



Permafrost Hydrology and Wetland Dynamics

6B - Drained Lake Basins in Lowland Permafrost Regions

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Drained lake basins (DLBs) are some of the most common landforms in lowland permafrost regions. DLB formation and drainage can form complex landscape mosaics that reflect asynchronous periods of permafrost aggradation and degradation. The presence of DLBs and their relative distribution on the landscape influence permafrost-region topography, hydrology, carbon cycling, GHG and nutrient fluxes, habitat availability, geomorphology, and human land use practices including subsistence practices and agriculture.

This session is intended as a forum for current research on DLBs in permafrost-affected landscapes. We seek contributions that reflect diverse scientific fields, approaches, geographic locations and a range of temporal (e.g. decadal to millennial) and spatial scales (e.g., local observation to large-scale studies). We particularly encourage contributions that (1) provide data on DLB geology, cryostratigraphy, geomorphology, and ecology; (2) outline new strategies to improve process understanding; (3) interface with neighbouring fields of science or apply innovative technologies and methods; (4) investigate model validation, model uncertainty, and scaling issues; (5) couple models of diverse processes or scales, and (6) foster our understanding of the geologic history, current state, and future fate of DLBs and associated permafrost conditions and surrounding terrain.

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