

**KECK GEOLOGY CONSORTIUM  
PROCEEDINGS OF THE TWENTY-THIRD  
ANNUAL KECK RESEARCH SYMPOSIUM IN GEOLOGY  
ISSN# 1528-7491**

**April 2010**

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**2009-2010 PROJECTS**

**SE ALASKA - EXHUMATION OF THE COAST MOUNTAINS BATHOLITH DURING THE GREENHOUSE TO ICEHOUSE TRANSITION IN SOUTHEAST ALASKA: A MULTIDISCIPLINARY STUDY OF THE PALEOGENE KOOTZNAHOO FM.**

*Faculty: Cameron Davidson (Carleton College), Karl Wirth (Macalester College), Tim White (Penn State University)*

*Students: Lenny Ancuta, Jordan Epstein, Nathan Evenson, Samantha Falcon, Alexander Gonzalez, Tiffany Henderson, Conor McNally, Julia Nave, Maria Princen*

**COLORADO – INTERDISCIPLINARY STUDIES IN THE CRITICAL ZONE, BOULDER CREEK CATCHMENT, FRONT RANGE, COLORADO.**

*Faculty: David Dethier (Williams)      Students: Elizabeth Dengler, Evan Riddle, James Trotta*

**WISCONSIN - THE GEOLOGY AND ECOHYDROLOGY OF SPRINGS IN THE DRIFTLESS AREA OF SOUTHWEST WISCONSIN.**

*Faculty: Sue Swanson (Beloit) and Maureen Muldoon (UW-Oshkosh)*

*Students: Hannah Doherty, Elizabeth Forbes, Ashley Krutko, Mary Liang, Ethan Mamer, Miles Reed*

**OREGON - SOURCE TO SINK – WEATHERING OF VOLCANIC ROCKS AND THEIR INFLUENCE ON SOIL AND WATER CHEMISTRY IN CENTRAL OREGON.**

*Faculty: Holli Frey (Union) and Kathryn Szramek (Drake U. )*

*Students: Livia Capaldi, Matthew Harward, Matthew Kissane, Ashley Melendez, Julia Schwarz, Lauren Werckenthien*

**MONGOLIA - PALEOZOIC PALEOENVIRONMENTAL RECONSTRUCTION OF THE GOBI-ALTAI TERRANE, MONGOLIA.**

*Faculty: Connie Soja (Colgate), Paul Myrow (Colorado College), Jeff Over (SUNY-Geneseo), Chuluun Minjin (Mongolian University of Science and Technology)*

*Students: Uyanga Bold, Bilguun Dalaibaatar, Timothy Gibson, Badral Khurelbaatar, Madelyn Mette, Sara Oser, Adam Pellegrini, Jennifer Peteya, Munkh-Od Purevtseren, Nadine Reitman, Nicholas Sullivan, Zoe Vulgaropulos*

**KENAI - THE GEOMORPHOLOGY AND DATING OF HOLOCENE HIGH-WATER LEVELS ON THE KENAI PENINSULA, ALASKA**

*Faculty: Greg Wiles (The College of Wooster), Tom Lowell, (U. Cincinnati), Ed Berg (Kenai National Wildlife Refuge, Soldotna AK)*

*Students: Alena Giesche, Jessa Moser, Terry Workman*

**SVALBARD - HOLOCENE AND MODERN CLIMATE CHANGE IN THE HIGH ARCTIC, SVALBARD, NORWAY.**

*Faculty: Al Werner (Mount Holyoke College), Steve Roof (Hampshire College), Mike Retelle (Bates College)*

*Students: Travis Brown, Chris Coleman, Franklin Dekker, Jacalyn Gorczynski, Alice Nelson, Alexander Nereson, David Vallencourt*

**UNALASKA - LATE CENOZOIC VOLCANISM IN THE ALEUTIAN ARC: EXAMINING THE PRE-HOLOCENE RECORD ON UNALASKA ISLAND, AK.**

*Faculty: Kirsten Nicolaysen (Whitman College) and Rick Hazlett (Pomona College)*

*Students: Adam Curry, Allison Goldberg, Lauren Idleman, Allan Lerner, Max Siegrist, Clare Tochilin*

**Funding Provided by: Keck Geology Consortium Member Institutions and NSF (NSF-REU: 0648782)  
and ExxonMobil**

**Keck Geology Consortium: Projects 2009-2010  
Short Contributions – MONGOLIA**

**PALEOZOIC PALEOENVIRONMENTAL RECONSTRUCTION OF THE GOBI-  
ALTAI TERRANE, MONGOLIA**

Project Directors: **CONSTANCE M. SOJA**: Colgate University  
**CHULUUN MINJIN**: Mongolian University of Science and Technology  
Project Faculty: **PAUL MYROW**: The Colorado College  
**D. JEFFREY OVER**: State University of New York at Geneseo

**CHEMOSTRATIGRAPHY OF THE LOWER SILURIAN SCHARCHULUUT  
FORMATION, YAMAAN-US, SHINE JINST REGION, GOBI-ALTAI TERRANE,  
MONGOLIA**

**UYANGA BOLD**: Mongolian University of Science and Technology  
Research Advisor: Chuluun Minjin

**GEOLOGIC MAP AND PALEOECOLOGY OF THE LOWER SILURIAN  
SCHARCHULUUT FORMATION AT “WENLOCK HILL”, SHINE JINST  
REGION, GOBI-ALTAI TERRANE, MONGOLIA**

**BILGUUN DALAIBAATAR**: Mongolian University of Science and Technology  
Research Advisor: Chuluun Minjin

**SEDIMENTOLOGY, DEPOSITIONAL HISTORY AND DETRITAL ZIRCON  
GEOCHRONOLOGY OF THE LOWER DEVONIAN TSAKHIR FORMATION,  
SHINE JINST REGION, MONGOLIA**

**TIMOTHY M. GIBSON**: Colorado College  
Research Advisor: Paul Myrow

**BRACHIOPODS FROM THE LOWER SILURIAN SCHARCHULUUT  
FORMATION, YAMAAN-US, SHINE JINST REGION, GOBI-ALTAI TERRANE,  
MONGOLIA**

**BADRAL KHURELBAATAR**: Mongolian University of Science and Technology  
Research Advisor: Chuluun Minjin

**CHEMOSTRATIGRAPHY AND MAGNETIC STRATIGRAPHY OF THE UPPER ORDOVICIAN DARAVGAI AND GASHUUNOVOO FORMATIONS, GOBI-ALTAI TERRANE, SHINE JINST AREA, SOUTHERN MONGOLIA**

**MADelyn METTE:** Macalester College  
Research Advisor: Ray Rogers

**SEQUENCE STRATIGRAPHY AND PALEONTOLOGY OF THE UPPER ORDOVICIAN DARAVGAI AND GASHUUNOVOO FORMATIONS, GOBI-ALTAI TERRANE, SHINE JINST, MONGOLIA**

**SARA E. OSER:** University of Cincinnati  
Research Advisor: Carlton E. Brett

**PALEOECOLOGY OF LOWER DEVONIAN (EMSIAN) SHELF DEPOSITS IN THE CHULUUN FORMATION, GOBI-ALTAI TERRANE, MONGOLIA**

**ADAM FRANCIS ANTONIO PELLEGRINI:** Colgate University  
Research Advisor: Constance M. Soja

**TRILOBITE PALEOECOLOGY OF THE MIDDLE DEVONIAN TSAGAANKHAALGA FORMATION NEAR TSAKHIR WELL, SHINE JINST, MONGOLIA**

**JENNIFER A. PETEYA:** Mount Union College  
Research Advisor: Lee Gray

**GEOLOGIC MAP SHOWING EAST-TO-WEST FACIES TRANSITIONS IN THE LOWER SILURIAN SCHARCHULUUT FORMATION, SCHARCHULUUT, SHINE JINST REGION, GOBI-ALTAI TERRANE, MONGOLIA**

**MUNKH-OD PUREVTSEREN:** Mongolian University of Science and Technology  
Research Advisor: Chuluun Minjin

**PALEOECOLOGY AND CHEMOSTRATIGRAPHY OF THE AMANSAIR AND TSAGAANBULAG FORMATIONS, GOBI-ALTAI TERRANE, MONGOLIA**

**NADINE G. REITMAN:** Vassar College  
Research Advisor: David P. Gillikin

**THE EIFELIAN GIVETIAN BOUNDARY (MIDDLE DEVONIAN) AT TSAKHIR,  
GOVI ALTAI REGION, SOUTHERN MONGOLIA**

***NICHOLAS SULLIVAN:*** State University of New York at Geneseo  
Faculty Advisor: D. Jeffrey Over

**PALEOENVIRONMENTS AND DEPOSITIONAL HISTORY OF UPPER  
SILURIAN-LOWER DEVONIAN LIMESTONE IN THE AMANSAIR AND  
TSAGAANBULAG FORMATIONS AT ULAANSHAND AND TSAKHIR, GOBI-  
ALTAI TERRANE, MONGOLIA**

***ZOE VULGAROPULOS:*** Oberlin College  
Research Advisor: Dennis Hubbard

**Funding provided by: Keck Geology Consortium Member Institutions and NSF (NSF-REU: 0648782)**

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# GEOLOGIC MAP AND PALEOECOLOGY OF THE LOWER SILURIAN SCHARCHULUUT FORMATION AT “WENLOCK HILL,” SHINE JINST REGION, GOBI-ALTAI TERRANE, MONGOLIA

**BILGUUN DALAIBAATAR:** Mongolian University of Science and Technology  
Research Advisor: Chuluun Minjin

The Keck project field work was carried out in the Shine Jinst area of the Bayankhongor province in Mongolia from the 18th of July until the 4th of August 2009. We did research on the paleontology, stratigraphy and sedimentology of formations of Ordovician, Silurian and Devonian age.

The project I chose was on the Sharchuluut Formation, which consists of tan limestone and greenish sandstone. Brachiopods, crinoids, bryozoans, stromatoporoids, trilobites, gastropods and different kinds of coral are abundant in the limestone and indicate the formation's age is Early Silurian. I am continuing my research on the sectional interpretation based on the collection of samples and field mapping. I will complete a geologic map and interpret the ancient ecology of fossils collected at “Wenlock Hill” (Fig. 1).

As the result of the field work, I have learned many things in geology. I have understood how geologists work in the field, and I have made good friends. Most important, I am very proud of my country, Mongolia.

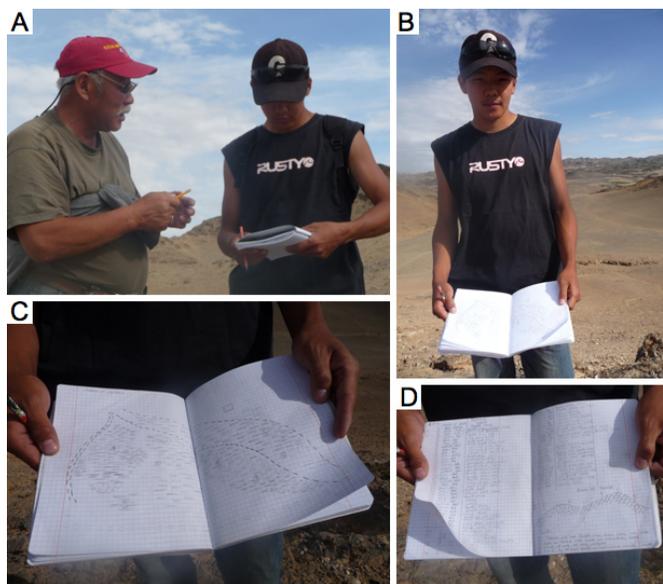


Figure 1. Field work at the “Wenlock Hill” locality was supervised by Professor Chuluun Minjin (A), included geologic mapping (B-C), and produced a stratigraphic log (D).