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Dissolved gas fluxes from a managed upland peat catchment

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This study looks at the total dissolved gases from a series of managed upland peat catchments in the North of England, and how they contribute to the overall carbon budget. In order to quantify the total amount of dissolved inorganic carbon (DIC) and dissolved CO2 leaving the catchment, direct measurements of pH, alkalinity, water temperature, and cation content have been made in order to calculate the inorganic carbon speciation. Cation concentrations are used in order to assess the proportion of inorganic carbon coming from weathering, this is analysed by sequential extraction of soil and sub soil samples against which water samples can be compared. Results show that DIC is mainly controlled by water temperature.