



Derbyshire Mammal Group

News

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Annual Membership
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The Derbyshire Mammal Group
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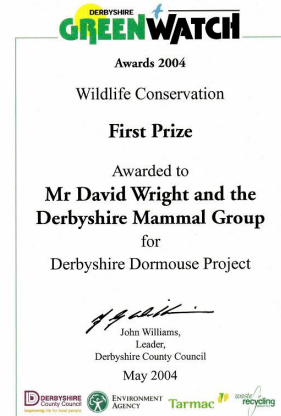
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GreenWatch Award

Steve Docker

At the GreenWatch awards ceremony on 27th May 2004 the Derbyshire dormouse project won 1st prize. It was a joint award between Dave and Tina Wright (who own the woodland, initiated the project *and* submitted the application) and the Derbyshire Mammal Group (who, alongside other interested individuals provide ongoing support for the project).

As well as a certificate there was also a cash prize and Dave and Tina have very kindly made a donation to DMG funds. Very well done to all those involved with the project and a big thanks to Dave, Tina and family who have been fantastic hosts and for their generous donation.



See back page for more on the Derbyshire Dormice!

New Mammal Species for Derbyshire

Dave Mallon

A grounded bat found in Long Eaton on 5th June 2004 was identified by members of Derbyshire Bat Group as a Nathusius's pipistrelle (*Pipistrellus nathusii*), the first time this species has been recorded in the county. Nathusius's pipistrelle is widely, but rather sparsely, distributed in the rest of Europe and is a fairly recent arrival in the UK, presumably as a result of range expansion, though it may have been previously overlooked.

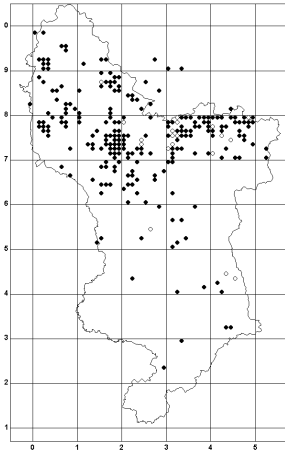
Brown Hare Records in Derbyshire

Derek Whiteley

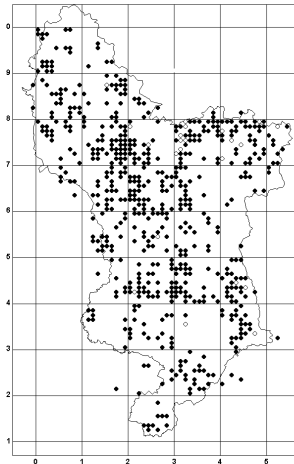
Map 1 shows the 402 records submitted by DMG members, including Dronfield NHS records and a few records from Sorby Mammal Group (I have yet to enter most of the Sorby records). There is an obvious bias of recorder activity to the North (ignore the spurious records from South Yorkshire – I forgot to edit them out).

Earlier this year we exchanged Brown Hare records with Derbyshire Wildlife Trust. DWT has built up a considerable dataset of 671 records mainly from the “Taking Action for Biodiversity” survey work.

When we add the DWT dataset to the records in Map 1 we get a more even spread of records across the country. Map 2 shows the combined datasets. We need to give special attention to ‘white’ areas that need to be surveyed for hares and the squares with no records since 1979 (open circles). Maps produced in DMAP software provided by Alan Morton.



Map 1



Map 2

These maps were produced in April 2004. I have yet to add any new records submitted this summer, and of course many records from the Sorby dataset. I will be doing this during the next few months and will produce a new map for the next newsletter.

Brown Hares
by David Hands



2D and 3D Mammals

Debbie Court

My partner Dave and I spent a very pleasant fortnight in Northumberland at the beginning of June 2004. Almost every day without fail on our daily walks we saw 2D mammals, flat as pancakes, and the bizarre thing was not all of them were on roads, many were on footpaths! A mole here, a wood mouse or a bank vole there.

Northumberland does have a small population of red squirrels but despite looking in all the right places we were unable to see them. There was a sign on a tree not far from our camp site saying ‘warning red squirrels crossing’ it would probably win a bizarre sign award as would ‘heavy plant crossing’. We were half expecting to see 2D red squirrels but I am happy to report this was not the case.

On a more positive note one of the highlights of the holiday was the unbelievable sighting of an otter. This was all thanks to Nick Brown (DWT) who recommended a meal in a pub in a village not far from our campsite. We went there, but unfortunately the pub was not serving food that night! We went for a walk along the rocky beach next to the pub and saw a young otter swim onto the shore then sit there grooming for a good half an hour. It was absolutely magic! Where was my camera – in the bloody campsite!

Brown Hare Census

Debbie Court

On 7th May 2004, 18 Derbyshire Mammal Group members took part in the first DMG Brown hare census around Carsington Reservoir. We divided into 4 groups to cover the circumference of the reservoir.

The western side of the reservoir was sadly devoid of hares but the eastern side recorded 7 brown hares. Other notable sightings that evening included water vole droppings in the southern part of the site (below the dam wall), bats and a redstart.

Calke Abbey Deer

by Bill Cove, Head Warden, National Trust (Calke Abbey)

Calke Abbey National Trust estate near Ticknall has had a resident population of fallow deer (*Dama dama*) for many years, probably since the original deer park fence fell into disrepair in the early 1900's. Throughout the 1970's and 1980's numbers seemed to keep at a fairly low constant level but the 1990's seemed to see an increase in numbers and an annual cull was under-taken. Since I started as Head Warden in 1997 I have seen an increase each year in the number of deer on the ground despite an increased number of animals culled.

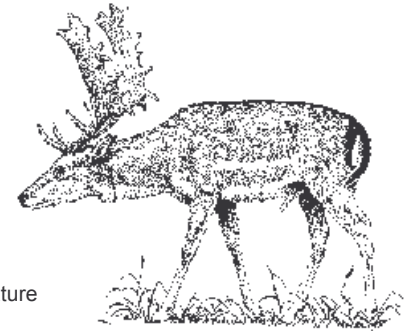
While wild deer are wonderful for people to see out in the fields and woods there is increasing alarm at the damage their feeding can do in woodland sites. Areas where deer numbers have got out of control have woodlands with no regeneration of new trees and virtually no ground flora, but at this stage it is almost impossible to reduce numbers to an acceptable level.

The 'Deer Initiative' (DI) is a broad partnership of statutory and voluntary bodies and private interests, sponsored by the forestry commission. It aims to ensure "the delivery of a sustainable, well managed wild deer population in England" and has worked with the National Forest in setting up a deer management group in this area. One of its first tasks was to establish what numbers of deer were in the area and how they moved within it.

It has been established that Calke has the biggest nucleus population within the new National Forest area with sightings of smaller numbers elsewhere. They are however notoriously difficult to count and move over quite large areas, particularly at night. We therefore jumped at the chance of the loan via the DI of a thermal imaging unit to assess numbers. Before using the device we undertook our own count of deer based on several months of observations through the shooting season. We came up with a figure between 50-60 deer on the Calke estate land.

In mid-March we had an evening using the thermal imaging unit. This entailed driving around the estate at night scanning likely areas from the back of a Landrover. The equipment works by picking up the body heat from animals and showing this as red. Interestingly it also shows how much heat is absorbed and given off again by trees in the open as their trunks also glow red! As the device does not show any light the deer are undisturbed and they

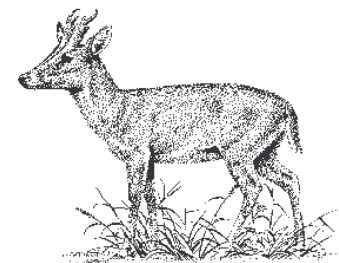
could be viewed easily from roads where they are used to the passing of traffic. This meant that not only could an accurate count be made but with many groups it was possible to determine if they were bucks, does or fawns.



Fallow Deer
courtesy of English Nature

The results of the evening showed deer present throughout the estate and our own estimate was confirmed with 51 fallow and 3 muntjac (*Muntiacus reevesi*) seen. A further 30 fallow were seen on a neighbouring estate. The exercise showed the worth of the equipment as in 3 hours we surveyed and counted an area that had taken 2 stalkers several months of observation and experience to ascertain numbers.

Almost all of the deer seen were does and fawns, research has shown with fallow deer we can expect recruitment from those numbers each year at a rate of about 60%. So from that group of 81 deer, following fawns being born, the figure is likely to be towards 130 deer. While culling deer is not a subject people like to talk about, I hope this gives an indication of how numbers can multiply rapidly once established.



Muntjac
courtesy of English Nature

It always seems to amaze people when I tell them about wild deer in the area; now there are stubble fields around I probably see wild deer most days of the week. In fact just today, 27th August, there were 8 does and fawns grazing amongst the round bales at 10 o'clock in the morning within 100yards of the main drive through the park with a stream of visitors driving in to the Calke Abbey property and yet it did not seem that any of them noticed the deer!

Carsington

Musing over Mammals at Carsington Water

by Ben Young, Senior Ranger, Severn Trent Water (Carsington)

Carsington Water was opened by the Queen in 1992. Before that half a million trees had been planted, causing an explosion in vole populations as the young plantation provided perfect habitat for these mammals. Barn owls and short-eared owls quickly moved in and exploited this booming population whilst other species such as brown hare and water vole were also found across the site.

However, by 2002 only the occasional short-eared owl was recorded and the barn owl population had plummeted to only one breeding pair. Why should this happen? No radical changes in habitat or management had taken place, however over the same time period the skylark population had plummeted whilst species such as the tree sparrow, redstart and woodland species such as the nuthatch, spotted flycatcher and tree creeper had started appearing in the plantations. Over 10 to 20 years the plantations themselves had developed from little whips into tall spindly trees, some already bearing fruit and seed.

It is known from close recording of bird species at Carsington that one of the reasons for the decline in the skylark population was that the growing plantations were taking over fields and out-competing the coarse rank grassland underneath them. If bird populations were being so obviously affected by the developing habitats around Carsington, then can we assume that the small mammal populations were also undergoing changes? Unfortunately, with no historical records or any surveying, monitoring and recording taking place, it is difficult to assess what the effects on the small mammal populations may have been. Furthermore, new management practices such as thinning and coppicing regimes were set in place through management plans, and

old tree guards (many of which contained mammal nests and nibbled nuts) started to be removed. How would this and future management affect small mammal populations?

The same is true for Carsington's other mammal species. We know that populations of water vole are found all around the reservoir, but as yet we know little more. Were they here before the development started? Is the population stable? What effect will the presence of American mink have - will it quickly eradicate water voles from Carsington's shores?

And yet there are still more unknowns. Do we have water shrew and harvest mouse? Unlikely as it may be, are yellow-necked mice or dormice found on site? I have seen red and roe deer, but what other species of deer use the site? Are the polecats found around site pure-breed or polecat-ferret hybrids? Has the otter, like the many fishermen, cormorants and kingfishers, made use of the excellent fishing opportunities provided by the reservoir?

All these questions left me realising that I needed to find out what mammals lived at Carsington Water and what effect the ongoing development of the site and the presence of any alien species were likely to have. Knowing I had neither the skills nor the resources to carry out these surveys myself I was relieved to hear from Helen Perkins that the Derbyshire Mammal Group had been set up and were looking for a base with a range of habitats to undertake a series of projects.

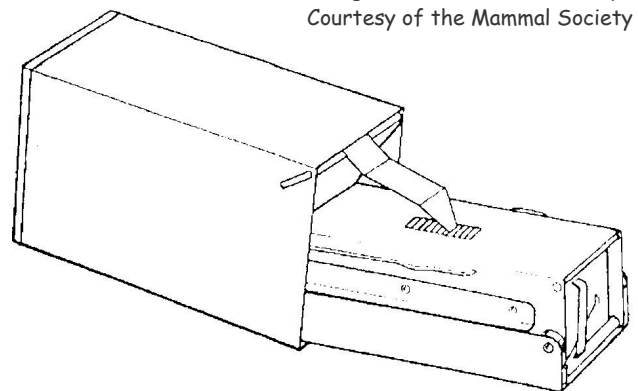
Thus, by working with the DMG to record populations and to train rangers and volunteers, we can compile accurate records of what species are present, their populations, where they are found and what effect any management may have. It will then be possible to manage Carsington Water more effectively for mammal populations.

Small Mammal Trapping

The Derbyshire Mammal Group, in conjunction with Severn Trent Water, has completed five small mammal trapping sessions at Carsington Water during 2004. These included Fishing Bay, Hall Wood, Sitch Coppice, Tail Bay and Fishtail Creek.

The full results of these very successful sessions will be available at the DMG meeting scheduled for Sat 11th December 2004 (see programme for details).

Longworth Small Mammal Trap
Courtesy of the Mammal Society



Mammals 2004

Trapping Tales

Liz & Steve Lonsdale

The May, June and July small mammal trapping sessions at Carsington resulted in some cautionary tales for those of us involved. On the first session in May, the predominant animal we caught were young male wood mice - the ideal species for training new recruits to small mammal trapping. Wood mice are feisty, aggressive, and extremely wriggly. A few fingers were nipped and the odd one escaped (mouse, not finger). Practical lessons always teach more than theory, and folk are now demonstrating a firmer grip. The May session was also noted for the trapping of a slug, a toad and a piece of polystyrene (species unknown).

The session in June was held while the Carsington Folk Festival was playing across the water - I'm not sure if that contributed to the lower than expected catch. Where I expected to catch maybe an odd shrew in the leaf litter, we caught only bank voles but rewardingly often alongside old fallen trees. Ed (a Carsington ranger) lost his mobile phone on the Saturday evening, but fortunately we found it on the Sunday morning. The catch was better too - had the voles been phoning their friends?

The location for the July session was Sitch Coppice, and the adjacent grassland. We were starting to set our sights higher, and looking for new species. We selected the grassland area with the specific intent of trapping field vole - notoriously trap shy in short trapping sessions. An intense effort resulted in two young field voles, and they were compared with a bank vole so the differences could be noted (the field vole has smaller ears, smaller eyes, grey-brown rather than chestnut-brown fur and a much shorter tail in relation to body length). We also caught a second new species in this area - pygmy shrew.

In one area of the coppice, the wood mice were abundant and many were caught. Some of the trappers were now confident enough to mark these animals by snipping a piece of the fur, although in some cases the resulting effect was more a shaving than a snip! One wood mouse became notorious due to her predilection for biting. The screams from her first victim were

heard some distance away, and she was called many names (the mouse, not the victim) and became known as 'Nippy'.



'Nippy' the Wood Mouse
image courtesy of the
Mammal Society

Nippy reappeared at the next checking session, and the trappers decided that they didn't need to handle her again as her mark identified her. So after the formality of checking her weight, she was released.

On Sunday morning guess who was in the first trap - Nippy! The checking session was busy and we had a lot of animals, and so to allow those from the other teams to have some practice, one or two joined our group. Amazingly, the second animal out of a trap was again Nippy, who had traveled some 10 metres and entered a second trap within the same checking session.

Occasionally animals with injuries, illness or parasites are trapped - all part of the life of a small mammal. We've had some with ticks - usually these are around the head and ears and look like small grey pinheads. They don't often cause the animal too many problems and we usually leave them *in situ*. Animals are quite often scarred as a result of fights amongst themselves or possibly escape from a predator. We trapped a bank vole that appeared to have only one eye - the place where the eye should have been was furred up, and there was no sign of a wound. The vole had reached maturity and so presumably had adapted to cope.

Perhaps the most interesting occurrence was again after the July session. When Steve and I were sorting our traps in our back garden, a wood mouse jumped out of one of the trap containers and ran across the garden. Steve thinks it was one that had escaped when being handled towards the end of the session, and had jumped into the box for cover; the only other plausible explanation is that it was not seen when a trap was checked, but this is unlikely (and besides, it would have been squashed when the tunnel was replaced in the nest box).

Full Protection for Water Voles? Helen Perkins

Every five years the Joint Nature Conservation Committee (JNCC), which is made up of the government's nature conservation organisations in England, Scotland and Wales, advises the Government on which animals and plants should be legally protected by listing on Schedule 5 (animals) and Schedule 8 (plants) of the Wildlife and Countryside Act, 1981. This 'Quinquennial Review' of protected species is carried out by staff from JNCC and the three country agencies (Countryside Council for Wales, English Nature and Scottish Natural Heritage). The Review considers whether those species that are already protected should remain on the schedules and assesses whether other endangered species should be legally protected in order to conserve them.

The first report and recommendations from the 4th Quinquennial Review Working Group were published in December 2001. After an initial period of consultation a revised set of proposals was submitted to the Secretary of State for Environment in September 2002. The proposals as they stand in relation to mammals are:

- All mammals currently afforded full protection under the Wildlife and Countryside Act (cetaceans, wildcat, otter, pine marten, dormouse, walrus, red squirrel and all bats) will remain on the list.
- The water vole, which currently receives partial protection under Section 9(4) of Schedule 5, is *recommended for full protection*.

Since 1998 it has been an offence to damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection, or

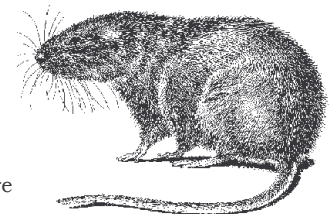
Student Project

Debbie Court

Michelle Eaton, a student at Derby University, carried out a small mammal trapping study at Allestree Park Local Nature Reserve, Derby during June and July 2003. The objective was to compare small mammal communities from two structurally differing grasslands, "historically grazed" and "undisturbed", in terms of differences in species richness, diversity, population numbers and established densities of each species captured at the two sites. Overall 5 species were trapped at the grazed grassland, wood mouse, bank and field vole, common and water shrew, and all of the above plus pygmy shrew were caught in the undisturbed site. The field vole was the most abundant in the grazed site and bank voles were more abundant in the undisturbed grassland. Water shrews were the most unusual discovery and I recall Michelle's delight and surprise at this.

disturb water voles while they are using such a place. This legislation requires that due attention is paid, for example by developers, to the presence of water voles and that appropriate actions are taken to safeguard the places they use for shelter or protection. Whilst this has helped to reduce the impact of development on water voles in some cases, in others it has resulted in water voles simply being moved to make way for new developments or riverbank works. Sometimes water voles have been moved to unsuitable habitat or have even died in the process. In addition, because the current legislation protects only water vole burrows and not the actual animals, developers and others have often been reluctant to take their responsibilities relating to the legislation seriously. There is also no doubt that at a time when populations are already small and fragmented, the deliberate killing of water voles could cause populations to become extinct. Locally, Derbyshire Wildlife Trust is aware of at least one case of deliberate killing of water voles at a fishing pond, and of several instances where water voles have been shot. The Trust submitted evidence relating to these cases to JNCC. Elsewhere in the UK one hundred water voles were deliberately killed on a single site in one summer.

Giving water voles protection under the whole of Section 9 of the Wildlife and Countryside Act would protect them against intentional killing, injuring or taking, as well as protecting places used for shelter or protection from intentional or reckless damage or destruction. It would clarify the present confusing situation and send a very clear message to developers and landowners. A consultation period on the Review's proposals is likely to be announced this autumn. The Trust will be urging members of the public to lobby the government and their local MPs in support of the proposal to increase legal protection for the water vole during this period. We are optimistic that the Secretary of State will agree the change, but ensuring that parliamentary time is allocated to allow the revisions to the Act to be made may prove more challenging! A full copy of the recommendations made by the 4th Quinquennial Review can be downloaded from the JNCC's website (www.jncc.gov.uk).



Water Vole
courtesy of English Nature

Learning about Mammals – from a Distance

by Dr George Bemment, University of Exeter

Exeter University's Department of Lifelong Learning (DLL), formerly known as the Department of Adult Education, specialises in courses at a Higher Education level through part-time study. Some courses are run through local evening classes, and increasingly, others are taught 'long-distance', that is, either by postal or internet correspondence. Today the department offers courses in a wide range of subjects, including archaeology and Egyptology, humanities, literature and creative writing, music, theology and environmental studies. I act as tutor to the two *mammal modules*, which form part of the environmental studies programme.

There probably wouldn't have been much interest in mammal courses say 20-30 years ago. We've had (and still have) some really excellent people working on mammals in this country, but overall mammals would not have ranked as much of a 'general interest' subject, and certainly not as a subject with much career potential. But mammals have come of age in recent years. "These are exciting times for those interested in the study of mammals", says Vaughan et al, in their textbook 'Mammalogy' (4th Edition, 2000). Both in Britain and internationally, there are major advances being made in the biological and ecological study of mammals. Much of this is fascinating and stimulating stuff, as well as being of enormous value for conservation and management needs.

The way we can offer to teach at a higher education level has also changed dramatically, and thanks to the advantages of internet access long-distance courses are increasingly popular. Course material can be simply posted onto the web site each week or sent via normal mail, and all learning is done at home.

The two mammal modules on offer through DLL tackle a broad range of subjects and issues. The Level 1 course (*Mammal Ecology and Conservation*) is intended as an introduction to mammals as a group and the ecological study of their populations and communities. Hence, it is also an introduction to a selection of ecological concepts, for example the ecological niche and interspecific competition. These particular ideas are well illustrated by a number of studies on British species of shrews, bats, and the red and grey squirrel.

I've tried to use British mammal studies as much as possible, but have also gone further afield for many subjects. So, for example, when we discuss the effects of herbivore grazing we look at the larger ungulates of the African plains, as well as grazing for nature conservation

in this country through rabbit grazing on chalk downlands and the use of selective domestic stock for habitat management in e.g. the New Forest and various National Trust estates. Similarly, when looking at predator-prey relationships I refer to examples of wolf and caribou/reindeer studies, as well as the impact of the American mink on water voles in this country. The second part of the course deals largely with populations and life histories – such things as the importance of recruitment, population cycles and minimum viable populations – and relates these to conservation and management issues such as re-introductions (e.g. the otter) and culling.



Otter
courtesy of English Nature

I take a slightly different approach with the Level 2 course (*Studies in Biology and Adaptation*). Here, I wanted to look at mammals from an evolutionary point of view, and so look at characteristics in more detail, radiations and phylogenetic relationships, and the extraordinary range of reproductive, dietary and physiological adaptations that they possess. I find topics such as echolocation and migration particularly interesting, so those are also the sort of things we cover! There are fewer units than in the first module (15 instead of 20; think of a unit like a chapter in a book), but it's more descriptive in places so probably contains just as many words!

Clearly there is a great fascination with mammals these days. The students that have done these modules say they have enjoyed them and have found them interesting. I certainly enjoy teaching them.

I've completed both of these mammal courses and they provide an excellent introduction to the subject including a mixture of mammalian biology, ecology and conservation. I would recommend them to anyone seeking a deeper understanding of mammalogy, but be warned, if you are like me, you will finish with more questions than answers!

Steve Docker

Further details at: www.ex.ac.uk/dll/dl_environmental_studies.htm

Update - Derbyshire Dormouse Project

Dave Mallon

Since their release in June 2003 Derbyshire's dormice have been monitored regularly, co-ordinated by the DMG, as part of the National Dormouse Monitoring Scheme. This involves checking the 200 nestboxes installed at the release site for nests or other signs of dormouse activity. Any dormice found in the boxes are weighed, sexed and assessed for breeding condition. All the reintroduced animals were fitted with an implanted microchip containing an identification number and these are read using a hand scanner to follow the progress of individual animals. Monitoring sessions were carried out in September and October 2003 and in June and September 2004, with shorter sampling visits in May and August 2004. On the latest visit, 19th September, six dormice were found including a female with two very small young.



Dormouse
by Laura Berkeley

This was the first direct proof of breeding at the release site and is excellent news, although breeding almost certainly occurred in 2003, as indicated by a few animals caught in October that year that lacked an ID number. The site consists of woodland with a dense understorey of brambles, bracken and honeysuckle that provides ample possibilities for nest construction and this probably explains the relatively low proportion of nestboxes being used. Two supplementary monitoring techniques are also used: the presence of hazelnuts opened in a diagnostic way by dormice – these were numerous in 2003 – and small feeding cages, specially designed by the site owner. These are provided with biscuits and apple and subsequent use by dormice is shown by the presence of droppings and other feeding signs.

Change of Address

Derek Whiteley (Group Recorder) has moved a few miles to:

Beech Cottage
Wardlow
Derbyshire
SK17 8RP

Don't worry if you have sent records to my old 'Cressbrook' address as I call there regularly. My e-mail address is unchanged.

Useful Contacts

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Derbyshire Natural History e-group:

www.groups.yahoo.com/group/derbyshirenaturalhistory

Many thanks to all those who contributed to this issue of Derbyshire Mammal Group News.

Also, a special thanks to Liz Docker who helped with the layout and design, to Laura Berkeley, David Hands, English Nature and the Mammal Society for their excellent illustrations and to Alan Morton for the distribution maps.

Please send material, details of forthcoming events, comments etc to Steve Docker: Tel: 01335 348345 or email: steve@dock5.freereserve.co.uk

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