in Wales. They have now been recorded in every English county. In Northern Ireland, however, the otter is faring less well: in two surveys carried out twenty years apart there was a 10 percent decline in presence.

As water quality and fish stocks improve though, otters are coming back to many of our rivers, including those in towns and cities. One surveyor reported a sighting in the Ouseburn in Newcastle upon Tyne (although outside the survey period) and commented that otters are now passing through the centre of the city. Elsewhere, otters have been spotted in Shrewsbury, Winchester, Leicester and Ashbourne in Derbyshire.

American mink arrived in Britain in the 1920s and spread quickly. Compared to a cat, otters are appreciably larger, while mink are smaller. Mink are usually dark brown all over, lacking the otter's paler throat and belly and have a more pointed muzzle. Mink have had a big impact on other species, most markedly perhaps on water voles. Since the mid-1980s, the mink population has been stable, although more recently, some areas, such as Devon, Cornwall and Scotland, may have seen declines, and this might be due to competition with growing otter populations.

Although generally nocturnal, mink may be active at any hour and will make use of urban habitats. The two sightings this year were near Bexhill and Llandygwydd. In July, the Lincolnshire Echo reported that mink had set up home next to their

2005 2006 2008 2009

Figure 3 (above) The proportion (%) of all sites recording small mustelid species (stoat, weasel, polecat, otter and mink. There were no records of pine marten this year.

wharf offices in the centre of Lincoln, and a few years ago mink were reported in Edinburgh.

Otters and mink receive very different welcomes as neighbours, but although present at only a handful of sites and scarce in the built environment, they show that habitats around towns and cities can support wildlife communities and food chains. The built environment is, for most of us, our habitat, and it is one that has the potential to be richer and busier with wild species.

There are about 60 terrestrial wild mammal species in the UK. Many are predators, near the top of food chains, and their presence is an important indicator of the health of the environment. Surveying all of them is beyond the resources of any single organisation. The efforts of many of the academic groups, government agencies and NGOs involved are linked through the Tracking Mammals Partnership. At the heart of the Partnership are the many thousands of volunteers whose enthusiasm and experience make the work possible. The efforts of everyone involved have informed the UK Biodiversity Action Plan and have gone into shaping conservation policy at the highest level.

> Mammals PARTNERSHIP

More information about mammals and their identification is contained in these two field guides produced by the Field Studies Council and The Mammal Society:

Key to British land mammals British mammal tracks and signs

Each is priced at £3.25 and can be ordered by calling:

020 7498 4533

or at our online shop:

www.ptes.org/shop

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# Living with Mammals



Survey Update 2009

LIVING WITH MAMMALS SURVEY

DECEMBER 2009

ween is not the most notable of anniversaries but in marking seven years of surveying the built environment, this year's Living with Mammals is an extraordinary achievement and one that owes its success squarely to the volunteers who has given their time and expertise. It is still a work in progress but the value of the efforts of everyone involved grows with each year.

If all the minutes and hours of observation time are added up, it amounts to over £200 000 of work each year. Without your help, we simply couldn't afford to do it. Thank you!

# **Survey findings**

Twenty-one individual species of wild mammal were identified this year along with species groups comprising bats, mice, shrews and voles, at sites across the built environment. Fourteen of these were Species of Conservation Concern (or groups of species), shown in Table 1 (overleaf), those whose populations, nationally or more widely, merit attention. Bat species were the most common of these, turning up at over half of sites (54 percent) – only grey squirrel and fox were more common among wild visitors, present at 72 and 59 percent of sites respectively. The proportion of sites recording bats in each year of the survey is shown in Figure 1a (overleaf).



The mosaic of micro-habitats that make up gardens – from lawns to vegetable patches, compost heaps to garden sheds – support invertebrate communities that in turn can support hedgehogs and other mammals.

Picture by Ceri Perucki

Species of Conservation Concern	Number of sites
Bat species	257
Hedgehog	173
Badger	79
Shrew species	54
Roe deer	40
Brown hare	24
Weasel	8
Stoat	12
Red squirrel	3
Water vole	5
Otter	5
Hazel dormouse	3
Red deer	2
Fallow deer	2

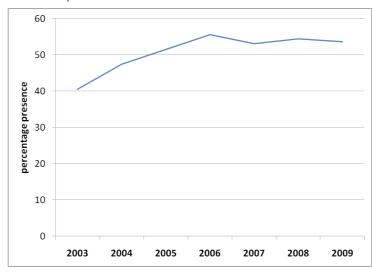
Table 1 (above) The number of sites at which Species of Conservation Concern (or groups of species, such as bats) were recorded in 2009. Those highlighted in pink have Species Action Plans in place.

Seventy-two percent of sites recorded one or more Species of Conservation Concern and four-fifths of these were gardens. Hedgehogs were present at about a third of sites (36 percent) but continue to be a cause for concern. This is the second lowest figure for hedgehog records since the survey began and another indication that numbers are declining (Figure 1b, opposite).

The change from year to year in the proportion of positive sites (those recording hedgehogs) varies between regions: in the South East, which returned the largest number of records, the trend is downward (Figure 2a), while in the South West it is more or less level. In Yorkshire and the Humber, the proportion of sites has risen in the last few years (Figure 2b), in contrast to Wales, where it has remained low (Figure 2c). A difference is also apparent between the East and West Midlands regions, where the proportion of positive sites this year was smaller in the East Midlands – only 30 percent of survey sites there recorded hedgehogs. compared with 44 percent in the West Midlands.

Badgers are a natural predator of hedgehogs and in areas where their numbers high, hedgehog numbers tend to be low. Badgers are more abundant in the south west - they are present at a third of survey sites in the South West region compared to a fifth in the South East on average - but the proportion has stayed more or less the same since Living with Mammals started (Figure 1c shows the percentage presence at all sites).

### 1a Bat species



# 1b Hedgehog records

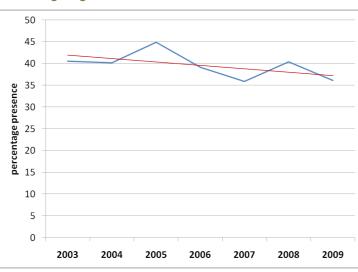
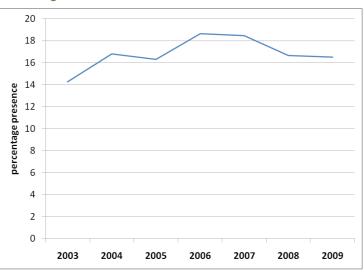


Figure 1 The proportion (%) of all sites recording bat species (top); hedgehogs (centre); and badgers (below) in each year of the survey. An indication of the trend for hedgehog records is shown by the red

## 1c Badger records



## 2a Hedgehog records from the SE and SW

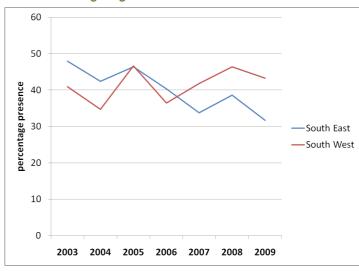
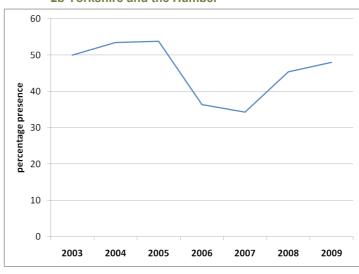
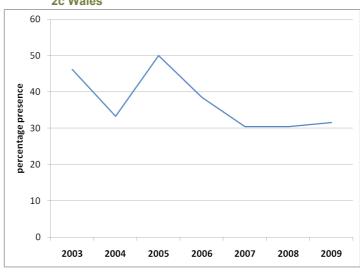


Figure 2 The proportion (%) of sites recording hedgehogs in the South East and South West (above); Wales (centre); and Yorkshire and the Humber (bottom).

### 2b Yorkshire and the Humber



# 2c Wales



In addition, badgers and hedgehogs co-exist at a greater number of sites in the South West than the South East: where badgers are present, 36 percent of sites in the South West recorded hedgehogs as well, half as many again as those in the South East where badgers were present. It seems unlikely then that predation plays a big role among the reasons for hedgehogs becoming scarcer in gardens and other urban spaces in some regions. The cause is more likely to do with how we manage the built environment.

## Otters and mink

Along with badgers, the mustelids, or weasel family, includes weasel, stoat, otter, mink, polecat and pine marten. In 2009, one or more small mustelids (all except the badger) were recorded at one in every twenty sites. Otters were recorded at five sites and American mink at two.

Otters are rarely seen - more often than not their presence is identified by their droppings or spraints – but their distribution is increasing. There have been several national otter surveys since 1977, and this year PTES is part-funding the Environment Agency to undertake the fifth national survey in England. Between 1978 and 2002, there was a five-fold increase in occupied sites in England and a two-and-a-half-fold increase



An American mink. Picture by David Mitchell