Who (22 people)

Blaize Denfeld
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Sudeep Chandra
Bas Ibelings
Nora Theodore
Yannich Huot
Tara Tapics
Jason Stockwell
Discussion

• High latitude/altitude lakes >25% of year below ice
• Most lake data collect during summer
• What has been done?
  – Under ice physical processes
    • Krillin (2012) Aquatic Sciences
    • Carey (2014) In press
  – Under ice microbiology
    • Bertilsson, and other GLEON collaborators (2013)
    • Stephanie Hampton (active phytoplankton, zooplankton)
      – Open communication with our group
• What is needed?
  – Biogeochemistry under lake ice
Review Paper on changes to key variables under lake ice:

- pH
- POC (SPM)
- DIC
- DOC
- Greenhouse gases (CH4 and CO2)
- Dissolved oxygen (anoxia, fish kills)
- Sulfur
- Iron (impact on trace metals)
- Phosphorous
- Nitrogen cycling
- Salts
The publication (December 2015?)

- Summary of what is known on each variable
- Identify
  - Key questions for future work
  - Available datasets
  - Needed resources
- Emerging topics (GLEON17, 18, 19...)
  - What happens to greenhouse gas release between end of ice cover and summer stratification
  - How does end-winter conditions influence/initiate summer hypolimnion concentrations?
  - How do these variables influence biological productivity?
- Inform under ice modeling efforts
Process

1. **Set up Drop Box**
   - Key References
   - Shared data
   - Manuscript drafts

2. **Invitation to “pick your favorite variable”**
   - **November 14th**

3. **Deadline for picking variables/start reading:**
   - **December 1st**

4. **Check in/conference call**
   - **March 1st 2015**
Acronym?

ICE ICE BABY
Status
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Questions?