



Department
for Environment,
Food & Rural Affairs

Strategy for the Defra Group DNA Centre of Excellence

2025-2028

ANNEX I – Research and development projects

July 2025

Research and development publications

Table 1. Published works funded by the DNA Centre of Excellence

Project title	Lead organisation	Report date	Link to publication	Defra Science Search ref.
Testing crayfish and crayfish plague eDNA assays	Environment Agency	2024	Operationalisation of eDNA methods for crayfish monitoring	To be added
Understanding and mitigating errors and biases in metabarcoding: an introduction for non-specialists	Joint Nature Conservation Committee	2022	Understanding and mitigating errors and biases in metabarcoding: an introduction for non-specialists	AE1048
UK Barcode of Life	Natural England	2022	Initiation of UK Barcode of Life and filling priority gaps	AE1046
		2020	Evaluation of UK DNA barcode libraries used in the UK and developing an action plan to fill priority gaps	
Developing new metrics: (e)DNA	Environment Agency	2021	Understanding ecosystems and resilience using DNA	AE1044
Identifying Opportunities for Applying DNA/eDNA in Terrestrial Monitoring	Joint Nature Conservation Committee	2021	An action plan for making progress with using DNA to monitor terrestrial invertebrates	AE1047
		2020	Opportunities for Using DNA in Terrestrial Monitoring 2020	

Developing Cost-Effective Best Practice Guidance for DNA-Based Species Monitoring	Joint Nature Conservation Committee	2020	Guidance for end users on DNA methods development	AE1045
		2020	End-user Frequently Asked Questions on DNA-based methods for environmental monitoring	

Table 2. Projects funded by DNA Centre of Excellence with pending publications

Project title	Project date	Lead organisation
Testing air sampler effectiveness in detecting airborne fungal eDNA and helping to define the spatio-temporal distribution of fungal communities along habitat gradients	2024-2025	Forest Research
Pine Marten Scat: Diet DNA Analysis	2024-2025	Forest Research
The Best Trees for Bees	2024-2025	Royal Botanic Gardens, Kew
Understanding the potential for DNA methods to contribute to environmental indicators	2024-2025	Joint Nature Conservation Committee
Bioinformatics and taxonomy to enhance the scope of DNA barcoding for large-scale insect biomonitoring in the UK	2024-2025	Joint Nature Conservation Committee
Improving soil barcode libraries	2024-2025	Forest Research

Testing preservation methods and storage durations for non-destructive DNA metabarcoding of insect mock communities	2023-2024	Forest Research
Monitoring woodland mammals using eDNA metabarcoding methods	2023-2024	Forest Research
Barcoding for UK Pollinator Monitoring Scheme: sequencing a national citizen-led insect community time series	2023-2024	Joint Nature Conservation Committee
Woodland creation and soil biodiversity benefits	2023-2024	Forest Research
Scoping a harmonized approach to national-scale monitoring of soil-biodiversity and function across a range of terrestrial habitats using DNA-based technology	2022-2023	Forest Research
Plant/Pollinator Networks	2019-2020	Defra & Joint Nature Conservation Committee