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IRISH PEATLAND PROJECT AUGER (PEATLAND PROPERTIES INFLUENCING GREENHOUSE GAS EMISSIONS AND REMOVALS) – ASSESSMENT AND MODELLING STRATEGIES

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Peatlands constitute around 20% of the land area of the Republic of Ireland and bear significant benefits in the form of several ecosystem services. However, they are prone to rapid degradation when made available for other land uses. These often involve drainage, which strongly affects the functionality of the peatland and leads to accelerated carbon (C) and nitrogen (N) emissions. The AUGER project (www.ucd.ie/auger) aims to identify the major drivers of peatland degradation in Ireland and investigates the impact of various management systems on peatland properties. Data from a nationwide survey will form the basis for a comparative multivariate assessment of a range of edaphic and hydro-ecological parameters. In addition, the project will focus on how the differentiated properties will influence the C stock and greenhouse gas (GHG) dynamics of managed Irish peatlands. Site-specific monitoring on selected survey sites will inform the modeling of GHG emissions by developing the ECOSSE model for Irish peat soils, allowing thus for the quantification of anthropogenic impacts on GHG emissions.