

With a little help from our friends ...

OUR GROWING CLUTCH OF VOLUNTEER SURVEYS TURNS THE ENTHUSIASM OF PTES SUPPORTERS INTO VITAL SCIENTIFIC INFORMATION. PTES CHIEF EXECUTIVE JILL NELSON INVITES YOU TO HELP KEEP THE DATA COMING IN...

One of the challenges in protecting and conserving endangered species is deciding the priorities for using inevitably limited resources to maximum effect. To do this we need information, and lots of it. The only reliable way to assess the distribution and abundance of a species facing difficulty is to go out and survey them. And the only way to recognise and understand trends in populations and measure the effectiveness of conservation strategies is to repeat the survey regularly.

Rising to the challenge

A scientifically rigorous survey is a challenging piece of work. Many animals are hard to spot, being secretive and/or nocturnal (such as dormice), and some are tricky to identify (such as the different bats). The whole of a species' national range needs to be monitored, as

differences between regions are important and can yield valuable information about the causes of variation. Long-term monitoring is crucial. Records need to be made at regular intervals over time, because populations of many species vary year on year.

PTES coordinates several surveys which vary in scale, volunteer involvement, species and outcomes. All our surveys follow standard methodologies and demand the time and effort of many people; very often these people are volunteers. It is hard to overstate the importance of volunteer surveyors in conservation. We simply wouldn't get the data we need without them.

Starting with dormice

The first regular surveying that we became involved with concerned

In 2008 alone, NDMP volunteers checked a total of 14 575 dormouse boxes, most of them at least three times over the year!

Regular checking of dormouse nest boxes is the only effective way of monitoring the fortunes of natural and reintroduced populations. It's labour intensive business, highly dependent on licenced volunteers.

dormice. What is now known as the National Dormouse Monitoring Programme (NDMP), funded centrally by PTES and Natural England, grew from pioneering work by Dr Pat Morris and Dr Paul Bright and the invention by the late Doug Woods of the dormouse nest box (see *Mammals UK*, Autumn 2008). We now have around

500 of these boxes at Briddlesford Woods, our nature reserve on the Isle of Wight, and a group of staff and other volunteers regularly checks the boxes for occupancy

and records the results. Volunteer groups are monitoring woodlands at over 200 other sites in England and Wales, with the cooperation of land owners and managers. In 2008 alone, NDMP volunteers checked a total of 14 575 dormouse boxes, most of them at least three times over the year! Many of these sites were identified through another survey, the *Great Nut Hunt*, run in 1993 and 2001. This involved thousands of members of the public sending us hazel nuts that they suspected to have been chewed by dormice. The success of the nut hunts and the monitoring effort left us in no doubt as to the power of mass participation and the value of volunteer survey effort. The NDMP is now 21 years old, a fact we'll be celebrating later this year!

Campaigning for mammals

As PTES' interest in British mammals grew, we launched Mammals Trust UK (MTUK) in 2001. This is a campaign fund specifically allocated to protect and conserve Britain's native mammals. Many people – including the readers of this magazine – rose to the challenge and continue to give generously of their time and money to help with our mammal mission.

Following the launch of MTUK we set about awarding more grants to projects on mammal conservation. Deciding between funding proposals can be difficult and despite expert help from our advisory group, we quickly recognised that there was a worrying lack of concrete information concerning the status of many wild mammal populations. Without hard evidence to tell us which species were declining, or where they were in trouble, it is difficult to prioritise conservation.

Hogs wanted, dead or alive

Again working with Pat Morris, we teamed up with up the Joint Nature Conservation Committee to fund a pilot project, the *National Hedgehog Survey*, in which volunteers were asked to record sightings of living or dead hedgehogs on roads. The analysis was carried out by Royal Holloway, University of London and the technique proved so effective that in 2002 we extended it to include all wild mammal species. We wanted to know whether counts of mammals along roads were a reliable means of monitoring overall abundance.

Once again hundreds of volunteers were recruited, and they told us what they observed on 20 mile road journeys. At times the observations were grisly! The pilot proved that roadside records were indeed indicative of abundance in the wider landscape: counting roadkill systematically is a sound methodology for monitoring mammal populations.

Mammals on Roads has run ever since and the data set is now sufficiently robust to form a basis upon which conservation decisions can be made. Indeed, it was *Mammals on Roads* that alerted us to the possible decline of hedgehogs by as much as 30% in some areas, enabling us to quickly put in place a practical research project to look into why and where this was happening. We would not have had the confidence to invest our funds in such a project had the

Mammals on Roads
(originally the National Hedgehog Survey)
Since: 2001 Volunteers so far: 1 250
Our partners: Royal Holloway, University of London; Joint Nature Conservation Committee

Volunteers record sightings of mammals on road journeys of 20 miles or more along single-carriageways, allowing population trends in the wider landscape to be identified. The results gave an early warning of a widespread decline in hedgehog numbers. Continued monitoring to determine long-term trends is a vital part of conservation efforts to protect this and other much-loved species.

How to help: The survey runs from July through to September and every journey can help. Download a form and take part online (www.ptes.org/surveys) or contact David Wembridge (david@ptes.org) for a survey pack.



TERRY WHITTAKER

HogWatch
Since: 2005
Volunteers so far: 19 500
Our partner: British Hedgehog Preservation Society

The *HogWatch* data are possibly the largest set of records of a single species ever collected over a short period of time, and the results are used to build up a distribution map of where hedgehogs are found, and where they are not, across Britain.

How to help: Records are still being collected online (www.hogwatch.org.uk) and it is hoped that the survey will be revisited in 2010 to follow up the findings. Watch this space!

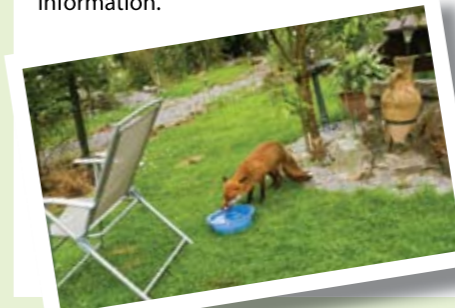


STEPHEN OLIVER

Living with Mammals
Since: 2003 Volunteers: 1 600, surveying about 1 900 sites
Partner: Royal Holloway, University of London in year 1.

Understanding the abundance and distribution of urban species is important both for future conservation efforts and in helping human residents share the benefits of experiencing wildlife. This survey aims to follow long-term population changes and to identify the sites and habitat features that support the greatest diversity of wild mammals.

How to help: If you're able to record sightings over eight weeks during April, May and June you can take part online or by requesting a survey pack (including a full-colour guide to identifying mammals and field signs). Contact David Wembridge (david@ptes.org) for more information.



TERRY WHITTAKER



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data from *Mammals on Roads* not indicated that urgent action was justified.

Mammals on Roads does not ask for records of sightings on urban roads or in built up areas, largely for reasons of road safety and because local authorities remove roadkill. It rapidly became clear that a parallel scheme for mammals on built land, which comprises at least 10% of land in the UK, was called for. If we continued to ignore these important mammal habitats we would never have a complete and accurate picture of mammal numbers and distribution nationwide. In addition, and very importantly, many protected

PTES surveys welcome participants of all ages, and volunteers will be given all the guidance required to ensure the data they contribute is valid.

species are known to occur on built land including hedgehogs, bats, shrews and badgers. So in 2003 we launched *Living with Mammals*, a survey aimed at monitoring mammals in the urban environment, such as gardens, churchyards, allotments and parks.

Living with Mammals has gone from strength to strength. After five years, we now know for sure that gardens and derelict or waste land have the highest abundance of wild mammal species in urban areas; while, perhaps surprisingly, parks and churchyards score relatively low. So gardens, which make up between a third and half of the green space in urban areas, are very important to urban biodiversity. Within gardens, those with plentiful berries and seeds, bird or animal feeders, sheds, ponds or woodpiles are the most mammal friendly.

Mass participation

In 2005, in response to the alarming hedgehog statistics, we launched a different sort of survey to map the distribution of hedgehogs across the UK. This was not an attempt to estimate the absolute numbers, but rather an effort to map the spread of the species. *HogWatch* caught the public imagination and nearly

20 000 people took part, telling us where they had or hadn't seen hedgehogs in their localities and enabling us to create an up-to-date map of where hedgehogs are present and appear to be absent. The results reinforced the worrying indications from *Mammals on Roads*, and *HogWatch* is likely to be repeated in 2010 for comparison.

Following the success of *HogWatch* we embarked on *MoleWatch*. This was partly because there was no up-to-date distribution map of moles but also because moles eat similar food to hedgehogs. We wondered if moles might also be in trouble. Perhaps not surprisingly, fewer people took part in this survey – with their enthusiasm for remodelling lawns and golf courses, moles are unlikely to ever win as many friends as their spiny cousins! But still, several thousand people did take part and we have now created a useful map for future reference. These two public surveys certainly showed the very wide public interest in mammal monitoring, and without that support we would not have been able to concentrate on these species so effectively.

We will shortly be turning our attention to otters, collecting

MoleWatch

Since: 2007

Volunteers to date: 5 338

In our changing countryside, it's important to monitor species like moles, which can be affected by farming and habitat fragmentation. *MoleWatch* aims to find out more about these secretive creatures, including exactly where they're found in the UK.

Volunteers record sightings of molehills in their gardens and in the countryside. Molehills are easy to recognise and recording them is the only reliable means of recording the presence of moles.

How to help: To take part in *MoleWatch*, please either log onto www.molewatch.org.uk, call 020 7498 4533 for a survey pack or email help@molewatch.org.uk to request a survey form.



Otter Survey

Starting: 2009

Our partners: Environment Agency

The UK otter population suffered a significant decline in the late 1950s to 1970s. Although they are showing signs of recovery, 66% of sites surveyed during 2000–02 still showed no signs of otters. In this, the fifth national otter survey in England, we hope to look for otters in all the 10km squares throughout the country to get a good idea of where these animals are.

How to help: For a recording form please contact Nida Al Fulajj, nida@ptes.org or 020 7498 4533.



National Dormouse Monitoring Programme

Since: 1988

Volunteers so far: 500+

Our partners: Natural England; Royal Holloway, University of London

The NDMP collates data from licenced monitors and their assistants surveying over 200 sites across the country gathering long-term data about dormouse abundance, annual variation in timing and success of breeding and population density in different areas and habitats.



Hedgerows for Dormice

Since: 2009 **Volunteers so far:** 126

Our partners: Natural England; Wildlife Trusts; Farming and Wildlife Advisory Group

The *Hedgerows for Dormice* project aims to map the quality of hedgerows around known dormouse sites. In order to provide data on hedgerows in dormouse 'hotspots', we're looking for volunteers to survey hedgerows in Surrey, Essex, Shropshire and Dorset. A survey pack will be sent out together with a map of hedgerows to survey. Hedgerow survey workshops for volunteers will be held in the four counties but spaces are limited.

How to help: Handling dormice requires a licence but volunteers can help in other ways, erecting and repairing boxes or taking notes in the field. Volunteers in the four *Hedgerows for Dormice* counties (and four more in 2010) are needed – to take part email Jim Jones (jim@ptes.org). To take part in the *Great Nut Hunt* visit www.ptes.org/greatnuthunt and to report a dormouse sighting please visit www.ptes.org/dormousemonitoring and click on NDD.

Great Nut Hunt

1993, 2001 & back soon in 2009!

Sites surveyed so far: 2 250+

Our partners: Natural England; Countryside Council for Wales

Dormice gnaw neat round holes in hazel nut shells, leaving characteristic toothmarks. Other animals such as wood mice, voles and squirrels, leave different marks on the nuts so we can tell who has been nibbling them. This is the basis of the *Great Nut Hunt*, carried out in autumn and winter when discarded nut shells are easiest to find on the woodland floor. We're asking people to go to their local woods and search for between 20 minutes and two hours for chewed hazel nuts, then send them to us to be identified.



public sightings to complement the Environment Agency's national otter survey (conducted by professional surveyors), which we are also helping to fund.

As well as surveying mammal species specifically, we are also looking at some of the important habitats that support them and a range of other wildlife. Our *Hedgerows for Dormice* project grew out of our commitment to dormouse conservation. The aim of the project is to extend and restore hedgerows between 'dormouse hotspots'. These hotspots were

identified using all the dormouse records collected through the NDMP and elsewhere. We are currently in the process of recruiting and training volunteers to survey hedgerows in these hotspots so that we can judge where to prioritise our restoration effort. Volunteers are trained in systematic monitoring of hedgerow plant species and other indicators that tell us about the quality of the habitat.

Beyond mammals

The hedgerow project is similar in some ways to our *Traditional Orchard Survey* which is identifying, surveying and digitally mapping

traditionally managed orchards across England, home to a huge variety of priority species including bats and many invertebrates such as noble chafer beetles which we have been monitoring with the help of professional surveyors for many years. We have also been actively surveying stag beetles for some years now, having run three *Great Stag Hunts* recording public sightings and creating distribution maps at regular intervals. Beetles are a crucial component of most ecosystems, as pollinators and decomposers, not to mention food for many mammal species!

None of this would be possible without volunteer effort. A heartfelt thank you is due for the thousands of hours of dedicated help.

Not sure where to start? Many of our surveys tie in with PTES Wildlife Encounters and other supporters' events. As a guest you'll be shown the ropes by an expert guide and come away something of an expert yourself!



Running now/coming soon... *Mammals on Roads* 2009... *Great Nut Hunt* 2009... *Otter Watch*... *HogWatch* 2010...