Combining technology and citizen science to run a new **National** Hedgehog Monitoring Programme

Emma Cartledge

The National Hedgehog Monitoring Programme is run by People's Trust for Endangered Species and The British Hedgehog Preservation Society, in partnership with Nottingham Trent University, Zoological Society of London, London Hogwatch, MammalWeb and Durham University, and co-funded by Natural England.

What?

National Hedgehog Monitoring Programme (NHMP)

3 year pilot project (2023 – 2026)

Aim: produce robust population estimates (habitats and time), contribute to conservation planning

people's trust for endangered species

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Why?

Hedgehogs are of **conservation concern**

Uncertainty around current estimates & survey limitations

Need for **consistent methodology** across habitats

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Data collection

How?

x **30 cameras** for 30 nights

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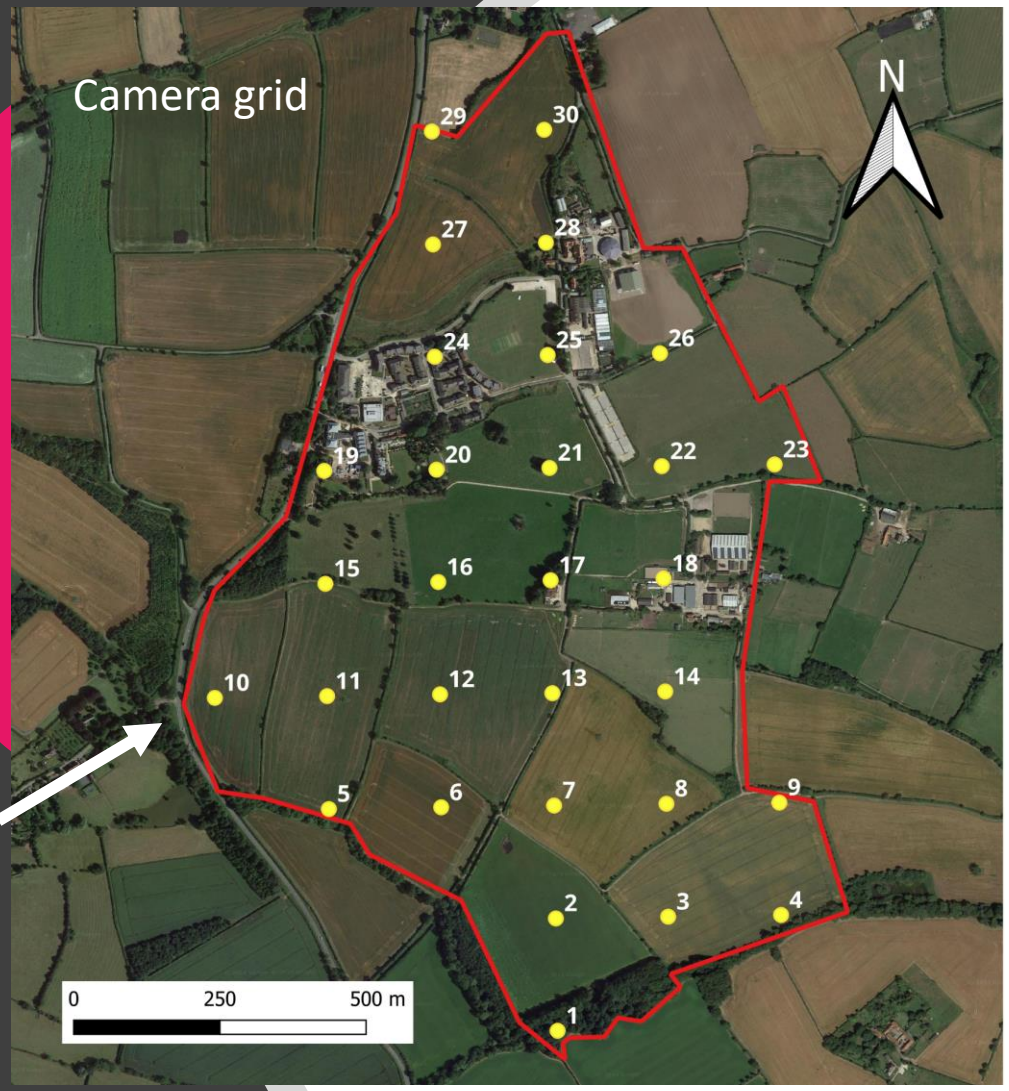
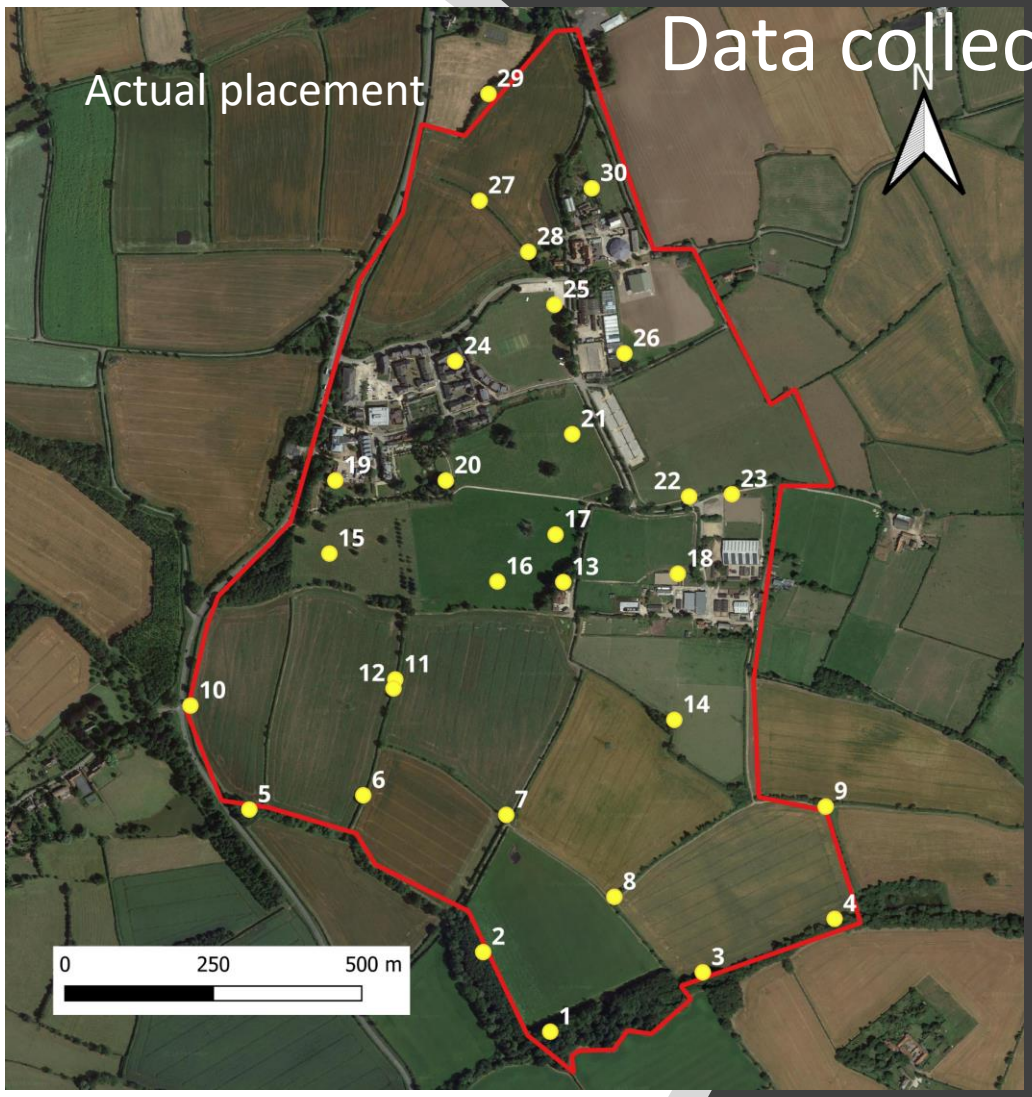
Data collection



1km²



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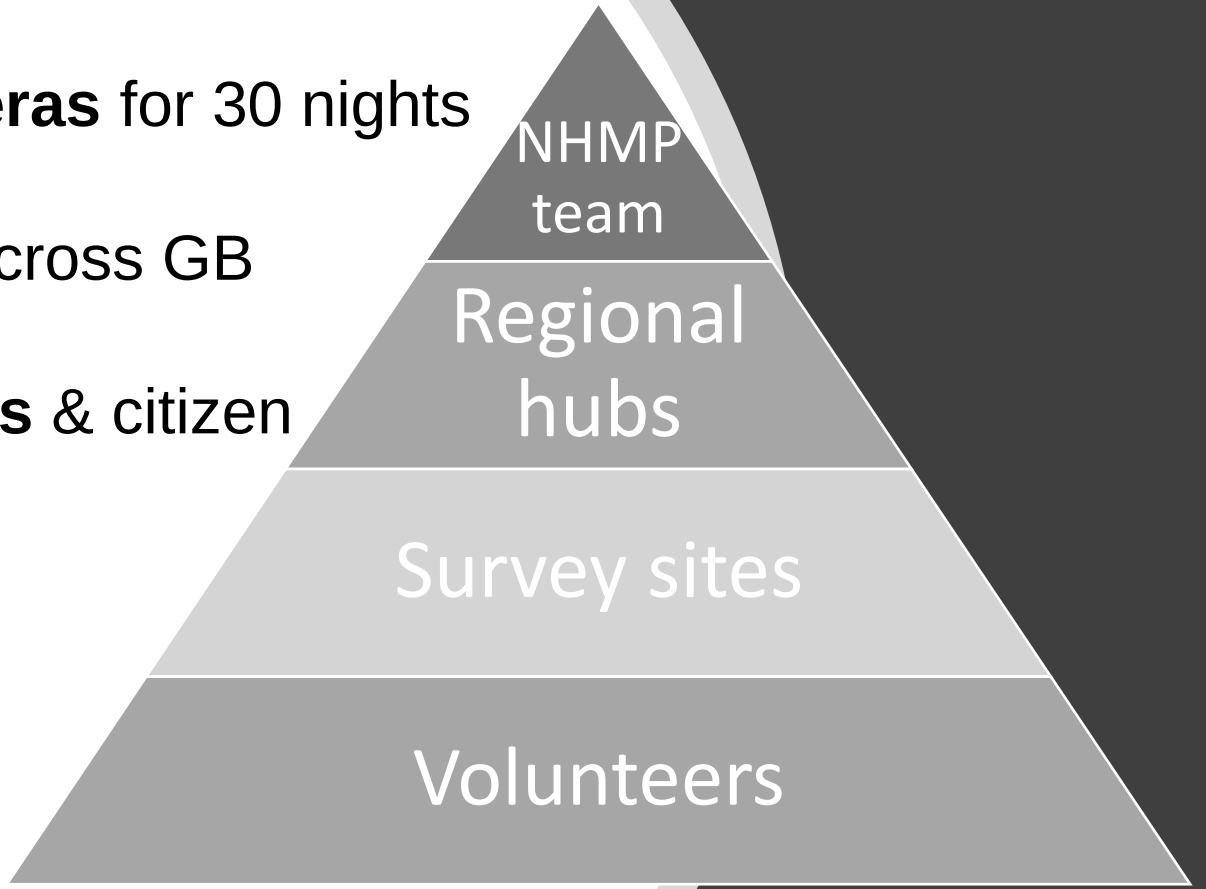
Data collection

How?

x **30 cameras** for 30 nights

40 sites across GB

Volunteers & citizen scientists



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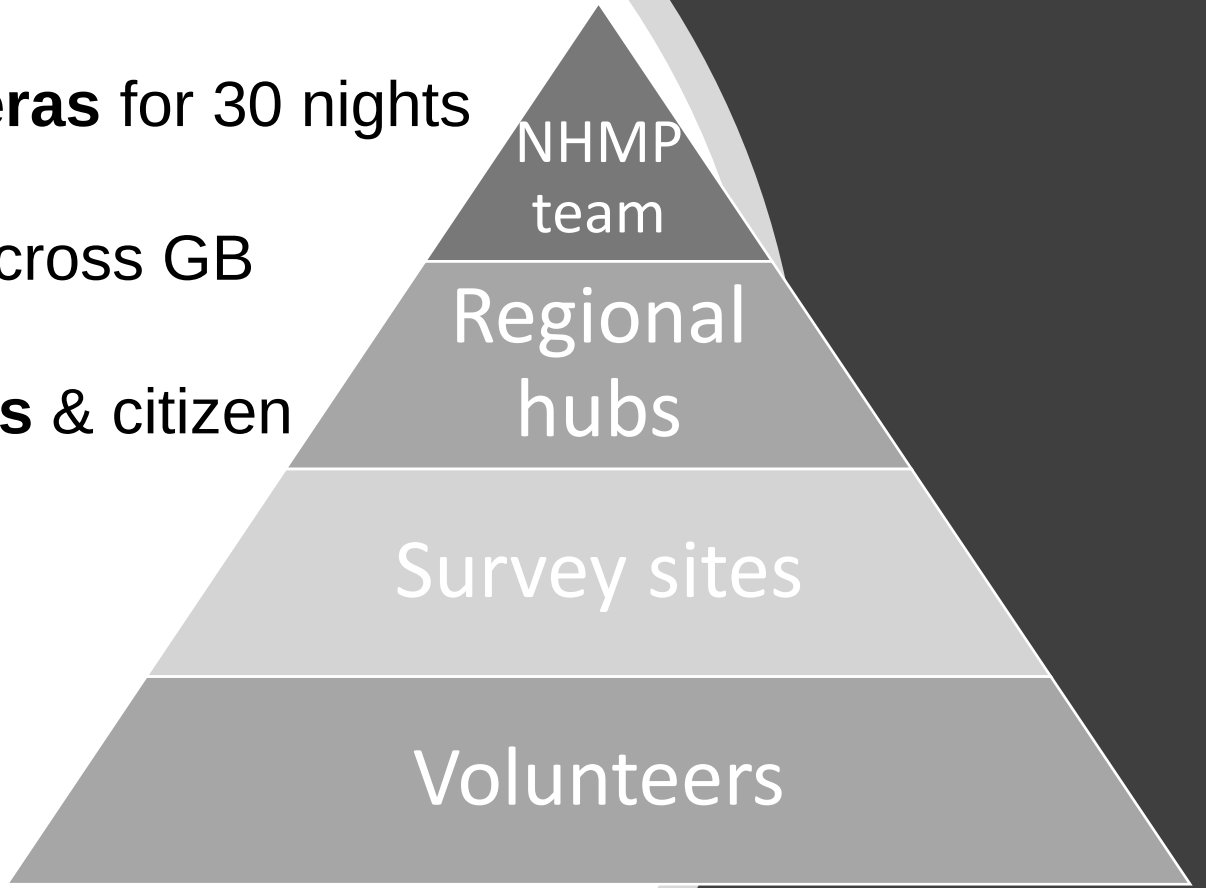

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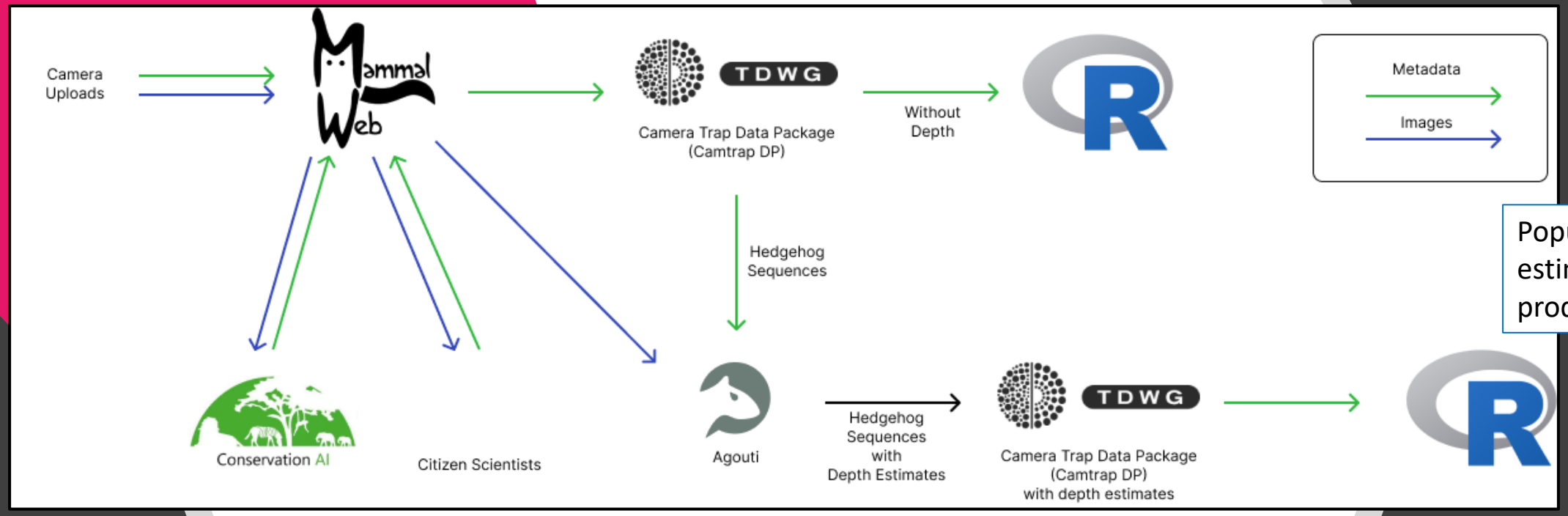
Data processing



Population estimates produced

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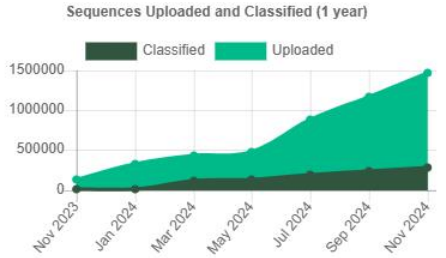
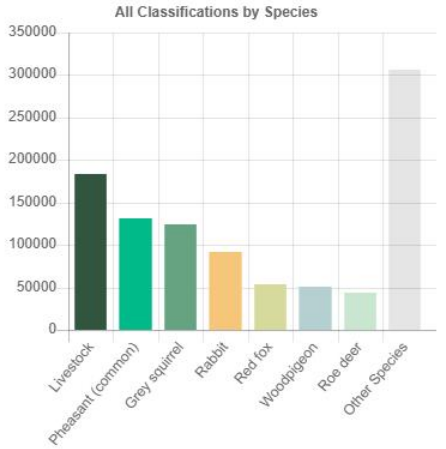
English (United Kingdom)

NHMP: National Hedgehog Monitoring



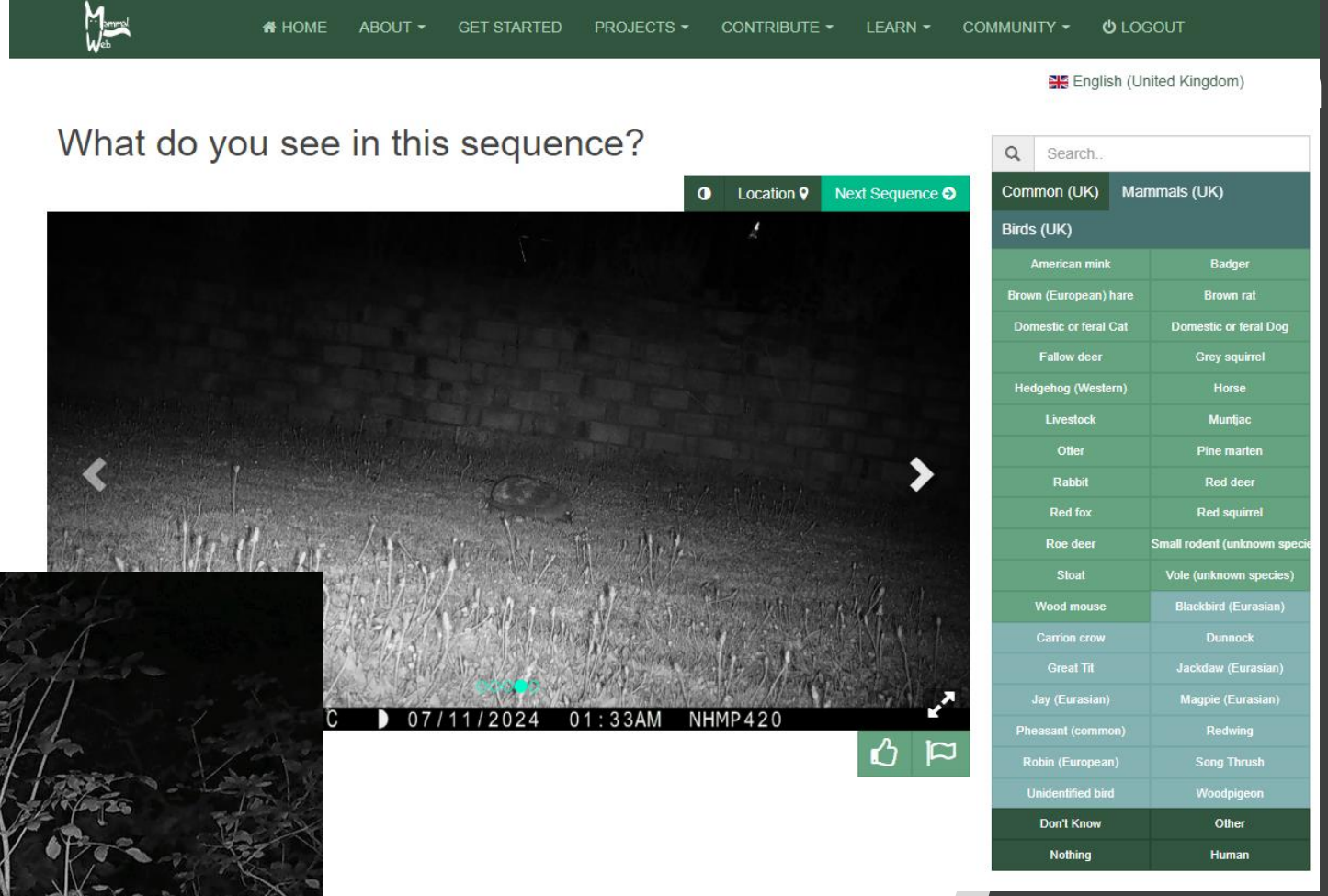


This project is available for public Spotting but Trapping is restricted. If you would like to join this project as a Trapper please contact us at info@mammalweb.org.

Classify This Project

This novel programme will produce robust national population estimates for the much-loved hedgehog.

How?



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How?

x **30 cameras** for 30 nights

MammalWeb, ConservationAI & citizen science

Random Encounter Model

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Data processing

Random Encounter Model, requiring a calibration step

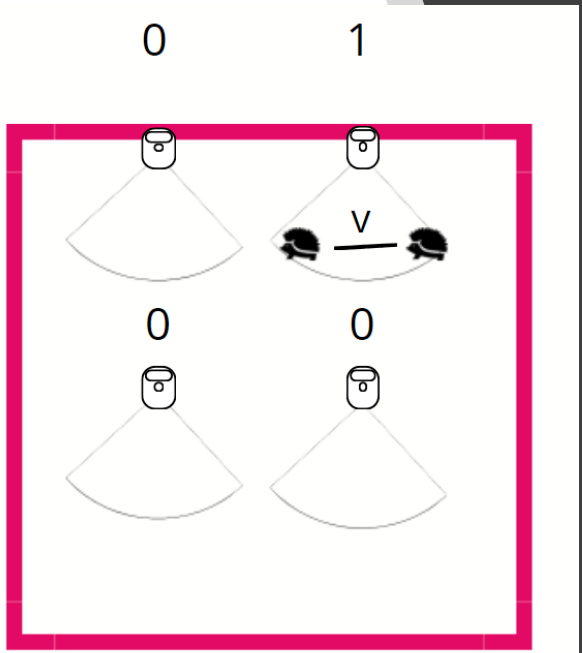
analytical tool that allows for estimating the density of animals without the need for **individual recognition**

Data processing

Random Encounter Model, requiring a calibration step

The model requires data on:

- trapping rate
- animal speed (v)
- camera trap detection zone



Data processing

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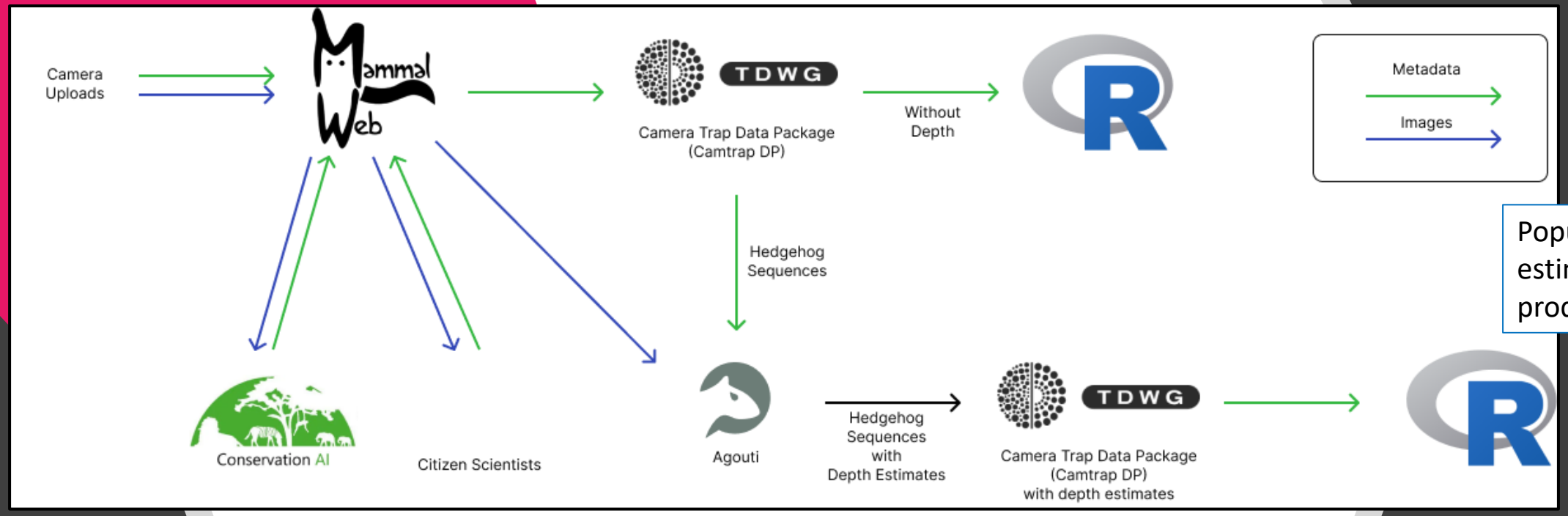

Population estimates produced

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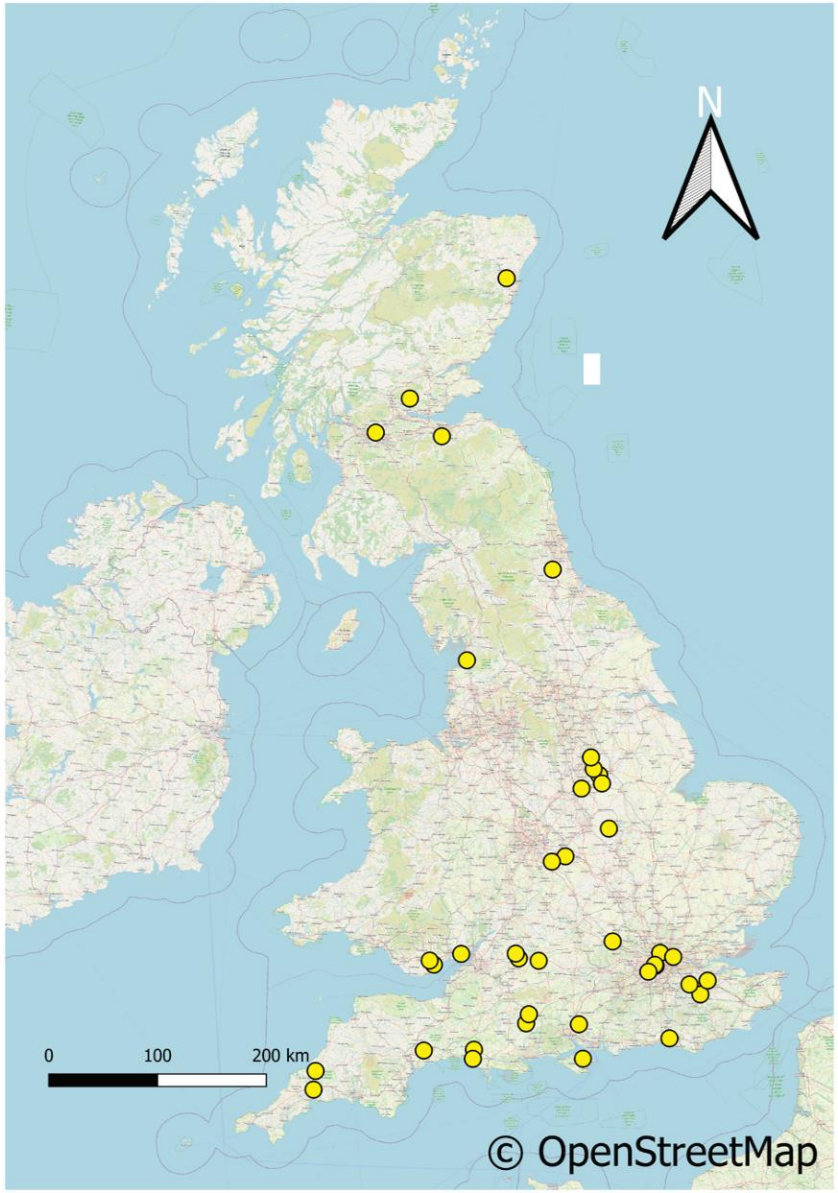
Where?



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Project progress

40 sites

15 hubs

Media & publicity

300+ people trained

200+ people at NHMP talks

32 training sessions

1 million+ *sequences*

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ehogs, but
dlife-

o help detect the

trail cameras
bers, which can

Climate > News

Trail cameras, AI and armchair wildlife-spotters recruited to help hedgehogs

A pilot programme led by wildlife charities aims to produce robust estimates of Britain's hedgehog population.

Emily Beament • Tuesday 26 March 2024 15:19 GMT

SAM NHMP048

Challenges

- Camera use efficiency/hub recruitment
- Habitat representation
- MammalWeb activity
- Spotter/AI accuracy

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19℃ 10/06/2023 07:56PM NHMP155

12℃ 10/29/2023 10:16AM NHMP162

12℃ 11/08/2023 04:22PM NHMP153

21℃ 08/03/2024 12:02AM NHMP430
16℃
12℃ 08/19/2024 03:24AM NHMP049
21℃ 08/13/2024 10:46PM NHMP048

13℃
09/24/2023
12:42AM
NHMP052

24℃
08/12/2023
01:39PM
NHMP013

17℃
08/31/2023
07:03PM
NHMP058

13℃
10/08/2023
12:37AM
NHMP025

13℃
10/04/2023
06:46AM
NHMP153

18℃
08/02/2023 09:28AM NHMP018

24℃
07/19/2023
10:54AM
CAMERA1

16℃
05/30/2024
10:26PM
NHMP429

9℃
10/25/2023 11:09PM NHMP055

16℃
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NHMP112

14℃
09/29/2023
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NHMP178

27℃ 10/06/2023 11:55AM NHMP17
16℃ 10/31/2023 12:55PM NHMP178
10℃ 11/04/2023 02:28PM NHMP176

Acknowledgements

- Project team
- Funders
- Volunteer hubs & volunteers
- Spotters

The National Hedgehog Monitoring Programme is run by People's Trust for Endangered Species and The British Hedgehog Preservation Society, in partnership with Nottingham Trent University, Zoological Society of London, London Hogwatch, MammalWeb and Durham University, and co-funded by Natural England.

National Hedgehog Monitoring Programme

Find out more or help with 'spotting'!

www.nhmp.co.uk

emma.cartledge@ntu.ac.uk

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