



# CZO@GSA 2013

October 27-30  
Denver, Colorado



**CRITICAL ZONE OBSERVATORIES**  
studying the zone where rock meets life

funded by NSF



## GSA Critical Zone Observatory Agenda, October 27-30, 2013

Date/Time of Presentation	Location/Session Info	Presentation Title/Author(s)	Affiliation
<b>Sunday, October 27, 2013</b>			
9:00 AM – 6:30 PM	Session #39 - Quaternary Geology and Geomorphology ( <b>Posters</b> ) Colorado Convention Center Hall D	Paper No. 39-20 PATTERNS OF SOIL DEVELOPMENT ON STRATH TERRACES ALONG THE COLORADO FRONT RANGE: SOIL MORPHOLOGY AND COSMOGENIC RADIONUCLIDE DATING RINDFLEISCH, Paul R., FOSTER, Melissa A., REDWINE, Joanna	Boulder
10:20 AM	P10. Paleotopography Colorado Convention Center Mile High Ballroom 4CD	Paper No. 3-7 A SIMPLE MODEL FOR THE TOPOGRAPHIC AND SEDIMENTARY EVOLUTION OF A DECAYING MOUNTAIN RANGE AND ITS FORELAND TUCKER, Gregory E., VAN DER BEEK, Peter	Boulder
2:30 PM	T21. Peaks to Plains: Late Cenozoic Landscape Evolution of the Rocky Mountains and Western Great Plains Mile High Ballroom 3C	Paper No. 68-6 SEDIMENT FLUX AND CENOZOIC INCISION OF THE NORTH AMERICAN HIGH PLAINS WOBUS, Cameron, TUCKER, Gregory E., ANDERSON, Robert S.	Boulder
3:05 PM	T21. Peaks to Plains: Late Cenozoic Landscape Evolution of the Rocky Mountains and Western Great Plains Mile High Ballroom 3C	Paper No. 68-7 YOUNG STRATH TERRACES ON WESTERN HIGH PLAINS RECORD CLIMATE-PACED VARIATIONS IN SEDIMENT SUPPLY FROM COLORADO FRONT RANGE RIVERS FOSTER, Melissa A., DÜHNFORTH, Miriam, ANDERSON, Robert S.	Boulder
3:20 PM	T21. Peaks to Plains: Late Cenozoic Landscape Evolution of the Rocky Mountains and Western Great Plains Mile High Ballroom 3C	Paper No. 68-8 INTERPRETING CLIMATE-MODULATED PROCESSES OF TERRACE DEVELOPMENT ALONG THE COLORADO FRONT RANGE USING A LANDSCAPE EVOLUTION MODEL LANGSTON, Abigail L., TUCKER, Gregory E., ANDERSON, Robert S.	Boulder
3:25 PM	T161. Hydrochemistry and Biogeochemistry of Tropical Mountainous Rivers & Estuaries Colorado Convention Center Room 504	Paper No. 81-9 LONG-TERM CLIMATIC AND TOPOGRAPHIC CONTROLS ON SEDIMENT EXPORT IN THE LUQUILLO CRITICAL ZONE OBSERVATORY, PUERTO RICO WILLENBRING, Jane K., BROCARD, Gilles Y., SCATENA, Fred	Luquillo

3:45 PM	T161. Hydrochemistry and Biogeochemistry of Tropical Mountainous Rivers & Estuaries Colorado Convention Center Room 504	Paper No. 81-10 EVALUATION OF SHALLOW FLOW PATHWAYS AND RELATIVE CONTRIBUTIONS TO SOLUTE FLUXES IN A TROPICAL SMALL MOUNTAINOUS RIVER: LUQUILLO, PUERTO RICO GOLDSMITH, Steven T., PORDER, Stephen, KURTZ, Andrew, TAKAGI, Kenneth	Luquillo
4:00 PM	T161. Hydrochemistry and Biogeochemistry of Tropical Mountainous Rivers & Estuaries Colorado Convention Center Room 504	Paper No. 81-11 SPATIAL VARIATION OF DISSOLVED WEATHERING PRODUCTS, NUTRIENTS, AND CARBON IN A RAPIDLY WEATHERING TROPICAL WATERSHED, LUQUILLO MOUNTAINS, PUERTO RICO BRERETON, Richard L., BHATT, Maya P., MCDOWELL, Willam	Luquillo
4:15 PM	T161. Hydrochemistry and Biogeochemistry of Tropical Mountainous Rivers & Estuaries Colorado Convention Center Room 504	Paper No. 81-12 DISEQUILIBRIUM EROSION IN EASTERN PUERTO RICO—IS THIS HOW MANY CLASTIC SEDIMENT DEPOSITS ARE MADE? STALLARD, Robert F.	Luquillo
<b>Monday, October 28, 2013</b>			
9:10 AM	T34. Advances in Unsaturated Zone Geophysics and Process Understanding Colorado Convention Center Room 207	Paper No. 102-5 GEOPHYSICALLY-MONITORED DYE TRACER TEST OF INFILTRATION IN THE UNSATURATED ZONE AT THE SHALE HILLS CZO NYQUIST, Jonathan, PITMAN, Lacey, TORAN, Laura, LIN, Henry	Susquehanna
1:00 PM	T18. Critical Zone Evolution: Climate and Exhumation Colorado Convention Center Mile High Ballroom 2C	Paper No. 165-1 DRILLING AND GPR IN THE RÍO ICACOS WATERSHED OF THE LUQUILLO CZO, PUERTO RICO: WEATHERING PROCESSES AND ARCHITECTURE OF THE DEEP CRITICAL ZONE ORLANDO, Joseph J., HYNEK, Scott A., COMAS, Xavier, BUSS, Heather L., BRANTLEY, Susan L.	Luquillo
1:35 PM	T18. Critical Zone Evolution: Climate and Exhumation Colorado Convention Center Mile High Ballroom 2C	Paper No. 165-3 THE ARCHITECTURE OF DEEP WEATHERING AT TWO CZOS: GROUNDWATER, REGOLITH, AND SOLUTES AT SUSQUEHANNA SHALE HILLS AND LUQUILLO EXPERIMENTAL FOREST HYNEK, Scott A., ORLANDO, Joseph J., SULLIVAN, Pamela, BRANTLEY, Susan L.	Luquillo

2:35 PM	T18. Critical Zone Evolution: Climate and Exhumation Colorado Convention Center Mile High Ballroom 2C	Paper No. 165-7 STRONG LITHOLOGIC CONTROL ON MOUNTAIN ECOSYSTEM PRODUCTIVITY AND LANDSCAPE EVOLUTION HAHM, W. Jesse, RIEBE, Clifford S., LUKENS, Claire E., ARAKI, Sayaka	Sierra
2:50 PM	T18. Critical Zone Evolution: Climate and Exhumation Colorado Convention Center Mile High Ballroom 2C	Paper No. 165-8 ASSESSING THE EXTENT OF REACTION VERSUS DEPTH AT RIDGETOPS AND HILLSLOPES TO UNDERSTAND CONTROLS ON DENUDATION BRANTLEY, Susan L., DERE, Ashlee, LEBEDEVA, Marina, WHITE, Timothy	Susquehanna
4:10 PM	T18. Critical Zone Evolution: Climate and Exhumation Colorado Convention Center Mile High Ballroom 2C	Paper No. 165-12 QUANTIFYING ASPECT CONTROL ON TRANSPORT EFFICIENCY AND MOBILE REGOLITH FLUX AT THE SUSQUEHANNA SHALE HILLS CRITICAL ZONE OBSERVATORY WEST, Nicole, KIRBY, Eric, BIERMAN, Paul R, CLARKE, Brian	Susquehanna
4:40 PM	T18. Critical Zone Evolution: Climate and Exhumation Colorado Convention Center Mile High Ballroom 2C	Paper No. 165-14 CLIMATE AND TOPOGRAPHY CONTROL THE SIZE AND FLUX OF SEDIMENT PRODUCED ON STEEP MOUNTAIN SLOPES RIEBE, Clifford S., SKLAR, Leonard S., LUKENS, SHUSTER, David ( <b>INVITED</b> )	Sierra
<b>Tuesday, October 29, 2013</b>			
9:00 AM - 6:30 PM	T159. Quaternary Geology and Geomorphology: Past, Present, and Future ( <b>Posters</b> ) Colorado Convention Center Hall D	Paper No. 246-4 THE INFLUENCE OF BEDROCK TORS ON MOBILE-REGOLITH FLOW IN A CREEP-DOMINATED LANDSCAPE, BOULDER CREEK CRITICAL ZONE OBSERVATORY REPPY, Jack H., FOSTER, Melissa A., WINCHELL, Eric W., ANDERSON, Robert S.	Boulder
8:05 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-1 A CRITICAL ZONE PERSPECTIVE ON PRAIRIE POTHOLES ECOSYSTEM EVOLUTION GOLDHABER, Martin B., MILLS, Christopher T., MA, Lin, STRICKER, Craig A., MORRISON, Jean M., HOLLOWAY, JoAnn M.	Sierra



8:25 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-2 INFLUENCES OF CRITICAL ZONE PROCESSES ON BIOTA OF PRAIRIE POTHOLE WETLANDS MUSHET, David M., EULISS, Ned H. Jr, SOLENSKY, Mathew J.	Sierra
8:45 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-3 A TEMPORAL AND SPATIAL MULTI-METHOD HYDROGEOCHEMICAL APPROACH TO UNDERSTANDING CRITICAL ZONE PROCESSES AT AGUA REMORA, NM: HABITAT OF THE ENDANGERED ZUNI BLUEHEAD SUCKER, RUS, Rebecca Jane, CROSSEY, Laura J., CROWLEY, Livia	Sierra
9:00 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-4 CONCENTRATION-DEPENDENT EFFECTS OF CO2 ON MICROBIAL COMMUNITIES FOR A SALINE STORAGE SITE, AN EOR SITE, AND A FRESH WATER AQUIFER GULLIVER, Djuna, GREGORY, Kelvin B. LOWRY, Gregory V.	Sierra
9:15 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-5 SOIL AND TREE WATER STATUS DYNAMICS IN A MIXED-CONIFER FOREST OF THE SOUTHERN SIERRA CRITICAL ZONE OBSERVATORY (SS CZO) HOPMANS, Jan W.	Sierra
9:35 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-6 THE HYDROGEOLOGICAL OBSERVATORY OF PLOEMEUR (FRANCE) : LONG-TERM MONITORING AND EXPERIMENTATIONS BOUR, Olivier, LE BORGNE, Tanguy, LAVENANT, Nicolas, LABASQUE, Thierry, LONGUEVERGNE, Laurent, AQUILINA, Luc, HOCHREUTENER, Rebecca, JIMENEZ-MARTINEZ, Joaquin, DAVY, Philippe	Sierra
10:05 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-7 DISSOLVED ORGANIC MATTER CHARACTERIZATION IN HYDROLOGICALLY-CONNECTED PRAIRIE POTHOLE WETLANDS IN NORTH DAKOTA HOLLOWAY, JoAnn M., GOLDBABER, Martin B., MILLS, Christopher T., AIKEN, George R. BUTLER, Kenna	Sierra

10:20 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-8 FATE AND TRANSPORT OF MERCURY IN A WATERSHED-RESERVOIR SYSTEM BURNED DURING THE 2012 HEWLETT GULCH FIRE, FT. COLLINS, COLORADO WEBSTER, Jackson P., AIKEN, George R., RYAN, Joseph N., NAGY, Kathryn, CALLAGON, Erika	Sierra
10:35 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-9 CHARACTERIZATION OF NONPOINT SOURCE PATHWAYS OF SALT, SE AND B IN THE PARIETTE DRAW WATERSHED, UTAH MORRISON, Jean M., TUTTLE, Michele L., FAHY, Juli	Sierra
10:50 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-10 AGRICULTURAL LAND USE CONTROLS ON CRITICAL ZONE INTERACTIONS IN SOIL AND WATER IN UNGLACIATED EAST CENTRAL OHIO FORTNER, Sarah K., LYONS, W. Berry, SHIPITALO, Martin J., CAREY, Anne E., GOLDSMITH, Steven T., DEUERLING, K.M.	Sierra
11:05 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-11 CHEMICAL WEATHERING AND SOIL FORMATION FROM MULTIPLE PARENT MATERIALS IN A COMPLEX REGOLITH, SHALE HILLS, PENNSYLVANIA PETERS, Stephen C., PAZZAGLIA, Frank J., BLAKE, Johanna M.T.	Sierra
11:20 AM	T162. Interdisciplinary Studies across the Critical Zone Colorado Convention Center Room 503	Paper No. 212-12 PINPOINTING TRACE METAL CONCENTRATIONS IN SOIL STRUCTURES ROCHFORD, M. Kathryn	Sierra