

Jessica Turner is studying the impact of the urban environment on the genetic diversity of hedgehog populations for her PhD. In this article, Jessica outlines the challenges that hedgehogs face and how you can help contribute to her research.

As Western European Hedgehog (*Erinaceus europaeus*) populations are in decline across the UK, urban habitats are becoming increasingly important for the species, where there is often more food and fewer natural predators than in rural areas.

Hedgehogs face many challenges in built-up urban environments, where there is less green space and many obstacles to movement from buildings, busy roads, fences, and other man-made barriers.

These may threaten the long-term survival of hedgehog populations, as the ever-increasing loss of greenspaces to development and growing isolation of remaining refuges may cause hedgehog populations to become smaller, less connected, and at higher risk of harmful genetic processes such as drift (which leads to the loss of genetic diversity over time and reduced capacity to cope with changes in the environment) and inbreeding (where related individuals mate and produce less fit offspring), making them vulnerable to decline.

A genetic-based approach

This study, based at the Institute of Zoology and Queen Mary University of London, aims to assess how this habitat fragmentation is impacting hedgehog populations across Greater London. The project will look at where hedgehogs are found across the city and use a genetics-based approach to see how the urban environment affects hedgehog’s genetic diversity, level of inbreeding, population size and movement across the city. This will help us to understand the threat posed by habitat fragmentation for London's hedgehogs, and inform future conservation.

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How can you help?



We are seeking to collect samples from deceased hedgehogs across the city.

If you find a dead hedgehog, please could you:

- record its location
- record the date
- record the condition
- contact jessica.turner@ioz.ac.uk to arrange the collection of a sample.

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Want to know more about hedgehogs in London?

- Check out our virtual natural history talk on London HogWatch from Chris Carbone on YouTube.

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