The average number of wild species recorded in each region was very similar, though London, the most densely urbanised of the regions, had the fewest species, with an average of three per site.

There were, however, regional differences in the numbers of bats and hedgehogs recorded. London had the fewest records of bats, even compared to the rest of the south-east of the country (Figure 4).

Pipistrelles, the most abundant UK bat species, are common house-dwellers, using wall crevices or spaces behind cladding as summer nursery roosts. A survey in 1999 of the Greater London area suggested that while numbers had increased slightly in inner boroughs, those in outer boroughs had declined by 63 percent since a survey in the early 1980s. Why London should appear to have such a low encounter rate for bats is not clear but one possibility is that suburban "infill" – small-scale development that increases the density of buildings – significantly disrupts habitats.

#### **Our changing environment**

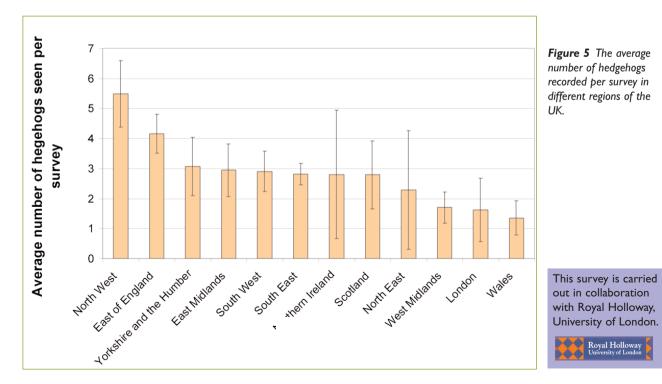
If you've taken part in, or have been following, our Mammals on Roads survey in non-urban areas, you will have read that numbers of hedgehogs appear to have declined sharply over the past decade across the wider countryside in the eastern half of England (from Northumberland to Kent). Interestingly, it is these areas that show the

highest numbers of hedgehogs in the Living with Mammals survey (Figure 5), which records numbers in predominantly urban environments. Could it be that hedgehogs, perhaps losing natural habitats, are moving into urban ones?

There is still much we don't know about our changing environment, and questions such as this can only be answered with continuing monitoring work. A fuller analysis of the data remains to be carried out. With the help and enthusiasm of volunteers nationwide, surveys to come collecting results year on year - will yield further information about how our mammal species are faring in the spaces we share with them.



Hedgehogs will gladly take advantage of supplementary food, whether intended for them or not!



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



Living with

## Living with Mammals Survey

Our thanks go to everyone who took part in the survey this year. Thank you for all your efforts and for the feedback you've sent us. Your records are helping us to keep track of our native wild mammals in urban environments and the spaces around our buildings, and we hope you can continue sending in your data in future years so that we can continue the good work.

## Where you surveyed

Seven hundred and ninety surveys were carried out during this second year of Living with Mammals, 345 of them by volunteers taking part for the first time. We had volunteers across the breadth of the UK, from County Durham to Cornwall, and from Anglesey to Aberdeenshire – but we still need more, particularly from Northern Ireland. If you can encourage friends, relatives or work colleagues to join in, we would love to hear from them. And please do take part again next year, as surveying the same site each year can give particularly valuable information.

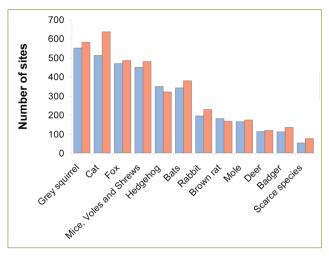
Over 90 percent of the sites you surveyed were home to at least one wild mammal, and as many as three to five mammal species were seen at over half of the survey sites. In total, 24 different species (or groups of species, such as bats) were recorded either from sightings of the animals themselves or





Grey squirrels are opportunistic feeders and were spotted at 75% of sites surveyed.

 $\rightarrow$ 



**Figure 1** The blue bars show the numbers of sites at which particular species were recorded in 2003 and the red bars show the same for 2004.

from the signs, such as droppings, that they leave behind. There are about sixty terrestrial mammal species in the UK, so almost half were seen during the survey.

A little under half of the sites surveyed this year were not surveyed in 2003 but we found that the numbers of sites that recorded each species were similar across the two years (Figure 1). This consistency suggests that the survey method is accurately describing population numbers in the environment.

## Range of sites surveyed

Encouragingly, the wide range of habitats surveyed last year – from gardens to railway embankments – was seen again this year (Figure 2). Three quarters of the sites surveyed were gardens, the same proportion as last year. Gardens represent a considerable area of Britain and, increasingly, an important wildlife habitat.

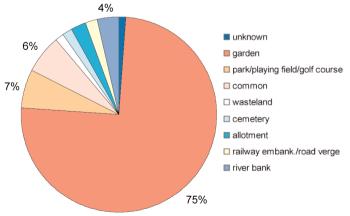


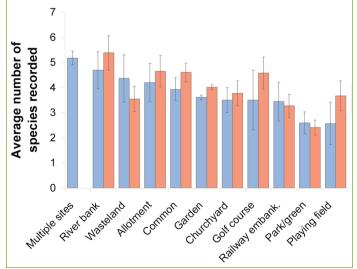
Figure 2 The relative numbers of different types of site.



Churchyards made up about one in fifty of the sites surveyed in 2004.

Other sites that volunteers chose to survey included parks, playing fields, allotments, wasteland and waterways; common ground was also well represented. This wide variety of chosen sites is essential if the survey is to reflect the complexity of the built environment and the patchwork of habitats it contains.

Each part of this mosaic offers unique opportunities for food and shelter to mammals in the urban environment. It is not surprising therefore that different types of sites were found to support different numbers of species (Figure 3):



**Figure 3** The average number of wild mammal species (i.e. excluding cats) at each type of site in 2003 (blue bars) and 2004 (red bars).

• riverbanks and streams were the most species-rich with over twice as many species recorded as parks and greens;

 wasteland sites recorded similar numbers of species as gardens;

• broadly, a similar pattern to last year's results was seen: parks and village greens had fewer species than gardens, which in turn had fewer species than waterways.

Differences in the numbers of species recorded this year and in 2003, at wasteland sites and on playing fields, probably reflect differences in the particular sites surveyed in each year, and are not statistically significant.

#### Significant species recorded

Five-hundred and eighty *Living with Mammals* sites (73% of the total) were home to **Species of Conservation Concern (SoCC)**, defined as species that are in decline, only occur in the UK or are of international importance. These include hedgehog, shrews and badger, as well as species much less frequently seen such as pine marten, polecat, fallow deer, stoat and weasel.

These figures underline the importance of the survey and how vital the work of volunteers is, and will be in the future.

**Priority species** are SoCCs for which a **Species Action Plan (SAP)** has been written to direct conservation efforts. Of these, bats were recorded most frequently, at 380 sites (48% of sites compared to 42% in 2003). In addition to



A roe deer in a Hampshire garden, photographed by Mrs Macey. Roe and muntjac deer were present at 15% of sites.

# Living with Mammals Survey Update

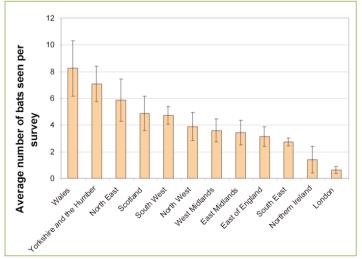


Albino grey squirrel caught on camera by Miss June Cox. This is quite an unusual sighting.

bats, five terrestrial mammal species – red squirrel, water vole, brown hare, otter and hazel dormouse – are Priority species in the UK and were all recorded in this year's survey. Forty-eight of our sites (one in twenty) recorded at least one of these rare mammals. In all, 396 sites were home to Priority species, emphasising the importance of the built environment – and our closeness – to the wildlife most at risk.

## **Regional Differences**

In England, future conservation measures are likely to be organised at the level of Government Office Regions, which divide the country into nine administrative areas. Scotland, Wales and Northern Ireland are not subdivided and each represents a single region. It is sensible, then, to break down the results to look at regional differences.



**Figure 4** The average number of bats recorded per survey in different regions of the UK.