people's trust for endangered species

# *Living with Mammals* update 2018

Since the start of *Living with Mammals*, fifteen years ago, humankind has become an urban species—for the first time in our history, more of us live in urban areas, globally, than do outside of them. In 2003, 48% of the world's population was urban; this year, it was 55%. In the UK, the proportion is more than four-fifths: towns and cities are where most of us experience wildlife from day-to-day, and that makes them important.

Thank you for taking part in this year's *Living with Mammals* survey. Recording wildlife tells us about the 'green health' of urban areas: green spaces, and the biodiversity they support, are important in providing food, clean air and water, and in supporting our physical and mental health. They mitigate against pollution and heat waves, and protect our homes from flooding. Your efforts, and those of everyone involved in the survey, are part of a remarkable fifteen-year achievement—thank you!

## A changing environment

Urban habitats though, can change quickly: in 2005, 8% of front gardens, in a survey by the Royal Horticultural Society, were entirely paved, concreted or gravelled over; in 2015, the figure was three times that. Similarly, fewer than one in ten front gardens had no plants in 2005; a decade later, it was almost one in three. Each year between 1998 and 2008, London lost on average an area of green, garden

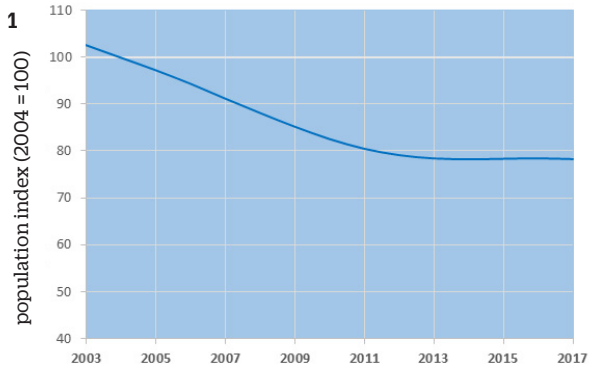


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**Figure 1** The proportion of sites recording hedgehogs. The smoothed trend line evens out year-to-year fluctuations, showing the underlying change. The value for each year is expressed relative to that in 2004, which is taken as the baseline year and given a value of '100'. The value in 2017 is 30% less than that in 2004, but notably the trend levels-off across recent years.

| species | 2003 | 2018 |
|---|---|---|
| hedgehogs | 40.7 | 41.0 |
| fox | 56.3 | 50.2 |
| grey squirrel | 64.4 | 69.9 |
| bats | 40.4 | 41.2 |
| muntjac | 4.3 | 9.2 |
| roe deer | 7.4 | 8.5 |
| badger | 14.2 | 17.3 |

The percentage of sites with positive records of particular species in the first year of *Living with Mammals* and this year. For many species, the proportion of sites is similar in the two years. But looking across all years, and taking into account differences in, for example, the relative numbers of each type of site, or in the length of observation, the underlying trends are not always flat.

land equal to two-and-a-half times that of Hyde Park. Monitoring populations in such a changing environment is essential.

## A snapshot over fifteen years

How does the proportion of sites recording a particular species this year compare with that when the survey started in 2003? For many species, the two percentages side by side look similar (see the table above): while urban environments might be changing, it looks like towns and cities are still home to wild mammals.

But a snapshot like this isn't the whole picture and hedgehogs are a case in point. Fifty-nine sites took part in both 2003 and 2017, and a similar number of these recorded hedgehogs in each year: 18 in the first, and 15 in 2017. Only six sites, however, recorded them in both years. Between the two surveys, five generations of hedgehog might have passed through, so these aren't records of the same animals. But, while hedgehogs are being recorded at some sites where they haven't been spotted before, at others the local population is disappearing. Looking at a series of years, rather

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Wood mice are common in gardens, making the most of bird feeders and the shelter offered by outhouses, but sightings of mice have declined since the start of the *Living with Mammals* survey.

than just two, and taking into account differences between years, such as the relative proportion of different types of site and observation time, gives a more detailed picture. This sort of 'trend analysis' is done every two years on the *Living with Mammals* data and next year we'll have the results incorporating those for 2018 and 2019. The trend for hedgehogs so far however, looking at sites that have repeated the survey, shows a decline (Figure 1, page 1).

The percentage of sites recording foxes in 2018 was less than that in 2003 but the underlying trend shows no overall difference. While some may fear Britain's towns are becoming overrun with foxes, the survey results don't bear this out.

There is some evidence, however, from work at the University of Brighton, to suggest that, while urban fox numbers haven't changed in the south of England, they've increased in more northerly cities. But again, this isn't seen in *Living with Mammals*: looking at sites in the North East and North West regions, for the first two years combined and the last two, to get a bigger sample size, the proportion of sites recording foxes was 43% in 2003/4 and 31% in 2017/18. Local increases aren't seen more widely and are evened out by numbers decreasing elsewhere.

Common and soprano pipistrelles are the most common and widespread bats in Britain and the ones most likely to be spotted in urban areas. In the wider countryside, their numbers have increased since 2003, but both species are negatively impacted by increasing urbanisation. *The State of the UK's Bats 2017*, produced by the Bat Conservation Trust, reports a

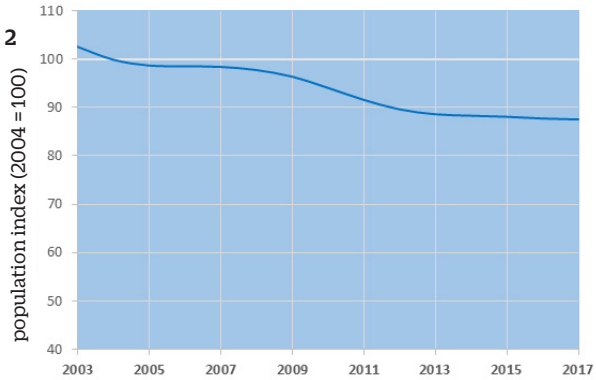




**Figure 2** The proportion of sites recording bats. The value of the trend line in 2017 is 12.5% smaller than that in 2004.

Weasels, like the one opposite, and stoats are comparatively rare visitors to gardens and other green spaces, recorded (individually) at just two or three per cent of sites each year.

Stoats are the larger of the two and can be identified by the black tip to their tail.

© Lynn Dyball

recent study that found that 'common pipistrelles show a strong negative response to urbanisation and are more frequently found in landscapes with a high proportion of green space, while soprano pipistrelles are found more regularly in wooded urban landscapes containing freshwater.'

The snapshot comparison of *Living with Mammals* sites in 2003 and 2018 shows a similar proportion recording bats in each year, but the underlying trend (Figure 2, below), when the data are looked at in more detail, is downward. As our towns and cities become more urban, we may be pushing out an extraordinary neighbour.

Fifteen years on from the start of *Living with Mammals* and we are more urban: as a species and in the extent and development of the urban areas we call home. This year's results show we still share these areas with wild mammals—foxes and grey squirrels continue to lead urban lives with aplomb—but some, like hedgehogs and bats have futures that look less secure. Towns and cities are healthier (and economically better off) when they're green and wild. Keeping an eye on wild mammals, then, makes sense.

Thank you for taking part this year and we hope you can do so again in 2019!

## Trail camera update

Thank you to everyone who told us they had a trail camera (or didn't have one) earlier in the year.

We're looking to put together a new citizen science project, capturing still and video images of garden mammals, to better understand our wild neighbours. As we have more details, we'll keep you informed.

Watch this space!

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