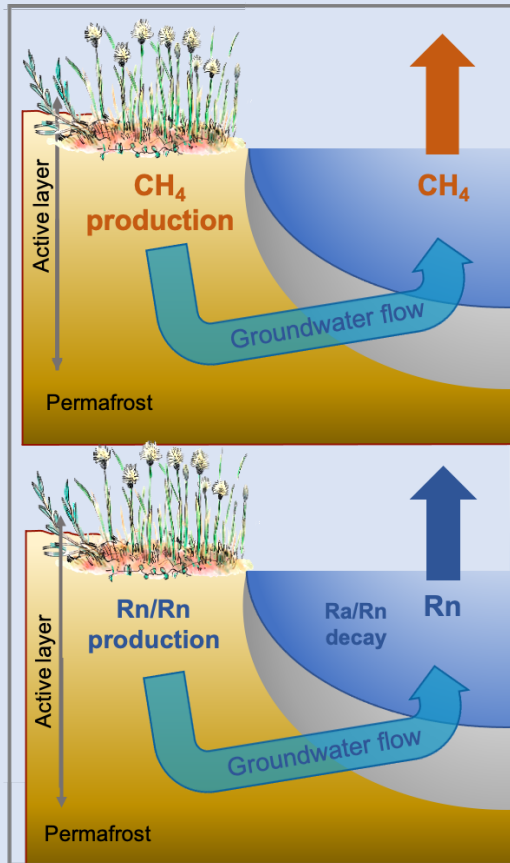
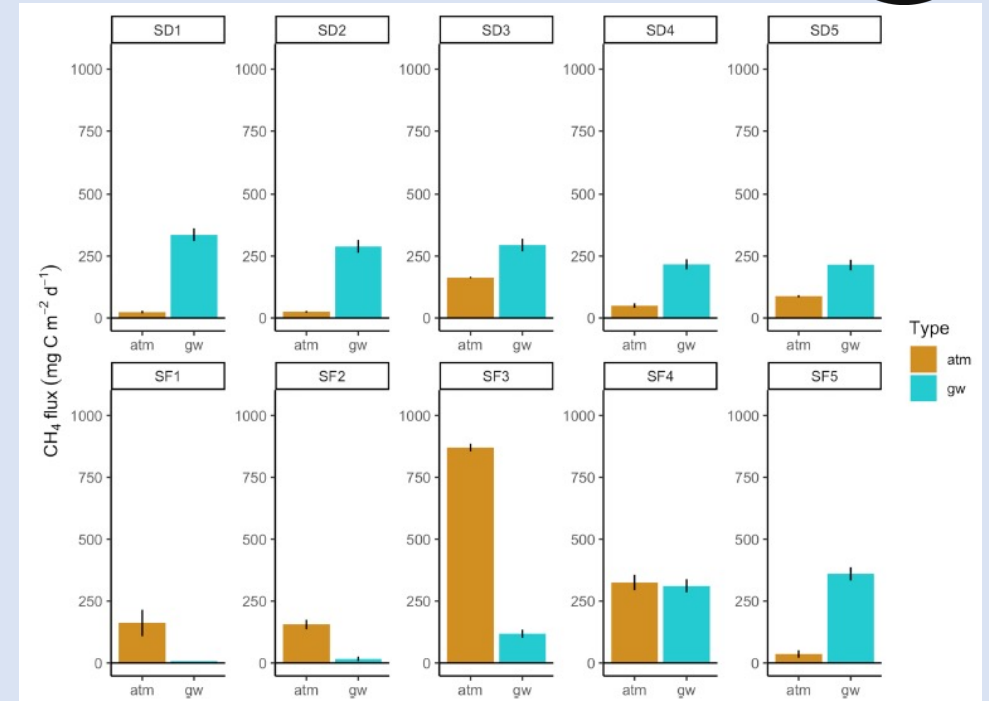
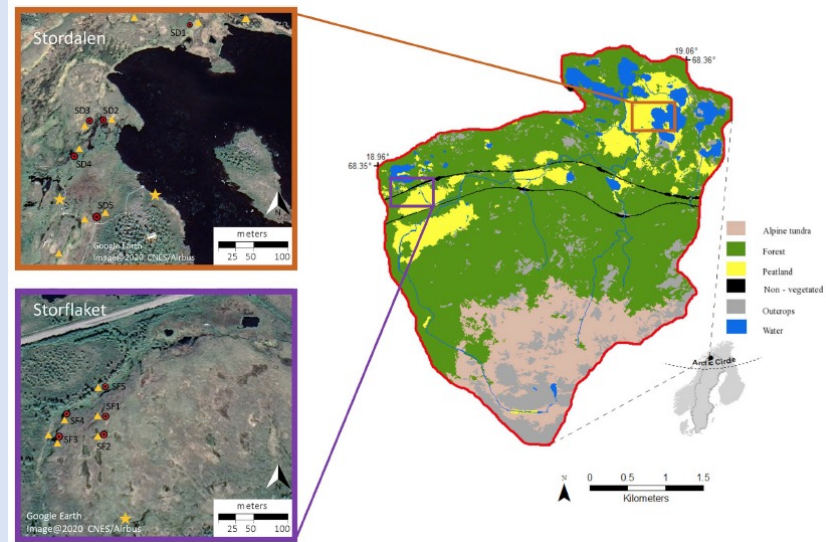


THE ROLE OF METHANE TRANSPORT FROM THE ACTIVE LAYER IN SUSTAINING METHANE EMISSIONS FROM SUBARCTIC THAW PONDS



Stordalen catchment Abisko, northern Sweden



- Groundwater inflows from the active layer were estimated using radon (^{222}Rn) as groundwater tracer (Rodellas et al. 2018, *STOTEN*)
- Groundwater discharge rates from the active layer were not trivial (6-46% of pond volume per day).
- The groundwater-mediated CH_4 inputs (gw) can sustain the diffusive CH_4 emissions (atm) from most of the ponds.
- Greater trophic reliance on methane oxidizing bacteria (MOB) in ponds with higher groundwater inputs from the active layer.