



Hedgehog Way

Investigating the effectiveness of hedgehog highways

Introduction

Hedgehogs are one of the UK's fastest declining mammal species and are now officially classified as vulnerable to extinction, in July 2020 being included on the IUCN Red List for British Mammals. Awareness raising of the plight of hedgehogs, and encouraging communities to take action has never been more important. But equally developing a better understanding of hedgehog movements and requirements in urban areas is vitally needed.

In 2015, Gloucestershire Wildlife Trust launched a 'Last Hedgehog in Gloucestershire' campaign, which sparked a great deal of interest across the county and generated large numbers of new hedgehog records. This led to the development of the 'Hedgehog Way' project to better understand urban hedgehogs in our county. Three study areas were chosen based on records and enquiries that had come in throughout the campaign. The aim of the Hedgehog Way project was to increase linkages for hedgehogs between urban gardens and green spaces, and test the effectiveness of widely used hedgehog holes in increasing movement.

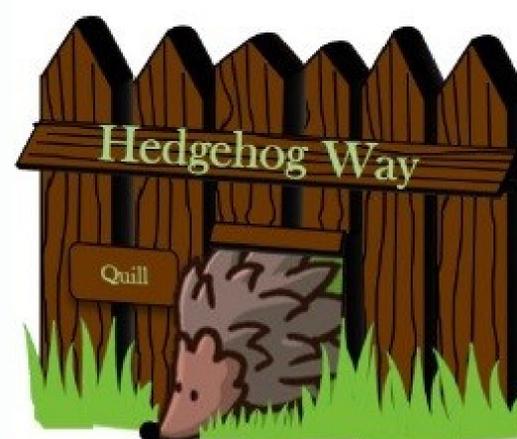
Residents within study areas were able to learn skills in surveying for hedgehogs, assess their own gardens as suitable habitat for hedgehogs and work with their neighbours to survey and track hedgehogs and create hedgehog highways. The project will help determine whether conservation organisations are recommending appropriate conservation actions to help reverse the decline in hedgehog numbers.

The project worked towards the following outcomes;

- Greater evidence base of the effectiveness of hedgehog holes between urban green space and gardens
- Increased habitat for hedgehogs with 30 new hedgehog ways created
- Greater understanding of the number and spread of hedgehogs in study areas
- Improved and tested directions for personal use for hedgehog habitat improvements and links to resources
- Higher profile of hedgehogs in three target audiences with greater community action to support their survival

The project focused on three study areas;

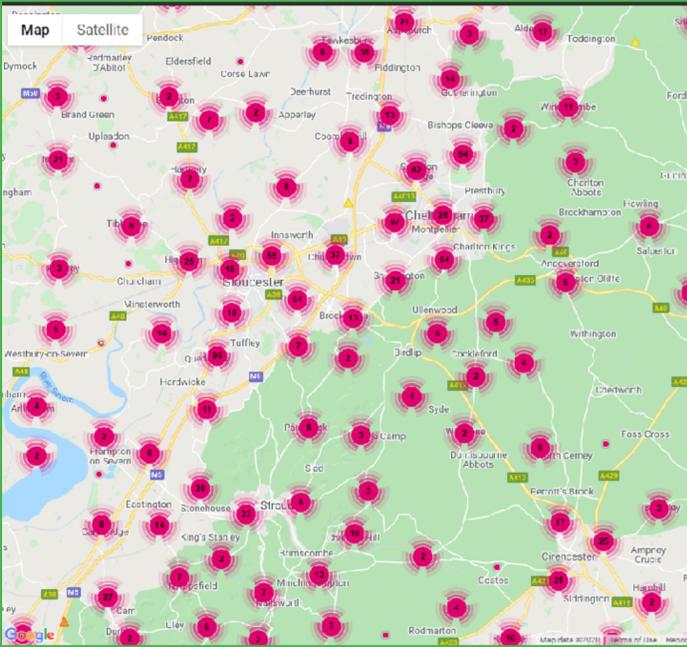
- Kingsway in Gloucester
- Charlton Kings in Cheltenham
- Swindon Village in Cheltenham



Results

Hedgehog Sightings

Throughout the project we have been encouraging the reporting of hedgehog sightings, both dead and alive to increase our countywide knowledge of hedgehog distribution. We have also encouraged participants who reported sightings to us, to log them on the Big Hedgehog map (bighedgehogmap.org/) to improve a nationwide understanding of hedgehog populations and distribution.



Gloucestershire hedgehog records, as recorded on the Big Hedgehog Map

Hedgehog Days

Hedgehog days have been a huge success throughout the Hedgehog Way project. Throughout all three survey areas we have run seven hedgehog event days. In 2018 we ran one 'launch event' in each area, which helped us recruit hedgehog champions to get involved in the project. In 2019, a hedgehog day was again run in each study area to recruit further participation in the project. One final hedgehog day was run in early 2020 in Kingsway, in partnership with the Kingsway Wildlife and Sustainability Group and Wild Hogs rescue. This was run to further promote the installation of hedgehog highways and offer support for installation. This was particularly focussed in Kingsway as our marked hedgehogs were focussed within this area.



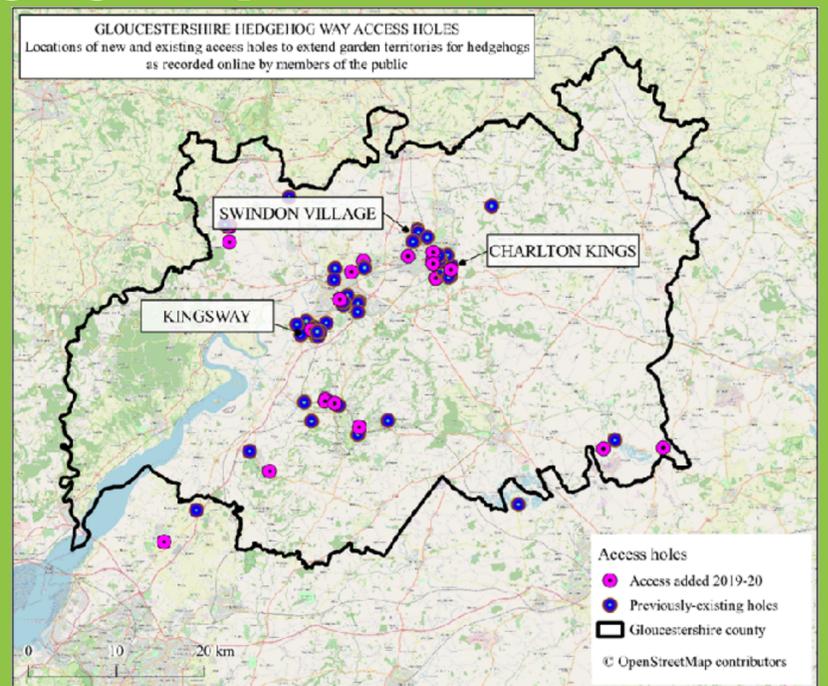
Examples of hedgehog days in Kingsway and Swindon Village

Hedgehog Way Routes

During Autumn / Winter 2019 / 20 the Hedgehog Way project encouraged residents to make hedgehog highways in their gardens.



Using our specially created mapping tool, 181 records of holes were logged. Of these, 56 new hedgehog ways created since project started. GWT staff also assisted in the creation of eight hedgehog access points, for residents unable to make their own. 36% of gardens in our study reported having a hedgehog access point in the garden at the beginning of the project. The same households now report 57% of gardens having hedgehog access points.

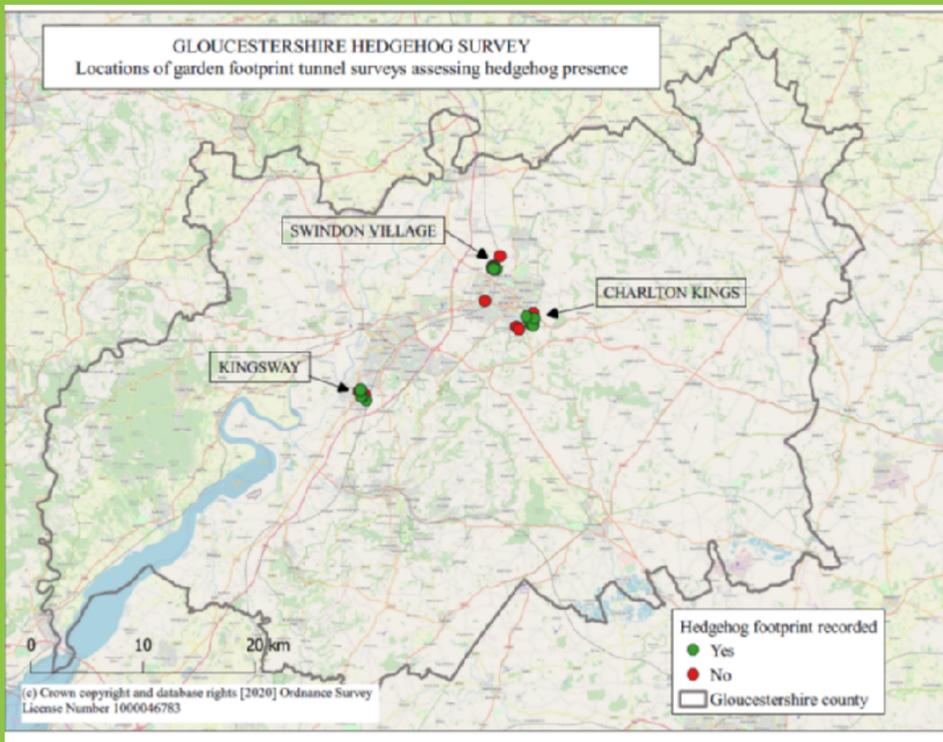


Hedgehog Survey, tracking and garden assessments

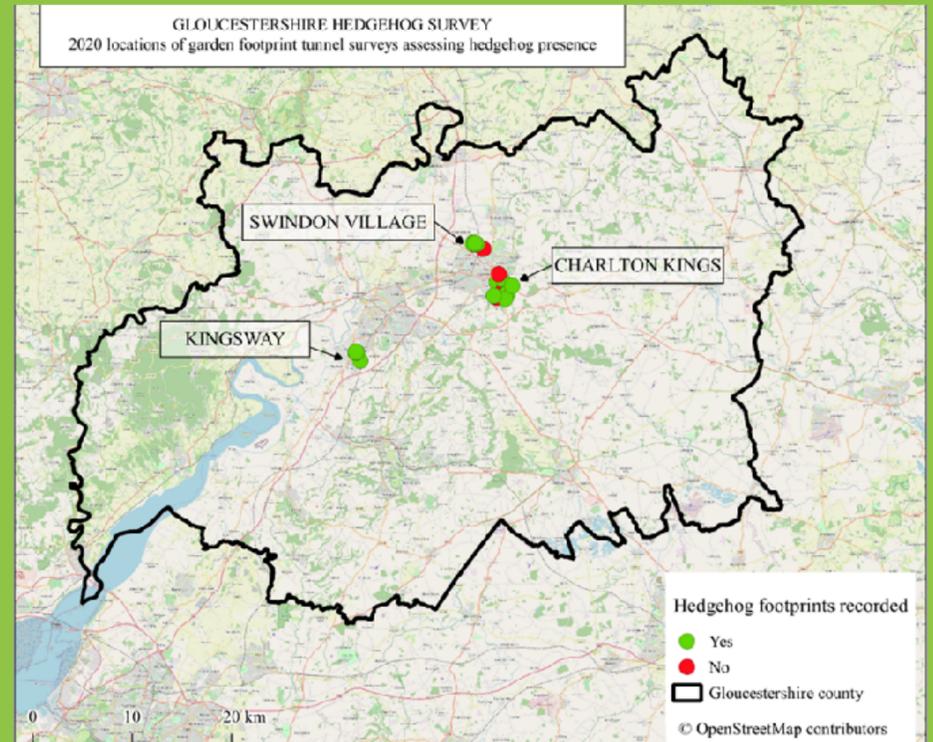
Throughout the duration of the project 109 garden assessments have been completed. Garden assessments give residents an idea of how hedgehog friendly their garden is. If their score is low, they were directed to information and tips to make improvements. In 2019 36% of gardens surveyed over the 3 study areas recorded positive hedgehog presence. In 2020 75% of gardens recording positive results for hedgehogs. This equates to a 39% increase in positive hedgehog sightings. As reported above throughout the project we have recorded a 21% increase in the number of garden hedgehog access points within our study gardens. Volunteers were also taught to spot hedgehog signs (such as poo) within local parks and to record these sightings were spotted.



Hedgehog Poo



2019 garden survey for hedgehog presence



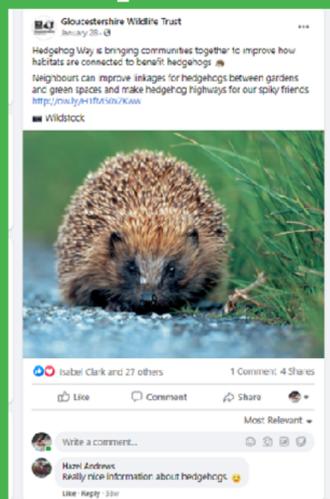
2020 garden survey for hedgehog presence

Hedgehog Human Connections

Throughout the project we have created information packs to give people guidance on how to help and spot hedgehogs. At the start of the project we created a variety of hedgehog information pages on the Gloucestershire Wildlife Trust website, also linking to latest blogs and how to record data. Since the creation of these pages the hedgehog landing page has had 1,360 views. Our hedgehog FAQ page has had 2,360 views. Through these pages volunteers have also inputted their experiences and written 'Guest Blogs' for the page.

Take a look here for more information;
www.gloucestershirowildlifetrust.co.uk/urban-wildlife/hedgehog-way

We have also run numerous social media posts on all of our social media channels, as well as local social media channels. A couple of example posts from GWT's Facebook page can be seen below.



Hedgehog tunnel survey training



Conclusions

The Hedgehog Way project has been hugely successful in developing support for hedgehogs and encouraging local residents to take positive actions for hedgehogs. Throughout the project we have recruited over 100 hedgehog Champions, who have assessed and surveyed their gardens for hedgehog suitability, created hedgehog highways and helped generate support from friends and neighbours. In addition to this thousands more have attended events, taking away hedgehog information packs, or visited pages on our website to find out how they can help hedgehogs. The project has also gathered useful data that could help stabilise hedgehog populations in urban areas. In Gloucestershire we have increased records of hedgehog of distribution across the county. This will help GWT give more informed advice and gives us a better understanding of where interventions are needed / would be useful. But also hedgehog highway data, old and new, which gives us a better picture of how connected habitats are in our three study area. This data can not only feed into national data on the status of hedgehogs, but also can be used as examples both nationally and locally, to show how increased habitat connectivity can result in an increase in hedgehog movements in urban areas. Larger habitat areas can sustain larger hedgehog populations, but for a minimum viable population (32 animals) in urban areas 90 hectares would need to be connected (T.Moorhouse 2013 report to PTES). This study found a 39% increase in gardens being used by hedgehogs after highways were installed. This positive result, although a small study, will help residents in urban areas understand that a small action can have a positive impact on supporting sustainable hedgehog populations.



Impact on our Hedgehog Champions;

Through the project we recorded behavioural in our Hedgehog Champions;

- 88% of Hedgehog Champions felt they have taken more of an interest in hedgehogs since their involvement with the Hedgehog Way project.
- 81% of Hedgehog Champions felt they have been more active in helping to conserve hedgehogs since their involvement with the Hedgehog Way project
- 100% of Hedgehog Champions will continue to help hedgehogs in their garden

We have also recorded many positive comments from Hedgehog Champions; Arran Stibbe – Hedgehog Champion in Swindon Village. 'Been a great project. My daughter Kaya and I got a lot out of it, and hedgehogs numbers in the village are definitely up'.



Learning

It is reported that the decline in hedgehogs in urban areas is levelling off (The State of Britain's Hedgehogs 2018).

Several reasons for that are suggested; with people being more aware of positive actions to take for hedgehogs through campaigns and work by NGO's. However few studies have been done to look at factors that could help hedgehog populations increase in urban areas. With urbanisation increasing rapidly across the country, in the inclusion of hedgehogs in 2020 on IUCN Red List – highlighting them vulnerable to extinction, in addition to the knowledge of connected habitat size needed for a minimum viable population in urban areas, further study is urgently needed in urban areas—which should also take into account habitat type.

However through this project, and GWT's extensive experience of working with communities, the positive reaction from people to want to help hedgehogs is hugely encouraging. Engaging more closely with communities in urban areas, either directly on the ground or through campaigns such as 'The Last Hedgehog in Gloucestershire' or 'Hedgehog Street' (PTES and BHPS) could be the reason the decline hedgehog populations in urban areas is slowing. Helping communities understand small actions they can take to help hedgehogs could be the key to reversing their decline.

Gloucestershire Wildlife Trust are hugely grateful to the PTES and BHPS for their support in funding the hedgehog Way project and for practical support through training courses and links to research networks.

