain and there are several in North Yorkshire. These groups monitor their local badger setts, keeping a watchful eye on them and reporting any suspicious activity to the police. They have had their successes and a number of individuals have been brought to court and found guilty. In order to protect the setts from illegal digging, wire mesh is buried around the sett. Protection is best afforded by keeping quiet about badger activity and this applies to the Trust's membership.

Of the rodents, the best known which is in need of help is the dormouse. There has been a serious decline in this species due mainly to fragmentation of its habitat, the decline in traditional coppicing of our hazel woodlands and unknown climatic causes. This decline has been noticed throughout Britain, but more so in the north. In North Yorkshire the stronghold of the dormouse used to be on the southern slopes of the corallian limestone escarpments of the North York Moors.

Early in this century, dormouse was recorded from around Rievaulx Abbey and Wass Bank regularly, but sadly this is not so today. Various groups such as the Yorkshire Mammal Group and the York based Trust's Watch Group, have been out in these areas searching for hazel nuts which have been chewed characteristically by the dormouse. So far none have been found.

In an attempt to discover if this delightful mammal was still around in the woodlands overlooking Rievaulx Abbey, the Yorkshire Mammal Group with the help of the National Trust, erected 50 dormouse boxes in 1988. Similar schemes in the West Country have successfully increased the local populations. The Rievaulx boxes have been checked on a regular basis, but so far only blue tits, wrens and wood mice have used them. The dormouse like other mammals so far mentioned, is protected by the Wildlife and Countryside Act 1981. It is still to be found albeit in small pockets, in Northumberland and Cumbria, so there is no reason why it should not still be in North Yorkshire.

Other British rodents under pressure from man's activities are the brown hare, the bank vole and the water vole. Due to the illegal releases and escapes from mink farms, the American mink has done unwarranted damage to our water vole populations in certain areas, and none more so than on some of our streams and rivers in North Yorkshire. This is most apparent on small rivers where the river bank vegetation and trees have been stripped away to help the drainage of water from the fields. Under such circumstances the water vole has little or no protection to escape from its newly introduced predator. The Trust, through its members locally, is trying to influence Inland Drainage Boards in their dredging and riparian management.

Likewise with the extensive removal of hedgerows, the bank vole population has declined. However, attitudes are changing and fewer hedges are disappearing and some are being replanted. There has been a marked reduction of the brown hares, with shoots reporting falling numbers in their bags. The decline is partially attributed to changing farming practices. To get some measure of the decline, some members of the Trust in North Yorkshire have been involved in the national hare counts and habitat surveys organised by Bristol University, the results of which are still to be published.

Our indigenous species the red squirrel is totally absent from most parts of North Yorkshire according to the 1993 *Atlas of Mammals in Britain*, with sporadic records coming in from the north-west of the county. Various theories have been put forward for the animal's decline, but the current ones suggest that it is to do with competition for food between the red and the grey and the fragmentation and loss of suitable habitat. As far as I am aware, no attempts are being made in the county to conserve the red squirrel, which is also protected by law. Elsewhere in

Britain such as at Thetford Chase, measures are being taken to help the red squirrel. These are being carried out under the Species Recovery Programme by English Nature and the Forestry Enterprise.

It is difficult to assess whether the various measures taken to protect bats in North Yorkshire have born fruit. Bat numbers fluctuate from year to year, especially if there have been adverse climatic conditions in the winter or at a crucial time in the breeding season. In the last decade a great deal of effort has gone into altering public attitude to bats, erecting bat boxes and examining roosting sites which are under threat. A lot of this work, often in conjunction with English Nature, is carried out by bat groups of which there are two in North Yorkshire, one based in York and the other in Harrogate. Retrospectively, it has been calculated that several thousands of bats have been saved, nationwide because their roosting sites have not been interfered with. In Yorkshire there are listed 11 species of bat, of which 9 have been recorded from North Yorkshire. The most common is the pipistrelle, followed by the brown long-eared bat.

MICHAEL J A THOMPSON



## THE YORKSHIRE OTTER FORUM

Otter conservation work in Yorkshire, as elsewhere in the country, covers a wide range of activities, including otter surveying and monitoring, protecting and improving otter habitat and ensuring good water quality in our rivers. Efforts are made to remove causes of otter mortality on roads and in eel fyke nets. This broad scope of activity inevitably means that otter conservation in the county involves a wide variety of organisations and individuals.

It is clear that communication and co-operation between these various parties is essential in order to co-ordinate and maximise the benefits of their otter conservation work. With this in mind, the Yorkshire Otter Forum was set up in late 1991.

The objectives of the forum, agreed at its first meeting are:

- \* To determine the status and distribution of otters in Yorkshire
- \* The conservation of otters in Yorkshire
- \* Communication between members of the group

The forum is chaired by Michael Thompson, representing the Yorkshire Mammal Group, and is co-ordinated by Sylvia Jay, who has now replaced Lynne Collins as the Yorkshire Otters and Rivers Project Officer (Yorkshire Wildlife Trust). Other invited participants include Gordon Woodroffe and Laura Winter (North Yorkshire Otter Research Project) and representatives from English Nature, Forest Enterprise, the National Rivers Authority and the Otter Trust.

One of the particular issues which has concerned the forum has been the problem of otters drowning in eel fyke nets. Members have participated in the campaign to ensure that by-laws on the use of fyke nets include a requirement for the fitting of a guard at the mouth of the net to prevent otters from entering and becoming trapped.

Perhaps the major achievement of the forum so far has been the development of the Yorkshire Otter Conservation Strategy. This has been produced to provide a framework of action for all those involved, towards achieving a self-sustaining otter population in the county.

The document outlines four key objectives:

- \* To monitor the current status of the otter in Yorkshire
- \* To encourage an expansion of the otter population in Yorkshire
- \* To conserve and enhance wetland habitats
- \* To identify and alleviate all current and future threats to otters and their habitats

The actions required to meet these objectives are detailed and those responsible for their implementation are listed.

Current concerns of the forum include the possible impact of sheep dip pollution on river fauna, including otters, in the Yorkshire Dales, and the danger to otters of snares or traps set near river banks.

The Yorkshire Otter Forum meets every six months, and continues to fulfil its key role as a formal point of contact and discussion campaign for those involved in otter conservation in Yorkshire.

SYLVIA JAY  
Yorkshire Otters and Rivers Project Officer

## FIELD SIGNS

As mammalogists are all too aware, the problem with studying many British mammals is that you hardly ever see them and when you do it is little more than a fleeting glimpse. Some are rare and endangered so the chances of seeing them are even more unlikely. This is, of course, where the ornithologists score and presumably why bird watching has such a large following (the RSPB alone has about 800,000 members).

With so many active bird watchers involved and the effective organisation of numerous bird groups carrying out systematic counts and observations there is much reliable data on numbers of species and population ecology. Data on mammals relies heavily on small mammal trapping and/or tracks and other field signs. While these can provide extremely useful information they need very careful interpretation as I found when studying water voles (*Arvicola terrestris*) and more recently otters (*Lutra lutra*).

When I started the water vole study at the University of York, the idea was to look for water vole tracks and see if they correlated with numbers of animals and various habitat types. As luck would have it I started my fieldwork in autumn and as I surveyed the mud flats along river banks over a whole range of riparian habitats, I found numerous water vole tracks.

Conclusion: there are plenty of water voles around who exploit a wide diversity of habitats.

It was only when I started live trapping water voles the following summer (and throughout 3 years of intensive fieldwork) that I found how far from the truth this quick snapshot had been. At many sites where tracks had been found it proved impossible to catch animals and the appearance of tracks varied erratically throughout the year. It was only when trapping was carried out at sites marked by water vole latrines that animals were caught. By comparing the number of animals trapped with track data it quickly emerged that there was no significant relationship between the two. However, there was a strong correlation between the number of latrines and animals such that latrines gave a good estimation of water vole populations. The overall conclusion from this is that while tracks are evidence that a water vole has been present they are certainly not indicators of healthy, viable populations. Indeed it was further established that on rivers in the North Yorkshire Moors National Park water voles occupied core and peripheral sites. The former being marked by latrines and holding breeding colonies of voles while the latter were not marked by latrines and showed erratic water vole activity. There was no evidence of breeding at peripheral sites and it is possible that these contain individuals attempting to found new breeding colonies or non-breeding animals waiting to occupy breeding territories in core sites.

Turning to otter surveying, this species is rare, endangered, largely nocturnal and travels large distances. So all the surveying is based on looking for footprints and otter droppings (spraints). Spraints are deposited at prominent places throughout the otter's range.

Or are they?

Whilst surveying rivers in the North Yorkshire Moors National Park from 1984-1986, I never found evidence of sprainting, yet otter tracks turned up at a number of sites on all the rivers in 1984 and 1985 but died out in 1986. The fact that otter tracks were no longer recorded after 1986 suggested that all I had been seeing were signs of maybe one or two transient animals. It was therefore, very interesting that when otters were released into the catchment, sprainting was soon observed and spraints were relatively easy to find. All of which suggests that if otters only spraint as a means of communication signalling the use of a resource or even if it has a sexual function then it is feasible that they will only spraint at conspicuous places when otter densities rise sufficiently for communication to become important.

Both these examples illustrate that although signs may be found while surveying it is the nature of the sign that is important. Signs do not necessarily mean that we are dealing with viable populations, and the wrong interpretation of field data is going to give some very misleading mammal distributions.

GORDON L WOODROFFE

## THE CORNISH SEAL SANCTUARY

It was a blisteringly hot, sunny day in June when I visited the Seal Sanctuary at Gweek near Helston in Cornwall, and a world away from the conditions prevailing on the Cornish coast during the winter months which is when the sanctuary carries out its most important work.

At that time, young seals are at their most vulnerable, having just been born in the small coves or on the rocky ledges which provide inaccessible, undisturbed breeding grounds. But the weather is rough on the Cornish coast at this time of year, and gale force winds and powerful seas may result in a pup being washed away from its birth place. Having lost touch with its mother the young seal may die of exposure or starvation or be smashed to death on the rocks.

If such animals are found washed up on the shore, the sanctuary may be able to help them. Such an animal is at first observed by centre staff to verify its abandoned status. Unwarranted interference by humans could well result in a pup being abandoned by its mother. Once it is established that help is required, the animal is brought to the centre and housed in the hospital bay. It is given a thorough examination by a vet and emergency treatment before being settled into a heated pen and allowed to rest for 24 hours. Then it is examined again and given routine antibiotic treatment and injections for problems such as lungworm. Younger pups are tube fed with liquidised fish containing vitamins, while older ones are force fed by hand with whole fish.

Amongst the more common injuries sustained by seals are head and eye damage in addition to shock, exposure and starvation which can lead to pneumonia, but oil coated pups have also been recovered. The success rate of the sanctuary is over 90% and rises to 99% if babies can be kept alive for 2 days. Quite a remarkable achievement!

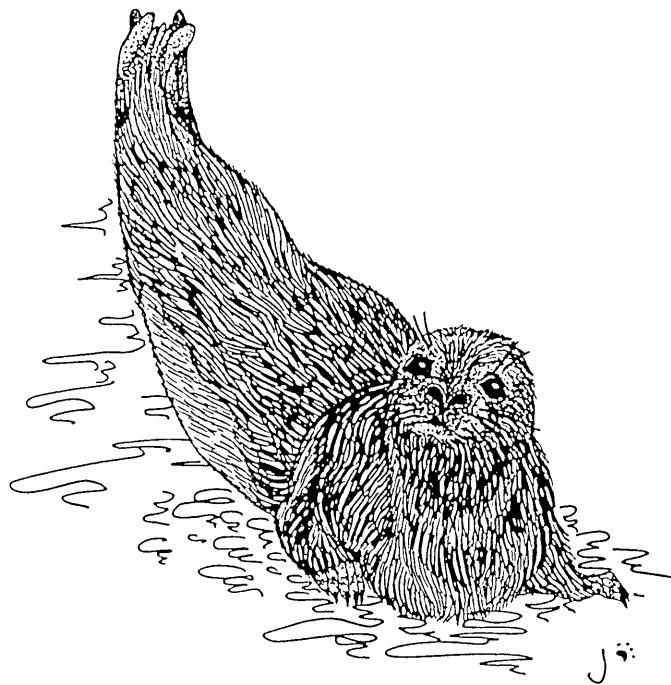
Whilst treating the animals with care and compassion, staff are mindful that they are dealing with wild animals and once inmates learn to catch their own fish in the nursery pool, plans are made to return them to the sea.

Releases take place in spring and autumn thus avoiding the busy summer months. Of course, some animals may be so badly injured that they cannot fend for themselves in the wild again, and they are accommodated in the residents' pool.

One of the delights of the visit, apart from watching the seals being fed, was to observe them through an underwater viewing window. They would swim right up to the glass giving wonderful close-up views.

The sanctuary was founded at St. Agnes in the mid 1950s and moved to its present site in 1975. Set in 45 acres of landscaped grounds on the banks of the Helford River, woodland walks and views of wading birds in the estuary helped make this a visit to remember.

EDITOR



## A SURVEY OF BAT ACTIVITY OVER BEVERLEY BECK

Carried out during January 1994

A pilot study on a national scale was initiated during winter 1992/1993 to survey selected sites for winter bat activity. The study co-ordinator was John Speakman (Dept. Zoology, University of Aberdeen) who invited potential participants to forsake the comforts of their home to look and listen for bats on twenty-one consecutive nights during the month of January, all in the name of science. Having achieved encouraging results from the pilot study a general invitation to participate was issued to all bat groups for a study during January 1994.

The East Yorkshire Bat Group decided to participate and the authors shared the task of the nightly surveys. Previous studies by Lane at Beverley Beck during the winter 1991/1992 suggested that bats are active during all winter months subject to favourable weather conditions (*Imprint* No 20, 1993, 31-33). It was of personal interest therefore to adopt the protocol suggested by J Speakman (Personal Communication) and resurvey Beverley Beck (TA0439) an area which already had recorded winter bat usage data. In brief, the survey protocol involved walking a defined route, in this case along the beck towpath from the western limit near the Foresters Arms to just beyond the flyover where the A1174 crosses the beck, a distance of approximately 0.5 km, and back again to the starting point taking about 20 minutes for completion. The walk usually started no sooner than 30-45 minutes after sunset and was completed at the latest by 22.00 hours. A bat detector was set at 45 kHz and the number of bat passes (a string of uninterrupted bat echolocating signals) was noted. If feeding buzzes were heard, they were noted, and if possible a tentative identification of bat species involved was made. The transect walked follows a canalised stream (Beverley Beck) which is lined at the town end by buildings which give way to substantial hedgerows of hawthorn (*Crataegus monogyna*) and tree lines of weeping willow (*Salix vitellina var. Pendula*). The towpath is lit from the town end to the flyover. The inclusive dates for the study were January 10th - 31st 1994. Additional notes were made of walk timing, wind strength and direction, temperature, cloud cover and whether there had been any rain during the previous 24 hours. The results obtained can be seen in the Table.

Date	Time	Bat passes	Temp °C	Wind direction	Force (0-12)	Cloud (1/10th)	Comments
10/01/94	16.45	2	5.5	-	0	0/10	2 whiskered sp feeding, heavy rain previous night
11/01/94	21.00	0	4	S	1	1/10	Daytime rain
12/01/94	19.00	3	6	SW	2	2/10	Daytime rain
13/01/94	17.00	0	5.5	SW	3	0/10	Dry sunny day
14/01/94	17.30	0	6.5	W	3	5/10	Daytime rain
15/01/94	18.20	0	4	N	1	1/10	Overnight frost, dry
16/01/94	17.05	0	-0.5	NW	1	0/10	Overnight frost, dry
17/01/94	17.10	0	-2	SW	1	0/10	Overnight frost, dry
18/01/94	-	-	-	-	-	-	Rained off
19/01/94	18.00	1	1	Dry			
20/01/94	20.00	0	7	Rain during day			
21/01/94	18.00	8	11	SW	1	10/10	Occasional light showers
22/01/94	18.05	0	7.5	W	1	10/10	Feeding
23/01/94	19.20	0	3	NW	2	10/10	Occasional showers
24/01/94	17.10	0	4.5	SW	3	1/10	Dry, overnight rain
25/01/94	18.00	0	3	SW	1	10/10	Dry
26/01/94	17.20	0	6	SW	2	10/10	Overnight rain
27/01/94	17.15	0	0	W	3	10/10	Snow/sleet
28/01/94	18.05	0	2	W	5	0/10	Dry
29/01/94	18.10	0	10	W	2	9/10	Dry
30/01/94	18.00	0	4	W	3	0/10	Dry
31/01/94	17.15	0	5	SW	3	10/10	Dry

As can be seen, bats were active on four nights with feeding buzzes being recorded on two separate nights. Whiskered sp. bats (*Myotis mystacinus sp*) were recorded on one night, on other occasions either whiskered sp or pipistrelles (*Pipistrellus pipistrellus*) were encountered but positive identification was not possible. The warmest evening also had the highest number of bat passes recorded. It was also possible to resurvey the beck on the warmest evening at a later time when a decreased result was obtained which nevertheless, demonstrated that the protocol could yield comparable results within the defined constraints. It was not possible to correlate bat activity with temperature or any combination of parameters monitored.

The results obtained were comparable to those reported in the pilot study (J Speakman, Personal Communication) when 5 out of 9 survey sites recorded either 1 or 2 out of 21 evenings with bat passes. Since in the pilot study, bat passes were recorded in such widely distributed locations as Plymouth, Bristol, Ilford, Stirling and Aberdeen but not in Ilkley, Northampton, Tyneside or Fife, it was not possible to attribute bat activity to consideration of either latitude or longitude.

These studies reinforce the contention that bats will feed during winter months as the need and opportunity arises. Presumably juveniles and males are most likely to arouse during winter months to feed if their fat reserves are depleted. It would appear necessary to correlate bat activity with insect availability in future studies along with the other parameters currently recorded.

TONY LANE  
PHILIP MOODIE  
PAUL MURBY

Members of East Yorkshire Bat Group

## BOOK REVIEWS

### MICE AND VOLES by JOHN FLOWERDEW

Published by Whittet books at £7.99

John Flowerdew's book is very informative and witty. It is well organised and comprehensive, covering all aspects of mouse and vole lifestyles. Included are full descriptions of the seven species concerned with notes on the island races. The chapter on food prompted me to check on ash keys in the garden, confirming my suspicion that bank voles were present. Other chapters give details of territories, predation, teeth, parasites, relationships with man, conservation and trapping. There are numerous snippets of information and I look forward to trying the suggestion of putting up a mammal table (as opposed to a bird table).

Stephen Kirk's illustrations were excellent. I liked the simple line drawing of a mouse surrounding the page numbers, laughed at the cartoons which put numerous points forward in a memorable way and envied the expertise of the artist in the superb lino cuts, especially the one of weasel and prey.

My main criticism was regarding the sections in italics. I found these distracting and would have preferred this information to have been included in the main text. If I left the main text to read them I lost my train of thought, and if I left them until later they would easily have been left out. Also, distribution maps should have been included. These give a much more memorable idea of distribution than words in a text, and are much easier to refer to.

With these reservations, I found the book an enjoyable read, packed with information and can recommend it to both beginners and more experienced mammal enthusiasts.

JEAN DENISON

### A RED DATA BOOK FOR BRITISH MAMMALS by P.A.MORRIS

Published by The Mammal Society at £7.50 in softback, with 108 pages

Although this very useful book has been out for some time, it has not been reviewed in *Imprint*, and for anyone interested in mammal conservation in Britain it is a must. It fills a much needed gap on the distribution, conservation and targetted research on mammals, which is very apparent with British birds, but has until now been lacking with mammals.

After an introduction, the author and editor of the *Red Data Book*, Pat Morris deals with the structure of the species reviews and the legislative protection for British mammals. Fifteen vulnerable species of British mammal are listed, with the bats (*Chiroptera*) being dealt with collectively under one heading. Under each species review, besides a summary on the status of the species, there are headings on taxonomy, legal status, distribution, population size, historical review and perceived threats, ecology and research overview and finally, priorities for future action, including practical conservation measures. Each species review was prepared by the author with comments by an expert consultant on that particular species.

For instance, under the heading Black Rat (*Rattus rattus*) this rodent is described by Pat Morris and Graham Twigg as endangered, formerly abundant and now as one of Britain's rarest mammals, with the only viable population being on Lundy Island in the Bristol Channel. In the case of this rodent, the text deals with the dilemma that conservationists have to face when dealing with a species that is a vector of diseases to mankind. Should it be protected?

The final section of the book deals with such topics as poisoning, management of the wider countryside, road fatalities, the concept of minimal viable populations, public attitudes, selecting priorities and research supports. There is an extensive reference list on the last few pages.

I would recommend *A Red Data Book For British Mammals*.

MICHAEL J A THOMPSON

## WOODLAND AND WILDLIFE by KEITH KIRBY

Published by Whittet Books at £14.99 in hardback

Published in 1992, this book came at a time which is already beginning to appear pivotal in the politics of forestry and woodland management. Unfortunately so perhaps, for chapter ten deals with the involvement of government bodies and describes the Forestry Commission before its reorganisation into Forestry Authority and Forest Enterprise and their imminent designation as Next Steps Agencies.

But on reflection, 1992 was the perfect time to freeze frame the politics of the rural economy. The changes that have taken place and those that are yet to come merely emphasise the common theme throughout the book, namely that of change. In eleven deceptively brief chapters Keith Kirby manages to describe the great variety of woodland in Britain, some of the wildlife associated with it and the complexity that has resulted from interaction with man.

The presence of humanity need be no detriment it seems as is clearly illustrated by the extent and distribution of woodland in Britain tabulated in chapter one. It comes as something of a shock to compare woodland cover both total and ancient between counties. We learn that North Yorkshire for example has 6.7% total cover and 1.7% ancient whilst Surrey has respectively 18.8% and 5.8% and East Sussex 15.6% and 10.4%.

This is a book for anyone with an interest in Britain's woods and wildlife past, present and future. It is easy and enjoyable to read and raises many issues topical and contentious. The last two sentences of the book give something of the flavour. 'There will always be some tension between the commercial forester and the conservationist so I do not expect the hatchet to be buried. I do hope however that it will be more often applied to the right tree.'

CHARLES CRITCHLEY

## CHIMPANZEES by TESS LEMMON

Foreword by Jane Goodall, illustrations by Robin Budden

Published by Whittet Books at £7.99

During the last two decades, numerous scientific and learned books have been written about the apes with particular reference to the chimpanzee. Now however, in this slim beautifully illustrated volume, we have a popular version about these animals which I found most readable and at times amusing. Tess Lemmon who had devoted all her professional life to these mammals (for she died in 1992) describes the life of the common chimpanzee *Pan troglodytes* in great detail. In dealing with every aspect of chimpanzee life, from mating through to birth, parental care and bonding, growing up and group and social interactions, including aggressive behaviour, the author makes one realise how similar human behaviour is to theirs. Like ourselves, each chimpanzee has its own personality, making identification within an extended family group easy. These higher apes, our closest relatives in the animal kingdom (they differ from us in their genetic make up by only 1.5%) communicate with sounds, facial expressions, postures and gestures. From them no doubt, we humans have a lot to learn.

Not only does Tess Lemmon deal with the socio-biology of the chimpanzee, but also their conservation, for in their African environment they are under constant threat. Their range has shrunk considerably during the later part of this century due to disappearing habitat. Numbers in the wild are also reduced because of the illegal trade in chimpanzee pets, especially young ones which initially are so endearing to their owners, but which on reaching adulthood lose that charm and can become dangerous.

I would highly recommend this book to anyone wanting to know more about the chimpanzee and its conservation. The royalties from the sale of the book will be donated to the Jane Goodall Trust which helps in the study and conservation of chimpanzees in the wild.

MICHAEL J A THOMPSON

## PONIES IN THE WILD by ELAINE GILL

Published by Whittet Books at £7.99 in hardback

This book is a pleasant easy read with amusing illustrations by Diana E Brown. The first 20 pages give a quick reminder of the evolution of the horse from a fox sized herbivore in the Eocene Period, and a brief introduction to the present day wild horses of the world.

The rest of the book concentrates on the British native ponies, none of which are truly wild, but are better described as free ranging and managed. Every aspect of their adaptations, life, death, social arrangements and disease is covered. Then there is an interesting section on the management of ponies on common land, rounding up, branding, culling and the good and bad effects of human interference.

I personally would have liked to see more about the ecological effects of grazing ponies compared to other domestic and wild stock. However I am sure the uninitiated will find this an interesting, enjoyable book and even the thoroughly horsey person will glean some new and useful facts.

LESLEY HELLIWELL

## THE MAMMAL SOCIETY

Shortly to be published by the Mammal Society at £2.50 each are a series of booklets with the following titles:

*The Red Fox* by Stephen Harris and Pirian White

*The Red Squirrel* by John Gurnell

*Dormice* by Pat Morris and Paul Bright

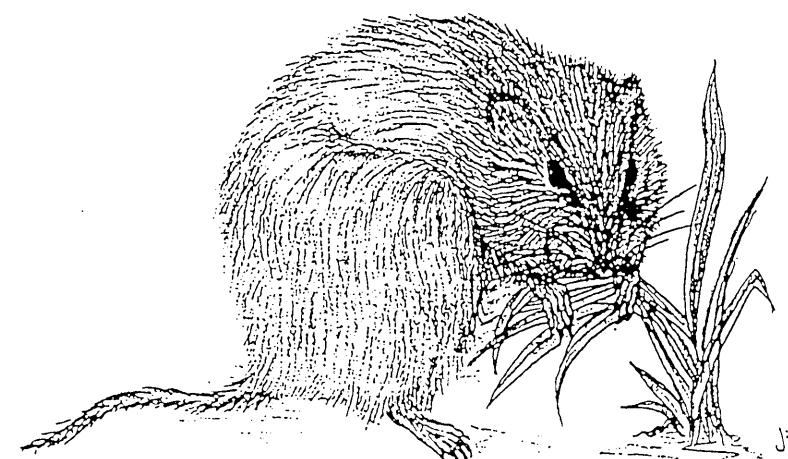
*The Hedgehog* by Pat Morris

*The Otter* by Gordon Woodroffe

## 'PAWTRAITS'

Once again we are indebted to Julie Hanson for her beautiful illustrations. She runs her own business, 'Pawtraits', making black and white pictures of people's pets from photographs. Various sizes and prices are available and they make lovely presents. Further details from Ann Hanson.

EDITOR



## **YORKSHIRE MAMMAL GROUP PROGRAMME 1994-5**

**November 3rd 1994**

Mr Derek Whiteley of the Sheffield Museum - title to be announced

**December 1st 1994**

Helen Smith, Species Protection Officer for English Nature, York Office, on the Protection and Conservation of British Mammals

**January 5th 1995**

AGM followed by David Astley, taxidermist from Wheldrake, on Mammalian Taxidermy illustrated by slides and specimens

**February 2nd 1995**

Professor Michael Delany of Bradford University on The Conservation of the African Elephant

**March 2nd 1995**

Geoff Oxford on Mammalian Studies in Hawaii

**April 6th 1995**

Mark Robinson of Slingsby on The Serotine Bat

**May 4th 1995**

Doug Woods of Upper Weare, Somerset on The Dormouse and its Conservation

**June 1st 1995**

Evening field trip - venue to be announced

**October 5th 1995**

Johnny Birks of the Vincent Wildlife Trust on The Polecat

**November 2nd 1995**

Colin Slater of Kirby Hill, Boroughbridge on High Batts Nature Reserve or related subject

**December 7th 1995**

A Miscellany on the Elephant by Gordon and Lorna Woodroffe

Please note that the AGM will be at the beginning of the January meeting 1995, instead of in December 1994, so that the accounts can be correctly presented.

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

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