

survey
results

HogWatch

Thank you very much for taking part in *HogWatch* last year and helping us to map where hedgehogs are, and are not, found across Britain. Although hedgehogs are generally thought to be widespread in Western Europe, recent surveys have shown that their numbers are decreasing in some rural parts of England and perhaps Wales. There are many concerns about them in continental Europe too. Possible reasons for a drop in numbers are agricultural intensification, loss of habitat, an increase in the number of badgers, more road traffic, drier summers (the current one excepted!) and changing gardening practices such as less porous garden boundaries and tidier gardening.

HogWatch is part of a major project being carried out by Royal Holloway, University of London on behalf of the People's Trust for Endangered Species and the British Hedgehog Preservation Society, which is looking into why hedgehogs are declining and what we can do to prevent or reverse their loss. Where can we still find hedgehogs in Britain? Are their numbers decreasing everywhere or only in certain areas? What can we find out about the relationship between whether hedgehogs are found in a particular area and their immediate surroundings? These are the questions we can begin to answer now with the information gathered during *HogWatch*.

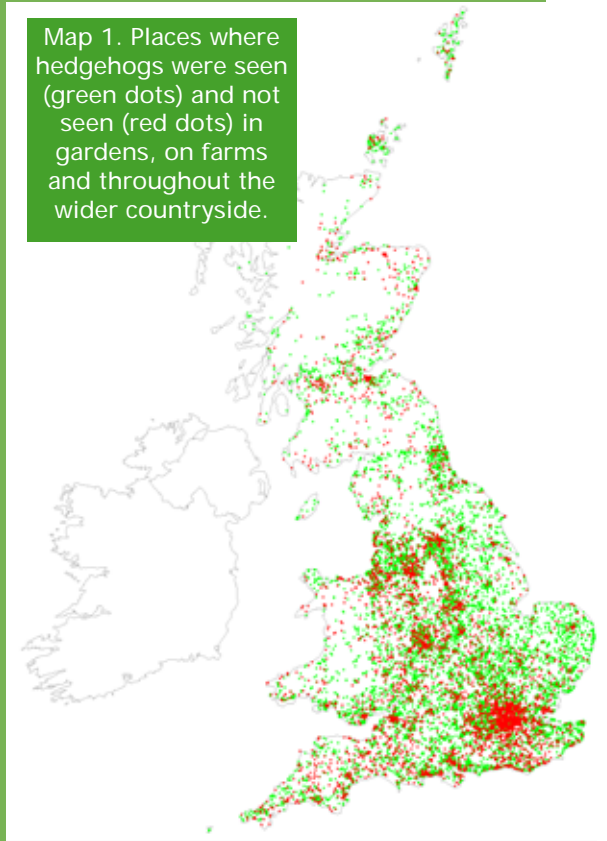
Nearly 20,000 people took part in our national hedgehog survey, with 19,060 recording whether or not they had seen a hedgehog during 2005 and, of those, 9,095 people recording their sightings (or lack of them) in 2006. We have combined these records with our contemporary survey of more than 1,000 farmers (custodians of most of the land on which hedgehogs live) in England, Scotland and Wales. Thanks to everyone's help this gives us perhaps the largest set of information ever assembled about the distribution of a single species over a short space of time. From this we can build a very strong foundation of understanding as to what is happening to hedgehogs in Britain today.

Map 1 shows where hedgehogs were and were not spotted. The majority of records, unsurprisingly, were from people's gardens. Hedgehogs were also seen in a great range of other habitats, including pastures, arable land, woodlands, village greens, parks, moorland and heathland. Hedgehogs are clearly still widely distributed, but this does not mean that they are still common everywhere.

As is clear from Map 1, more records were submitted from centres of human population such as London, Cardiff, Edinburgh and Manchester and also many much smaller towns and villages. We took account of this geographical bias by weighting your records according to the number of households in your area. This gives us a way to account for there being a higher chance of people seeing hedgehogs when there are more people in a neighbourhood - and so a clearer picture of where hedgehogs occupy more of the landscape.

Map 2 shows where in the country you are more likely to encounter hedgehogs. We have mapped this for areas where sufficient records were submitted for us to be highly confident of having measured the true extent of hedgehog

Map 1. Places where hedgehogs were seen (green dots) and not seen (red dots) in gardens, on farms and throughout the wider countryside.



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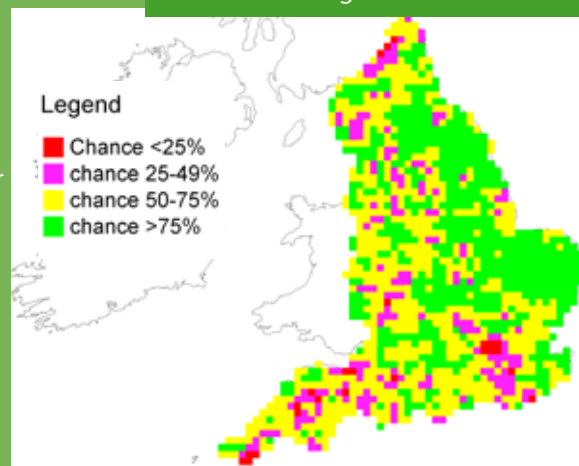
Map 2. The chance of seeing a hedgehog in 10-km squares of the Ordnance Survey national grid in England and the Welsh borders. This provisional map includes only areas where there were enough records to give a highly reliable measure of hedgehog presence; we hope to extend it to other parts of Wales and Scotland. The map takes into account the number of people living in a 10km square and so the likelihood of people taking part in *HogWatch*.

occupancy of the surrounding landscape (we hope to extend this to other parts of Wales and to parts of Scotland). The results are striking. There is a clear east-west divide in hedgehog distribution: they are more likely to be encountered in the east than the west. The map fits well with data from the *Mammals on Roads* survey, conducted annually by the People's Trust for Endangered Species. For example, *Mammals on Roads* shows relatively large numbers of hedgehogs in north-east England and in Norfolk; so does *HogWatch*. Unfortunately it is also in the eastern side of England that *Mammals on Roads* shows hedgehogs are declining.

So why are hedgehogs more widely distributed in some areas than others? Our preliminary analysis suggests that increasing urbanisation and 'tidier' gardens are clearly pushing hedgehogs out from the places where most of us live. We will be looking at this in greater detail by comparing current hedgehog distribution with that in Greater London in the 1960s. On a wider scale, landscapes with a 'coarser grain' also appear to be bad news. So, for example, landscapes which apparently have smaller-sized fields appear better for hedgehogs.

It is often suggested that the increase in badger numbers (and their predation on hedgehogs) is the reason why hedgehogs are declining. The jury is still out on this and our analysis is ongoing. However, it is clear from *HogWatch* that in some places hedgehogs occupy much of the landscape where badgers are very common; take the southern Welsh borders and parts of Sussex and Kent, for example. Also the *Mammals on Roads* survey recorded decline of hedgehogs down the east side of England is not likely to be mainly due to increasing badger numbers, because this is not where badger numbers are highest or have increased most. In short, we cannot yet be clear as to why hedgehogs are declining; but *HogWatch* gives us a very strong foundation about where hedgehogs are currently most and least widespread.

We asked if you had noticed a difference in hedgehog numbers over the past five years or whether you thought they had stayed about the same. Almost half of you said that there seemed to be fewer hedgehogs now than there had been, and your perceptions seemed to be linked to an increase in built-up areas nearby. This impression was most apparent in the east of the country and may reflect a more general phenomena; where animals are common they are quickly missed once they begin to decline, whereas where they are scarcer and seldom seen they tend not to be missed as they disappear. So your perceptions tie in well with the *Mammals on Roads* results that detail a more dramatic decline in hedgehogs in the east. Thank you once again for all your help with *HogWatch*, enabling us to piece together just what is happening to hedgehogs in our landscape. We'll let you know how our work is progressing.



gallery: thank you for all your photos



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