



## **Human impact on an island ecosystem: Pre- and post-settlement environmental change in the Faroes**

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Isolated island groups such as the Faroese archipelago, which was first settled mainly by Norse farmers in the first millennium AD, provide an opportunity to explore the development of pristine ecosystems over the course of the Holocene and their response to human settlement. We present the results of a multi-site, multi-proxy palaeoenvironmental study of the island of Sandoy. AMS 14C dating and analysis of short peat sequences show that humans did not play a substantial role in establishing blanket peat on Sandoy, in contrast to data from numerous sites in Atlantic Europe. Analysis of the total pool of basal peat dates in the Faroes shows that blanket peat has initiated progressively throughout the Holocene in different localities, with no indication that initiation was driven by particular climatic events. Pollen, chironomid and sediment records from a mire and two lakes show, overall, a smaller anthropogenic impact on the landscape than has previously been recorded (most previous research having focused on sites close to Norse farms), although changes were inferred in the vegetation, rate of soil erosion, and lake nutrient status. Our records demonstrate that the pre-settlement landscape was dynamic, particularly with regard to soil erosion. We suggest that this natural dynamism contributed to the relative resilience of the Faroese landscape to

human colonization, in sharp contrast to, for example, Iceland and Greenland.