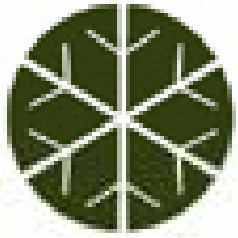


Graduate Student Research & GGSA Goals & Accomplishments

Shanna Losee, Geology Graduate Club Treasurer,
2nd Year MS Student

Michael Badding, 1st Year MS Student



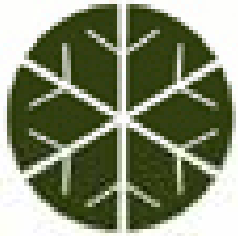
Paleoclimate & Remote Sensing



Shanna Losee M.S Second Year

Advisor: Dr. Jason Briner

Using Lacustrine Sediments to Reconstruct Holocene Climate Change on Coastal West Greenland



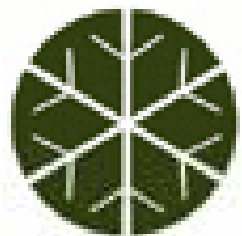
Paleoclimate & Remote Sensing



Mike Badding M.S First Year

Advisor: Dr. Jason Briner

Glacial Fluctuations and Paleoclimate of The Brooks Range in North
Central Alaska



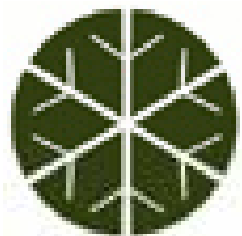
Paleoclimate & Remote Sensing

Sam Kelley Ph.D First Year

Advisor: Dr. Jason Briner



Research focuses on the interaction between glaciers and the changing climate, specifically the geomorphic record that is left behind by the changing glacial margins. His research is based in the Arctic (Greenland and Baffin Island), as well as a geomorphology project based on the timing and genesis of block fields in Northern Pennsylvania.



Paleoclimate & Remote Sensing

Roy Widrig M.A First Year

Advisor: Dr. Jason Briner

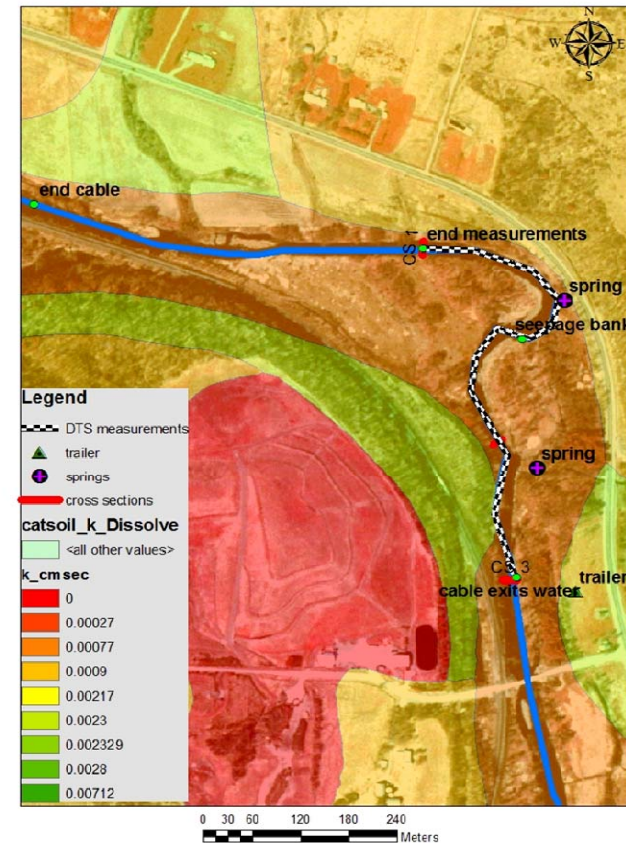
Studying Laurentide Ice Sheet deglaciation chronology in southwestern New York state. Will collect cores of lakes in pro-glacial environments to determine lake ages and origin, in order to date the retreat of the Laurentide Ice Sheet at the Last Glacial Maximum in North America.





Environmental Geosciences

DTS Installation Ischua Creek July, 2009



Jeremy Crowley Ph.D Student

Advisor: Dr. Zhangshuan Hou

Using a distributed temperature sensor and a coupled water/heat balance model to quantify groundwater discharge to streams.



Environmental Geosciences

Jonathan Malzone Ph.D First Year

Advisor: Dr. Chris Lowry

Interested in groundwater/surface water interactions creating biogeochemical hotspots, or areas of unique chemical conditions that facilitate certain ecological functions. Research focuses on locating and describing biogeochemical hotspots occurring in Western New York, specifically the hyporheic zone in New York streams for potential mobility of certain nutrients and pollution.



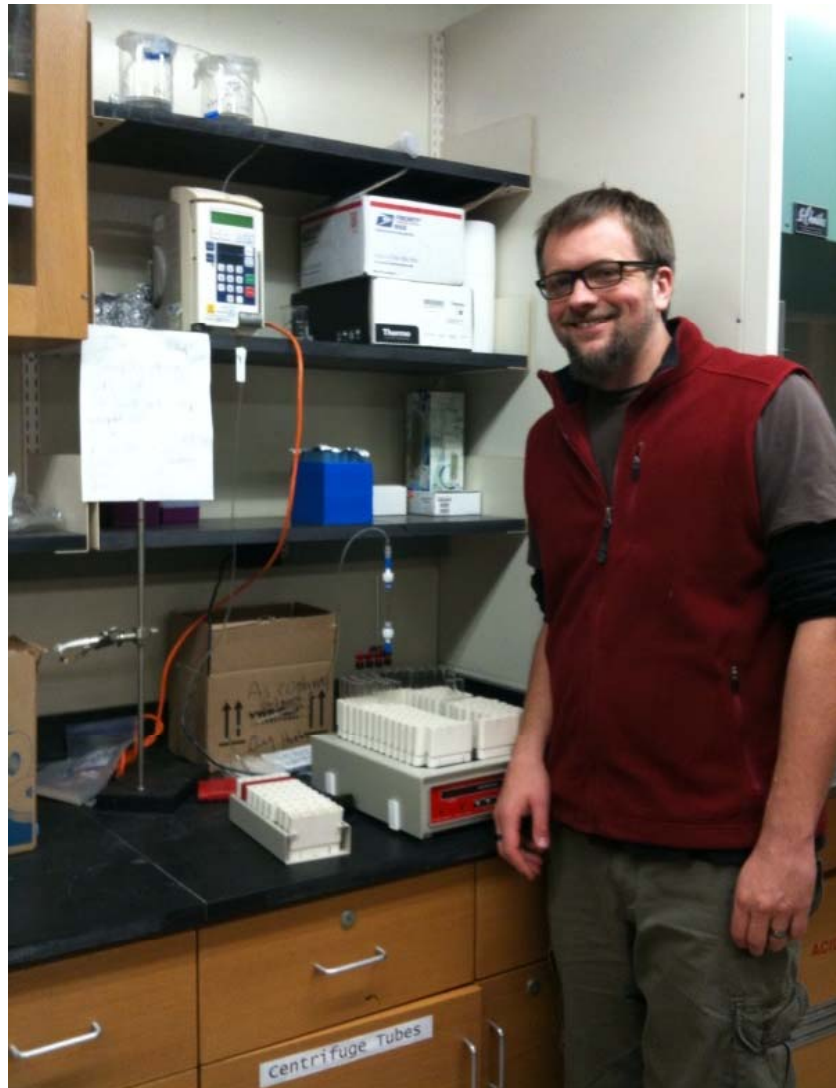
Environmental Geosciences

Greyford Hunter

M.S Second Year

Advisor: Dr. Tracy Bank

Arsenic desorption on calcite rich sediment as a function of temperature.





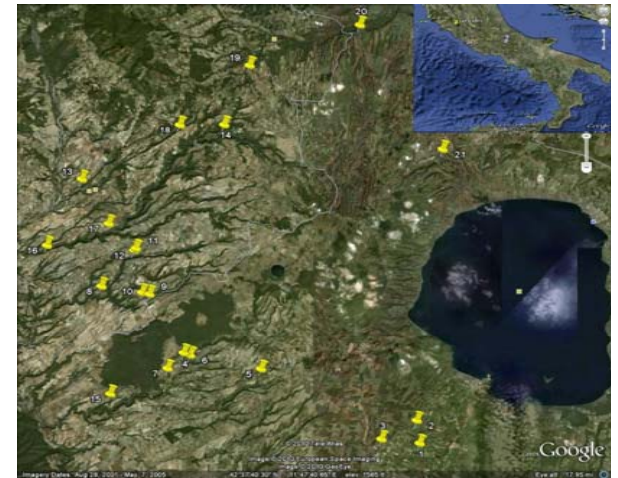
Volcanology

Sonja Melander

Ph.D Third Year

Advisor: Dr. Greg Valentine

Studies the physics of pyroclastic density currents, dangerous flows of hot gas and particulates from volcanoes. Research focuses on the fluid-dynamically induced variations in flow properties in the near-vent region of caldera eruptions using a combined approach of fieldwork and multiphase numerical modeling. This field site is at Latera caldera, a 9 km x 7 km caldera about 80 km NW of Rome, Italy.





Volcanology

Diana Miller

M.S. Second Year

Advisor: Dr. Tracy Gregg

Quantifying the differences between clusters of shield volcanoes on Venus. It has been proposed that there are two different types of clusters, shield plains (more spread out) and shield fields (clustered close together in a small area).



Daniel Krysak

M.S. Second Year

Advisor:

Dr. Tracy Gregg

Studying the geologic history of Apollinaris Mons on Mars, a volcano located on the crustal dichotomy of the Martian surface. Updating the current understanding of Apollinaris Mons through geologic mapping which was last (and only) studied in 1993.



Viking Orbiter image of Apollinaris Mons with a width of approximately 235 km.



Volcanology

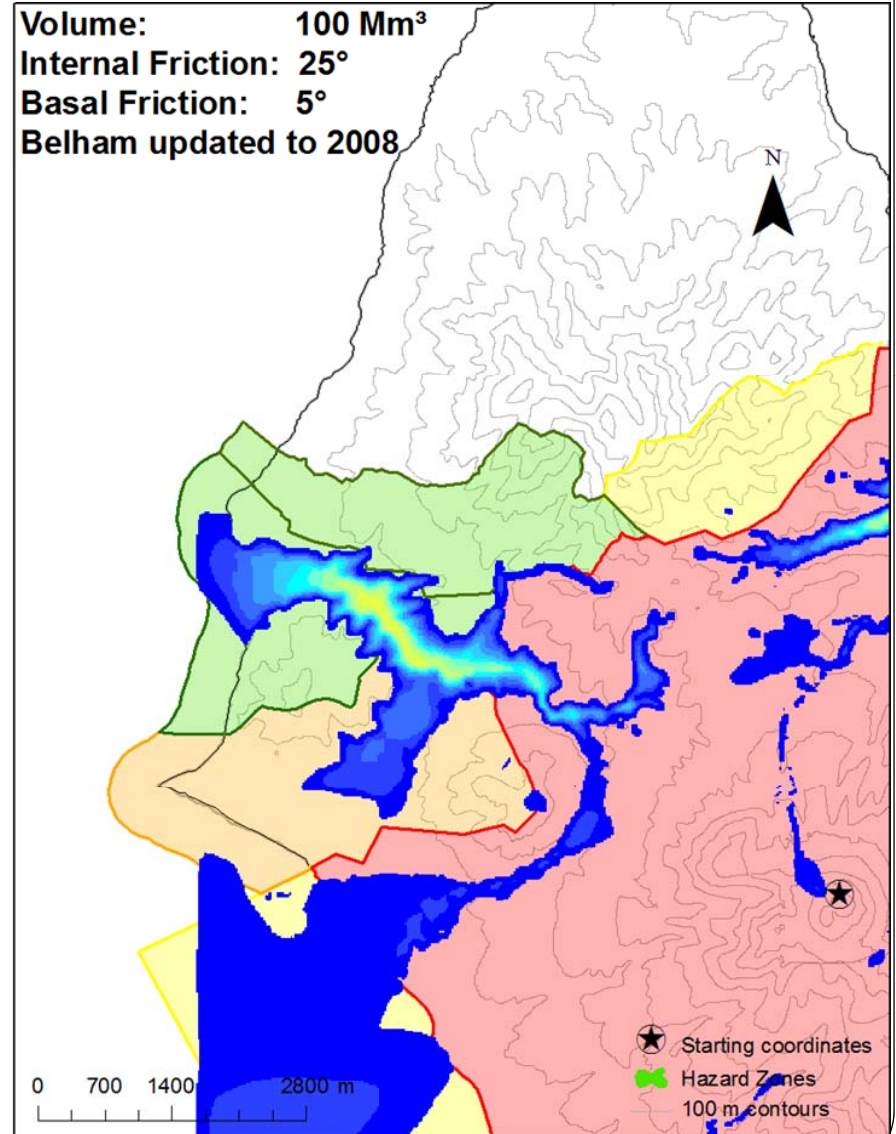


100 m interval profile lines
500 m interval profile lines

Sarah Ogburn Ph.D Third Year

Advisor: Dr. Eliza Calder

Research focuses on pyroclastic flow modeling, lava dome collapses, and topographic effects on flows, primarily on the Soufriere Hills Volcano, Montserrat.



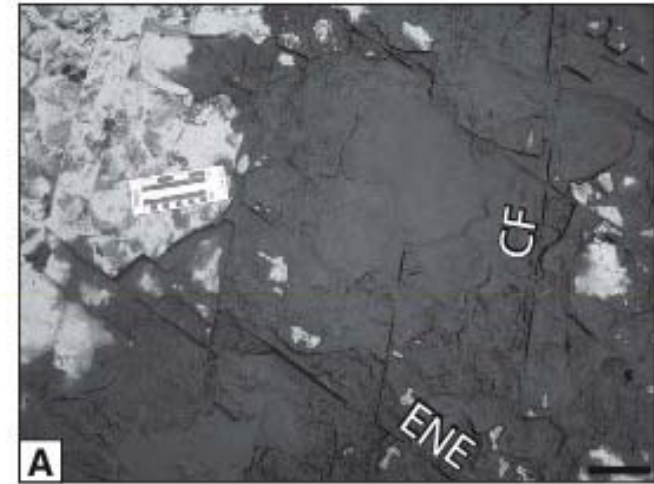
Dan Robinson M.S Second Year
Advisor: Dr. Chuck Mitchell

Research focuses on measuring changes in graptoloid shape across the end-Ordovician extinction interval using Geometric Morphometrics. Research areas include China, Yukon, and Nevada, where high-resolution stratigraphic sequences from the Late Katian record the dramatic faunal turnover within the order.



Mike LaGamba M.S First Year
Advisor: Dr. Jacobi

Studying fracture trends in the Marcellus shale, as it applies to co2 sequestration in New York State.



Graduate advanced field methods course, mapping deposits from Soufriere Hills Volcano on the island of Montserrat, summer 2010.



GGSA Activities



National Earth Science Day WNY celebration at Penn Dixie. Talk to earth scientists as they exhibit and demonstrate various aspects of their professions; see a drill rig demonstrating rock coring and drilling operations; view sunspots; collect fossils; and participate in a wide variety of other activities.

October 9, 2010
13th Annual WNY Earth Science
Day at Penn Dixie Site in
Hamburg, NY



GGSA Activities



Hike to Eternal Flames

Pegrum Hike to
Niagara Gorge



Graduate Student Achievements 2009-2010

Awards, Honors & Fellowship

- 14 Awards and Honors - 8 UB GLY Pegrum Travel Awards, CAS Excellence in Teaching Award, Fulbright Scholarship, World-wide Past Presidents Graduate Student Scholarship, BAPG WNY Geosciences Conference Poster Competition, Pegrum Award for Graduate Student Excellence in Research Program Fellow
- 9 Fellowships - 3 IGERT, Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science Fellowship, CAS College Fellowship, Smithsonian Graduate Student Fellowship, NASA Graduate Student Research Program Fellow, Schomburg Fellowship

Publications/Creative Activities

- 1 edited Book/Journal Issue
- 9 Articles in Scholarly Journals
- 13 Other Publications (abstracts, reports, manuals, etc.)

Research Conference Activities

- 6 Conference Papers Presented
- 3 non-conference invited lecturers

Grad Student Goals

Funding

- Pegrum funding is vital for research and attending conferences
- Networking opportunities
- Mentoring for additional/outside funding

Develop Stronger Relationship with Alumni

- Continue with Pegrums presented by Alumni
- Alumni, Student, and Faculty Expo
- Job and internship announcements
- Interview/job placement mentoring
- Job shadowing
- Directory of alumni by field of expertise (if willing to be contacted about jobs, research etc.)
- Pegrum/workshop focused on geology-related careers (MS students)
- Pegrum/workshop for PhD candidates, life after PhD

Contacts

- Shanna Losee shannalo@buffalo.edu
- Michael Badding mbadding@buffalo.edu