

# SGE Student Research

## Poster Session at 2004 GSA Meeting

Another year with excellent papers for the SGE Poster Session. Congratulations to all of the students who participated in this year's event. The following students were selected to be recipients of the two annual awards that SGE presents -

### *The Austin Sartin Award Recipient:*

**Daniel J. Lasco** of the *Eta* Chapter, along with **John P. Hogan** of the Department of Geology and Geophysics, University of Missouri-Rolla, for their paper *SIGNIFICANCE OF LAYERING IN THE MOUNT SHERIDAN GABBRO, OKLAHOMA*

### *The National Council Award Recipient (Two Awards):*

**Rebecca E. Pressler** of the *Epsilon Kappa* Chapter at Central Michigan University, for the paper *A PALYNOLOGIC PALEOENVIRONMENTAL ANALYSIS OF A DINOSAUR BONE-BEARING BED FROM THE CRETACEOUS HELL CREEK FORMATION, MONTANA*

And

**Jesse Koch** of the *Gamma Sigma* Chapter, along with **James C. Walters** of the University of Northern Iowa for their paper *LATE QUATERNARY EOLIAN SAND STRINGERS OF NORTHEAST IOWA*

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Below is a complete list of participants and their papers.

*A PALYNOLOGIC PALEOENVIRONMENTAL ANALYSIS OF A DINOSAUR BONE-BEARING BED FROM THE CRETACEOUS HELL CREEK FORMATION, MONTANA:*  
**PRESSLER, Rebecca E**, Geology, Central Michigan Univ, 2867 Mackinaw Rd, Kawkawlin, MI 48631, rpressler@msn.com.

*UPPER MIOCENE PALUSTRINE CARBONATES (OPACHE FORMATION) IN THE CALAMA BASIN, CHILE, AND THEIR PALEOCLIMATIC IMPLICATIONS:*  
**SHULLENBERGER, Eric D.**, RECH, Jason A., and CURRIE, Brian, Department of Geology, Miami Univ, 114 Shideler Hall, Oxford, OH 45056, shulleed@muohio.edu

*DISAGGREGATION OF PLUTONIC INCLUSIONS IN MOUNT ST. HELENS DACITIC ROCKS ERUPTED FROM 1980 THROUGH 1986:* **DETWILER, Jennifer A.**, FEELEY, Todd C., and UNDERWOOD, Sandra J., Earth Sciences, Montana State Univ, Bozeman, MT 59717, jennyd@triathlete.com

*ISOTOPIC EVALUATION OF DIAGENETIC ALTERATION IN PALEOSOL CARBONATE FROM THE UPPER PENNSYLVANIAN CONEMAUGH FORMATION, OHIO:* **SAYRE,**

**Christopher N.**, Miami University, Oxford, OH 45056, sayrecn@muohio.edu, RECH, Jason, Department of Geology, Miami Univ, 11 Shideler Hall, Oxford, OH 45056, and ROWE, Harry, Department of Geological Sciences, Univ of Kentucky, 101 Slone Research Bldg, Lexington, KY 40506

*SIGNIFICANCE OF LAYERING IN THE MOUNT SHERIDAN GABBRO, OKLAHOMA:* **LASCO, Daniel R.** and HOGAN, John P., Geology and Geophysics, Univ of Missouri-Rolla, 125 McNutt Hall, Rolla, MO 65409, drl67c@umr.edu

*A SEDIMENTOLOGICAL, GEOCHEMICAL, AND MICROPALAEONTOLOGICAL ANALYSIS OF A SKIDAWAY ISLAND (GEORGIA) MARSH:* COWAN, Brian, Geosciences Dept, State Univ West Georgia, Carrollton, GA 30118, stu10878@westga.edu, JULIAN, Meaghan E., Department of Geology, SUNY Geneseo, 1 College Circle, Geneseo, NY 14454, KANE, James R., Environmental Science, Berry College, PO Box 463, Mt. Berry, GA 30149, OLIVER, John W., Environmental Science, Berry College, PO Box 463, Mt. Berry, GA 30141, **SHAFFER, Mark D.**, Department Of Geology, Georgia Perimeter College, 1000 University Center Lane, Lawrenceville, GA 30043, mshaffer840@hotmail.com, CHRISTENSEN, Beth A., Department of Geology, Georgia State Univ, PO Box 4105, Atlanta, GA 30302-4105, FREILE, Deborah, Geology, Berry College, 2277 Martha Berry Hwy, Mt. Berry, GA 30149, and MALCHOW, Russell, Geology, Georgia State Univ, Atlanta, GA 30303

*PHYSICAL, PETROGRAPHIC, AND GEOCHEMICAL CHARACTERIZATION OF ASH FLOW VOLCANISM: THE MID-MIOCENE COLD SPRINGS TUFF OF THE SANTA ROSA-CALICO VOLCANIC FIELD, NEVADA:* **KNIGHT, Jacob E.**, BRUESEKE, Matthew E., and HART, William K., Dept. of Geology, Miami Univ, 114 Shideler Hall, Oxford, OH 45056, knightje@muohio.edu

*TRACE SULFATE CONCENTRATIONS AS AN INDICATOR OF DEPOSITIONAL ENVIRONMENT: EXAMINATION OF POSSIBLE CALCITIZED EVAPORITES FROM THE PROTEROZOIC ATAR GROUP, MAURITANIA:* **GOODMAN, E.E.**, Dept of Earth & Planetary Sciences, Univ of Tennessee, Knoxville, TN 37996, egoodman@utk.edu and KAH, L.C., Department of Earth and Planetary Sciences, Univ of Tennessee, Knoxville, TN 37996

*GEOCHEMICAL FLUXES AND WEATHERING ON HIGH STANDING ISLANDS:* **GOLDSMITH, Steven T.**<sup>1</sup>, CAREY, Anne E.<sup>1</sup>, and HICKS, D. Murray<sup>2</sup>, (1) Department of Geological Sciences, The Ohio State Univ, 275 Mendenhall Lab, 125 South Oval Mall, Columbus, OH 43210, goldsmith.35@osu.edu, (2) NIWA, Christchurch, New Zealand

*LOW ANGLE NORMAL FAULTING IN THE FRANKLIN MOUNTAINS OF SOUTHERN NEW MEXICO AND WEST TEXAS:* **CERVERA, Sarah**<sup>1</sup>, ANDRONICOS, Christopher L.<sup>1</sup>, LANGFORD, Richard<sup>2</sup>, and HURTADO, Jose<sup>1</sup>, (1) Department of Geological Sciences, Univ of Texas at El Paso, 500 W University Ave, El Paso, TX 79968,

sncervera@utep.edu, (2) Geological Sciences, Univ of Texas El Paso, El Paso, TX 79968

*USING REMOTE SENSING TO DETERMINE THE ENVIRONMENTAL IMPACT OF VOLCANIC EXTRUSIVE PRODUCTS AT ARENAL VOLCANO AND POAS VOLCANO, COSTA RICA:* **LEIPARD, Diana L.** and HICKEY, James C., Department of Geology/Geography, Northwest Missouri State Univ, 800 University Drive, Maryville, MO 64468, s221247@mail.nwmissouri.edu

*RELATIONSHIP OF A SHEAR-WAVE VELOCITY PROFILE WITH THE PHYSICAL PROPERTIES OF ALLUVIAL SEDIMENT IN THE MISSISSIPPI/ MISSOURI RIVER FLOODPLAIN:* **FELLER, Valerie M.**<sup>1</sup>, GUCCIONE, Margaret J.<sup>2</sup>, ODUM, Jackson K.<sup>3</sup>, STEPHENSON, William J.<sup>4</sup>, WILLIAMS, Robert A.<sup>4</sup>, and SCHEFFER, Aimee<sup>5</sup>, (1) Dept. of Geological Sciences, Indiana Univ, 1001 East 10th Street, Bloomington, IN 47406, vfeller@indiana.edu, (2) Department of Geosciences, Univ of Arkansas, OZAR-113, Fayetteville, AR 72701, (3) U. S. Geol Survey, Box 25046, MS 966, Denver, CO 80225, (4) U.S. Geol Survey, Box 25046, MS 966, Denver, CO 80225, (5) Department of Geosciences, Univ of Arkansas, OZARK -113, Fayetteville, AR 72701

*COMBINED HISTORICAL MAPPING, ACOUSTIC SURVEYING, GPS, AND GIS TO INVESTIGATE SEDIMENTATION IN AN URBAN RESERVOIR:* **GARCIA, Teresa M.**, Department of Geology, Univ of Florida, Gainesville, FL 32601, nanite1@ufl.edu and BOSS, Stephen K., Dept. of Geosciences, Univ of Arkansas, 113 Ozark Hall, Fayetteville, AR 72701

*AN ONLINE STRATIGRAPHIC COLUMN OF KENAI FJORDS NATIONAL PARK, ALASKA:* **GARNER, Kelsey** and JORSTAD, Robert B., Geology/Geography Department, Eastern Illinois Univ, Charleston, IL 61920, kelso983@yahoo.com

*AQUIFER DENITRIFICATION: CORRELATION OF 15N ISOTOPIC ENRICHMENT AND FIRST-ORDER RATE CONSTANTS:* **KLAPPERICH, Ryan J.** and KOROM, Scott F., Geology and Geological Engineering, Univ of North Dakota, P.O. Box 8358, Grand Forks, ND 58202-8358, ryan\_klapperich@und.nodak.edu

*LARAMIDE BASIN OR LARAMIDE UPLIFT? USING SUBSURFACE DATA TO INTERPRET THE HISTORY OF THE ESPAÑOLA BASIN, RIO GRANDE RIFT, NEW MEXICO:* **MYER, Caroline A.** and SMITH, Gary A., Earth and Planetary Sciences, Univ of New Mexico, Albuquerque, NM 87131-0001, CallieJo73@aol.com

*CONSTRAINTS ON THE P-T PATH FOR UPLIFT OF THE UCHEE BELT BASED ON MICROTHERMOMETRY OF FLUID INCLUSIONS IN METAMORPHIC ROCK:* **HOBBS, Benjamin**<sup>1</sup>, CABILES, Liana<sup>1</sup>, BEVILLE, Susan<sup>1</sup>, KAR, Aditya<sup>2</sup>, BURNLEY, Pamela<sup>3</sup>, and HANLEY, Thomas<sup>4</sup>, (1) ACRES Department of Geology, Georgia State Univ,

University Plaza, Atlanta, GA 30303-3083, benjaminhobbs@hotmail.com, (2) Cooperative Developmental Energy Program, Fort Valley State Univ, 1005 State University Drive, Fort Valley, GA 31030, (3) Department of Geology, Georgia State Univ, Atlanta, GA 30303, (4) Chemistry and Geology, Columbus State Univ, 4225 University Avenue, Columbus, GA 31907-5645

*A STUDY OF THE ORIGIN OF RHYOLITE AT MID-OCEAN RIDGES: GEOCHRONOLOGY AND PETROLOGY OF TRACHYDACITE AND RHYOLITE FROM SALTON SEA, CALIFORNIA, AND TORFAJÖKULL, ICELAND: **BROWN, Kenneth L.**<sup>1</sup>, CARTER, Christy A.<sup>1</sup>, FOHEY, Nicole K.<sup>1</sup>, WOODEN, Joseph L.<sup>2</sup>, YI, Keewook<sup>3</sup>, and BARTH, Andrew P.<sup>4</sup>, (1) Department of Geology, Indiana Univ~Purdue Univ, Indianapolis, Indianapolis, IN 46202, kenlbrow@indiana.edu, (2) U. S. Geol Survey, 345 Middlefield Road, MS977, Menlo Park, CA 94025, (3) Oral Health Research Institute, Indiana Univ, 415 Lansing St, Indianapolis, IN 46202, (4) Dept of Geology, Indiana Univ-Purdue Univ, Indianapolis, IN 46202*

*GEOCHEMICAL AND PETROGRAPHIC COMPARISON OF AMPHIBOLITE AND ASSOCIATED GNEISS FROM THE PHENIX CITY GNEISS IN THE UCHEE BELT OF WESTERN GEORGIA: **SCANLAN, Mary**<sup>1</sup>, JAMES, Russell<sup>1</sup>, BRATTON, Gregory<sup>1</sup>, KAR, Aditya<sup>2</sup>, HANLEY, Thomas<sup>3</sup>, BURNLEY, Pamela<sup>4</sup>, MALCHOW, Russell<sup>4</sup>, and LATOUR, Timothy<sup>4</sup>, (1) ACRES, Department of Geology, Georgia State Univ, Atlanta, GA 30303-3083, mkscanla@indiana.edu, (2) Cooperative Developmental Energy Program, Fort Valley State Univ, 1005 State University Drive, Fort Valley, GA 31030, (3) Chemistry and Geology, Columbus State Univ, 4225 University Avenue, Columbus, GA 31907-5645, (4) Department of Geology, Georgia State Univ, Atlanta, GA 30303*

*LATE QUATERNARY EOLIAN SAND STRINGERS OF NORTHEAST IOWA: **KOCH, Jesse**, Geography/Earth Science, Univ of Northern Iowa, Cedar Falls, IA 50614, jkoch@uni.edu and WALTERS, James C., Department of Earth Sciences, University of Northern Iowa, Cedar Falls, IA 50614*

*LITHOSTRATIGRAPHY AND BIOSTRATIGRAPHY OF THE ELY LIMESTONE, ILLIPAH SECTION, NORTHEASTERN NEVADA: **HARRIS, Daniel**, DOMEIER, Matthew, QUINN, Thomas, and SCHIAPPA, Tamra A., Department of Geography, Geology and the Environment, Slippery Rock Univ, Slippery Rock, PA 16057, dxhar07@sru.edu*

*ORIGIN AND EVOLUTION OF LAKE AINSWORTH, NORTHEASTERN NEW SOUTH WALES, AUSTRALIA: COASTAL FLUCTUATIONS IN THE SOUTHERN HEMISPHERE: **GOSTOMSKI, Kevin R.**, Geology, Univ of Wisconsin - Eau Claire, 105 Garfield Avenue, Eau Claire, WI 54702-4004, gostomkr@uwec.edu and ABBOTT, Steve, Environmental Science and Management, Southern Cross Univ, P.O. Box 157, Lismore, 2480, Australia*

*CORRELATION OF UPPER THREE RUNS AQUIFER TO THE EOCENE*

*SANDERSVILLE LIMESTONE, COASTAL PLAIN GEORGIA: WORTMAN, Santina R.*<sup>1</sup>, STEPHENS, Elizabeth<sup>2</sup>, LAWRIE, Kristina<sup>3</sup>, BURGER, Eric<sup>4</sup>, GULLETT-YOUNG, Cheryl<sup>2</sup>, FOOTE, James<sup>2</sup>, ANDERSON, John R.<sup>5</sup>, and ELLIOTT, W. Crawford<sup>6</sup>, (1) Earth and Environmental Sciences, Univ of Illinois - Chicago, Chicago, IL 60614, santina\_1@yahoo.com, (2) Department of Geology, Georgia State Univ, Atlanta, GA 30303, (3) Department of Geology, Univ of Georgia, Athens, GA 30602, (4) Department of Geography, State Univ of West Georgia, Carrollton, GA 30118, (5) Science, Georgia Perimeter College, 2101 Womack Road, Dunwoody, GA 30338, (6) Georgia State Univ, Geology Department, University Plaza, Atlanta, GA 30303-3083

*THE CANTON DAM PROJECT: AN INVESTIGATION OF CHANGES IN THE NORTH CANADIAN RIVER IN DEWEY AND BLAINE COUNTIES, OKLAHOMA, 1941-2004: HILLS, Amanda Lynn*, Oklahoma State Univ, 105 Noble Research Center, Stillwater, OK 74078, ahills07@yahoo.com.

*HYDRAULIC EVIDENCE OF FRACTURE FLOW IN A CARBONATE AQUIFER, SOUTH MIDDLETON TOWNSHIP, PENNSYLVANIA: ENDERLIN, Peter Andreas*, HELMKE, Martin, and NIEMITZ, Jeff, Geology, Dickinson College, Carlisle, PA 17013, enderlip@dickinson.edu

*THE EFFECT RAINFALL HAS ON THE WATER QUALITY OF THE LITTLE TALLAPOOSA RIVER AND A HEAVILY IMPACTED TRIBUTARY: PRINCE, R. Josh*, PRESNAL, Anita D., and HOLLABAUGH, Curtis L., Geosciences, State Univ of West Georgia, Carrollton, GA 30118, chollaba@westga.edu

*A COMPARISON OF EXTRACTION METHODS THAT EVALUATE MOBILE AND BIOAVAILABLE TRACE METALS IN RIVER SEDIMENTS: BETRUS, Rachel*, MADAMA, Janine M., and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, rbet0201@brockport.edu

*GEOCHEMICAL EVIDENCE FOR DOLOMITIZATION ALONG THE CLARENDON LINDEN FAULT IN WESTERN NEW YORK: CANNON, David L.* and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, dcan0206@brockport.edu

*APPLICATION OF A RAPID EXTRACTION METHOD FOR THE DETERMINATION OF EXCHANGEABLE CATIONS IN VARIOUS SOIL ORDERS: RADUNS, Nathan* and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, nrrpolaris@yahoo.com

*INFLUENCE OF SOLUTION COMPOSITION ON PHOSPHATE SORPTION ON*

*GYPSUM*: **SCHUTT, Carolyn** and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, csch0810@brockport.edu

*GEOCHEMICAL ANALYSIS OF META-IGNEOUS ROCKS, OAXACA MEXICO: TECTONIC IMPLICATIONS*: **BRYAN, Kelly**, Geology and Environmental Science, Hartwick College, Miller Hall, Oneonta, NY 13820, BryanK@hartwick.edu and VALDER, Josh, Geology, Hartwick College, Oneonta, NY 13820

*GEOCHEMICAL AND MINERALOGICAL CHARACTERIZATION OF SUBDIVISIONS WITHIN THE SHARON SPRINGS MEMBER, PIERRE SHALE (CAMPANIAN, CRETACEOUS)*: BERTOG, Janet L., Department of Physics and Geology, Northern Kentucky Univ, SC 204, Nunn Dr, Highland Heights, KY 41099, bertogj@nku.edu and **OTTO, Benjamin**, Department of Physics and Geology, Northern Kentucky Univ, SC204, Nunn Dr, Highland Heights, KY 41099, ottob@nku.edu

*ENGINEERING PROPERTIES OF MIMA MOUND SOILS FROM TURNBULL NATIONAL WILDLIFE REFUGE, EASTERN WASHINGTON*: **VOILE, Toni** and ORNDORFF, Richard L., Department of Geology, Eastern Washington Univ, 130 Science Hall, Cheney, WA 99004-2439, tvoile@hotmail.com

*ATTENUATION OF A HYDROCARBON CONTAMINANT PLUME ON THE CUMBERLAND PLATEAU OF TENNESSEE*: **STEINHAUER, Elspeth S.** and KNOLL, Martin A., Department of Forestry and Geology, Univ of the South, Sewanee, TN 37383, steines0@sewanee.edu

*COMPARISON OF STABLE CARBON ISOTOPE SIGNATURES IN CHANNEL SEDIMENT VERSUS UPLAND SOILS OF THE UPPER MISSISSIPPI AND MISSOURI RIVER DRAINAGE BASINS*: **PARTIN, Camille**, Geology, St. Lawrence Univ, 1704 CMR, Canton, NY 13617, capart02@stlawu.edu, GUCCIONE, Margaret J., Department of Geosciences, Univ of Arkansas, OZAR-113, Fayetteville, AR 72701, and HAYS, Phillip D., Department of Geosciences, US Geol Survey, OZAR-113, Universtiy of Arkansas, Fayetteville, AR 72701

*RELATIVE UNCERTAINTY OF U.S. GEOLOGICAL SURVEY PETROLEUM ASSESSMENTS IN GULF COAST REGION: 1995-2004*: **SAUPE, Erin E.**<sup>1</sup>, DAVIS, Larry E.<sup>1</sup>, and DYMAN, Thaddeus S.<sup>2</sup>, (1) Geology, College of St. Benedict/ St. John's Univ, Collegeville, MN 56321, eesaup@csbsju.edu, (2) U.S. Geological Survey, Denver, CO 80225

*A PETROGRAPHIC AND GEOCHEMICAL STUDY OF THE MOUNT SPOKANE PLUTON AND ASSOCIATED DIKE ROCKS AT DART HILL, SPOKANE COUNTY,*

*WASHINGTON:* **ERNST, Shawna L.** and THOMSON, Jennifer A., Department of Geology, Eastern Washington Univ, 130 Science Building, Cheney, WA 99004-2439, sl\_ernst@yahoo.com