

CWEST Distinguished Seminar  
January 31<sup>st</sup>, 2018  
11-12pm  
SEEC Sievers Room S228

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## Paleo and Contemporary Perspectives on Arctic Lake Ecosystem Change in West Greenland

Trends in West Greenland climate and ecological response are often in contrast to other regions of the Arctic; these contrasts provide a rich opportunity to better understand climate-driven change in Arctic lake ecosystems. In particular, changes in sedimentary diatom profiles over the last 150 years in this area lack directional change compared to broader Arctic patterns. Modeled ice out reveals a shift to earlier ice out in 1993, but that is now reversing. I will discuss how we have employed a whole-lake experiment to decipher the ecology of a diatom taxon that serves as a key indicator of climate change, and how coupling contemporary limnology with paleolimnology yields insight into climate-driven change in these lakes over time. I will also discuss recent (past 15-40 years) changes in lake ice out, dissolved organic carbon, and water transparency, and place them in the context of abrupt climate change in this area.