

CSSS_03: Wetland biogeochemistry and soil microbiology

Conveners: Aneta Bieniada¹, Saraswati Saraswati¹, Michael Carson²

Co-chairs: Aneta Bieniada, Saraswati Saraswati, Michael Carson

¹ Faculty of Environment, Department of Geography and Environmental Management,
University of Waterloo, 200 University Ave W, Waterloo, ON, N2L 3G1
E-mail: xsaraswa@uwaterloo.ca, abieniad@uwaterloo.ca

² Vale Living With Lakes Centre and the Department of Biology, Laurentian University,
Sudbury, ON, P3E 2C6 E-mail: mcarson@laurentian.ca

Session Description

The microbiological and biogeochemical processes are essential for maintaining wetlands ecosystems, which are crucial for balancing the greenhouse gas fluxes from local to global scale. The unique conditions prevailing in these ecosystems are compromised by anthropogenic disturbances such as peat extraction, seismic lines, road construction, forestry, and mining. The global warming also has a potential to alter the function of wetlands worldwide. Therefore, this session is dedicated to current microbiological and biogeochemical research carried out at natural or disturbed wetlands of all types ranging from tropical to arctic regions. We invite researchers willing to present their recent studies on e.g., wetlands processes and characteristics of microbial communities, the effect of altered climate regimes, disturbances, and wetland restoration on microbial functioning. Also, studies on enzymatic activities in natural or disturbed wetlands, phenolic compounds, nutrient cycling as well as processes of accumulation and decomposition of organic matter are encouraged to present in the session. Preference will be given to research that incorporate a novel aspect to address current gaps in knowledge, whether a traditional experiment and classic approach used to investigate newly emerging topics or showing a potential of novel microbiological or biogeochemical methodologies in wetlands studies.

Primary Affiliation: CSSS

Joint Session Submission: none