



A study of all UK peatland restoration and management projects - Lessons learned

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Many of the world's peatlands are degraded and are the subject of restoration. This paper surveys UK peatland restoration projects which occur on blanket peats, fenlands, raised mires and heathland. A publicly accessible peatland project database has been produced and can be used to identify common challenges or techniques adopted. There is an excellent archive of data growing among over 100 separate projects that evaluate peat degradation and restoration. Many of these projects examine peatland drainage and the system response to drain-blocking. A synthesis of data revealed three key findings. First, national and international biodiversity targets following the European Habitats Directive are a main driver of peatland restoration programmes and project target setting in the UK. Therefore biodiversity goals are set as the most important targets for peat restoration projects. Second, project staff reported good success rates for their projects with a median score of 75 % for overall success. Success scores increased rapidly with the age of restoration project over the first three years before levelling off at 80 to 100 % thereafter. Third, in contrast to the scores for overall project success, the scores for site condition showed relatively little pattern in time and much greater variation. While there were significant increases in scores for hydrology there was no significant change in scores for biodiversity when comparing initial to current site conditions. This is because peatland response to restoration practice can often be slow, with ecological improvement lagging behind hydrological process recovery. Slow recovery of peatlands is not always compatible with time-specific biodiversity targets set by restoration projects and their funders. Therefore, moves towards restoration targets that focus on restoring ecosystem functioning rather than fully restored peatland ecosystems are advocated.