

CURRICULUM VITAE – June 2009

Clifford N. Dahm, Professor

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Research Interests:

Ecosystem studies, aquatic ecology, stream water/ground water interactions, microbial ecology, stream and river restoration, biogeochemistry, geomicrobiology, ecohydrology, evapotranspiration

Educational History:

B.S. Boise State University, Boise, ID, Summa Cum Laude, Major - Chemistry, Minors - Mathematics & Literature 1972

M.A. Oregon State University, Corvallis, OR, Major - Chemical Oceanography, Minor - Statistics 1974

Dissertation Title: A Study of Nutrient Dynamics in the Atlantic Ocean, Advisor: P. Kilho Park

Ph.D. Oregon State University, Corvallis, OR, Major – Oceanography/Aquatic Ecology, Minor - Chemistry 1980

Dissertation Title: Studies on the Distribution and Fates of Dissolved Organic Carbon, Advisors: P. Kilho Park and William H. Quinn

Employment History - Principal Positions:

Graduate Research Assistant, 1973-1974, Oregon State University, Corvallis, OR.

Research Assistant, 1974-1976, Texas A&M University, College Station, TX, lead chemist on R/V Melville cruises in Antarctic Ocean -International Southern Ocean Studies (ISOS).

Graduate Research Assistant, 1976-2000, Oregon State University, Corvallis, OR.

Research Associate, 1980-1984, Oregon State University, Corvallis, OR, Postdoctoral researcher in aquatic ecology.

Research Assistant Professor, 1984, Oregon State University, Corvallis, OR, Researcher and lecturer in aquatic ecology.

Assistant Professor of Biology, 1984-1990, University of New Mexico, Albuquerque, NM.

Associate Professor of Biology, 1990-1998, University of New Mexico, Albuquerque, NM.

Professor of Biology, 1998-present, University of New Mexico, Albuquerque, NM.

Lead Scientist, 2008-2010, CALFED Bay-Delta Science Program, Sacramento, CA.

Employment History - Concurrent Temporary or Visiting Appointments, Consultantships, and Advisory Boards:

Scientific Advisory Board, Mount St. Helens Volcanic National Monument, 1989-1992.

Program Director, 1994-1996, National Science Foundation, Division of Environmental Biology, Arlington, VA.

Consultant, 1992 - present, South Florida Water Management District on the restoration of the Kissimmee River, FL.

Consultant, 1997, Abt and Associates, expert assistant evaluating the Research Training Grants (RTG) at the Universities of Washington, Wisconsin, Montana, and Notre Dame for the National Science Foundation.

Consultant, 1997, Provost of the State University of New York at Buffalo on the establishment of an Institute of Environmental Studies.

Director, 1999 – present, Freshwater Sciences Interdisciplinary Doctoral Program (NSF IGERT Award) at the University of New Mexico (Inter-institutional program with the Center for Freshwater Studies at the University of Alabama).

Director, 2002-2003, Sevilleta Long-Term Ecological Research (LTER) Program, Sevilleta National Wildlife Refuge, NM.

Consultant, 2002 - present, Southwest Florida Water Management District (SWFWMD) on setting minimum flows and levels for rivers and springs in the Tampa Bay, Florida area; climate variability, the Atlantic Multidecadal Oscillation (AMO), and river flow variability in Florida.

Advisory Team Member, 2004 – present, H.J. Andrews Long-Term Ecological Research (LTER) Program, Corvallis, OR.

Advisory Team Member, 2008 – present, From Genes to Ecosystems (NSF IGERT Award) at Northern Arizona University, Flagstaff, AZ.

Scientific Committee Member, 2009 – present, Institut Catala de Recerca de l'Aigua (ICRA), Catalan Institute for Water Research, Girona, Catalonia, Spain.

Professional Recognition, Honors, Etc.

Cruise and Diving Scientist, Atlantis II/ALVIN, Archaeobacteria Program, Northeast Pacific Ocean 1987 and 1988.

UNM Presidential Lecturer in Biology 1988-90.

Dahlem Konferenzen Participant, "Organic Acids in Aquatic Ecosystems" Berlin, FRG 1989.

Director's Award for Program Management Excellence, National Science Foundation 1996 (Citation for program direction in Ecosystem Studies, Terrestrial Ecology and Global Change, Water and Watersheds, and Environmental Geochemistry and Biogeochemistry).

EAWAG Workshop on Riparian Ecology, Kastanienbaum, Switzerland, 1996, Group Leader on Nutrient Dynamics.

Scope Workshop Participant, "Biodiversity Above and Below the Surface of Soils and Sediments" Lunteren, Netherlands 1998.

Scope Workshop Participant, "To Assess the Role of Soil and Sediment Biodiversity in the Functioning of Critical Transition Zones" Corvallis, Oregon 1999.

Outstanding Researcher Award 2001, New Mexico Riparian Council.

Advisor and Reviewer for the Semi-Arid Hydrology and Riparian Areas (SAHRA) NSF Science and Technology Center 2003 to present.

External advisor for the Subsurface Microbiology IGERT Program (Oregon State University and Portland State University) 2003 to present.

Plenary Speaker, Symposium for European Freshwater Sciences 3 (SEFS3), Edinburgh, Scotland 2003.

Committee of Visitors Panel Member for Review of the NSF Biocomplexity and the Environment Program – National Science Foundation, Ballston, Virginia 2004.

Member of the Science Steering Group (SSG) for the Global Water Budget Program of the U.S. Global Change Research Program – 2004 to present.

52nd Annual Research Lecturer – University of New Mexico -2007. This is the highest honor for research given to one member of the University of New Mexico faculty annually.

Plenary Speaker, Third International Symposium on Riverine Landscapes (TISORL), Couran Cove, Queensland, Australia, 2007.

Plenary Speaker, 5th Biennial CALFED Science Conference, Sacramento, CA, 2008.

Plenary Speaker, Ecosystem Based Management: The Chesapeake and Other Systems, Baltimore, MD, 2009.

Plenary Speaker, Climate Change and the Intermountain West: Downscaling the Future, Logan, UT, 2009.

Plenary Speaker, 2009 Georgia Water Resources Conference, Athens, GA, 2009.

Scholarly Achievements:

Articles in Refereed Journals:

Martinet, M.C., E.R. Vivoni, J.R. Cleverly, J.F. Schuetz, and C.N. Dahm. 2009. On groundwater fluctuations, evapotranspiration, and understory removal in riparian corridors. *Water Resources Research* 45:W05425, doi:10.1029/2008WR007152.

Valett, H.M., S.A. Thomas, P.J. Mulholland, J.R. Webster, C.N. Dahm, C.S. Fellows, C.L. Crenshaw, and C.G. Peterson. 2008. Endogenous and exogenous control of ecosystem function: N cycling in headwater streams. *Ecology* 89:3515-3527.

Mulholland, P.J., A.M. Helton, G.C. Poole, R.O. Hall, S.K. Hamilton, B.J. Peterson, J.L. Tank, L.R. Ashkenas, L.W. Cooper, C.N. Dahm, W.K. Dodds, S.E.G. Findlay, S.V. Gregory, N.B. Grimm, S.L. Johnson, W.H. McDowell, J.L. Meyer, H.M. Valett, J.R. Webster, C.P. Arango, J.J. Beaulieu, M.J. Bernot, A.J. Burgin, C.L. Crenshaw, L.T. Johnson, B.R. Niederlehner, J.M. O'Brien, J.D. Potter, R.W. Sheibley, D.J. Sobota, and S.M. Thomas. 2008. Stream denitrification across biomes and its response to anthropogenic nitrate loading. *Nature* 452:202-205.

Shah, J.J.F. and C.N. Dahm. 2008. Flood regime and leaf litterfall determine soil inorganic nitrogen dynamics in semi-arid riparian forests. *Ecological Applications* 18:771-788.

Acuña, V., and C.N. Dahm. 2007. Impact of monsoonal rains on spatial scaling patterns in water chemistry of a semi-arid river network. *Journal of Geophysical Research – Biogeosciences* 112:G4, p.G04009.

Vinson, D.S., S.E. Block, L.J. Crossey, and C.N. Dahm. 2007. Biogeochemistry at the zone of intermittent saturation: Field-based study of the shallow alluvial aquifer, Rio Grande, New Mexico. *Geosphere* 3:366-380.

Passell, H.D., C.N. Dahm, and E.J. Bedrick. 2007. Ammonia modeling for assessing potential toxicity to fish species in the Rio Grande, 1989-2002. *Ecological Applications* 17:2087-2099.

Shah, J.J.F., C.N. Dahm, S.P. Gloss, and E.S. Bernhardt. 2007. River and riparian restoration in the Southwest: Results of the National River Restoration Science Synthesis Project. *Restoration Ecology* 15:550-562.

Fellows, C.S., H.M. Valett, C.N. Dahm, P.J. Mulholland, and S.A. Thomas. 2006. Coupling nutrient uptake and energy flow in headwater streams. *Ecosystems* 9:788-804.

Cleverly, J.R., C.N. Dahm, J.R. Thibault, D.E. McDonnell, and J.E.A. Coonrod. 2006. Riparian ecohydrology: Regulation of water flux from the ground to the atmosphere in the Middle Rio Grande, New Mexico. *Hydrological Processes* 20:3207-3225.

Madsen, B.L., P.J. Boon, P.S. Lake, S.E. Bunn, C.N. Dahm, T.E. Langford, and M. Zalewski. 2006. Ecological principles and stream restoration. *Verhandlungen Internationale für Theoretische und Angewandte Limnologie* 29:2045-2050.

Newman, B.D., B.P. Wilcox, S.R. Archer, D.D. Broshears, C.N. Dahm, C.J. Duffy, N.G. McDowell, F.M. Phillips, B.R. Scanlon, and E.R. Vivoni. 2006. Ecohydrology of water-limited environments: A scientific vision. *Water Resources Research* 42:W06302, doi:1029/2005WR004141.

Follstad Shah, J., C. Dahm, and S. Gloss. 2006. Lessons learned from restoration practitioners. *Southwest Hydrology* 5(3):10-11.

Follstad Shah, J., C. Dahm, and S. Gloss. 2006. River restoration efforts compared among four corners states. *Southwest Hydrology* 5(2):10-11.

Follstad Shah, J., C. Dahm, and S. Gloss. 2006. The National River Restoration Science Synthesis Project in the Southwest. *Southwest Hydrology* 5(1):10-11.

Grimm, N.B., R.W. Sheibley, C.L. Crenshaw, C.N. Dahm, W.J. Roach, and L.H. Zeglin. 2005. N retention and transformation in urban streams. *Journal of the North American Benthological Society* 24:626-642.

Hunter, A.J., D.E. Northup, C.N. Dahm, and P.J. Boston. 2005. Persistent coliform contamination in Lechuguilla Cave pools – Response: Davis Forum. *Journal of Cave and Karst Studies* 67:136-137.

Hunter, A.J., D.E. Northup, C.N. Dahm, and P.J. Boston. 2005. Persistent coliform contamination in Lechuguilla Cave pools – Response: Barton and Pace Discussion. *Journal of Cave and Karst Studies* 67:133-135.

Passell, H.D., C.N. Dahm, and E.J. Bedrick. 2005. Nutrient and organic carbon trends and patterns in the upper Rio Grande, 1975-1999. *Science of the Total Environment* 345:239-260.

Spilde, M.N., D.E. Northup, P.J. Boston, R.T. Schelble, K.E. Dano, L.J. Crossey, and C.N. Dahm. 2005. Geomicrobiology of cave ferromanganese deposits: a field and laboratory investigation. *Geomicrobiology Journal* 22:99-116.

E.S. Bernhardt, M.A. Palmer, J.D. Allan, G. Alexander, K. Barnas, S. Brooks, J. Carr, C. Dahm, J. Follstad Shah, D. Galat, S. Gloss, P. Goodwin, D. Harr, B. Hassett, R. Jenkinson, S. Katz, G.M.

- Kondolf, P.S. Lake, R. Lave, J.L. Meyer, T.K. O'Donnell, B. Powell, and E. Sudduth. 2005. Ecology – synthesizing US river restoration efforts. *Science* 308:636-637.
- Valett, H.M., M.A. Baker, J.A. Morrice, C.S. Crawford, M.C. Molles Jr., C.N. Dahm, D.L. Moyer, J.R. Thibault, and L.M. Ellis. 2005. Biogeochemical and metabolic responses to the flood pulse in a semiarid floodplain. *Ecology* 86:220-234.
- Palmer, M.A., E.S. Bernhardt, J.D. Allan, P.S. Lake, G. Alexander, S. Brooks, J. Carr, S. Clayton, C.N. Dahm, J. Follstad Shah, D.L. Galat, S. Gloss, P. Goodwin, D.H. Hart, B. Hassett, R. Jenkinson, G.M. Kondolf, R. Lave, J.L. Meyer, T.K. O'Donnell, L. Pagano, P. Srivastava, and E. Sudduth. 2005. Standards for ecologically successful river restoration. *Journal of Applied Ecology* 42:208-217.
- Hunter, A.J., D.E. Northup, C.N. Dahm, and P.J. Boston. 2004. Persistent coliform contamination in Lechuguilla cave pools. *Journal of Cave and Karst Studies* 66:102-110.
- Passell, H.D., C.N. Dahm, and E.J. Bedrick. 2004. Hydrological and geochemical trends and patterns in the Upper Rio Grande, 1975 to 1999. *Journal of the American Water Resources Association* 40:111-127.
- Weiss, J.L., D.S. Gutzler, J.E.A. Coonrod, and C.N. Dahm. 2004. Long-term vegetation monitoring with NDVI in a diverse semi-arid setting, central New Mexico, USA. *Journal of Arid Environments* 58:249-272.
- Weiss, J.L., D.S. Gutzler, J.E.A. Coonrod, and C.N. Dahm. 2004. Seasonal and inter-annual relationships between vegetation and climate in central New Mexico, USA. *Journal of Arid Environments* 57:507-534.
- Dahm, C.N., M.A. Baker, D.I. Moore, and J.R. Thibault. 2003. Coupled biogeochemical and hydrological responses of streams and rivers to drought. *Freshwater Biology* 48:1219-1231.
- Catron, J.L.E., M.C. Molles, J.F. Schuetz, C.S. Crawford, and C.N. Dahm. 2003. Ground arthropods as potential indicators of flooding regime in the riparian forest of the middle Rio Grande, New Mexico. *Environmental Entomology* 32:1075-1084.
- Webster, J.R., P.J. Mulholland, J.L. Tank, B.J. Peterson, W.R. Dodds, H.M. Valett, W.B. Bowden, C.N. Dahm, S. Findlay, S.V. Gregory, N.B. Grimm, S.K. Hamilton, S.L. Johnson, E. Marti, W.H. McDowell, J.L. Merriam, D.D. Morrall, J.L. Meyer, S.A. Thomas, and W.M. Wollheim. 2003. Factors affecting ammonium uptake in streams – an inter-biome perspective. *Freshwater Biology* 48:1329-1352.
- Northup, D.E., S.M. Barns, L.E. Yu, M.N. Spilde, R.T. Schelble, K.E. Dano, L.J. Crossey, C.A. Connolly, P.J. Boston, D.O. Natvig, and C.N. Dahm. 2003. Diverse microbial communities inhabiting ferromanganese deposits in Lechuguilla and Spider Caves. *Environmental Microbiology* 5:1071-1086.

Edwardson, K.J., W.B. Bowden, C. Dahm, and J. Morrice. 2003. The hydraulic characteristics and geochemistry of hyporheic and parafluvial zones in Arctic tundra streams, north slope, Alaska. *Advances in Water Resources* 26:907-923.

Cleverly, J.R., C.N. Dahm, J.R. Thibault, D.J. Gilroy, and J.E.A. Coonrod. 2002. Seasonal estimates of actual evapotranspiration from *Tamarix ramosissima* stands using 3-dimensional eddy covariance. *Journal of Arid Environments* 52:181-197.

Baron, J.S, N.L. Poff, P.L. Angermeier, C.N. Dahm, P.H. Gleick, N.G. Hairston Jr., R.B. Jackson, C.A. Johnston, B.D. Richter, and A.D. Steinman. 2002. Meeting ecological and societal needs for freshwater. *Ecological Applications* 12:1247-1260.

Dahm, C.N., J.R. Cleverly, J.E.A. Coonrod, J.R. Thibault, D.E. McDonnell, and D.J. Gilroy. 2002. Evapotranspiration at the land/water interface in a semi-arid drainage basin. *Freshwater Biology* 47:831-843.

Peterson, C.G., M.A. Horton, M.C. Marshall, H.M. Valett, and C.N. Dahm. 2001. Spatial and temporal variation in the influence of grazing macroinvertebrates on epilithic algae in a montane stream. *Archiv für Hydrobiologie* 153:29-54.

Levin, L.A., D.F. Boesch, A. Covich, C. Dahm, C. Erséus, K.C. Ewel, R.T. Kneib, A. Moldenke, M.A. Palmer, P. Snelgrove, D. Strayer, and Weslawski, J.M. 2001. The function of marine critical transition zones and the importance of sediment biodiversity. *Ecosystems* 4:430-451.

Jackson, R.B., S.R. Carpenter, C.N. Dahm, D.M. McKnight, R.J. Naiman, S.L. Postel, and S.W. Running. 2001. Water in a changing world. *Ecological Applications* 11:1027-1045.

Peterson, C.G., H.M. Valett, and C.N. Dahm. 2001. Shifts in habitat templates for lotic microalgae linked to interannual variation in snowmelt intensity. *Limnology and Oceanography* 46:858-870.

Fellows, C.S., H.M. Valett, and C.N. Dahm. 2001. Whole-stream metabolism in two montane streams: contribution of the hyporheic zone. *Limnology and Oceanography* 46:523-531.

Boston, P.J., M.N. Spilde, D.E. Northup, L.A. Melim, D.S. Soroka, L.G. Kleina, K.H. Lavoie, L.D. Hose, L.M. Mallory, C.N. Dahm, L.J. Crossey, and R.T. Schelble. 2001. Cave biosignature suites: microbes, minerals and Mars. *Astrobiology Journal* 1:25-55.

Peterson, C.G., H.M. Valett, C.N. Dahm, and M.C. Marshall. 2000. Heterogeneity in algal-grazer associations in a small montane spring. *Verhandlungen Internationale für Theoretische und Angewandte Limnologie* 27:2453-2460.

Baker, M.A., H.M. Valett and C.N. Dahm. 2000. Organic carbon supply and metabolism in a shallow groundwater ecosystem. *Ecology* 81:3133-3148.

Morrice, J.A., C.N. Dahm, H.M. Valett, P.V. Unnikrishna and M.E. Campana. 2000. Terminal electron accepting processes in the alluvial sediments of a headwater stream. *Journal of the North American Benthological Society* 19:593-608.

Northup D.E, C.N. Dahm, L.A. Melim, M.N. Spilde, L.J. Crossey, K.H. Lavoie, L.M. Mallory, P.J. Boston, K.I. Cunningham and S.M. Barns. 2000. Evidence for geomicrobiological interactions in Guadalupe caves. *Journal of Cave and Karst Studies* 62:80-90.

Dahm, C., J. Cleverly, J. Thibault, J., D. Gilroy and J. Coonrod. 2000. Evapotranspiration data critical for formulating arid-land water budgets. *The LTER Network News* 13:6-7.

Palmer, M.A., A.P. Covich, S. Lake, P. Biro, J.J. Brooks, J. Cole, C. Dahm, J. Gilbert, W. Goedkoop, K. Martens, J. Verhoeven and W.J. Van de Bund. 2000. Linkages between aquatic sediment biota and life above sediments as potential drivers of biodiversity and ecological processes. *Bioscience* 50:1062-1075.

Lake, P.S., M.A. Palmer, P. Biro, J. Cole, A.P. Covich, C. Dahm, J. Gibert, W. Goedkoop, K. Martens and J. Verhoeven. 2000. Global change and the biodiversity of freshwater ecosystems: impacts on linkages between above-sediment and sediment biota. *Bioscience* 50:1099-1107.

Baker, M.A., C.N. Dahm, and H.M. Valett. 1999. Acetate retention and metabolism in the hyporheic zone of a mountain stream. *Limnology and Oceanography* 44:1530-1539.

Dahm, C.N., N.B. Grimm, P. Marmonier, H.M. Valett, and P. Vervier. 1998. Nutrient dynamics at the interface between surface waters and ground waters. *Freshwater Biology* 40:1-25.

Wroblicky, G.J., M.E. Campana, H.V. Valett, and C.N. Dahm. 1998. Seasonal variation in surface-subsurface water exchange and hyporheic area of two stream-aquifer systems. *Water Resources Research* 34:317-328.

Molles, M.C., Jr., C.S. Crawford, L.M. Ellis, H.M. Valett, and C.N. Dahm. 1998. Managed floods: restoration of riparian forest ecosystem structure and function along the Middle Rio Grande. *BioScience* 48:749-756.

Grimm, N.B., A. Chacon, C.N. Dahm, O.T. Lind, P.L. Starkweather, and W.W. Wurtsbaugh. 1997. Sensitivity to climate change of aquatic ecosystems in the Basin and Range, American Southwest, and Mexico. *Hydrologic Processes* 11:1023-1041.

Valett, H.M., C.N. Dahm, M.E. Campana, J.A. Morrice, M.A. Baker, and C.S. Fellows. 1997. Hydrologic influences on groundwater-surface water ecotones: heterogeneity in nutrient composition and retention. *Journal of the North American Benthological Society* 16:239-247.

Morrice, J.A., H.M. Valett, C.N. Dahm, and M.E. Campana. 1997. Alluvial characteristics, groundwater-surface water exchange and hydrologic retention in headwater streams. *Hydrologic Processes* 11:253-267.

- Valett, H.M., J.A. Morrice, C.N. Dahm, and M.E. Campana. 1996. Parent lithology, groundwater-surface water exchange, biogeochemistry, and nitrate retention in headwater streams. *Limnology and Oceanography* 41:333-345.
- Cummins, K.W., and C.N. Dahm. 1995. Restoring the Kissimmee. *Restoration Ecology* 3:147-148.
- Dahm, C.N., K.W. Cummins, H.M. Valett, and R.L. Coleman. 1995. An ecosystem view of the restoration of the Kissimmee River. *Restoration Ecology* 3:225-238.
- Andreas, E.L., J.R. Gosz, and C.N. Dahm. 1992. Can long-path FTIR spectroscopy yield gas flux measurements through a variance technique? *Atmospheric Environment* 26A: 225-233.
- Dahm, C.N., D.L. Carr, and R.L. Coleman. 1991. Anaerobic carbon cycling in stream ecosystems. *Verhandlungen Internationale für Theoretische und Angewandte Limnologie* 24:1600-1604.
- Watwood, M.E., C.S. White, and C.N. Dahm. 1991. Methodological modifications for accurate and efficient determination of contaminant biodegradation in unsaturated calcareous soils. *Applied and Environmental Microbiology* 57:717-720.
- Coleman, R.L., and C.N. Dahm. 1990. Stream geomorphology: effects on periphyton standing crop and primary production. *Journal of the North American Benthological Society* 9:293-302.
- Stream Solute Workshop (C.N. Dahm one of 19 participants and co-authors). 1990. Concepts and methods for assessing solute dynamics in stream ecosystems. *Journal of the North American Benthological Society* 9:95-119.
- Gosz, J.R., D.I. Moore, C.N. Dahm, and S. Hofstadler. 1990. Field testing long-path Fourier transform infrared (FTIR) spectroscopy for measurements of atmospheric gas concentrations. *Remote Sensing of the Environment* 32:103-110.
- Wissmar, R.C., D.M. McKnight, and C.N. Dahm. 1990. Contributions of organic acids to alkalinity in lakes within the Mount St. Helens blast zone. *Limnology and Oceanography* 35:535-542.
- Molles, M.C., Jr., and C.N. Dahm. 1990. A perspective on El Niño and La Niña: global implications for stream ecology. *Journal of the North American Benthological Society* 9:68-76.
- Gosz, J.R., C.N. Dahm, and P.G. Risser. 1988. Long-path FTIR measurement of atmospheric trace gas concentrations. *Ecology* 69:1326-1330.
- Wissmar, R.C., J.A. Baross, M.D. Lilley, and C.N. Dahm. 1988. Nitrogen cycling in altered and newly created lakes near the Mount St. Helens volcano. *Journal of Freshwater Ecology* 4: 551-568.
- Lilley, M.D., J.A. Baross, and C.N. Dahm. 1988. Methane production and oxidation in lakes impacted by the May 18, 1980 eruption of Mount St. Helens. *Global Biogeochemical Cycles* 2:357-370.

Larson, D.W., C.N. Dahm, and N.S. Geiger. 1987. Vertical partitioning of the phytoplankton assemblage in ultraoligotrophic Crater Lake, Oregon, U.S.A. *Freshwater Biology* 18:429-442.

Sollins, P., C.A. Glassman, and C.N. Dahm. 1985. Composition and possible origin of detrital material from headwater stream channels and riparian zones. *Ecology* 66:297-299.

Ward, A.K., C.N. Dahm, and K.W. Cummins. 1985. Nostoc (Cyanophyte) productivity in Oregon Stream ecosystems: invertebrate influences and differences between morphological types. *Journal of Phycology* 21:223-227.

Dahm, C.N. 1984. Uptake of dissolved organic carbon in mountain streams. *Verhandlungen Internationale für Theoretische und Angewandte Limnologie* 22:1842-1846.

Dahm, C.N., J.A. Baross, A.K. Ward, M.D. Lilley, and J.R. Sedell. 1983. Initial effects of the Mount St. Helens eruption on nitrogen cycle and related chemical processes in Ryan Lake. *Applied and Environmental Microbiology* 45:1633-1645.

Ward, A.K., J.A. Baross, C.N. Dahm, M.D. Lilley, and J.R. Sedell. 1983. Qualitative and quantitative observations on aquatic algal communities and recolonization within the blast zone of Mount St. Helens: 1980 and 1981. *Journal of Phycology* 19:238-247.

Baross, J.A., C.N. Dahm, A.K. Ward, M.D. Lilley, and J.R. Sedell. 1982. Initial microbiological response in lakes to the Mount St. Helens eruption. *Nature* 296:49-52.

Dahm, C.N., S.V. Gregory, and P.K. Park. 1981. Organic carbon transport in the Columbia River. *Estuarine, Coastal, and Shelf Sciences* 13:645-658.

Dahm, C.N. 1981. Pathways and mechanisms for removal of dissolved organic carbon from leaf leachate in streams. *Canadian Journal of Fisheries and Aquatic Sciences* 38:68-76.

Articles Appearing as Chapters in Edited Volumes:

Ryan, M., S. Archer, R. Birdsey, C. Dahm, L. Heath, J. Hicke, D. Hollinger, T. Huxman, G. Okin, R. Oren, J. Randerson, and W. Schlesinger. 2008. Land resources. In: The Effect of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research, Washington DC, USA, 362 pp.

Harner, M.J., and C.N. Dahm. 2007. Water resources of the Middle Rio Grande: San Acacia to Elephant Butte. In: Decision Makers Field Conference 2007, L.G. Price, P.S. Johnson, and D. Bland (eds.), New Mexico Bureau of Geology and Mineral Resources, pgs. 23-26.

Dahm, C.N., H.M. Valett, C.R. Baxter, and W.W. Woessner. 2006. Hyporheic zones. In: Methods in Stream Ecology, second edition, F.R. Hauer and G.A. Lamberti (eds.), Elsevier Press, Chapter 6, pgs. 119-142.

Dahm, C.N., R.J. Edwards, and F.P. Gelwick. 2005. Gulf Coast rivers of the southwestern United States. In: Rivers of North America, A.C. Benke and C.E. Cushing (eds.), Elsevier, pgs.181-228.

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Dahm, C.N., and D.I. Moore. 1994. The El Niño/Southern Oscillation phenomenon and the Sevilleta Long-Term Ecological Research site. In: El Niño and Long-Term Ecological Research Sites, D. Greenland (ed.), LTER Network Office Publication No. 18, Seattle, Washington, pgs. 12-20.

Allen, M.F., E.B. Allen, C.N. Dahm, and F.S. Edwards. 1993. Preservation of biological diversity in mycorrhizal fungi: importance and human impacts. In: Human Impact on Self-recruiting Populations, G. Sundnes (ed.), Tapir Publishers, Trondheim, Norway, pgs. 81-108.

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Watwood, M.E., and C.N. Dahm. 1992. Effects of aquifer environmental factors on biodegradation of organic contaminants. In: Proceedings of 1992 Spectrum Nuclear and Hazardous Waste Management International Symposium, Boise, Idaho, pgs. 1220-1226.

Molles, M.C., Jr., C.N. Dahm, and M.T. Crocker. 1992. Climatic variability and streams and rivers in semi-arid regions. In: Aquatic Ecosystems in Semi-arid Regions: Implications for Resource Management, R.D. Robarts and M.L. Bothwell (eds.), N.H.R.I. Symposium Series 7, Environment Canada, pgs. 197-202.

Dahm, C.N., and M.C. Molles, Jr. 1992. Streams in semiarid regions as sensitive indicators of global climate change. In: Global Warming and Freshwater Ecosystems, P. Firth and S.G. Fisher (eds.), Springer Verlag, pgs. 250-260.

Moore, D.I., C.N. Dahm, J.R. Gosz, and R.I. Hill. 1991. Use of long-path FTIR spectrometry in conjunction with scintillometry to measure gas fluxes. In: Field Screening Methods for Hazardous Wastes and Chemicals, Second International Symposium Proceedings, pgs. 541-548.

Ward, G.M., A.K. Ward, C.N. Dahm, and N.G. Aumen. 1990. Origin and formation of organic and inorganic particles in aquatic systems. In: The Biology of Particles in Aquatic Systems, R.S. Wotton (ed.), pgs. 27-56, CRC Press, Boca Raton, Florida.

Sedell, J.R. and C.N. Dahm. 1990. Spatial and temporal scales of dissolved organic carbon in streams and rivers. In: Organic Acids in Aquatic Ecosystems, E.M. Perdue and E.T. Gjessing (eds.), John Wiley and Sons, Inc., pp. 261-279.

Mulholland, P.J., C.N. Dahm, M.B. David, D.M. DiToro, J.R. Meyer, and J.R. Sedell. 1990. What are the spatial and temporal variations of organic acids at the ecosystem level? In: Organic Acids in Aquatic Ecosystems, E.M. Perdue and E.T. Gjessing (eds.) John Wiley and Sons, Inc., pp. 315-329.

Dahm, C.N., D.W. Larson, N.S. Geiger, and L.K. Herrera. 1990. Secchi disk, photometry, and phytoplankton data from Crater Lake: long-term trends and relationships. In: Crater Lake - An Ecosystem Study, E.T. Drake, G.L. Larson, J. Dymond, and R. Collier, Eds., AAAS, San Francisco, pp. 143-152.

Larson, D.W., C.N. Dahm, and N.S. Geiger. 1990. Limnological response of Crater Lake to possible long-term sewage influx. In: Crater Lake - An Ecosystem Study, E.T. Drake, G.L. Larson, J. Dymond, and R. Collier, eds., AAAS, San Francisco, pp. 197-212.

Dahm, C.N., J.R. Sedell, and F.J. Triska. 1989. A historical look at streams and rivers in North America. In: North American Benthological Society Technical Information Workshop "Stream Rehabilitation and Restoration," M.E. Gurtz and T.W. La Point, eds., University of Guelph, Ontario, pp. 7-28.

Dahm, C.N., J.R. Sedell, and E.H. Trotter. 1987. Role of anaerobic zones and processes in stream ecosystem productivity. In: Chemical Quality of Water and the Hydrologic Cycle, R.C. Averett and D.M. McKnight, Eds., Lewis Publishing, Inc., Chelsea, Michigan, pp. 157-178.

Invited and Plenary Presentations:

Factors affecting the uptake of DOC in streams. Ecological Society of America/American Society of Limnology and Oceanography Joint Meeting, Minneapolis, Minnesota, June 17-21, 1985.

Role of anaerobic processing in stream ecosystem productivity. American Chemical Society Rocky Mountain Regional Meeting, Denver, Colorado, June 8-12, 1986.

Dissolved organic carbon in marine hydrothermal vents. ONR Archaeobacteria Meeting, Keystone, Colorado, February 23-24, 1987.

Use of long-path FTIR to measure water vapor and CO₂ in the atmosphere. DOE REFLEX Program Meeting, Lewes, Delaware, September 15-16, 1987.

Concentrations of dissolved organic carbon in stream and interstitial waters. EPA Workshop on the Role of Organic Acids in Surface Water Acidification, Tucson, Arizona, February 25-28, 1988.

Response and recovery of lakes in the blast zone of Mount St. Helens. Keynote talk for AAAS/SWARM Environmental Sciences Section, Wichita, Kansas, April 1, 1988.

Interactions between anaerobic hyporheic zones and processes and benthic microbial activity. North American Benthological Society Annual Meeting, Tuscaloosa, Alabama, May 18, 1988.

Interstitial processes and stream ecosystem productivity. American Society of Limnology and Oceanography Annual Meeting, Boulder, Colorado, June 15, 1988.

Initial response and recovery of Spirit Lake to the eruption of Mount St. Helens. Mount St. Helens National Volcanic Monument Workshop on Scientific Research at the Monument Cispus, Washington, June 18, 1988.

Secchi disk, photometry, and phytoplankton data from Crater Lake: long-term trends and relationships. AAAS Pacific Division Symposium on Crater Lake, Corvallis, Oregon, June 21, 1988.

Marine hydrothermal vents: oases on the ocean bottom. Keynote talk for AAAS/SWARM Environmental Sciences Section Las Cruces, New Mexico, April 7, 1989.

A historical look at streams and rivers in North America. Technical Information Workshop on Stream Rehabilitation and Restoration, Guelph, Ontario, Canada, May 18, 1989.

Anaerobic carbon cycling in stream ecosystems. Societe Internationale für Limnologie, Groundwater Limnology Symposium, Munich, FRG, August 14, 1989.

Long-path FTIR spectroscopy to quantify atmospheric CO₂, CH₄, CO, H₂O, and N₂O over aquatic ecosystems, Societe Internationale für Limnologie Workshop on the Cycling of Reduced Gases in the Hydrosphere, Munich, FRG, August 16, 1989.

Will streams in semi-arid regions be sensitive harbingers of global climate change? 38th Annual Meeting of the North American Benthological Society, Blacksburg, Virginia, May 23, 1990.

Lake and hydrothermal ecosystems near Mount St. Helens: the microbial response to catastrophic volcanism. Fourth International Mycological Congress (IMC4), Regensburg, FRG, September 1, 1990.

Aquatic ecosystems near Mount St. Helens. NSF Teacher's Workshop For Middle School Science Teachers Cougar, Washington, August 14, 1990.

Use of long-path FTIR spectrometry in conjunction with scintillometry to measure gas fluxes. Second International Symposium on Field Screening Methods for Hazardous Wastes and Toxic Chemicals, Las Vegas, Nevada, February 14, 1991.

Biogeochemistry and hydrology of stream hyporheic zones. 50th Annual Meeting of the American Society of Limnology and Oceanography, Santa Fe, New Mexico, February 13, 1992.

Landscape controls on groundwater/surface water interactions and nutrient fluxes in streams and rivers. 7th Annual U.S. Landscape Ecology Meeting, Corvallis, Oregon, April 10, 1992.

Nutrient cycling and microbial activity in the hyporheic zone. First International Conference on Ground-water Ecology, Tampa Bay, Florida, April 27, 1992.

An ecosystem perspective on the management of western U.S. riparian environments. New Mexico Riparian Conference, Albuquerque, New Mexico, November 20, 1992.

Biological influences on the hyporheic zones of alluvial channels. American Geophysical Union Fall Meeting, San Francisco, California, December 11, 1992.

Hydrology and biogeochemistry of hyporheic zones of small mountain streams. Gordon Research Conference on Hydrologic, Geochemical, and Biological Processes in Forested Catchments, Holderness School, August 2, 1993.

Nutrient dynamics and hydrology of hyporheic zones of montane catchments. 41st Annual Meeting of the North American Benthological Society, Calgary, Alberta, Canada, May 27, 1993.

Biogeochemistry and hydrology of stream hyporheic zones. 51st Annual Meeting of the American Society of Limnology and Oceanography, Edmonton, Alberta, Canada, June 2, 1993.

Dynamics of the ground water/surface water interface. Terrene Institute Protecting Ground Water Conference, Washington, DC, December 12, 1994.

Nutrient dynamics at the ground water/surface water interface. International Workshop on the Ground Water/Surface Water Ecotone, Kastanienbaum, Switzerland, February 5, 1996.

The Environmental Geochemistry and Biogeochemistry, Terrestrial Ecology and Global Change, and Water and Watershed special competitions at the National Science Foundation, National Research Council, Washington DC, July 22, 1996.

El Niño/Southern Oscillation (ENSO) and New Mexico climate. Sevilleta LTER site REU students. Albuquerque, NM, June 21, 1997.

Challenge '98: A Working Symposium on Reducing the Impacts of Urbanization on Southwestern Wetland and Riparian Resources. New Mexico Riparian Council. Keynote Speaker, Albuquerque, NM, April 16-18, 1998.

Hydrogeology and biogeochemistry of the surface water and ground water interface of a mountain stream. EPA Symposium on Ground Water/Surface Water Interactions. Denver, Colorado, January 27, 1999.

Hydrogeology and biogeochemistry of the surface water and ground water interface of a small, perennial, montane stream. GSA Special Session on Field Scale Hydrodynamic and Geochemical Interactions at the Interface of Groundwater and Surface Water. Denver, Colorado, October 27, 1999.

Dissolved organic carbon dynamics at the ground water and surface water interface. Annual Meeting of the Geological Society of America, Reno, NV, November 13, 2000.

Organic matter dynamics at the ground water and surface water interface of a mountain stream. Annual Meeting of the American Society of Limnology and Oceanography, Copenhagen, Denmark, June 6, 2000.

Biogeochemistry of surface waters and alluvial ground waters in streams during drought. Symposium on the Role of Drought in Aquatic Ecosystems, Albury, New South Wales, Australia, February 12, 2001.

Evapotranspiration at the land/water interface in a semi-arid drainage basin. International Symposium on the Dynamics of River Corridors, Ascona, Switzerland, March 27, 2001.

A water budget for a large river in an arid climate: where does the water go? North American Benthological Society Annual Meeting, Special session on Large River Processes, LaCrosse, Wisconsin, June 5, 2001.

Estimating water depletions for a major reach of the Rio Grande in central New Mexico. Texas Academy of Sciences, Laredo, Texas, March 1, 2002.

Linking river and riparian restoration to regional water budgets in arid climates. North American Benthological Society Annual Meeting, Pittsburgh, Pennsylvania, May 31, 2002.

Hydrology and biogeochemistry of surface water and ground water interfaces. National Ground Water Association, Las Vegas, Nevada, December 10, 2002.

The University of New Mexico Freshwater Sciences IGERT Program. Annual Workshop of the Earth's Subsurface Biosphere IGERT Program, Lincoln City, Oregon, June 22, 2003.

Environmental changes to river and riparian ecosystems in arid environments. Symposium of European Freshwater Sciences 3 (SEFS3), Edinburgh, Scotland, July 14, 2003.

Musings of an old beaver: carbon, nitrogen, and ground water/surface water interactions. Sixth Annual Symposium of the H.J. Andrews Experimental Forest, Corvallis, Oregon, October 16, 2003.

Measuring riparian plant evapotranspiration (ET) and scaling riverine corridor water use by riparian plant communities. SIL XXIX Congress, Lahti, Finland, August 11, 2004.

A river runs through it: of reaches, riparian zones, and recharge. Water: Challenges at the Intersection of Human and Natural Systems – NSF/DOE Workshop, Pacific Northwest National Laboratory, Richland, Washington, September 16, 2004 (plenary talk).

Overview of hydrogeoecology research on riparian ecosystems nationally and in the Rio Grande. SAHRA 4th Annual Meeting, Albuquerque, New Mexico, October 13, 2004.

Interdisciplinary science: What do other disciplines offer benthic science? Past-president's Address, North American Benthological Society Annual Meeting, Anchorage, Alaska, June 4, 2006.

Arid-land rivers of the southwestern United States – an international perspective. Lake Eyre Basin Conference, Renmark, South Australia, Australia, September 7, 2006.

Ground water/surface water and riparian zone/atmosphere interactions in river ecosystems. Symposium on River Terraces and Floodplain Hydrology, New Mexico State University, Las Cruces, New Mexico, February 28, 2007.

Reflections upon the science of water in the New Mexico Year of Water. 52nd Annual Research Lecture, University of New Mexico, April 19, 2007.

Reviving our most endangered river: How science can help. Santa Fe Watershed Association, Santa Fe, New Mexico, May 24, 2007.

Climate change and water budgets of river and riparian ecosystems. Third International Symposium on Riverine Landscapes, Couran Cove, Queensland, Australia, August 30, 2007.

CALFED Science Program – Putting Climate Change Into the Mix. Fifth Annual California Climate Change Conference, Sacramento, California, September 9, 2008.

Freshwater ecosystems in a variable and changing climate: Perspectives from New Mexico, Florida, and Queensland, Australia. Fifth Biennial CALFED Science Conference, Sacramento, California, October 22, 2008.

Water use in water-scarce regions: A global approach and the case of the arid American Southwest and Australia. Water Scarcity and Management under Mediterranean Climate, Girona, Catalonia, Spain, November 24, 2008.

The CALFED Bay-Delta Science Program and ecosystem based management. Ecosystem Based Management: The Chesapeake and Other Systems, Baltimore, Maryland, March 24, 2009.

Restoring California's rivers in the face of impending climate change. Climate Change and the Intermountain West: Downscaling the Future, Logan, Utah, April 3, 2009.

Climate change, drought, and the Healthy Waterways campaign in southeast Queensland in Australia. 2009 Georgia Water Resources Conference, Athens, Georgia, April 27, 2009.

Thoughts on the legal, political, economic, and scientific challenges of fish protection in the California Delta. American Fisheries Society Western Division Annual Meeting, Albuquerque, New Mexico, May 4, 2009.

Thermal issues in the California Bay-Delta. American Fisheries Society Western Division Annual Meeting, Albuquerque, New Mexico, May 5, 2009.

The Sacramento River watershed: Working on Solutions. State of the Sacramento River Watershed, Sacramento, California, May 14, 2009.

Nutrient spiralling in a human-dominated arid land river. North American Benthological Society Annual Meeting, Grand Rapids, Michigan, May 21, 2009.

Contributed Presentations:

Contributed talks and co-authored talks with graduate students, postdoctoral associates, and faculty colleagues total approximately 350 presentations between 1984 and 2008. Many of these talks were by graduate students and undergraduates under my supervision. I have not listed these abstracts and talks in the interest of space, but a complete list is available upon request.

Seminars and Colloquia - 1984 and later:

Portland State University, Portland, OR, Feb. 23, 1984

U.S. Geological Survey, Denver, CO, Oct. 31, 1984

Los Alamos National Laboratory, Los Alamos, NM, Nov. 28, 1984

Environmental Improvement Division, Santa Fe, NM, Aug. 8, 1985

Sandia National Laboratories, Albuquerque, NM, Oct. 29, 1985

New Mexico Tech/NMBMMR, Socorro, NM, Nov. 14, 1985

Savannah River Ecology Laboratory, Aiken, SC, Jan. 6, 1986

Savannah River Ecology Laboratory, Aiken, SC, Jan. 7, 1986

New Mexico State University, Las Cruces, NM, Feb. 20, 1986

Mount St. Helens National Volcanic Monument Headquarters, Castle Rock, WA, Nov. 5, 1986

University of Washington, Seattle, WA, Nov. 7, 1986

Kansas State University, Manhattan, KS, Nov. 14, 1986
 University of Wisconsin, Madison, WI, Feb. 5, 1987
 University of Wyoming, Laramie, WY, Feb. 17, 1987
 Los Alamos National Laboratory, Los Alamos, NM, June 22, 1987
 Arizona State University, Tempe, AZ, Dec. 3, 1987
 Arizona State University, Tempe, AZ, Dec. 4, 1987
 San Diego State University, San Diego, CA, February 13, 1990
 Idaho Nuclear Engineering Laboratory, Idaho Falls, ID, October 18, 1990
 Idaho State University, Pocatello, ID, October 19, 1990
 Idaho Nuclear Engineering Laboratory, Idaho Falls, ID, November 21, 1991
 Idaho State University, Pocatello, ID, November 22, 1991
 CICESE, Ensenada, Mexico, April 22, 1991
 Michigan State University, Kellogg Biological Station, Kalamazoo, MI, March 13, 1992
 University of Notre Dame, South Bend, IN, March 16, 1992
 University of Notre Dame, South Bend, IN, March 17, 1992
 Flathead Lake Biological Station, Polson, MT, September 11, 1992
 U.S Geological Survey, Menlo Park, CA, December 4, 1992
 Sevilleta LTER Field Station, Sevilleta, NM, July 21, 1993
 New Mexico Museum of Natural History and Science, Albuquerque, NM, April 27, 1994
 Institute of Ecosystem Studies, Millbrook, NY, October 28, 1994
 Marine Biological Laboratories Ecosystem Center, Woods Hole, MA, November 17, 1994
 Terrene Institute, Washington, DC, December 12, 1994
 U.S. Geological Survey, Reston, VA, July 10, 1995
 EAWAG, Kastanienbaum, Switzerland, February 7, 1996
 University of Maryland, College Park, MD, May 7, 1996
 University of Alabama, Tuscaloosa, AL, October 30, 1998
 University of Arizona, Tucson, AZ, February 16, 2000
 New Mexico Tech, Socorro, NM, February 28, 2000
 Sevilleta Symposium, Sevilleta Field Station, January 10, 2001
 University of Vigo, Vigo, Spain, June 10, 2001
 University of Barcelona, Barcelona, Spain, June 14, 2001
 Chico State University, Chico, California, March 8, 2002
 University of Nevada – Reno, Reno, Nevada, November 15, 2002
 University of Arizona, Tucson, Arizona, October 8, 2003
 New Mexico Tech, Socorro, NM, October 27, 2003
 Sevilleta Symposium, Sevilleta Field Station, January 14, 2004
 SAHRA Integrated Hydrological Modeling Conference, Albuquerque, NM, April 8, 2004
 CUAHSI Long-Term Hydrological Observatory Workshop, Socorro, NM, June 4, 2004
 Ecohydrology of Semi-Arid Lands Vision Conference, Albuquerque, NM, June 29, 2004
 EAWAG, Duebendorf, Switzerland, December 20, 2005
 University of Alaska, Fairbanks, Alaska, April 5, 2006 and April 7, 2006
 Australian Rivers Institute, Griffith University, Brisbane, Australia, September 14, 2006
 Australian Rivers Institute, Griffith University, Brisbane, Australia, October 25, 2007
 CALFED Bay-Delta Program, Sacramento, CA, November 2, 2007
 Australian Commonwealth Scientific and Industrial Research Organization (CSIRO), Canberra, Australia, November 26, 2007

University of California-Merced, Merced, California, January 21, 2009
University of New Mexico (EPS), Albuquerque, NM, March 13, 2009

Research Funding - 1984 and Later:

New Mexico EPSCoR RII: Climate Change Impacts on New Mexico's Mountain Sources of Water. C.N. Dahm and L.J. Crossey. National Science Foundation 7/01/08-6/30/2013, \$15,000,000 (Laura Crossey and I direct the solute sensing part of the project with a budget of \$514,894).

Sevilleta LTER IV: Abiotic pulses and constraints: effects on dynamics and stability in an aridland ecosystem. S.L. Collins, C.N. Dahm, M.E. Litvak, W.T. Pockman, and K.L Vanderbilt. National Science Foundation 11/01/06-10/31/12, \$4,920,000.

Evapotranspiration, Water Tables, Diel Fluctuations, Flow Fields, and Riparian Zone (Bosque) Restoration. U.S. Army Corps of Engineers Rio Grande Urban Flood Demonstration Program. 8/1/06-7/31/09, \$222,827.

New Mexico Nanotechnology, Education, and Water (NEW). EPSCoR Proposal from New Mexico to the National Science Foundation. 5/1/05-4/30/08, \$6,750,000. (I direct the ET measurement portion at UNM which receives \$464,677 from the NSF and \$408,795 of cost-share from the State of New Mexico and UNM; I also serve as one of the three overall directors of the "Water" portion of this statewide project).

Surface water quality study and continuous water quality monitoring network for the Middle Rio Grande. U.S. Fish and Wildlife Service. 08/08/05-08/07/08, \$125,722.

Hyporheic metabolism and processing of salmon derived organic matter. C.N. Dahm and C.L. Crenshaw. US Forest Service, 07/19/04-07/16/08, \$20,310.

Human impacts on nitrate dynamics in hyporheic sediments using a stable isotope tracer. C.N. Dahm and C.L. Crenshaw. NM Water Resources Research Institute 05/01/05-9/30/06, \$5,000.

Water quality along the Middle Rio Grande, New Mexico. C.N. Dahm and L.H. Zeglin. NM Water Resources Research Institute 05/01/05-9/30/06, \$5,000.

Mycorrhizal colonization in cottonwood and salt cedar stands along the Middle Rio Grande: Implications for Water Consumption. C.N. Dahm and J.F. Shah. NM Water Resources Research Institute 05/01/05-9/30/06, \$3,000.

The effects of grazing on nutrient cycling and geomorphology in Valles caldera streams. C.N. Dahm. Valles Caldera Trust. 7/28/04-9/30/06, \$16,027.

The Sevilleta Research Field Station: Infrastructure Enhancements for High-quality Water Resources and Wireless Data Transmission. R. Parmenter, W. Pockman, S. Collins, and C. N. Dahm. National Science Foundation. 12/1/04-11/30/06, \$101,694.

Collaborative Research: Identification of Microbial Signatures in Biogenic Cave Ferromanganese Deposits. D.E. Northup, L.J. Crossey, C.N. Dahm, and M.N. Spilde. National Science Foundation. 8/15/03-7/31/08, \$291,644.

Supplement to Sevilleta LTER: Long Term Ecological Research in a Biome Transition Zone. C. N. Dahm. National Science Foundation. 8/1/03-7/31/04. \$52,000.

Supplement to Sevilleta LTER: Long Term Ecological Research in a Biome Transition Zone. C. N. Dahm. National Science Foundation. 9/1/03-8/31/04. \$19,955.

Effects of flooding and nitrogen availability on riparian vegetation in arid ecosystems: Mechanisms driving non-native species invasion. C.N. Dahm and J.F. Shah. US Environmental Protection Agency. 08/01/03-7/31/06. \$23,524.

Water use by Middle Rio Grande phreatophytes. J.R. Cleverly, C.N. Dahm, and J.R. Thibault. U.S. Fish and Wildlife Service Bosque Improvement Group Initiative 4/16/02-4/15/03, \$49,800.

Sevilleta LTER: Long Term Research in a Biome Transition Zone: S.L. Collins, C.N. Dahm, W. Pockman, B. Wolf, R. Sinsabaugh. National Science Foundation 11/01/03-10/31/06, \$2,100,000.

Occurrence and fate of pharmaceuticals and healthcare products in wastewater and groundwater. C.N. Dahm and M.C. Martinet. NM Water Resources Research Institute 10/01/03-6/30/05, \$5,000.

LTER: Sevilleta Long Term Ecological Research III: Long Term Ecological Research in a Biome Transition Zone Supplement. C.N. Dahm. National Science Foundation. 8/1/02-7/31/03, \$8,000.

Sevilleta LTER: Long Term Ecological Research in a Biome Transition Zone: C.N. Dahm, W. Pockman, B. Wolf, R. Parmenter, and T. Yates. National Science Foundation. 11/01/02-10/31/03, \$700,000.

Nitrate uptake and retention in streams: Mechanisms and effects of human disturbance from stream reaches to landscapes. C.N. Dahm. National Science Foundation. 01/01/02-12/31/06, \$138,751.

REU Supplement to Collaborative Research: NO₃-N retention in headwater streams: influences of riparian vegetation, metabolism, and subsurface processes. C.N. Dahm. National Science Foundation. 6/1/01-2/28/02, \$10,000.

Measuring levels of gaseous ammonia in the Rio Grande: A test of four different methods. C.N. Dahm and J.A. Craig. U.S. Fish and Wildlife Service Bosque Improvement Group Initiative. 9/1/01-8/31/03, \$20,000.

Riparian ecosystem restoration: Effects of flooding and vegetation type on evapotranspiration. C.N. Dahm and J.R. Cleverly. U.S. Fish and Wildlife Service Bosque Improvement Group Initiative. 4/16/01-4/15/02, \$35,000.

Biocomplexity – incubation activity: Drought in mesic and arid environments – climatology, biotic responses, and feedbacks. C.N. Dahm and D.S. Gutzler. National Science Foundation via subcontract from the University of Alabama. 4/01/01-9/30/04, \$49,997.

IGERT: Freshwater Graduate Studies Link Fundamental Science with Applications through Integration of Ecology, Hydrology, and Geochemistry in Regions with Contrasting Climates. A.K. Ward, A.C. Benke, C.N. Dahm, W.B. Lyons, R.G. Wetzler et al. National Science Foundation. August 1, 1999 – July 31, 2008. \$2,699,289. I direct the University of New Mexico portion of this interdisciplinary and interinstitutional graduate education program with a \$1,331,500 subcontract from the University of Alabama.

CRB: Flooding Regime and Restoration of Riparian Ecosystem Integrity. M.C. Molles, Jr., C.N. Dahm, and C.S. Crawford. National Science Foundation. September 1, 1999 – August 31, 2003. \$492,049.

Dissertation Research: Ecosystem metabolism and nitrate retention in headwater streams: influence of the hyporheic zone. C.N. Dahm and C.S. Fellows. National Science Foundation. June 1, 1999 – December 31, 2000. \$10,456.

Collaborative research - nitrate retention in headwater streams: influences of riparian vegetation, metabolism, and subsurface processes. C.N. Dahm. National Science Foundation. April 1, 1999 - March 31, 2003. \$222,000.

Geomicrobiological interactions of microbial communities in cave deep subsurface environments: a novel extreme environment. C.N. Dahm, L.J. Crossey, and D.E. Northup. National Science Foundation. October 1, 1998 - September 30, 2002. \$292,134.

Riparian ecosystem restoration: effects of flooding and vegetation type on annual evapotranspiration in a semi-arid landscape. C.N. Dahm, C.S. Crawford, M.C. Molles, Jr., and J. Coonrod. National Aeronautics and Space Administration. January 31, 1998 - January 31, 2002. \$700,000.

Nitrogen uptake, retention, and cycling in stream ecosystems: an intersite N-15 tracer experiment. Subcontract from Virginia Tech of a NSF award to H.M. Valett and C.N. Dahm. July 1996 - June 1999. \$53,000.

Influence of livestock grazing and geologic setting on surface water/ground water exchange and nutrient retention in stream/riparian ecosystems. H.M. Valett and C.N. Dahm. United States Forest Service. September, 1997 - July, 1998. \$20,000.

Stream/groundwater ecotones: hydrology, biogeochemistry, and ecology. C.N. Dahm, H.M. Valett and M.E. Campana. National Science Foundation. February 1, 1995 - July 31, 1999. \$610,000.

REU supplements to Stream/groundwater ecotones: hydrology, biogeochemistry, and ecology. National Science Foundation. 1995 -1997. \$30,000.

Research appointment for minority high school students (RAMHSS) supplement to Stream/groundwater ecotones: hydrology, biogeochemistry, and ecology. National Science Foundation. 1995 - 1997. \$18,000.

Informal science education (ISE) supplement to Stream/groundwater ecotones: hydrology, biogeochemistry, and ecology. (Supplement for Bosque Ecological Monitoring Program) National Science Foundation. 1996 - 1999. \$50,000.

Sevilleta LTER II: biome-level constraints on population, community, and ecosystem responses to climate fluctuation. B.T. Milne + 10 co-PIs of which I am one. National Science Foundation. October, 1994 - September, 2000. \$3,780,000.

Stream hyporheic zones: hydrology, biogeochemistry, and links to surface waters and riparian plant communities. C.N. Dahm and M.E. Campana. National Science Foundation. March 1, 1991 - August 31, 1994. \$568,909.

Nutrient retention in the Rio Grande continuum. H.M. Valett and C.N. Dahm. United States Forest Service. September, 1994 - August, 1997. \$70,000.

Harbingers of anthropogenic ecosystem stress: mycorrhizal fungi and weedy plants. M. Allen, C.N. Dahm, and E. Allen. Environmental Protection Agency. September 16, 1991 - May 31, 1994. \$215,000.

Long-term ecological research on climatic and ecological gradients: Sevilleta National Wildlife Refuge. J.R. Gosz + 17 co-PIs of which I am one. National Science Foundation. October 15, 1988 - October 14, 1994. \$2,400,000.

Long-path FTIR analysis of varying ecosystem processes over varying landscapes and spatial scales. J.R. Gosz, C.N. Dahm, and P.G. Risser. National Science Foundation. March 1, 1991 - August 31, 1993. \$674,000.

Quantitative analysis of the influence of carbon amendment on bioremediation of cyanide contaminated groundwater and soil. C.N. Dahm. New Mexico Water Resources Research Institute. July 1, 1992 - June 30, 1993. \$24,861.

Manipulation of aquifer environmental factors to enhance biodegradation of organic contaminants. C.N. Dahm and M.E. Watwood. New Mexico Water Resources Research Institute. July 1, 1990 - June 30, 1991. \$24,922.

Microbial degradation of toxic compounds in soils. C.N. Dahm. Sandia National Laboratories Contract 57-7791. November 13, 1987 - September 30, 1988. \$40,354.

Anaerobic zones in streams: effects on nutrient cycling, aquatic primary production, riparian plant growth, and plant compensation to herbivory. C.N. Dahm. National Science Foundation. March 1, 1987 - February 28, 1990. \$316,000.

Long-path FTIR analysis of varying ecosystem processes over varying landscapes and spatial scales. J.R. Gosz, C.N. Dahm, and P.G. Risser. National Science Foundation. March 1, 1987 – February 28, 1990. \$587,784.

The role of microbes on the chemistry of geothermal fluids. C.N. Dahm. Sandia National Laboratories Contracts 95-2929 and 01-4726. October 1, 1985 - September 30, 1987. \$60,000.

Nitrogen cycle interactions with chemolithotrophic and heterotrophic processes in Mount St. Helens impacted lakes and hot water seeps. J.A. Baross, C.N. Dahm, M.D. Lilley, and A.K. Ward. December 1, 1984 - November 30, 1986. \$300,000.

Teaching:

Courses Developed and Taught at the University of New Mexico

Microbial Ecology (Biol 451) – Taught yearly through fall semester 2002.

Limnology (Biol 495) - Spring Semester each year.

Limnology Lab (Biol 496L) - Spring Semester each year.

Ecosystem Studies (Biol 514) - Fall Semester each year.

Ecotoxicology (Biol 402/502) - On Demand.

Environmental Chemical Analyses (Biol 402/502) - On Demand.

Geomicrobiology (Biol 558/EPS 558) - Spring 1999, Fall 2001, Fall 2003, Fall 2005.

Freshwater Ecosystems (Biol 535/EPS 535) – Spring 2003, Spring 2005.

Ethics in Environmental Sciences (Biol 502) – Spring 2002, Spring 2004, Spring 2006.

Freshwater Sciences IGERT Seminar (Biol 502) – Each semester starting spring 2002.

Graduate Ecology Core (Biol 516) – Fall 2006

Graduate Students:

Ross L. Coleman – Owner and founder of Hydra Aquatics, Inc., Albuquerque, NM

Deborah L. Carr – Texas Tech University, Lubbock, TX

Dr. M. Tad Crocker – Private business, Athens, GA

Dr. James. T. Markwiese – Neptune and Company, Inc., Los Alamos, NM

Dr. John A. Morrice – Mid-Continent Ecology Division, Duluth, MN

Dr. Michelle A. Baker – Associate Professor, Utah State University, Logan, UT

Dr. Christine S. Fellows – Lecturer and Deputy Head of School, Griffith University, Queensland, Australia (deceased)

Dr. Chuck Buxbaum – Sandia Prep, Albuquerque, NM

Dr. Diana E. Northup – University of New Mexico, Albuquerque, NM

Douglas L. Moyer – U.S. Geological Survey, Albuquerque, NM

William J. Barnes – Private consultant, Santa Fe, NM

Peter Skartvedt – Private consultant, Durango, CO

Dr. Howard Passell – Sandia National Laboratories, Albuquerque, NM

Gary Stansifer – Office of the State Engineer, Albuquerque, NM

Dr. Jennifer J. Follstad Shah – Postdoctoral researcher, Duke University, Durham, NC

Dr. Dianne E. McDonnell – Consultant, Albuquerque, NM

Jeanine McGann – Washington State Department of Ecology, Olympia, WA
Dr. Chelsea L. Crenshaw – Postdoctoral researcher, INEL, Idaho Falls, ID
Dr. Maceo Carrillo Martinet – US Fish and Wildlife Service, Albuquerque, NM
Lydia H. Zeglin – Postdoctoral researcher, Oregon State University, Corvallis, OR
Jennifer L. Tichy – completed M.S. student 2008
David Van Horn – current Ph.D. student
Eric J. Scherff – current M.S. student
Roxanne Candelaria-Ley – current Ph.D. student
Anna T. Hamilton – current Ph.D. student
Mark W. Horner – current Ph.D. student
Shannon T. Rupert – current Ph.D. student

Postdoctoral Researchers:

Eleanora H. Trotter – Research Assistant Professor, Department of Biology, University of New Mexico
Maribeth E. Watwood – Professor and Chair, Department of Biology, Northern Arizona University
Nancy J. Johnson – Professor, Department of Biology, Northern Arizona University
H. Maurice Valett – Associate Professor, Department of Biology, Virginia Tech
James R. Cleverly – Research Assistant Professor, Department of Biology, University of New Mexico
Padinare V. Unnikrishna – PBJ&S Consulting, Austin, TX
Vicenc Acuña Salazar – Fulbright Scholar from the University of Barcelona, presently Marie Curie postdoctoral researcher at EAWAG, Dubendorf, Switzerland

Service:

Water Quality Committee, Hydrology Section, American Geophysical Union 1986-1987.

Vice Chairman/Chairman, Environmental Sciences Section, American Association for the Advancement of Science/Southwest and Rocky Mountain Division 1986-1988.

Ecosystem Studies Program, National Science Foundation, Panel Reviewer 1986-1989.

Technical Advisory Committee, Mount St. Helens National Volcanic Monument, Member 1986-1989.

Nominations Committee, Aquatic Ecology Section, Ecological Society of America 1987.

Program Committee, American Society of Limnology and Oceanography, Annual Meeting - Boulder, Colorado 1988.

New Mexico Environmental Improvement Division Panel on Bacterial Standards 1988-1989.

National Science Foundation Long-Term Ecological Research (LTER) Review Panel, March 1990.

Program Co-Chair - North American Benthological Society Annual Meeting, Santa Fe, New Mexico 1991.

Executive Committee Member - North American Benthological Society, 1995-1997.

Executive Committee Chair - North American Benthological Society, 1996-1997.

Guest Editor of Volume 3, Number 3 Issue of *Restoration Ecology* Dedicated to the Restoration of the Kissimmee River 1995.

National Science Foundation, Environmental Geochemistry and Biogeochemistry review panel member, April 1997 and April 1998.

Associate Editor for the Journals *Ecology* and *Ecological Monographs* 1997-2001.

Nominations Committee, American Society of Limnology and Oceanography 1998.

Candidate for President of the North American Benthological Society 1998.

National Science Foundation, Integrated Research Challenges in Environmental Biology (IRC-EB) review panel member, May 1999, 2000 and 2002.

Science and Policy Committee Chair, North American Benthological Society 1999-2002.

Organized and hosted the Freshwater Sciences Interdisciplinary Doctoral Program (FSIDP) workshop October 3-6, 2001 at the Sevilleta Field Station.

Organized and hosted NSF-funded Lotic Intersite Nitrogen Experiment II (LINXII) workshop February 2-5, 2002 at the Sevilleta Field Station.

Co-organized and hosted (with Dr. David Gutzler) an NSF-funded Drought Symposium September 17-19, 2002 at the Sevilleta Field Station.

Interim Principal Investigator, Sevilleta Long-Term Ecological Research (LTER) Project 2002-2003.

Hosted the Sevilleta LTER Annual Symposium at the University of New Mexico and the Sevilleta Field Station January 9-10, 2003.

Organized and hosted the Freshwater Sciences Interdisciplinary Doctoral Program (FSIDP) workshop January 27-31, 2004 at the Sevilleta Field Station.

President-elect, North American Benthological Society 2003-2004.

Search Committee, American Geophysical Union, Editors (4) for the AGU journal *Water Resources Research* 2004.

Committee of Visitors panel member for review of the NSF Biocomplexity and the Environment Program, National Science Foundation, Ballston, Virginia, February 25-27, 2004.

Review panel member for research grade ecologists in the U.S. Geological Survey, Menlo Park, California, April 12-13, 2004.

President, North American Benthological Society 2004-2005.

Science Steering Group for the Global Water Budget Program of the U.S. Global Change Research Program 2004-present.

Search Committee Chair, North American Benthological Society, Editor for the *Journal of the North American Benthological Society* 2004.

Past-President, North American Benthological Society 2005-2006.

Chair, Election and Place Committee, North American Benthological Society 2005-2006.

Election and Place Committee, North American Benthological Society 2006-2007 and 2009-2010.

Awards Committee, North American Benthological Society 2005-present.