

Funded PhD Scholarship

Are we making urban wildlife sick?

Applicants are being sought for a 3-year fully-funded PhD to study wild animal welfare. In this exciting project, we will look at the impact of parasites and pathogens on the welfare of urban fox and hedgehog populations. The project is funded by the Wild Animal Initiative, will be based at the University of Lincoln, and combines lab work with innovative methods to test animal welfare in the field. Funding covers home tuition fees, monthly stipend, and research expenses.

Why study the welfare of urban wildlife? Most of the world's human population now lives within cities, and urbanization is expected to continue to increase globally, reaching 66% of the world's population by 2050. Cities therefore represent one of the biggest sources of human impact on wildlife. Catastrophic declines in urban wildlife due to diseases (e.g., rabies and sarcoptic mange), for instance, have been widely documented, but whether this arises, in part, from poor animal welfare within cities is unknown. Thus, to ensure the future welfare of wild animals in light of prevailing threats imposed by global urbanisation, there remains a pressing need to better understand when, where, and how cities are making them sick.



Why wild foxes and hedgehogs? We will study two species, the red fox (*Vulpes vulpes*) and European hedgehog (*Erinaceus europaeus*). Foxes are of particular interest because they are one of the most widespread carnivores on the planet, thrive within cities, and are vectors for zoonotic disease transmission to other urban wildlife. Hedgehogs are of interest because, in recent years, studies have documented a rapid decline in their numbers throughout countries like the UK, which is due, in part, to urbanisation. The fact that both species live sympatrically and show strikingly different levels of success within urban habitats offers a unique opportunity to identify common environmental stressors that may be impacting the health and welfare of urban wildlife more generally.



What will you do? This study will be carried out at two scales: firstly, we will link pathogen loads, faecal glucocorticoids and habitat at the landscape level, allowing us to broadly understand if urbanisation is associated with increased pathogen loads. We will then carry out a second, more detailed data collection where we will combine pathogen data with measures of stress (infra-red thermography, faecal glucocorticoids) and behavioural measures of affective valence (judgement bias tests). Here, we will link together pathogen loads and different measures of welfare at the individual level.

Eligibility: We are looking for an enthusiastic student with the following general qualities: 1) background in animal welfare, parasitology, and/or a related discipline (e.g., animal behaviour), 2) experience conducting fieldwork with wild animals (e.g., trail cameras, infra-red thermography, psychometric tests), 3) a valid UK/EU driving license, 4) a vehicle for driving on countryside roads, and 5) a proficiency, or willingness to become proficient, in data analysis using R.

Supervisors: Prof Carl Soulsbury (Uni Lincoln), Dr Simon Clegg (Uni Lincoln), Dr Blake Morton (Uni Hull)

How to apply: Send a CV and cover letter to the primary supervisor, Prof Carl Soulsbury, by 15th September 2024

All inquiries: Prof Carl Soulsbury (csoulsbury@lincoln.ac.uk) or Dr Blake Morton (b.morton@hull.ac.uk)

