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-Geneeseo), Chuluan 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 Purevtserre, 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 Neresson, 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
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 DALAIABAATAR:**  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 GIVENIAN 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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I am a second-year geology student in the School of Geology and Petroleum Engineering at the Mongolian University of Science and Technology. Last summer was very special for me because I was able to participate in the Keck-Mongolia project, even though I was only a first-year student. This project was a joint Mongolian-U.S. effort involving 20 valuable days in the field. The project was carried out in the region near Shine Jinst, which is an area with good outcrops of Paleozoic succession exposed as a continuation of the Altai Mountain range. Russians have done much research on paleontology in this area.

During the field trip, I worked with two U.S. students on the Sharchuluut Formation, logging stratigraphic sections and collecting samples. Under the supervision of Professor Minjin, I traversed a 20-km area and successfully completed a geologic map showing east-to-west facies transitions along strike in the Sharchuluut section (Fig. 1). Generally, the Sharchuluut section I mapped consists of limestone and sandstone interbedded with volcanic rocks. The limestone is rich in fossils, such as coral, crinoids, bryozoans, stromatoporoids and brachiopods. As a result of this fieldwork, I have learned a lot about geology. It was amazing to study some of the beautiful areas in Mongolia.

Figure 1. Field work at Sharchuluut was supervised by Professor Chuluun Minjin (A) and resulted in the completion of a geologic map (B-D).