UFZ-Seminar

HELMHOLTZ Centre for Environmental Research

Research Unit

Water Resources and Environment

21 September 2020, 3 p.m.

GoTo Meeting (Magdeburg)

Paul A. del Giorgio

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will give a talk on:

Carbon dynamics in boreal aquatic networks and role of inland waters in regional C balances

The boreal biome of Québec (Canada) is characterized by an extremely high density of inland waters, which form complex and highly heterogenous aquatic networks. The development of large hydroelectric reservoirs in this water rich landscape has further modified the boreal hydroscape and its hydrologic and biogeochemical functioning. Over the past decade the aquatic group at the Université du Québec à Montréal (UQAM) has been conducting studies on various aspects of aquatic carbon dynamics, and of aquatic / terrestrial links across this vast and complex biome. Here I will provide some examples of the work that our group at the UQAM has carried out, including studies on C processing, transport and storage, and of CO2 and CH4 dynamics in streams, rivers, ponds, lakes and hydroelectric reservoirs. Our long term objective has been to integrate these processes at the entire network scale and in whole watersheds, and to develop tools that will enable the effective integration of inland water processes into regional C balances, and the prediction of their future evolution under scenarios of change.