



SESSIONS EUCOP6_ 2023

Session title: Structure and function of freshwater ecosystems on lowland permafrost landscapes

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Summary: Lakes, rivers and wetlands are predominant features across permafrost landscapes. They host valuable biodiversity and play an important role in biogeochemical cycling. The observed warming across the Arctic region is responsible for the rapid melting of glaciers, ice sheets, and permafrost, while changing precipitation patterns have drastically altered freshwater run-off on land. Moreover, terrestrial vegetation is also responding to climate change, with the “greening” and “browning” of the ecosystems. It is well established that catchment properties -including vegetation, geology and geomorphology and soil characteristics- strongly influence the structure and function of freshwater ecosystems. Therefore, climate-driven changes are expected to severely impact on the structure and function of freshwater ecosystems, also resulting with impacts to marine ecosystems. This session aims at offering an overview of the structure and function of freshwater water ecosystems on permafrost areas. In particular, focusing in the terrestrial-aquatic linkages and effects of climate change. Contributions are welcome on topics such as biogeochemical cycling, ecosystem function, biodiversity, biogeography, food web ecology on aquatic ecosystems.