

# Assessing recreational disturbance impacts on birds in the New Forest

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Outdoor recreation is important to human wellbeing and nature connectedness. However, recreation can negatively affect birds and other wildlife at multiple ecological scales, influencing individual behaviour, population dynamics and community composition. The impact of activities such as hiking and dog walking can differ between different species and landscapes. Measuring the impacts of such activities on birds is challenging due to numerous confounding factors that can obscure causal relationships, making it challenging to prioritise mitigation options and target user groups. This project seeks to measure the effects of recreation on birds in the New Forest National Park using causal inference approaches, with the aim to inform on mitigation options.

This NERC/GWCT funded PhD will address the following objectives:

- 1) Use existing monitoring data and causal inference approaches to measure the effects of recreational pressures on bird occupancy trends. I will combine bird monitoring data with spatial datasets on carparks, trails, roads and visitor distributions, to quantify the effect of recreational pressures on the occupancy trends of some species of conservation concern such as Curlew and Dartford warbler.
- 2) Conduct a field study to measure the bird community response in areas with car parks that have been shut. Other questions might be targeted as well, based on consultation with local experts and results from existing data analysis.
- 3) Conduct a social science study that uses psychological theories to design and test the effectiveness of a behavioural intervention that encourages responsible recreational behaviour.