Steven A. Thomas
University of Nebraska
Lincoln, NE 68583-0711
(403) 613-0043
sthomas5@unl.edu

INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
School of Natural Resources

STEVEN A. THOMAS

CURRICULUM VITAE

PROFESSIONAL APPOINTMENTS:

2013-2015	Visiting Scientist, Universidade do Estado do Rio de Janeiro(Rio de Janeiro State University)
2012-present	Associate Professor, University of Nebraska
2006-2012	Assistant Professor, University of Nebraska
2009-present	Adjunct Faculty, Colorado State University
2004-2005	Postdoctoral Fellow, Cornell University
2003	Research Hydrologist, Eco-metrics, Inc.
2000-2003	Postdoctoral Fellow, Virginia Tech

EDUCATION:

University of New Hampshire	Major: Botany	BS: 1987
University of Wyoming	Major: Zoology	MS:1991
Idaho State University	Research focus: Aquatic Ecology	PhD: 2000

AWARDS:

2011 UNL Parents Association "Certificate of Recognition for Contributions to Students"
2010 Young Researcher Award, Agricultural Research Division, Institute of Agriculture and Natural Sciences, University of Nebraska.

GRANTS:

Thomas, S.A., with E. Zandona and T. Moulton. 2013-2015. Interaction between riparian vegetation and rivers: lateral and longitudinal patterns in the ecological structure and function of rivers. Visiting scientist through d E awarded to the State University of Rio de Janiero (UERJ), budget $72,665 + per diem support for S.A. Thomas and stipends for a postdoctoral fellow and a PhD student, administered through UERJ.

Thomas, S.A. Understanding cyanobacteria blooms in Willow Creek Reservoir. Lower Elkhorn Natuiral Resource District and the Nebraska Environmental Trust. $79,000. 2013-2014.

Burgin, A, T. Loecke, D. Riveros-Iregui, and S. Thomas. RAPID: Using a drought-enhanced nitrate pulse to understand stream N retention and processing. NSF-Ecosystems 2012-2013. Total Budget $200,000.

Thomas, S.A. 2011-2016. Dimensions in Biodiversity: Collaborative Research: An integrative traits-based approach to predicting variation in vulnerability of tropical and temperate stream biodiversity to climate change. NSF-Dimensions in Biodiversity, DEB-1046408. Total Budget $3,000,000.

Thomas, S.A. and K. Hoagland. 2011-2013. Examining Toxic Cyanobacterial Blooms in Nebraska Reservoirs: Landscape Controls and Within-Reservoir Mechanisms. Nebraska Department of Environmental Quality. Total Budget $303,728.

Thomas, S.A. 2011-continuing. Analyzing Chlorophyll a in selected Nebraska Reservoirs. Continuous contract at $3,000 per annum

Allen C. and 19 others. 2009-2012. Resilience and adaptive governance in stressed watersheds. NSF-IGERT. Total Budget $3,100,000.

Reznick, D., and 9 others. 2006-2011. From genes to ecosystems: How do ecological and evolutionary processes interact in nature? NSF-FIBR, DEB-0623632. Total Budget $5,000,002.

Thomas, S. A. 2007-2009. Collaborative Research: Nutrient Processing and Retention in Streams - A Stoichiometric Approach to Coupled N and P Cycling. NSF-Ecosystems DEB-0715117. Total Budget $51, 345

Thomas, S.A. 2006-2009. Ecological responses to stream bank stabilization in the Cedar River. Nebraska Department of Environmental Quality. Total Budget $153,000.

Schade, J.S. S.A. Thomas, Mary Power, Jacques Finlay, Jill Welter. 2006-2009. Coupling consumer-resource interactions and nutrient spiraling in a stream network. NSF-Ecosystems DEB-0543363 $625,000.

Goodale, C. and S.A. Thomas. 2005-2008. The Fate of Nitrate Entering a Coupled Terrestrial-Aquatic Ecosystem in the Upper Susquehanna Basin: a Pilot Tracer Experiment. Agricultural Ecology Program of Cornell University. Total Budget $60,000

Valett, H.M., S.A. Thomas, and E.F. Benfield. 2004-2005. Stream-Riparian Corridors - Disturbance, Linkages, and Resistance. NSF-Ecosystems. $98,000.

J. Meyer, G.Poole, S.A. Thomas, C. Tague, and L. Leff. 2004-2005. Geomorphic, Hydrologic, and Microbiological Networks in Integrated Terrestrial/Aquatic Biological Systems. NSF-FIBR Incubation Grant. $50,000.

S.A. Thomas, G. Poole and J. Webster. 2003. Nutrient and pesticide flux within a floodplain aquifer. Funding source: USEPA through the Confederated Tribes of the Umatilla Indian Reservation. $50,000

PEER-REVIEWED PUBLICATIONS:

Published

2016 Lessmann, Janeth, Juan M. Guayasamin, Kayce L. Casner, Alexander S. Flecker, W. Chris Funk, Cameron K. Ghalambor, Brian A. Gill, Iván Jácome-Negrete, Boris C. Kondratieff, LeRoy N. Poff, José Schreckinger, Steven A. Thomas, Eduardo Toral-Contreras, Kelly R. Zamudio & Andrea C. Encalada (2016) Freshwater vertebrate and invertebrate diversity patterns in an Andean-Amazon basin: implications for conservation efforts, Neotropical Biodiversity, 2(1) 99-114. **DOI:** 10.1080/23766808.2016.1222189

2016 Collins, SM, SA Thomas, T Heatherly, K MacNeill, A Leduc, A Lopez-Sepulcre, B Lamphere, R El-Sabaawi, DN Reznick, C Pringle, and AS Flecker. Fish introductions and light modulate food web fluxes in tropical streams: a whole-ecosystem experimental approach. Ecology. 97(11) 3154-3166.

2016 Reynolds, KN, TD Loecke, AJ Burgin, CA Davis, D Riveros-Iregui, SA Thomas, MA St. Clair, and AS Ward. Optimizing sampling strategies for riverine nitrate using high-

frequency data in agricultural watersheds. Environmental Science and Technology, 50(12) 6406-6414. **DOI:** 10.1021/acs.est.5b05423

2016 Gill, BA, BC Kondratieff, KL Casner, AC Encalada, AS Flecker, DG Gannon, CK Ghalambor, JM Guaysamin, NL Poff, MP Simmons, SA Thomas, KR Zamudio, and W.C. Funk. Cryptic species diversity reveals biogeographic support for the 'mountain passes are higher in the tropics' hypothesis. Proceedings of the Royal Society B-Biological Sciences. 283(1832). **DOI:** 10.1098/rspb.2016.0553

2016 Collins, SM, JP Sparks, SA Thomas, SA Wheatley, and AS Flecker. Increased Light Availability Reduces the Importance of Bacterial Carbon in Headwater Stream Food Webs. Ecosystems 19(3) 396-410. **DOI:** 10.1007/s10021-015-9940-3

2015 Collins, SM. TK Kohler, SA Thomas, WW Fetzer, and AS Flecker. The importance of terrestrial subsidies in stream food webs varies along a stream size gradient. Oikos 125(5) 674-685. **DOI:** 10.1111/oik.02713

2015 Goodale, CL, G Fredriksen, MS Wiess, CK McCalley, JP Sparks, and SA Thomas. Soil processes drive seasonal variation in retention of N-15 tracers in a deciduous forest catchment. Ecology 96(10) 2653-2668.

2015 El-Sabaawi, Rana; R. Bassar, C, Rakowski, S. Thomas, M. Marshall, C. Pringle, B. Bryan, D. Reznick, and A. Flecker. Intraspecific phenotypic variation differences in fish affect ecosystem processes as much as bottom-up factors. Oikos. 4(9): 1505-1515. Doi 10.1111/oik.01769

2015 Bassar, RD, TN Heatherly, MC Marshall, SA Thomas, AS Flecker, and DN Reznick. Population size-structure-dependent fitness and ecosystem consequences in Trinidadian guppies. Journal of Animal Ecology. 84:4 955-968 DOI: 10.1111/1365-2656.12353

2014 Dodds, W. K.., SM Collins, SK Hamilton, JL Tank, S Johnson, JR Webster, KS Simon, MR Whiles, HM Rantala, WH McDowell, SD Peterson, T Riis, CL Crenshaw, SA Thomas, PB Kristensen, BM Cheever, AS Flecker, NA Griffiths, T Crowl, EJ Rosi-Marshall, R El-Sabaawi, and E. Marti. You are not always what we think you eat: selective assimilation across multiple whole-stream isotopic tracer studies. Ecology. 95(10) 2757-2767. DOI: 10.1890/13-2276.1

2014 Davis, CA, AS Ward, AJ Burgin, TD Loecke, DA Riveros-Iregui, DJ Schloebelen, CL Just, SA Thomas, LJ Weber, MA St Clair. Antecedent Moisture controls on Stream Nitrate Flux in an Agricultural Watershed. Journal of Environmental Quality. 43(5): 1822-1832. DOI 10.2134/jeq2013.11.0438er

2013 Brookshire, E.N.J., and S.A. Thomas. Ecosystem Consequences of Tree Monodominance for Nitrogen Cycling in Lowland Tropical Forest. PLoS One 8(7): e70491. doi:10.1371/journal.pone.0070491

2013 Cheever, B., J.R. Webster E.E. Kratzer and S.A. Thomas. The relative importance of exogenous and substrate derived nitrogen for microbial growth during leaf decomposition. Ecology, 94(7):1614-1625.

2012 Tyler J. Kohler, Thomas N. Heatherly, II, Rana W. El-Sabaawi, Eugenia Zandonà, Michael C. Marshall, Alexander S. Flecker, Catherine M. Pringle, David N. Reznick, and Steven A. Thomas Flow, nutrients, and light availability influence Neotropical epilithon

biomass and stoichiometry. Freshwater Science:, Vol. 31, No. 4, pp. 1019-1034. (student paper).

2012 Auer, S., Andrés Lopez-Sepulcre, Thomas Heatherly II, Tyler J. Kohler, Ronald D. Bassar, Steven A. Thomas and David N. Reznick. Life histories have a history: Effects of past and present conditions on adult somatic growth rates in wild Trinidadian guppies. Journal of Animal Ecology 81(4) 818-826 (student paper).

2012 El-Sabaawi R, T.J. Kohler. E. Zandona, J. Travis, M.C. Marshall, S.A. Thomas. D.N. Reznick, M. Walsh, J.F. Gilliam, C.P. Pringle, and A.S. Flecker. Environmental and Organismal Predictors of Intraspecific Variation in Stoichiometry of a Neotropical Freshwater Fish. PLoS ONE 7(3): e32713. doi:10.1371/journal.pone.0032713.

2012 El-Sabaawi, R.W., E. Zandonà, T.J. Kohler, M.C. Marshall, J.M. Moslemi, J. Travis, A. López-Sepulcre, Regis Ferriére, Catherine M. Pringle Steven A. Thomas, David N. Reznick, Alexander S. Flecker, Patterns of wide intraspecific organismal stoichiometry among populations of the Trinidadian guppy (*Poecilia reticulata*). Functional Ecology 26(3) 666-676.

2011 Schade, J.D., K. MacNeill, S.A. Thomas, F.C. Mcneely, J.R. Welter, J. Hood, M. Goodrich, M.E. Power, and J.C. Finlay. The stoichiometry of nitrogen and phosphorus spiraling in heterotrophic and autotrophic streams. Freshwater Biology, 56(3) 424-436.

2010 Basser, R. D., M. M. Marshall, A. Lopez-Supulcre, E. Zandona, S.K.Auer, J. Travis, C.M. Pringle, A.S. Flecker, S.A. Thomas, D. F. Fraser, D.N. Reznick. Local adaptation in Trinidadian guppies. Proceedings of the National Academy of Sciences of the United States of America 107(8) 3616-3621.

2009 Webster, J.R., J.D Newbold, S.A Thomas, H.M Valett, and P.J. Mulholland. Nutrient Uptake and Mineralization during Leaf Decay in Streams - a Model Simulation. International Review of Hydrobiology 94(4): 371-390.

2009 Goodale, C, S.A. Thomas, G. Fredricksen, E.M. Elliot, M. Flinn, and T.J. Butler. Unusual seasonal patterns and inferred processes of nitrogen retention in forested headwater catchments of the Upper Susquehanna basin. Biogeochemistry. 93:197-218.

2008 Thomas, S.A. and J. Cebrian. Ecological Stoichiometry: Ecosystem Patterns and Processes. Pp. 1139-1148. *In:* S. J. Erikson (ed.), Encyclopedia of Ecology. Elsevier,Oxford, UK.

2008 McIntyre, P.S. Alexander S. Flecker, Michael J. Vanni, James M. Hood. and S.A. Thomas. Fish distributions and nutrient cycling hotspots in a Neotropical stream. Ecology. 89:2335-2346.

2008 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. Endogenous and exogenous control of ecosystem function: N cycling in a headwater stream. Ecology. 12:3515-3527.

2008 Arrigoni, A., G.C. Poole, L.A.K. Mertes, S.J. O'Daniel, W.K. Woessner, S.A. Thomas. Buffering, lagging, or cooling? Disentangling mechanisms of hyporheic influence on stream channel temperature. Water Resources Research. Vol. 44, W09418, doi:10.1029/2007WR006480

2007 Jones, K.L., G.C. Poole, W.W. Woessner, M.V. Vitale, B.R. Boer, S.J. O'Daniel, S.A. Thomas and B.A. Geffen. Geomorphology, hydrology, and aquatic vegetation drive seasonal hyporheic flow patterns across a gravel-dominated floodplain. Hydrological Processes. DOI: 10.1002/hyp.6554

2007. Brookshire, E.N.J., H.M. Valett, S.A. Thomas, J.R. Webster. Atmospheric N deposition - increases organic N loss from temperate forests. Ecosystems (2): 252-262.

2006 Mulholland, P.J., S.A. Thomas, H.M. Valett, J.R. Webster, and J. Beaulieu. Effects of light on NO3- uptake in small forested stream: diurnal and day to day variations. Journal of the North American Benthological Society 25(3):583-595.

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

2005 Thomas S.A., T.V. Royer, E.B. Snyder, and J,C, Davis. Organic carbon spiraling in the Snake River, Idaho, USA. Aquatic Sciences. 67:424-433.

2005 Brookshire, J.D., H. M. Valett, S. A. Thomas, and J.R. Webster. Cycling of dissolved organic nitrogen in a forested headwater stream. Ecology. 86:2487-2496.

2005 Cross, W.F., J.P. Benstead, P.C. Frost, and S.A. Thomas. 2005. Applying principles of ecological stoichiometry to freshwater benthic ecology: recent progress and future potential. Freshwater Biology. 50:1985-1912

2005 Johnson, A.N., B.R. Boer, W.W. Woessner, J.A. Stanford, G.C. Poole, S.A. Thomas, S.J. O'Daniel. Evaluation of an inexpensive small-diameter temperature logger for documenting ground water-river interactions Ground Water Monitoring and Remediation 25(4):68-74.

2005 Newbold, J.D., S.A. Thomas, G.W. Minshall, C.E. Cushing, and T. Georgian. Deposition, benthic residence, and resuspension of fine organic particles in a mountain stream. Limnology and Oceanography. 50:1571-1580.

2005 Schade, J., J. Espeleta, C.A. Klausmeier, M.E. McGroddy, S.A. Thomas, and L. Zhang. A conceptual framework for ecosystem stoichiometry: balancing resource supply and demand. Oikos. 109:40-51.

2005 Varricchione, J.T., S.A. Thomas, and G.W. Minshall. 2005. Vertical and seasonal distribution of hyporheic invertebrates in streams with different glacial histories. Aquatic Sciences 67(4):434-453.

2004 Mulholland, P.J., H.M. Valett, J.R. Webster, S.A. Thomas, L. Cooper, S. Hamilton and B.J. Peterson. Stream denitrification and total nitrate uptake rates measured using a field ^{15}N isotope tracer approach. Limnology and Oceanography 49(3) 809-820.

2003 Thomas, S.A. T.V. Royer, and G. W. Minshall. Assessing the Role of Marine Derived Nutrients in Idaho Streams. Pages 41-55 *in* J.G. Stockner, editor. Nutrients in Salmonid Ecosystems; Sustaining Productivity and Biodiversity. American Fisheries Society, Syposium 34, Bethesda, Maryland.

2003 Thomas, S.A., H.M. Valett, P.J. Mulholland, and J.R. Webster. A regression approach to estimating reactive solute uptake in advective and transient storage zones of stream ecosystems. Advances in Water Resources. 26: 965-976.

2003 Webster, J.R. and 19 others. Factors effecting ammonium uptake in streams: an inter-biome perspective. Freshwater Biology. 48:1329-1352.

2003 Georgian, T.G, J. D. Newbold, S.A. Thomas, M.T. Monaghan, Minshall, G.W., and C.E. Cushing. Comparison of corn pollen and natural fine particulate organic matter transport in streams: can pollen be used as a seston analog? Journal of the North American Benthological Society. 22:2-16

2001 Thomas, S.A., J.D. Newbold, G.W. Minshall, T. Georgian, M.T. Monaghan, and C.E. Cushing. Transport and deposition of fine and very-fine organic particles in streams: implications for deposition mechanisms in turbulent environments. Limnology and Oceanography. 46:1415-1424.

2001 Thomas, S.A., H.M. Valett, P.J. Mulholland, and J.R. Webster, C.S. Fellows, C.N. Dahm, and C.G. Peterson. 2001. Nitrogen retention in headwater streams: the influence of groundwater – surface water interaction. In: Optimizing Nitrogen Management in Food and Energy Production and Environmental Protection: Proceedings of the 2nd International Nitrogen Conference on Science and Policy. *TheScientificWorld* 1:623-631.

2001 Monaghan, M.T., S.A. Thomas, G.W. Minshall, J.D. Newbold, and C.E. Cushing. The influence of filter-feeding benthic macroinvertebrates on the transport and deposition of particulate organic matter and diatoms in two streams. Limnology and Oceanography. 46: 1091-1099.

2000 Minshall, G.W., S.A. Thomas, J. D. Newbold, M.T. Monaghan, and C.E. Cushing. Physical influences on organic particle transport and deposition in streams. Journal of the North American Benthological Society. 19:1-16.

1999 Brock, J.T., E.B. Snyder, T.V. Royer, and S.A. Thomas. Periphyton metabolism: a chamber approach. In. The Controlled Flood in the Grand Canyon. American Geophysical Union Monograph 110. p 217-223.

1996 Beckett, D.C., B.W. Green, S.A. Thomas, and A.C. Miller. Epizoic communities on upper Mississippi River unionid bivalves. American Midland Naturalist 135:102-114.

INVITED PRESENTATIONS:

2016 Assessing the ecological consequences of Trinidadian Guppies across scales of ecological organization. Center for Advanced Studies in Blanes, Blanes, Spain

2016 Ecolological consequences of local adaptation in Trinidadian Guppies: Implications for eco-evolutionary interactions. Umea University, Umea, Sweden

2014 The Ecological Consequences of Local Adaptation: Using Trinidadian Guppies to Examine Ecological-Evolutionary Interactions in Nature. State University of Rio de Janeiro, Rio de Janeiro, Brazil.

2013 Nutrient spiraling: A review of tracer approaches to quantifying biogeochemical activity in streams. Plenary Speaker. Annual meeting of the Brazilian Limnological Society. Bonito, Brazil. September.

2013 The ecosystem consequences of phenotypic variation in Trinidadian guppies. Annual meeting of the Brazilian Limnological Society. Invited special session. Bonito, Brazil. September.

2013 Eco-evolutionary dynamics and the contemporary convergence of ecology and evolution. INTECOL 2013. Invited Special Session. London, England. August

2013 The Ecological Consequences of Species Introduction and Local Adaptation: Using Trinidadian Guppies to Examine Ecological-Evolutionary Interactions in Nature. Department of Ecology, State University of Rio de Janeiro. Rio de Janiero, Brazil. January

2012: The Ecological Consequences of Species Introduction and Local Adaptation: Using Trinidadian Guppies to Examine Ecological-Evolutionary Interactions in Nature. Nebraska Wesleyan University

2011 An isotope tracer approach to assessing top-down and bottom-up control of nitrogen cycling in a neotropical stream. Thomas, S.A., R, El-Sabaawi, S. Collins, K. MacNeill, A.S. Flecker, and C. Pringle. European Society of Freshwater Science. June 2011. (Special session and session organizer)

2011 Structural and functional consequences of manipulating top-down and bottom-up forces in neotropical streams. Department of Biological Sciences, University of Alabama

2010 Feedbacks between ecology and evolution: Life history of Trinidadian guppies. School of Biological Sciences, University of Nebraska.

2010 Studying ecology and evolution in nature. Department of Zoology and Physiology, University of Wyoming.

2009 Linking Ecosystems and Evolution: Guppies and the Ecology of Trinidadian Streams. Biology Department, City College of New York.

2008 Future Directions in Nutrient Spiraling Research. Consortium of Universities for the Advancement of Hydrologic Science. National Center for Atmospheric Research. Boulder,CO.

2008 The Ecology of Streams and Rivers: Biology in Motion. Department of Civil Engineering. City College of New York

2007 Nutrient cycling in streams: Superimposing ecological processes and hydrological transport. Montana State University.

2006 Incorporating transport in ecological research: lessons from streams. Kansas State University, EEB seminar series.
2005 Nutrient regeneration in streams: insights from whole-system estimates of nitrification. The G.W. Minshall Symposium, Idaho State University.
2005 Nitrogen cycling in streams: ecosystems to organisms. University of Nebraska.
2004 Ecological Stoichiometry as a Framework for Coupling Nitrogen and Phosphorus Cycling. Ecology and Evolutionary Biology Seminar Series, Cornell University.
2004 Nutrient Spiraling: the balance between nutrient transport and retention in stream ecosystems. Idaho State University.
2004 The implications of ecological stoichiometry for nutrient spiraling in stream ecosystems. University of New England. Armidale, Australia.
2003 Nutrient spiraling as a framework for studying ecological stoichiometry in stream ecosystems. Cornell University. Ithaca, New York.
2001 Deposition, transport and processing of fine organic particles in streams. DIALOG IV sponsored by the American Society of Limnology and Oceanography. Bermuda Biological Station.
2001 The nutrient status of Idaho streams: how conditions have been altered by the loss of marine derived nutrients. American Fisheries Society, Eugene, Oregon.

PROFESSIONAL PRESENTATIONS: *(LAST 5 YEARS)*

2016:

1. Payn, R., Thomas, S., Covino, T., and Koenig, L. Extracting information about solute uptake kinetics in advective-dispersive transport based on instantaneous-release tracer experiments in streams," American Geophysical Union, San Francisco, CA, USA.
2. Tromboni, F. Thomas, S., Feijó de Lima, R., Silva-Júnior, E., Moulton, T., Lourenço-Amorim, C., Zandonà, E., Annual meeting of the Society for Freshwater Science, The effects of riparian deforestation and water chemistry on nutrient uptake rates in the Atlantic Rainforest of Brazil. Society for Freshwater Science, Sacramento, CA, USA,
3. Brookshire, J., Gerber, S., Greene, W., Jones, R., and Thomas, S., , "Mass Balance constraints on total nitrogen gas emissions from humid tropical forests. Ecological Society of America, Ft Lauderdale, FL, UA.
4. MacNeill, K., Collins, S., Encalada, A., Kohler, B., Thomas, S., Rosi-Marshall, E., and Flecker, A. Arsenic controls on stoichiometry and nutrient cycling in tropical streams. Association for the Study of Limnology and Oceanography, Santa Fe, NM, USA.
5. Feijo-Lima, R., Tromboni, F., Silva-Junior, E., Zandoná, E., Moulton, T., Thomas, S. Cascading effects of deforestation on ecosystem structure and function of tropical streams Association for the Study of Limnology and Oceanography, Brazil.
6. Thomas, S., Tromboni, F., Feijo-Lima, R., Silva-Junior, E., Moulton, T., and Zandona, E. Downstream shadows of upstream land use: the instream effects of abrupt changes in riparian conditions. Association for the Study of Limnology and Oceanography, Santa Fe, NM, USA,.

7. Poff, L., Flecker, A., Encalada, A., Landeira-Dabarca, A., Rugenski, A., Graça, M., Thomas, S. Changes in leaf and cotton decomposition rates exposed to different temperatures in tropical stream mesocosms. Society for Freshwater Science, Sacramento, CA, USA.
8. Thomas, S., Ecolological consequences of local adaptation in Trinidadian Guppies: Implications for eco-evolutionary interactions. Umea University, Umea, Sweden, Sweden.

9. Thomas, S., Assessing the ecological consequences of Trinidadian Guppies across scales of ecological organization," Centre for Advanced Studies in Blanes, Spain, Blanes, Spain, Spain.

2015:

1. Tromboni, F., Thomas, S., Moulton, T., and Zandona, E. Assessing nutrient limitation in a pristine tropical stream: Comparing nutrient difusing substrates with nutrient uptake estimates. American Geophysical Union, San Francisco.
2. Collins, S. M., El-Sabaawi, R., Lopez-Sopulcre, A., Thomas, S., Flecker, A. S., Fish introductions and light availability modulate food web fluxes in tropical streams: A stable isotope tracer approach. Ecological Society of America, Baltimore, Maryland.
3. Brookshire, J., Gerber, S., Thomas, S., Jones, R., Limitation across tropical forests inferred from stoichiometry of nutrient losses. Ecological Society of America, Baltimore, Maryland.
4. Fiejo de Lima, R., Tromboni, F., Moulton, T., Zandona, E., Thomas, S., Downstream effects of Abrupt riparian changes in streams in the Atlantic Rainforest of Brazil. Society for Freshwater Science, Milwaukee, Wisconsin.
5. Atkinson, C., Flecker, A., Encalada, A., Thomas, S. Insect diet and stoichiometry along a tropical elevation gradient. Society for Freshwater Science, Milwaukee, Wisconsin.
6. Tromboni, F., Zandona, E., Moulton, T., Lima, R., Thomas, S. Temporal variation of ammonium uptake in a tropical stream. Society for Freshwater Science, Milwaukee, Wisconsin. (May 2015).
7. Thomas, S., Kohler, T., MacNeil, K., Tromboni, F., What you can and cannot learn from slug additions of nutrients. Society for Freshwater Science.
8. Silva-Aroujo, E., Tromboni, F., Thomas, S., Moulton, T., Zandona, E. Leaf decomposition and secondary production as indicators of land cover change in tropical rivers. Society for Freshwater Science, Milwaukee, Wisconsin.
9. Collins, S. M., Kohler, T., Flecker, A., Fetzer, W., Thomas, S. The importance terrestrial subsidies in stream foodwebs varies along a stream continuum. Society of Freshwater Sciences, Milwaukee, Wisconsin.
10. Thomas, S., Loecke, T., Burgin, A., Davis, C., Ward, A., Drought-induced enrichment of soild nitrogen leads to record high nitrate loading to agricultural river networks. Association for the Sciences of Limnology and Oceanography, Grenada, Spain.

11. Tromboni, F., Feijo de Lima, R., Zandona, E., Thomas, S. Assessing nutrient limitation in a pristine tropical stream: comparing nutrient diffusing substrates with nutrient uptake estimates. Association for the Sciences of Limnology and Oceanography, Grenada, Spain
12. Fiejo de Lima, R., Tromboni, F., Thomas, S. The impact riparian forest loss on Atlantic Rainforest streams: a multi-scale assessment. Association for the Sciences of Limnology and Oceanography, Grenada, Spain.

2014:

1. Thomas, S. A.; Flecker, A. S.; MacNeill, K.; Collins, S.; El-Sabaawi, R.; Heatherly, T.; Marshall, M. C.; Pringle, C. M.: Using nitrogen isotope additions to assess the ecosystem effects of bottom-up and top-down manipulations in streams. Joint Aquatic Science Meeting, Portland, Oregon.
2. Reynolds, K. N.; Loecke, T. D.; Riveros-Iregui, D.; Burgin, A. J.; Thomas, S. A.; Ward, A. S.; Davis, C. A.; St. Clair, M. A.: Using high frequency monitoring networks to quantify optimal sampling strategies in agricultural watersheds. Joint Aquatic Science Meeting, Portland, Oregon.
3. Chandrakiran, S.; Thomas, S.: Harmful cyanobacterial blooms in Nebraska reservoirs in relation to landscape controls and within reservoir mechanisms. Joint Aquatic Science Meeting, Portland, Oregon.
4. Feijó de Lima, R.; Silva-Junior, E.; Lourenço Amorim Pereira, C.; Silva-Araújo, M.; Tromboni, F.; Thomas, S. A.; Zandonà, E.; Moulton, T. P.: The effects of land cover and riparian forest loss on ecosystems processes in Atlantic rainforest streams in Brazil. Joint Aquatic Science Meeting, Portland, Oregon.
5. Zandona, E.; Thomas, S. A.; Pereira, C. L.; Tromboni, F.; Cunha, P. O.; Moulton, T. P.: Consumer-mediated nutrient recycling in Brazilian coastal streams. Joint Aquatic Science Meeting, Portland, Oregon.
6. Lourenço Amorim Pereira, C.; Silva-Araújo, M.; SilvaJúnior, E. F.; Tromboni, F.; Feijó de Lima, R.; Thomas, S. A.; Moulton, T. P.; Zandoná , E.: Influence of riparian forest in peroiphyton accrual, nutrient limitation and stoichiometry in Atlantic rainforest streams in Rio De Janeiro, Brazil. Joint Aquatic Science Meeting, Portland, Oregon.
7. Adams, C. J.; Loecke, T. D.; Thomas, S. A.; St. Clair, M. A.; Davis, C. D.; Reynolds, K. N.; Ward, A. S.; Riveros-Iregui, D.; Burgin, A. J.: The effect of discharge on phosphorus loading to the Iowa-Cedar River basins. Joint Aquatic Science Meeting, Portland, Oregon.

8. Burgin, A. J.; Loecke, T. D.; Riveros-Iregui, D. A.; Thomas, S. A.; Ward, A. S.; Davis, C. A.; St. Clair, M. A.: Weather whiplash in agricultural regions creates unforeseen changes in water quality. Joint Aquatic Science Meeting, Portland, Oregon.
9. Tromboni, F.; Zandonà, E.; Moulton, T. P.; Silva-Júnior, E. F.; Lourenço Amorim Pereira, C.; Heatherly II, T.; Thomas, S. A.. Measuring nutrient spiraling in a Brazilian pristine coastal stream. Joint Aquatic Science Meeting, Portland, Oregon.
10. Davis, C. A.; Ward, A. S.; Schnoebelen, D.; Weber, L.; Burgin, A.; Loecke, T.; Riveros-Iregui, D.; St. Clair, M.; Thomas, S.; Just, C.. Antecedent Moisture controls on stream nitrate flux in an agricultural watershed, Clear Creek, Iowa. Joint Aquatic Science Meeting, Portland, Oregon.
11. Kohler, B. S.; MacNeill, K. L.; Flecker, A. S.; Thomas,S. A.: Comparing multiple approaches for quantifying nutrient uptake from instantaneous additions. Joint Aquatic Science Meeting, Portland, Oregon.
12. Silva-Araújo, M.; Silva-Junior, E. F.; Zandonà, E.; Tromboni, F.; Lourenço Amorim Pereira, C.; Feijò de Lima, R.; Moulton, T. P.; Thomas, S. A.: the effects of land cover on leaf breakdown and secondary production in Atlantic rainforest streams in Brazil. Joint Aquatic Science Meeting, Portland, Oregon.
13. Flecker, A. S.; Thomas , S. A.; Dalton , C. M.; Bassar, R. D.; Heatherly, T.; Simon, T. N.; El-Sabaawi, R.; Leduc, A.; Reznick , D.; Pringle , C. M.: Eco-evolutionary interactions and Trinidadian Guppies: Reconciling outcomes from contrasting experimental venues and spatio-temporal scales. Joint Aquatic Science Meeting, Portland, Oregon.
14. Ward A., C. Davis, A. Burgin, T. Loecke, D. Riveros-Iregui, D. Schnoebelen, C. Just, S.A. Thomas, L. Weber, M. St. Clair, S. Spak, K. Dalrymple, Y. Li, and K. Prior. In-stream nitrate responses integrate human and climate systems in an intensively managed landscape. American Geophysical Union, San Francisco, CA, USA.
15. Prior, K., A. Ward A., C. Davis, A. Burgin, T. Loecke, D. Riveros-Iregui, S.A. Thomas, and M. St. Clair. In-stream Nitrogen Processing and Dilution in an Agricultural Stream Network. American Geophysical Union, San Francisco, CA, USA.
16. Troy N. Simon, TN, M. Freeman , A.J. Binderup , M.C. Marshall, R.D. Bassar , S.A. Thomas, A.S. Flecker, J.F. Gilliam, D.N. Reznick, and C.M. Pringle. Examining the ecosystem-level consequences of local adaptation in Trinidadian guppies across natural levels of environmental heterogeneity in montane streams of northern Trinidad. Ecological Society of America, Sacramento, CA, USA.

2013:

1. Burgin, A., T. Loecke, C. Davis, M. St. Clair, A. Ward, D. Riveros-Iregui, S. Thomas. Drought-induced enrichment of soil nitrogen leads to record high nitrate loading to agricultural river networks. American Geophysical Union. San Francisco, CA. December.
2. Burgin, A., T. Loecke, C. Davis, M. St. Clair, A. Ward, D. Riveros-Iregui, S. Thomas. Flood and drought-enhanced variations in streamwater nitrate flux in agricultural watersheds. Annual meeting of the ecological Society of America. Minneapolis, MN. August.
3. Simon, T., A. Binderup, R. Bassar, S. Thomas, A. Flecker, J. Gilliam, D. Reznick, and C. Pringle. In situ experimental evidence for top-down effects of locally adapted guppies on ecosystem processes in Trinidad's Northern Range: evidence of a genetic basis for ecosystem-level effects
4. Collins, S., S.A. Thomas, and A.S. Flecker. Examining the role of bacteria in streams using a dual isotope approach. Annual Meeting of the Ecological Society of America. Minneapolis, MN. August
5. Kohler, B., K. MacNeill, A. Flecker, and S. A. Thomas. Altitudinal variation in nutrient uptake kinetics in temperate. Annual Meeting of the Society of Freshwater Science. Jacksonville, FL. May

2012:

1. T. Heatherly II; S. A. Thomas; A. S. Flecker; C. M. Pringle; R. El Sabaawi; M. C. Marshall; D. R. Reznick. The influence of guppy introduction and light manipulation on Neotropical stream invertebrate assemblage structure. Society of Freshwater Science, Louisville, Kentucky 2012.
2. E. Martí; J. L. Tank; T. Riis; P. J. Mulholland; W. K. Dodds; M. R. Whiles; B. M. Cheever; S. M. Collins; C. L. Crenshaw; T. A. Crowl; N.A. Griffiths; N.B. Grimm; S.K. Hamilton; S.L. Johnson; W.H. McDowell; E.J. Rosi-Marshall; K.S. Simon; S.A. Thomas; J.R. Webster; W.M. Wollheim. Unpacking the black box of in-stream assimilatory nitrogen uptake: insights from 15N-ammonium tracer additions conducted in different biogeoclimatic regions. Society of Freshwater Science, Louisville, Kentucky 2012.
3. Brookshire, J and SA Thomas. Tree functional traits organize hydrological and biogeochemical dynamics in tropical rainforest. Ecological Society of America, Portland, Oregon 2012.
4. El-Sabaawi, R, RD Bassar, CD Rakowski, MC Marshall, T Kohler, CM Pringle, DN Reznick, SA Thomas and AS Flecker. The effects of phenotypic diversification on ecosystem structure in a heterogeneous world: a case study using guppies (Poecilia reticulata). Ecological Society of America, Portland, Oregon 2012.

COURSES TAUGHT

Introduction to Water Science (Undergraduate)
Stream and River Ecology (Graduate/Undergraduate)
Limnology (Graduate/Undergraduate)
Principles of Ecology (Undergraduate)
Topics in Aquatic Ecology (Graduate)

UNIVERSITY SERVICE

COMMITTEES AND TASK FORCES

Leader: Environmental Science Faculty Mission Area.
Complex Biosystems Graduate Specialization Committee. 2014 – present
UNL-SNR Safety and Facilities Committee, member 2009-present, **Chair** 2010-present
Water Science Curriculum Committee, 2009-2010, **Chair** 2011-present
School of Natural Resources Promotion and Tenure committee, 2012-present
UNL Water Center Advisory Committee, 2011-present
UNL Water Quality Laboratory Sub-committee, 2011-present
University of Nebraska Task Force on International Studies 2007-2012
Director of the School of Natural Resources search committee member 2011-2012
Aquatic Ecology/Limnology Search Committee, **Chair**, new search 2011

Aquatic Ecology/Limnology Search Committee, **Chair**, 2010

OUTREACH

Presenter at the 2010 Naturepolooza, Big red Roadshow, 2012

OTHER PROFESSIONAL ACTIVITIES

SCIENTIFIC SOCIETY SERVICE:

Vice President, Society for Freshwater Science, 2016-2017
Board of Directors member, Society for Freshwater Science, 2015-2018

FUNDING PANELS:

National Science Foundation, Directorate of Environmental Biology – Ecosystems Panel, FALL 2007, FALL 2008, FALL 2009, SPRING 2014
National Science Foundation, Directorate of Environmental Biology – IGERT Panel, SPRING 2010
National Science Foundation, Directorate of Environmental Biology – Dimensions in Biodiversity Panel, Spring 2011, Spring 2012.

JOURNAL REVIEWS

Ecology	Ecological Applications
Ecosystems	Journal of the North American Benthological Society
Freshwater Biology	Limnology and Oceanography
Ecology Letters	Journal of Environmental Quality
Water Resources Research	Biogeosciences
Aquatic Sciences	Biogeochemistry

PROPOSAL REVIEWS

US National Science Foundation
US Environmental Protection Agency
North Carolina Water Resource Institute
Nebraska Department of Environmental Quality

PROFESSIONAL MEMBERSHIPS

Society of Freshwater Science
Association for the Study of Limnology and Oceanography
Ecological Society of America
American Geophysical Union
International Association of Theoretical and Applied Limnology
Society of European Freshwater Sciences

COLLABORATORS & OTHER AFFILIATIONS:

Current Collaborators

A. Burgin (UNL), J. Brookshire (Montana State University), D. DeAngelis (University of Miami), A. Encalada (University of San Francisco de Quito), R. Ferriere (Univ. of Arizona), A.S. Flecker (Cornell University), D. Fraser (Union College), C. Funk (Colorado State University), G. Gettel (UNESCO-IHE), C. Ghalambor (Colorado State University), J. Guayasamin (Universidad Tecnológica Indoamérica), J. Gilliam (UNC-Chapel Hill), B. Kondratioff (Colorado State University), Eugenia Marti (Center for Advanced Studies in Blanes)Tim Moulton (State Univ. of Rio de Janeiro), N.L. Poff (Colorado State University), C. Pringle (University of Georgia), D. Reznick (UC - Riverside), T.V, Royer (Indiana University) J. Schade (St. Olaf College), Ryan Sponseller (Umea University), J. Travis (Univ. of Florida), H.M Valett (Virginia Tech), Adam Ward (Univ. of Iowa), J. Welter (College of St. Katherine), K. Zamudio (Cornell University), Eugenia Zandona (State Univ. of Rio de Janeiro).

Graduate and Postdoctoral Advisors

MS:	Michael Parker, University of Wyoming
PhD:	G. Wayne Minshall, Idaho State University
Postdoc:	Maury Valett, Jack Webster, Cliff Dahm, and Pat Mulholland; Virginia Tech.
	Alex Flecker, Jed Sparks, Cliff Craft, and Tim Fahey; Cornell University

GRADUATE AND UNDERGRADUATE STUDENTS

Graduate Students:

Current:	Katherine Lawry (MS)
Graduated:	Brady Kohler (MS, 2013)
	Thomas Heatherly (PhD, 2013)
	Sharon Cooperstein (MS. 2009)
	Tyler Kohler (MS, 2010)
	David Owens (MS, 2010)
	Christopher Pracheil (MS, 2008)

Undergraduate Students:

Brandi Russell
Scott McCleay (UCARE)
Rachel Paseka (UCARE)
Katherine Lawry (UCARE)
Royce Hocij
Eric Knutson
Jake Rehner
Dylan Turner