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people's trust for  
**endangered  
species**



# Living with Mammals

monitoring our wild towns and cities

LIVING WITH MAMMALS SURVEY

DECEMBER 2013

**T**hank you to everyone who took part in *Living with Mammals* this year and who added to an extraordinary on-going record of wildlife in the green spaces around buildings and in our towns and cities. Collectively, the equivalent of over a year of continuous observation was recorded this year (more than 9000 hours) and most people (60%) recorded in all thirteen weeks. Whether you took part for the whole survey period or just a part, recorded a single grey squirrel or a dozen species, it is – to use an old cliché – the taking part that counts. Each record is informative (it is as important that a species hasn't been spotted as that it has) and each is a piece of the bigger picture giving a better understanding of our urban environment. Thank you to everyone!

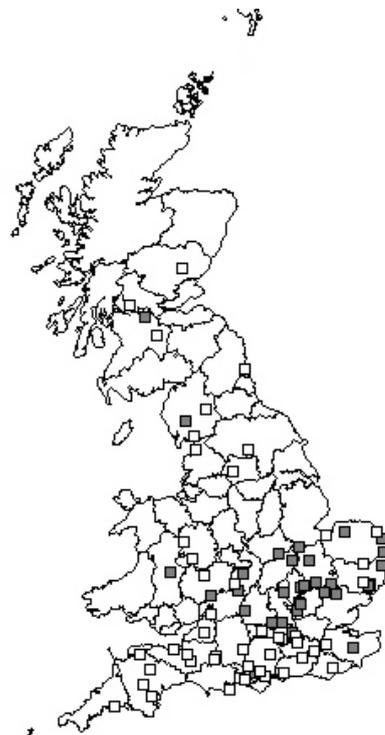
## Muntjac and roe deer

Although not ubiquitous in urban environments, deer – particularly

small species such as roe deer and muntjac – do make use of our towns and cities, browsing on many garden plants and deciduous trees. Roe deer are known in cemeteries in Sheffield and Dundee (where they might eat the floral tributes...), and larger fallow deer, as heavy as a person, are known on some housing estates in London, grazing lawns in the evening.

Across the country as a whole, muntjac and roe deer numbers have increased: a recent study estimated that muntjac numbers had tripled since 1995 and those of roe deer had increased by 60%. In urban areas, this might be muted however: the proportion of sites reporting each in *Living with Mammals* has remained broadly constant (Figure 1, overleaf). Both species make use of large gardens, parks, allotments and areas of shrub, preferring sites that provide cover. Muntjac or roe deer were recorded at 87 sites this year (16%), half at sites other than gardens, including cemeteries, common

ground and railway embankments, but the two species were recorded at the same site in only eight instances. Roe deer are more numerous in northern counties of England and in Scotland, where muntjac are almost entirely absent; where they co-exist, there is evidence that muntjac out-compete roe deer.

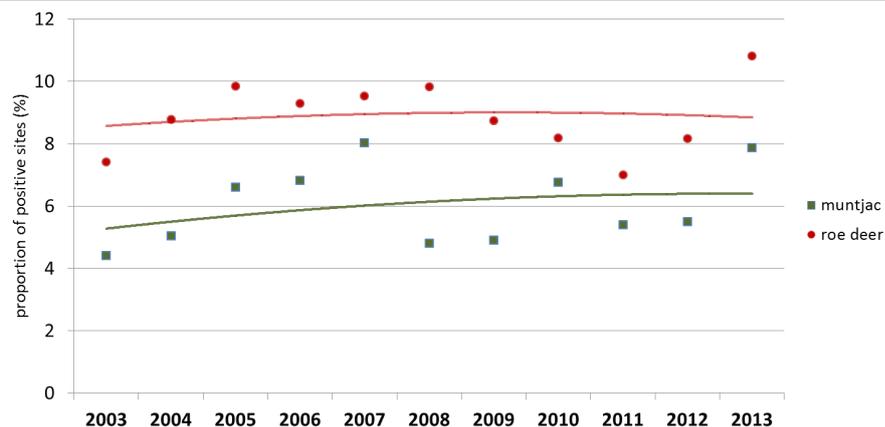


The map above shows the distribution of sites recording muntjac (filled squares) and roe deer (open squares) this year.



*Muntjac (left) were introduced to Britain in 1838; roe deer (right), although native to Britain, were reintroduced from Europe after being almost wiped out.*

**Figure 1 (right)** The proportion of sites recording muntjac (blue squares) and roe deer (red circles) in each year of the survey. The long-term trend underlying the year-to-year differences is shown as a smoothed line.



Urban living can have its problems for deer however. There are occasional reports of deer getting their heads trapped in railings, and around a quarter of vehicle collisions with deer in the UK occur in urban areas (increasing to 44% – an estimated 22 000 collisions – if those within a mile of towns are included). But the trend in *Living with Mammals* for roe deer and muntjac over the last decade suggests escalating numbers are not a problem and our gardens, allotments and parks are an opportunity to watch these animals at close-hand.

## Hedgehogs

Numbers of hedgehog records continue a downward trend: just over a third of sites recorded hedgehogs this year, similar to last year, but the figure is the second lowest since the survey started (Figure 2, below). It seems unlikely that poor weather can

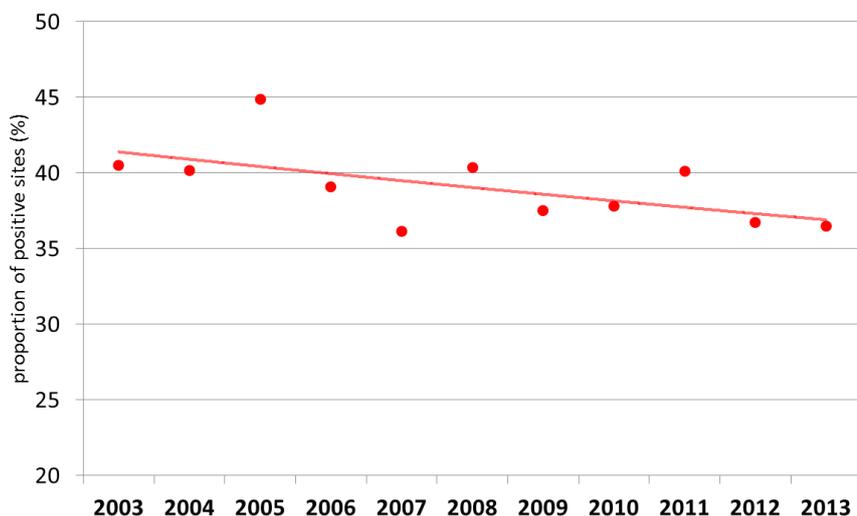
be blamed: winter was only a little colder and wetter than the thirty-year average, and it was a typical spring (more so than in recent years), with average temperatures for April, May and June, rainfall and hours of sunshine.

## Squirrels

In contrast to hedgehogs, grey squirrels show a very level trend over the years, with about three-quarters of sites reporting them (Figure 3, opposite). Grey squirrels do well following autumns when tree seeds and fruits are particularly abundant, so-called 'mast years'. For beech, heavy cropping years are usually between five and twelve years apart (in England) and don't necessarily coincide with those of other species. Looking at the *Living with Mammals* data, there's no indication that urban populations of grey squirrels do better in mast years than in

other years (surviving the winter in larger numbers); if this was the case, population peaks might have been expected in 2005 and 2011, following mast years in 2004 and 2010 (when acorns were particularly abundant). It might be that gardens provide such a good supply of bird seed, bulbs and berries most years that the extra food in a mast year is less significant. This year has been a heavy cropping one for several species, including beech, oak, ash and hawthorn, so it will be interesting to see if records of grey squirrel next year are above average.

Red squirrels turn up at only a handful of sites each year, but in areas where they are present – large parts of Scotland and Ireland, and in North Cumbria and Northumberland, and on islands such as Anglesey, Jersey and the Isle of Wight – they can be as urbanite as their grey counterparts and will take advantage of gardens and supplementary food.



**Figure 2 (left)** The proportion of sites recording hedgehogs in each year of the survey. The smoothed trend is indicated by the line.



Picture by Arthur Southwell, a Hedgehog Champion in our Hedgehog Street campaign

## Rabbits

The proportion of sites recording rabbits shows a 'hill-shaped' trend (Figure 4, below), with fewer records in recent years. If records from gardens are separated from those at other types of site, the former show an upward trend, while the latter, a downward one. A survey of rabbits in rural areas by the British

Trust for Ornithology estimated that the population has almost halved since 1995, and a virus (Rabbit haemorrhagic Disease) is probably the biggest threat to numbers in the long-term. Although still common and widespread now, in Europe as a whole they may be a concern for conservationists in the future and are listed on the IUCN Red List as 'Near Threatened'. Rabbits are important in maintaining chalk grassland and

the particular communities of species that these support, and they form an important part of the diet of birds of prey and other predators. While rabbits might raise the hackles of some gardeners, gardens can be important in supporting wild populations and perhaps we ought to forgive rabbits some misdemeanours in the vegetable-patch.

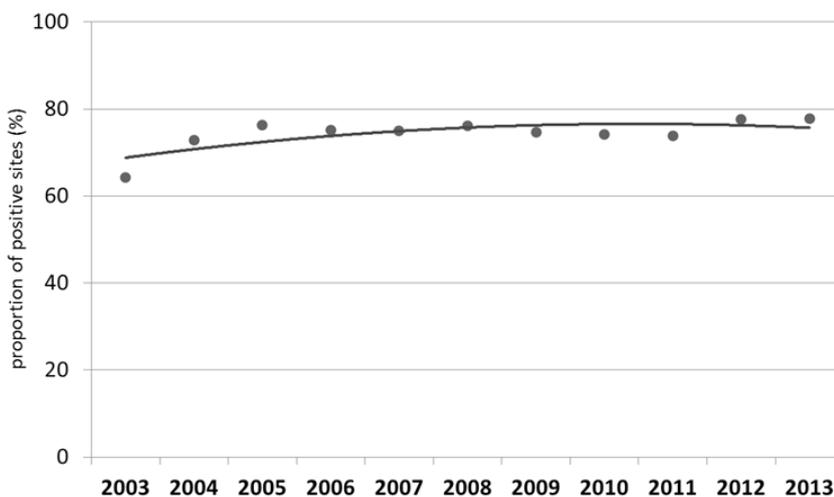


Figure 3 (left) The proportion of sites recording grey squirrels.

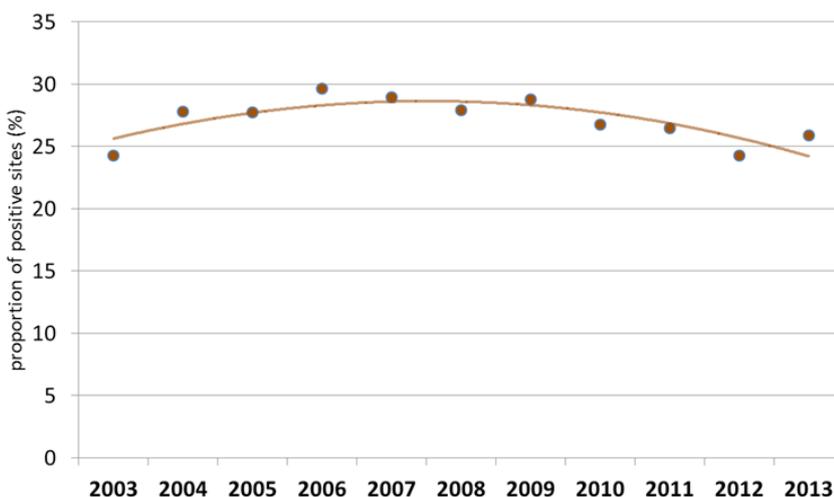


Figure 4 (left) The proportion of sites recording rabbits.

While there is only space here to show the findings for a few species, it shouldn't be forgotten that our built environment is home to a surprising diversity of mammal species, albeit not all as ubiquitous as grey squirrels. Alongside records of familiar species such as foxes, wood mice and bats, this year included others of otters, mink, water voles and brown hares, as well as a single record of a hazel dormouse. Urbanisation tends to lead to a loss of biodiversity but it can provide important new habitats for species as well (such as roost sites for bats) and the benefits of a warmer microclimate and supplementary food. Road verges can support as many small mammals as can hedgerows, and one of the findings of *Living with Mammals* has been that urban features such as compost heaps, woodpiles and bird tables are home to more mammals than at sites that lack them.

Less commonly encountered species may be scarcer or have smaller distribution ranges than those recorded more regularly, or might be less urbanite in their habits where they do occur (across the Channel in France, the continental garden dormouse is commonly found in gardens and houses, perhaps because its habits are less arboreal than those of its hazel cousin here). Improving the green infrastructure of our towns and cities however – ensuring spaces are accessible and connect-up, and



Picture by Diana Ward, a surveys champion, who's taken part in every year of *Living with Mammals* since its first, in 2003

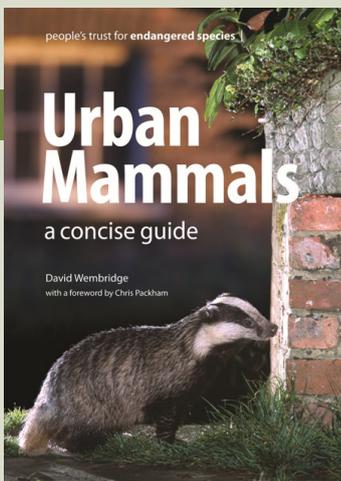
include microhabitats that provide shelter and food – maximises the opportunity for wildlife in urban areas.

*Living with Mammals* is one of very few studies to report on trends in mammal populations in gardens and urban habitats, although the potential of volunteer-based surveys to record wildlife in these areas is recognised. Urban green space has a real value to conservation, and surveys underpin those efforts, assessing changes in populations, the quality of habitats and engaging people in conservation. It isn't enough to rely on anecdotal

evidence: conservation needs sound science. With your help, *Living with Mammals* has been just that, alerting us to the scale of the decline in the hedgehog population.

The natural history on our doorstep is the best sort: it is a part of our lives and celebrating it is as important as recording it.

We very much hope that you will help us again in 2014!



## Urban Mammals: a concise guide

Whittet Books

**SPECIAL OFFER £8.99 (free p&p)**

The natural history of our wild neighbours is described in the latest book from PTES, covering the findings of the *Living with Mammals* survey and packed with information about key features, distribution and field signs of over twenty urban species. There are chapters on urban habitats and possible conflicts, and Chris Packham provides a forward.

We're offering 10% off and free p&p to *Living with Mammals* surveyors (just use or quote voucher code LWM13), available from our online shop at [www.ptes.org/shop](http://www.ptes.org/shop) or by calling 020 7498 4533