Peatland Regeneration: Practice and Prospects Symposium

Peatland (habitat and peat soils) Extent and Condition in Northern Ireland: Peatland Carbon Category Classifications

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Drivers for Peatland restoration Northern Ireland

Nature based solution to address biodiversity loss and carbon emissions, soil subsidence, mobilisation of nutrients and reduction of higher flood risks.

Biodiversity loss – State of nature report 2023 advises that only 25% of Peatlands are in good condition.

Protected sites **–** 23% of bog habitat features in favourable condition (NI ESR 2024)
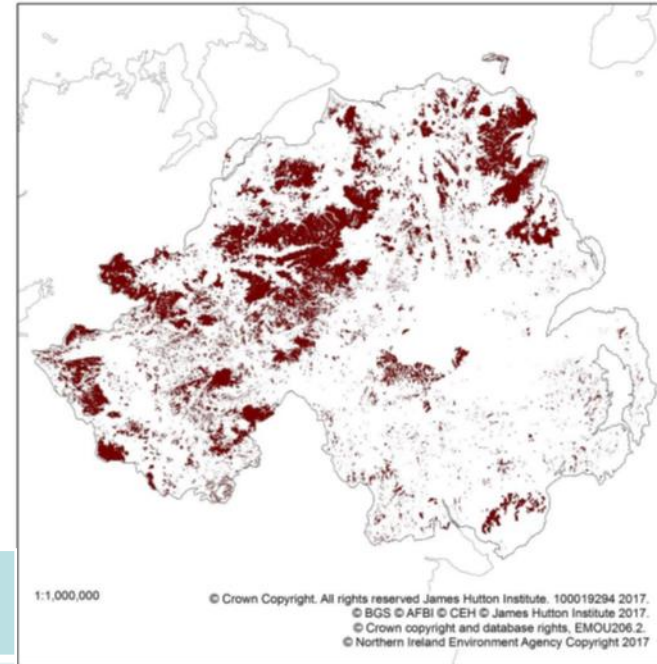
Climate change - Climate Change Committee target – 150,000 ha peatland restored by 2050

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UK CEH 2017 report: Implementation of Emissions inventory for UK Peatlands

Collation of consistent spatial information on peat extent and condition from each of the four UK administrations to assess the overall extent and condition of UK peatlands;

- Provided UK-specific 'Tier 2' – country specific estimates of emissions for a representative range of peat land-use and condition categories.
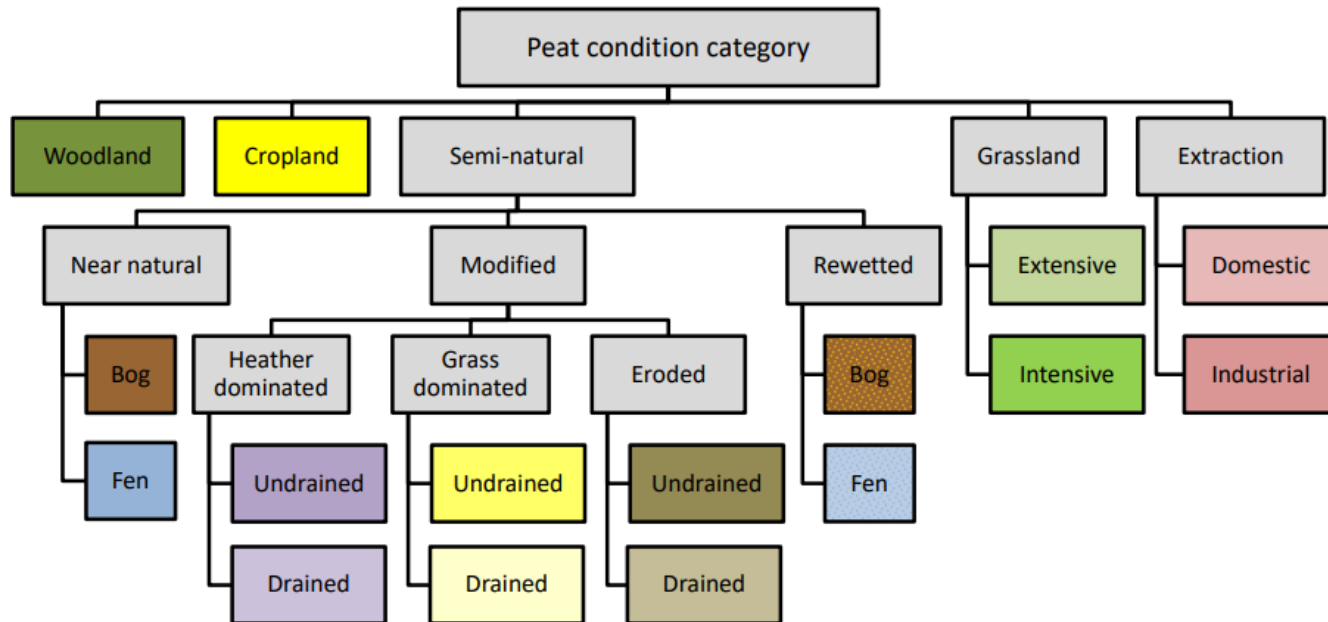
Figure 1: Northern Ireland peat base map

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Report	Area of Peatland (Ha) NI	GHG emissions (tCO2eyr-1)
CEH 2017 Implementation of an Emissions Inventory for UK (Peatlands report)	242,622	2,260

Evans, C., et al. (2017). Implementation of an emission inventory for UK peatlands. Report to the Department for Business, Energy and Industrial Strategy, Centre for Ecology and Hydrology, Bangor.88pp

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UK Peatland Condition Categories

2017 land cover hierarchy used for Tier 2 Emission Factor calculations.

Evans, C., et al. (2017). Implementation of an emission inventory for UK peatlands. Report to the Department for Business, Energy and Industrial Strategy, Centre for Ecology and Hydrology, Bangor.88pp

Restoration Prioritisation In N.Ireland

- James Hutton Institute and UW Project funded by DAERA Environment Fund and the Esmée Fairbairn Foundation.

- **Scope:** Model and map the extent of NI peatlands and their condition, producing digital maps to complement and extend existing information.

- **Outputs:** Clear, practical information for policymaking and land management decision makers in relation to peatland management and restoration across NI.

Report	Area Peatland ha	GHG emission s (tCO2e yr-1)
CEH 2017 Implementation of an Emissions Inventory for UK (Peatlands report)	242,622ha	2,260
James Hutton Institute Peatland Restoration Priotisation in Northern Ireland (2023)	310,031ha	3,643

Esmée Fairbairn FOUNDATION

Department of Agriculture, Environment and Rural Affairs

The James Hutton Institute

Ulster Wildlife

Northern Ireland Environment Agency
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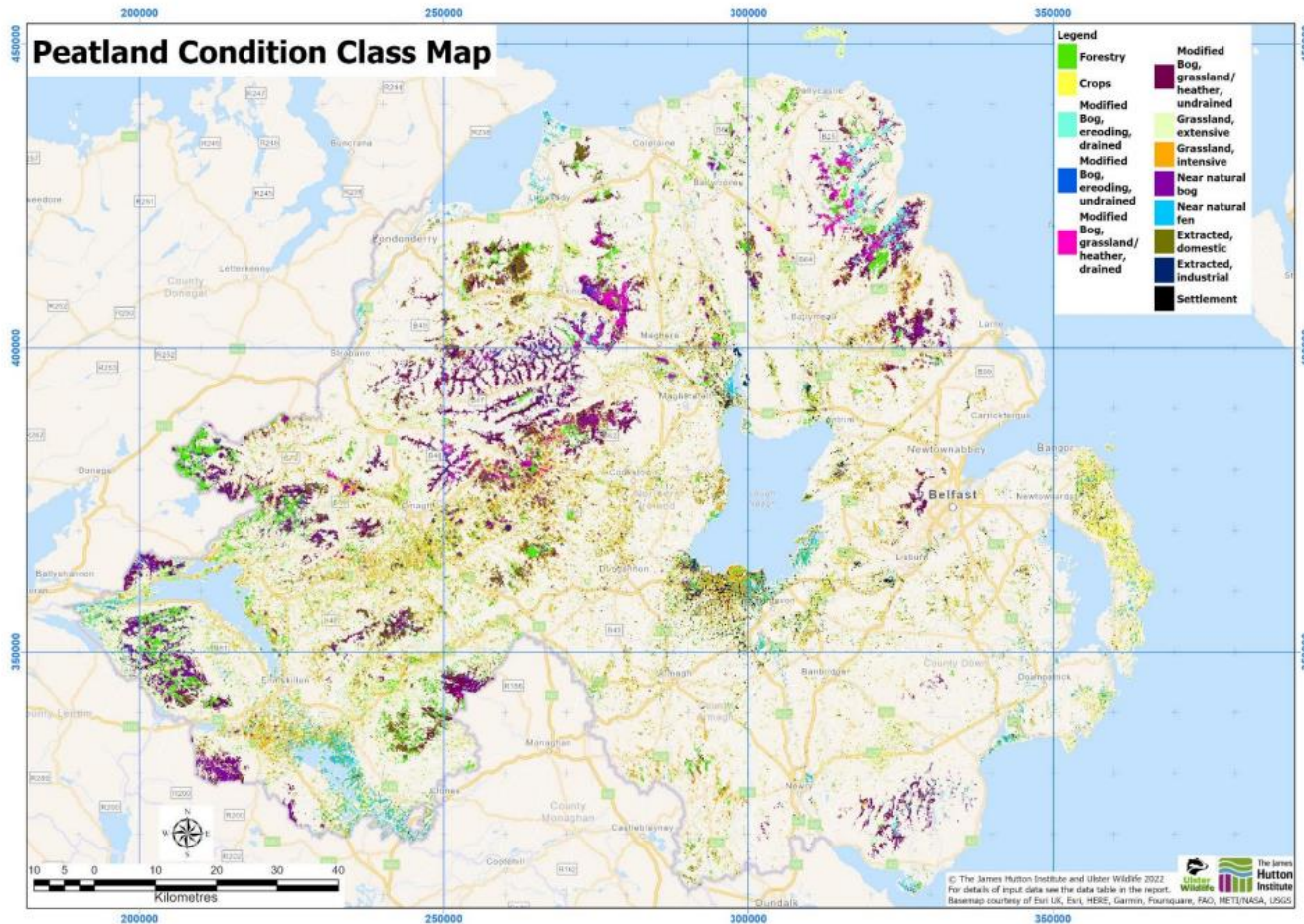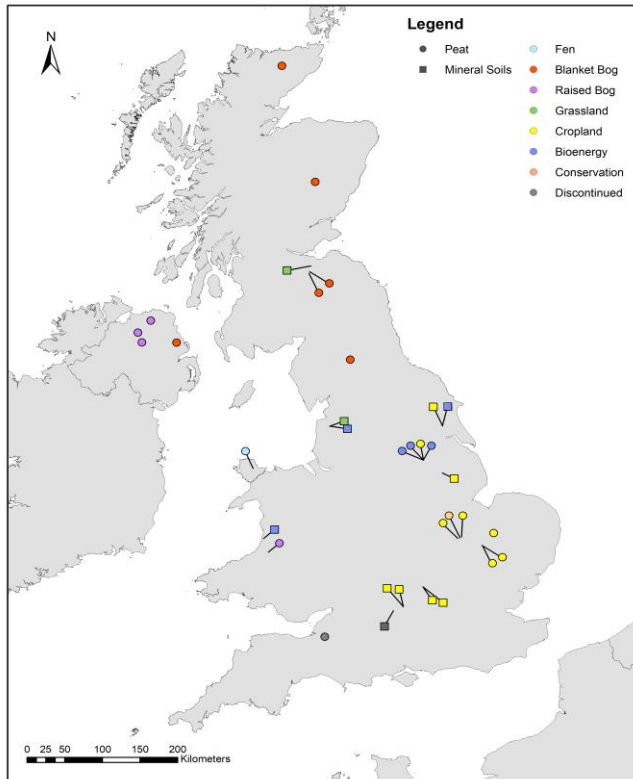# Predicted Peatland Categories.

Figure 10. Predicted Peatland Categories using the Ensemble Classification Method.

Aitkenhead et al., 2023. Peatland restoration prioritisation in Northern Ireland

Establishing NI specific Tier 2 emission factors

- **NIEA led DAERA funded PeatFlux**: eddy-covariance flux network for peatlands in Northern Ireland

- Focus on lowland raised bogs and 1 blanket bog site.

- **AFBI led DAERA funded PeatNI** project in partnership with UKCEH.

- Develop an NI specific emission factor for intensively grazed peat.

- 6 flux towers installed farms across NI 2yrs

- Evaluation of GHG mitigation strategies for intensively grazed peat.

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Questions?

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