

PROJECT TITLE: Developing a conservation palaeobiology evidence base for southern England National Nature Reserves

Project Science Theme: Evolution and Biodiversity

Project keywords: Palaeoecology, historical baselines, nature restoration

Lead Institution: Bristol

Lead Supervisor: Danielle Schreve, Bristol, Geographical Sciences

Co-Supervisor: Barbara Silva, Natural England

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Project aims and methods:

The emerging field of conservation palaeobiology draws on fossil and historical records to inform conservation, management and restoration of species, communities and ecosystems beyond short-term human observations. The PhD focuses on the Purbeck Heaths Super National Nature Reserve in Dorset, a flagship region for landscape scale nature recovery through the restoration of natural processes. It will evaluate the conservation information-content of diverse regional archives from fossil and zooarchaeological assemblages to pre-modern historical texts, establishing a new evidence-base to guide restoration and management of Britain's heathlands and wetlands and their biodiversity, and creating a template for best-practice integration of historical baselines. Key topics include (i) the extent to which heathlands have changed from postglacial baselines, (ii) the evidence for deeper-time presence of species now regarded as invasive, or likely to arrive under warming climates and (iii) the past status and ecology of extirpated or threatened native British heathland and wetland species. The project is co-supervised by Natural England's senior landscape geomorphology specialist and the National Trust's senior ecologist on the Purbeck Estate. They will provide training in national priority landscape designation, rewilding ecology, long-term monitoring of habitats and the impacts of wild grazing, and experience of landscape-scale partnerships in action.

Project Collaborative partner:

Natural England will provide:

1. 1 week of training with NE Senior Specialists on designation of biological and geological sites, including visiting SSSIs to review management challenges;
2. Training in site monitoring with Long Term Monitoring Network team;
3. 1 week of training with National Nature Reserves team on management of protected sites;
4. Participation in workshops on protected site management ;
5. Co-authoring of best-practice guidance and dissemination

Useful recruitment links:

For information relating to the research project please contact the lead Supervisor via:
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Bristol NERC GW4+ DTP Prospectus:

<https://www.bristol.ac.uk/study/postgraduate/research/great-western-four-doctoral-training-partnership-nerc/>

How to apply to the University of Bristol:

<http://www.bristol.ac.uk/study/postgraduate/apply/>

The application deadline is Thursday 8 January 2026 at 2359 GMT