Derbyshire Mammal Group News

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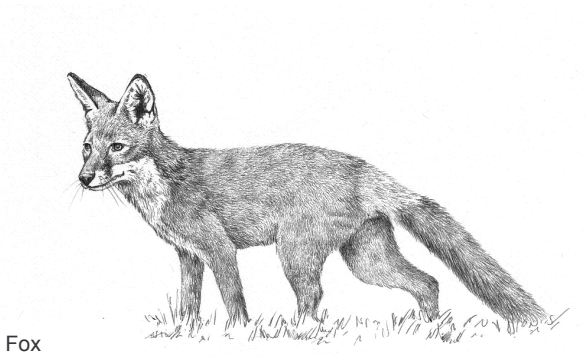
The Derbyshire Mammal Group
is affiliated to
The Mammal Society

In this issue:

First Footing

Sue Jones

12.30am on the first of January. Having seen in the New Year at a friend's house I was walking home along a footpath through the housing estate. In the distance I could see some people walking towards me and between us, in the strip of grass alongside the tarmac path, an animal was running fast. I took it to be their dog, alarmed by the flashes and bangs of celebratory pyrotechnics. As a dog lover I was concerned that it was running off from its owners, so as it approached me I spoke to it hoping it might come close so I could hold onto it until its owners caught up. This approach was unsuccessful and as it hurtled past I realised why. It wasn't a dog, but a fox!!



Red Fox
by Laura Berkeley

I was slightly shocked but very pleased with this close encounter. I have lived in the area for about thirty years but this was only perhaps my fifth time of seeing this wild creature locally.

White Stoats in Derbyshire

Dave Mallon

The stoat and the mountain hare are the only species of UK mammals that regularly moult into a white winter coat in winter. Farther north in Europe, weasels also turn white in winter, but this has not yet been recorded in the UK.

In the case of the stoat, northern animals turn white (except for the black tail tip) while southern populations remain brown. Derbyshire lies along the transition zone in the UK for this feature and white, partly-white, and brown individuals can all be seen in winter. White stoats, or ermines, are regularly seen in north Derbyshire, mainly on moorlands, such as Longdendale, Upper Derwent Valley and Kinder Scout. A survey of winter stoats in the Sheffield area (Clinging 1984) showed that 17.5% turned white or partly white. A partly-white stoat has been seen in Monsal Dale (Clinging and Whiteley 1985) and a white individual was seen at Combs, near Chapel-en-le-Frith in January 2004. In early 2005, a white stoat was seen on several occasions in the Elton Common area, representing one of the most southerly records so far for Derbyshire.

There is a similar situation in the Lake District, where some stoats turn white, others stay brown. Farther south in the country, white stoats are rare. In Kent one has been recorded near Rye and another that visited a garden at Dungeness in 2005 was considered very unusual.

Ermine is traditionally used in royal garments and 50,000 pelts were sent from Canada for the coronation of George VI in 1937. Ermine fur was formerly also used to trim the ceremonial robes of members of the House of Lords, but artificial fur is now used instead. Ermines also have a long association with purity and were an important heraldic symbol during the Renaissance. There is a famous picture painted by Leonardo da Vinci 'Lady with Ermine' and a portrait of Queen Elizabeth I by Sir William Segar shows her with a crowned ermine at her side.

Decreasing day length appears to be the primary trigger initiating the moult into winter coat, but low temperatures and possibly snow cover may also play a part in maintaining or prolonging the white coat. Genetic factors are also relevant as has been demonstrated by experiments in translocating animals.

White winter coats are assumed to be an adaptation to make animals less conspicuous against a snowy background, allowing them to avoid predators or to hunt more effectively without detection. It will be interesting to see whether the decrease in frequency of snowy winters in our area has any effect on the occurrence of white stoats.

References

Clinging, V. 1984. White stoats in the Sheffield area. 1973-1982. *Sorby Record* 22: 49-50.

Clinging, V. & Whiteley, D. 1985. Mammals. In: Whiteley, D. (Ed). *The Natural History of the Sheffield Area*. Pp. 84-104. Sorby Natural History Society, Sheffield.

Mucking about with Molehills

Derek Whiteley

For the past few months I have been making a special effort to record molehills across the county. Originally the aim was to put dots on maps but the more you do the more interesting it becomes.

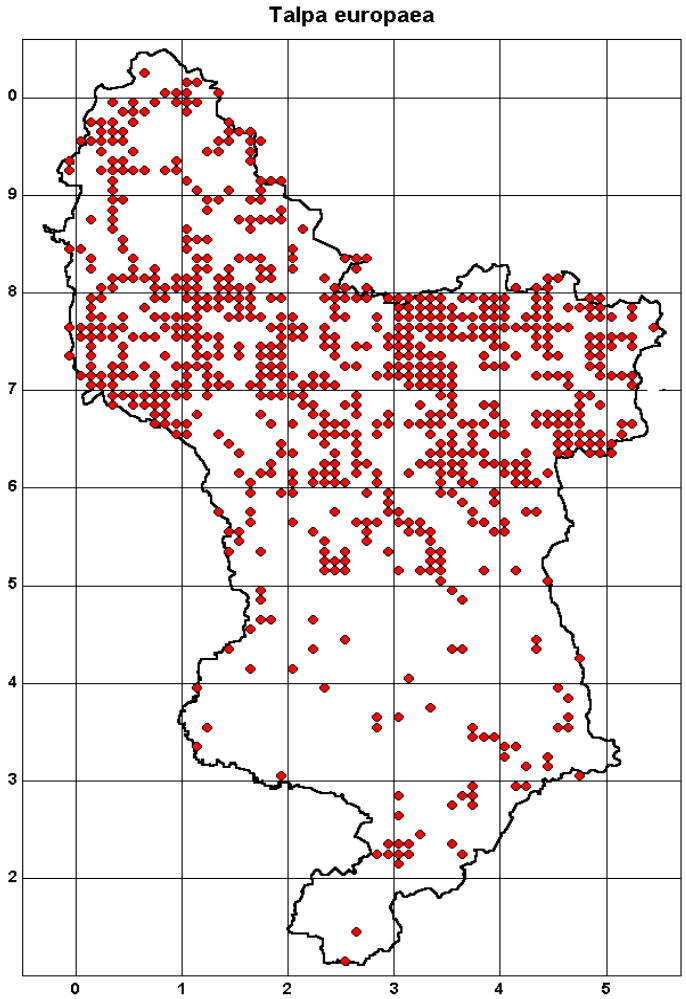
Firstly there is an obvious increase in the number of hills from December onwards. Have you noticed how some green fields become peppered with brown mounds during the Christmas and New Year holiday period? This is because moles are busy repairing their tunnels from frost and flood damage and may be constructing new deeper tunnels to find more invertebrates (mainly earthworms) deeper down.

Moles are not as ubiquitous as we think. As the distribution map in the Derbyshire Mammal Atlas project develops we will notice areas where there are no moles - heavily urbanised areas, permanently wet areas, toxic areas, continuously tilled areas, beech plantations and even some agriculturally 'improved' pastures. In grid square SK17 in the White Peak there are now many fields with few or no molehills. There is even an entire one kilometre square that doggedly refuses to yield a molehill record. Quite frequently I have been recording a thin string of hills at the edge of fields, along drystone walls, where the plough or harrow cannot reach. Of course, a dearth of molehills does not mean that there are no moles. Some tunnel systems are very stable and require little repair, and you have to work hard to find any signs of mole.

Watch out for things that mimic molehills! I have been fooled by large cow pats, clods of earth from tractors, mounds made by yellow ants, and even dark rocks at a distance. Keep your binoculars handy! Remember to record 'fortresses'. These are superhills, up to a metre high, often with a nest chamber and radial holes. They are most often found in shallow soils or areas subject to flooding. Fortresses can be built by either sex.

When recording molehills make a brief description of what you actually see. We don't need an essay – just a few words that make the record more useful without clogging up the database e.g. "Two clusters of hills in corner of wet pasture." or "hills sparse in this arable area"

Enjoy your molehill watching.



Mole records on DMG database at 25th February 2006

Mole is a contraction of the name mouldiewarp, which is related to the German maullwurf, and means soil thrower. The meaning of mould as soil is largely lost now but does crop up in leaf mould and the mould board on a plough. In the Cumbrian dialect of my childhood a mole is a mowdie. (John Bland)

Molehill
(Steve Docker)

Atlassing for Molehills?

by Dr Derek Yalden, President of the Mammal Society

Molehills are not so easily recorded in high summer but are a very good target for the winter season. I did a lot of molehill recording in the Peak District in the early 1970s and it would be interesting to know how well the distribution has held up. Has ploughing and re-seeding caused a reduced distribution? Without having conducted a serious re-survey, I don't know.

The mole was the best-recorded mammal in the earlier mammal atlases (Corbet 1971, Arnold 1993) because molehills are such a familiar and easily logged sign. Driving, with a navigator/recorder, round the countryside in winter is a relatively easy and straightforward way of recording and could even be turned into a social day-out for mammalogists (lunch at one inn, tea or dinner at another after dusk to compare notes on a short winter's day?).

We used to combine it with searching for small mammals in discarded milk bottles at lay-bys, but milk-bottles are now rarely used, or discarded. With GPS and laptops, it would even be possible to do a high-tech, instant data-entry, version of a mole survey, but I personally would probably have to stick with a 1" OS map (even that is now obsolete, and no longer printed!).

The Sorby NHS Mammal Group did some such surveying in the 1970s, and got a good correlation of mole records with geology. There is likely also a good correlation with earthworm density, but the latter is harder to prove; indeed, ornithologists looking for good pastures for lapwings and golden plovers tend to take the presence of molehills as a good surrogate for the presence of a good earthworm population, so good feeding opportunities for the plovers.

So how about recording your local 10 km square for moles? Can you find them in every 1 km square in your 10 km square, over the winter? Such an abundance measure, if from enough 10 km squares, would give us a useful index of the status of moles in Derbyshire. Which fields (what field usages) have molehills? Pasture is the easiest to record but moles are good at invading ploughland in winter. Activity is highest if rain or snow-melt cause their tunnels to collapse so that they require re-tunnelling. Moles are believed to be just as abundant in deciduous woodland, but molehills there are much harder to spot. Road verges are an easier target.

Dominique Langlois is Manager of a National Nature Reserve in Franche-Comté in Eastern France. He is currently working for English Nature's Derbyshire & Peak District team on a job exchange with Ben Le Bas from EN. Dominque kindly agreed to describe some of the difficulties facing water voles in this region of France. The piece has been translated from the original French by Dave Mallon, with notes added by Helen Perkins.

The Water Vole in Franche-Comté: A Problem Species

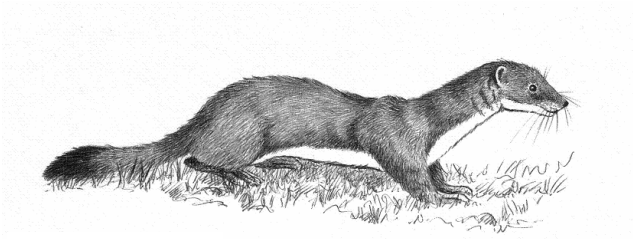
by Dominique Langlois, National Nature Reserve Manager, Franche-Comté in Eastern France.

When the state appointed a new Director of the Environment in Franche-Comté at the end of the 1990s, she acquainted herself with the major problems in the region. They were three in number: a new motorway, a chemical complex, and the water vole.

In what way exactly is this species such a problem on the plateaux of the Jura (as in the Massif Central) above 500m (1640 feet) in altitude? Its habitat is permanent grassland, pasture or hay meadow, it is absolutely not tied to watercourses in these areas. It can consume and/or cover in 'vole'-hills 90% of the grassland during its population peaks which generally follow 3-5 year cycles. As permanent grassland covers more than 80% of the agricultural area for dairy produce ("Comté" cheese) the economic issue is important. Each year, several dozen communes are declared in need of government assistance. The state compensates the farmers and funds a chemical campaign against the water vole. The substance used is bromadiolone, an anti-coagulant, which is where the problems begin.

'Vole'-hills
(Dominique Langlois)

This poison is transmitted through the food chain and kills raptors, foxes and wild boars. 1998 was particularly catastrophic, with 52,750 hectares treated (at 20kg of bromadiolone per ha), equal to about one third of the area of the Peak District NP. Officially, 373 predators and scavengers were diagnosed as poisoned, but how many really died? Stoats, in particular, a specific predator on water voles remained poisoned in its burrows. According to ornithological organisations, the population of red kites, one of the most important in Europe, declined steeply. Nature protection organisations have therefore openly opposed the chemical campaign against the water vole and forced the state to reconsider its campaign, after having brought it before tribunals for destroying protected species. Many farmers have also understood that a public health issue is involved and they had no interest at all in finding traces of bromadiolone in milk.



Stoat
by Laura Berkeley

Use of bromadiolone is now prohibited in the water vole breeding season. It is necessary to treat the grassland more often but with a reduced dosage when the water vole has hardly established itself. Manual trapping is encouraged, as it was 50 years ago, when village children received money for each water vole tail! Therefore, as soon as a mound of earth appears in my garden I set a trap before the pair develops in the course of the year into 250 individuals. I hope that my British counterpart is operating in this way in my absence!

Water vole populations appear to have always been present on the plateaux of the Jura, but they have been accentuated by agricultural intensification and the activities reducing the diversity of the landscape: grubbing out hedges, removal of collapsed walls and the piles of stones cleared from fields (these were left in lines down the edge of fields and were an important habitat for stoats), development of grassland monocultures. Predator density is reduced in these simplified rural structures and labour also seemed to present a barrier slowing down the population peaks.

Finally, not only does the water vole population reach high levels, it is also the vector of a fatal disease, alveolar echinococcosis*, which can insidiously destroy the liver. To complete its life cycle this tapeworm passes into the water vole, which is consumed by a predator (fox, cat) which then voids it with its droppings onto a plant which the rodent again ingests. Do not eat natural foods from

below one metre in height on the continent; you could catch this disease, which seems to be increasing in Europe.

The water vole is thus very 'popular' in Franche-Comté, but not for the same reasons as in the UK. It is the same species, but British animals are larger. They weigh 150-300 grams, almost twice as much as those in France-Comté.

** this worm and infection also occurs in sheep*

Additional Notes

Helen Perkins

It has been fascinating to talk to Dominque about water voles in the Franche Comte area of France and to discover that he is dealing with a quite different set of water vole 'issues' to those that we are we dealing with over here. The fossorial form of the water vole used to be common in grassland habitats in Britain. It appears that, as a consequence of livestock grazing of these habitats, this form of the water vole disappeared from mainland UK around 100 years ago. There are some small populations of the fossorial form remaining on islands off Jura in North West Scotland.

Regarding *Echinococcus multilocularis,* the larval stage of this microscopic tapeworm can cause the disease alveolar echinococcosis in humans (sometimes known as Alveolar Hydatid Disease or AHD). Though still rare, it appears to be increasing in continental Europe. Foxes, dogs and cats can become infected if they eat *E. multilocularis* larvae in infected rodents. Water voles seem to be one of the main intermediate hosts of the tapeworm's lifecycle. An infected fox, dog or cat can pass the tiny eggs of the tapeworm larvae through their droppings, which can adhere to anything they come into contact with. Humans can become infected either by directly ingesting plants that are contaminated via fox droppings or by handling infected cats and dogs. *E. multilocularis* can cause a serious and often fatal disease that produces effects similar to liver cancer. ***The tapeworm is not present in the UK*** but does occur in France, Germany, Switzerland, Hungary, Austria, Poland and several other countries in Europe, as well as in a number of other countries in the northern hemisphere.

For more information on the possible role of the water vole in the spread of the disease and the relationship between abundance of water voles and prevalence of the disease see Sréter T, Széll Z, Sréter-Lancz Z, Varga I. *Echinococcus multilocularis* in Northern Hungary [*letter*]. Emerg Infect Dis [serial on the Internet] 2004 Jul. Available from: http://www.cdc.gov/ncidod/EID/vol10no7/03-1027.htm.

Magical Mustelids

John Bland

The term mustelid means simply "like a weasel" and stems from the Latin word for a weasel, mustela, which is the genus name for weasel, stoat, mink and polecat. Mustela has the same root as musty and weasel is related to the Sanskrit word visra, which meant musty smelling. It is clear therefore that the smell of the animal was a dominant characteristic in naming it.

The species part of the weasel's scientific name is nivalis, which means of the snow so that is when it must have been most apparent. Its cousin the stoat tries to be camouflaged in winter by turning white – becoming the ermine represented in its scientific name *M. erminea*. Stoat comes from an Old English word stott meaning an inferior horse possibly because it was inferior in the brown stoat pelage to when it was in ermine.

The smell is apparently worse with polecat, which has acquired the species epithet putorius from the Latin word for stench. The name polecat may stem partly from the French "poule-chat" because it took young game birds but, as f and p are interchangeable in etymology, it derives also from the term foul-mart. The sweet-mart was the beech marten which is related to the pine marten, *Martes martes*, the marten name stemming from West Germanic martre, though I don't know what it meant. The same is the case with mink, a name which is of Scandinavian origin.

Badger is much easier to explain as it is the animal that has a badge, a distinguishing mark to identify it, in the form of its facial markings. Otter stems from the Greek word hudor which meant water as it is overwhelmingly the water animal.

Badger
(Steve Docker)

The Derbyshire Mammal Atlas Project

Derek Whiteley, DMG Recorder

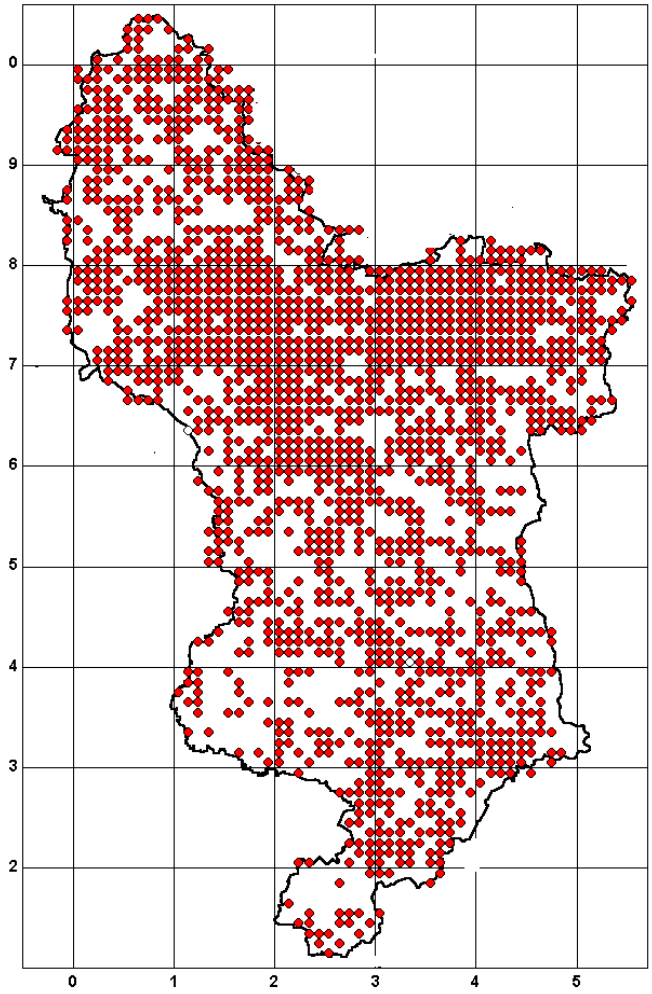
Our aim
To produce an Atlas of Derbyshire Mammals as a book and in digital format. The Atlas will be a set of maps showing the distribution of species in the county, with supporting text about the status and ecology of each mammal. This has not been done before. Maps have been published for some species for the whole county, and atlases have been published for part of the county for all species, but not all species for the whole county. Our target year is 2010, so we still have at least 4 years for going out, recording, surveying and data gathering.

The end product will be a useful and detailed work of reference, and a baseline for future surveys. The supporting database will also be a useful conservation tool.

The Project partners
Derbyshire Mammal Group, *Sorby Mammal Group* and *Derbyshire Biological Records Centre*. There are many other organisations and individuals recording mammals in Derbyshire and they are being asked if they can contribute or exchange records.

Where are we now?
We currently have just over 10000 records on the DMG database. Map 1 shows where those combined records are from. A "white square" simply means that we have no mammal record at all from that square. Our aim is to black-in this map by making special visits (as individuals or as a group) to "white squares" to record mammals. In theory all squares should have at least one species.

Sorby Mammal Group has only just started to computerise its thousands of records for North Derbyshire, and these will be added as we go along. DBRC also has thousands of records and we are looking at ways of dealing with the backlog.



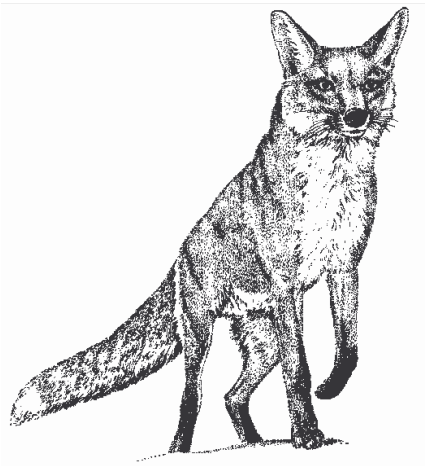
Map 1. All mammal records on the DMG database at 22nd February 2006.

Why is a Fox called a Fox?

John Bland

Continuing the theme of why mammals are called what they are, why is a fox called a fox? The name can be traced back to the Sanskrit word puccha, which meant tail, and is an example of a dominant characteristic being used as the name for the whole creature.

The word vixen for a female arose much later with the Old English fixen as the feminine of fox. The name Reynard for a fox is the English form of Renart, the central character in the Roman de Renart, a series of popular satirical fables written in France about 1175 to 1250.

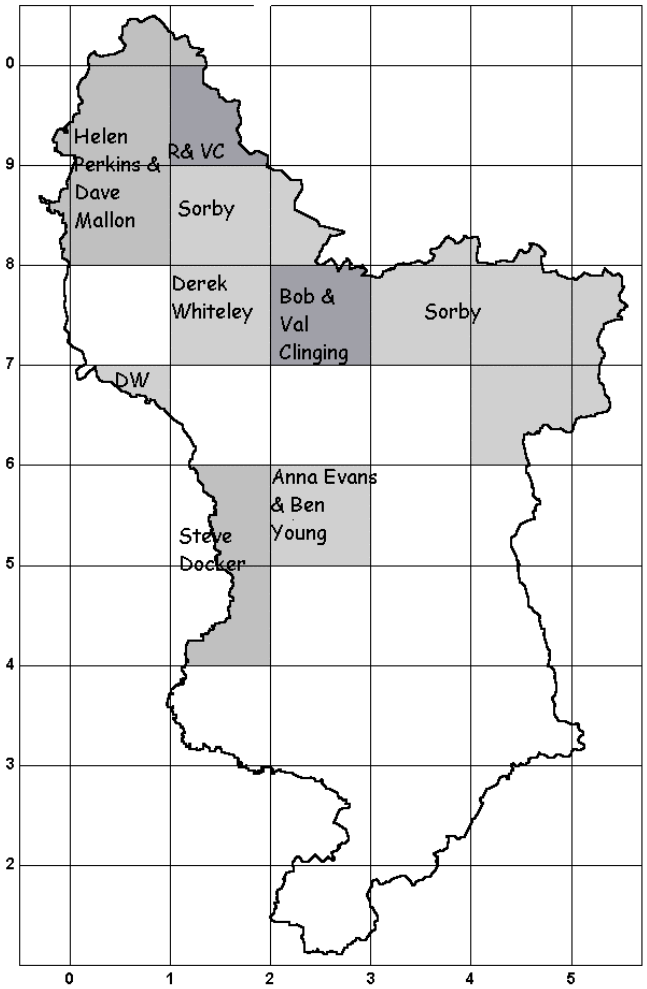


Red Fox
courtesy of English Nature

Stewards.
Some ten km squares have "stewards" who will try to arrange visits to each of their one km squares, talk to other people out in the field, and generally promote mammal recording within that square. Map 2 shows the current stewards. Volunteers are required to take on blank squares.

What else can you do to help?
Well, just keep recording. Try to visit new places. Use a range of techniques to record different species. Talk to people about the Atlas Project especially local groups with members who have local knowledge. Keep sending in your records.

Some species are particularly under-recorded and will require special attention. House Mouse is a good example of a species that is not recorded by standard field techniques and is under-represented in the database. We need to make special efforts to record this species.



Map 2 Ten kilometre square "Stewards" for Derbyshire Mammal Atlas Project

What next?
We will be producing some literature to promote the Atlas Project, talking to local groups, establishing a web page, and having an official launch later this year. I will be circulating some provisional maps for selected species as they develop. There will be some special recording meetings on the DMG and SorbyMG programmes, so watch out for those.

Derbyshire Mammal Atlas Working Group.
Steve Docker, Anna Evans, Steve Lonsdale, Dave Mallon, Nick Moyes (DBRC), Helen Perkins, Derek Whiteley (also representing Sorby Mammal Group)

Send your records to Derek Whiteley (DMG Recorder) , Beech Cottage, Wardlow, Derbyshire SK17 8RP.

Weasel found 'people watching' at Wildlife Centre!

by Rose Day, Severn Trent Water

On a visit to the wildlife centre at Carsington Water on Wed 15th February I found myself and some visiting birdwatchers being watched by a weasel! The creature seemed quite inquisitive and repeatedly came towards the window then returned to a hole near the bird feeding stations, every time getting closer. Stoats have also been frequently seen around the Ranger base and car park over the winter, no doubt hunting out the car park rabbit population! I came across one dragging a huge rat, twice its size, into the undergrowth. I was in the van so it ran off but as I waited it returned tentatively, not wanting to give up its enormous dinner!

Curious Weasel
(Nick Everall)

Introducing the Harvest Mouse

Anna Evans

Ecology

The harvest mouse (*Micromys minutus*) is Europe's smallest rodent, weighing only 4-6g (about the same as a 20p piece) and measuring only 5-7cm in length. Its fur is a reddish-golden colour on the upperside and white on the underside with a sharp division between the two areas. In contrast to other mice it has a much more rounded nose and smaller, more hairy ears. It also has characteristic bright beady eyes and a unique prehensile tail, which it can use to wrap around objects such as grass stalks in order to improve balance.

Largely nocturnal, harvest mice are extremely active climbers, living and feeding in the stalk zone of long grasses and reeds.

Harvest Mouse
(Steve Docker)

Nests, which are round and usually 5-10cm in diameter, are used for both shelter and breeding purposes, with breeding nests being larger and more robust than shelter nests (breeding nests are comparable in size to a tennis ball whereas shelter nests are more the size of a golf ball). Nests are built from the leaves of plants, which are shredded lengthways and woven together to form a tight ball. The nest remains attached to the stalks of the vegetation from which it is made and is lined with finely shredded grass or thistle down. Whilst in use there is no obvious entrance to the nest however once abandoned, a visible entrance hole may be left.

Harvest mice usually have two or three litters a year in the wild, between late May and October (or even December if the weather is mild). Most litters are born in August. There are usually around six young in a litter, which are born blind and hairless but grow extremely quickly. They become independent after about 16 days but continue using the nest. A fresh nest is built for each litter.

In autumn and winter the mice descend from the dying stalks of tall vegetation to live at ground level. During this time hedgerows become valuable sources of food and shelter, with nests of grass being built near ground level.

Habitat

Typically, harvest mice were associated with cereal fields. However, whilst they may still be found in such habitats there is now general agreement that the use of other habitats by harvest mouse may have previously been overlooked.

It has been proved that harvest mice can be found almost anywhere where tall grass, reed or sedge species exist throughout the year; including marshes, reedbeds, rough grassland, hedgerows, gardens, bramble patches and even road verges.

Food

Harvest Mice have high energy requirements and are thought to eat a mixture of seeds, berries and insects. Moss, roots and fungi may also be taken, possibly along with green shoots in spring when other food sources are scarce. They also sometimes take grain from cereal heads, leaving characteristic sickle-shaped remains, however they do not cause widespread destruction to crops.

The Harvest Mouse in the UK

The harvest mouse was first recognised as a distinct species by the naturalist Gilbert White in the 18th Century. However, due to a lack of information it is not known whether the harvest mouse is a native species to Britain or was simply an early introduction. Evidence dates their presence in Britain back at least as far as the Roman period however as they are such an under-recorded species their origins cannot be stated with certainty.

Currently, harvest mice can be found from central Yorkshire southwards, with isolated records from Scotland and Wales which probably result from the release of captive animals. In the last 30 years the population is thought to have decreased to such a degree that they are now considered to be rare, being mostly found in southern and eastern England, with a few records in the Midlands, the north of England and southern Scotland. They are entirely absent from Ireland.

The harvest mouse was commonly recorded in arable fields prior to changes in farming practices during the last century. However, increased mechanisation of harvesting processes caused a sharp decline in the numbers of harvest mouse recorded on farmland. Recent surveys, however, have demonstrated that this resilient little species can quickly colonise new wetland sites.

The Harvest Mouse in Derbyshire

The status of the harvest mouse in Derbyshire is still largely unknown. The Sheffield-based Sorby Natural History Society pioneered the technique of searching for abandoned summer nests locally and this has helped to increase knowledge of harvest mouse distribution in the north east of the county.

In recent years nests have been found at various wetland and grassland sites, including Pools Brook Country Park and within the Moss Valley (Whiteley, 1996).

Harvest Mouse Nest
(Anna Evans)

Further searches by Derbyshire Wildlife Trust volunteers and members of the Derbyshire Mammal Group revealed nests at a number of Trust Reserves, whilst other records exist from a small number of wetland and grassland sites across the centre, east, south and south east of the county.

However, few other records exist. Currently there are no records from the west of the county. However, as harvest mice have recently been found by Staffordshire Mammal Group at Tittesworth Reservoir in the SW Peak District, there is good reason to suspect that they are present in the west of the county as well. There can be no doubt that there are still a lot more sites out there waiting to be discovered!

Based on the apparent decline of harvest mouse populations across the country, its vulnerability (particularly to adverse weather conditions and human intervention) and on the general lack of information about the current distribution and status of harvest mice in Derbyshire, the harvest mouse was highlighted as a **locally important species** in the Lowland Derbyshire Biodiversity Action Plan, which is the Local Biodiversity Action Plan for Derbyshire outside the Peak District.

Otter-Watching in Scotland

Derek and Sarah Whiteley

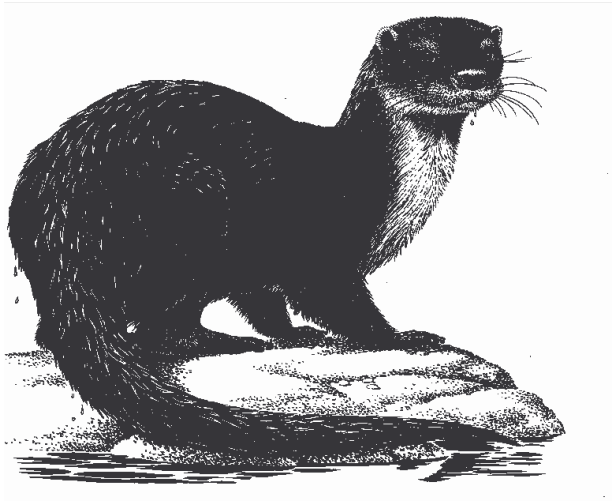
The idea behind this article is that we share information on our favourite otter-watching sites. Having returned from two holidays on the Isle of Mull last summer, we will start there.

We watched otters along the coast at several places south of Fionnphort on the Ross of Mull mostly in the afternoon or evening, fishing or crabbing in the seaweed pools. Favoured places were at the tip of headlands or on rocky islands in the bays. Our best views were on the west coast of Iona, just a short walk from all the tourists. There is a beautiful white sandy bay where a large otter was catching fish just offshore for about an hour at midday. The south side of Loch na Keal was also good. Drive slowly along the scenic route with a passenger eye on the coast. Most of Mull is reported to be excellent for otter-watching.

Some years ago we were lucky enough to work on the east coast of South Uist for a few weeks and saw otters nearly every day. This area is quite remote and sometimes involves a good walk to reach the sea but is well worth making the effort. This is our best otter-watching place to date with sightings almost, but not quite, guaranteed.

The best single day ever was on a brief visit to the Isle of Kerrera, a short distance from Oban. We were 'island-bagging' at the time and went over on the foot ferry to walk the nature trail. We saw four separate otters in half a day. A trip to remember!

Arran was an annual holiday destination for us in the eighties and nineties, and for many years we saw no otters (they were classed as very rare visitors). But Mink were abundant on the island. Since 1998 our luck has changed, otters had returned to Arran, and we have watched them several times off Merkland Point just north of Brodick.



Eurasian Otter
courtesy of English Nature

So far we have looked at islands, but our early encounters with otters were on the mainland in a sea loch on Morvern and off the headland at Rhu near Arisaig and nearby Loch Morar. Our luckiest sighting came when, stopping for a picnic tea to watch the whirlpools at the Falls of Lora just north of Oban, an otter came floating down under the Connel Bridge riding the outgoing current. Lucky or what?

Now let's hear from you. Please write something for the newsletter with your favourite otter-watching sites.

There's more on otter watching in Scotland in the Autumn 2005 issue of BBC Wildlife, p70-75. (ed).

House mouse – the mouse we love to hate!

Debbie Court

Other than man, the house mouse (*Mus domesticus*) was thought at one time to be one of the most widespread mammals in Britain! They are thought to be native to Asia but have been in Britain since the Iron Age. They have large pink ears and a long scaly tail which is as long as the head and body put together. Unlike wood mice, house mice have grey-brown fur which is greasy and has an unpleasant musky smell. House mice will eat almost anything from grain and meat to insects and soap. They do, however, prefer grain and fruit and have a liking for chocolate as opposed to cheese. Like wood mice they are mainly nocturnal and usually sleep during daylight hours.

As their name suggests they have an association with houses and dwellings occupied by man. On the Island of St Kilda in the Outer Hebrides they soon died out after the island was abandoned by humans more than 50 years ago. Depending on their habitat, they may roam up to 2km square to find food and shelter or may not move more than 4 metres square if they have everything they need to hand

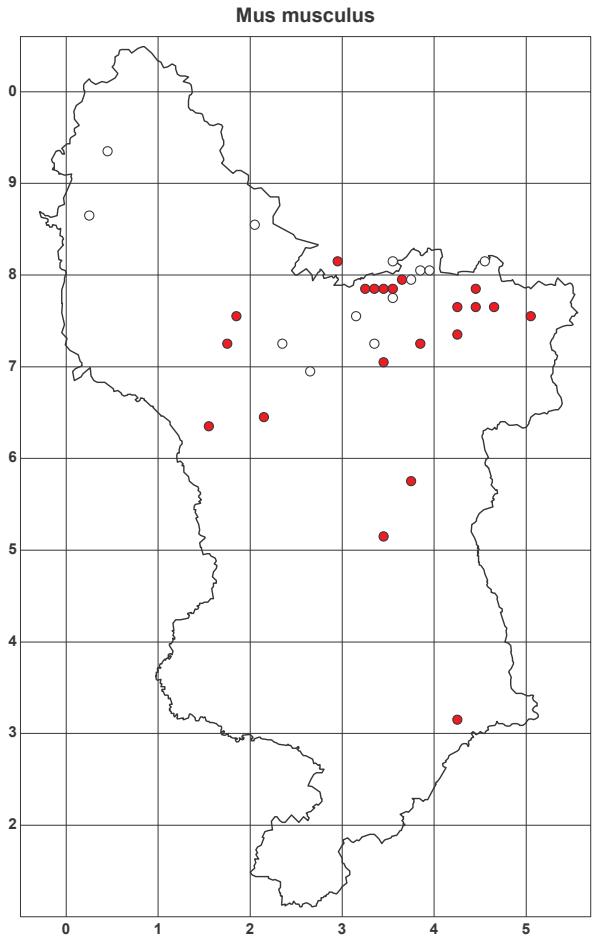
Despite their reliance on man, man does not feel the same dependence on the house mouse. House mice have the reputation of terrorising housewives and were the scourge of the farmer. Mice had a bad reputation for damaging food in its production and storage. This became a serious matter during World War II and scientific research was used to deal with them using special poisons. Oddly enough, mice do not actually eat very much, only about 3 grams a day. Their bad reputation comes from their ability to spoil and damage food by urinating on it and leaving their dropping and greasy hairs in it. Before the day of the combine harvester they would live in corn ricks, which provided warmth, shelter and plenty of food. By the time the ricks were dismantled anything up to 10% could have been spoilt by the mice. House mice can produce up to 50 droppings a day and occasionally have been found dead in grain stores resulting in dead mice being found in loaves of bread.

Where the conditions are suitable house mice are prolific breeders. Females have litters of between 5 and 8 young, and can give birth 5 to 10 times each year. The mice become independent within 3 weeks and are ready to breed from the age of one month!

House mice have gone down in folk and cultural history in a mixture of images. Many of us have grown up with house mice as characters in our favourite stories and programmes. Jerry mouse is one of the most famous whose exploits with Tom enthralled us and whose very presence reduced Tom's female owner to a gibbering wreck standing on a kitchen stool screaming! He lived in a hole in the skirting board and had the run of the larder and loved cheese. Pixie and Dixie mice caused havoc in the house with their hapless enemy Mr Jinks. Like Tom, he never caught them of course. The high pitched noises house mice make lead to the mice characters having high pitched voices. Think of Mickey Mouse or the signing mice in Bagpuss with their 'We will mend it' song.

House mice are the most familiar of Beatrix Potter's mice characters. The mouse in *The Story of Miss Moppet* (1906) shows typical house mouse athleticism in escaping the cat. The mice in *The Tailor of Gloucester* (1903) are extraordinary. Not only can they sew and embroider, but they feel sorry for the tailor when he cannot finish the waistcoat and jacket in time for the Mayor's wedding. Like real house mice, they are lively, agile and busy.

Their distribution in Derbyshire is not well recorded. Middleton (1969) records them from 16 1km squares with the comment that "most observers have neglected to record this presumably common species."



Records for House Mouse from the DMG database. 25th February 2006. The open circles are pre-1990 records. Possibly our most under-recorded species.

House mice have undergone a decline in urban areas in the late 1970s probably due to more effective control measures. Clinging and Whitely (1985) record it as being found in association with older domestic houses, shops, warehouses, factories, underground sections of

coal mines as well as gardens, hedgerows and fields close to cereal crop growing areas. You might like to look up the distribution map for the Sorby area 1970 – 1997 and 1980 – 2000 on the Sorby Natural History website at www.sorby.org.uk.

The Derbyshire Biological Records Centre has only 1 record for house mouse that has not come from the Derbyshire Mammal Group. Derek Whitley, the DMG recorder reports that we only have 31 records for the house mouse.

If you have any house mouse records for Derbyshire or you are, or know a, pest control officer we would like your house mouse records to add to the database for the Mammal Atlas.

Further reading:

Berry. R.J (1981) Town mouse, country mouse: adaption and adaptability in *Mus domesticus*. Mammal Review 11 91-136.

The name **mouse** comes from the Latin mus and the creature seems to have always been mus, or a closely related word, in all languages. Ancient peoples must have been quite familiar with mice because the name affects other words. Muscle is so called because muscle rippling in the arm looks like a mouse moving under the skin. (John Bland)

Water Shrew Survey 2006

Helen Perkins

The Mammal Society's Water Shrew Survey started in December 2004 and ended in September 2005. The final results of this national survey are awaited with interest, but interim reports suggest that baited tubes are a useful way of collecting data on water shrew presence. Local results have shown the value of the method, with water shrew scats being found in baited tubes at Long Clough Nature Reserve and Snake Woodlands in the north west of the county, at several sites along the River Wye in the White Peak, at Cromford Canal (one of the few sites in the county where water shrews have been regularly observed in recent years) and at two sites near to Carsington Reservoir.

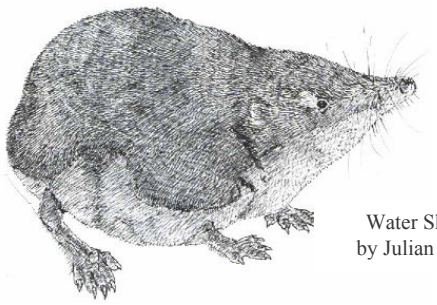
Here's a quick summary of the method if you're not familiar with it. Water shrews are enticed into short lengths of plastic tube baited with pre-frozen blowfly larvae (casters). Tubes are enclosed at one end with a piece of net or mesh, set amongst vegetation close to a suitable site and secured into the ground with a piece of wire or a stone. Whilst feeding in the tubes, the animals may deposit their droppings or scats. Tubes and scats are collected 10-14 days later. The contents are dried and scats separated from caster remains. Scats are then examined under a microscope to see if they contain the remains of aquatic invertebrates. Although other shrew and small mammal species may enter the baited tubes and leave their droppings behind, water shrews are the only small mammal species to feed on aquatic invertebrates.

Water Shrew Baited Tube
(Steve Docker)

The presence of the latter is thus used to confirm water shrew presence. Clearly negative results from tubes do not necessarily imply that water shrews are absent and it may take more than one try to get a positive result even at the most perfect looking sites.

With funding from the Peoples Trust for Endangered Species, Derbyshire Mammal Group and Derbyshire Wildlife Trust have now purchased microscopes for use in baited tube surveys. We are beginning to get the hang of identifying very small parts of very small invertebrates in the small poos of small mammals, so this year we would like to extend the survey effort in the county.

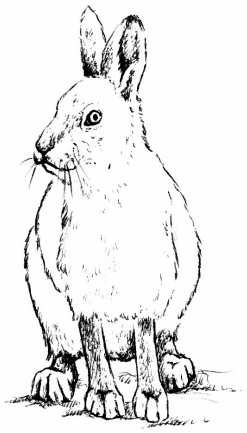
We will be running a training session on survey methods for both water shrews and water voles on Saturday May 13th 10.00-1.00 at the Whistlestop Countryside Centre, Matlock Bath. Following the training session, we will allocate survey sites to participants and provide them with the materials needed for undertaking the surveys, along with a Water Shrew Handbook. Scats collected during the surveys will be kept for microscopic analysis at our Water Shrew Scat Analysis session at STW's headquarters at Carsington Reservoir on Sunday October 1st.



Water Shrew
by Julian Jones

Water shrews do also turn up in small mammal traps, so the trapping sessions being run by Steve and Liz Lonsdale as part of this year's DMG programme may provide some further records.

Sightings of water shrews (dead or alive) are relatively few, but details of these will also help us add to the county's water shrew data. There are many watercourses to survey and much to discover about this delightful animal. Please get in touch if you have any information about water shrews in Derbyshire or if you would like to book a place on the Water Shrew and Water Vole training session in May.



THE WHITE HARE

Away from Man's grasping hand
Where the lonely eagle flies
Amongst the Heather and Tussock grass
Is where the White Hare lies.

In Winter's grip, 'tis there you sit
Alone and so remote
Bludgeoned by the driving snow
Protected with your warm fur coat.

Harsh and so severe
Yet reasons known to you
You choose this unforgiving landscape
With its pristine and precious view.

You sit in sheltered silence
Listening to the mountains speak
Whose words are aptly understood
By those that live amongst the peak.

John Keeling

(Drawing of Mountain Hare by Laura Berkeley)

A *colour* copy of this newsletter may be downloaded from our website www.derbyshiremammalgroup.com

Useful Contacts

Mammal Society: (MS)	Tel: 02074 984358 enquiries@mammal.org.uk www.mammal.org.uk
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Derbyshire Bat Conservation Group: c/o DWT	
Sorby Mammal Group: Valerie Clinging	01142 367028 president@sorby.org.uk
Derbyshire Biological Records Centre (DBRC): Nick Moyes	Tel: 01332 716655 nick.moyes@derby.gov.uk www.dbrc.freeserve.co.uk
Derbyshire Wildlife Trust: (DWT)	Tel: 01773 881188 enquires@derbyshirewt.co.uk www.derbyshirewildlifetrust.org.uk
Water for Wildlife Officer & Otter Project: Philip Precey	Tel: 01773 881188 pprecey@derbyshirewt.co.uk
Water Vole Recovery Project: Helen Perkins	Tel: 01457 864825 hmperkins@yahoo.co.uk
Lowland Derbyshire LBAP: Debbie Court	www.derbyshirebiodiversity.org.uk

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Please send material, details of forthcoming events, comments etc to Steve Docker: Tel: 01335 345253 or email: steve@busypeople.force9.co.uk

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