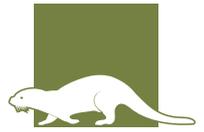


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Living with Mammals

people's trust for
endangered species
mammals



ten years of monitoring

LIVING WITH MAMMALS SURVEY

DECEMBER 2012

This year was an exceptional one for *Living with Mammals*. The three months of the survey were the wettest since records began and followed on the heels of the driest spring for over a century. Across the UK as a whole, 80 per cent more rain fell in April than the average for the month, and areas in eastern and southern England and Wales, and eastern Scotland, were particularly deluged.

And it was extraordinary for another reason too: *Living with Mammals* chalked up ten years of recording, marking an impressive milestone. Thank you to all of you who took part – to everybody who gave up their time and expertise to make this possible. Over two-thousand people have been involved since *Living with Mammals* started, surveying around 2,500 separate sites, including over 400 surveyors who have

recorded for five or more years and thirty-three volunteers who have taken part every year since the survey began – thank you for all your efforts and support.

Online participation continues to grow and this year over 120 people entered sightings online, twice as many as in 2010 and 2011.

The value of different habitats

Urban environments are far from ideal for mammals – the more built land around a site, the fewer mammals – but *Living with Mammals* has shown that, collectively, green spaces such as gardens, recreational ground and allotments are used by a

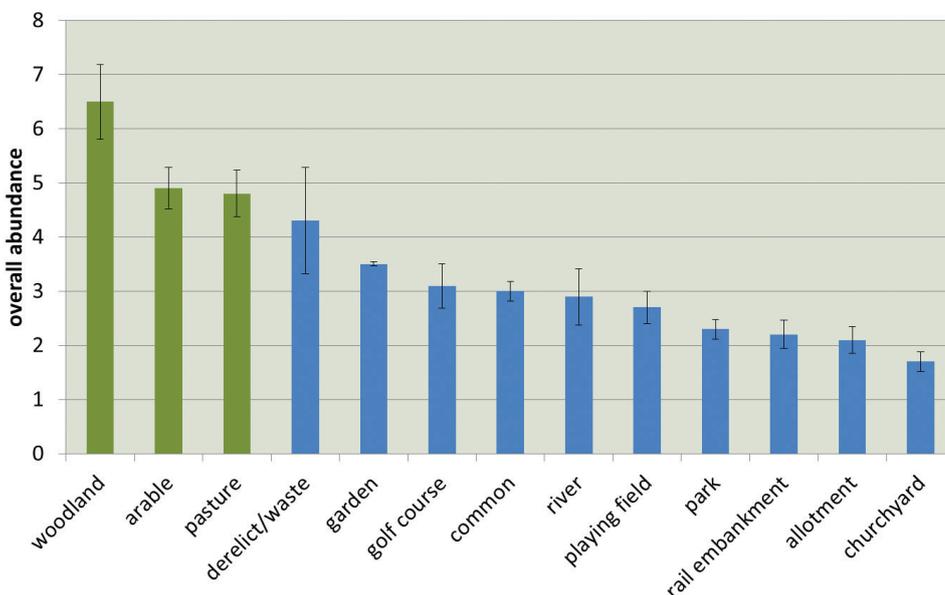


Figure 1 Overall abundance at different types of site (the weekly tally of species for each site in each year). This is a measure of the number of species, the number of individuals, and how frequently a species is recorded during the survey. Of the typically urban sites (*in blue*), derelict land and gardens support the highest abundance of mammals.

surprising diversity of species. Around two dozen regularly turn up when different sites are considered all together, and gardens and derelict land (among typically urban or suburban sites) are those with the greatest abundance (Figure 1).

The highest abundance was at more bucolic sites – those adjacent to buildings but largely woodland, pasture or arable. That said, some features of more urban sites are better than others in supporting mammals: sites with compost heaps, wood piles, ponds or bird tables all had higher abundance scores than sites without, independently of other features that were present.

Sites with plants that produced fruits, berries or nuts, or that had a vegetable patch, were also home to more mammals, showing that efforts to improve urban habitats for mammals need not be on a grand scale. Making a small hole in a fence, growing food or building a wood pile can make a real difference.

How species are faring

An unpredictable climate underlines the need to monitor wildlife over a long period. In any individual year, conditions can be more or less favourable and populations can do particularly well or can take a knock. It is only by collecting data over many years that underlying trends can be spotted beneath the annual ups and downs.

Hedgehogs

Last year's *State of Britain's Hedgehogs* drew together the findings of several surveys by PTES and others to build the most informed picture yet of how hedgehog populations are changing. Worryingly, the report found that all the surveys showed a decline and that, at a conservative estimate, hedgehog numbers had fallen by a quarter in the last ten years. *Living with Mammals* does nothing to allay this concern. A measure of the number of sites recording hedgehogs in each year is shown in Figure 2a (facing page), compared to that in 2004, which is taken as a base year. The trend shows a decline of 3.7 per cent each year.

Given this alone, it is possible that the trend reflects a loss of suitable habitat and that a hedgehog population of static size is being squeezed into fewer sites. If this were the case, the number of individuals at a site (where hedgehogs were still present) would be expected to increase. In fact, the number of records of hedgehogs shows a similar decline (Figure 2b) of 5.9 per cent each year.

The two trends, in distribution and abundance, are comparable to declines that, in the bird world, would give hedgehogs a Red List status – the highest conservation priority.

Most of the surveys in *Living with Mammals* are from England and about a quarter are from the South East region. So is the decline limited to this area? Regional trends are shown in Figure 3 (facing page): all go downwards and those in the South East, South West and East regions (solid lines) are statistically significant, that is, we can be confident that they reflect real declines.



Picture by Alan Lochhead, a *Hedgehog Street* Champion

'Connectivity' – the ease with which wildlife can move between different patches of habitat – is an important feature of built landscapes for mammals. The home ranges of hedgehogs are typically 5-15 hectares and an individual might travel a kilometre or more in a single night. Conservation needs to be on a neighbourhood-scale, and the British Hedgehog Preservation Society and PTES' *Hedgehog Street* project is promoting this joined-up thinking. To date, around 5,000 gardens, covering an area of 300 hectares (740 acres), have been linked up and the habitat improved by removing hazards and providing feeding areas and nest sites. The work is on-going and we are still looking for volunteers to champion hedgehog conservation in their street or estate.

Visit www.hedgehogstreet.org for more information on how to get involved.



Figure 2a (left) Sites recording hedgehogs in each of the survey. The smoothed trend is shown by the paler line. The year 2004 is used as the comparison-point – rather than 2003 – because the end-point of a series, without values on either side of it, is a less reliable estimate than that for points in the middle of a series.

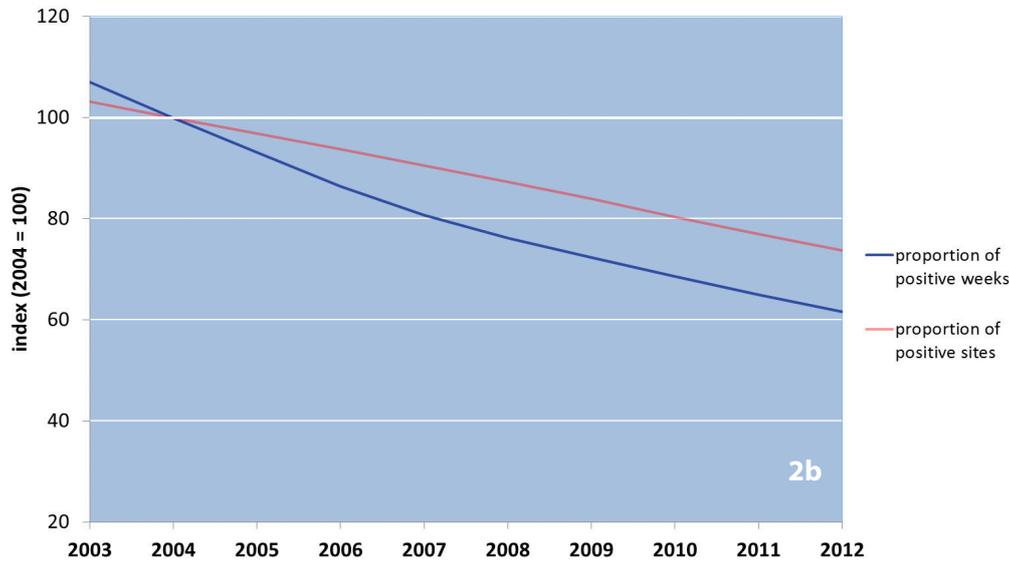


Figure 2b (left) Smoothed trends for the proportion of sites recording hedgehogs (positive sites, red line) and the proportion of weeks in which hedgehogs were recorded (positive weeks, blue line).

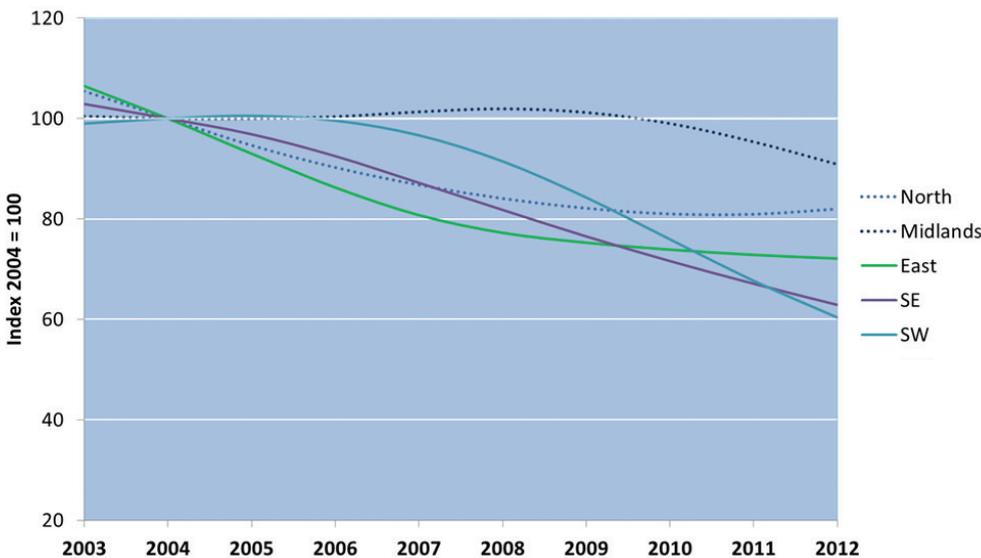


Figure 3 (left) Smoothed trends for sites recording hedgehogs in different regions of England. 'North' combines the North East, North West, and Yorkshire and the Humber regions; and the 'Midlands', the East Midland and West Midland regions. 'SE' indicates the South East region, and 'SW', the South West region. The trends for the East, SE and SW (solid lines) show significant declines.

Foxes

The proportion of sites recording foxes has stayed more or less the same over the ten years of the survey (the red line in Figure 4), going against claims in the media that we are increasingly overrun by foxes. But the trend in the proportion of records (the blue line) does show a small increase (1.4 per cent each year), suggesting that they are more numerous at sites where they are already present or that they are increasingly active and recorded more frequently.

Badgers

Figure 5 (below) shows trends in the proportion of sites recording badgers each year and the proportion of positive weeks. Both trends show increases (2.2 and 4.9 per cent each year respectively), suggesting a growing population.

Both foxes and badgers occasionally feed on hedgehogs but there is no evidence from *Living with Mammals* that, where they co-exist, either has an impact on hedgehogs in urban or suburban landscapes. The downward hedgehog trend is the same whether badgers are recorded at the site or not, and when neither badgers nor foxes are recorded.

Urban landscapes – mosaics of numerous private gardens and public spaces – are difficult to monitor. But with the collective efforts of thousands of volunteers, each surveying their own patch, *Living with Mammals* has been a success. The information gathered over ten years is critical for conservation and, for the hedgehog at least, may have given one species a fighting chance.

With this in mind, we very much hope that you will help us again in 2013.

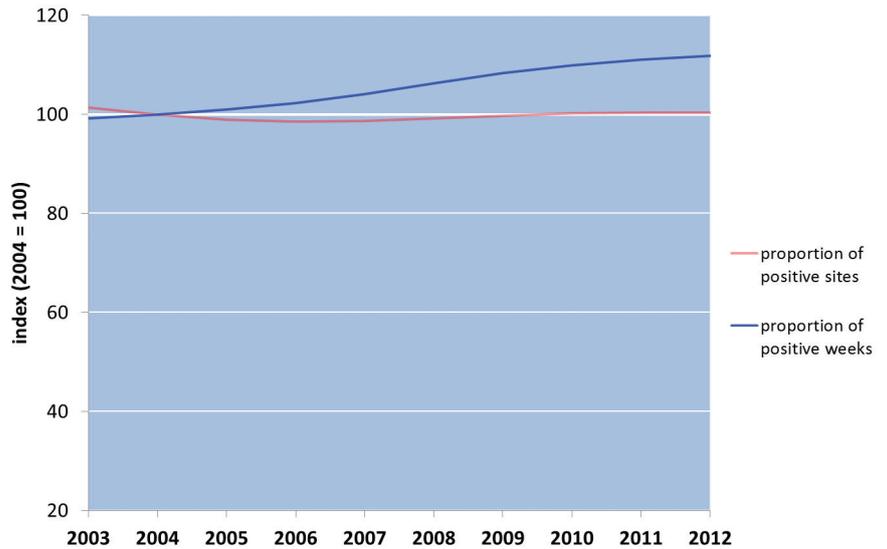
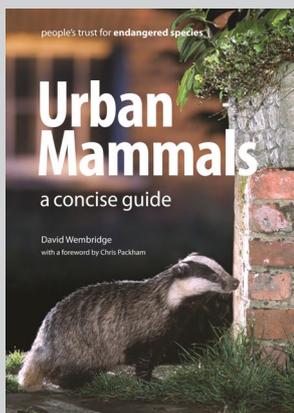
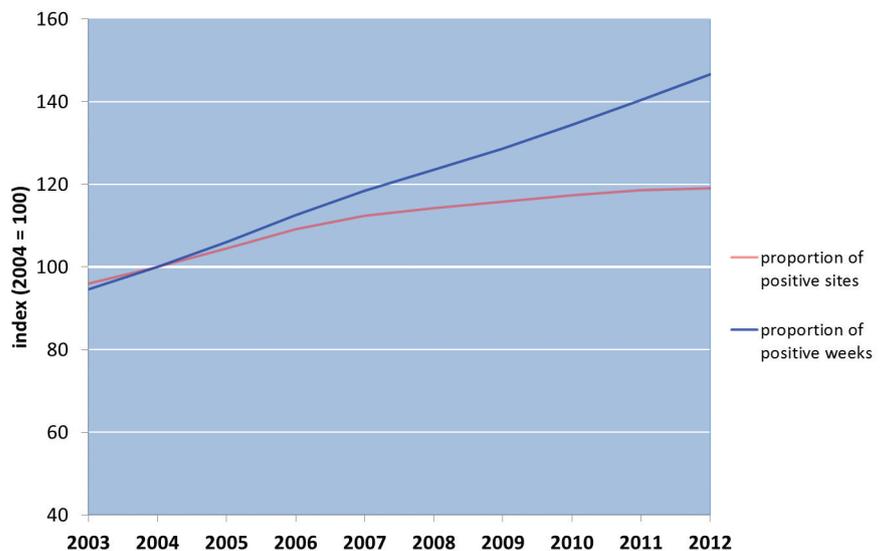


Figure 4 (above) Smoothed trends for records of foxes.

Red lines indicate the trend in the proportion of sites recording the species; and blue lines, in the proportion of weeks that the species was recorded.

Figure 5 (below) Smoothed trends for records of badgers.



Urban Mammals: a concise guide

From bats and wood mice, to muntjac and badgers, the new book from PTES looks at over twenty species found in our towns and cities, with a forward by Chris Packham. The text describes urban and wider ecology; key features and field signs; and distribution in Great Britain and Ireland, as well as chapters on urban habitats, possible conflicts and urban surveys.

"I hope that this introduction to Britain's urban mammal fauna will lead to a real appreciation of its fragility, its beauty and its real value." - Chris Packham

Available from our online shop at www.ptes.org/shop or by calling 020 7498 4533