



## **Formation and Cultural Use of Wetland Areas in Vatnsfjörður, Northwest Iceland**

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Because of their development in-situ over extended time periods, Histosols are an important record of the intimate relationship between societal and environmental change. In this paper we offer new insights into land management adaptations as Norse settlers arrived and colonised the previously pristine landscapes of Iceland. Our Histosol record from Vatnsfjörður, NW Iceland is chronologically constrained through a combination of tephrochronology and radiocarbon measurement, and is associated with a tenth century long house and subsequent settlement into the medieval period as the locality emerged as one of the richest by the late Icelandic middle ages. Integration of field survey, thin section micromorphology and pollen analyses of histosols together with documentary records indicates the first evidence of artificially created wet meadows in Iceland, developed to give sustained fodder production for over-wintering livestock in an environment that inherently had a short growing season and lacked soil fertility. The findings have wider implications for understanding the emergence of resilient and sustainable communities in agriculturally marginal environments.