

Drivers of change – regenerating saltmarsh using conservation grazing cattle in an urban environment.

Name: Damian J. Smith and Philip James

Address: School of Environment and Life Sciences, Peel Building, University of Salford, Salford, M5 4WT, UK.

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Saltmarshes deliver more services to coastal populations than any other habitat *inter alia*, provision of food through grazing livestock, habitat provision for birds and flood prevention. In addition, cultural benefits are derived from people spending time in nature. A hypothetical relationship exists between heightened saltmarsh biodiversity, conservation grazing and intrinsic benefit derived from associated recreational use by local communities. This three year study aims to quantify the changes in ecosystem services attributable to re-introducing grazing cattle onto a previously grazed saltmarsh. The study site lies between Runcorn and Widnes, in the Upper Mersey Estuary, Cheshire, England.

In the first year, the vegetation was surveyed using traditional quadrat sampling. Further to this, a National Vegetation Classification survey has provided an overview of the plant communities. A topographical survey has been completed to establish any height variation throughout the marsh. These data are being used to inform a sampling methodology examining the effects of grazing in the second and third year.

In years two and three Long-horn cattle will be introduced to the site and changes in the vegetation structure and assemblage, use and potential use of the marsh by wildfowl and wading birds will be evaluated. Additional data will be collected to address questions relating to local resident and working communities' behavioural patterns associated with visits to the marsh. This data will add to the understanding of drivers of change to saltmarsh ecosystem services both spatially and temporally.