

The Compass: Earth Science Journal of Sigma Gamma Epsilon

Volume 86 | Issue 1

Article 2

10-21-2014

Sigma Gamma Epsilon Undergraduate Research

Larry E. Davis

College of Saint Benedict/Saint John's University, ldavis@csbsju.edu

Follow this and additional works at: <https://digitalcommons.csbsju.edu/compass>



Part of the [Earth Sciences Commons](#)

Recommended Citation

Davis, Larry E. (2014) "Sigma Gamma Epsilon Undergraduate Research," *The Compass: Earth Science Journal of Sigma Gamma Epsilon*: Vol. 86: Iss. 1, Article 2.

DOI: <https://doi.org/10.62879/c30102497>

Available at: <https://digitalcommons.csbsju.edu/compass/vol86/iss1/2>

This Article is brought to you for free and open access by the Journals at DigitalCommons@CSB/SJU. It has been accepted for inclusion in The Compass: Earth Science Journal of Sigma Gamma Epsilon by an authorized editor of DigitalCommons@CSB/SJU. For more information, please contact digitalcommons@csbsju.edu.



SIGMA GAMMA EPSILON UNDERGRADUATE RESEARCH

Fifty-two abstracts of student-authored research have been accepted for presentation in the Sigma Gamma Epsilon Undergraduate Research poster session at the Geological Society of America annual meeting in Vancouver, British Columbia, Canada. The poster session will be held on Tuesday, 21 October 2014, 9:00 AM to 6:30 PM, in the Vancouver Convention Centre-West Exhibition Hall C. Authors will be present from 9:00 to 11:00 AM, and 5:00 to 6:30 PM.

SEDIMENT CONTAMINANT DISTRIBUTION AND CHEMICAL BEHAVIOR FROM THE TRI-STATE LEAD AND ZINC MINING DISTRICT

NORTH, Breanna, Earth Science Department, University of Arkansas at Little Rock, 2801 S. University Ave, Little Rock, AR 72204, benorth@ualr.edu, **RUHL, Laura**, Earth Science, University of Arkansas at Little Rock, 2801 S. University Ave, 307 Fribourgh Hall, Little Rock, AR 72204-1000, and **POTRA, Adriana**, Geosciences, University of Arkansas, 1 Ozark Hall, Fayetteville, AR 72701

NUTRIENT DYNAMICS IN A STORMWATER MANAGEMENT COMPLEX AT GRAND VALLEY STATE UNIVERSITY, ALLENDALE, MICHIGAN

BRADY, Ashley, Geology, Grand Valley State University, 1 Campus Drive, Padnos 118, Allendale, MI 49401, bradyash@mail.gvsu.edu, **KNEESHAW, Tara**, Geology Department, Grand Valley State University, Allendale, MI 49401, and **WAMPLER, Peter J.**, Geology Department, Grand Valley State University, 1 Campus Drive, Allendale, MI 49401

DYNAMICS OF DESTABILIZATION: PUMICEOUS EVIDENCE OF REHEATED, REMELTED, AND REMOBILIZED CUMULATE FROM THE BASE OF A SUPERVOLCANO MAGMA CHAMBER

FOLEY, Michelle L., Geography & Geology, Western Kentucky University, Bowling Green, KY 42101, michelle.foley229@topper.wku.edu, **MILLER, C.F.**, Department of Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, **WULFF, Andrew H.**, Geography and Geology, Western Kentucky University, 1906 College Heights Blvd. #31066, Bowling Green, KY 42101-1066, **MCDOWELL, Susanne M.**, Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, and **COVEY, Aaron K.**, Dept. of Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235

DENDROGEOMORPHIC EVIDENCE OF FREQUENT MASS WASTING FROM REACTION WOOD IN BLACK SPRUCE, NORTHWAY JCT., ALASKAN INTERIOR

HEINRICH, Catherine, Geology, St. Lawrence University, 23 Romoda Dr, Canton, NY 13617, cehein11@stlawu.edu, **STEWART, Alexander K.**, Department of Geology, St. Lawrence University, Canton, NY 13617, and **HUBBARD, Trent D.**, Alaska Division of Geological & Geophysical Surveys, 3354 College Road, Fairbanks, AK 99709

VOLUMINOUS INTERMEDIATE, EFFUSIVE MAGMATISM IN THE BLACK MOUNTAINS, AZ, PRECEDING THE PEACH SPRING SUPERERUPTION, AND EVALUATION OF ITS POTENTIAL RELATIONSHIP TO THE SUPERVOLCANO MAGMA CHAMBER

RICE, Stacey A., Geosciences, Stony Brook University, Stony Brook, NY 11794, stacey.rice@stonybrook.edu, **CLAIBORNE, Lily L.**, Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, **RENTZ, Shannon P.**, Geosciences, Middle Tennessee State University, Murfreesboro, TN 37132, and **CRIBB, J. Warner**, Geosciences, Middle Tennessee State Univ, PO Box 9, Murfreesboro, TN 37132

POROSITY ANALYSIS OF DEFORMATION BANDS IN SANDSTONES AND CONGLOMERATES FROM HILLSDALE CANYON, SOUTHERN UTAH

SKANKEY, Robert, Physical Science, Southern Utah University, 364 North 4250 West, Cedar City, UT 84720, robertcskankey@gmail.com and **MACLEAN, John S.**, Geology, Southern Utah University, SC 309, 351 West University Boulevard, Cedar City, UT 84720

SPATIAL AND TEMPORAL DISTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHS) WITHIN SEDIMENT AND FISH TISSUE OF THE LOWER CHESAPEAKE BAY BASIN, USA

COLEMAN, Katherine L.¹, **ODHIAMBO, Ben K.**¹, **SHARPLESS, Charles M.**², **COXON, Taylor M.**¹, **WIELAND, Werner**³, and **BUNCH, Aaron J.**⁴, (1) Earth and Environmental Sciences, University of Mary Washington, 1301 College Avenue, Fredericksburg, VA 22401, kcolema2@mail.umw.edu, (2) Department of Chemistry, University of Mary Washington, 1301 College Ave, Jepson Science Center, Fredericksburg, VA 22401, (3) Department of Biological Sciences, University of Mary Washington, 1301 College Avenue, Fredericksburg, VA 22401, (4) Virginia Department of Game and Inland Fisheries, 3801 John Tyler Memorial Highway, Charles City, VA 23030

A NOVEL METHOD FOR DETECTING PHARMACEUTICALS IN SURFACE WATERS, CENTRAL ARKANSAS, USA

JOHNSON, Morgan E.¹, **MCMILLAN, Margaret E.**¹, **WOODLING, Kellie**², and **GAMBOA DA COSTA, Goncalo**², (1) Department of Earth Sciences, University of Arkansas at Little Rock, 2801 S. University Avenue, Little Rock, AR 72204, mejohnson1@ualr.edu, (2) Division of Biochemical Toxicology, National Center for Toxicological Research, 3900 NCTR Road, Jefferson, AR 72079

INVESTIGATION OF A PRE-SUPERERUPTION IGNIMBRITE: PETROLOGY OF THE MIOCENE COOK CANYON TUFF, BLACK MOUNTAINS, ARIZONA

PRATT, Ricky Daniel¹, CLAIBORNE, Lily L.², MILLER, Calvin F.², FERGUSON, Charles A.³, CRIBB, J. Warner⁴, and SZRAMEK, Lindsay A.¹, (1) Geosciences, Austin Peay State University, Clarksville, TN 37042, rpratt3@my.apsu.edu, (2) Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, (3) Arizona Geological Survey, 416 West Congress, Suite 100, Tucson, AZ 85719, (4) Geosciences, Middle Tennessee State Univ, Murfreesboro, TN 37132

TROPICAL SHALLOW-MARINE CARBONATE- SILICICLASTIC DEPOSITIONAL ENVIRONMENT OF THE LITTLE LAUGHLANDS BAY, JAMAICA

MILLER, John D., Geology Department, St. Lawrence University, 23 Romoda Dr, Canton, NY 13617, jdmill12@stlawu.edu, HUSINEC, Antun, Geology Department, St. Lawrence University, 23 Romoda Drive, Canton, NY 13617, and MURPHY, John T. Jr, PetroTechnical Services, Schlumberger, 5080 California Ave, Suite 400, Bakersfield, CA 93309

REMOTE SENSING CHARACTERIZATION OF A MAJOR PRE-SUPERERUPTION EFFUSIVE UNIT IN THE BLACK MOUNTAINS OF NORTHWEST ARIZONA

MCGUINNESS, Sarah A., Geography, Geology, and the Environment, Slippery Rock University, Slippery Rock, PA 16057, sam1272@sru.edu, LANG, N.P., Department of Geology, Mercyhurst University, Erie, PA 16546, RICE, Stacey A., Geosciences, Stony Brook University, 38 Lenox Street, Lindenhurst, NY 11757, RENTZ, Shannon P., Geosciences, Middle Tennessee State University, Murfreesboro, TN 37132, MILLER, Calvin F., Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, and MCDOWELL, Susanne M., Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235-1805

ANALYSIS OF PHOSPHATE IN RIPARIAN SEDIMENT PORE-WATERS: DOES PHOSPHATE SEQUESTERED IN THE STREAM BED CONTRIBUTE TO THE PHOSPHATE LOAD OF THE KALAMAZOO RIVER?

HARVEY, Kayleigh M., HAVENS, Kaitlyn Pospiech, and LINCOLN, Timothy N., Department of Geological Sciences, Albion College, 611 E Porter St, Albion, MI 49224, kmh12@albion.edu

REPORT OF AN ONGOING INVESTIGATION INTO THE DEVELOPMENT OF DISSOLUTION VOIDS IN PETROCALCIC MATERIALS AT MORMON MESA, NEVADA

MORGENTHALER, Sarah E., Physics, Geology and Astronomy, University of Tennessee at Chattanooga, 615 McCallie Ave. MS 6556, Chattanooga, TN 37403, xpj869@mocs.utc.edu and BROCK-HON, Amy L., Department of Physics, Geology and Astronomy, University of Tennessee at Chattanooga, 615 McCallie Avenue, Chattanooga, TN 37403

PRIMING FOR SUPERERUPTION: THE HOT PRE-PEACH SPRING TUFF LAVA FLOWS AND PEACH SPRING TUFF MAFIC ENCLAVES, BLACK MOUNTAINS, ARIZONA

FLANSBURG, Megan, Department of Geology, College of William & Mary, Williamsburg, VA 23185, meflansburg@email.wm.edu, MILLER, Calvin, Earth and Environmental Sciences, Vanderbilt University, VU Station B #351805, 2301 Vanderbilt Place, Nashville, TN 37235,

MCDOWELL, Susanne M., Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, CRIBB, J. Warner, Geosciences, Middle Tennessee State Univ, Murfreesboro, TN 37132, and BAILEY, Christopher M., Department of Geology, College of William & Mary, P.O. Box 8795, Williamsburg, VA 23187-8795

REMOTELY-SENSED DISTRIBUTION OF THE MIOCENE-AGED PEACH SPRING TUFF SUPERERUPTION DEPOSIT IN THE SOUTHERN BLACK MOUNTAINS OF NW AZ

GIBSON, Brandt M., Department of Agriculture, Geosciences, and Natural Sciences, University of Tennessee at Martin, 256 Brehm Hall, Martin, TN 38238, bgibson@utm.edu, LANG, N.P., Department of Geology, Mercyhurst University, Erie, PA 16546, MILLER, Calvin F., Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, FOLEY, Michelle L., Geography & Geology, Western Kentucky University, Bowling Green, KY 42101, and HOOKS, Benjamin P., Department of Agriculture, Geosciences, and Natural Resources, The University of Tennessee at Martin, 256 Brehm Hall, Martin, TN 38238

THERMOCHRONOLOGY OF THE MCCLURE MOUNTAIN SYENITE: CHARACTERIZATION OF NEW HE THERMOCHRONOMETERS AND CONSTRAINTS ON THE COOLING HISTORY OF THE WET MOUNTAINS, COLORADO

WEISBERG, Wesley R.¹, METCALF, James R.², and FLOWERS, Rebecca M.², (1) Geography, Geology, and Planning Department, Missouri State University, 901 S. National Ave, Springfield, MO 65897, wes4891@live.missouristate.edu, (2) Department of Geological Sciences, University of Colorado, Campus Box 399, 2200 Colorado Ave, Boulder, CO 80309

FRACTURE ORIENTATION AND STRUCTURAL ANALYSIS OF THE CHAUMONT LIMESTONE

POPE, Gina G., Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, gpope1@brockport.edu and RICHARDS, Paul L., Dept. of Earth Sciences, The College at Brockport, 350 Newcampus Lane, Brockport, NY 14420

IMPLICATIONS OF ERUPTIVE, EROSIVE, AND DEPOSITIONAL PROCESSES PRIOR TO A SUPER ERUPTION IN THE SOUTHERN BLACK MOUNTAINS

LEE, Jacob W., Earth and Environmental Sciences, University of Kentucky, Lexington, KY 40506, jacob.w.lee2@uky.edu, WILLIAMS, Scott H., Geology, Occidental College, 1600 Campus Rd. Box 2182, Los Angeles, CA 90041, FLANSBURG, Megan, Department of Geology, College of William & Mary, Williamsburg, VA 23185, BECKENS, Holland, Department of Geology, University of Vermont, Burlington, VT 05405, MILLER, Calvin F., Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235, LANG, N.P., Department of Geology, Mercyhurst University, Erie, PA 16546, and CRIBB, J. Warner, Geosciences, Middle Tennessee State Univ, PO Box 9, Murfreesboro, TN 37132

TECTONIC SIGNIFICANCE OF MYLONITES IN THE LITTLE BUCKSKIN MOUNTAINS, WEST-CENTRAL ARIZONA: INSIGHTS FROM QUARTZ MICROSTRUCTURAL DATA

GROSS, Caroline E., Atmospheric, Oceanic, and Earth Sciences, George Mason University, 4400 University Drive, Fairfax, VA 22030, chenrygr@gmu.edu, **SINGLETON, John**, Atmospheric, Oceanic, and Earth Sciences, George Mason University, 4400 University Drive, Mail Stop 5F2, Fairfax, VA 22030, and **WONG, Martin S.**, Department of Geology, Colgate University, Hamilton, NY 13346

USING SCANNING ELECTRON MICROSCOPY TO CATALOG MINERALS FROM THE TRANS-PECOS MAGMATIC PROVINCE

GRAVES, Shawna Marie, Sul Ross State University, East Highway 90, Alpine, TX 79832, sgra6282@sulross.edu and **URBANCZYK, Kevin M.**, Department of Biological, Geological and Physical Sciences, Sul Ross State Univ, Box C-139, Alpine, TX 79832

FACIES STACKING PATTERN WITHIN THE ORDOVICIAN RED RIVER FORMATION, WILLISTON BASIN: A CASE STUDY FROM EASTERN NORTH DAKOTA

HUSINEC, Antun and **BARNS, Joseph P.**, Geology Department, St. Lawrence University, 23 Romoda Drive, Canton, NY 13617, jpbarn11@stlawu.edu

COMPARISON OF TWO SUSPENDED SEDIMENT ANALYSIS METHODS

COLAIANNE, Nicholas J.¹, **BARRETTE, Andrew J.**¹, **WAMPLER, Peter J.**², and **KNEESHAW, Tara**³, (1) Geology, Grand Valley State University, 1 Campus Dr, Padnos 118, Allendale, MI 49401, colaiann@mail.gvsu.edu, (2) Geology Department, Grand Valley State University, 1 Campus Drive, Allendale, MI 49401, (3) Geology Department, Grand Valley State University, Allendale, MI 49401

WATER CHEMISTRY OF A HEMLOCK FOREST IN THE ROBERT V. RIDDELL STATE PARK, NY

REDDER, Brian W.¹, **BALNIS, Joseph M.**¹, and **BALOGH-BRUNSTAD, Zsuzsanna**², (1) Department of Chemistry, Hartwick College, 1 Hartwick Drive, Oneonta, NY 13820, redderb@hartwick.edu, (2) Department of Geology and Environmental Sciences, Hartwick College, Oneonta, NY 13820

UNDERSTANDING PRE-SUPERERUPTION MAGMATIC PROCESSES: MULTIPLE VARIETIES OF ENCLAVES IN PRE-PEACH SPRING TUFF TRACHYTE LAVAS

RENTZ, Shannon P.¹, **RICE, Stacey A.**², **CRIBB, J. Warner**¹, **CLAIBORNE, Lily L.**³, and **MILLER, Calvin F.**³, (1) Geosciences, Middle Tennessee State University, Murfreesboro, TN 37132, shannoneporter@hotmail.com, (2) Geosciences, Stony Brook University, 38 Lenox Street, Lindenhurst, NY 11757, (3) Earth and Environmental Sciences, Vanderbilt University, Nashville, TN 37235

PARTICLE IMAGE/TRACKING VELOCIMETRY AS AN EFFECTIVE, LOW-COST SOLUTION FOR THE STUDY OF SMALL-SCALE HYDRODYNAMIC PROCESSES IN GEOLOGY

NGUYEN, Thu A., Geology and Geophysics, Texas A&M University at College Station, College Station, TX 77840, thu4nguyen_1412@yahoo.com, **GONG, Jian**, Dept. of Geology &

Geophysics, Texas A&M University, College Station, TX 77843, and OLSEN, Kyle Anthony, Geology and Geophysics, Texas A&M University, College Station, TX 77840

UNDERSTANDING THE ROLE OF STRIKE-SLIP FAULTING AS OCEANS CLOSE, NORTH CENTRAL TURKEY

PETTIT, Bridget S., Geological Sciences, The University of Texas at Austin, 7 Las Flores, Aliso Viejo, CA 92656, bridgetpettit@utexas.edu, **CATLOS, Elizabeth J.**, Geological Sciences, University of Texas at Austin, Jackson School of Geosciences, Austin, TX 78712, and **ELLIOTT, Brent**, The Bureau of Economic Geology, The University of Texas at Austin, University Station Box X, Austin, TX 78713

FOSSIL CORAL FROM THE MISSISSIPPIAN REDWALL LIMESTONE IN THE BEAVER DAM MOUNTAINS, WASHINGTON COUNTY, UTAH

MCLEMORE, Devin M., Physical Science, Southern Utah University, 351 W. University Blvd, Cedar City, UT 84720, mclemoredev@gmail.com and **HARGRAVE, Jennifer E.**, Physical Science, Southern Utah University, Cedar City, UT 84720

NEW U-PB ZIRCON AGES FROM PLUTONS OF THE MT. WADDINGTON REGION, SOUTHERN COAST MOUNTAINS BATHOLITH, BRITISH COLUMBIA

CHISOM, Charles¹, **CECIL, M. Robinson**², **RUSMORE, Margaret E.**¹, and **WOODSWORTH, Glenn J.**³, (1) Geology, Occidental College, Los Angeles, CA 90041, chisom@oxy.edu, (2) Department of Geological Sciences, California State University Northridge, 18111 Nordhoff St, Northridge, CA 91130-8266, (3) Geol Survey of Canada, 101-605 Robson St, Vancouver, BC V6B 5J3

DESCRIPTION OF A GARNET-BEARING GRANOFELS FOUND AT WEST CHICAGO CREEK, COLORADO

LUPO, Nicholas S., Department of Geological Sciences, SUNY Geneseo, 1 College Circle, Geneseo, NY 11454, nsl2@geneseo.edu and **FARTHING, Dori J.**, Geological Sciences, SUNY-Geneseo, Geneseo, NY 11454

PATHWAYS OF NITRATE INTO THE KALAMAZOO RIVER: A PHYSICAL, CHEMICAL AND MICROBIOLOGICAL STUDY

HEERSPINK, Brent P., Department of Geological Sciences, Albion College, 611 E Porter, Albion, MI 49224, BPH11@albion.edu and **LINCOLN, Timothy N.**, Department of Geological Sciences, Albion College, 611 E Porter St, Albion, MI 49224

CARBONATE $\delta^{13}\text{C}$ AND PRELIMINARY CONODONT $\delta^{18}\text{O}$ FROM THE UPPER STONES RIVER FORMATION AND LOWER NASHVILLE FORMATION (LATE ORDOVICIAN) NEAR GADSDEN, AL

LAW, Stacey E., Department of Geology and Environmental Science, James Madison University, Harrisonburg, VA 22807, lawse@dukes.jmu.edu, **QUINTON, Page C.**, Department of Geological Sciences, The University of Missouri-Columbia, University of Missouri, 101 Geology Building, Columbia, MO 65211, **LESLIE, Stephen A.**, Geology and Environmental Sciences, James Madison University, MSC 6903, Harrisonburg, VA 22807, **MACLEOD,**

Kenneth G., Department of Geological Sciences, University of Missouri-Columbia, Columbia, MO 65211, and HERRMANN, Achim D., Geology & Geophysics, Louisiana State University, Baton Rouge, LA 70803

A TEXTURAL AND GEOCHEMICAL ANALYSIS OF GOAT ROCK DOME XENOLITHS

BERTOLETT, Elisabeth M., Geosciences, Denison University, Granville, OH 43023, bertol_e1@denison.edu, **DEERING, Chad D.**, Geological and Mining Engineering and Sciences, Michigan Technological University, Houghton, MI 49931-1295, **PRIOR, David J.**, Geology, University of Otago, Dunedin, 9054, New Zealand, and **GRAVLEY, Darren M.**, Geological Sciences, University of Canterbury, Christchurch, 8140, New Zealand

SYNEXTENSIONAL SEDIMENTATION IN THE HANGING WALL OF THE BUCKSKIN DETACHMENT FAULT, WEST-CENTRAL ARIZONA: EVIDENCE FOR ACCELERATED EXTENSION RATES IN THE MIDDLE MIOCENE?

HATFIELD, Marques E.¹, **SINGLETON, John**², **BIRD, Emily**², and **PRIOR, Michael G.**³, (1) George Mason University, 10483 Malone Court, Fairfax, VA 22032, marques.hatfield@gmail.com, (2) Atmospheric, Oceanic, and Earth Sciences, George Mason University, 4400 University Drive, Mail Stop 5F2, Fairfax, VA 22030, (3) Jackson School of Geosciences, University of Texas at Austin, Jackson School of Geosciences1 University Station C9000, Austin, TX 78712-0254

A COMPARISON OF TWO COMMON CONTINUOUS FLOW IRMS APPROACHES ON THE ISOPRIME MULTIFLOW AND THE ISOPRIME PYROCUBE FOR $\delta^{13}C$ USING LATE ORDOVICIAN CARBONATES FROM SWEDEN

EUKER, Brandon C.¹, **LAW, Stacey E.**¹, **MEIERDIERCKS, Kathleen Anne**¹, **BAEDKE, Steve J.**², **LESLIE, Stephen A.**³, and **HERRMANN, Achim D.**⁴, (1) Department of Geology and Environmental Science, James Madison University, Harrisonburg, VA 22807, eukerbc@dukes.jmu.edu, (2) Department of Geology and Environmental Science, James Madison University, MSC 6903, Harrisonburg, VA 22807, (3) Geology and Environmental Sciences, James Madison University, MSC 6903, Harrisonburg, VA 22807, (4) Geology & Geophysics, Louisiana State University, Baton Rouge, LA 70803

SEASONAL CHLORIDE BEHAVIOR IN THE GREAT MIAMI RIVER, OHIO

STARR, Lindsay, Geology, Wittenberg University, PO Box 125, Springfield, OH 45501, s14.lstarr@exchange.wittenberg.edu and **FORTNER, Sarah K.**, Department of Geology, Wittenberg University, Springfield, OH 45501

A SCHEME FOR EVALUATING THE IMPACT OF DEVELOPMENT ON THE GEOMORPHIC AND ECOLOGIC PROCESSES OF LAKE MICHIGAN'S COASTAL DUNES

PLOWMAN, Jacquelyn K.¹, **DEVRIES-ZIMMERMAN, Suzanne J.**¹, **DAVIS, Charles F. III**², and **HANSEN, Edward C.**¹, (1) Geological and Environmental Sciences Department, Hope College, 35 E. 12th Street, Holland, MI 49423, jackie.plowman@hope.edu, (2) Davis Associates Architects & Consultants, Inc, 53 West Jackson Boulevard, Chicago, IL 60604

THE HARPETH RIVER FAULT ZONE, CENTRAL TENNESSEE

YOUNG, Shaunna D., Earth Science Education, Radford University, 2421 3rd St, Radford, VA 24141, syoung22@radford.edu, **CAMACHO, Joe**, National Park Service, 427 Palm Place, Pomona, CA 91767, and **ABOLINS, Mark**, Department of Geosciences, Middle Tennessee State University, Box 9, Murfreesboro, TN 37132

REVEALING THE HIDDEN PAST OF LEGACY SEDIMENTS FROM MIDDLE CREEK LAKE, SELINGROVE, PA

SEAMAN, Kyle A., **ELICK, Jennifer M.**, and **HOLT, Jack R.**, Earth and Environmental Sciences, Susquehanna University, 514 University Avenue, Natural Sciences Center 111C, Selingsrove, PA 17870, seaman@susqu.edu

PHYSIOLOGICAL AND ISOTOPIC RESPONSES OF THE CORAL STYLOPHORA PISTILLATA TO FUTURE COASTAL OCEAN CONDITIONS

SAUP, Casey, School of Earth Sciences, The Ohio State University, 2915 Honeysuckle Lane, Hilliard, OH 43026, saup.4@osu.edu, **GROTTOLI, Andréa**, School of Earth Sciences, The Ohio State University, 125 South Oval Mall, Columbus, OH 43210, **FERRIER-PAGÈS, Christine**, Centre Scientifique de Monaco, 8 Quai Antoine Ier, Mc, 98000, Monaco, and **MATSUI, Yohei**, School of Earth Sciences, The Ohio State University, 275 Mendenhall Laboratory, 125 South Oval Mall, Columbus, OH 43210

SOIL LEAD DISTRIBUTION AT A TWO SITES: IMPLICATIONS FOR LEAD SOIL OUTREACH IN THE PROMISE NEIGHBORHOOD, SPRINGFIELD, OH

WILSON, Elizabeth L.¹, **BRESLIN, Kyle D.**¹, **MARVELLE, Keith A.**¹, **THACKER, Tyler N.**¹, **FORTNER, Sarah K.**¹, and **RITTER, John B.**², (1) Environmental Science, Wittenberg University, Springfield, OH 45501, s14.ewilson@wittenberg.edu, (2) Geology, Wittenberg University, P.O. Box 720, Springfield, OH 45501

MIOCENE STRUCTURAL EVOLUTION OF THE BUCKSKIN DETACHMENT FAULT ZONE, WEST-CENTRAL ARIZONA: INSIGHTS FROM GEOLOGIC MAPPING IN THE SOUTHERN LINCOLN RANCH BASIN

BIRD, Emily¹, **SINGLETON, John**¹, and **HATFIELD, Marques E.**², (1) Atmospheric, Oceanic, and Earth Sciences, George Mason University, 4400 University Drive, Mail Stop 5F2, Fairfax, VA 22030, ejenkin4@gmu.edu, (2) Atmospheric, Oceanic, and Earth Sciences, George Mason University, 4400 University Dr, Fairfax, VA 22030

MINERALOGY OF THE LUNA VISTA SILL, BREWSTER COUNTRY, TEXAS

CAYLOR, Sofia, Biological, Geological and Physical Sciences, Sul Ross State Universtiy, Box C-139, SRSU, Alpine, TX 79830, sofia.caylor@gmail.com and **URBANCZYK, Kevin M.**, Department of Biological, Geological and Physical Sciences, Sul Ross State Univ, Box C-139, Alpine, TX 79832

POTENTIAL INFLUENCE OF CLIMATE ON FLOOD RECURRENCE IN THE WINOOSKI RIVER WATERSHED, VERMONT

BARNEY, Grant and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, gbarn1@brockport.edu

INFLUENCE OF PRECIPITATION PATTERNS ON SURFACE WATER AND GROUNDWATER IN THE SANDY CREEK WATERSHED, NEW YORK

FRANCIS, Skylar J. and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, sfran5@u.brockport.edu

EVIDENCE FROM JOINT SETS AND SHEAR ZONES IN EASTERN NEW YORK FOR TWO OROGENIC EVENTS AND THE WESTWARD DISPLACEMENT OF THE CATSKILL MOUNTAINS ALONG A DECOLLEMENT

LUBICICH, Emily J., CRADDOCK, Tristan, WERKHOVEN, Andres R., and VOLLMER, Frederick W., Geology Department, SUNY New Paltz, 1 Hawk Drive, New Paltz, NY 12561, e.lubicich@gmail.com

DEVELOPMENT OF A RAPID FIELD-PORTABLE SOIL PHOSPHORUS ANALYSIS METHOD AND APPLICATION TO ARCHAEOLOGICAL SITES

SMITH, Nicholas¹, KREPPEL, Elizabeth¹, MITCHELL, Aimee², and NOLL, Mark R.¹, (1) Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, nsmit4@brockport.edu, (2) Department of Anthropology, SUNY at Buffalo, 380 MFAC-Ellicott Complex, Buffalo, NY 14261

EVALUATION OF FLOOD RECURRENCE IN THE CHEMUNG RIVER WATERSHED, NEW YORK

GROH, Katelynn and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, kgroh1@brockport.edu

PROVENANCE OF LATE JURASSIC TO LATE CRETACEOUS SANDSTONES IN SOUTHWEST OREGON

RIVAS, Jonathan¹, MCCLAUGHRY, Jason D.², and SCHWARTZ, Joshua J.¹, (1) Department of Geological Sciences, California State University Northridge, 18111 Nordhoff Street, Northridge, CA 91330, jonathan.rivas.726@my.csun.edu, (2) Oregon Department of Geology and Mineral Industries, 1995 3rd Street, Suite 130, Baker City, OR 97814

CO₂ FLUX FROM A SINGLE MAPPED SOIL UNIT UNDER DIFFERENT MANAGEMENT PRACTICES

WELCH, Sarah and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, swelc2@brockport.edu

VARIATIONS IN GROUNDWATER AND SURFACE WATER CHEMISTRY IN THE SANDY CREEK (NY) WATERSHED: NATURAL OR ANTHROPOGENIC IMPACTS

COWLING, Owen and NOLL, Mark R., Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, ocow1@brockport.edu

DISSOLUTION OF TREMOLITE BY ARTIFICIAL LYSOSOMAL FLUIDS

SEIDERMAN, Benjamin and **NOLL, Mark R.**, Department of the Earth Sciences, SUNY College at Brockport, 350 New Campus Dr, Brockport, NY 14420, bseid3@brockport.edu

INVESTIGATION OF SUBFOSSIL TREES AT IRELY LAKE, OLYMPIC NATIONAL PARK, WASHINGTON, USA

MARLANTES, Garret A., Science Dept, Centralia College, 600 Centralia College Blvd, Centralia, WA 98531, marlantes.garret@gmail.com, **PRINGLE, Patrick T.**, Centralia College, 600 Centralia College Blvd, Centralia, WA 98531, and **WEGMANN, Karl W.**, Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University, Campus Box 8208, Raleigh, NC 27695