

BIOGRAPHICAL INFORMATION: ELLEN E. WOHL

PRESENT POSITION: Professor of Geology and University Distinguished Professor
Dept of Geosciences
Colorado State University
Ft. Collins, CO 80523

WEBSITES: <https://sites.warnercnr.colostate.edu/ellenwohl/>
<https://sites.warnercnr.colostate.edu/fluvial-geomorphology/>

DEGREES: Arizona State University, Tempe, Arizona
BS in Geology, 1984
University of Arizona, Tucson, Arizona
PhD in Geosciences, 1988

OTHER POSITIONS:

1989-1989 Faculty Research Associate, Dept of Geosciences, University of Arizona
1989-1995 Assistant Professor, Dept of Earth Resources, Colorado State University
1995-2000 Associate Professor, Dept of Earth Resources, Colorado State University

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

Geological Society of America (Fellow)
American Geophysical Union (Fellow)

SCHOLARSHIPS, AWARDS, AND HONORS:

Graduation with honors from Arizona State University, magna cum laude
Sulzer Scholarship (University of Arizona), 1984-1985
Graduate Academic Scholarship (University of Arizona), 1984-1985, 1987-1988
SOCAL Fund Grant (University of Arizona), 1986-1987
Sigma Xi Grant-in-Aid-of-Research, 1986-1987
Geological Society of America Research Grant, 1986-1987
Fulbright-Hays Postgraduate Research Grant, 1986-1987
Butler Scholarship (University of Arizona), 1987-1988
Gladys W. Cole Memorial Award, Geological Society of America, 1995
Fellowship, Japan Society for the Promotion of Science, 1995-1996
Water Center Award for Outstanding Contributions to Interdisciplinary Water Education, Research,
and Outreach (Colorado State University), 2001
G.K. Gilbert Award, Association of American Geographers, 2000 and 2003
Kirk Bryan Award, Geological Society of America, 2009
Distinguished International Fellow, Department of Geography, Durham University, England, 2010
Scholarship Impact Award, Colorado State University, 2015
Outstanding Mentor Award, Warner College of Natural Resources, Colorado State University, 2015

Ralph Alger Bagnold Medal, European Geosciences Union, 2017
Member of Phi Beta Kappa, Phi Kappa Phi, Sigma Xi

Theses and dissertations supervised and completed: 48 MS theses, 26 PhD dissertations

EXTERNAL GRANTS:

61. Quantifying and predicting the attenuation of downstream fluxes associated with beaver meadows (2016-2018)
\$279,066 from the National Science Foundation (co-PI T. Covino, CSU)
60. Longitudinal patterns of organic carbon storage in mountainous river networks (2016-2019)
\$257,828 from the National Science Foundation
59. Collaborative Research: RAPID: Calibrating Shallow Geophysical Techniques to Detect Large Wood Buried in River Corridors (2016)
\$14,619 from the National Science Foundation (co-PI K. Sinha, CO School of Mines)
58. The 47th Annual Binghamton geomorphology Symposium (2016)
\$42,000 from the National Science Foundation (co-PIs S. Rathburn, CSU, F. Magilligan, Dartmouth)
57. Floodplain carbon storage in mountain rivers (2016-2017)
\$15,749 from the National Science Foundation (DDRI for Nicholas Sutfin)
56. Geophysical characterization of the Sand Creek site
\$27,000 from the National Park Service
55. The active channel and the ordinary high water mark (2015-2016)
\$27,834 from DOD-Army Corps of Engineers
54. Organic carbon storage in beaver meadows (2015-2016)
\$7,270 from the National Geographic Society
53. Floodplain-instream wood interactions in the Central Yukon River Basin (2014-2015)
\$15,810 from the National Geographic Society
52. Carbon fluxes to the Arctic Ocean via wood export from the Mackenzie River drainage basin (2012-2013)
\$9,575 from the National Geographic Society
51. Leaky Rivers: Nutrient Retention and Productivity in Rocky Mountain Streams Under Alternative Stable States (2012-2015)
\$633,745 from National Science Foundation (co-PI D. Walters, USGS)
51. Tropical Hydrology Workshop (2011)
\$13,070 from the US Army Research Office
50. Landscapes in the Anthropocene: Exploring the human connections (2010)
\$49,558 from National Science Foundation (co-PI A. Chin, University of Colorado)
49. Environmental flow strategy validation (2010-2012)
\$45,000 from USDA Forest Service
48. White River analysis (2009-2012)
\$75,000 from USDA Forest Service
47. Watershed to local scale characteristics and function of intermittent and ephemeral streams on military lands (2010-2014)

- \$1,499,657 from U.S. Army Strategic Environmental Research and Development Program (co-PIs D. Cooper, S. Kampf, CSU)
46. RAPID: Pre-disturbance surveys of wood loads in headwater streams of the Colorado Front Range (2009-2010)
\$30,435 from National Science Foundation
 45. SGER: Influence of postglacial rebound on river longitudinal profiles in Sweden (2007-2009)
\$35,000 from National Science Foundation
 44. Development of a national protocol for riparian assessment (2007-2009)
\$117,500 from USDA Forest Service
 43. Wood loading in headwater neotropical forest streams (2007-2010)
\$283,030 from National Science Foundation
 42. Measurements of roughness coefficient for steep channels (2007-2009)
\$257,204 from National Science Foundation
 41. Mapping longitudinal distribution of wood along forest streams (2005-2006)
\$21,071 from USDA Forest Service
 40. Testing the existence of a threshold discharge in bedrock channels (2005-2008)
\$203,617 from National Science Foundation
 39. Develop service-wide concepts for riparian habitat and stream restoration (2004-2007)
\$303,692 from National Park Service (co-PI D. Cooper, CSU)
 38. Assessing snow-making impacts to stream channels (2004-2006)
\$75,004 from USDA Forest Service (co-PI B. Bledsoe, CSU)
 37. Geomorphic effects of a jokulhlaup (2004-2005)
\$61,474 from National Science Foundation
 36. Rivers, roads, and people: Complex interactions of overlapping networks in watersheds (2003-2007)
\$1,700,000 from National Science Foundation (co-PIs, J. Loomis, J. Ramirez, M. Laituri, CSU)
 35. International Collaboration: Flow hydraulics along step-pool channels (2003-2004)
\$6804 from National Science Foundation
 34. Assessment of historical and contemporary land-use impacts on pool habitat in the Upper South Platte River drainage basin (2003-2006)
\$73,212 from USDA Forest Service
 33. Anabranching channels in jointed bedrock: an integrated flume and field study (2003-2005)
\$124,781 from National Science Foundation (co-PI G. Springer, Ohio University)
 32. Flow hydraulics along step-pool channels (2003-2004)
\$8,000 from National Science Foundation
 31. Gradient-related trends in mountain channel geometry (2003)
\$11,300 from National Science Foundation
 30. Quantifying historical and contemporary coarse sediment input and storage and fine sediment storage along Black Canyon (2002-2003)
\$50,012 from US National Park Service
 29. Hierarchical physical classification of western streams (2000-2004)
\$788,144 from EPA (co-PIs B. Bledsoe, L. Poff, C. Watson, CSU)

28. Wetland, Aquatic and Riparian Protocols (2000-2005)
\$142,550 from USDA Forest Service (co-PIs D. Cooper and L. Poff, CSU)
27. North Fork Gunnison River Improvement Project (2000-2001)
\$50,000 from the North Fork River Improvement Association (co-PI D. Cooper, CSU)
26. Quantitative modeling of channelized flow within a karst stream (2000-2002)
\$102,185 from National Science Foundation
25. Hydraulic resistance of large woody debris in step pool channels (2000-2001)
\$2175 from the National Science Foundation (REU supplement)
24. Characterizing channel disturbance regimes in hydroclimatically extreme regions (2000-2003)
\$162,639 from the US Army Research Office
23. Chemical weathering in granitic channels of India and the United States (1999-2001)
\$12,192 from the National Science Foundation
22. Hydraulic resistance of large woody debris in step pool channels (1999-2001)
\$78,200 from the National Science Foundation
21. Acquisition of hydraulics instrumentation for field-based research (1999-2004)
\$54,068 from the National Science Foundation
20. Instrumentation for disturbance regimes of hydrologically extreme regions (1999-2000)
\$122,562 from US Army Research Office
19. Modeling flows for fish habitat maintenance (1998-2000)
\$45,000 from the Colorado Division of Wildlife
18. Inventory of current and historic erosion-control projects in the Rio Puerco basin and quantification of sediment yields (1998-2000)
\$45,150 from the US Bureau of Land Management
17. Mitigation of mountain-channel sedimentation resulting from reservoir sediment releases (1998-2000)
\$72,670 from the National Science Foundation
16. Channel response to reservoir sedimentation (1997-1998)
\$25,000 from Colorado Water Conservation Board, Trout Unlimited, and U.S. Bureau of Reclamation
15. Flow resistance of large woody debris in headwater streams (1997-1999)
\$70,400 from NCASI (Ntnl Council of the Paper Industry for Air and Stream Improvement)
14. Lithologic controls on bedrock channel morphology (1995-1996)
\$35,000 from the Japan Society for the Promotion of Science
13. Flood hazards associated with glacier-lakes in the eastern Himalaya Mountains (1994-1997)
\$82,756 from the National Science Foundation
12. Energy expenditure in deep, narrow bedrock canyons (1994)
\$7000 from the Geological Society of America
11. Integrative riparian ecosystem modeling along the Yampa River, Colorado (1994-1996)
\$39,777 from The Nature Conservancy's Ecosystem Research Program
10. Integration of palynological and geomorphological analyses to determine paleoenvironmental conditions at the Hudson-Meng site (1993)
\$11,925 from the USDA Forest Service (co-investigator E. Kelly, CSU)
9. Reconstruction of past river discharge in central Russia (1992)
\$3400 from the National Research Council and the National Academy of Science

8. Regional flood hazard analysis (1991-1993)
\$299,930 from the National Science Foundation (co-investigator J. Salas, CSU)
7. Validation of water yield thresholds on the Kootenai National Forest (1992-1994)
\$110,745 from the USDA Forest Service (co-investigator L. MacDonald, CSU)
6. Paleoflood records in the southern Negev Desert (1991-1992)
\$7200 from the US-Israel Educational Foundation
5. An evaluation of flooding in the vicinity of Harpers Ferry, West Virginia (1991-1992)
\$40,000 from the USDI National Park Service
4. Controls on subalpine channel morphology (1991-1992)
\$20,000 from the USDA Forest Service
3. Fluvial terraces: A tool for integrating geomorphic processes, climatic and tectonic events, and landscape development (1990-1992)
\$102,608 from the National Science Foundation (co-investigator D. Merritts, F&M College)
2. Holocene paleofloods of northern Australia (1989-1991)
\$24,050 from the National Geographic Society (co-investigator V. Baker, U. Az.)
1. Paleoflood history of Redfield Canyon, Arizona (1989)
\$5711 from the Arizona Department of Water Resources

BIBLIOGRAPHY:

Refereed Publications

197. **Wohl**, E. in press. The significance of small streams. *Frontiers of Earth Science*.
196. Garrett, K.K. and **Wohl**, E.E. in press. Climate-invariant area-slope relations in channel heads initiated by surface runoff. *Earth Surface Processes and Landforms*.
195. Sutfin, N.A. and **Wohl**, E. in press. Substantial soil organic carbon retention along floodplains of mountain streams. *Journal of Geophysical Research Earth Surface*.
194. **Wohl**, E., Hall, R.O., Jr., Lininger, K.B., Sutfin, N.A., and Walters, D.M. in press. Carbon dynamics of river corridors and the effects of human alterations. *Ecological Monographs*.
193. **Wohl**, E. and Scott, D. in press. Transience of channel head locations following disturbance. *Earth Surface Processes and Landforms*.
192. Scott, D.N., and **Wohl**, E.E. in press. Evaluating carbon storage on subalpine lake deltas. *Earth Surface Processes and Landforms*.
191. Ortega-Becerril, J.A., Jorge-Coronado, A., Garzon, G., and **Wohl**, E. in press. Sobrarbe Geopark: an example of highly diverse bedrock rivers. *Geoheritage*.
190. Rathburn, S.L., Bennett, G.L., **Wohl**, E.E., Briles, C., McElroy, B., and Sutfin, N. in press. The fate of sediment, wood, and organic carbon eroded during an extreme flood, Colorado Front Range, USA. *Geology*.
189. Lininger, K.B., **Wohl**, E., Sutfin, N.A. and Rose, J. in press. Floodplain downed wood volumes: a comparison across three biomes. *Earth Surface Processes and Landforms*.
188. Kramer, N., **Wohl**, E., Hess-Homeier, B., and Leisz, S. in press. The pulse of driftwood over multiple timescales in a great northern river. *Water Resources Research*.
184. Kramer, N. and **Wohl**, E. 2017. Rules of the road: A qualitative and quantitative synthesis of large wood transport through drainage networks. *Geomorphology* 279: 74-97.

183. Ortega, J., Gómez-Heras, M., Fort, R., and **Wohl**, E. in press. How does anisotropy in bedrock river granitic outcrops influence pothole genesis and development? *Earth Surface Processes and Landforms*.
182. Laurel, D. and **Wohl**, E. in press. Examining the effect of geomorphic characteristics on pool temperatures for native fish habitat management in mountainous stream networks. *Earth Surface Processes and Landforms*.
181. **Wohl**, E. 2016. River geomorphic complexity. *Progress in Physical Geography* 40, 598-615.
180. Records, R., **Wohl**, E., and Arabi, M. 2016. Phosphorus in the river corridor. *Earth-Science Reviews* 158: 65-88.
179. **Wohl**, E., Rathburn, S., Chignell, S., Garrett, K., Laurel, D., Livers, B., et al. 2017. Mapping longitudinal stream connectivity in the North St. Vrain Creek watershed of Colorado. *Geomorphology* 277: 171-181.
178. **Wohl**, E. 2017. Bridging the gaps: an overview across time and space of wood in diverse rivers. *Geomorphology* 279: 3-26.
177. Livers, B. and **Wohl**, E. 2016. Sources and interpretation of channel complexity in forested subalpine streams of the Southern Rocky Mountains. *Water Resources Research* 52, 3910-3929.
176. **Wohl**, E. and D.N. Scott. 2017. Wood and sediment storage and dynamics in river corridors. *Earth Surface Processes and Landforms* 42, 5-23.
175. **Wohl**, E., B.P. Bledsoe, K.D. Fausch, N. Kramer, K.R. Bestgen, and M.N. Gooseff. 2016. Management of large wood in streams: an overview and proposed framework for hazard evaluation. *Journal of the American Water Resources Association* 52, 315-335.
174. Chin, A., L. An, J.R. Florsheim, L.R. Laurencio, R.A. Marston, A.P. Solverson, G.L. Simon, E. Stinson, and E. **Wohl**. 2016. Investigating feedbacks in human-landscape systems: lessons following a wildfire in Colorado, USA. *Geomorphology* 252, 40-50.
173. **Wohl**, E., S.N. Lane, and A.C. Wilcox. 2015. The science and practice of river restoration. *Water Resources Research* 51, 5974-5997.
172. Sutfin, N., E. **Wohl**, and K. Dwire. 2016. Banking carbon: a review of organic carbon reservoirs in river systems. *Earth Surface Processes and Landforms* 41, 38-60.
171. Kramer, N. and **Wohl**, E. 2015. Driftcretions: the legacy impacts of driftwood on shoreline morphology. *Geophysical Research Letters* 42, 5855-5864.
170. **Wohl**, E. 2015. Particle dynamics: the continuum of bedrock to alluvial river segments. *Geomorphology* 241, 192-208.
169. **Wohl**, E. 2015. Legacy effects on sediments in river corridors. *Earth-Science Reviews* 147, 30-53.
168. **Wohl**, E. 2015. Of wood and rivers: bridging the perception gap. *WIREs Water* 2, 167-176.
167. Jackson, K.J. and E. **Wohl**. 2015. Instream wood loads in montane forest streams of the Colorado Front Range, USA. *Geomorphology* 234, 161-170.
166. **Wohl**, E., B.P. Bledsoe, R.B. Jacobson, N.L. Poff, S.L. Rathburn, D.M. Walters, and A.C. Wilcox. 2015. The natural sediment regime: broadening the foundation for ecosystem management. *BioScience* 65, 358-371.
165. Livers, B. and **Wohl**, E. 2015. An evaluation of stream characteristics in glacial versus fluvial process domains in the Colorado Front Range. *Geomorphology* 231: 72-82.
164. Caskey, S.T., T.S. Blaschak, E. **Wohl**, E. Schnackenberg, D.M. Merritt, and K.A. Dwire.

2015. Downstream effects of stream flow diversion on channel characteristics and riparian vegetation in the Colorado Rocky Mountains, USA. *Earth Surface Processes and Landforms* 40, 586-598.
163. **Wohl**, E. 2014. A legacy of absence: wood removal in U.S. rivers. *Progress in Physical Geography* 38: 637-663.
162. Yochum, S.E., B.P. Bledsoe, E. **Wohl**, and G.C.L. David. 2014. Spatial characterization of roughness elements in high-gradient channels of the Fraser Experimental Forest, Colorado, USA. *Water Resources Research* 50: 6015-6029.
161. Sutfin, N.A., J. Shaw, E. **Wohl**, and D. Cooper. 2014. A geomorphic classification of ephemeral channels in a mountainous, arid region, southwestern Arizona, USA. *Geomorphology* 221: 164-175.
160. **Wohl**, E. 2014. Time and the rivers flowing: fluvial geomorphology since 1960. *Geomorphology* 216: 263-282.
159. Scott, D.N., D.R. Montgomery, and E. **Wohl**. 2014. Log step and clast interactions in mountain streams in the central Cascade Range of Washington State, USA. *Geomorphology* 216: 180-186.
158. Polvi, L.E., E. **Wohl** and D.M. Merritt. 2014. Modeling the functional influence of vegetation type on streambank cohesion. *Earth Surface Processes and Landforms* 39, 1245-1258.
157. Kramer, N. and E. **Wohl**. 2014. Estimating fluvial wood discharge using timelapse photography with varying sampling intervals. *Earth Surface Processes and Landforms* 39, 844-852.
156. Beckman, N. and E. **Wohl**. 2014. Carbon storage in mountainous headwater streams: the role of old-growth forest and logjams. *Water Resources Research* 50, 2376-2393.
155. Beckman, N. and E. **Wohl**. 2014. Effects of forest stand age on the characteristics of logjams in mountainous forest streams. *Earth Surface Processes and Landforms* 39, 1421-1431.
154. Chin, A., L.R. Laurencio, M.D. Daniels, E. **Wohl**, M.A. Urban, K.L. Boyer, A. Butt, H. Piegay, and K.J. Gregory. 2014. The significance of perceptions and feedbacks for effectively managing wood in rivers. *River Research and Applications* 30, 98-111.
153. **Wohl**, E. and N. Beckman. 2014. Controls on the longitudinal distribution of channel-spanning logjams in the Colorado Front Range, USA. *River Research and Applications* 30, 112-131.
152. Chin, A., J.L. Florsheim, E. **Wohl**, and B.D. Collins. 2014. Feedbacks in human-landscape systems. *Environmental Management* 53, 28-41.
151. Harden, C.P., A. Chin, M.R. English, R. Fu, K.A. Galvin, A.K. Gerlak, P.F. McDowell, D.E. McNamara, J.M. Peterson, N.L. Poff, E.A. Rosa, W.D. Solecki, and E.E. **Wohl**. 2014. Understanding human-landscape interactions in the “Anthropocene.” *Environmental Management* 53, 4-13.
150. **Wohl**, E. and N. Beckman. 2014. Leaky rivers: implications of the loss of longitudinal fluvial disconnectivity in headwater streams. *Geomorphology* 205, 27-25.
149. Ortega, J.A., M. Gómez-Heras, R. Perez-López, and E. **Wohl**. 2014. Multiscale structural and lithologic controls in the development of stream potholes on granite bedrock rivers. *Geomorphology* 204, 588-598.

148. **Wohl**, E., A.K. Gerlak, N.L. Poff, and A. Chin. 2014. Common core themes in geomorphic, ecological, and social systems. *Environmental Management* 53, 14-27.
147. Cadol, D. and E. **Wohl**. 2013. Variable contribution of wood to the hydraulic resistance of headwater tropical streams. *Water Resources Research* 49, 4711-4723.
146. **Wohl**, E. 2013. Landscape-scale carbon storage associated with beaver dams. *Geophysical Research Letters* 40, 1-6.
145. Ortega, J.A., E. **Wohl** and B. Livers. 2013. Waterfalls on the eastern side of Rocky Mountain National Park, Colorado, USA. *Geomorphology* 198, 37-44.
144. **Wohl**, E. 2013. Migration of channel heads following wildfire in the Colorado Front Range, USA. *Earth Surface Processes and Landforms* 38, 1049-1053.
143. **Wohl**, E. 2013. Floodplains and wood. *Earth-Science Reviews* 123, 194-212.
142. **Wohl**, E. 2013. Wilderness is dead: Whither critical zone studies and geomorphology in the Anthropocene? *Anthropocene* 2: 4-15.
141. **Wohl**, E. 2013. Redistribution of forest carbon caused by patch blowdowns in subalpine forests of the Southern Rocky Mountains, USA. *Global Biogeochemical Cycles* 27, 1205-1213.
140. Polvi, L. and E. **Wohl**. 2013. Biotic drivers of stream planform – implications for understanding the past and restoring the future. *BioScience* 63, 439-452.
139. **Wohl**, E. 2013. The complexity of the real world in the context of the field tradition in geomorphology. *Geomorphology* 200, 50-58.
138. Jimenez, M.A. and E. **Wohl**. 2013. Solute transport modeling using morphological parameters in step-pool reaches. *Water Resources Research* 49, 1-15, doi:10.1002/wrcr.20102.
137. **Wohl**, E. and F.L. Ogden. 2013. Organic carbon export in the form of wood during an extreme tropical storm, Upper Rio Chagres, Panama. *Earth Surface Processes and Landforms* 38, 1407-1416.
136. Rathburn, S.L., Z.K. Rubin, and E.E. **Wohl**. 2013. Evaluating channel response to an extreme sedimentation event in the context of historical range of variability: Upper Colorado River, USA. *Earth Surface Processes and Landforms* 38, 391-406.
135. David, G.C.L., C.J. Legleiter, E. **Wohl** and S.E. Yochum. 2013. Characterizing spatial variability in velocity and turbulence intensity using 3-D acoustic Doppler velocimeter data in a plane-bed reach of East St. Louis Creek, Colorado, USA. *Geomorphology* 183: 28-44.
134. Dubinski, I.M. and E. **Wohl**. 2013. Relationships between block quarrying, bed shear stress, and stream power: A physical model of block quarrying in a jointed bedrock channel. *Geomorphology* 180-181: 66-81.
133. **Wohl**, E., K. Dwire, N. Sutfin, L. Polvi and R. Bazan. 2012. Mechanisms of carbon storage in mountainous headwater rivers. *Nature Communications* 3:1263, doi:10.1028/ncomms2274.
132. Ethridge, F.G., **Wohl**, E., Gellis, A., Germanoski, D., Hayes, B.R., Ouchi, S. 2012. Memorial to Stanley A. Schumm (1927-2011). *Geological Society of America Memorials* 41, 51-56.
131. Dust, D. and E. **Wohl**. 2012. Characterization of the hydraulics at natural step crests in step-pool streams via weir flow concepts. *Water Resources Research* W09542,

- doi:10.1029/2011WR011724.
130. **Wohl**, E. 2012. Identifying and mitigating dam-induced declines in river health: Three case studies from the western United States. *International Journal of Sediment Research* 27, 271-287.
 129. **Wohl**, E. et al. 2012. The hydrology of the humid tropics. *Nature Climate Change* 2, 655-662.
 128. **Wohl**, E., S. Bolton, D. Cadol, F. Comiti, J.R. Goode, and L. Mao, 2012. A two end-member model of wood dynamics in headwater neotropical rivers. *Journal of Hydrology* 462-463, 67-76.
 127. Cadol, D., S. Kampf and E. **Wohl**. 2012. Effects of evapotranspiration on baseflow in a tropical headwater catchment. *Journal of Hydrology* 462-463, 4-14.
 126. Sabo, J.L., K. Bestgen, W. Graf, T. Sinha and E. **Wohl**. 2012. Dams in the Cadillac Desert: downstream effects in a geomorphic context. *The Year in Ecology and Conservation Biology* 1249, 227-246.
 125. Yochum, S., G.C.L. David, B. Bledsoe, and E. **Wohl**. 2012. Velocity prediction in high-gradient channels. *Journal of Hydrology* 424-425, 84-98.
 124. Polvi, L.E. and E. **Wohl**. 2012. The beaver-meadow complex revisited – the role of beaver in post-glacial floodplain development. *Earth Surface Processes and Landforms* 37, 332-346.
 123. Rubin, Z., S.L. Rathburn, E. **Wohl**, and D.L. Harry. 2012. Historic range of variability in geomorphic processes as a context for restoration: Rocky Mountain National Park, Colorado, USA. *Earth Surface Processes and Landforms* 37, 209-222.
 122. Dust, D. and E. **Wohl**. 2012. Conceptual model for complex river responses using an expanded Lane's relation. *Geomorphology* 139-140, 109-121.
 121. Kramer, N.R., E. **Wohl**, and D. Harry. 2012. Using ground penetrating radar to 'unearth' buried beaver dams. *Geology* 40, 43-46.
 120. **Wohl**, E. and D. Dust. 2012. Geomorphic response of a headwater channel to augmented flow. *Geomorphology* 138: 329-338.
 119. **Wohl**, E. 2011. What should these rivers look like? Historical range of variability and human impacts in the Colorado Front Range, USA. *Earth Surface Processes and Landforms* 36: 1378-1390.
 118. Wilcox, A.C., E.E. **Wohl**, F. Comiti and L. Mao, 2011. Hydraulics, morphology, and energy dissipation in an alpine step-pool channel. *Water Resources Research* 47: W07514, doi: 10.1029/2010WR010192.
 117. David, G.C.L., E.E. **Wohl**, S.E. Yochum, and B.P. Bledsoe, 2011. Comparative analysis of bed resistance partitioning in high gradient streams. *Water Resources Research* 47: W07507, doi:10.1029/2010WR009540.
 116. Jaeger, K.L. and E. **Wohl**, 2011. Channel response in a semi-arid stream to removal of tamarisk and Russian olive, *Water Resources Research* 47: W02536, doi:10.1029/2009WR008741.
 115. 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.
 114. **Wohl**, E., 2011. Threshold-induced complex behavior of wood in streams. *Geology* 39: 587-590.

113. Henkle, J.E., E. **Wohl** and N. Beckman, 2011. Locations of channel heads in the semiarid Colorado Front Range, USA. *Geomorphology* 129: 309-319.
112. Polvi, L.E., E.E. **Wohl**, and D.M. Merritt, 2011. Geomorphic and process domain controls on riparian zones in the Colorado Front Range. *Geomorphology* 125: 504-516.
111. **Wohl**, E., L.E. Polvi, and D. Cadol, 2011. Wood distribution along streams draining old-growth floodplain forests in Congaree National Park, South Carolina, USA. *Geomorphology* 126: 108-120.
110. **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.
109. **Wohl**, E. 2010. A brief review of the process domain concept and its application to quantifying sediment dynamics in bedrock canyons. *Terra Nova* 22: 411-416.
108. Sabo, J.L., T. Sinha, L.C. Bowling, G.H.W. Schoups, W.W. Wallender, M.E. Campana, K.A. Cherkauer, P.L. Fuller, W.L. Graf, J.W. Hopkins, J.S. Kominoski, C. Taylor, S.W. Trimble, R.H. Webb, and E.E. **Wohl**. 2010. Reclaiming freshwater sustainability in the Cadillac Desert. *Proceedings of the National Academy of Sciences* 107: 21263-21270.
107. Goode, J.R. and E. **Wohl**, 2010. Coarse sediment transport in a bedrock channel with complex bed topography. *Water Resources Research* 46: W11524.
106. Graf, W.L., E. **Wohl**, T. Sinha and J.L. Sabo, 2010. Sedimentation and sustainability of western American reservoirs. *Water Resources Research* 46: W12535.
105. David, G.C.L., E. **Wohl**, S.E. Yochum, and B.E. Bledsoe. 2010. At-a-station hydraulic geometry of steep mountain streams, Colorado, USA. *Earth Surface Processes and Landforms* 35: 1820-1837.
104. Dust, D.W. and E. **Wohl**. 2010. Quantitative technique for assessing the geomorphic thresholds for floodplain instability and braiding in the semi-arid environment. *Natural Hazards* 55: 145-160.
103. Goode, J.R. and E. **Wohl**, 2010. Substrate controls on the longitudinal profile of bedrock channels: implications for reach-scale roughness. *Journal of Geophysical Research Earth Surface* 115: F03018.
102. Cadol, D. and E. **Wohl**. 2010. Wood retention and transport in tropical, headwater streams, La Selva Biological Station, Costa Rica. *Geomorphology* 123: 61-73.
101. Pike, A.S., Scatena, F.N. and **Wohl**, E. 2010. Longitudinal patterns in stream channel geomorphology in the tropical montane streams of the Luquillo Mountains, Puerto Rico. *Earth Surface Processes and Landforms* 35: 1402-1417.
100. **Wohl**, E., D.A. Cenderelli, K.A. Dwire, S.E. Ryan-Burkett, M.K. Young, and K.D. Fausch, 2010. Large instream wood studies: a call for common metrics. *Earth Surface Processes and Landforms* 35: 618-625.
99. Jaeger, K.L., E. **Wohl**, and A. Simon. 2010. A comparison of average rates of fluvial erosion between the south-western and south-eastern United States. *Earth Surface Processes and Landforms* 35: 447-459.
98. David, G.C.L., E. **Wohl**, S.E. Yochum, and B. E. Bledsoe. 2010. Controls on spatial variations in flow resistance along steep mountain streams. *Water Resources Research* 46: W03513.
97. **Wohl**, E. and K. Jaeger. 2009. Geomorphic implications of hydroclimatic differences among step-pool channels. *Journal of Hydrology* 374: 148-161.

96. **Wohl**, E., F. Ogden, and J. Goode. 2009. Episodic wood loading in a mountainous neotropical watershed. *Geomorphology* 111: 149-159.
95. Cadol, D., E. **Wohl**, J.R. Goode, and K.L. Jaeger. 2009. Wood distribution in neotropical forested headwater streams of La Selva, Costa Rica. *Earth Surface Processes and Landforms* 34: 1198-1215.
94. Comiti, F., D. Cadol, and E. **Wohl**. 2009. Flow regimes, bed morphology, and flow resistance in self-formed step-pool channels. *Water Resources Research* 45: W054424, 18 pp.
93. Pollen-Bankhead, N., A. Simon, K. Jaeger, and E. **Wohl**. 2009. Destabilization of streambanks by removal of invasive species in Canyon de Chelly National Monument, Arizona. *Geomorphology* 103: 363-374.
92. Chin, A., S. Anderson, A. Collison, B.J. Ellis-Sugai, J.P. Haltiner, J.B. Hogervorst, G.M. Kondolf, L.S. O'Hirok, A.H. Purcell, A.L. Riley and E. **Wohl**. 2009. Linking theory and practice for restoration of step-pool streams. *Environmental Management* 43:645-661.
91. Thompson, D.M. and **Wohl**, E. 2009. The linkage between velocity patterns and sediment entrainment in a forced-pool and riffle unit. *Earth Surface Processes and Landforms* 34: 177-192.
90. **Wohl**, E. and Jaeger, K.L. 2009. A conceptual model for the longitudinal distribution of wood in mountain streams. *Earth Surface Processes and Landforms* 34: 329-344.
89. G. David, B.P. Bledsoe, D.M. Merritt, and E. **Wohl**. 2008. The impacts of ski slope development on stream channel morphology in the White River National Forest, Colorado, USA. *Geomorphology* 103: 375-388.
88. **Wohl**, E. and Goode, J.R. 2008. Wood dynamics in headwater streams of the Colorado Rocky Mountains. *Water Resources Research* 44, W09429.
87. **Wohl**, E. and David, G.C.L. 2008. Consistency of scaling relations among bedrock and alluvial channels. *Journal of Geophysical Research - Earth Surfaces* 113: F04013.
86. Nowakowski, A.L. and **Wohl**, E. 2008. Influences on wood load in mountain streams of the Bighorn National Forest, Wyoming, USA. *Environmental Management* 42: 557-571.
85. Oswald, E.B. and **Wohl**, E. 2008. Wood-mediated geomorphic effects of a jökulhlaup in the Wind River Mountains, Wyoming. *Geomorphology* 100: 549-562.
84. Chin, A., Daniels, M.D., Urban, M.A., Piegay, H., Gregory, K.J., Bigler, W., Butt, A.Z., Grable, J.L., Gregory, S.V., Lafrenz, M., Laurencio, L.R. and **Wohl**, E. 2008. Perceptions of wood in rivers and challenges for stream restoration in the United States. *Environmental Management* 41: 893-903.
83. **Wohl**, E. 2008. Substrate influences on the formation of straths in the Poudre River drainage, Colorado Front Range. *Journal of Geophysical Research – Earth Surfaces* 113: F01007, 12 pp.
82. **Wohl**, E. and Merritt, D.M. 2008. Reach-scale channel geometry of mountain streams. *Geomorphology* 93: 168-185.
81. **Wohl**, E. 2007. Channel-unit hydraulics on a pool-riffle channel. *Physical Geography* 28: 233-248.
80. **Wohl**, E. and Merritts, D.J. 2007. What is a natural river? *Geography Compass* 1: 871-900.
79. Comiti, F., Mao, L., Wilcox, A., **Wohl**, E.E., and Lenzi, M.A. 2007. Field-derived relationships for flow velocity and resistance in high-gradient streams. *Journal of Hydrology* 340: 48-62.

78. **Wohl**, E., Cooper, D., Poff, L.R., Rahel, F., Staley, D. and Winters, D. 2007. Assessment of stream ecosystem function and sensitivity in the Bighorn National Forest, Wyoming. *Environmental Management* 40: 284-302.
77. Dubinski, I.M. and **Wohl**, E. 2007. Estimates of coarse sediment mobility in the Black Canyon of the Gunnison River, Colorado. *Environmental Management* 40: 147-160.
76. Goode, J.R. and **Wohl**, E. 2007. Relationships between land-use and forced-pool characteristics in the Colorado Front Range. *Geomorphology* 83: 249-265.
75. Rengers, F.K. and **Wohl**, E. 2007. Grain-size trends of gravel bars on the Rio Chagres, Panama. *Geomorphology* 83: 282-293.
74. Legleiter, C.J., Phelps, T.L. and **Wohl**, E. 2007. Geostatistical analysis of the effects of stage and roughness on reach-scale spatial patterns of velocity and turbulence intensity. *Geomorphology* 83: 322-345.
73. Wilcox, A.C. and **Wohl**, E. 2007. Field measurements of three-dimensional hydraulics in a step-pool channel. *Geomorphology* 83: 215-231.
72. Springer, G.S., Tooth, S. and **Wohl**, E. 2006. Theoretical modeling of stream potholes based upon empirical observations from the Orange River, Republic of South Africa. *Geomorphology* 82: 160-176.
71. Kondolf, G.M., Boulton, A.J., O'Daniel, S., Poole, G.C., Rahel, F.J., Stanley, E.H., **Wohl**, E., Bång, A., Carlstrom, J., Cristoni, C., Huber, H., Koljonen, S., Louhi, P., and Nakamura, K. 2006. Process-based ecological river restoration: visualizing three-dimensional connectivity and dynamic vectors to recover lost linkages. *Ecology and Society* 11 (2): 5 [online].
70. **Wohl**, E. 2006. Human impacts to mountain streams. *Geomorphology* 79: 217-248.
69. Flores, A.N., Bledsoe, B.P., Cuhaciyian, C.O., and **Wohl**, E. 2006. Channel-reach morphology dependence on energy, scale, and hydroclimatic processes with implications for prediction using geospatial data. *Water Resources Research* 42: W06412.
68. Wilcox, A.C. and **Wohl**, E. 2006. Flow resistance dynamics in step-pool streams channels: 1. Large woody debris and controls on total resistance. *Water Resources Research* 42: W05418.
67. Wilcox, A.C., Nelson, J.M., and **Wohl**, E. 2006. Flow resistance dynamics in step-pool streams channels: 2. Partitioning between grain, spill, and woody debris resistance. *Water Resources Research* 42: W05419.
66. Merritt, D.M. and **Wohl**, E.E. 2006. Plant dispersal along rivers fragmented by dams. *River Research and Applications* 21: 1-26.
65. Sable, K.A. and **Wohl**, E. 2006. The relationship of lithology and watershed characteristics to fine sediment deposition in streams of the Oregon Coast Range. *Environmental Management* 37: 659-670.
64. Springer, G.S., Tooth, S., and **Wohl**, E.E. 2005. Geometry and dynamics of pothole growth as defined by field data and modeling. *Journal of Geophysical Research – Earth Surface* 110: F04010.
63. Stewart, G., Anderson, A., and **Wohl**, E. 2005. Two-dimensional modeling of habitat suitability as a function of discharge on two Colorado rivers. *River Research and Applications* 21: 1061-1074.
62. Chin, A. and **Wohl**, E. 2005. Toward a theory for step pools in stream channels. *Progress in*

- Physical Geography 29: 275-296.
61. Jaquette, C., **Wohl**, E. and Cooper, D. 2005. Establishing a context for river rehabilitation, North Fork Gunnison River, Colorado. *Environmental Management* 35: 593-606.
 60. **Wohl**, E. 2005. Compromised rivers: understanding historical human impacts on rivers in the context of restoration. *Ecology and Society*.
 59. **Wohl**, E., Angermeier, P.A., Bledsoe, B., Kondolf, G.M., MacDonnell, L., Merritt, D.M., Poff, N.L., Palmer, M.A., and Tarboton, D. 2005. River restoration. *Water Resources Research* 41: 10.1029/2005WR003985, 12 p.
 58. **Wohl**, E. and Merritt, D.M. 2005. Prediction of mountain stream morphology. *Water Resources Research* 41: 10.1029/2004WR003779, 10 p.
 57. **Wohl**, E. and Wilcox, A. 2005. Channel geometry of mountain streams in New Zealand. *Journal of Hydrology* 300: 252-266.
 56. **Wohl**, E. 2004. Limits of downstream hydraulic geometry. *Geology* 32: 897-900.
 55. **Wohl**, E., Kuzma, J.N. and Brown, N.E. 2004. Reach-scale channel geometry of a mountain river. *Earth Surface Processes and Landforms* 29: 969-981.
 54. Zelt, R.B. and **Wohl**, E.E. 2004. Channels and organic debris in adjacent burned and unburned watersheds a decade after wildfire, Park County, Wyoming. *Geomorphology* 57: 217-233.
 53. Rathburn, S. and **Wohl**, E. 2003. Predicting fine sediment dynamics along a pool-riffle mountain channel. *Geomorphology* 55: 111-124.
 52. Springer, G.S., **Wohl**, E.E., Foster, J.A. and Boyer, D.G. 2003. Testing for reach-scale adjustments of hydraulic variables to soluble and insoluble strata: Buckeye Creek and Greenbrier River, West Virginia. *Geomorphology* 56: 201-217.
 51. Steinberger, N. and **Wohl**, E. 2003. Impacts to water quality and fish habitat associated with maintaining natural channels for flood control. *Environmental Management* 31: 724-740.
 50. **Wohl**, E. and Rathburn, S. 2003. Mitigation of sedimentation hazards downstream from reservoirs. *International Journal of Sediment Research* 18: 97-106.
 49. Merritt, D.M. and **Wohl**, E.E. 2003. Downstream hydraulic geometry and channel adjustment during a flood along an ephemeral, arid-region drainage. *Geomorphology* 52: 165-180.
 48. Phippen, S.J. and **Wohl**, E. 2003. An assessment of land use and other factors affecting sediment loads in the Rio Puerco watershed, New Mexico. *Geomorphology* 52: 269-287.
 47. MacFarlane, W.A. and **Wohl**, E.E. 2003. The influence of step composition on step geometry and flow resistance in step-pool streams of the Washington Cascades. *Water Resources Research* 39: ESG3-1 to ESG3-13.
 46. **Wohl**, E. and Legleiter, C.J. 2003. Controls on pool characteristics along a resistant-boundary channel. *Journal of Geology* 111: 103-114.
 45. Cenderelli, D.A. and **Wohl**, E.E. 2003. Flow hydraulics and geomorphic effects of glacial-lake outburst floods in the Mount Everest region, Nepal. *Earth Surface Processes and Landforms* 28: 385-407.
 44. Curran, J.H. and **Wohl**, E.E. 2003. Large woody debris and flow resistance in step-pool channels, Cascade Range, Washington. *Geomorphology* 51: 141-157.
 43. **Wohl**, E. and Achyuthan, H. 2002. Substrate influences on incised channel morphology. *Journal of Geology* 110: 115-120.
 42. Ehlen, J. and **Wohl**, E. 2002. Joints and landform evolution in bedrock canyons. *Transactions*,

- Japanese Geomorphological Union 23: 237-255.
41. Merritt, D.M. and **Wohl**, E.E. 2002. Processes governing hydrochory along rivers: hydraulics, hydrology, and dispersal phenology. *Ecological Applications* 12: 1071-1087.
 40. Springer, G.S. and **Wohl**, E.E. 2002. Empirical and theoretical investigations of sculpted forms in Buckeye Creek Cave, West Virginia. *Journal of Geology* 110: 469-481.
 39. **Wohl**, E.E. and Merritt, D.M. 2001. Bedrock channel morphology. *Geological Society of America Bulletin* 113: 1205-1212.
 38. Cenderelli, D.A. and **Wohl**, E.E. 2001. Peak discharge estimates of glacial lake outburst floods and “normal” climatic floods in the Mount Everest region, Nepal. *Geomorphology* 40: 57-90.
 37. Rathburn, S.L. and **Wohl**, E.E. 2001. One-dimensional sediment transport modeling of pool recovery along a mountain channel after a reservoir sediment release. *Regulated Rivers* 17: 251-273.
 36. Traylor, C.R. and **Wohl**, E.E. 2000. Seasonal changes in bed elevation in a step-pool channel, Rocky Mountains, Colorado, USA. *Arctic, Antarctic, and Alpine Research* 32: 95-103.
 35. **Wohl**, E.E. and Thompson, D.M. 2000. Velocity characteristics along a small step-pool channel. *Earth Surface Processes and Landforms* 25: 353-367.
 34. **Wohl**, E.E. and Cenderelli, D.A. 2000. Sediment deposition and transport patterns following a reservoir sediment release. *Water Resources Research* 36: 319-333.
 33. **Wohl**, E.E. 2000. Substrate influences on step-pool sequences in the Christopher Creek drainage, Arizona. *Journal of Geology* 108: 121-129.
 32. Thompson, D.M., **Wohl**, E.E. and Jarrett, R.D. 1999. Velocity reversals and sediment sorting in pools and riffles controlled by channel constrictions. *Geomorphology* 27: 229-241.
 31. Thompson, D.M., Nelson, J.M., and **Wohl**, E.E. 1998. Interactions between pool geometry and hydraulics. *Water Resources Research* 34: 3673-3681.
 30. Blizard, C.R. and **Wohl**, E.E. 1998. Relationships between hydraulic variables and bedload transport in a subalpine channel, Colorado Rocky Mountains, USA. *Geomorphology* 22: 359-371.
 29. Kelly, E.F., Blecker, S.W., Yonker, C.M., Olson, C.G., **Wohl**, E.E. and Todd, L.C. 1998. Stable isotope composition of soil organic matter and phytoliths as paleoenvironmental indicators. *Geoderma* 82: 59-81.
 28. Pruess, J., **Wohl**, E.E. and Jarrett, R.D. 1998. Methodology and implications of maximum paleodischarge estimates for mountain channels, upper Animas River basin, Colorado, USA. *Arctic and Alpine Research* 30: 40-50.
 27. **Wohl**, E.E. 1998. Uncertainty in flood estimates associated with roughness coefficient. *ASCE Journal of Hydraulic Engineering* 124: 219-223.
 26. **Wohl**, E.E. and Ikeda, H. 1998. Patterns of bedrock channel erosion on the Boso Peninsula, Japan. *Journal of Geology* 106: 331-345.
 25. **Wohl**, E.E. and Ikeda, H. 1998. The effect of roughness configuration on velocity profiles in an artificial channel. *Earth Surface Processes and Landforms* 23: 159-169.
 24. **Wohl**, E.E., Madsen, S.M. and MacDonald, L.H. 1997. Characteristics of log and clast bed steps in step-pool streams of northwestern Montana, USA. *Geomorphology* 20: 1-10.
 23. Fanok, S.F. and **Wohl**, E.E. 1997. Assessing the accuracy of paleohydrologic indicators, Harpers Ferry, West Virginia. *Journal of the American Water Resources Association* 33: 1091-1102.
 22. **Wohl**, E.E. and Ikeda, H. 1997. Experimental simulation of channel incision into a cohesive

- substrate at varying gradients. *Geology* 25: 295-298.
21. Hammack, L. and **Wohl**, E. 1996. Debris-fan formation and rapid modification at Warm Springs Rapid, Yampa River, Colorado. *Journal of Geology* 104: 729-740.
 20. **Wohl**, E.E., Anthony, D.J., Madsen, S.W., and Thompson, D.M. 1996. A comparison of surface sampling methods for coarse fluvial sediments. *Water Resources Research* 32: 3219-3226.
 19. Thompson, D.M., **Wohl**, E.E., and Jarrett, R.D. 1996. A revised velocity-reversal and sediment-sorting model for a high-gradient, pool-riffle stream. *Physical Geography* 17: 142-156.
 18. Grimm, M.M., **Wohl**, E.E. and Jarrett, R.D. 1995. Coarse-sediment distribution as evidence of an elevation limit for flash flooding, Bear Creek, Colorado. *Geomorphology* 14: 199-210.
 17. Hilmes, M.M. and **Wohl**, E.E. 1995. Changes in channel morphology associated with placer mining. *Physical Geography* 16: 223-242.
 16. **Wohl**, E.E. 1995. Estimating flood magnitude in ungaged mountain channels, Nepal. *Mountain Research and Development* 15: 69-76.
 15. **Wohl**, E.E. and Georgiadi, A.G. 1994. Holocene paleomeanders along the Sejm River, Russia. *Zeitschrift fur Geomorphologie* 38: 299-309.
 14. Mejia-Navarro, M. and **Wohl**, E.E. 1994. Geological hazard and risk evaluation using GIS: Methodology and model applied to Medellin, Colombia. *Bulletin of the Association of Engineering Geologists XXXI*: 459-481.
 13. **Wohl**, E.E., Fuertsch, S.J. and Baker, V.R. 1994. Sedimentary records of late Holocene floods along the Fitzroy and Margaret Rivers, Western Australia. *Australian Journal of Earth Sciences* 41: 273-280.
 12. **Wohl**, E.E., Greenbaum, N., Schick, A.P. and Baker, V.R. 1994. Controls on bedrock channel incision along Nahal Paran, Israel. *Earth Surface Processes and Landforms* 19: 1-13.
 11. **Wohl**, E.E. and Grodek, T. 1994. Channel bed-steps along Nahal Yael, Negev desert, Israel. *Geomorphology* 9: 117-126.
 10. **Wohl**, E.E., Webb, R.H., Baker, V.R. and Pickup, G. 1994. Sedimentary flood records in the bedrock canyons of rivers in the monsoonal region of Australia. *Colorado State University Water Resources Paper* 107, 102 pp.
 9. Adenlof, K.A. and **Wohl**, E.E. 1994. Controls on bedload movement in a subalpine stream of the Colorado Rocky Mountains, USA. *Arctic and Alpine Research* 26: 77-85.
 8. Merritts, D.J., Vincent, K.R., and **Wohl**, E.E. 1994. Long river profiles, tectonism, and eustasy: A guide to interpreting fluvial terraces. *Journal of Geophysical Research (Special Issue on Tectonics and Topography)* 99(B7): 14,031-14,050.
 7. O'Connor, J.E., Ely, L.L., **Wohl**, E.E., Stevens, L.E., Melis, T.S., Kale, V.S. and Baker, V.R. 1994. A 4500-year record of large floods on the Colorado River in the Grand Canyon, Arizona. *The Journal of Geology* 102: 1-9.
 6. **Wohl**, E. 1993. Bedrock channel incision along Piccaninny Creek, Australia. *The Journal of Geology* 101: 749-761.
 5. **Wohl**, E.E., Vincent, K.R. and Merritts, D.J. 1993. Pool and riffle characteristics in relation to channel gradient. *Geomorphology* 6: 99-110.
 4. **Wohl**, E. 1992. Gradient irregularity in the Herbert Gorge of northeastern Australia. *Earth Surface Processes and Landforms* 17: 69-84.
 3. **Wohl**, E.E. 1992. Bedrock benches and boulder bars: Floods in the Burdekin Gorge of Australia.

- Geological Society of America Bulletin 104: 770-778.
2. Murray, A., **Wohl**, E. and East, J. 1992. Thermoluminescence and excess ^{226}Ra decay dating of late Quaternary fluvial sands, East Alligator River, Australia. *Quaternary Research* 37: 29-41.
 1. **Wohl**, E. and Pearthree, P.A. 1991. Debris flows as geomorphic agents in the Huachuca Mountains of southeastern Arizona. *Geomorphology* 4: 273-292.

Book Chapters

31. **Wohl**, E., P.R. Bierman and D.R. Montgomery. 2016. Earth's dynamic surface: the past 50 years in geomorphology. In, M.E. Bickford, ed., *The Web of Geological Sciences: Advances, Impacts, and Interactions: New Papers to Celebrate GSA's 125th Anniversary*, Geological Society of America Special Paper 523. Geological Society of America, Boulder, Colorado, doi:10.1130/2016.2523(01).
30. **Wohl**, E. 2015. Rivers in the critical zone. In, J.R. Giardino and C. Houser, eds., *Principles and Dynamics of the Critical Zone*, Elsevier, pp. 267-293.
29. **Wohl**, E. 2014. Dryland channel networks: resiliency, thresholds, and management metrics. In, R.S. Harmon, S.E. Baker, and E.V. McDonald, eds., *Military Geosciences in the Twenty-First Century*, Geological Society of America, Boulder, CO, pp. 147-158.
28. **Wohl**, E. 2011. Seeing the forest and the trees: wood in stream restoration in the Colorado Front Range, United States. In, A. Simon et al., eds., *Stream Restoration in Dynamic Fluvial Systems: Scientific Approaches, Analyses, and Tools*, AGU Press, Washington, D.C., p. 399-418.
27. **Wohl**, E., 2011. Water follows the people: analysis of water use in the western Great Plains and Rocky Mountains of Colorado, USA. In, I.P. Martini and W. Chesworth, eds., *Landscapes and Societies*. Springer, p. 391-406.
26. **Wohl**, E., Chin, A., Haltiner, J.P., and Kondolf, G.M., 2011. Managing stream morphology with check dams. In, C. Conesa García and M.A. Lenzi, eds., *Check dams, morphological adjustments and erosion control in torrential streams*. Nova Publishers, New York, p. 135-149.
25. **Wohl**, E. 2010. Analysing a natural system. In, N. Clifford, S. French, and G. Valentine, eds., *Key Methods in Geography*, 2nd edition. SAGE Publications, London, p. 253-273.
24. Rathburn, S.L., Merritt, D.M., **Wohl**, E.E., Sanderson, J.S., and Knight, H.A.L. 2009. Characterizing environmental flows for maintenance of river ecosystems: North Fork Cache la Poudre River, Colorado. In, L.A. James, S.L. Rathburn, and G.R. Whittecar, eds., *Management and restoration of fluvial systems with broad historical changes and human impacts*. Geological Society of America Special Paper 451, Boulder, Colorado, p. 143-157.
23. **Wohl**, E., Egenhoff, D. and Larkin, K. 2009. Vanishing riverscapes: a review of historical channel change on the western Great Plains. In, L.A. James, S.L. Rathburn, and G.R. Whittecar, eds., *Management and restoration of fluvial systems with broad historical changes and human impacts*. Geological Society of America Special Paper 451, Boulder, Colorado, p. 131-142.

22. **Wohl**, E., Palmer, M.A. and Kondolf, G.M. 2008. The US experience. In, G. Brierley and K. Fryirs, eds., *River futures*. Island Press, Washington, D.C., p. 174-200.
21. **Wohl**, E. 2007. Hydrology and discharge. In, A. Gupta, ed., *Large rivers of the world*. Wiley and Sons, p. 29-44.
20. **Wohl**, E. 2007. Review of effects of large floods in resistant-boundary channels. In, H. Habersack, ed., *Gravel-bed rivers: from process understanding to river restoration*. Elsevier, pp. 181-212.
19. **Wohl**, E. 2005. Downstream hydraulic geometry along a tropical mountain river. In, R. Harmon, ed., *The Rio Chagres: A multidisciplinary profile of a tropical watershed*. Kluwer Academic Publishers, p. 169-188.
18. **Wohl**, E. and Springer, G. 2005. Bedrock channel incision along the Rio Chagres, Panama. In, R. Harmon, ed., *The Rio Chagres: A multidisciplinary profile of a tropical watershed*. Kluwer Academic Publishers, p. 189-209.
17. Montgomery, D.R. and **Wohl**, E.E. 2004. Rivers and riverine landscapes. In, A. Gillespie, S.C. Porter, and B.F. Atwater, eds., *The Quaternary period in the United States*. Elsevier, Amsterdam, pp. 221-246.
16. **Wohl**, E. and Oguchi, T. 2004. GIS and mountain hazards. In, M.P. Bishop, ed., *Geographic Information Science and Mountain Geomorphology*. Praxis Scientific Publishing, Chichester, UK, pp. 309-341.
15. Rathburn, S.L. and **Wohl**, E.E. 2003. Sedimentation hazards downstream from reservoirs. In, W.L. Graf, ed., *Dam removal research: status and prospects*. The John Heinz Center for Science, Economics and the Environment, Washington, D.C., pp. 105-118.
14. **Wohl**, E.E. 2002. Modeled paleoflood hydraulics as a tool for interpreting bedrock channel morphology. In, P.K. House et al., eds., *Ancient floods, modern hazards: principles and applications of paleoflood hydrology*. American Geophysical Union Press, pp. 345-358.
13. **Wohl**, E. 2001. Rivers. In, A. Orme, ed., *Physical geography of North America*. Oxford University Press.
12. **Wohl**, E., Cenderelli, D. and Mejia-Navarro, M. 2001. Channel change from extreme floods in canyon rivers. In, D.J. Anthony et al., eds., *Applying geomorphology to environmental management*. Water Resources Publications, pp. 149-174.
11. **Wohl**, E.E. 1999. Incised bedrock channels. In, S.E. Darby and A. Simon, eds., *Incised river channels: processes, forms, engineering and management*. Wiley and Sons, Chichester, pp. 187-218.
10. **Wohl**, E. 1999. Boulders on the move: geomorphic hazards from floods and debris flows along mountain rivers. In, Z.-Y. Wang, T.-W. Soong, and B.C. Yen, eds., *Sediment transport and disasters. Special Issue of International Journal of Sediment Research (China)*, v. 14, p.285-293.
9. **Wohl**, E.E. 1998. Bedrock channel morphology in relation to erosional processes. In, K.J. Tinkler and E.E. Wohl, eds., *Rivers over rock: fluvial processes in bedrock channels*. Am. Geophys. Union Geophysical Monograph 107, pp. 133-151.
8. Tinkler, K.J. and **Wohl**, E.E. 1998. A primer on bedrock channels. In, K.J. Tinkler and E.E. Wohl, eds., *Rivers over rock: fluvial processes in bedrock channels*. Am. Geophys. Union Geophysical Monograph 107, pp. 1-18.
7. Tinkler, K.J. and **Wohl**, E.E. 1998. Field studies of bedrock channels. In, K.J. Tinkler and E.E.

- Wohl, eds., Rivers over rock: fluvial processes in bedrock channels. Am. Geophys. Union Geophysical Monograph 107, pp. 261-277.
6. Thompson, D.M. and **Wohl**, E.E. 1998. Flume experimentation and simulation of bedrock channel processes. In, K.J. Tinkler and E.E. Wohl, eds., Rivers over rock: fluvial processes in bedrock channels. Am. Geophys. Union Geophysical Monograph 107, pp. 279-296.
 5. **Wohl**, E. and Cenderelli, D. 1998. Flooding in the Himalaya Mountains. In, V.S. Kale, ed., Flood studies in India, Geological Society of India, Memoir 41, Bangalore, pp. 77-99.
 4. Cenderelli, D.A. and **Wohl**, E.E. 1998. Sedimentology and clast orientation of deposits produced by glacial-lake outburst floods in the Mount Everest region, Nepal. In, J. Kalvoda and C.L. Rosenfeld, eds., Geomorphological hazards in high mountain areas, Kluwer Academic Publishers, The Netherlands, pp. 1-26.
 3. **Wohl**, E.E. and Enzel, Y. 1995. Data for palaeohydrology. In, K.J. Gregory, L. Starkel, and V.R. Baker, eds., Global continental palaeohydrology. John Wiley and Sons, p. 23-59.
 2. Mejia-Navarro, M., **Wohl**, E.E. and Oaks, S.D. 1994. Geological hazards, vulnerability, and risk assessment using GIS: Model for Glenwood Springs-Carbondale, Colorado. In, M. Morisawa, ed., Geomorphology and Natural Hazards, Elsevier, p. 331-354.
 1. Salas, J.D., **Wohl**, E.E. and Jarrett, R.D. 1994. Determination of flood characteristics using systematic, historical and paleoflood data. In, G. Rossi, N. Harmancioglu, and V. Yevjevich, eds., Coping with floods. Kluwer Academic Publishers, Dordrecht, p. 111-134.

Books, Edited Volumes, and Other Special Publications

17. **Wohl**, E., M.K. Mersel, A.O. Allen, K.M. Fritz, S.L. Kichefski, R.W. Lichvar, T.L. Nadeau, B.J. Topping, P.H. Trier, F.B. Vanderbilt. 2016. Synthesizing the scientific foundation for ordinary high water mark delineation in fluvial systems. US Army Corps of Engineers, Washington, D.C., ERDC/CRREL SR-16-5.
16. **Wohl**, E. 2016. Rhythms of change in Rocky Mountain National Park. University Press of Kansas.
15. **Wohl**, E. 2015. Transient landscapes: insights on a changing planet. University Press of Colorado.
14. Yochum, S.E., Comiti, F., **Wohl**, E., David, G.C.L., and Mao, L. 2014. Photographic guidance for selecting flow resistance coefficients in high-gradient channels. USDA Forest Service General Technical Report RMRS-GTR-323, 91 pp.
http://www.fs.fed.us/rm/pubs/rmrs_gtr323.pdf
13. **Wohl**, E. 2014. Rivers in the landscape: science and management. Wiley-Blackwell, Chichester, UK.
12. **Wohl**, E. (Ed.). 2013. Treatise on fluvial geomorphology. Elsevier, Amsterdam.
11. **Wohl**, E. 2013. Wide rivers crossed: the South Platte and the Illinois of the American Prairie. University Press of Colorado.
10. **Wohl**, E. 2011. A world of rivers: environmental change on ten of the world's great rivers. University of Chicago Press.
9. **Wohl**, E. 2010. Mountain rivers revisited. American Geophysical Union, Water Resources Monograph 19, 573 pp.
8. **Wohl**, E. 2009. Of rock and rivers: seeking a sense of place in the American West. University

of California Press.

7. **Wohl**, E. 2009. *Island of grass*. University Press of Colorado.
6. **Wohl**, E. 2004. *Disconnected rivers: Draining the vitality of U.S. Waterways*. Yale University Press.
5. **Wohl**, E.E. 2001. *Virtual Rivers: lessons from the mountain rivers of the Colorado Front Range*. Yale University Press, New Haven, 210 pp.
4. **Wohl**, E. 2000. *Mountain rivers*. American Geophysical Union, Water Resources Monograph 14, 320 pp.
3. **Wohl**, E. 2000. (Ed.) *Inland flood hazards: Human, riparian, and aquatic communities*. Cambridge University Press, 498 pp.
2. Tinkler, K.J. and **Wohl**, E.E. 1998. (Eds.) *Rivers over rock: fluvial processes in bedrock channels*. Am. Geophys. Union Geophysical Monograph 107, 323 pp.
1. **Wohl**, E. 1994. *Rain forest into desert*. University Press of Colorado.

PROFESSIONAL SERVICE

Manuscript Reviews

American Journal of Science; Arabian Journal of Science and Engineering; Arctic, Antarctic, and Alpine Research; Canadian Journal of Forest Research; Catena; Earth and Planetary Science Letters; Earth-Science Reviews; Earth Surface Processes and Landforms; Ecological Applications; Environmental Management; Forest Ecology and Management; Frontiers in Ecology and the Environment; Geodinamica Acta; Geological Society of America Bulletin; Geological Society of America Special Paper series; Geology; Geomorphology; Geophysical Research Letters; Global and Planetary Change; GSA Today; Hydrological Processes; International Journal of Computers and Applications; International Journal of Sediment Research; Journal of the American Water Resources Association; Journal of Geology; Journal of Geophysical Research; Journal of Hydraulic Engineering; Journal of Hydrology; Journal of Range Management; Journal of Sedimentary Petrology; Journal of Sedimentary Research; Limnology and Oceanography; Mountain Research and Development; National Park Service Proceedings Series; Natural Areas Journal; Polish Journal of Environmental Studies; Quaternary Research; Regulated Rivers; U.S. Geological Survey Professional Papers; U.S. Geological Survey Water-Resources Investigations; Water, Air and Soil Pollution; Water Management; Water Resources Research; Wetlands

Service to Societies and Journals

Editorial board of *Geomorphology*, 1996-present
Associate Editor, *Geological Society of America Bulletin*, 1997-2006
Associate Editor, *Water Resources Research*, 2001-2011
Editorial board of *Environmental Management*, 2007-2013
Editorial board of *Geography Compass*, 2007-present
Editorial board of *Earth Surface Processes and Landforms*, 2008-2009; Associate Editor, 2010-present

Associate Editor, *Journal of Hydrology*, 2010-2013
 Editor-in-Chief, Oxford Bibliography of Environmental Science,
<http://www.oxfordbibliographies.com/obo/page/environmental-science>
 Officer, Quaternary Geology & Geomorphology Division, Geological Society of
 America, 2001-2005 (Chair, 2003-2004)
 Member, Erosion & Sedimentation Committee, Am. Geophys. Union, 2001-2008
 Member, Earth and Planetary Surface Process Focus Group, Am. Geophys. Union, 2009-present
 Geol. Soc. Am. Committee on Committees, 1996
 Geol. Soc. Am. Joint Technical Program Committee, 2004
 GSA Quaternary Geology & Geomorphology Division Nominating Committee, 1996
 GSA Quaternary Geol. & Geomorph. Division Panel Member, 1996-1998
 GSA Quaternary Geol. & Geomorph. Division Abstracts Reviewer, 1993
 GSA Quaternary Geol. & Geomorph. Division Mackin/Howard Committee, 1990-91, 1996-98,
 2001-02
 GSA Session Chair, annual meetings in 1993, 1996, 1997, 2002, 2007
 Am. Geophys. Union Session Chair, Hydrology Days, 1992-1994, 1997-1998
 AGU Student Presentation Judge, 1998, 2001, 2003, 2007
 Member, Colorado Natural Hazards Mitigation Council, 1991-present
 Trustee, Rocky Mountain Hydraulic Research Center, 1992-present
 Panel member, NSF Hydrologic Sciences Program, 1999-2003
 Am. Soc. Civil Engineers Paleoflood Hydrology Committee, 1999
 Panel member, NSF Geomorphology and Land-Use Dynamics Program, 2005-2007
 Member of the National Technical Committee on the Ordinary High Water Mark (Army Corps of
 Engineers and US EPA), 2014-present

Invited Lectures, Review Panels, Advisory Boards

Invited lectures

US universities

Baylor University
 Boise State University
 Central Washington University
 College of Idaho
 Colorado College
 Oregon State University
 Skidmore College
 St. Louis University
 Texas A&M University
 University of Arizona
 University of California, Berkeley
 University of California, Davis
 University of California, Santa Barbara
 University of Colorado
 University of Denver

Other universities

Aberystwyth University (Wales)
 Chuo University (Japan)
 Durham University (England)
 ETH Zurich (Switzerland)
 Griffith University (Australia)
 Hebrew University (Israel)
 Hokkaido University (Japan)
 Loughborough University (England)
 Mid-Sweden University
 Newcastle University (England)
 Queen Mary University of London (England)
 Umeå University (Sweden)
 Universidad Complutense Madrid (Spain)
 University of Cambridge (England)
 University of Edinburgh (Scotland)

University of Iowa
University of New Mexico
University of North Carolina, Charlotte
University of Oklahoma
University of South Carolina
University of Vermont
University of Washington
University of Wyoming
Ohio State University
Ohio Wesleyan University

University of Glasgow (Scotland)
University of Hull (England)
University of Nottingham (England)
University of Padova (Italy)
University of Southampton (England)
University of Tokyo (Japan)
University of Tsukuba (Japan)
University of Western Ontario (Canada)
Pontificia Universidad Católica de Chile
Universidad de los Andes (Colombia)
University of Melbourne (Australia)
University of Wollongong (Australia)

Other

Am. Geophys. Union Gilbert Club
Army Research Office Workshop on Desert Processes
Chinese-American Frontiers of Science Meeting, 1999, 2000
Colorado Archeological Society
COACH International invited participant (Argentina 2013, Jamaica 2014, Namibia 2015, Rwanda 2016)
Colorado Natural Hazards Mitigation Council
Colorado Scientific Society
Estes Valley Land Trust
Geological Survey of Norway
Institute of Geography (Russia)
National Institute of Water and Atmospheric Sciences (New Zealand)
NSF Workshop on Sediment-Induced Disasters
The Nature Conservancy
U.S. Forest Service
U.S. Geological Survey
Wood Buffalo National Park, Canada

Invited keynote speaker at Binghamton Geomorphology Symposium (1994, 2006, 2012); North American Benthological Society (2000); American Water Resources Association conference (2004); Colorado Riparian Association conference (2004); Second International Symposium on Riverine Landscapes, Sweden (2004); Gravel-Bed Rivers VI Workshop, Austria (2005); 7th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, China (2011); 4th Interagency Conference on Research in the Watersheds (2011); Mid-Atlantic Stream Restoration Conference (2011); MTNCLIM (Consortium for Integrated Climate Research in Western Mountains, 2012); River Restoration Northwest Conference (2012); American Society of Environmental Historians (2013); Southwest Stream Restoration Conference (2014); Wood in World Rivers III (2015); 8th Australian Stream Management Conference (2016); Catskills Environmental Research and Monitoring Conference (2016); RiverFlow (2016); Rocky Mountain Stream Restoration Conference (2016); Sustaining Colorado Watersheds Conference

(2016)

Review panels for Upper Colorado River Endangered Fish Recovery Program (1995); San Juan River Recovery Program (1997-2005); Chair, Physical Sciences Review Panel for Grand Canyon Monitoring and Research Center (1998-2000); CALFED Battle Creek Restoration Plan (2003-2004); Building with Nature (The Netherlands, 2013); US Environmental Protection Agency Science Advisory Board Panel for the review of the EPA Water Body Connectivity Report (2013); The New Delta (The Netherlands, 2014)

External PhD examiner for Macquarie University, Australia (2001, 2015); Umea University, Sweden (2004); University of Trento, Italy (2007); Southern Cross University, Australia (2010); University of Auckland, New Zealand (2014); University of Melbourne, Australia (2014); University of the West Indies, Jamaica (2014)

Advisory board for The Nature Conservancy's Colorado Scientific Advisory Network (1997-present), Grand Canyon Monitoring and Research Center Science Advisors Board (2006-present)

International visitors hosted at Colorado State University

Takashi Oguchi, University of Tokyo, Japan (2001)
Yuichi Hayakawa, University of Tokyo, Japan (2005)
Francesco Comiti, University of Padova, Italy (2007)
Mario Jiménez, Universidad Nacional de Colombia, Colombia (2010)
Jonathan Ryan, University of Nottingham, England (2011)
Jose Ortega, Universidad Autónoma de Madrid, Spain (2012, 2015)
Michaela Wörndl, University of Innsbruck, Austria (2014)
Margherita Righini, University of Padova, Italy (2015)
William Amponsah, University of Padova, Italy (2015)
Fernando Ugalde, Pontificia Universidad Católica de Chile, Chile (2015)
Lina Polvi Sjöberg, Umeå University, Sweden (2015)
Alfonso Pisabarro, University of Valladolid, Spain (2016)

Primary advisor for the following graduate students

MS (47)

Kathy Adenlof (1992)
Susan Fuertsch (1992)
Mario Mejia-Navarro (1992)
Michael Grimm (1993)
Marsha Hilmes (1993)
Clifford Blizard (1994)
Lauren Hammack (1994)
Michael Martin (1994)
Rebecca Smith (1994)
Douglas Thompson (1994)

PhD (26)

Mario Mejia-Navarro (1995)
Nancy Hoefs (1996)
Brian Cluer (1997)
Mette Jordan (1997)
Douglas Thompson (1997)
Edmund Wick (1998)
Dan Cenderelli (1998)
David Merritt (1999)
Sara Rathburn (2001)
Gregory Springer (2002)

Michael Liquori (1995)
Susan Madsen (1995)
Jill Minter (1996)
Jonathan Pruess (1996)
Carolyn Trayler (1997)
Janet Curran (1999)
Jasper Hardison (2000)
Stephanie Phippen (2000)
William MacFarlane (2001)
Gregory Stewart (2001)
Ronald Zelt (2002)
Chris Jaquette (2003)
Tracy Phelps (2003)
Kurt Sable (2004)
Ian Dubinski (2005)
Jaime Goode (2005)
Francis Rengers (2005)
Dan Cadol (2007)
Gabrielle David (2007)
Amy Nowakowski (2007)
Paul Dante (2009)
Lina Polvi (2009)
Zan Rubin (2010)
Jameson Henkle (2010)
Elizabeth Gilliam (2011)
Natalie Kramer (2011)
Tyanna Schlom (2012)
Nicholas Sutfin (2012)
Jonathan Garber (2013)
Simeon Caskey (2013)
Bridget Livers (2013)
Heidi Klingel (2013)
Karen Jackson (2014)
DeAnna Laurel (2014)
Dena Hicks (2015)
Dan Scott (2015)
Elizabeth Oswald (2015)
Krista Garrett (2016)
Andrew Pfeiffer (2017)

Allen Gellis (2003)
Andrew Wilcox (2005)
Nancy Brown (2006)
Ian Dubinski (2009)
Jaime Goode (2009)
Kristin Jaeger (2009)
Dan Cadol (2010)
Gabrielle David (2011)
Lina Polvi (2011)
Natalie Beckman (2012)
Susan Howe (2013)
Dai Thomas (2014)
Umit Duru (2015)
Nick Sutfin (2015)
Natalie Kramer Anderson (2016)
Bridget Livers (2016)