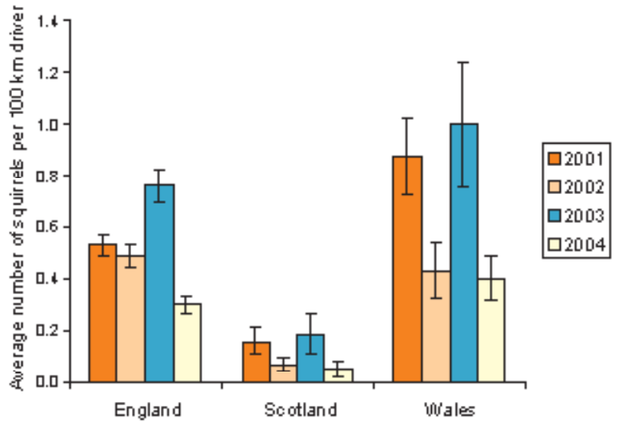
Squirrels per 100 km of road driven

The average number of squirrel sightings per 100 km driven.



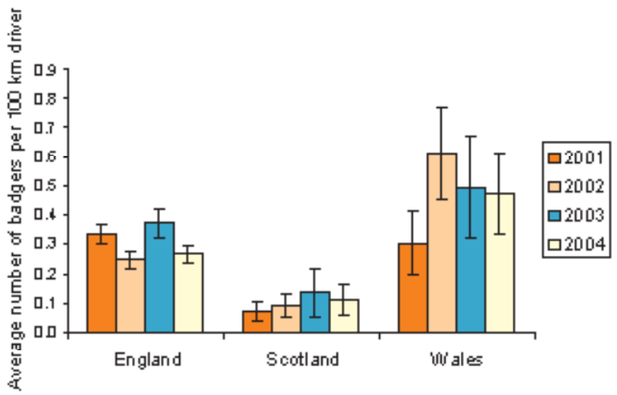
Tracking squirrels

Counts of squirrels were much lower in 2004 than those in 2003 in England, Scotland and Wales, and over the four years of the survey counts have mirrored year-to-year differences in the availability of food. Seed production (by species such as beech and oak) was high in 2000 and 2002 (so-called mast years) and squirrel numbers would be expected to be high in 2001 and 2003 as a result, when females could rear large litters following a year of plentiful food. These peak years are clearly shown by counts in the *Mammals on Roads* survey.

Badgers per 100 km of road driven

The average number of badger sightings per 100 km travelled in each region.


Picture: Nida Al-Fulaij



A scientific assessment of the first four years of the *Mammals on Roads* survey will be available from us later in the year.

Find out more about UK mammals

- Mammals UK £5.00 inc p&p
- Spotting Wild Mammals £3.00 inc p&p

Mammals UK has information about 62 current and extinct British species, while Spotting Wild Mammals describes those that are encountered most often, and includes tips for recognising field signs.

To order either title, please call 020 7498 5262 or email enquiries@mtuk.org.

Mammals Trust UK
15 Cloisters House, 8 Battersea Park Road
London, SW8 4BG
Tel: 020 7498 5262 Fax: 020 7498 4459
E-mail: enquiries@mtuk.org
www.mtuk.org

PROTECTING OUR NATIVE ANIMALS AND THEIR HABITATS

Mammals Trust UK

TRACKING Mammals PARTNERSHIP

Royal Holloway University of London

Mammals on Roads Newsletter

THANK YOU to everyone who took part in the *Mammals on Roads* survey last year and who, jointly, drove a distance greater than two and a half times around the equator.

2004 was the fourth year of the project and one that has highlighted the need for continued monitoring work. It's only by repeating surveys that long-term trends, underlying year-to-year fluctuations, can be picked-up.


Picture: Clare Bowen

Volunteer effort

2004's survey notched-up a total of 109,000 km, one and a half times the distance surveyed the year before, and particularly impressive bearing in mind that the numbers of volunteers were similar in each year. The total distance surveyed by *Mammals on Roads* to date is 433,000 km – considerably more than the total length of A, B and minor roads in the UK (a network of 393,000 km).

Despite the relatively stringent survey rules, only two percent of journeys were invalid, e.g. less than 20 miles, or outside the July, August, September survey window. Sticking so closely to the survey guidelines has meant we can make the maximum use of the data collected.

The Tracking Mammals Partnership

A few words should be said about the Tracking Mammals Partnership (TMP) under whose auspices the *Mammals on Roads* survey is run. The TMP is a collaboration of twenty-four organisations wth interests in British mammals. By sharing expertise and good practise, the TMP aims to improve the quality of the data collected through surveys and to ensure that the information is used to inform future actions.

Survey coverage

As in previous years, coverage across the UK stretched far and wide. Although Northern Ireland isn't shown on the map opposite, journeys in the province were recorded and are only absent because of limitations with the software used to compile the map.

Mammal sightings

Twenty-four species of wild mammal were recorded in 2004: among these were five of the six deer species in the UK (all but the Chinese water deer), and seven carnivores – six mustelids (stoat, weasel, polecat, otter, badger and mink) and fox.

It is thought that similar numbers of deer and badger are involved in road accidents each year but only about a fifth as many deer are recorded in *Mammals on Roads* as badgers. The reason for this is likely to be that injured deer move a little way from the road and are less likely to be seen. Bus and lorry drivers, with a higher vantage point, often report many more sightings of deer.

Distribution of mammals sightings in 2004

	2001	2002	2003	2004
Distance surveyed (km)	128,000	124,000	72,000	109,000
Number of journeys	2,280	1,909	1,097	1,201
Mammal sightings	10,500	10,900	8,300	9,400
Badger sightings	414	343	186	232
Fox sightings	399	459	199	230
Hedgehog sightings	2,569	2,089	823	930
Rabbit sightings	4,999	6,119	3,248	2,815
Squirrel sightings	388	343	286	204

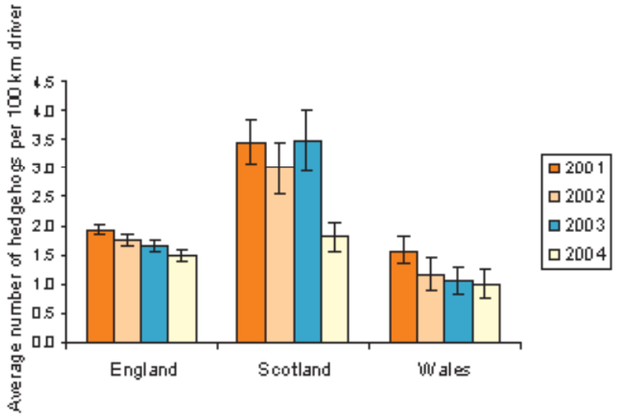
The 'bare bones' of the survey: a summary of the information collected across the UK in each year of the survey.

Miles or kilometres?

This year, distances have been given in kilometres rather than miles. Although journey waypoints are recorded in miles, the information is plotted on the Ordnance Survey national grid, which is in metric units. Moreover, in the scientific community and in government organisations, it is metric that is the lingua franca. There is also a more prosaic reason for sticking with kilometres: one of avoiding error. Converting the metric Ordnance Survey distances back to imperial units is easy but introduces room for error. It might not seem much of a problem until you remember that in 1999 NASA lost a $125 million Mars orbiter because of a mix-up between metric and imperial units…

Hedgehogs per 100 km of road driven

The average number of hedgehogs sighted per 100 km driven in England, Scotland and Wales. The vertical lines on top of each bar indicate the variability (or "scatter") of the data.



Hedgehogs may still be declining

This year's survey suggests that hedgehog numbers are continuing to decline. Over nine hundred hedgehogs were seen by volunteers in 2004, during journeys totalling thousands of kilometres, so we have a large amount of information from which to determine how hedgehog populations are faring. Numbers seen per 100 km driven were significantly lower in 2004 than they were in 2001 or 2002. Although it is too early to tell whether this represents a long-term trend, numbers have been falling consistently since 2001 and are lower than those from a similar survey in the early 1990s.

The decline is most evident in the eastern half of the country, but may also be occurring elsewhere. The potential causes are unknown, but include agricultural intensification (larger fields, less semi-natural habitat, more pesticides) and drier summers. Work towards understanding the reasons has begun at Royal Holloway, University of London, funded by the People's Trust for Endangered Species.

The hedgehog is an undemanding beast and needs, for preference, only short grass in which to catch its invertebrate prey (such as worms, slugs and beetles) and rough patches (such as bramble on woodland edges) to make its nests. So it is very important to continue to monitor hedgehogs and to determine why their numbers are changing, because if the hedgehog is declining then so will the many other species with similar needs.

Mammals on Roads is currently the only adequate way to monitor hedgehogs nationally.

Average numbers of hedgehogs per 100 km in each region