



Oxidation of POC in floodplain environments, evidence from eroding blanket peatlands

Claire Goulsbra, Martin Evans, and Tim Allott

Upland Environments Research Unit, School of Environment and Development, University of Manchester
(claire.goulsbra@postgrad.manchester.ac.uk)

Particulate carbon losses from eroding peatlands are very large (up to an order of magnitude greater than dissolved losses (Evans et al. 2006, Pawson et al. 2008)). Losses of these magnitudes have the potential to shift peatland systems from carbon sinks to carbon sources. However, incorporation of these losses into Greenhouse gas budgets is problematic because of uncertainties about the fate of eroded peat (POC). POC is potentially processed to dissolved and gaseous forms either in-stream or by oxidation from depositional sites. This poster will present preliminary data from a field experiment designed to assess the importance of floodplain environments in 'processing' POC derived from eroded blanket peatlands. 12 Gas collars have been installed on an upland floodplain site in Upper North Grain in the south Pennines. Control sites are unmodified, the experimental sites have additions of eroded peat to a depth of 25mm to simulate overbank deposition in flood events. The poster reports initial findings from the first two months of monitoring at the site