Troy A. Keller

Columbus State University
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EDUCATION

PhD – Biology, University of Michigan, Ann Arbor, Michigan: August 16, 1997 (GPA 7.852)
Dissertation Title: Influence of an omnivore, nutrients, and site heterogeneity on stream algal and invertebrate communities

MS – Biology, University of Michigan, Ann Arbor, Michigan: April 28, 1994

BA – Zoology, Ohio Wesleyan University, Delaware, Ohio: May 12, 1991 (GPA 3.91)*

*Graduated *Summa cum laude* with Departmental Honors; Inducted into Phi Beta Kappa

EMPLOYMENT HISTORY

Columbus State University - Columbus, Georgia

Professor of Environmental Science (2016-Present)
- Chair - Department of Earth and Space Sciences (2023-Present)
- Executive Officer Faculty Senate (2022-Present)
- Environmental Science Program Coordinator (2018-Present)
- Co-Chair (2018-2019) – Department of Earth and Space Sciences
- Environmental Science MS Program Coordinator (2014-2017)

Associate Professor (2011-2016)

Assistant Professor (2006-2011)

University of Michigan Biological Station, MI – Visiting Assistant Professor taught Limnology: Freshwater Ecology, (summer 2006 with Paul Moore) and (2010 solo)

University of Michigan Biological Station, MI – Director the Stream's Research Facility, summers 2007-2010

University of Maryland Center for Environmental Science, MD – Research Scientist (consultant to US EPA at the Chesapeake Bay Program Office), (April 2005 - May 2006)

- provided technical, statistical, GIS and scientific expertise and leadership to the non-tidal water quality workgroup.
- developed and implemented a new model for determining annual nitrogen, phosphorus, and sediment loads to the Chesapeake Bay
- developed environmental indicators of watershed health and bay ecosystem health

St. Johns River Water Management District, FL - Environmental Scientist, Jan 2002 - Mar 2005

- formulated restoration targets for Lake Jesup, Lake Harney, and Lake Monroe
- implemented a basin-wide water quality and plankton sampling network
- assessed the status and trends of water quality in the Middle St. Johns River Basin
- wrote and managed contracts to collect paleolimnological, water quality, and biological data needed for developing restoration targets

BCI Engineers and Scientists, Inc., FL (now AMEC Foster Wheeler)- Environmental Science Consultant at the St. Johns River Water Management District, Aug 2001-Jan 2002

- estimated nutrient loads and collaborated on the development of pollutant reduction goals for the Ocklawaha Chain of Lakes

Santa Fe College, FL - Adjunct Faculty, June 2001 – July 2001

- taught two General Biology classes and labs (more than 150 students)

Georgia Institute of Technology, GA - Postdoctoral Fellow, 1999-2001

- collaborated with Civil Engineers to develop sensors and chemical searching robots
- investigated blue crab chemosensory orientation
- mentored and managed more than 20 students (mostly undergraduates)

Bowling Green State University, OH – Postdoctoral Fellow, 1997-1999

- conducted research on the chemical ecology of predator-prey interactions
- mentored 2 graduate and 2 undergraduate students

COURSES TAUGHT (F = Fall, Sp = Spring, Su = Summer)

Applied Ecology (Topics in Conservation), ENVS5405. Sp2015

Conservation Biology (Topics in Conservation), ENVS5405. F2007-F2012, Sp2019, Sp2022

Introduction to Biology - Santa Fe College (formerly Santa Fe Community College), Natural Science Department, BSC2005 BSC1001. Su2001

Experimental Design & Statistical Analysis (formerly **Ecological Methods** ENVS6207: F2010-2014**)** - ENVS5207, F2016, F2018, F2020

Environmental Studies - ENVS1105. 2007-2012, Sp2014

Geographic Information and Global Positioning Systems - Columbus State University, Environmental Science Program, ENVS6235. Co-instructor. Sp2007-2009, Sp2011-2013; Instructor: Sp2016, Sp2017, Sp2019, Sp2020, Sp2021, Sp2022, Sp2023

Foundations of Environmental Science - ENVS3105. 2013 Co-instructor - Spring 2014, Instructor – F2013, Sp2014, F2015, F2016, F2018, F2019, F2020, F2021, F2022, F2023

Limnology: Freshwater Ecology – University of Michigan, Biological Station, EEB 482. Role: Co-instructor Su2006 and instructor Su2010

Stream Ecology - ENVS 5315. F2006, F2008, F2010, Sp2013, Sp2015, Sp2017, Sp2020

Sustainability and the Environment –ENVS1205K. F2014, Sp2016, F2019, Sp2021, F2021, Sp2022, F2022, Sp2023
Water Resources Management - ENVS6206. F2009, F2011, F2013, F2015

Seminars/Special Topics Courses
Ecosystem Restoration – ENVS7555. F2009
Green Energy and Biofuels – ENVS7555. Sp2009
Advanced GIS: Remote Sensing - ENVS5555U/G, Sp2016, Sp2021

MEMBERSHIPS

Scientific
Society for Freshwater Science
International Association of Astacology

Academic
Phi Beta Kappa (Academic Honor Society)
Beta Beta Beta (Biological Honor Society)

SERVICE

External
Green Energy Columbus Founding Leadership Team (2022-Present)
Sierra Club Executive Leadership Team (2022-Present)
Muscogee County Extension Agricultural and Natural Resources Program Development Team Member (2021-2023)
FFA Advisory Council Member – Shaw High School (2020-2022)
American Association of University Professors Finance Committee Member (2020-2021)
Tree Board Member - Consolidated Government of Columbus, GA (2014-2020)
Georgia State Wildlife Action Plant Species Technical Advisor. GA Department of Natural Resources Wildlife Resources Division, Non-game Conservation. (2014)
Special Session Society for Freshwater Science Conference Organizer and Participant "Causes, consequences, and implications of fragmentation in streams" 2012
Society for Freshwater Science - Public Information and Policy Committee Member (2012-2014)
Special Publication of the Journal of the North American Benthological Society Guest Editor/Organizer/Participant "Mechanisms and potential implications of fragmentation in low-order streams" (2011)
University of Michigan Frontiers Master's Program Research Mentor – 3 students: Hannah Foster, Semoya Phillips, and William Webb (summers 2008-2010) Program Goals: Create opportunities for Masters students from

"an educational, cultural or geographic background that is underrepresented in the field of ecology and evolutionary biology"

Transportation Demand Management Committee Chair - Chattahoochee Valley Regional Clean Air Initiative (2007-2009)

Focus the Nation Global Climate Change Teach-in Organizer - Columbus State University (2008)

University/College/Department

Faculty Senate Executive Officer – Columbus State University (2022-2023)

Presidential Search Committee Member – Columbus State University (2022-Present)

Columbus State University Faculty Senate (Alternate 2019-2020, Member 2021-present)

Academic Strategic Alignment Taskforce I (Member 2022)

Effectiveness of Senate Student Engagement Ad Hoc Committee (Member 2020)

University System of Georgia Board of Regents' Advisory Committee for Environmental Science (Member, 2020-present)

College of Letters and Sciences Personnel Committee (Member 2020)

Earth and Space Sciences Faculty Search Committees

Assistant Professor of Atmospheric Sciences (Member – Spring 2021)

Assistant Professor of Hydrology (Chair – Spring 2016)

Lecturer Environmental Science (Chair - Summer 2015)

Earth and Space Sciences Personnel Committee (Chair – 2018, Member – 2016, 2019)

Earth and Space Sciences Workload Policy Committee (Member – Spring 2016)

Students for a Sustainable World (Founder & Faculty Advisor) 2008-Present

MS Natural Sciences: Environmental Science Track (Academic Program Designer & Program Coordinator) 2015-2017

BS Earth and Space Sciences: Environmental Science Track (Program Creator & Coordinator) 2012-2017

Columbus State University Sustainability Committee: 2008-Present (Chair 2010-2014)

Columbus State University Academic Technology Utilization Committee: (Member 2007-2017)

Columbus State University College of Sciences Grants Committee: (Co-chair 2007-2009)

Columbus State University College of Letters and Sciences Curriculum Committee: (Member Fall 2008)

Awards (Role)

Columbus State University – Club Advisor of the Year 2023

Columbus State University - Educator of the Year 2021 (Finalist)

Sabbatical - Columbus State University 2017-2018
William B. Chappell Graduate Faculty Award - Columbus State University 2015
EPA Region 4 Youth Symposium Student Research Poster Award 2013
Nominated for ENI Protection of the Environment Award 2011
Columbus State University Educator of the Year 2008 (Nominated)
Best Poster 2004 - Seven Hills Regional Users Group GIS Conference "Using GIS for Estimating Sediment Mass Accumulation in Lake Jesup" (Co-authored with Maria Martinez)
Rackham Pre-doctoral Fellowship - University of Michigan 1996-1997 (Recipient)
Rackham Dissertation Writing Grant - University of Michigan 1997 (Recipient)
Phi Beta Kappa, Ohio Wesleyan University 1991 (Recipient)
Sigma Xi Student Research Award, , Ohio Wesleyan University 1991
Edward L Rice Scholarship, Ohio Wesleyan University 1991
George B. Harris Award, Ohio Wesleyan University 1990
Elizabeth Cass Wills Award, Ohio Wesleyan University 1989

PUBLICATIONS (Peer Reviewed) *Student*

Furnish, B.J. and T.A. Keller. 2020. Carbon limitation in hypereutrophic, periphytic algal wastewater treatment systems. PLOS ONE, 15(10), e0240525.

Bohutskyi, P., T.A. Keller, D. Phan, *M.L. Parris*, *M. Li*, *L. Richardson*, A.M. Kopachevsky. 2019. Co-digestion of wastewater-grown filamentous algae with sewage sludge improves biogas production and energy balance compared to thermal, chemical or thermochemical pretreatments. Frontiers in Energy Research. 7: 1-19. doi: https://doi.org/10.3389/fenrg.2019.00047

Gilmer II. J.H. and T.A. Keller. 2015. Groundwater chemistry and soils have limited influence on the habitat-scale distribution of *Cambarus harti* Hobbs. Freshwater Crayfish 21(1): 43-50 doi: 10.5869/fc.2015.v21-1.43

Keller, T.A. and *E. M. Husted*. 2015. Dewatering as a non-toxic control of nuisance midge larvae in periphyton wastewater treatment floways. Water Science and Technology 71(1):9-14 doi: 10.2166/wst.2014.442

Coble K.M., *A.L. Hall*, *C.C. Meshes*, *J.A. Zalatan*, G.E. Stanton and T.A. Keller. 2015. Replacement of *Procambarus acutissimus* (Girard) by non-indigenous *Procambarus clarkii* (Girard) in a disturbed wetland. Freshwater Crayfish 21(1): 153-157 doi: 10.5869/fc.2015.v21-1.153

Helms, B.S., C. Figiel, *J. Rivera*, J. Stoeckel, G. Stanton, T.A. Keller. 2013. Life history observations, environmental associations, and soil preferences of the Piedmont Blue Burrower (*Cambarus* (Depressicambarus) *harti*) Hobbs. Southeastern Naturalist 12(1): 143-160

Keller, T.A., E.B. Snyder, J.W. Feminella. 2011. Mechanisms and potential implications of fragmentation in low-order streams. Journal of the North American Benthological Society 30(4): 1093-1094

Foster, H and T.A. Keller. 2011. Flow in culverts as a potential mechanism of stream fragmentation for native and nonindigenous crayfish species. Journal of the North American Benthological Society 30(4): 1129-1137

Keller, T.A., G.W. Shenk, M.R. Williams, and R.A. Batiuk. 2011. Development of a new indicator of pollutant loads and its application to the Chesapeake Bay watershed. River Research & Applications 27: 202-212

Keller, T.A. and B.A. Hazlett. 2010 Thermal preferences and distribution of northern Michigan crayfishes. Northeastern Naturalist 17(4): 615-628

Keller, T.A., *M.L. Moy*, *A.L. Stock*, and B.A. Hazlett. 2005. Stream periphyton responses to nutrient enrichment and crayfish reductions. Journal of Freshwater Ecology. 20(2): 303-310.

Keller, T.A. and M.J. Weissburg. 2004. Effects of odor flux and pulse rate on chemosensory tracking in turbulent odor plumes by the blue crab, *Callinectes sapidus*. Biological Bulletin. 207: 44-55

Keller, T.A., *I. Powell*, and M.J. Weissburg. 2003. Role of olfactory appendages in chemically mediated orientation of blue crabs. Marine Ecology Progress Series 261: 217-231

Weissburg, M.J, D.B. Dusenbery, H. Ishida, J. Janata, T.A. Keller, P.J.W. Roberts, D.R. Webster. 2002. A multidisciplinary study of spatial and temporal scales containing information in turbulent chemical plume tracking. J. Environmental Fluid Mechanics. 2: 65-94

Keller, T.A., *A.M. Tomba*, and P.A. Moore. 2001. Orientation in complex odor landscapes: Spatial arrangement of odor sources influences crayfish food finding efficiency in artificial streams. Limnology & Oceanography 46(2): 238-247

Tomba, A.M., T.A. Keller, and P.A. Moore. 2001. Foraging in complex odor landscapes: chemical orientation strategies during stimulation by conflicting chemical cues. Journal of North American Benthological Society 20(2): 211-222.

Keller, T.A. and P.A. Moore. 2000. Context-specific behavior: crayfish size influences crayfish-fish interactions. Journal of the North American Benthological Society 19(2): 344-351

Keller, T.A. and P.A. Moore. 1999. Effects of ontogeny and odors on behavior: the influence of crayfish size and fish odors on crayfish movement. Marine and Freshwater Behavior and Physiology. 33 (1): 35-50

Keller, T.A. and *L.C. Ruman*. 1998. Short-term crayfish effects on stream algae and invertebrates. Journal of Freshwater Ecology 13(1): 97-104

Keller, T.A., M. Grant, B. Ebbers, and R. Vande Kopple. 1998. New record for the endangered crawling water beetle, *Brychius hungerfordi* Spangler (Coleoptera, Haliplidae) in Michigan including water chemistry data. Great Lakes Entomologist 31(2):137-139

Keller, T.A. and B.A. Hazlett. 1996. Mechanical use of crayfish chelae. Marine and Freshwater Behavior and Physiology 28: 149-162.

Thacker, R.W. B.A. Hazlett, L.A. Esman, C.P. Stafford, and T.A. Keller 1993. Color morphs of the crayfish *Orconectes virilis*. American Midland Naturalist 129(1): 182-199.

Keller, T.A. 1992. The effect of the branchiobdellid annelid *Cambarincola fallax* on the growth rate and condition of the crayfish *Orconectes rusticus*. Journal of Freshwater Ecology 7(2): 165-171.

PUBLICATIONS *Student* (Role)

Theses

Sherwood, D. (expected 12/2023). Characterizing the spatial distribution of an Invasive Crayfish (*Procambarus clarkii*) and the Crayfish Plague (*Aphanomyces astaci*) in the Bull Creek Watershed (Graduate Chair)

Light, C. (expected 12/2023). Effects of dam removal and stream reach restoration on crayfish movement and larval insect community structure in low-order coastal plain streams. Master's Thesis. Columbus State University (Graduate Chair)

Ochonogor, O. (Defended 12/3/2022). Ammonia toxicity impairs algal turf scrubber efficiency when treating biodigester filtrate. Master's Thesis. Columbus State University (Graduate Chair)

Coughey, D. (5/5/2022). Hydrological analysis of *Hymenocallis coronaria* through inundation monitoring. Honor's Thesis. Columbus State University (Chair) – Incomplete.

Franklin, J.W. (5/14/2020). Effects of temperature, predators, and competition on green frog tadpole (*Lithobates clamitans*) traits. Master's Thesis. Columbus State University (Committee Member)

Cruz, S.L. (12/10/2019). Non-native leaf litter modifies algal resources with effects on tadpole growth. Master's Thesis. Columbus State University (Committee Member)

Furnish, B.J. (12/13/2018). Carbon limitation in periphytic algal wastewater treatment systems. Master's Thesis. Columbus State University (Graduate Chair)

Motsch, K. (10/16/2018). The efficacy of a fertilizer ordinance in Cape Coral, Florida: An analysis of nutrients and chlorophyll. Master's Thesis. Columbus State University (Graduate Chair)

Kiourtsis, J. (8/6/2018). Using maximum entropy to model the distribution of an endangered, endemic crayfish *Cambarus harti* (hobbs). Master's Thesis. Columbus State University (Graduate Chair)

Youngquist, K.N. (5/16/2018). Evaluating Columbus, Georgia, tree canopy interactions with air pollutants using high spectral imagery and portable PM sensors. Master's Thesis. Columbus State University (Graduate co-Chair)

Li, M. (5/10/2017). Effects of grazers and elevated temperature on the dynamics of an algal wastewater treatment system. Master's Thesis. Columbus State University (Graduate Chair)

Loughman, J.L. (5/11/2016). Hydrological drought analysis for seven North Georgia watersheds (1970-2000). Master's Thesis. Columbus State University (Graduate Chair)

Gilmer, J.H. II (12/16/2014). Characterizing wetland hydrology, chemistry, and soils for an endemic crayfish, the piedmont blue burrower. Master's Thesis. Columbus State University (Graduate Chair)

Stahl, M.R. (12/14/2010). Characterization of watersheds on Fort Benning Military Reservation: Comparison of field data to watershed parameters. Master's Thesis. Columbus State University (Committee Member)

Wheeler, M.L. (12/9/2008). Effect of a water treatment BMP on nutrient spiraling and leaf litter breakdown in an urban stream. Master's Thesis. Columbus State University (Graduate Chair)

Manual

Keller, T.A. 2022. Lab Manual: ENVS 1205k Sustainability & the Environment. Columbus State University.

Reports

Keller, T.A. 2018. Potential Impacts of Proposed Quarry near Alvaton, Georgia (Meriwether County) on the Endangered Piedmont Blue Burrower Crayfish (*Cambarus harti*). Tyler J. Sniff, Esq. Stack & Associates, P.C.

Claucherty, M., Luoma, J., Keller, T. 2017. Quality assurance project plan (QAPP): Furthering restoration via a new approach to invasive mussel control grant number: GL-00E01932 submitted to EPA Region 5.

Ruehl, C.B. and T.A. Keller 2015. Mapping introduced apple snail (*Pomacea insularum*) and speckled crayfish (*Orconectes palmeri creolanus*) distributions in southwest Georgia. Report to US FWS-800-037-2014-CSU (Co-PI)

Keller, T., *J. Rivera*, C. Fiegel, and G. Stanton. 2011. Ecology and Biogeography of the Piedmont Blue Burrower (*Cambarus* [Depressicambarus] *harti*). Report to Georgia Department of Natural Resources Nongame Wildlife Division (http://www.georgiawildlife.org/sites/default/files/uploads/wildlife/nongame/pdf/Cambarusharti_final.pdf)

Keller, T.A., M.M Martinez, M. DaSilva, C. Lippincott. 2004. Status and trends of water quality in the Middle St. Johns River Basin. St. Johns River Water Management District: 2002. Technical Publication. SJ2004-1.

Fulton III, R.S., C. Schluter, T.A. Keller, S. Nagid, W. Godwin, D. Smith, D. Clapp, A. Karama, J. Richmond. 2004. Pollutant load reduction goals for seven major lakes in the upper Ocklawaha River basin. St. Johns River Water Management District Technical Publication. SJ2004-5

Manuscripts in Preparation (status)

Keller, T.A., *C. Sperandio* and R.J. Craggs. Carbon dioxide infusion improves performance and productivity of meso-scale filamentous algal treatment systems. For Algal Research (In prep)

Gilmer, J.H. and T.A. Keller. Hydrologic controls of burrowing crayfish distributions. Freshwater Science (In prep)

Li, M., *K. Coble*, T.A. Keller. Effects of Chironomid exclusion on the performance of filamentous algal treatment systems. For Water Science & Technology (In prep)

INVITED PRESENTATIONS

Sierra Club (GA) 2022
Calvin University (MI) 2022
NIWA Research Seminar (New Zealand) 2017
Columbus State University Tower Day Keynote Speaker (GA) 2014
Georgia URISA GIS User's Group Regional Conference (GA) 2011
Auburn University (AL) 2009
Georgia Alabama Promoting Sustainability Conference (GA) 2009
Richard Stockton College of New Jersey (NJ) 2009
University of New England (ME) 2009
16 others not listed (available upon request)

GRANTS (Totaling $700K+)

Columbus State University 2022 Public Scholars and Artists (PSA) grant "Analyzing stormflows in Lindsey Creek using real-time stream discharge data" $3K

The Nature Conservancy 2019 "The restoration of stream connectivity to improve aquatic macroinvertebrate community structure and stream metabolic function in first coastal plain streams" (Co-author, Recipient) $13K

US FWS Invasive Species 2019 "Early detection of the crayfish *Procambarus clarkii* and the pathogen *Aphanomyces astaci* in America's waters: An eDNA Approach" (Co-Author, Recipient) $62K

US EPA Great Lakes Restoration Initiative 2016 "Furthering Restoration via a New Approach to Invasive Mussel Control" (Co-Author, Recipient, and Sub-contractor) $641,077

US EPA People Prosperity and the Planet Grant (P3) 2014 "Technological and economic sustainability of coupling wastewater algal treatment and biogas production" (Co-PI and Recipient) $15K

USFWS Grant 2014 "Mapping the expansion of introduced apple snails and speckled crayfish in the Chattahoochee-Flint River basins in Georgia (Co-PI and Recipient) $4K

Georgia DNR (Non-game Wildlife) 2010 "Habitat Requirements, Effective Population Size, and Geographic Distribution of the Endangered Crayfish, the Piedmont Blue Burrower (*Cambarus* [Depressicambarus] *harti*)" (Co-PI and Recipient) $5K

Columbus State University Research Equipment Grant "Life history of Georgia's endangered blue borrowing crayfish" 2010 (Recipient)

Columbus State University Faculty Development Grant "Role of dissolve oxygen in regulating coexistence among crayfishes" 2010 (Recipient)

Columbus State University Faculty Development Grant "Stream fragmentation by road crossings" 2009 (Recipient)

Columbus State University Faculty Development Grant "Eco-physiological limits to the rusty crayfish's (*Orconectes rusticus*) invasion" 2008 (Recipient)

Columbus State University Technology Fee Grant, "A new multi- sensor for water quality monitoring" 2008 (Recipient)

Columbus State University Faculty Development Grant "Mitigating the effects of the urban stream syndrome" (Recipient) 2008

NOAA CICEET "Development of highly affordable, environmentally friendly, sensor-like nutrient systems for high resolution remote monitoring" (Scientific Advisor) July 2006-June 2008. Awarded to EnviroTech LLC

Columbus State University "Where the sidewalk ends: factors limiting an exotic crayfish invasion" Faculty Development Grant (Recipient) Dec. 2006

Columbus State University Faculty Development Grant "Stream fragmentation by road crossings" (Recipient) 2007

CONTRACTS

Nutrient effects on Attached Algae in the Wekiva River and Rock Springs Run. 2005 – 2006. Awarded to PBSJ. $210,000 (Project Manager)

Attached Algal Assessment for the Wekiva River and Rock Springs Run. 2004 – 2005 Awarded to Green Water Labs Inc./BCI Engineers and Scientists, Inc. $40,000 (Project Manager)

Pollutant Load Reduction Goal (PLRG) Analysis for the Wekiva River and Rock Springs Run. 2004 – 2005. Awarded to Wetland Solutions, Inc. $250,000 (Project Manager)

Lake Harney Sediment Accumulation and Past Water Quality. 2004 – 2005. Awarded to Florida International University $94,000. (Project Manager)

Lake Monroe Sediment Accumulation and Past Water Quality. 2003 – 2004. Awarded to Florida International University $131,000. (Project Manager)

Zooplankton Sample Analysis in the Middle St. Johns River Basin and Orange Creek Basin. 2004 – 2005. Awarded to University of Florida $29,000 (Supervising Scientist)

Phytoplankton Sample Analysis in the Middle St. Johns River Basin and Orange Creek Basin. 2004 – 2005. Awarded to Bowling Green State University $26,000 (Supervising Scientist)

Water Quality and Plankton Sampling in the Middle St. Johns. 2002-2005. Awarded to Water and Air Research, Inc. $156,000 (Supervising Scientist)

RECENT CONFERENCE PRESENTATIONS (Students: Graduate, *Undergraduate*)

Keller, T., Light, C., Gottlieb, S., and S. Blersch 2023. Ecological indicators of stream recovery after dam removal and channel restoration. Georgia Water Resources Conferences (Athens, GA)

Keller, T., Light, C., Gottlieb, S., and S. Blersch 2022. Short-term ecological recovery in low-order, coastal plain streams after dam removal and channel restoration. Joint Aquatic Sciences Meeting (Grand Rapids, MI)

Keller, T.A. and R.J. Craggs 2019. Dissolved inorganic carbon limitation of filamentous algal wastewater treatment floways in New Zealand. Annual Meeting of the Society for Freshwater Science (Salt Lake City, UT)

Gilmer, J.H. and T.A. Keller. 2017. Hydrologic controls of burrowing crayfish distributions. Annual Meeting of the Society for Freshwater Science (Raleigh, NC)

Keller, T.A. and C. Ruehl. 2016. Invasive crayfishes of the lower ACF basin - Georgia/Alabama Chapters of the American Fisheries Society Conference (Columbus, GA)

Coble, K. *A. Hall*, *C. Meshes*, *J. Zalatan* and T. Keller. 2015. Replacement of the Sharp-Nosed Crayfish (*Procambarus acutissimus*) by the non-indigenous Red Swamp Crayfish (*P clarkii*) in a disturbed wetland – Southeastern Division American Fisheries Society (Savannah, GA)

Gilmer, J. and T. Keller. 2015. Characterization of hydrogeochemistry and soil texture for the habitat of an endangered primary burrowing crayfish – Southeastern Division American Fisheries Society (Savannah, GA)

Gilbert, C. and T. Keller. 2015. Effects of simulated drought on the burrowing behavior of the Piedmont Blue Burrower crayfish (*Cambarus* [Depressicambarus] *harti*) – Southeastern Division American Fisheries Society (Savannah, GA)

Keller, T., B. Helms, C. Skelton, G. Stanton, and J. Stoeckel. 2015 Habitat Suitability and Biogeography of the Piedmont Blue Burrower (*Cambarus* [Depressicambarus] *harti*) – Southeastern Division American Fisheries Society, (Savannah, GA)

Keller, T.A. B.H. Helms, J.H. Gilmer, K. Gilbert, J. Stoeckel, C. Figiel, and G.E. Stanton. 2014. Conserving a Burrowing Crayfish: an Interdisciplinary Approach – International Astacology Association Meeting (Sapporo, Japan)

Gilmer, J.H. and T.A. Keller. 2014 Characterizing wetland groundwater hydrology for an endangered crayfish, the piedmont blue burrower (Abstract ID: 15504) – Society for Freshwater Science (Portland, OR)

Keller, T.A. and J.F.Klein. 2014. Post-harvest recovery of periphyton wastewater flow-ways (Abstract ID: 14917) – Society for Freshwater Science (Portland, OR)

Keller, T.K. 2014. Scholarship as a Tool to Achieve Sustainability – Columbus State University Tower Day Awards Ceremony Keynote Speaker (Columbus, GA)

Gilbert, K. 2014. Groundwater fluctuations: Does it affect *Cambarus harti* chamber locations? Dr Gregory P Domin Graduate Research Conference (Columbus GA)

Gilmer, J.H. 2014. Determining Critical Wetland Habitat Parameters for the Endangered Piedmont Blue Burrower Crayfish. Dr Gregory P Domin Graduate Research Conference (Columbus GA)

Gilmer, J.H.; B.S. Helms, J. Stoeckel, and T.A. Keller. 2013. Groundwater level and temperature fluctuations at the type locality for the endangered piedmont blue burrower crayfish (Abstract ID: 8163) – Society for Freshwater Science (Jacksonville, FL)

Keller, T.A.; *E.M. Husted*, and J. F. Klein. 2013 Growing periphyton in wastewater for biofuel feedstock (Abstract ID: 7735) – Society for Freshwater Science (Jacksonville, FL)

Keller, T. A., Foster, H. R., and M. DiBenedetto. 2012. Spatial analysis of road-river intersections and their potential to fragment populations of benthic invertebrates.; (AbstractID 6784) – North American Benthological Society (Louisville, KY)

Tavera-Casas, S. P. T. Keller, R. Brown, and J.W. Feminella. 2012. Spatial analysis of dam distribution and hydrologic connectivity among watersheds in Georgia. (AbstractID 7370) – North American Benthological Society (Louisville, KY)

Wheeler, M.L. and T.A. Keller. 2010. Effect of an in-situ treatment BMP on ecosystem services in an urban stream. Georgia Journal of Science 68(1): 34 (Columbus, GA)

Won, S. and T.A. Keller. 2010. Physiological mechanisms of coexistence: a native crayfish tolerates hypoxia better than its non-indigenous competitor. (AbstractID 7420) – North American Benthological Society (Santa Fe, NM)

Foster, H.R. and T.A. Keller. 2009. Culverts as a mechanism for habitat fragmentation in crayfish communities (AbstractID 4682) – North American Benthological Society (Grand Rapids, MI)

DiBenedetto, M. and T. A. Keller. 2009. Stream fragmentation by road culverts. (AbstractID 4387) – North American Benthological Society (Grand Rapids, MI)

Keller, T. A. and B.A. Hazlett. 2008. Temperature preference and distribution of *Orconectes rusticus* and two congeneric crayfish in northern Michigan. (AbstractID 3001) - North American Benthological Society (Salt Lake City, UT)

Keller, T.A., G. Shenk, M.R. Williams, and R. Batiuk. 2007. Developing indicators of stress: estimating the Chesapeake Bay's annual watershed-derived nitrogen and phosphorus loads (AbstractID 355) – North American Benthological Society 2007 (Columbia, SC)