

**Xpedition**  
STUDENT INVESTIGATIONS



Welcome!  
Mt. Kilimanjaro, Africa  
Xpedition Webinar 2  
1 October 2012

*Hosted by the Arctic Research Consortium of the United States*





# Blackboard collaborate

Slides will be shown here

Exit the presentation

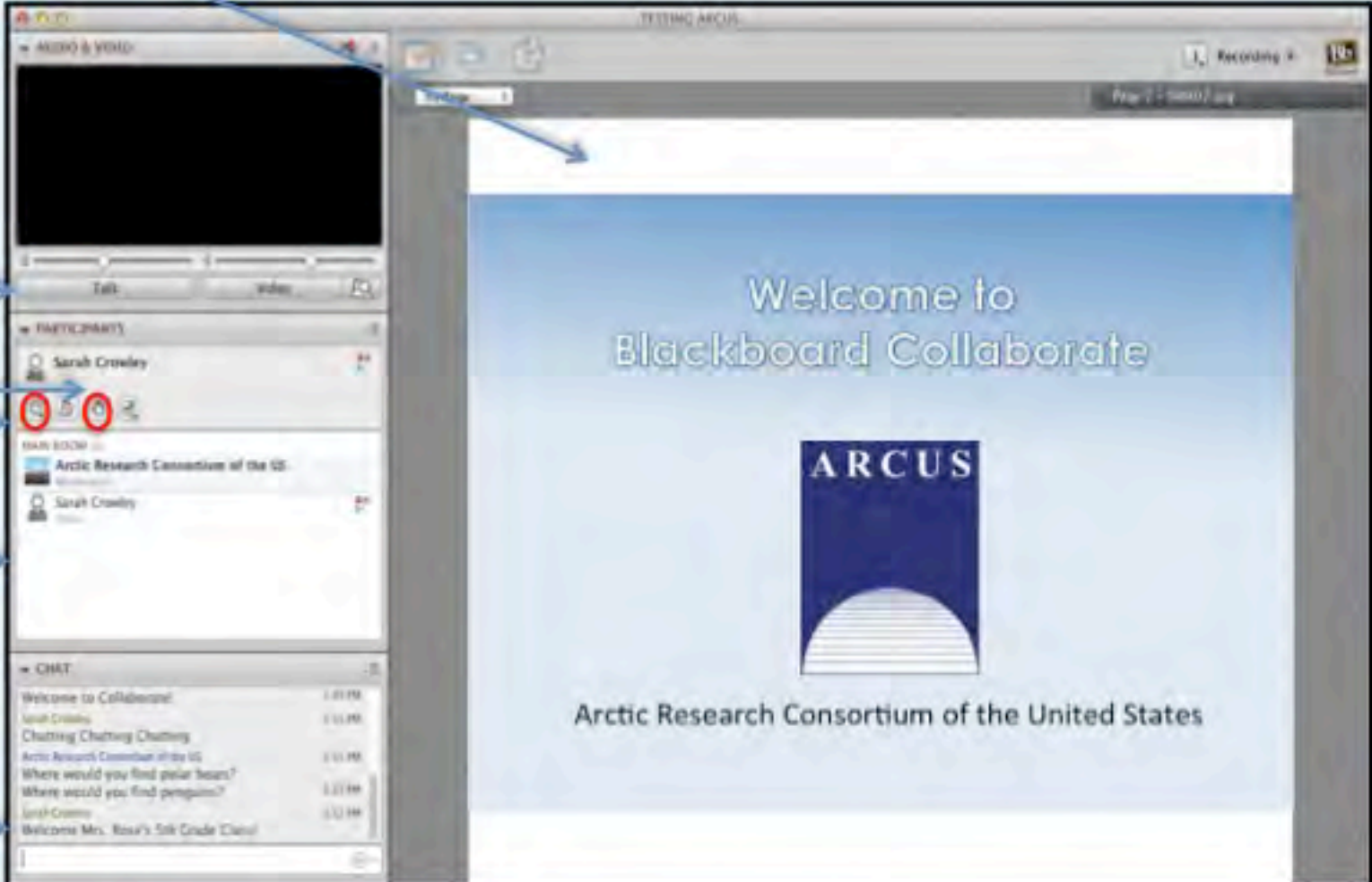
**Click** to Talk,  
**Unclick** to finish talking

Raise your hand to ask a question

Share with emoticons

List of all participants

Chat with one person or the entire group



The screenshot shows the Blackboard Collaborate interface. The main area displays a presentation slide titled "Welcome to Blackboard Collaborate" with the ARCUS logo and the text "Arctic Research Consortium of the United States". The left sidebar contains several panels: a "Talk" panel with a microphone icon, a "PARTICIPANTS" panel listing "Sarah Crowley" with a hand icon, a "CHAT ROOM" panel with a list of messages, and a "CHAT" panel with a list of messages. Arrows point from the text labels on the left to the corresponding UI elements in the screenshot.

## Please Note:

- Participants using the telephone can mute/unmute by **pressing \*6** on the phone.
- Today's event will be recorded and archived.

# Participant Introductions

**Please use the chat room to state  
your:**

- ✓ Name
- ✓ School / Institution
- ✓ The number of students and adults participating with you in the same location

# Questions

## During the Presentation:

- Type your question in the text chat box

## At the End of the Presentation:

- Raise your hand with the “hand button”.
- ARCUS staff will call on you.
- Speak loud and clear and directly into the phone to ask your question.

**Click on the Talk button to speak.**

**Unclick when you are done.**



**Elena Sparrow PhD**  
**Seasons & Biomes**



**Martha Kopplin**  
**Seasons & Biomes**



**John Wood**  
**Faculty Xpedition Member**



**Michael O'Toole**  
**Xpedition Leader**



**a GLOBE Africa**  
**Seasons & Biomes**  
**ESSP Project**



**Barney Peterson**  
**Faculty Xpedition Member**



The **GLOBE** Program



## Seasons and Biomes

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- **Seasons and Biomes is an inquiry- and project-based initiative that monitors seasons, specifically their interannual variability to increase K-12 students' understanding of the Earth system, participate in IPY and contribute to climate change studies.**
- **This Earth System Science Project brings together GLOBE students, educators, networks, communities and scientists in studies relevant locally and globally.**





The **GLOBE** Program



## Seasons and Biomes

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*Students understand earth system science through*

-New phenology and seasonality protocols combined with classic GLOBE protocols

-Inquiry learning activities

-PD model integrating GLOBE, earth system science, best teaching practices and student scientific investigation process

-Global learning communities and projects





# ***GLOBE Seasons and Biomes Collaborators***



**UAF Permafrost Outreach Program**

Experimental Program to Stimulate Competitive Research



**GLOBE Partnerships in Argentina, Australia, Czech Republic, Belgium, Canada, Cameroon, Croatia, Dominican Republic, Estonia, Germany, Greenland, Madagascar, Norway, Peru, South Africa, Switzerland, Tanzania, Thailand, USA**



**GLOBE Africa, GLOBE Europe/Eurasia, GLOBE Latin America/Caribbean, GLOBE North America**



**GLOBE Alumni International**

**U.S. Embassy in Estonia**



**Arctic Research Consortium of the U.S.**

**The Arctic System Science Thermokarst Project**



**Speaking**

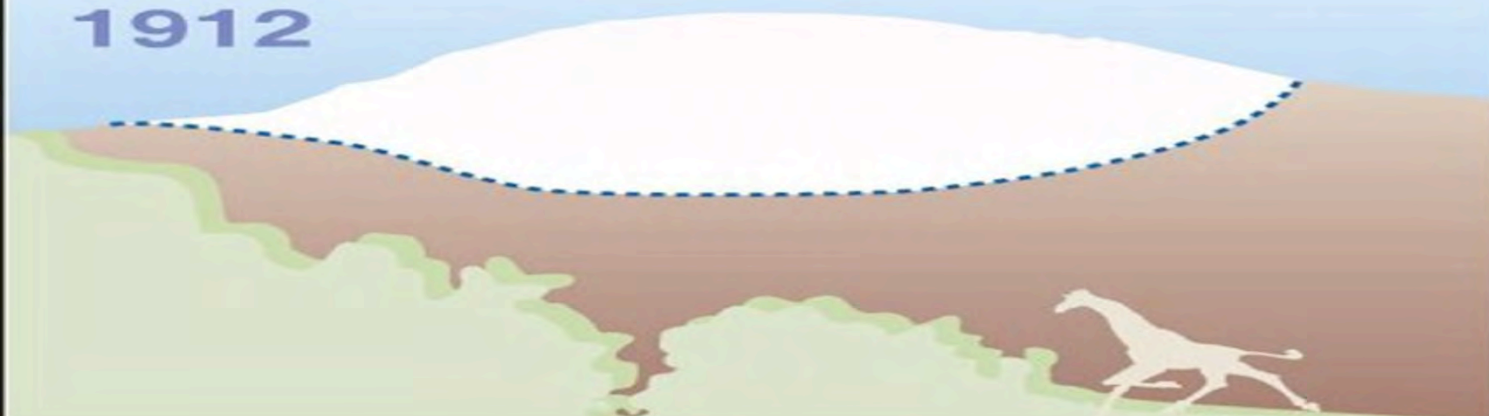
**Mike – Boulder, Colorado**





# The Melting Snows of Kilimanjaro

1912



## Glaciers

ice      - - - Estimated line

2002



GRID  
Arendal

DELPHINE DIGOUT  
JUNE 2002

Sources: Meeting of the American Association for the Advancement of Science (AAAS), February 2001 ; [Earthobservatory.nasa.gov](http://Earthobservatory.nasa.gov).









# The Ecological Zones of Kilimanjaro



**Summit**  
**Alpine Desert**  
**Moorland**  
**Heath Zone**  
**Rain Forest**  
**Cultivated Areas**





**Speaking**

**John – Huntington Beach, CA**

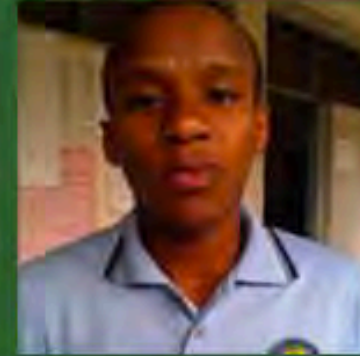




**Speaking**

**Isaac – Valdez, Alaska USA**





**Speaking**

**Lucus – Arusha, Tanzania**





**Speaking**

**Logan – Valdez, Alaska USA**





**Speaking**

**Maddy – Boulder, Colorado USA**





**Speaking**

**Leeann – Dallas, Texas USA**





**Speaking**

**Jenny – Valdez, Alaska USA**







**Speaking**  
**Dan – Valdez, Alaska USA**



**Speaking**  
**Dana – Dallas, Texas**













# Thank You!

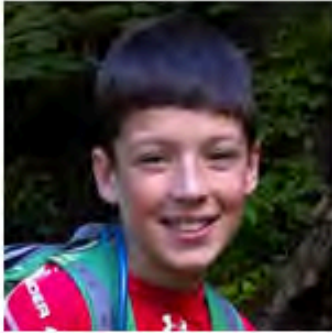
*An archive of the event will be available shortly.*  
**<http://www.polartrec.com/polar-connect/archive>**





Extra Slides

## Students



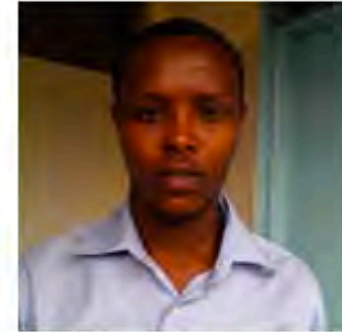
**Logan**

**Student Xpedition Members**



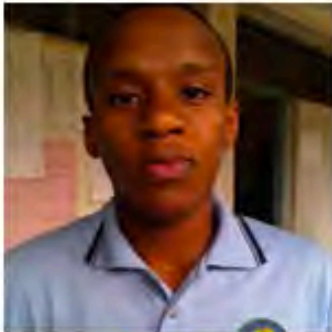
**Leeann**

**Student Xpedition Members**



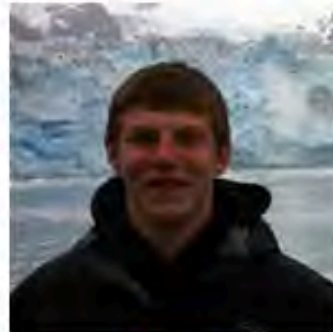
**Jeremiah**

**Student Xpedition Member**



**Lucas**

**Student Xpedition Member**



**Isaac**

**Student Xpedition Member**



**Maddy**

**Student Xpedition Members**



## Teachers



**John Wood**

Faculty Xpedition Member



**Jenny Heckathorn**

Faculty Xpedition Member



**Tom Devine**

Faculty Xpedition Member



**Dan Heckathorn**

Faculty Xpedition Member



**Dana Clark**

Faculty Xpedition Member



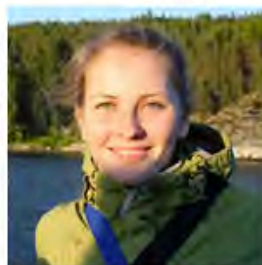
**Michael O'Toole**

Xpedition Leader

## Scientists



**Kenji Yoshikawa PhD**  
Xpedition Lead Scientist



**Julia Kalilova**  
Xpedition Scientist



**Kenji Narita PhD**  
Xpedition Scientist



**Shinichiro Aiba PhD**  
Xpedition Scientist



**Bob Bolton PhD**  
Xpedition Scientist

## Film Crew



**Andy Quinn**  
Geoff Haines-Stiles Productions



**Erna Akuginow**  
Geoff Haines-Stiles Productions



**Art Howard**  
Geoff Haines-Stiles Productions



## Guides



**The Crew**  
Xpedition Guides



**Nicholaus & Angel**  
Xpedition Guides



**Moody**  
Xpedition Head Guide





























