

Daniel Cadol

New Mexico Tech
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Ph.D., **Colorado State University**, Fort Collins, CO; Earth Sciences, 2010.

Dissertation: “*Wood load and wood dynamics in neotropical forested headwater streams*”

Advisor: Ellen Wohl, Department of Geosciences

M.S., **Colorado State University**, Fort Collins, CO; Geosciences, 2007.

Thesis: “*Aerial photographic analysis of channel change and riparian vegetation establishment in Canyon de Chelly National Monument, Arizona, 1935-2004*”

Advisor: Sara Rathburn, Department of Geosciences

B.A., **Whitman College**, Walla Walla, WA; Geology, 2003. (cum laude, honors in major)

Thesis: “*Paleoclimatic significance of moraine and tarn deposits, Albion Range, Idaho*”

Advisor: Robert Carson, Department of Geology

Employment

New Mexico Institute of Mining and Technology, Socorro, NM.

2017-present: Associate Professor of Hydrology

2018-present: Hydrology Program Director

2012-2017: Assistant Professor of Hydrology

University of Maryland Center for Env. Sci. - Appalachian Lab, Frostburg, MD.

2011-2012: Post-Doctoral Research Associate.

College of William and Mary, Williamsburg, VA.

2010 – 2011: Visiting Assistant Professor

Teaching

2012-present **New Mexico Institute of Mining and Technology**, Socorro, NM.

ERTH 189 **Watersheds Living and Learning Community**

ERTH 202 **Earth Surface Processes**

ERTH 340 **Global Climate Change**

ERTH 440 **Hydrological Theory and Field Methods**

ERTH 442 **Vadose Zone Processes**

ERTH 443 **Atmospheric Dynamics and Rainfall and Evaporation Processes**

HYD 508 **Flow and Transport in Hydrologic Systems**

HYD 513 **Watershed Dynamics and Ecohydrology**

HYD 533 **Runoff and Flood Processes**

HYD 541 **Water Resources Management**

HYD 542 **Hillslope Hydrology**

2010 – 2011 **College of William and Mary**, Williamsburg, VA.

GEO 110 **Earth’s Environmental Systems: Physical Geography**

GEO 314/ENSP 201 **Watershed Dynamics**

GEO 320 **Earth Surface Processes**

2004 – 2010 **Colorado State University**, Fort Collins, CO.

Instructor (spring 2010)

G 454 **Geomorphology**

Teaching Assistant. (2004-2006) Prepared, designed, and taught labs for:
 G121 **Introductory Geology** G154 **Historical Geology**
 G344 **Stratigraphy and Sedimentology** G454 **Geomorphology**

Affiliations

American Geophysical Union Coastal and Estuarine Research Federation
 Geological Society of America Assoc. for the Sci. of Limnology and Oceanography

Research Funding

Dates	Short Proposal Title	Agency	Amount to NM Tech
2013-2017	Collaborative Research: The Western Consortium for Watershed Analysis, Visualization, and Exploration (WC-WAVE)	NSF EPSCoR	\$180,944
2013-2014	The transport and accumulation of pyrogenic black carbon in fire-prone watersheds and implications for water quality	NM WRRI / USGS	\$20,497
2014-2016	The transport and accumulation of pyrogenic black carbon in recently burned watersheds and implications for water quality	NSF EAR-GLD	\$89,634
2016-2021	Ephemeral tributary sediment transport measurement	US Bureau of Reclamation	\$467,000
2016-2017	Monitoring the water quality impacts of an aerial ignition prescribed burn within the Santa Fe Municipal Watershed	City of Santa Fe	\$30,000
2018-2019	Estimating statewide total available water (TAW) in New Mexico to improve modeled recharge	NM WRRI	\$40,000
2018-2020	Investigation of flow and sediment generation in an ephemeral watershed, Arroyo de los Piños, New Mexico	US Army Corps of Engineers	\$110,000
2019-2023	Monitoring bedload transport: Advancing seismic and acoustic surrogate methods in ephemeral channels	NSF EAR-GLD	\$447,373

Publications

Refereed Journals

(* indicates student author)

[25] Berry*, M., J. van Wijk, D. **Cadol**, E. Emry, D. Garcia-Castellanos (2019) Endorheic-exorheic transitions of the Rio Grande and East African rifts, *Geochemistry, Geophysics, Geosystems*, 20:3705–3729, doi: 10.1029/2018GC008176
 [24] Hettiarachchi*, E., Paul*, S., **Cadol**, D., Frey, B., & Rubasinghege, G. (2018). Mineralogy controlled dissolution of uranium from airborne dust in simulated lung fluids (SLFs) and

- possible health implications. *Environmental Science & Technology Letters*, doi: 10.1021/acs.estlett.8b00557
- [23] Galanter*, A., D. **Cadol**, K. Lohse (2018) Geomorphic influences on the distribution and accumulation of pyrogenic carbon (PyC) following a low severity wildfire in northern New Mexico. *Earth Surface Processes and Landforms* 43:2207–2218, doi: 10.1002/esp.4386
- [22] Wohl, E., G. Brierley, D. **Cadol**, T.J. Coulthard, T. Covino, K.A. Fryirs, G. Grant, R.G. Hilton, S.N. Lane, F.J. Magilligan, K.M. Meitzen, P. Passalacqua, R.E. Poepl, S.L. Rathburn, L.S. Sklar (2018). Connectivity as an emergent property of geomorphic systems. *Earth Surface Processes and Landforms*, doi: 10.1002/esp.4434
- [21] Wine*, M., D. **Cadol**, O. Makhnin (2018) Non-linear long-term large watershed hydrologic response to wildfire and climatic dynamics locally increases water yields, *Earth's Future*, doi: 10.1029/2018EF000930
- [20] Wohl, E., D. **Cadol**, A. Pfeiffer, K. Jackson, D. Laurel (2018) Distribution of large wood within river corridors in relation to flow regime in the semiarid Western US, *Water Resources Research* 54:1890-1904, doi: 10.1002/2017WR022009
- [19] Wine*, M., D. **Cadol**, O. Makhnin (2018) In ecoregions across western USA streamflow increases during post-wildfire recovery, *Environmental Research Letters*, 13: 014010, doi: 10.1088/1748-9326/aa9c5a
- [18] **Cadol**, D., and M. Wine* (2017) Geomorphology as a first order control on the connectivity of riparian ecohydrology, *Geomorphology* 277:154-170, doi:10.1016/j.geomorph.2016.06.022
- [17] **Cadol**, D., A.J. Elmore, S.M. Guinn, K.A.M. Engelhardt, G. Sanders (2016) Modeled tradeoffs between developed land protection and tidal habitat maintenance during rising sea levels. *PLoS ONE* 11: e0164875. doi:10.1371/journal.pone.0164875
- [16] Wine*, M., and D. **Cadol** (2016) Hydrologic effects of large southwestern USA wildfires significantly increase regional water supply: Fact or fiction? *Environmental Research Letters*, 11: 085006, doi: 10.1088/1748-9326/11/8/085006.
- [15] Elmore, A., K. Engelhardt, D. **Cadol**, C. Palinkas (2016) Spatial patterns of plant litter in a tidal freshwater marsh and implications for marsh persistence, *Ecological Applications*, 26: 846-860, doi: 10.1890/14-1970.
- [14] Wine*, M., J. Hendrickx, D. **Cadol**, C. Zou, T. Ochsner (2015) Deep drainage sensitivity to climate, edaphic factors, and woody encroachment, Oklahoma, USA, *Hydrological Processes*, 29: 3779-3789, doi: 10.1002/hyp.10470.
- [13] Gardner, R., K. Engelhardt, A. Elmore, D. **Cadol** (2014) A traits-based model of species diversity, *Ecological Modelling*, 288: 178-194, doi: 10.1016/j.ecolmodel.2014.06.006.
- [12] **Cadol**, D., G. Sanders, A. Elmore, K. Englehardt (2014), Elevation-dependent surface elevation gain in a tidal freshwater marsh and implications for marsh persistence, *Limnology and Oceanography*, 59: 1065–1080, doi:10.4319/lo.2014.59.3.1065.
- [11] **Cadol**, D. and E. Wohl (2013), Variable contribution of wood to the hydraulic resistance of headwater tropical streams, *Water Resources Research*, 49:4711-4723, doi:10.1002/wrcr.20362.
- [10] Palinkas, C, K. Englehardt, D. **Cadol** (2013) Evaluating physical and biological influences on sedimentation in a tidal freshwater marsh with Be-7, *Estuarine, Coastal and Shelf Science*, 129: 152-161, doi: 10.1016/j.ecss.2013.05.022.

- [9] **Cadol**, D., S. Kampf, E. Wohl, (2012), Effects of evapotranspiration on baseflow in a tropical headwater catchment, *Journal of Hydrology*, 462-463:4-14, doi:10.1016/j.jhydrol.2012.04.060
- [8] Wohl, E., S. Bolton, D. **Cadol**, F. Comiti, J. R. Goode, L. Mao (2011), A two end-member model of wood dynamics in headwater neotropical rivers, *Journal of Hydrology*, 462-463:67-76, doi:10.1016/j.jhydrol.2011.01.061
- [7] **Cadol**, D., and E. Wohl, (2011), Coarse sediment movement in the vicinity of a logjam in a neotropical gravel-bed stream, *Geomorphology*, 128:191-198 doi:10.1016/j.geomorph.2011.01.007
- [6] Wohl, E., L. Polvi, D. **Cadol** (2011), Wood distribution along streams draining old-growth floodplain forests in Congaree National Park, South Carolina, USA, *Geomorphology*, 126: 108-120, doi:10.1016/j.geomorph.2010.10.035
- [5] Wohl, E. and D. **Cadol** (2011), Neighborhood matters: Patterns and controls on wood distribution in old-growth forest streams of the Colorado Front Range, USA, *Geomorphology*, 125: 132-146, doi:10.1016/j.geomorph.2010.09.008
- [4] **Cadol**, D, S. Rathburn, D. Cooper (2011), Aerial photographic analysis of channel narrowing and vegetation establishment in Canyon de Chelly National Monument, Arizona, USA, 1935-2004, *River Research and Applications*, 27:n/a, doi: 10.1002/rra.1399
- [3] **Cadol**, D, and E. Wohl (2010), Wood retention and transport in tropical, headwater streams, La Selva Biological Station, Costa Rica, *Geomorphology*, 123: 62-73 doi:10.1016/j.geomorph.2010.06.015
- [2] **Cadol**, D, E. Wohl, J. R. Goode, K. L. Jaeger (2009), Wood distribution in neotropical forested headwater streams of La Selva, Costa Rica, *Earth Surface Processes and Landforms*, 34: 1198-1215, doi:10.1002/esp.1800
- [1a] Comiti, F., D. **Cadol**, E. Wohl (2010), Reply to “Comment on flow regimes, bed morphology, and flow resistance in self-formed step-pool channels” by Keith Richardson, *Water Resources Research*, 46:W12804, doi: 10.1029/2010WR009699
- [1] Comiti, F., D. **Cadol**, E. Wohl (2009), Flow regimes, bed morphology, and flow resistance in self-formed step-pool channels, *Water Resources Research*, 45: W04424, doi:10.1029/2008WR007259.

Manuscripts in review or preparation

- Duval, B., H. Curtsinger*, A. Hands*, J. Martin, J. McLaren, D. Cadol (in review) Greenhouse gas emissions and exo-enzyme activity during decomposition of native versus invasive riparian litter,
- Duval, B., D. Cadol, J. Martin, B. Frey, S. Timmons (in revision) Effects of the Gold King Mine spill on metal cycling through river and riparian biota
- Xu*, F., D. Cadol, F. Phillips, T. Newton (in preparation) Estimation of groundwater recharge using soil moisture balance model, target: *Water Resources Research*
- Hu*, J., D. **Cadol**, M. Person (in preparation) Assessment of groundwater fluctuation and wetland delineation by hydrologic modeling, *Wetlands*
- Nicholls*, P., and D. **Cadol** (in preparation) Sorption of arsenic and chromium to soils containing wildfire derived black carbon, *Environmental Science and Technology*
- Brown*, R., B. Frey, and D. **Cadol** (in preparation) Geomorphic and biotic controls on the aeolian transport of uranium-bearing dust, *Environmental Science and Technology*

Conference Proceedings and Abstracts (National Conferences Only)

- Cadol, D. K. Stark, J. B. Laronne, D. Varyu, M. Richards (2019) Bedload flux and characteristic from flash floods in the Arroyo de los Piños, NM – initial results, Paper 210, 2019 Federal Interagency Sedimentation and Hydrologic Modeling Conference, Reno, NV. 24-28 June.
- Cadol, D., B. Duval, B. T. Newton, K. Stark, M. Zimmerer (2018) Interactions among wildfire, water table elevation, and *Diorhabda* (Tamarisk beetle) influence riverine forest regrowth and evapotranspiration recovery, Abstract H21F-08, 2018 Fall Meeting, AGU, Washington, DC. 10-14 Dec.
- Stark*, K., D. Cadol, J. Laronne, D. Varyu (2018) Comparison of seven different bedload monitoring technologies in a flood-driven ephemeral channel, Abstract EP53E-1922, 2018 Fall Meeting, AGU, Washington, DC. 10-14 Dec.
- Xu*, F., D. Cadol, F. Phillips, B. T. Newton (2018) Focused recharge modeling using statistical stochastic approaches, Abstract H13O-1967, 2018 Fall Meeting, AGU, Washington, DC. 10-14 Dec.
- Berry*, M., J. van Wijk, D. Cadol, E. Emry, D. Garcia-Castellanos (2018) Tectonic and climatic controls on endorheic-exorheic transitions in narrow continental rifts, Abstract T12B-07, 2018 Fall Meeting, AGU, Washington, DC. 10-14 Dec.
- Frey, B., D. Cadol, V. McLemore, W. Chavez, E. Hettiarachchi, R. Brown, S. Caldwell, A. Pearce, J., Asafo-Akouwah, M. Silva (2018) Examining uranium transport, sources and waste in New Mexico mining districts. *GSA Abstracts with Programs*, Vol. 50, No. 6. Paper 79-3.
- Stark*, K., D. Cadol, J. Laronne, D. Varyu (2017) Evaluating sediment transport in flood-driven ephemeral tributaries using direct and acoustic methods, Abstract EP41C-1850, 2017 Fall Meeting, AGU, New Orleans, La. 11-16 Dec.
- Cadol, D., B. Frey, C. Chee (2017) Studying Legacy Uranium Contamination On Navajo, Laguna, and Isleta Lands In Collaboration With Native American Undergraduate Researchers. Abstract ED23B-0302, 2017 Fall Meeting, AGU, New Orleans, La. 11-16 Dec.
- Wine*, M., D. Cadol, O. Makhnin (2017) Wildfire disturbance impacts on streamflow from western USA watersheds, Abstract H21B-1445, 2017 Fall Meeting, AGU, New Orleans, La. 11-16 Dec.
- Xu*, F., D. Cadol, B. Newton, F. Phillips (2017) Statewide Groundwater Recharge Modeling in New Mexico, Abstract H51N-08, 2017 Fall Meeting, AGU, New Orleans, La. 11-16 Dec.
- Miller*, S., A. Gregory*, M. Turner*, S. Chaulagain*, D. Cadol, M. Stone, L. Sheneman (2017) Floodplain Vegetation Dynamics Modeling Using Coupled RipCAS-DFLOW (CoRD): Jemez Canyon, Jemez River, New Mexico, Abstract H23B-1638, 2017 Fall Meeting, AGU, New Orleans, La. 11-16 Dec.
- Turner*, M., S. Miller*, A. Gregory*, D. Cadol, M. Stone, L. Sheneman (2016) Coupled RipCAS-DFLOW (CoRD) software and data management system for reproducible floodplain vegetation succession modeling. Abstract IN43A-1684, 2016 Fall Meeting, AGU, San Francisco, Calif. 11-16 Dec.
- Little*, S., I. Walder, D. Cadol (2016) The use of traditional hydrologic field techniques as a means of quantifying mine-related contamination impacts on a surface water body, Norrbotten County, Sweden. Abstract H33A-1523, Fall Meeting, AGU, San Francisco, Calif. 11-16 Dec.
- Cadol, D., J. Gomez-Velez (2016) Evapotranspiration recovery following fire in riparian forests. *GSA Abstracts with Programs*, Vol. 48, No. 7. Paper No. 302-10.
- Brown*, R., D. Cadol, B. Frey (2016) Geomorphic and biotic controls on the aeolian transport of uranium-bearing dust. *GSA Abstracts with Programs*, Vol. 48, No. 7. Paper No. 215-10.

- Wine*, M., D. **Cadol** (2016) Hydrologic effects of large southwestern USA wildfires significantly increase regional water supply: Fact or fiction? *GSA Abstracts with Programs*, Vol. 48, No. 7. Paper No. 302-6.
- Cadol**, D., A. Galanter*, P. Nicholls* (2015) Redistribution of pyrogenic debris following post-fire monsoons: Implications for carbon budgets and contaminant sequestration. *GSA Abstracts with Programs*, Vol. 47, No. 7, p. 547. Paper No. 211-7
- Wine*, M., D. **Cadol** (2015) Watershed-scale hydrologic effects of large wildfires in the Southwestern USA. *GSA Abstracts with Programs*, Vol. 47, No. 7, p. 836. Paper No. 331-11
- Brown*, R., D. **Cadol**, B. Frey (2015) Aeolian transport of dust-borne uranium contamination: *GSA Abstracts with Programs*, Vol. 47, No. 7, p. 299. Paper No. 107-3
- Cadol**, D., M. Wine* (2014), Interactions Between Riparian Evapotranspiration and Streambed Infiltration As Expressed in Shallow Alluvial Aquifer Levels, Abstract H31I-0748 presented at 2014 Fall Meeting, AGU, San Francisco, Calif. 15-19 Dec.
- Wine*, M., D. **Cadol** (2014), Application of HydroGeoSphere to model the response to anthropogenic climate change of three-dimensional hydrological processes in the geologically, geothermally, and topographically complex Valles Caldera super volcano, New Mexico: Preliminary results, Abstract H43C-0979 presented at 2014 Fall Meeting, AGU, San Francisco, Calif. 15-19 Dec.
- Nicholls*, P., D. **Cadol**, A. Galanter* (2014), Determining Sorption Properties of Pyrogenic Black Carbon for Some Heavy Metals, Abstract H51I-0718 presented at 2014 Fall Meeting, AGU, San Francisco, Calif. 15-19 Dec.
- Galanter*, A., D. **Cadol**, B. Frey, K. Lohse (2014), Distribution, Transport, and Accumulation of Pyrogenic Black Carbon in Post-Wildfire Watersheds, Abstract H51D-0646 presented at 2014 Fall Meeting, AGU, San Francisco, Calif. 15-19 Dec.
- Elmore, A., D. **Cadol**, C. Palinkas, K. Engelhardt (2014), Spatial Patterns of Plant Litter and Sedimentation in a Tidal Freshwater Marsh and Implications for Marsh Persistence, Abstract EP31C-3571 presented at 2014 Fall Meeting, AGU, San Francisco, Calif. 15-19 Dec.
- Galanter*, A., D. **Cadol** (2013) The transport and accumulation of pyrogenic black carbon in recently burned watersheds. *GSA Abstracts with Programs*, Vol. 45, No. 7, p. 630. Paper No. 99-9
- Cadol**, D., G. David (2013) Wood mobility as a control on hydraulic resistance in forested headwater streams. *GSA Abstracts with Programs*, Vol. 45, No. 7, p. 630. Paper No. 270-7.
- Gardner, R., K. Engelhardt, A. Elmore, D. **Cadol** (2013) The role of spatial dynamics and species life-history traits in preserving diversity when environments are non-stationary. presented at the International Association for Landscape Ecology Annual Symposium, Austin, Texas. 14-18 April.
- Cadol**, D., A. Elmore, K. Engelhardt, G. Sanders (2012), Estimating the rate and elevation dependence of net accretion in a freshwater tidal marsh using DEM-registered surveys, Abstract EP31C-0834 presented at 2012 Fall Meeting, AGU, San Francisco, Calif. 3-7 Dec.
- Elmore, A., S. Guinn, D. **Cadol**, K. Engelhardt, M. Fitzpatrick (2012), Modeling coastal vulnerability for tidal reaches of the Potomac and Anacostia Rivers, presented at Chapman Conference on Hydrogeomorphic Feedbacks and Sea Level Rise in Tidal Freshwater River Ecosystems, AGU, Reston, Virginia, 13-16 Nov.
- Palinkas, C., K. Engelhardt, D. **Cadol** (2012), Dynamic feedbacks between sediment and vegetation in a tidal freshwater marsh, presented at Chapman Conference on

- Hydrogeomorphic Feedbacks and Sea Level Rise in Tidal Freshwater River Ecosystems, AGU, Reston, Virginia, 13-16 Nov.
- Engelhardt, K., D. **Cadol**, A. Elmore, C. Palinkas (2012), Linking elevation and vegetation change in tidal freshwater marshes, presented at Chapman Conference on Hydrogeomorphic Feedbacks and Sea Level Rise in Tidal Freshwater River Ecosystems, AGU, Reston, Virginia, 13-16 Nov.
- Cadol**, D., A. Elmore, K. Engelhardt, C. Palinkas (2011), Vegetation influences on tidal freshwater marsh sedimentation and accretion, Abstract EP52B-04 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Cadol**, D., A. Elmore, K. Engelhardt (2011), Using inundation timing to estimate flow resistance through marsh vegetation, 2011 Biennial Coastal and Estuarine Research Federation Meeting, Daytona Beach, FL, 6-10 Nov.
- Cadol**, D., S. Kampf, and E. Wohl (2010), Diel discharge cycles as indicators of evapotranspiration rates, with implications for groundwater dynamics, Abstract H33J-05 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Cadol**, D., E. Wohl (2010), Controls on sediment transport interruption by a logjam in a tropical gravel-bed stream. *GSA Abstracts with Programs*, Vol. 42, No. 5, p. 520. Paper No. 219-9
- Cadol**, D., and E. Wohl (2009), Wood transport and retention in tropical headwater streams, Costa Rica. *Geological Society of America Abstracts with Programs*, Vol. 41, No. 7, p. 335.
- Cadol**, D., and E. Wohl (2008), Sediment movement near a tropical wood jam, *Eos Trans. AGU*, 89(52), Fall Meet. Suppl., Abstract H53B-1037.
- Wohl, E., J. Jansen, D. **Cadol**, and L. Polvi (2008), The role of substrate variability in longitudinal profile response to isostatic rebound, *Eos Trans. AGU*, 89(52), Fall Meet. Suppl., Abstract H53B-1021.
- Cadol**, D., and E. Wohl (2007), Wood loading in tropical forested headwater streams, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract H53B-1229.
- Comiti, F. D. **Cadol**, E. Wohl (2007) Stepped hydraulic geometry in stepped channels. *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract H51E-0801.
- Cadol**, D., and S. Rathburn (2005), Aerial photographic analysis of historic riparian vegetation growth and channel change at Canyon de Chelly National Monument, Arizona: Preliminary results, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract H53D-0505.

Other Publications

- Cadol**, D., G. Parish*, S. Reuter*, B. Newton, F.M. Phillips, J.M.H. Hendrickx (2019), Estimating Soil Water Holding Capacity and Runoff in New Mexico to Improve Modeled Recharge Rates. WRRRI Technical Completion Report No. xxx. New Mexico Water Resources Research Institute, Las Cruces, NM.
- Duval, B.D., D. **Cadol**, J. Martin, S. Timmons (2018) Persistent Effects of the Gold King Mine Spill on Biota: Animas and San Juan Rivers, Northern New Mexico. Open File Report 601, New Mexico Bureau of Geology and Mineral Resources, Socorro, NM.
- Cadol**, D., A. Galanter*, P. Nicholls* (2015), Distribution and Transport of Pyrogenic Black Carbon in Soils Affected by Wildfires, Valles Caldera, New Mexico, with Implications for Contaminant Transport. WRRRI Technical Completion Report No. 365. New Mexico Water Resources Research Institute, Las Cruces, NM.
- Elmore, A. J., D. **Cadol**, S. M. Guinn, G. M. Sanders, K. A. M. Engelhardt, and M. C. Fitzpatrick (2015) Spatially Explicit Modeling of Coastal Vegetation Change Associated

with Projected Sea Level Rise: The Potomac Estuary. Natural Resource Data Series NPS/NCRN/NRR—2015/1034. National Park Service, Fort Collins, Colorado.

Rathburn, S.L., A. Meyer, A. Ferrantelli, A. Wilcox, D. **Cadol**, D. Kreiner, and T. Birdsall (2009), Introductory Geology Laboratory Manual for CSU Students, Pearson Prentice Hall, Boston, MA, 155 p., 2nd edition.

National/State Service

Reviewer for NSF, National Institutes of Water Resources, Geomorphology, Water Resources Research, Journal of Hydrology, Hydrological Processes, Environmental Management, River Research and Applications, Earth Surface Processes and Landforms, Journal of Applied Ecology, Ecohydrology, Freshwater Science, Earth Interactions, Hydrogeology Journal, Ecological Engineering, New Mexico Water Resources Research Institute, and New Mexico Geological Society.

Session chair, GSA Fall Meeting, 2016, “Hydrology and Geomorphology of Wildland Fires”; GSA Fall Meeting, 2015, “Hydrology and Geomorphology of Wildland Fires”; AGU Fall Meeting, 2012, “Ecohydraulics: Interactions of Vegetation, Water, and Sediment in Rivers and Wetlands”

Animas & San Juan River Gold King Mine acid mine drainage spill, scientific response team (2015-2018)

Executive committee member of the New Mexico Geological Society (2018-present)

Institute Service

Hydrology Program Director, 2018-present

Assessment Task Force, 2017-present

Faculty senate Distance Education committee (Chair), 2014-2018

Hydrology Program representative on DE Accreditation Preparation Committee, 2015

Geophysical Research Center annual state reporting committee, 2014-2017

Faculty search committee, hydrogeochemistry, 2019

Faculty search committee, hydrogeology, 2019

Faculty search committee, cave and karst science, 2018 (chair)

Faculty search committee, electrical engineering, 2018

Faculty search committee, mechanical engineering, 2017

Faculty search committee, ecology, 2016

Faculty search committee, vadose zone hydrology, 2016

Faculty search committee, hydrogeochemistry, 2015

Faculty search committee, hydrogeology, 2015

Graduate STEM communications committee, 2014

Departmental Service

Hydrology Program assessment (Chair) 2015-present

Awards committee (Chair), 2015-present

Vehicle committee (Chair), 2013-2014

Computing committee, 2013-2015

Associate Department Chair search committee (x2) 2015 & 2016

Invited Talks

University of New Mexico, Gallup “Channel change and riparian vegetation growth in Canyon de Chelly, Arizona”, April 2013

University of New Mexico, Albuquerque “Can tidal marshes survive accelerated sea level rise?: Interactions among vegetation, elevation, and accretion”, October 2013

University of Texas El Paso, “Fluvial and Aeolian Transport of Legacy Uranium Contamination on Native American Lands”, November 2015

Binghamton Geomorphology Symposium, Fort Collins, CO, “Geomorphology as a first order control on the connectivity of riparian ecohydrology”, September 2016