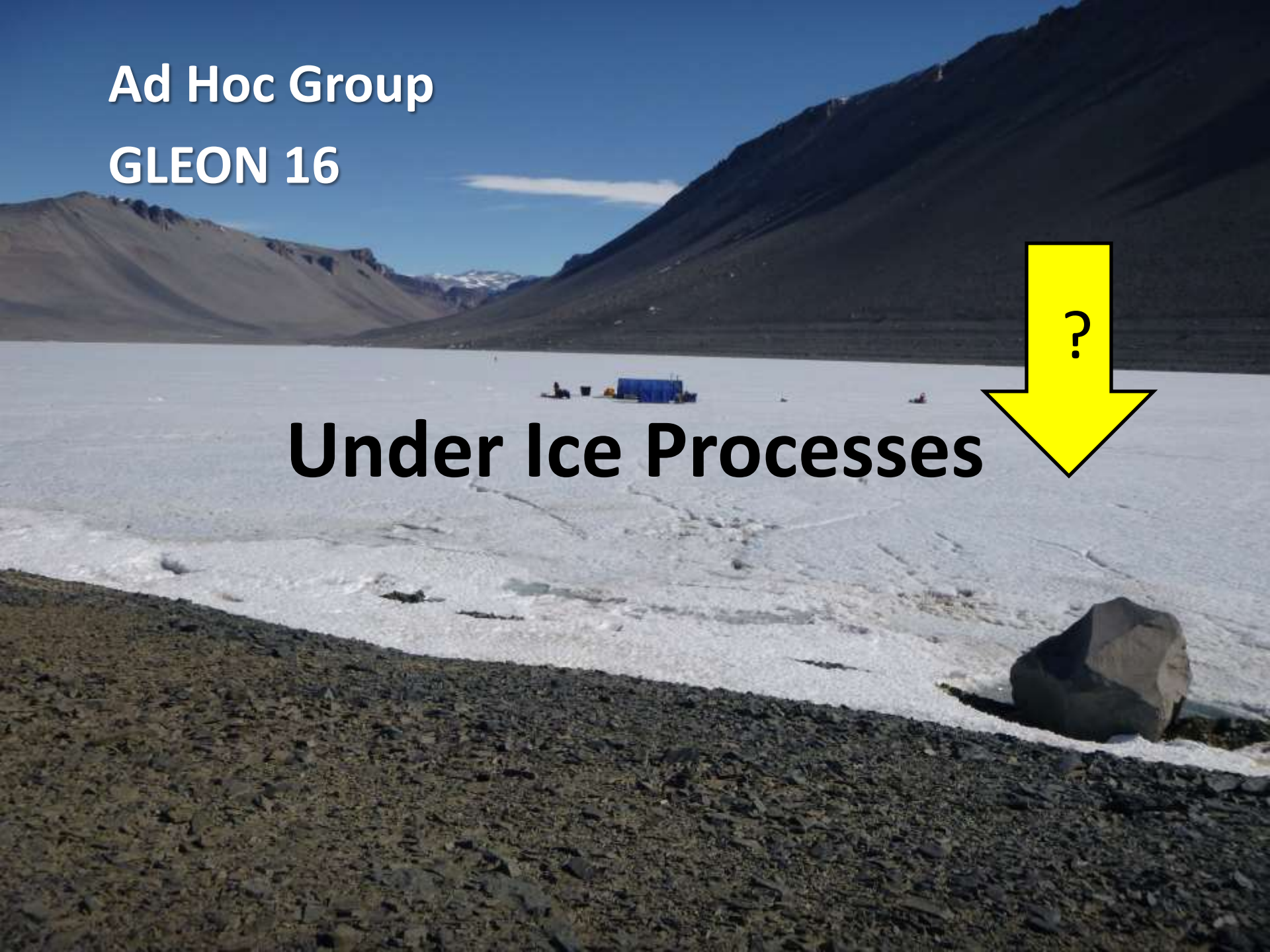


Ad Hoc Group

GLEON 16

Under Ice Processes



Who (22 people)

Blaize Denfeld

Gesa Weyhenmeyer

Don Pierson

Helen Baulch

Raoul Couture

Terhi Rasilo

Patricia Pernica

Steve Sadro

Jim Rusak

Hilary Dugan

Robyn Smyth

Devin Castendyk

JF Lapieperre

Matt Bogard

Paul Del Giorgio

Dominic Vachon

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

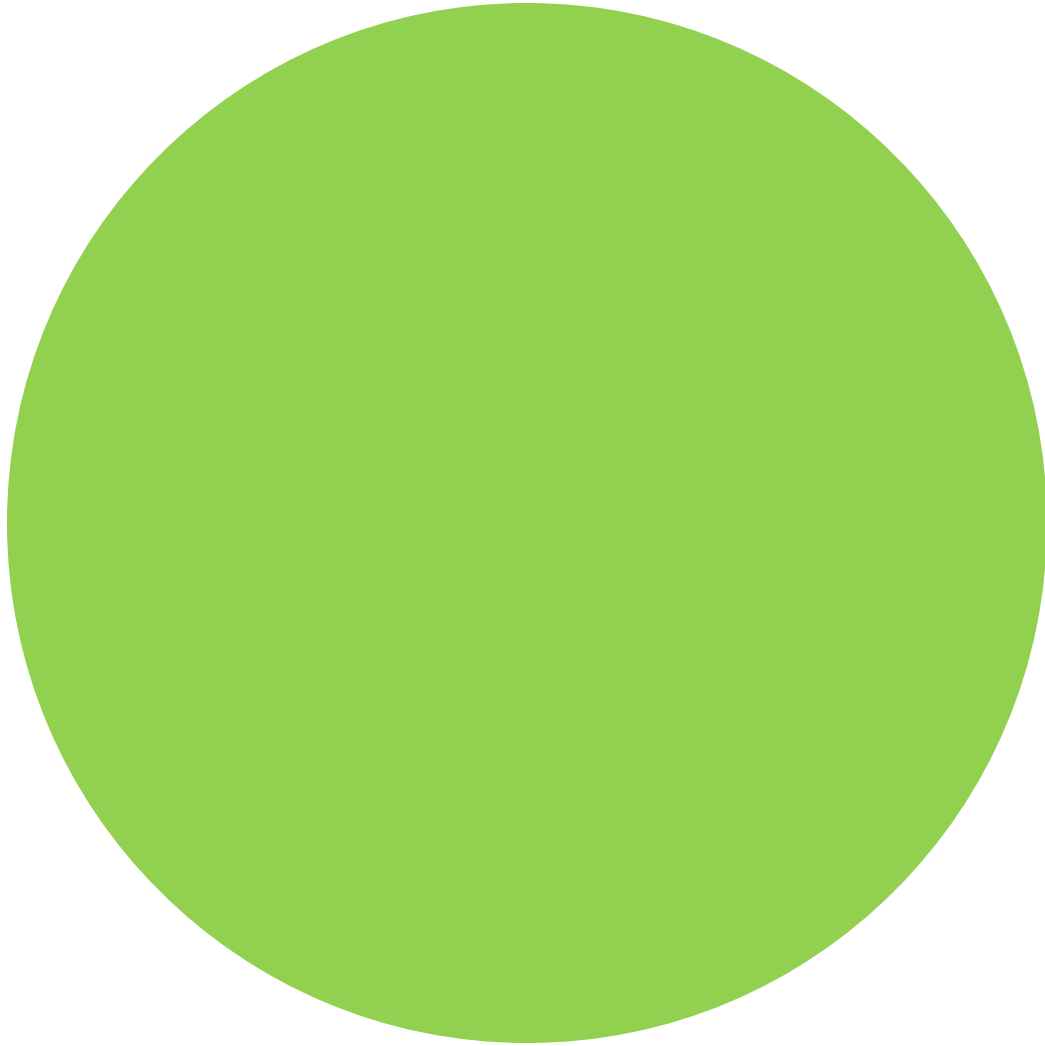
Process

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



Status

Blaize Denfeld:

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Questions?

