Making the Most of Masters
Work based projects

Investigating the Effect of Recent Peatland Restoration on Water Quality

Flanders Moss National Nature Reserve (NNR) is one of the largest and least damaged lowland raised bogs in the UK.

Over the last 20 years there has been large scale restoration works carried out to restore the peatland habitat by returning the water table to the bog surface. Increasingly Scottish Natural Heritage (SNH), the managers of the NNR are viewing Flanders not just as a designated site but as an important feature in the landscape. The restoration of the moss can bring benefits to the local area in mitigating climate change by locking up carbon and providing natural flood management through releasing rainfall slowly.

Measuring the quantity and quality of the outflow of water off the moss is therefore of great importance. A monitoring system is being set up to monitor water levels within the peat body and amounts flowing off the site, but little information was available on the quality of this outflow of water.

It was very rewarding to have such a valuable experience...

PROJECT SUPERVISOR

PROFESSOR MIKE BILLETT - UNIVERSITY OF STIRLING

"The Flanders Moss peatland is on the doorstep of the University and has the potential to act as an easily accessible site for both teaching and research. The knowledge-base and support provided by SNH is essential to make this happen. Peatland restoration is one of the tools which is being used to meet climate change targets, both at a national and international level. Having a local research site and working in partnership with a key stakeholder, like SNH, provides an excellent research platform to train current and future practitioners and researchers.

The MMM Programme helped initiate the employer collaboration and provides the opportunity for students to develop new skills and then apply them to the most challenging environmental issue of our time."

STUDENT FEEDBACK

DERWYN LEAR - MSC ENVIRONMENTAL MANAGEMENT

"Whilst completing my MSc in Environmental Management, I worked with SNH on a dissertation project investigating the water driven losses of carbon from a part-degraded and restored lowland raised peat bog. This unique opportunity provided me with work experience and contacts within SNH and the wider research community. The research has been highly beneficial in furthering my understanding of the hydrological and biogeochemical processes associated with peatland systems. Most importantly working with SNH on a nature reserve that has been at the forefront of peatland restoration, and gaining an intimate knowledge of the restoration practices that have been adopted, has provided me with invaluable knowledge that I have since put to use in the restoration of peatlands within the commercial sector."

EMPLOYER EXPERIENCE

DAVID PICKETT - SCOTTISH NATURAL HERITAGE, STIRLINGS NNR RESERVE MANAGER

"Making the Most of Masters provided us with the opportunity to work with near-by University of Stirling and their research knowledge in this area. This student project allowed us to establish a baseline of water quality measurements that could be revisited in future years and an indication of the effect of the restoration works carried out on water flowing off the moss. Working with Derwyn went very well. Time spent providing background information and an initial induction day on the moss was well spent. Derwyn was then able to collect samples through the summer. SNH offered Derwyn opportunities for work shadowing of SNH staff which provided insight of the organisation and the business sector."

Scottish Natural Heritage
All of nature for all of Scotland

Scotland's National Nature Reserves
Magical places, amazing wildlife.

UNIVERSITY of STIRLING