# KENNETH W. TATE

(04-04-18)

# RUSSELL L. RUSTICI ENDOWED CHAIR OF RANGELAND WATERSHED SCIENCE

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# **EDUCATION**

Ph.D. Water Resources, Oklahoma State University, Stillwater, Oklahoma, 1995. "A Stochastic Framework for Evaluating Forest Management Impacts on Water Quality from Watersheds in the Ouachita Mountains."

- M.S. Range Ecology and Management, Oklahoma State University, Stillwater, Oklahoma, 1991. "Effect of Defoliation Intensity on Regrowth of Tallgrass Prairie."
- B.S. Range Ecology and Management, Oklahoma State University, Stillwater, Oklahoma, 1989.
- A.S. Range Management, Northeastern Oklahoma A&M College, Miami, Oklahoma, 1987.

### PROFESSIONAL EXPERIENCE

7-12 to present	Professor and Rangeland Watershed Specialist in Cooperative Extension, Department of
	Plant Sciences, University of California, Davis.
7-09 to present	Russell L. Rustici Endowed Chair of Rangeland Watershed Science, University of
_	California, Davis.
1-09 to 6-14	Vice Chair for Outreach and Extension, Department of Plant Sciences, University of
	California, Davis.
09-12 to 12-12	Interim Department Chair, Department of Plant Sciences, University of California,
& 11-11 to 4-12	Davis.
7-05 to 7-12	Rangeland Watershed Specialist in Cooperative Extension, Department of Plant Sciences
	(formerly Agronomy and Range Science), University of California, Davis.
7-01 to 6-05	Associate Rangeland Watershed Specialist in Cooperative Extension, Department of
	Agronomy and Range Science, University of California, Davis.
4-95 to 6-01	Assistant Rangeland Watershed Specialist in Cooperative Extension, Department of
	Agronomy and Range Science, University of California, Davis.
12-91 to 12-94	USDA National Needs Fellow in Water Resources, Oklahoma State University, Forestry
	and Agricultural Engineering, Stillwater, Oklahoma.

#### **CERTIFICATIONS**

California Certified Rangeland Manager #79; CA Department of Forestry and Fire Protection. 1999+. Certified Rangeland Professional #00-104; Society for Range Management. 1999+.

#### **HONORS**

Rangeland Conservation Impact Award, California Rangeland Trust. 2016.

James H. Meyer Distinguished Achievement Award, UC Davis Academic Federation. 2015.

UC Cooperative Extension Outstanding Team Distinguished Service Award. 2014.

Kenneth W. Tate and Edward R. Atwill. *Recognition of academic excellence, positive impact on society, teamwork, and cross-disciplinary integration.* 

Eric Bradford and Charlie Rominger Agricultural Sustainability Leadership Award. 2012.

Western Extension Directors' Award of Excellence, UCCE Rangeland Watershed Program. 2012.

Outstanding Achievement Award for Research. Society for Range Management. 2011.

# HONORS (CONTINUED)

Outstanding Young Range Professional. Society for Range Management. 2000.

Phoenix Award. Oklahoma State University. 1994.

USDA National Needs Fellowship for Water Resources Research. 1992-94

Outstanding M.S. Candidate. Oklahoma State University, Department of Agronomy. 1991.

Phi Kappa Phi, Alpha Zeta, Gamma Sigma Delta

# SELECTED UNIVERSITY AND PROFESSIONAL SERVICE

Chair of Search Committee, Assistant Professor of Rangeland Science and Management, UCD CAES (2017)

Dean's Designee, Russell L. Rustici Rangeland and Cattle Research Endowment, UCD CAES (2016-17)

External Program Review Committee, ESSM Department, Texas A&M University (2015)

Vice Chair for Outreach and Extension, UCD Plant Sciences (2009-14)

Executive Committee, UCD Plant Sciences (2009-14)

New Faculty Mentoring Committees (3), UCD Plant Sciences (2009-14)

Associate Editor, California Agriculture (2006-2014)

UCD CAES Dean's Visioning Committee (2013)

UC ANR Water Initiative Panel Member (2012-13)

Peer Advisor Committee, UCD Wildlife, Fisheries and Conservation Biology (2000-13)

Acing Department Chair, UCD Plant Sciences (Nov 2011- Apr 2012)

UCD CAES Dean's Specialist Advisory Committee (2009-12), Chair of Committee (2012)

UCD CAES Executive Committee (2010-12)

ANR Cooperative Extension Farm Advisor Search Committees (2) (2012)

Chair of UCD Plant Sciences Senior Communicator Search Committee (2012)

Associate Editor, Range Ecology and Management (2009-12)

Chair of Resources Allocation Committee, UC Sierra Foothill Research and Extension Center (2000-11)

CAES Dean's Administrative Clusters Review Committee (2011)

USDA Conservation Effectiveness Assessment Program Review – Prescribed Grazing Team (2009-11)

USDA Conservation Effectiveness Assessment Program Review - Riparian Team (2009-11)

Chair, Strategic Planning Committee on Cooperative Extension, UCD Plant Sciences (2009)

# SELECT RESEARCH AND EXTENSION EDUCATION GRANTS

Quinn-Davidson, L., T. Saitone, Y. Valachovic, J. Stackhouse, D. Lewis, <u>K.W. Tate</u>. 2017-2021. Silent Straws: Understanding Water Demands and Economic Tradeoffs with Woody Encroachment in California's Oak Woodlands. UC ANR Competitive Grants Program. \$199,937.

<u>Tate, K.W.</u>, E.R. Atwill, L.M. Roche. 2016-17. Waterborne Microbial Pollutants – Quantifying Background and Cattle Contributions on Rangeland Watersheds. Russell L. Rustici Rangeland and Cattle Research Endowment. \$100,000.

Snell, L.K., D.F. Lile, L.M. Roche, S.R. Oneto, E. Gornish, F. Mashiri, <u>K.W. Tate</u>. 2016-17. Post-Wildfire Livestock Grazing Management on Public Rangelands. Russell L. Rustici Rangeland and Cattle Research Endowment. \$110,000.

<u>Tate, K.W.,</u> L.M. Roche, A.T. O'Geen, L. Huntsinger, R. Standiford. 2014-2017. Managing California Rangelands for Multiple Ecosystem Services: Understanding Tradeoffs among Production and Conservation-Based Goals. UC ANR Competitive Grants Program. \$248,977.

<u>Tate, K.W.</u>, L.M. Roche. 2012-2016. Rangeland long-term condition and trend monitoring program. USDA Forest Service. \$300,000.

Atwill, E.R., and <u>K.W. Tate</u> 2012-2015. Bacteria Source Tracking, Grazing Management Practice Implementation, and Assessment for Watersheds in the Lahontan Region. \$470,000. In partnership with Sierra Business Council, total grant amount \$1,000,000. CA State Water Resources Control Board.

<u>Tate, K.W.</u>, and L.M. Roche. 2012-2014. Prescribed Grazing to Enhance Ranch Profit and Rangeland Ecosystem Services. UC Davis Rustici Rangeland and Cattle Research and Extension Endowment. \$100,000.

<u>Tate, K.W.</u>, and E.R. Atwill. 2010-2014. Livestock Management and Waterborne Microbial Pollutants on US Forest Service Grazing Allotments. USDA Forest Service. \$530,000.

Tate, K.W., and L.M. Roche, J.D. Derner, M.N. Lubell, V. Eviner, A.T. O'Geen, and M.R. George. 2010-

- 2013. Prescribed Grazing to Sustain Livestock Production, Soil Quality, and Diversity in Rangeland Ecosystems. USDA Western Sustainable Agriculture Research and Education Program. \$197,000.
- <u>Tate, K.W.</u>, L.M. Roche, V. Eviner, A.T. O'Geen, J. Derner, M.N. Lubell, and M.R. George. 2009-2013. Prescribed Grazing to Restore Rangeland Soil Quality, Plant Diversity, Water Quality, and Agricultural Productivity. USDA Rangeland Research Program. \$483,000.
- <u>Tate, K.W.</u>, E. Kolodziej, A.L. Craigmill, A.T. O'Geen, E.R. Atwill. 2009-2014. Transport and Mitigation of Beef Cattle Veterinary Pharmaceuticals and Hormones in Surface and Sub-Surface Transport from Grazed Watersheds. USDA-AFRI Water and Watersheds Program. \$398,000.
- Allen-Diaz, B., A. Lind, and <u>K.W. Tate</u>. 2005-2011. Determining the Effects of Livestock Grazing on Yosemite Toads (*Bufo canorus*) and their Habitat: an Adaptive Management Study. USDA Forest Service. \$500,000.
- <u>Tate, K.W.</u>, E.R. Atwill, C. van Kessel, J. Six, R.A. Dahlgren. 2004-2010. Implementation of Vegetative Buffer, Irrigation, and Grazing Best Management Practices to Reduce Pathogens, Organic Carbon, and Colloids in Runoff from Rangelands and Irrigated Pastures. CALFED Proposition 50 Drinking Water Ouality Program. \$886,133.
- George, H.A., <u>K.W. Tate</u>, M.J. Singer, and D.F. Lile. 2005-2010. Upper Feather River Watershed Irrigation Discharge Management Program. CA State Water Resources Control Board, Irrigated Lands Program. \$512,000.
- Atwill, E.R., <u>K.W. Tate</u>, and M. Yates. 2006-2009. Efficacy of Grassland Buffers for Reducing *Salmonella*, *Cryptosporidium parvum*, and rotavirus in Rangeland Runoff. USDA CSREES. \$398,716.
- Dahlgren, R.A., <u>K.W. Tate.</u>, E.R. Atwill, B. Allen-Diaz, and M.J. Singer. 2001-2004. Range Management Effects on Water Quality in Oak Woodlands. USDA-CERES. \$570,000.
- George, M.R. and <u>K.W. Tate</u>. 2001-2004. Rangeland Water Quality Management; Planning, Implementation, and Effectiveness. CA State Water Resources Control Board. \$241,000.
- <u>Tate, K.W.</u>, L.K. Vance, Z. Wan, P. Gong, G. Biging, and R. Gildersleeve. 1999-2003. Using Remote Sensing to Evaluate the Impacts of Flood Irrigation of Meadows in the East Walker River Basin of California. NASA NRA-98-OES-09. *\$543,490*.

#### PEER-REVIEWED PUBLICATIONS

- 113. Byrnes, R.C., D.J. Eastburn, <u>K.W. Tate</u>, and L.M. Roche. 2018. A Global Meta-Analysis of Grazing Impacts on Soil Health Indicators. J. Environmental Quality. doi:10.2134/jeq2017.08.0313.
- 112. Salls, W., A.T. O'Geen, <u>K.W. Tate</u>, et al. *In Press*. Modeled Soil Erosion Potential is Low across California's Annual Rangelands. California Agriculture.
- 111. Tanner K.C., L. Windham-Myers, M. Marvin-DiPasquale, J.A. Fleck, <u>K.W. Tate</u>, B.A. Linquist. *In Press*. Methylmercury Dynamics in Upper Sacramento Valley Rice Fields with Low Background Soil Mercury Levels. J. Environmental Quality.
- 110. Wilmer, H., D.J. Augustine, J.D. Derner, M.E. Fernandez-Gimenez, D.D. Briske, L.M. Roche, <u>K.W. Tate</u>, K.E. Miller. *In Press*. Diverse Management Strategies Produce Similar Ecological Outcomes on Ranches in Western Great Plains: Social-Ecological Assessment. Rangeland Ecology and Management.
- 109. Oles, K.M., D.A. Weixelman, D.F. Lile, <u>K.W. Tate</u>, L.K. Snell, L.M. Roche. 2017. Riparian Meadow Response to Modern Conservation Grazing Management. Environmental Management. doi:10.1007/s00267-017-0897-1.
- 108. Gornish, E.S., M.S. Lennox, David Lewis, <u>K.W. Tate</u>, R.D. Jackson. 2017. Comparing herbaceous plant communities in active and passive riparian restoration. PLOS ONE. https://doi.org/10.1371/journal.pone.0176338
- 107. Bair, D.A., I.E. Popova, <u>K.W. Tate</u>, and S.J. Parikh. 2017. Transport of Oxytetracycline, Chlortetracycline and Ivermectin in Surface Runoff from Irrigated Pasture. J. Environmental Science and Health, Part B. 52:631-640.
- 106. Eastburn, D.J., A.T. O'Geen, <u>K.W. Tate</u>, and L.M. Roche. 2017. Multiple ecosystem services in a working landscape. PLOS ONE. 12:e0166595.
- 105. Tanner, C., L. Windham-Myers, J. Fleck, <u>K.W. Tate</u>, S. McCord, B. Linquist. 2016. The contribution of rice agriculture to methylmercury in surface waters: a review of data from the Sacramento Valley, California. J. Environmental Quality. 46:133-142.
- 104. Roche, L.M., T.K. Schohr, J.D. Derner, M.N. Lubell, B.B. Cutts, E. Kachergis, V.T. Eviner, and K.W.

- <u>Tate</u>. 2015. Sustaining multifunctional working rangelands: social and ecological insights from rancher decision-making. Rangeland Ecology and Management. 68:383-389.
- 103. Davy, J., L.M. Roche, D. Nay, A. Robertson, and <u>K.W. Tate</u>. 2015. Plant Community Responses to Cattle Grazing in a Noxious Weed-Dominated Rangeland. California Agriculture. 69:230-236
- 102. Roche, L.M., J.F. Chang, J. Six, A.T. O'Geen, and <u>K.W. Tate</u>. 2015. Soil Organic Carbon Stability across a Mediterranean Oak Agroecosystem. In: (eds. Standiford, R.B., and K.L. Purcell) Proceedings of the Seventh Symposium on Oak Woodlands: Managing Oak Woodlands in a Dynamic World. USDA. Gen. Tech. Rep. PSW-251. p. 219-230.
- 101. Roche, L.M., J.D. Derner, B.B. Cutts, M.N. Lubell, and <u>K.W. Tate</u>. 2015. On-ranch grazing strategies: context for the rotational grazing dilemma. Rangeland Ecology and Management. 68:248-256.
- 100. Jones, G.; P. Benchetler, <u>K.W. Tate</u>, E. Kolodziej. 2015. Trenbolone Acetate Metabolite Transport in Rangelands and Irrigated Pasture: Observations and Conceptual Approaches for Agro-Ecosystems Environmental Science & Technology. 48:12569-12576.
- 99. Jones, G.; P. Benchetler, <u>K.W. Tate</u>, E. Kolodziej. 2015. Surface and Subsurface Attenuation of Trenbolone Acetate Metabolites and Manure-Derived Constituents in Irrigation Runoff on Agro-Ecosystems. Environmental Science: Processes & Impacts. 16:2507-2516.
- 98. Freitas, M., L.M. Roche, D.W. Weixelman, and <u>K.W. Tate</u>. 2014. Montane Meadow Plant Community Response to Grazing. Environmental Management. 54:301-308.
- 97. Kachergis, K., J.D. Derner, B. Cutts, L.M. Roche, V. Eviner, M. Lubell, <u>K.W. Tate</u>. 2014. Increasing flexibility in rangeland management during drought. Ecosphere. 5:Art7.
- 96. Svejcar, T., C. Boyd, K. Davies, M. Madsen, J. Bates, R. Sheley, C. Marlow, D. Bohnert, M. Borman, R. Mata-Gonza`lez, J. Buckhouse, T. Stringham, B. Perryman, S. Swanson, <u>K. Tate</u>, M. George, G. Ruyle, B. Roundy, C. Call, K. Jensen, K. Launchbaugh, A. Gearhart, L. Vermeire, J. Tanaka, J. Derner, G. Frasier, K. Havstad. 2014. Western Land Managers will Need all Available Tools for Adapting to Climate Change, Including Grazing: A Critique of Beschta et al. Environmental Management. 53:1035-1038.
- 95. Jones, G.; P. Benchetler, <u>K.W. Tate</u>, and E. Kolodziej. 2014. Mass Balance Approaches to Characterizing the Leaching Potential of Trenbolone Acetate Metabolites in Agro-Ecosystems. Environmental Science & Technology. 48:3715-3723.
- 94. Jones, B.E, M. Krupa, and <u>K.W. Tate.</u> 2013. Aquatic ecosystem response to timber harvesting for the purpose of restoring Aspen. PLOS ONE. 8(12):e84561. doi:10.1371/journal.pone.0084561
- 93. Lubell, M., B. Cutts, L.M. Roche, J.D. Derner, M. Hamilton, E. Kachergis, and <u>K.W. Tate.</u> 2013. Conservation Program Participation and Adaptive Rangeland Decision-Making. Rangeland Ecology and Management. 66:609-620.
- 92. McIlroy, S.K., A.J. Lind, B.H. Allen-Diaz, L.M. Roche, W.E. Frost, R.L. Grasso, and <u>K.W. Tate</u>. 2013. Determining the effects of cattle grazing treatments on Yosemite toads (*Anaxyrus* [=Bufo] canorus) in montane meadows. PLOS ONE. 8(11):e79263.
- 91. Roche, L.M., L. Kroemschroder, E. R. Atwill, R.A. Dahlgren, and <u>K.W. Tate.</u> 2013. Water quality conditions associated with cattle grazing and recreation on national forest lands. PLOS ONE. 8(6): e68127.
- 90. Popova, I.E., D.A. Bair, <u>K.W. Tate</u>, and S.J. Parikh. 2013. Sorption, Leaching, and Surface Runoff of Beef Cattle Veterinary Pharmaceuticals under Simulated Irrigated Pasture Conditions. 2013. J. Environmental Quality. 42:1167-1175.
- 89. McCullough, S.A., A. T. O'Geen, M.L. Whiting, D.A. Sarr, and <u>K.W. Tate</u>. 2013. Quantifying the Consequences of Conifer Succession in Aspen Stands: Decline in a Biodiversity-Supporting Community. Environmental Monitoring and Assessment. 184:6967–6986.
- 88. George, M.R., S. Larson-Praplan, M. Doran, and <u>K.W. Tate.</u> 2013. Grazing *Nassella*: Maintaining Purple Needlegrass in a Sea of Aggressive Annuals. Rangelands. 35:18-21.
- 87. Kachergis, E., J. Derner, L.M. Roche, <u>K.W. Tate</u>, M. Lubell, R. Mealor, and J. Magagna. 2013. Characterizing Wyoming Ranching Operations: Natural Resource Goals, Management Practices and Information Sources. Natural Resources. 4:45-54.
- 86. Roche, L.M., K.J. Rice, and <u>K.W. Tate</u>. 2012. Oak Conservation Maintains Native Grass Stands in an Oak Woodland-Annual Grassland System. Biodiversity and Conservation. 21:2555-2568.
- 85. Purdy, S.E., P.B. Moyle, and <u>K.W. Tate</u>. 2012. Montane Meadows in the Sierra Nevada: Comparing Terrestrial and Aquatic Assessment Methods. Environmental Monitoring and Assessment. 184:6967-

6986.

- 84. Roche, L.M., A.J. Latimer, D.J. Eastburn, and K.W. Tate. 2012. Cattle grazing and conservation of a meadow-dependent amphibian species in the Sierra Nevada. PLOS ONE 7(4): e35734.
- 83. Roche, L.M., B. Allen-Diaz, D.J. Eastburn, and <u>K.W. Tate</u>. 2012. Cattle Grazing and Yosemite Toad (*Bufo canorus* Camp) Breeding Habitat in Sierra Nevada Meadows. Rangeland Ecology and Management. 65:56-65.
- 82. Krupa, M., R. Spencer, <u>K.W. Tate</u>, J.W. Six, C. Kessel, and B. Linquist. 2012. Controls on Dissolved Organic Carbon Composition and Export from Rice-dominated Systems. Biogeochemistry. 108:447-466
- 81. Krupa, M., <u>K.W. Tate</u>, N. Bajwa, C. van Kessel, and B. Linquist. 2011. Water Quality in Rice-Growing Watersheds in a Mediterranean Climate. Agriculture, Ecosystems and Environment. 144:290-301.
- 80. George, M.R., R.D. Jackson, C. Boyd, and <u>K.W. Tate</u>. 2011. A Scientific Assessment of the Effectiveness of Riparian Management Practices. *In:* D.D. Briske (ed), Conservation Benefits of Rangeland Practices: Assessment, Recommendations, and Knowledge Gaps. Lawrence, KS. Allen Press.
- 79. Briske, D.D., J.D. Derner, D.G. Milchunas, and <u>K.W. Tate.</u> 2011. An Evidence-Based Assessment of Prescribed Grazing Practices. *In:* D.D. Briske (ed), Conservation Benefits of Rangeland Practices: Assessment, Recommendations, and Knowledge Gaps. Lawrence, KS. Allen Press.
- 78. Norton, J, L. Jungst, U. Norton, H. Olsen, <u>K.W. Tate</u>, and W. Horwath. 2011. Soil Carbon and Nitrogen Storage in Upper Montane Riparian Meadows. Ecosystems. 14:1217-1231.
- 77. Swarowsky, A., R.A. Dahlgren, <u>K.W. Tate</u>, J.W. Hopmans, and A.T. O'Geen. 2011. Catchment Scale Soil Water Dynamics in a Mediterranean Oak Woodland. Vadose Zone Journal. 10:800-815.
- 76. Kuhn, T.J., H.D. Safford, B.E. Jones, and <u>K.W. Tate</u>. 2011. Aspen (*Populus tremuloides*) stands and their contribution to plant diversity in a semiarid coniferous landscape. Plant Ecology. 212:1451-1463.
- 75. Jones, B.E., D.F. Lile, and <u>K.W. Tate</u>. 2011. Cattle Selection for Aspen and Meadow Vegetation: Implications for Restoration. Rangeland Ecology and Management. 64:625–632.
- 74. Ragosta, G., C. Evensen, E.R. Atwill, M. Walker, A. Asquith, T. Ticktin, and <u>K.W. Tate</u>. 2011. Risk Factors for Elevated *Enterococcus* Concentrations in a Rural Tropical Island Watershed. J. Environmental Management. 92:1910-1915.
- 73. Lennox, M.S., D.J. Lewis, R.D. Jackson, J.M. Harper, S. Larson, and <u>K.W. Tate</u>. 2011. Development of Vegetation and Aquatic Habitat in Restored Riparian Sites of California's North Coast Rangelands. Restoration Ecology. 19:225-233.
- 72. Lewis, D.J., E.R. Atwill, M.S. Lennox, M.D.G. Pereira, W.A. Miller, P.A. Conrad, and <u>K.W. Tate</u>. 2010. Management of Microbial Contamination in Storm Runoff from California Coastal Dairy Pastures. J. Environmental Quality. 39:1782–1789.
- 71. O'Geen, A.T., R A. Dahlgren, A. Swarowsky, <u>K.W. Tate</u>, D.J. Lewis, and M.J. Singer. 2010. Connecting Soil Hydrology and Stream Water Chemistry in California Oak Woodlands. California Agriculture. 64:78-84.
- 70. Ragosta G., C. Evensen, E.R. Atwill, M. Walker, T. Ticktin, A. Asquith, and <u>K.W. Tate.</u> 2010. Causal Connections between Water Quality and Land Use in a Rural Tropical Island Watershed. Ecohealth. 7:105–113.
- 69. Li, X., E.R. Atwill, L.A. Dunbar, and <u>K.W. Tate</u>. 2010. Effect of Daily Temperature Fluctuation during the Cool Season on the Infectivity of *Cryptosporidium parvum*. Applied and Environmental Microbiology. 76:989-993.
- 68. Lewis, D.J., E.R. Atwill, M.S. Lennox, M.D.G. Pereira, W.A. Miller, P.A. Conrad, and <u>K.W. Tate</u>. 2009. Reducing Microbial Contamination in Storm Runoff from High Use Areas on California Coastal Dairies. Water Science and Technology. 60: 1731-1743.
- 67. Jones, B.E., D.F. Lile, and <u>K.W. Tate</u>. 2009. Effect of Simulated Browsing on Aspen Regeneration: Implications for Restoration. Range Ecology and Management. 62:557–563.
- 66. Chow, A.T., T.L. Seong, A.O.Geen, T. Orozco, D. Beaudette, K.W. Po, P.J. Hernes, <u>K.W. Tate</u>, and R. Dahlgren. 2009. Litter Contributions to Dissolved Organic Matter and Disinfection Byproduct Precursors in California Oak Woodland Watersheds. J. Environmental Quality. 38: 2334-2343.
- 65. Harter, T., E.R. Atwill, L. Hou, B.M. Karle, and <u>K.W. Tate</u>. 2008. Developing risk models of Cryptosporidium transport in soils from vegetated, tilted soilbox experiments. J Environmental Quality.

- 37:245-258.
- 64. Miller, W.A., D.J. Lewis, M.D.G. Pereira, M. Lennox, P.A. Conrad, <u>K.W. Tate</u>, and E.R. Atwill. 2008. Farm Factors Associated with Reducing *Cryptosporidium* Loading in Storm Runoff from Dairies. J. Environmental Quality. 37:1875-1882.
- 63. Knox, A.K, R.A. Dahlgren, <u>K.W. Tate</u>, and E.R. Atwill. 2008. Efficacy of Flow-Through Wetlands to Retain Nutrient, Sediment, and Microbial Pollutants. J. Environmental Quality. 37:1837-1846.
- 62. Bartolome, J.W., R.D., A.D.K. Betts, J.M. Connor, G.A. Nader, <u>K.W. Tate</u>. 2007. Residual Dry Matter Effects on Production and Plant Functional Groups in California Annual Grassland. Grass and Forage Science. 62:445-452.
- 61. Miller, W.A., D.J. Lewis, M. Lennox, M.G.C. Pereira, <u>K.W. Tate</u>, P.A. Conrad, and E.R. Atwill. 2007. Climate and On-farm Risk Factors Associated with *Giardia duodenalis* cysts in Storm Runoff from California Coastal Dairies. Applied and Environmental Microbiology. 73:6972-6979.
- 60. Knox, A.K., <u>K.W. Tate</u>, R.A. Dahlgren, and E.R. Atwill. 2007. Management Reduces *E. coli* in Irrigated Pasture Runoff. California Agriculture. 61:159-165.
- 59. Kuhn, T.J., <u>K.W. Tate</u>, D. Cao, and M.R. George. 2007. Ecohydrologic Impacts of Juniper Expansion in the Klamath Basin, California. California Agriculture. 166-171.
- 58. <u>Tate, K.W.</u>, D.L. Lancaster, and D.F. Lile. 2007. Assessment of Thermal Stratification within Stream Pools as a Mechanism to Provide Refugia for Native Trout in Hot, Arid Rangelands. Environmental Monitoring and Assessment. 124:289-300.
- 57. Hesson, S., D.S. Ahearn, R.A. Dahlgren, and <u>K.W. Tate</u>. 2006. Water Quality During Pulse Flood Flow Releases on the Mokelumne River, California. Regulated Rivers. 23:185-200.
- 56. Lewis, D.J., M.J. Singer, R.A. Dahlgren, and <u>K.W. Tate</u>. 2006. Nitrate and Sediment Fluxes from a California Rangeland Watershed. J. Environmental Quality. 35:2202-2211.
- 55. <u>Tate, K.W.</u>, E.R. Atwill, J.W. Bartolome, and G.A. Nader. 2006. Significant *E. coli* Attenuation by Vegetative Buffers on Annual Grasslands. J. Environmental Quality. 35:795-805.
- 54. Thompson, L.C., L. Forero, Y. Sado, and <u>K.W. Tate</u>. 2006. Assessing the Distribution of Fish in Rangeland Streams in Relation to Environmental Factors: Fish Habitat Use in Cow Creek. California Agriculture. 60:200-206.
- 53. Atwill, E.R., <u>K.W. Tate</u>, M. Das Gracas C. Pereira, J.W. Bartolome, G.A. Nader. 2006. Efficacy of Natural Grass Buffers for Removal of *Cryptosporidium parvum* in Rangeland Runoff. J. Food Protection. 69:177-184.
- 52. Ahearn, D.S., R.W. Sheibley, R.A. Dahlgren, M. Anderson, J. Johnson, and <u>K.W. Tate</u>. 2005. Land Use and Land Cover Influence on Water Quality in the Last Free-Flowing River Draining the Western Sierra Nevada, California. J. Hydrology. 313:234-247.
- 51. Li, X., E. R. Atwill, L. A. Dunbar, T. Jones, J. Hook, and <u>K.W. Tate</u>. 2005. Seasonal Temperature Fluctuation Induces Rapid Inactivation of *Cryptosporidium parvum*. Environmental Science and Technology. 39:4484-4489.
- 50. Bedard-Haughn, A., <u>K.W. Tate</u>, C. van Kessel. 2005. Quantifying the Impact of Regular Cutting on Vegetative Buffer Efficacy for <sup>15</sup>N sequestration. J. Environmental Quality. 34:1651-1664.
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- 48. Rickman, T.H., B.E. Jones, D.R. Cluck, D.J. Richter, and <u>K.W. Tate.</u> 2005. Night Roost Habitat of Radio-Tagged Northern Goshawks on Lassen National Forest, California. J. Wildlife Management. 69:1737-1742.
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#### RESEARCH AND EXTENSION ABSTRACTS

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