H02: Recent advances in peatland hydrology, Part 1: Peatland restoration and ecohydrological processes

Conveners: Sarah Howie[1] and Pete Whittington[2]

Co-chairs: Sarah Howie[1], Pete Whittington[2], Maria Strack[3], and Jonathan Hughes[4]

[1] Office of Climate Action & Environment, Corporation of Delta, Delta, BC, V4K 3E2
Phone: 604-946-3283 Fax: 604-946-7492, E-mail: showie@delta.ca
[2] Department of Geography, Brandon University, Brandon, Manitoba, R7A 6A9
Phone: 204-727-9766 Fax: 204-728-7346, E-mail: whittingtonp@brandonu.ca
[3]Department of Geography and Environmental Management, University of Waterloo, Waterloo, ON, N2L 3G1 Phone: 519-888-4567 x30164, E-mail: mstrack@uwaterloo.ca
[4]Jonathan Hughes, Department of Geography and the Environment, University of the Fraser Valley, Abbotsford, BC, V2S 7M8 Phone: 604-864-4687, e-mail: Jonathan.Hughes@ufv.ca

Session Description

Peatlands cover about 15% of Canada's land surface. Since peatlands act as CO_2 sinks, it has been suggested that conservation of undisturbed peatlands may be valuable in limiting CO_2 emissions globally. However, peatland disturbance has increased in recent years, particularly relating to ore and petrol extraction, agriculture, and forestry. Thus, a greater understanding of peatland ecohydrological processes and an improvement in peatland restoration techniques is critical to limiting greenhouse gas emissions from these disturbed sites and restarting the process of soil carbon accumulation. Peatland restoration began in *Sphagnum*-dominated bogs about 25 years ago, but has expanded in recent years to include fens and swamps as disturbance has been increasing in these wetland types. The goal of the session is to bring together peatland scientists to share lessons learned with the goal of improving current studies and restoration projects throughout the country. The session will also provide an opportunity to address key research gaps in this field. In particular, contributions will be welcomed that focus on the latest methodology and findings in ecohydrological studies of both undisturbed and anthropogenically disturbed peatlands (e.g. drainage, resource extraction, climate change), as well as novel peatland restoration techniques.

Primary Affiliation: Biogeosciences / Hydrology