KECK GEOLOGY CONSORTIUM

PROCEEDINGS OF THE TWENTY-FIFTH ANNUAL KECK RESEARCH SYMPOSIUM IN GEOLOGY

April 2012
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Editor and Keck Director
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2011-2012 PROJECTS

TECTONIC EVOLUTION OF THE CHUGACH-PRINCE WILLIAM TERRANE, SOUTH-CENTRAL ALASKA
Faculty: JOHN GARVER, Union College, Cameron Davidson, Carleton College
Students: EMILY JOHNSON, Whitman College, BENJAMIN CARLSON, Union College, LUCY MINER, Macalester College, STEVEN ESPINOSA, University of Texas-El Paso, HANNAH HILBERT-WOLF, Carleton College, SARAH OLIVAS, University of Texas-El Paso.

ORIGINS OF SINUOUS AND BRAIDED CHANNELS ON ASCRAEUS MONS, MARS
Faculty: ANDREW DE WET, Franklin & Marshall College, JAKE BLEACHER, NASA-GSFC, BRENT GARRY, Smithsonian

TROPICAL HOLOCENE CLIMATIC INSIGHTS FROM RECORDS OF VARIABILITY IN ANDEAN PALEOGLACIERS
Faculty: DONALD RODBELL, Union College, NATHAN STANSELL, Byrd Polar Research Center
Students: CHRISTOPHER SEDLAK, Ohio State University, SASHA ROTHENBERG, Union College, EMMA CORONADO, St. Lawrence University, JESSICA TREANTON, Colorado College.

EOCENE TECTONIC EVOLUTION OF THE TETON-ABSAROKA RANGES, WYOMING
Faculty: JOHN CRADDOCK, Macalester College, DAVE MALONE, Illinois State University
Students: ANDREW KELLY, Amherst College, KATHRYN SCHROEDER, Illinois State University, MAREN MATHISEN, Augustana College, ALISON MACNAMEE, Colgate University, STUART KENDERES, Western Kentucky University, BEN KRASUSHAAAR

INTERDISCIPLINARY STUDIES IN THE CRITICAL ZONE, BOULDER CREEK CATCHMENT, FRONT RANGE, COLORADO
Faculty: DAVID DETHIER, Williams College
Students: JAMES WINKLER, University of Connecticut, SARAH BEGANSKAS, Amherst College, ALEXANDRA HORNE, Mt. Holyoke College
DEPTH-RELATED PATTERNS OF BIOEROSION: ST. JOHN, U.S. VIRGIN ISLANDS
Faculty: DENNY HUBBARD and KARLA PARSONS-HUBBARD, Oberlin College

THE HRAFNFJORDUR CENTRAL VOLCANO, NORTHWESTERN ICELAND
Faculty: BRENNAN JORDAN, University of South Dakota, MEAGEN POLLOCK, The College of Wooster
Students: KATHRYN KUMAMOTO, Williams College, EMILY CARBONE, Smith College, ERICA WINELAND-THOMSON, Colorado College, THAD STODDARD, University of South Dakota, NINA WHITNEY, Carleton College, KATHARINE, SCHLEICH, The College of Wooster.

SEDIMENT DYNAMICS OF THE LOWER CONNECTICUT RIVER
Faculty: SUZANNE O’CONNELL and PETER PATTON, Wesleyan University
Students: MICHAEL CUTTLER, Boston College, ELIZABETH GEORGE, Washington & Lee University, JONATHON SCHNEYER, University of Massachusetts-Amherst, TIRZAH ABBOTT, Beloit College, DANIELLE MARTIN, Wesleyan University, HANNAH BLATCHFORD, Beloit College.

ANATOMY OF A MID-CRUSTAL SUTURE: PETROLOGY OF THE CENTRAL METASEDIMENTARY BELT BOUNDARY THRUST ZONE, GRENVILLE PROVINCE, ONTARIO
Faculty: WILLIAM PECK, Colgate University, STEVE DUNN, Mount Holyoke College, MICHELLE MARKLEY, Mount Holyoke College
Students: KENJO AGUSTSSON, California Polytechnic State University, BO MONTANYE, Colgate University, NAOMI BARSHI, Smith College, CALLIE SENDEK, Pomona College, CALVIN MAKO, University of Maine, Orono, ABIGAIL MONREAL, University of Texas-El Paso, EDWARD MARSHALL, Earlham College, NEVA FOWLER-GERACE, Oberlin College, JACQUELYNE NESBIT, Princeton University.

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TECTONIC EVOLUTION OF THE CHUGACH-PRINCE WILLIAM TERRANE IN PRINCE WILLIAM SOUND AND KODIAK ISLAND, ALASKA
Project Faculty: JOHN GARVER, Union College, CAMERON DAVIDSON, Carleton College

ANALYSIS OF DETRITAL ZIRCON FISSION TRACK AGES OF THE UPPER CRETACEOUS VALDEZ GROUP AND PALEOGENE ORCA GROUP IN WESTERN PRINCE WILLIAM SOUND, ALASKA
BENJAMIN M. CARLSON, Union College
Research Advisor: John I. Garver

PALEOMAGNETISM OF THE KNIGHT ISLAND OPHIOLITE, PRINCE WILLIAM SOUND, ALASKA
STEVEN ESPINOSA, University of Texas at El Paso
Research Advisor: Terry Pavlis

U-Pb DETRITAL ZIRCON PROVENANCE OF THE PALEOGENE ORCA GROUP, CHUGACH-PRINCE WILLIAM TERRANE, ALASKA
HANNAH LOUISE HILBERT-WOLF, Carleton College
Research Advisors: Cameron Davidson & John Garver

ORIGIN OF THE LATE EOCENE ESHAMY SUITE GRANITOIDS IN WESTERN PRINCE WILLIAM SOUND, ALASKA
EMILY JOHNSON, Whitman College
Research Advisor: Kirsten Nicolaysen

GEOCHEMISTRY OF THE KNIGHT ISLAND OPHIOLITE AND CHENEGA ISLAND VOLCANICS, PRINCE WILLIAM SOUND, ALASKA
LUCY MINER, Macalester College
Research Advisor: Karl R. Wirth

U/Pb DETRITAL ZIRCON STUDY OF THE UPPER CRETACEOUS TO MIOCENE STRATA OF KODIAK ISLAND, ALASKA
SARAH J. OLIVAS, University of Texas at El Paso
Research Advisor: Diane I. Doser
ORIGINS OF SINUOUS AND BRAIDED CHANNELS ON ASCRAEUS MONS, MARS
Project Faculty: ANDREW DE WET, Franklin & Marshall College, JAKE BLEACHER, NASA-GSFC, BRENT GARRY, Smithsonian

A COMPARISON AND ANALOG-BASED ANALYSIS OF SINUOUS CHANNELS ON THE RIFT APRONS OF ASCRAEUS MONS AND PAVONIS MONS VOLCANOES, MARS
ANDREW COLLINS, The College of Wooster
Research Advisors: Andy De Wet, Jake Bleacher, & Shelley Judge

ORIGIN OF SINUOUS CHANNELS ON THE SW APRON OF ASCRAEUS MONS AND THE SURROUNDING PLAINS, MARS
ZACHARY SCHIERL, Whitman College
Research Advisor: Patrick Spencer

VOLCANIC OR FLUVIAL CHANNELS ON THE SOUTH-EAST RIFT APRON OF ASCRAEUS MONS
JULIA SIGNORELA, Franklin and Marshall College
Research Advisor: Andy De Wet
TROPICAL HOLOCENE CLIMATIC INSIGHTS FROM RECORDS OF VARIABILITY IN ANDEAN PALEOGLACIERS
Project Faculty: DONALD T. RODBELL, Union College & NATHAN STANSELL, Byrd Polar Research Center, Ohio State University

XRD ANALYSIS OF SEDIMENT-CORE MATERIAL AS AN INDICATOR OF THE TRANSITION FROM VALLEY GLACIERS TO CIRQUE DWELLING GLACIERS IN THE PERUVIAN CENTRAL CORDILLERA
EMMA A. CORONADO, St. Lawrence University
Research Advisor: Alexander K. Stewart

GLACIAL LACUSTRINE RECORDS OF CLIMATE VARIATION IN THE TROPICAL PERUVIAN ANDES
SASHA ROTHENBERG, Union College
Research Advisor: Donald Rodbell

HOLOCENE GLACIAL VARIABILITY RECORDED IN LAKE SEDIMENTS FROM NEVADO HUAGURUNCHE, PERU
CHRISTOPHER SEDLAK, Ohio State University
Research Advisor: Nathan Stansell

HOLOCENE CLIMATE CHANGE AND GLACIAL EVOLUTION OF THE CENTRAL PERUVIAN ANDES: LACUSTRINE RECORD FROM THE PROGLACIAL LAKE JAICO
JESSICA TRÉANTON, Colorado College
Research Advisor: Donald T. Rodbell

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EOCENE TECTONIC EVOLUTION OF THE TETON-ABSAROKA RANGES, WYOMING
Project Faculty: JOHN P. CRADDOCK, Macalester College & DAVE MALONE, Illinois State University

DETRITAL ZIRCON PROVENANCE STUDY OF YELLOW SANDSTONES FROM THE WILLWOOD FORMATION IN THE BIGHORN BASIN, WYOMING, USA
ANDREW L. KELLY, Amherst College
Research Advisors: Tekla A. Harms & Peter D. Crowley

A MINERALOGICAL TEXTURAL AND CHEMICAL CHARACTERIZATION OF A HYPOTHESESIZED KIMBERLITE AT WHITE MOUNTAIN, SUNLIGHT BASIN, WYOMING
STUART KENDERES, Western Kentucky University
Research Advisor: Andrew Wulff

THE DYNAMICS AND EMPLACEMENT OF THE HEART MOUNTAIN DETACHMENT: ANISOTROPY OF MAGNETIC SUCEPTIBILITY AND DETRITAL ZIRCON ANALYSIS OF VERTICAL INJECTITES AT WHITE MOUNTAIN AND SILVERGATE, WYOMING
BENJAMIN KRAUSHAAR, Fort Lewis College
Research Advisor: John P. Craddock

STRUCTURAL EVOLUTION OF THE EOCENE SOUTH FORK DETACHMENT, PARK COUNTY, WYOMING
ALISON MACNAMEE, Colgate University
Research Advisor: Martin Wong

CALCITE TWINNING STRAIN ANALYSIS OF THE ALLOCHTHONOUS JURASSIC SUNDANCE, SOUTH FORK DETACHMENT, NORTHWEST WYOMING
MAREN MATHISON, Augustana College
Research Advisor: Jeffrey Strasser & Michael Wolf

PROVENANCE ANALYSIS OF THE WAPITI FORMATION (EOCENE) SANDSTONE IN THE ABSAROKA BASIN, WY USING DETRITAL ZIRCON GEOCHRONOLOGY
KAT HRYN SCHROEDER, Illinois State University
Research Advisor: David H. Malone
**Keck Geology Consortium: Projects 2011-2012**

**Short Contributions—Front Range, CO Project**

**KECK COLORADO PROJECT: INTERDISCIPLINARY STUDIES IN THE CRITICAL ZONE, BOULDER CREEK CATCHMENT, FRONT RANGE, COLORADO**

Project Faculty: DAVID P. DETHIER, Williams College & WILL OUIMET, University of Connecticut

**THE GEOCHEMICAL IMPACT OF WILDFIRE AND MINING ON THE FOURMILE CREEK WATERSHED**

SARAH BEGANSKAS, Amherst College

Research Advisor: Anna Martini

**QUANTIFYING PHYSICAL CHARACTERISTICS AND WEATHERING OF BEDROCK IN RELATION TO LANDSCAPE DEVELOPMENT IN THE COLORADO FRONT RANGE**

ALEXANDRA HORNE, Mt. Holyoke College

Research Advisor: David Dethier

**THE HYDROLOGY AND GEOCHEMISTRY OF TWO SNOWMELT-DOMINATED, ALPINE STREAMS IN THE BOULDER CREEK CRITICAL ZONE OBSERVATORY, FRONT RANGE, COLORADO**

JAMES N. WINKLER, University of Connecticut

Research Advisor: Will Ouimet
DEPT-RELATED CARBONATE CYCLING IN A MODERN REEF: ST. JOHN, U.S. VIRGIN ISLANDS
Project Faculty: DENNIS K. HUBBARD, Oberlin College & KARLA PARSONS-HUBBARD, Oberlin College

ESTIMATING DEPTH RELATED REEF CARBONATE PRODUCTION PATTERNS OFF ST. JOHN, USVI
WILLIAM MATTHEW BENSON, Washington and Lee University
Research Advisor: Lisa Greer

INVESTIGATING ENDOLITHIC ALGAE PROLIFERATION USING STABLE CARBON ISOTOPES IN BOULDER STAR CORAL
CORNELIA CLARKE, Pomona College
Research Advisor: Robert Gaines

POST-BLEACHING ENCRUSTATION HABITS IN USVI CORAL REEFS
CLAIRE MCELROY, Otterbein University
Research Advisor: Halard Lescinsky

DEPTH-RELATED PATTERNS OF ABUNDANCE, DISTRIBUTION, AND CARBONATE PRODUCTION FOR MICROBORING ORGANISMS: ST. JOHN, US VIRGIN ISLANDS
CONOR NEAL, Franklin and Marshall College
Research Advisor: Roger Thomas

DEPTH RELATED DISTRIBUTION AND ABUNDANCE OF MICROBORING ORGANISMS: ST. JOHN, US VIRGIN ISLANDS
JONATHAN ROGERS, University of Wisconsin - Oshkosh
Research Advisor: Eric Hiatt

MACROBIOEROSION RATES OF IN-SITU CORAL COLONIES: ST. JOHN, U.S. VIRGIN ISLANDS
ELIZABETH WHITCHER, Oberlin College
Research Advisor: Dennis Hubbard
Keck Geology Consortium: Projects 2011-2012
Short Contributions—Northwestern Iceland Project

CRUSTAL MAGMATIC PROCESSES IN ICELAND’S OLDEST CENTRAL VOLCANO
Project Faculty: BRENNAN JORDAN, University of South Dakota, MEAGEN POLLOCK, The College of Wooster, JEANNE FROMM, University of South Dakota

THE HRAFNJÖRDUR CENTRAL VOLCANO: PETROGENESIS OF LAVAS IN THE EARLY STAGES OF AN ICELANDIC RIFT ZONE
EMILY CARBONE, Smith College
Research Advisor: Mark Brandriss

MAGMATIC PROCESSES OF THE HRAFNFJÖRDUR CENTRAL VOLCANO, NORTHWEST ICELAND
KATHRYN KUMAMOTO, Williams College
Research Advisor: Reinhard Wobus

A GEOCHEMICAL AND PETROLOGIC ANALYSIS OF THE HRAFNFJORDUR CENTRAL VOLCANO, WESTFJORDS, ICELAND
KATHARINE SCHLEICH, The College of Wooster
Research Advisor: Meagen Pollock

ORIGIN OF SILICIC VOLCANISM AT SAURATINDUR, NORTHWEST ICELAND
THAD STODDARD, University of South Dakota
Research Advisor: Brennan Jordan

GEOCHEMICAL ANALYSIS OF TERTIARY DIKES HRAFNFJORDUR CENTRAL VOLCANO, NORTHWEST ICELAND: IMPLICATIONS FOR DIKE ORIGIN
NINA WHITNEY, Carleton College
Research Advisor: Cameron Davidson

PETROLOGIC AND GEOCHEMICAL CHARACTERIZATION OF BASALTIC AND INTERMEDIATE MAGMAS IN AN ABANDONED TERTIARY RIFT, NORTHWEST ICELAND
ERICA WINELAND-THOMSON, Colorado College
Research Advisor: Jeff Noblett

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ANTHROPOGENIC IMPACTS AND ENVIRONMENTAL CHANGES RECORDED IN THE DEPOSITIONAL HISTORY OF THE LOWER CONNECTICUT RIVER
Project Faculty: SUZANNE O’CONNELL Wesleyan University

FRESH-WATER DIATOMS AS BIOINDICATORS OF POLLUTION IN SELDEN COVE, CONNECTICUT RIVER
TIRZAH ABBOT, Beloit College
Research Advisor: Carl Mendelson

GEOCHEMICAL CHARACTERIZATION OF TIDAL COVES OF THE CONNECTICUT RIVER ESTUARY
HANNAH BLATCHFORD, Beloit College
Research Advisor: Carl Mendelson

VARIABILITY OF SUSPENDED-SEDIMENT DISTRIBUTION IN THE CONNECTICUT RIVER ESTUARY
MICHAEL CUTLER, Boston College
Research Advisor: Gail Kineke

RECONSTRUCTING ENVIRONMENTAL CHANGES IN THE LOWER CONNECTICUT RIVER USING DIATOMS
ELIZABETH JEAN GEORGE, Washington and Lee University
Research Advisor: David J. Harbor

INVASIVE FRESHWATER CLAM, CORBICULA FLUMINEA, HABITATS IN THE LOWER CONNECTICUT RIVER
DANIELLE MARTIN, Wesleyan University
Research Advisor: Suzanne O’Connell

COMPARING SEDIMENT DEPOSITION USING MERCURY INVENTORIES FOR BACK-WATER AND SALT MARSH ENVIRONMENTS
JONATHAN SCHNEYER, University of Massachusetts Amherst
Research Advisor: Jon Woodruff
Keck Geology Consortium:  Projects 2011-2012
Short Contributions—Grenville Province, Ontario Project

PETROLOGY AND STRUCTURE OF THE CENTRAL METASEDIMENTARY BELT BOUNDARY
THRUST ZONE ITS HANGING WALL, GRENVILLE PROVINCE, ONTARIO
Project Faculty:  WILIAM H. PECK, Colgate University, STEVEN R. DUNN, Mount Holyoke College
MICHELLE J. MARKLEY, Mount Holyoke College

GEOCHEMISTRY AND GEOCHRONOLOGY OF CENTRAL METASEDIMENTARY BELT
BOUNDARY THRUST ZONE THRUST SHEETS IN SOUTHERN ONTARIO, GRENVILLE PROVINCE
KENJO S. AGUSTSSON, California Polytechnic State University, San Luis Obispo
Research Advisor: Scott Johnston

CONFLICTING KINEMATICS OF THE SALERNO CREEK DEFORMATION ZONE, GRENVILLE
PROVINCE, ONTARIO
NAOMI BARSHI, Smith College
Research Advisor: Jack Loveless

THERMOBAROMETRIC EVIDENCE FOR A COMMON CENTRAL METASEDIMENTARY BELT
AFFINITY OF THE BANCROFT AND ELZEVIR TERRANES, ONTARIO, CANADA
NEVA FOWLER-GERACE, Oberlin College
Research Advisor: F. Zeb Page

HETEROGENEOUS DEFORMATION OF GABBROIC ROCKS
CALVIN MAKO, University of Maine
Research Advisor: Christopher Gerbi

PETROLOGY AND GEOCHEMISTRY OF THE ALLSAW ANORTHOSITE: A SCAPOLITIZED META-
ANORTHOSITE IN GRENVILLE PROVINCE, ONTARIO
EDWARD W. MARSHALL, Earlham College
Research Advisor: Meg Streepey Smith

GARNET-BIOTITE GEOTHERMOBAROMETRY OF THE CENTRAL METASEDIMENTARY BELT
BOUNDARY THRUST ZONE OF THE GRENVILLE PROVINCE, ONTARIO, CANADA
ABIGAIL MONREAL, University of Texas at El Paso
Research Advisor: Jasper G. Konter

CARBON ISOTOPE THERMOMETRY IN THE CENTRAL METASEDIMENTARY BELT BOUNDARY
THRUST ZONE
GRENVILLE PROVINCE, ONTARIO
BO MONTANYE, Colgate University
Research Advisor: William H. Peck

CALCITE-GRAPHITE THERMOMETRY IN THE SOUTHWESTERNMOST CENTRAL
METASEDIMENTARY BELT, GRENVILLE PROVINCE, SOUTHERN ONTARIO
JACQUELYNE NESBIT, Princeton University
Research Advisor: Blair Schoene
USING STRUCTURAL ANALYSES TO ASSESS POSSIBLE FORMATION MECHANISMS OF THE
CHEDDAR GNEISS DOME
CALIE SENDEK, Scripps College
Research Advisor: Linda Reinen

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