

Carol M. Dehler

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- ***Education***

Ph.D., Earth and Planetary Sciences, 2001

Department of Earth & Planetary Sciences, University of New Mexico, Albuquerque, NM.

Dissertation advisors: Dr. Maya Elrick and Dr. Karl Karlstrom

Dissertation topic: Basin analysis and carbon-isotope stratigraphy of the Neoproterozoic Chuar Group, Grand Canyon, Arizona

MS, Geology, 1995

Geology Department, Northern Arizona University, Flagstaff, AZ.

Thesis advisor: Dr. David K. Elliott

Thesis title: Paleoenvironmental and stratigraphic analysis of the Lower Devonian Beartooth Butte Formation and associated strata, central-eastern Idaho

BA, Geology, 1991

Geology Department, Humboldt State University, Arcata, CA.

Undergraduate research: Biostratigraphic analysis of the Alturas Fm., Modoc County, CA.

- ***Research Interests***

Sedimentology and stratigraphy integrated with field mapping, geochemistry and paleontology; Precambrian geology; regional tectonics; paleoclimate

Current research: Basin analysis and stable-isotope geochemistry of Meso- and Neoproterozoic strata in North America; basin analysis of Great Basin Devonian strata and related vertebrate evolution; field mapping and aquifer characterization of Permian Reef and KT boundary, New Mexico; sourcing stone raw materials from Paleo-Indian sites in Colorado.

- ***Teaching Interests***

Historical Geology, Introductory Geology, Sedimentology, Stratigraphy, Field Geology, Precambrian Geology, Sedimentary Petrography, Basin analysis, Sedimentary Geochemistry.

- ***Professional Experience***

Assistant Professor. Utah State University, Logan, UT., Fall 2004-present.

Affiliate Professor. Idaho State University, Pocatello, ID. Fall 2004-present.

Visiting Professor. Idaho State University, Pocatello, ID., Fall 2002-Summer 2004.

Contract geologist. New Mexico Bureau of Mines and Geology, Socorro, NM., 2001-current.

Teaching Assistant. University of New Mexico, Northern Arizona University, Humboldt State University, 1991-2000.

Elderhostel Instructor. Elderhostel Programs, Northern Arizona University & University of New Mexico, 1994-1999.

Geologist. United States Geological Survey, Flagstaff, AZ., 1994-1996.

Backcountry Guide/Geologic Interpreter. Grand Canyon Field Institute, Grand Canyon, AZ., 1995.

Carbonate Petrography consultant. Indian Peaks Exploration, Golden Hill, CO., 1994-1995.

Geologic Assistant. Busch Geotechnical Consulting, Arcata, CA. 1989-1991.

Temporary Geologist. United States Forest Service, Sequoia National Forest, CA. 1989.

- ***Publications in review (students in italics)***

Dehler, C.M., Fanning, C.M., Link, P.K., 766 Ma Maximum Age for lower Uinta Mountain Group, Utah: SHRIMP Foils the Curse of the Proterozoic Sandstone. *Submitted to Geology in July, 2007; Resubmitted November 2007.*

- ***Publications (students in italics)***

Dehler, C.M., Porter, S., Timmons, J.M., and *R. Nagy*, The Neoproterozoic Earth System Revealed through the Chuar Group, Grand Canyon. Submitted to Grand Canyon Monograph (invited chapter), Grand Canyon Association, *in press*.

Pitblado, B.L., Dehler, C.M., Neff, H., Nelson, S.T. and Eggett, D.. Pilot Study Experiments in Sourcing Quartzite, Gunnison Basin, Colorado. *Geoarcheology, in press.*

Pitblado, B.L., Neff, H., Nelson, S.T., and Dehler, C.M., AD-ICP-MS vs. LA-ICP-MS Analysis of Quartzite Sources, Gunnison Basin Colorado. *Current Research in the Pleistocene*, v. 24, pages TBD. *To be published in January 2008.*

Dehler, C.M., Porter, S.M., *De Grey, L.D.*, Sprinkel, D.A., and *Brehm, A.*, 2007, The Neoproterozoic Uinta Mountain Group Revisited: A synthesis of recent work on the Red Pine Shale and related undivided clastic strata, Northeastern Utah: in Link, P.K., and Lewis, R.S., eds., *Proterozoic Geology of western North America and Siberia*, SEPM Special Publication 86, p. 151-166.

Pitblado, B.L., C.M. Dehler, S.T. Nelson, *C. Myer, C.W. Merriman* and *J. Porter*, 2006. Experiments in Sourcing Rocky Mountain Late Paleoindian Quartzite. Electronic paper presented at the 71st Annual Meeting of the Society for American Archaeology, San Juan, Puerto Rico. Currently available at <http://www.saa.org/meetings/esymposium/217/10.pdf>.

Pitblado, B. L. and Carol M. Dehler. 2006. Sourcing Quartzite from the Early Holocene Chance Gulch Site, Gunnison Basin, Colorado. *Current Research in the Pleistocene*, v. 23, p. 1-3.

DeGrey, L.D., and Dehler, C.M., 2005. Stratigraphy and facies analysis of the eastern Uinta Mountain Group, Utah-Colorado border region. *In, Dehler, C.M.*, Pederson, J.L., Sprinkel, D.A., and Kowallis, B.J., editors, *Uinta Mountain Geology: Utah Geological Association Publication 33*, p. 31-47.

Dehler, C.M., and Sprinkel, D.A., 2005. Revised stratigraphy and correlation of the Uinta Mountain Group, north eastern Utah. *In, Dehler, C.M.*, Pederson, J.L., Sprinkel, D.A., and Kowallis, B.J., editors, *Uinta Mountain Geology: Utah Geological Association Publication 33*, 17-30.

Dehler, C.M., Sprinkel, D.A., and Porter, S., 2005. Neoproterozoic Uinta Mountain Group of northeastern Utah: Pre-Sturtian Geographic, Tectonic, and Biologic Evolution. *In* Pederson, J., and Dehler, C.M., eds., *Interior Western U.S.: GSA Field Guide 6*, p. 1-25.

Dehler, C.M., Elrick, M.E., Bloch, J.D., Karlstrom, K.E., Crossey, L.J., DesMarais, D., 2005, High-resolution $\delta^{13}\text{C}$ stratigraphy of the Chuar Group (~770-742 Ma), Grand Canyon: Implications for mid-Neoproterozoic climate change, *GSA Bulletin*, v. 117, no. 1/2, p. 32-45.

- Dehler, C.M., and Ford, T.D., 2002. Grand Canyon Supergroup: Nankoweap Formation, Chuar Group, and Sixtymile Formation. In: Beus and Morales (eds.), Grand Canyon Geology, Oxford Press, Edition 3, 448 p.
- Wiley, B.H., Dehler, C.M., Ghazi, S.A., Kuo, L-C., Rauzzi, S.L., 2002. Geologic description, sampling, and petroleum source rock potential of the Awatubi and Walcott members, Kwagunt Formation, Chuar Group, Sixtymile Canyon section, Grand Canyon, Arizona. Arizona Geological Survey Open-file report 02-01, 84 p.
- Dehler, C.M., Elrick, M.E., Karlstrom, K.E., Smith, G.A., Crossey, L.J., and J.M. Timmons, 2001. Neoproterozoic Chuar Group (~800-742 Ma), Grand Canyon: A record of cyclic marine deposition during global cooling and supercontinent rifting. *Sedimentary Geology*, v. 141-142, p. 465-499.
- Karlstrom, K.E., Bowring, S. A., Dehler, C.M., Knoll, A.H., DesMarais, D.J., Weil, A.B., Sharp, Z.D., Geissman, J.W., Elrick, M.B., Timmons, M.J., Crossey, L.J., Davidek, K.L., 2000. Chuar Group of the Grand Canyon: Record of breakup of Rodinia, associated change in the global carbon cycle, and ecosystem expansion by 740 Ma. *Geology*, v. 28, no. 7, p. 619-622.
- Timmons, J.M., Karlstrom, K.E., Dehler, C.M., Geissman, J.W., and Heizler, M.T., 2001. Proterozoic multistage (~1.1 and ~8.0 Ga) extension in the Grand Canyon Supergroup and establishment of northwest and north-south tectonic grains in the southwestern United States. *GSA Bulletin*, v. 113, no. 2, p. 163-180.
- Dehler, C.M., Porter, S., and Karlstrom, K.E., 1999. Along the Shores of Chuar Beach. *Boatman's Quarterly Review**, v. 12, no. 3, p. 31-36.
- Grader, G., and Dehler, C.M., 1999. Devonian Stratigraphy in east-central Idaho: New perspectives from the Lemhi Range and Bayhorse area, Geological Society of America 1999 Rocky Mountain Section Guidebook, 31-56.
- Timmons, J.M., Karlstrom, K.E., and Dehler, C.M., 1999. Grand Canyon Supergroup: Six unconformities makes one "Great Unconformity"—a record of supercontinent assembly and disassembly, *Boatman's Quarterly Review**, v. p. 28-32.
- Lucchitta, I., Smith, S.J., Dehler, C.M., Finkel, R.C., Hanks, T.C., Davis, S.W., and M.E. Davis, 1997. Late-Pleistocene to Early Holocene deposits, processes, vegetation, and climate from Oak Cave, southern Utah. USGS Open-File Report, 22 p.
- **Maps** (*students in italics*)
- DeGrey, L.D.*, and Dehler, C.M., in review, Geologic Map of the Swallow Canyon 7.5-minute Quadrangle, Dagget County, Utah, and Moffatt County, Colorado: 1:24,000. Utah Geological Survey.
- McKenney, D.*, Dehler, C.M., and *DeGrey, L.D.*, in review, Geologic Map of the Warren Draw 7.5-minute Quadrangle, Dagget County, Utah: 1:24,000. Utah Geological Survey.
- Dehler, C., Pederson, J.L., and Wagner S., 2005. Geology of the Lake McMillan South 7.5' quadrangle, Eddy County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map OF-GM 111, scale 1:24,000.
- Dehler, C., Pederson, J.L., and Wagner S., 2005. Geology of the Seven Rivers 7.5' quadrangle, Eddy County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map OF-GM 98, scale 1:24,000.
- Dehler, C. and McLin, K. D., 2002, Geology of the Carlsbad East 7.5' quadrangle, Eddy County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map OF-GM 60, scale 1:24,000.

- Dehler, C. and McLin, K. D., 2002, Geology of the Carlsbad West 7.5' quadrangle, Eddy County, New Mexico: New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map OF-GM 59, scale 1:24,000
- Lucchitta, I., Dehler, C. M., Davis, M.E., Basdekas, P.G., and Burke, K.J., in press. Quaternary geologic map of the Tanner Creek-Unkar Creek area, eastern Grand Canyon, AZ.; U.S. Geological Survey Open-File Report, 96-scale 1:5000.
- Lucchitta, I., Dehler, C.M., Davis, M.E., Basdekas, P.G., and Burke, K.J., 1995. Quaternary geologic map of the Palisades Creek-Comanche Creek area, eastern Grand Canyon, AZ.; U.S. Geological Survey Open-File Report, 95-832, scale 1:5000.
- Lucchitta, I., Basdekas, P.G., Bohannon, R.G., Rieck, H.J., and Dehler, C.M., 1995. Geologic map of the Cane Springs quadrangle, Mohave County, AZ.; U.S. Geological Survey Open-File Report, 95-86, scale 1:24,000.
- Lucchitta, I., Dehler, C.M., and Basdekas, P.G., 1995. Geologic map of the Cane Springs southeast quadrangle, Mohave County, AZ.; U.S. Geological Survey Open-File Report, 95-48, scale 1:24,000.
- **Books edited**
- Dehler, C.M., Pederson, J.L., Sprinkel, D.A., and Kowallis, B.J., editors, 2005. Uinta Mountain Geology: Utah Geological Association Publication 33, 448 p.
- Pederson, J., and Dehler, C.M., editors, 2005. Interior Western U.S.: GSA Field Guide 6, 524 p.
- **Abstracts in last 7 years (students in italics)**
- Babb, S.L., Daley, L.M., and Dehler, C.M., submitted. Petrographic mapping of sandstones from the Neoproterozoic Jesse Ewing Canyon Formation Uinta Mountains, Utah . Undergraduate Research Day at the State Capitol, Posters on the Hill, Salt Lake City Utah, Spring 2008.*
- Daley, L.M., and Babb, S.L., and Dehler, C.M., submitted. Petrographic mapping of sandstones from the Neoproterozoic Jesse Ewing Canyon Formation Uinta Mountains, Utah. Utah Conference on Undergraduate Research. Utah Valley State College February 29, 2008.*
- Kingsbury, E., Link, P.K., Dehler, C.M., Fanning, C.M., 2007. Neoproterozoic Uinta Mountain Group of Kings Peak Quadrangle: A marine-fluvial interface. AAPG abstracts with Programs, Rocky Mountain Section Meeting, p. 44.*
- Kingsbury, E. M., Link, P. K., Dehler, C. M., and Fanning, M., 2007. A Neoproterozoic (<770 Ma) Shoreline in the High Uintas Wilderness, Uinta Mountain Group, Northeastern Utah: Evidence for a pre-Sturtian Interior Seaway. Geological Society of America *Abstracts with Programs*, Vol. 39, No. 6, p. 221.*
- Myer, C.M., Dehler, C.M., 2007. Paleogeography, Climate and the Carbon Cycle of the mid-Neoproterozoic Red Pine Shale, Uinta Mountains, Northeastern Utah. AAPG abstracts with Programs, Rocky Mountain Section Meeting, p. 50.*
- Rybczynski, D., Dehler, C., Brehm, A., 2007. Subdividing the undifferentiated eastern Uinta Mountain Group, Northeastern Utah. AAPG abstracts with Programs, Rocky Mountain Section Meeting, p. 54-55.*
- Rybczynski, D., Dehler, C., Fanning, C.M., Link, P.K., and Brehm, A., 2007. Confessions of a Rodinian intracratonic basin: Analyzing the undivided eastern Uinta Mountain Group, Northeastern Utah. Geological Society of America *Abstracts with Programs*, Vol. 39, No. 6, p. 221.*

- Brehm, A.,M., and Dehler, C.M., 2006.* The New and Improved Neoproterozoic Jesse Ewing Canyon Formation, Basal Uinta Mountain Group, northeastern Utah and northwestern Colorado. Geological Society of America Abstracts with Programs, Vol. 38, No. 7, p. 494.
- Dehler, C. M., Link, P.K., and Fanning, C.M., 2006.* Transverse and Longitudinal Sediment Transport in the east-trending mid-Neoproterozoic Uinta Mountain Group and Big Cottonwood Basin, northern Utah, Geological Society of America Abstracts with Programs, Vol. 38, No. 7, p. 410.
- Brehm, A., Dehler, C., 2005,* Reevaluation of the Neoproterozoic Jesse Ewing Canyon Formation, Eastern Uinta Mountain Group, Northeastern Utah: Geological Society of America Abstracts with programs, Vol. 37, No. 7, p. 217.
- Dehler, C.M., Link, P.K., and Fanning, C.M., 2005.* Mid-Neoproterozoic strata of northern Utah and southern Idaho: Dating and correlation of the Uinta Mountain Group and Pocatello Formation. Geological Society of America Abstracts with Programs, Vol. 37, No. 7, p. 218.
- Fanning, M.C., and Dehler, C.M., 2005,* Constraining depositional ages for Neoproterozoic siliciclastic sequences through detrital zircon ages: A ca. 770 Ma maximum age for the lower Uinta Mountain Group. Geological Society of America Abstracts with Programs, Vol. 37, No. 7, p. 42.
- Myer, C.A., Merriman, C., Pitblado, B., and Dehler, C.M., 2005.* Petrographic and geochemical sourcing of culturally modified quartzite in the Gunnison Basin, Colorado. Geological Society of America Abstracts with Programs, Vol. 37, No. 7, p. 276.
- De Grey, L. D. and Dehler, C. M., 2004,* Stratigraphic investigations of the Neoproterozoic Uinta Mountain Group: Combating the Curse of the Proterozoic Sandstone: Geological Society of America, Abstracts with Programs, Vol. 36, No. 5, p. 570.
- Dehler, C.M. and Pederson, J.L., 2004.* Geologic mapping in the Carlsbad Area, southeastern New Mexico: Implications for water issues in the lower Pecos Region. Geological Society of America, Abstracts with Programs, Vol. 36, No. 5, p. 579.
- De Grey, L. D., Dehler, C. M., and Link, P. K., 2004,* Stratigraphy and Facies analysis of the Neoproterozoic Uinta Mountain Group, Swallow Canyon Quadrangle, Utah-Colorado Border Region: Geological Society of America, Abstracts with Programs, Vol. 36, No. 4, p. 50.
- Dehler, C.M., Sprinkel, D.A., Porter, S., Waanders, G., Crossey, L.J., DeGrey, L.D., and Link, P.K., 2004.* The Neoproterozoic Uinta Mountain Group Revisited: A synthesis of recent work on the Red Pine Shale and related undivided clastic strata, Northeastern Utah. Geological Society of America, Abstracts with Programs, Vol. 36, No. 4, p. 88.
- Langenburg, E.S., Liddell, D.W., and Dehler, C.M., 2002.* Geochemistry and sequence stratigraphy of the Middle Cambrian Wheeler Formation: Support for trilobite chronostratigraphy. Geological Society of America, Abstracts with Programs, v. 34, no. 6, p. 414.
- Dehler, C.M., Crossey, L.J., Atudorei, V., Karlstrom, K.E., and Bloch, J.B., 2002.* Characterization of the Red Pine Shale, Uinta Mountain Group, northeastern Utah. Geological Society of America, Abstracts with Programs, v. 34, no. 6, p. 272.
- Dehler, C.M., Elrick, M.E., Crossey, L.J., Karlstrom, K.E., 2002.* Lithostratigraphic and chemostratigraphic relationships in the Neoproterozoic Chuar Group, Grand Canyon: Implications for controls on C-isotope variability of Neoproterozoic Oceans? Geological Society of America, Abstracts with Programs, v. 34, no. 4, p. A-18.

- Langenburg, E.S., Liddell, D.W., Dehler, C.M., and Atudorei, V., 2002. High-resolution chemostratigraphic correlation within and beyond the Middle Cambrian Wheeler Formation. Geological Society of America, Abstracts with Programs, v. 34, no. 4, A-50.*
- Crossey, L.J., Dehler, C.M., Bloch, J.B., Dodson, Crystal, and Atudorei, V., 2002. Stratigraphic, mineralogical and geochemical analysis of the Red Pine Shale, Uinta Mountain Group, NE Utah. Geological Society of America, Abstracts with Programs, v. 34, No. 4, p. A-18.*
- Dehler, C.M., and Elliott, D.K., 2002. Marine-to-non-marine microvertebrate correlation in Lower Devonian strata of central-eastern Idaho. Geological Society of America, Abstracts with Programs,, v. 34, no. 4, p. A-52.*
- Dehler, C.M., Elrick, M.E., DesMarais, D., Karlstrom, K.E., and Sharp, Z., 2001. A high-resolution C-isotope record from the mid-Neoproterozoic (~800-742 Ma) Chuar Group, Grand Canyon. Earth Systems International Meeting, Edinburgh, Scotland.*
- Crossey, L.J., Timmons, M.J., Ashby, J., Rampe, J., Tyson, A., Johnson, S., Marshall, K., Dehler, C.M., and Prave, A., 2001. Petrologic approaches to correlate Late Mesoproterozoic to Neoproterozoic stratigraphic successions in western North America. Geological Society of America, Abstracts with Programs, v. 33, no. 5, p. A-42.*
- Langenburg, E.S., and Dehler, C.M., 2001. Interfacing geochemical and petrographic data from the Chuar Group dolomites: was mid-Neoproterozoic seawater chemistry preserved during early diagenesis/dolomitization? Geological Society of America, Abstracts with Programs,, v. 33, no. 5, p. A-43.*
- McKenney, D., and Dehler, C.M., 2001. Petrographic analysis of the Carbon Canyon and Carbon Butte sandstones, Chuar Group, eastern Grand Canyon: Possible provenance changes. Geological Society of America, Abstracts with Programs,, v. 33, no. 5, p. A-43.*
- Dehler, C.M., Prave, A., Crossey, L.J., Karlstrom, K.E., 2001. Linking Mid-Neoproterozoic successions in the western United States: The Chuar Group-Uinta Mountain Group-Pahrump Group connection (CHUMP). Geological Society of America, Abstracts with Programs, v. 33, no. 5, p. A-20.*
- Bloch, J., Crossey, L.J., and Dehler, C.M., 2001. Lithostratigraphic variations in the Neoproterozoic Chuar Group, Grand Canyon- Insights into provenance from geochemical and petrographic analysis of shales, 2001. Geological Society of America, Abstracts with Programs, v. 33, no. 5, p. A-21.*

- ***Grants and Awards Received***

- NSF Archeology Program. 2007-2009, \$180,381. Petrographic and ICP-MS analysis of Quartzite Sources in the Upper Gunnison Basin, Colorado. Co-PI—Bonnie Pitblado.
- EDMAP. 2007-2008, \$14,639. Geologic map of the Neoproterozoic Uinta Mountain Group, Goslin Mountain area, Daggett County, Utah.
- EDMAP, 2006-2007, \$8,500. “Jesse Ewing Canyon Formation, Uinta Mountain Group, Utah and Colorado: Tectonic and environmental setting of an incipient rift basin.
- New Faculty Grant, Utah State University, 2005-2006, \$15,000. “Basin analysis and geochronology of the Neoproterozoic Uinta Mountain Group, northeastern Utah”
- Gardner Junior Faculty Travel Fellowship, Utah State University, 2005, \$1200.
- NSF ADVANCE Seed Grant, Utah State University, 2005-2006, \$8000. “Sourcing the Origin of Stone Raw Materials from the 8,000 Year-Old Chance Gulch Archaeological Site, Gunnison Basin, Colorado” Co-PI—Bonnie Pitblado, archeologist in HASS, USU.

Utah Geological Survey, Salt Lake City, UT., 2005, \$18,000. “Geochronology of the Uinta Mountain Group”.

EDMAP, Reston, VA., 2004-2005, \$12,000. “Geologic Map of the Swallow Canyon Quadrangle: Understanding the Neoproterozoic Uinta Mountain Group, Uinta Mountains, northeastern Utah”.

EDMAP, Reston, VA., 2002-2003, \$12,000. “Geologic Map of the Warren Draw Quadrangle: Understanding the Neoproterozoic Uinta Mountain Group, Uinta Mountains, northeastern Utah”.

Graduate Research Support: Fellowship, Office of Graduate Studies, UNM, 1999-2001; Regents Scholarship, University of New Mexico, 1998-1999; GSA, 1999; 1998, 1997, 1992; Colorado Scientific Society, 1999; Society of Sedimentary Geology, 1999; Donegan Consultants, 1998; Wanek Award, UNM, 1998, 1999; AAPG Merit Award, 1998; Regents Financial Aid Grant, Arizona Trust Fund, 1993-1994; Wyoming Geological Association, 1993; Friday Lunch Clubbe, 1993, 1992.

Teaching awards: Outstanding Teaching Assistant Award, UNM, 1998-99; Teacher of the Year Scholarship, NAU, 1991-1992.

- ***Student advisement***

Master's thesis advisor

Esther Kingsbury (co-advised), 2006-present. Idaho State University. Exp. graduation 2008.

Dan Rybczynski, 2006-present. Utah State University. Expected graduation May 2008.

Caroline Myer, 2005-present. Utah State University. Expected graduation May 2008.

Andy Brehm, 2005-2007. Utah State University. Graduated Fall 2007.

Laura DeGrey, 2002-2005. Idaho State University. Graduated Spring 2005.

Liz Langenburg (co-advised), 2000-2002. Utah State University. Graduated Spring 2002.

Senior thesis advisor

Maggie Olson, 2001-2002. Utah State University. Graduated Spring 2002.

Danette McKenney, 2000-2001. Utah State University. Graduated Spring 2001.

Undergraduate research advisor

Shannon Babb and Lysie Daley 2007-2008. Utah State University URCO project.

- ***Geo-Community Contributions and invited presentations***

GSA fieldtrip Chairperson for Salt Lake City National Meeting 2005.

GSA fieldtrip leader for Salt Lake City National Meeting 2005.

GSA Geoventures fieldtrip leader, Grand Canyon river trip, April 2002.

Technical Chairperson

Theme session, GSA National Meeting, Salt Lake City, UT, 2005. Refining the Global Neoproterozoic Geologic Record. Co-chairs: Frank Corsetti and Paul Link.

Symposium, GSA Rocky Mountain Meeting, Cedar City, UT, 2002. Proterozoic Paleogeography and Paleoclimate. Co-chair: Paul Link

Theme session, GSA Rocky Mountain Meeting, Cedar City, UT, 2002. Devonian correlations in the Great Basin. Co-chair: Dave Elliott

Symposium, GSA Rocky Mountain/South Central Meeting, Albuquerque, NM. 2001. Meso- to Neoproterozoic of the Western US: Record of Supercontinent Assembly and Breakup, and a Snowball Earth? Co-chair: Karl Karlstrom

Technical Session, GSA National Meeting, Reno, NV, 2000. Precambrian Potpourri.

Invited presentations in last 7 years

University of Nevada, Las Vegas 2007. “Neoproterozoic records from Grand Canyon and the Uinta Mountains: an evolving view of climate change and tectonic setting at ~800-750 Ma”

Idaho State University, Pocatello 2007. “Are Proterozoic Sandstones Cursed?”

Utah State University, 2006. “Neoproterozoic records from Grand Canyon and the Uinta Mountains: an evolving view of climate change and tectonic setting at ~800-750 Ma

HASS, Utah State University, 2005. “Sourcing the Origin of Stone Raw Materials from the 8,000 Year-Old Chance Gulch Archaeological Site, Gunnison Basin, Colorado”

University of Oregon, 2005. “Neoproterozoic records from Grand Canyon and the Uinta Mountains: an evolving view of climate change and tectonic setting at ~800-750 Ma”

Utah Geological Association, 2005. “Neoproterozoic records from Grand Canyon and the Uinta Mountains: an evolving view of climate change and tectonic setting at ~800-750 Ma”

University of Laverne, 2004. “Superclimate changes in Precambrian rocks of the Grand Canyon?”

Idaho State University, 2003. “C-isotope anomalies in the Chuar Group and Neoproterozoic paleoclimate”

Utah State University, 2002. “Permianland: News from the backreef of New Mexico”

Idaho State University, 2002. “Neoproterozoic Uinta Mountain Group and correlative successions: Windows into Neoproterozoic Earth History”

Idaho State University, 2000. “Neoproterozoic Chuar Group (~800-742 Ma), Grand Canyon: A record of cyclic marine deposition during global cooling and supercontinent rifting”

Utah State University, 2000. “Is there evidence in Proterozoic rocks of Grand Canyon of an Earth covered in ice?”

Utah State University, 2000. “From supercontinent rifting to a “snowball” Earth? Insight from the Chuar Group (~800-742 Ma), Grand Canyon”

Departmental Service

Distinguished lecture series organizer, 2004-current.

Geology club advisor, 2004-current.

Geology physical space organizer, 2004-current.

Undergraduate Teaching Fellow supervisor, 2004-current.

• **Professional Societies**

Geological Society of America, American Association of Petroleum Geologists, Wyoming Geological Association, Association of Women Geoscientists, Society for Sedimentary Geology, National Association of Geoscience Teachers, Utah Geological Association, American Geophysical Union, New Mexico Geological Society.