Theodore Daniel Harris
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Research Interests

- Using large spatially and temporally distributed datasets to examine large-scale ecological changes
- Harmful algal bloom distribution, abundance, and toxicity
- Real-time and discrete modeling techniques for predicting and forecasting harmful cyanobacterial blooms
- Quantifying the effects of persistent organic pollutants (including herbicides, pesticides, personal care products, pharmaceuticals, and industrial chemicals) on aquatic ecosystems
- Effects of nutrient stoichiometry on plankton community dynamics

See ResearchGate page for current projects and publications (www.researchgate.net/profile/Ted_Harris2)

Education

2013-2017 Ph.D. ***with honors*** in Ecology and Evolutionary Biology, University of Kansas, Lawrence, KS
Advisor(s): Drs. Val Smith (University of Kansas), Jerry deNoyelles (University of Kansas), and Jack Jones (University of Missouri)

2010-2012 M.S. in Natural Resources, University of Idaho, Moscow, ID.
Advisor: Dr. Frank Wilhelm

2005-2009 B.S. Fisheries and Wildlife, B.S. Forestry, Minor Biology, University of Missouri, Columbia, MO.
Advisor: Dr. Jack Jones

Professional Experience

2017-Present **Assistant Research Professor**
Kansas Biological Survey, Lawrence, KS
My projects currently examine (i) differences in sedimentation rate among Kansas Reservoirs, (ii) nitrogen speciation effects on cyanobacteria and their associated toxins, and (iii) spatial and temporal trends of microcystin occurrence and magnitude on a global scale.

2017 **Visiting Post-Doctoral Researcher** (**March & April 2017**)
Netherlands Institute of Ecology (NIOO-KNAW), Wageningen, Netherlands
A collaborative research project with Dedmer van de Waal and others at the Netherlands Institute of Ecology aimed at determining stoichiometric regulation of volatile organic compound (VOC) production in axenic and non-axenic *Microcystis Aeruginosa* PCC7806 cultures. To our knowledge, this was the first experimental test of nutrient-supply stoichiometry (i.e., N-limited, P-limited, light-limited) on VOC production in cyanobacteria. Results will be used to determine if nutrient stoichiometry regulates VOC chemical class produced by cyanobacteria.

2013-2017 **Ph.D. in Ecology and Evolutionary Biology / Self Graduate Fellow**
Self Graduate Fellowship, University of Kansas, Lawrence, KS
Funded by the Self Graduate Fellowship (*See last page of CV for Self Graduate Fellowship Development Program transcript*), my PhD research focused on analyzing long-term USGS and private datasets for trends relevant to cyanobacteria and cyanobacterial secondary metabolites (i.e., microcystin, geosmin, and MIB) at local, regional, and national scales. The overall goal of the dissertation was to further understand the factors that promote toxic cyanobacterial blooms and ultimately to find possible applied solutions to toxic and taste-and-odor causing cyanobacterial blooms. Additionally, I developed discrete and real-time mathematical models (e.g., logistic, linear, and non-linear models – i.e., CART, Random Forest, Cubist, Boosted Tree, Bagged Tree, Neural Networks, Elastic Net, Partial Least Squares, Multivariate Adaptive

Regression Splines (MARS), Support Vector Machines) that predicted when unwanted cyanobacterial compounds occurred throughout a wide range of temporal and spatial scales. This information will allow water managers and recreational water users to know, in real-time, the likelihood of a dangerous cyanobacterial bloom event occurring in the waterbody, which will ultimately reduce the amount of human exposure to harmful algal blooms.

Dissertation chapter titles

- Combined effects of nitrogen to phosphorus and nitrate to ammonia ratios on cyanobacterial metabolite concentrations in eutrophic Midwestern USA reservoirs (**Published in *Inland Waters* 6:2, 199-210**)
- Do Persistent Organic Pollutants (POPs) stimulate cyanobacterial blooms? (**Published in *Inland Waters* 6:2, 124-130**)
- Predicting cyanobacterial abundance, geosmin, and microcystin in a eutrophic drinking water reservoir using a 14 year dataset (**Published in *Lake and Reservoir Management* 33:1, 32-48**)

2012-2016 **Hydrologic Technician**

U.S. Geological Survey, Kansas Water Science Center, Lawrence, KS

Projects

Cheney Reservoir (2012 - 2016)

- Developed models using R to predict cyanobacteria toxicity and taste-and-odor events using logistic and linear regression.
- Wrote initial draft of Cheney SIR for updating water-quality regression models (See publications)
- Helped to create a new method that automatically optimizes logistic regression models for toxic or unwanted substances.
- Currently comparing real-time and discrete modeling approaches using linear and logistic regression, and other non-parametric modeling techniques for toxic and unwanted taste-and-odor compounds.
- Calibrated and cleaned water quality sondes for the collection of data.
- Sampled and processed samples of nutrients, phytoplankton, light data collected with a Li-Cor 250A light meter, Secchi, chlorophyll, and zooplankton.
- Collected and helped analyze metagenomic data (i.e., qPCR and contig data) from single and multiple sampling locations in the reservoir.
- Worked water-quality records for Cheney Reservoir within ADAPS.
- Compared different methods of chlorophyll data collected in the long-term (14 yr.), large (>25,000 data points) dataset associated with Cheney reservoir.
- Maintained database of the large long-term dataset associated with Cheney reservoir.

Johnson County Stormwater (2014 - 2016)

- Helped install I-beams at multiple bridge sites throughout Johnson County Kansas for the use of passive samplers.
- Collected passive stormwater samples and processed them for bacteria and analyses by NWQL.

Johnson County WasteWater (2012 - 2014)

- Collected periphyton and phytoplankton data from various steam sites in Johnson County Kansas.
- Analyzed phytoplankton, periphyton, and invertebrate data using Algal Data Analysis System (ADAS) and Invertebrate Data Analysis System (IDAS), respectively, and helped wrote phytoplankton and periphyton data in final USGS report.
- Helped collect and processed EWI samples using DH-81 sampler from bridge, and collection of integrated EWI samples in-stream.

BenthoTorch (2012 - 2014)

- Creating a method for collecting and analyzing chlorophyll data with a Benthotorch periphyton sampler.
- Compared processes for laboratory-based and BenthoTorch based chlorophyll data collection in journal article (see publications).

Midwest Stream-Quality Assessment (MSQA; 2013)

- Installed and sampled with Pancow pesticide sampler.
- Collected nutrient, pesticide, herbicide, sediment, and other samples in KS, MO, and NE throughout the 2013 MSQA project.
- Took photographs and assisted with database of KS water office pictures for MSQA project.

Other Miscellaneous work (2012 - 2016)

- Helped collect EWI samples using DH-81 and DH-95 samplers, and processing river samples for Kansas River project on algal toxins (i.e., microcystin).
- Helped sample groundwater from Equus bed aquafer for nutrients, carbon, and pesticides for Equus bed recharge project near Wichita, Kansas.
- Completed record working class from Trudy Bennett (USGS).

2011 **Graduate Teaching Assistant**

Department of Fish and Wildlife Resources, University of Idaho, Moscow, ID.

- Primarily helped teach the laboratory section of Fish 415 (Limnology) with Dr. Frank Wilhelm.
- Taught students how to analyze phosphorus, nitrogen, and chlorophyll-a from water and macrophyte samples.
- Helped mentor and challenge students to plan reservoir restoration projects for reservoirs located on the OX ranch (Council, ID)

2010-2012 **Graduate Research Assistant**

Department of Fish and Wildlife Resources, University of Idaho, Moscow, ID.

My thesis was focused at mitigating cyanobacterial biovolume and toxicity in Willow Creek Reservoir, Oregon by manipulating the total nitrogen to total phosphorus (TN:TP) ratio with ammonium nitrate and aluminum sulfate (i.e., alum) treatments. My graduate research ultimately helped the U.S. Army Corps of Engineers, Portland District make progress towards recovering Willow Creek Reservoir from eutrophy and, in the case of Willow Creek Reservoir, its associated microcystin toxicity. The skills learned during this experience have helped me learn to (1) analyze large and complex datasets as a scientist, (2) write scientific and non-scientific articles/reports, and (3) advanced my project management, teamwork, and time-management skills. Activities as a graduate research assistant included:

- Collection, identification, and quantification of phytoplankton using a Wild-Heerbrugg inverted microscope.
- Collection, quantification, and measurement (using an ocular micrometer and ImageJ) of zooplankton taxa.
- Collection of water chemistry samples and physical profiles (pH, temperature, conductivity, and dissolved oxygen) with a YSI 85, YSI 556, and Eureka Manta multiprobe.
- Collection of light profiles using a Li-Cor 250A light meter and water transparency data using a Secchi disk.
- Laboratory analyses of nitrogen, phosphorus, total/dissolved/inorganic/organic suspended solids, alkalinity, and chlorophyll-a.

- Design and execution of field experiments using large-scale *in-situ* mesocosms in an Army Corps of Engineers reservoir (Willow Creek Reservoir, OR) to reduce cyanobacterial biovolume and microcystin toxicity.
- Designing a novel way to examine flow rates of in-lake long distance circulators (LDCs) using a Hach Flo-mate 2000 flow velocity meter.
- Operated, collected, and analyzed data with an Acoustic Doppler Current Profiler (ADCP) to investigate the effectiveness of LDCs deployed in a reservoir to improve water quality conditions.
- Created methods (standard operating procedures-SOPs) for collection and laboratory analyses of total/dissolved nitrogen and phosphorus, total/dissolved/inorganic/organic suspended solids, alkalinity, zoo/phytoplankton quantification and enumeration, chlorophyll-a, and constructing and launching large-scale *in situ* mesocosms.
- Assembled a large (>2000 lakes; >5000 data points) worldwide dataset to examine trends in cyanobacterial biovolume, microcystin concentration, nitrogen, phosphorus, and the nitrogen to phosphorus ratio in freshwater ecosystems.

2010-2011 **Swimming World Technician**
Phoenix, Arizona

- Helped film and commentate the 2011 NCSA Junior Nationals and the JAX 50 sprint dual swim meets.
- Produced the 2011 Swim Meet of Champions (SMOC) live internet broadcast.

2009-2010 **Limnology Laboratory Technician**
University of Missouri, Columbia, Missouri

- Collected Secchi depths, water chemistry samples and physical profiles (pH, temperature, conductivity, and dissolved oxygen) with an YSI 85 multiprobe at surface and depth using a Van Dorn.
- Collected sediment cores via a K-B gravity sediment corer.
- Preparation and analysis of laboratory samples that included, but was not limited to: nitrogen, phosphorus, total suspended solids, sediment cores, and chlorophyll-a.

2008 **Lead Sailing Instructor**
Seattle Yacht Club, Seattle, Washington

- Further improved my communication, mentoring, and teamwork skills by teaching novice to advanced junior (under 17) sailors to sail and race small boats.
- Taught novice adult sailors how to properly rig and sail small boats.

2004-2005 **Lead Sailing Instructor**
Carlyle Sailing Association, Carlyle, Illinois

- Improved my communication, mentoring, and teamwork skills through teaching novice to advanced junior (under 17 years old) and adult sailors to sail and race small boats.
- Lead a youth (7-10 years old) junior sailing program that consisted of weekly daylong training sessions.

Publications

In Prep/Submitted Refereed papers:

Harris, T.D., Graham, J.L., Jones, J.R., and Obrecht, D. Predicting microcystin occurrence in Missouri. **In Prep** for *Toxins*

Refereed papers:

Graham, J.L., Foster, G.M., Williams, T.J., Kramer, A.R., and **Harris, T.D**. 2017. Occurrence of cyanobacteria, microcystin, and taste-and-odor compounds in Cheney Reservoir, Kansas, 2001–16: U.S. Geological Survey Scientific Investigations Report 2017–5016, 57 p., https://doi.org/10.3133/sir20175016.

Harris, T.D. and Graham, J.L. 2017. Predicting cyanobacterial abundance, geosmin, and microcystin in a eutrophic drinking water reservoir using a 14 year dataset. *Lake and Reservoir Management* 33: 1-1, 32-48.

Otten, T.G., Graham, J.L, **Harris, T.D.,** and Dreher, T.W. 2016. Elucidation of taste and odor producing bacteria and toxigenic cyanobacteria by shotgun metagenomics in a Midwestern drinking water reservoir. *Applied and Environmental Microbiology* 82:17, 5410-5420.

Harris, T.D., Smith, V.H., Graham, J.L., Van de Waal, D.B., Tedesco, L.P., and Clercin, N. 2016. Combined effects of nitrogen to phosphorus and nitrate to ammonia ratios on cyanobacterial metabolite concentrations in eutrophic Midwestern USA reservoirs. *Inland Waters* 6:2,199-210.

Harris, T.D. and Smith V.H. 2016. Do persistent organic pollutants stimulate cyanobacterial blooms? *Inland Waters* 6:2, 124-130.

Harris, T.D. and Graham, J.L. 2015. Preliminary evaluation of an in vivo fluorometer to quantify algal periphyton biomass and community composition. *Lake and Reservoir Management* 31:2, 127-133.

Graham, J.L., Stone, M.L., Rasmussen, T.J., Foster, G.M., Poulton, B.C., Paxson, C.R., **Harris, T.D.** 2014. Effects of wastewater effluent discharge and treatment facility upgrades on environmental and biological conditions of Indian Creek, Johnson County, Kansas, June 2004 through June 2013. U.S. Geological Survey Scientific Investigations Report 2014–5187, 78p.,*http://dx.doi.org/10.3133/sir20145187*.

Harris, T.D., Wilhelm, F.M., Graham, J.L., and Loftin, K.A. 2014. Experimental manipulation of TN:TP ratios to suppress cyanobacterial biovolume and microcystin concentration in large-scale *in situ* mesocosms. *Lake and Reservoir Management* 30:1, 72-83

Harris, T.D., Wilhelm, F.M., Graham, J.L., and Loftin, K.A. 2014. Experimental additions of alum and nitrogen to large-scale *in situ* mesocosms to reduce cyanobacterial biovolume and microcystin concentration. *Lake and Reservoir Management* 30:1, 84-93

Non-refereed papers:

Harris, T.D. 2017. Factors affecting local, regional, and global scale cyanobacterial dominance and secondary metabolite occurrence. [PhD dissertation]. [Lawrence (KS)]: University of Kansas.

Harris, T.D., deNoyelles, J., and Tilman, G.D. 2016. Val Houston Smith (1950-2016): Putting the puzzle together from organelles to ecosystems. *Limnology and Oceanography Bulletin* 25:3, 86-87. *A version of this obituary also appeared in the SIL newsletter

Harris, T.D.. 2016. The role of persistent organic pollutants in cyanobacterial bloom proliferation. *LakeLine* 36:1, 26-28.

Burnet, S. and **Harris, T.D.** 2015. Willow Creek Reservoir – A desert oasis of continuing student success. *LakeLine* 35:3, 36-38.

Harris, T.D. and F. M. Wilhelm. 2011. Observations on the appearance of brine flies at Willow Creek Reservoir, a freshwater lake. *Waterline* December 2011. Accessible at: http://www.walpa.org/waterline/december-2011/observations-on-the-appearance-of-brine-flies-at-willow-creek-reservoir-a-freshwater-lake/

Harris, T.D. 2012. Experimental manipulation of the TN:TP ratio to reduce cyanobacterial biovolume and toxin concentration by the addition of nitrogen and alum in large-scale *in situ* mesocosms. [master's thesis]. [Moscow (ID)]: University of Idaho.

Publication of photographs/ Journal covers:

2014 Front cover of Lake and Reservoir Management. Volume 30 Issue 1

Grants, Fellowships, Awards. Honors, and Elected Profession Positions

2017	North American Lake and Reservoir Management Society Jody Connor best student presentation
2016	Self Graduate Fellowship Professional Development Award **($5,000 USD)**
2016	Association for the Sciences of Limnology and Oceanography Student travel grant **($500 USD)**
2016	International Society of Limnology Student travel grant **($500 USD)**
2015	International Society of Limnology Student Competition: National representative for USA
2014-2016	Chair, Student Programs Committee of North American Lake and Reservoir Management Society
2014-2016	Student At-large Director of North American Lake and Reservoir Management Society
2015	Vice Commodore at Kansas Sailing Association
	Clinton Lake, Kansas
2013-2016	University of Kansas Head Sailing Coach
	University of Kansas Sailing Club, Lawrence, Kansas
2013-Present	US Sailing Small Boat Sailing Instructor Certification- Level 2 &3
2013-Present	Self Graduate Fellowship **($165,000 USD/ 4 years)**
	University of Kansas, Lawrence, Kansas
2013	North American Lake and Reservoir Management Student travel grant **($500 USD)**
2011	North American Lake and Reservoir Management Student Paper Award Finalist
2011-2012	Department of Fish and Wildlife Resources Jeff Braatne Grant **($5,000 USD)**
	University of Idaho, Moscow, Idaho
2007-2009	School of Natural Resources Dean's List
	University of Missouri, Columbia, Missouri
2007-2009	Big 12 Conference Commissioner's and Academic First-Team Honors
	University of Missouri, Columbia, Missouri
2007	Most Improved Swimmer (Men's swim team)
	University of Missouri, Columbia, Missouri
2005-2010	U.S. National, U.S. Open, and U.S. Olympic Trial qualifier (Swimming)
2005-2009	4-year letter winner (Men's Swimming)
	University of Missouri, Columbia, Missouri
2005-2010	Athletic based scholarship **(10,000 USD/year; Men's Swimming)**
	University of Missouri, Columbia, Missouri
2005-present	US Sailing Small Boat Sailing Instructor- Level 1
2005	Illinois High School State Champion – 100 yard breaststroke (Men's swimming)
2004 & 2005	High School All American – 100 yard breaststroke (Men's swimming)
2004-2005	2-time Jr. Sailor of the Year
	Carlyle Sailing Association, Carlyle, Illinois

Professional Membership

2015-2017	International Society of Limnology (SIL)
2011-2017	American Society of Limnology and Oceanography
2010-2017	North American Lake Management Society
2011-2012	Oregon Lakes Association
2011-2012	Washington State Lake Protection Association
2005-2017	United States Sailing

Presentations

Harris, T. D. 2017. Factors affecting water quality and cyanobacterial bloom occurrence and magnitude. Engineering Research and Development Center. Vicksburg, MS, USA. March 9th. **(Invited)**

Harris, T.D. Jones, J.R., Graham, J.L., Obrecht, D.V., and Thorpe, A. 2017. Relations between nutrients, temperature, and microcystin in 15 Missouri reservoirs. Annual meeting of the Association for the Sciences of Limnology & Oceanography, Honolulu, HI, USA. March 3rd.

Harris, T. D. 2017. Factors affecting local, regional, and global scale cyanobacterial dominance and secondary metabolite occurrence. Dissertation Defense. Lawrence, Kansas, USA. February 10th.

Harris, T. D. 2017. Comparing predictive modeling techniques for cyanobacterial abundance, microcystin, and geosmin in Cheney Reservoir, Kansas. 2017 Kansas Natural Resources Conference. Wichita, Kansas, USA. January 26-27.

Harris, T.D. 2016. Comparing predictive modeling techniques for cyanobacterial abundance, microcystin, and geosmin in a eutrophic Midwestern USA drinking water supply reservoir. 36th Annual meeting of the North American Lake Management Society, Banff, Alberta, Canada. November 3.

Harris, T.D. and Smith, V.H. 2016. Do persistent organic pollutants stimulate harmful cyanobacterial blooms? Annual meeting of the Association for the Sciences of Limnology & Oceanography, Santa Fe, NM, USA. June 7th.

Also presented at: (i) Congress XXXIII of the International Society of Limnology. Turin, Italy. August 4th and **(ii)** 2017. Department of Aquatic Ecology meeting, Netherlands Institute of Ecology, Wageningen, Netherlands. April 11th.

Harris, T.D., Smith, V.H., Graham, J.L., Van de Waal, D.B., Tedesco, L.P., Clercin, N. 2015. Combined effects of N:P ratios and nitrogen speciation on three cyanobacterial metabolite concentrations in eutrophic Midwestern USA reservoirs. 35th Annual meeting of the North American Lake Management Society, Saratoga Springs, NY, USA. November 20th.

Harris, T.D. and Smith, V.H. 2015. Do persistent organic pollutants stimulate harmful cyanobacterial blooms? Bio^3 Seminar Series 2015, Lawrence, KS, USA. August 25. (**Invited**)

Harris, T.D., Smith, V.H., Graham, J.L., Van de Waal, D.B., Tedesco, L.P., Clercin, N. 2015. Combined effects of the nitrogen to phosphorus ratio and nitrogen speciation on three cyanobacterial metabolite concentrations in eutrophic reservoirs. Annual meeting of the Association for the Sciences of Limnology & Oceanography, Granada, Spain. Feb 27.

Harris, T.D. 2014. QA/QC. KSWSC training series. USGS KSWSC, Lawrence, KS. Apr 15.

Harris, T.D. 2014. "In the Beginning" Project planning and review, project proposals, project work (and sample) plans, project reviews. KSWSC training series. USGS KSWSC, Lawrence, KS. Feb 11.

Rajkovich, H. E., Wilhelm, F. M., Harris, T. D., and Adams, C. J. 2014. Summary of research at Willow Creek Reservoir to understand the occurrence of blue-green algae blooms. Morrow County Soil and Water Conservation District Annual Meeting, Heppner, OR, USA. January 17.

Harris, T. D. and Graham, J. L. 2013. Seven years of continuously monitoring chlorophyll and cyanobacteria in an eutrophic Midwestern US reservoir. 33rd Annual meeting of the North American Lake Management Society. San Diego, California, USA. November 1.

Wilhelm, F. M., Harris, T. D., Adams, C. J., and Rajkovich, H. E. 2013. The ecology of blue-green algae blooms and implications to management concerning water quality. Coeur D'Alene Lake Tributaries Watershed Advisory Group, Coeur D'Alene, ID, USA. May 16.

Wilhelm, F. M., Harris, T. D., Graham, J. L., and Loftin, K. A. 2013. The ecology of blue-green blooms and implications to management decisions concerning water quality. 23rd Annual Idaho Department of Environmental Water Quality Conference. Boise, ID, USA. February 12-14.

Harris, T. D., Wilhelm, F. M., Graham, J. L., and Loftin, K. A. 2013. Manipulating the nitrogen to phosphorus ratio in lakes and reservoirs: a management strategy to reduce toxic cyanobacterial blooms. 2013 Kansas Natural Resources Conference. Wichita, Kansas, USA. January 24-25.

Harris, T. D., Wilhelm, F. M., Graham, J. L., and Loftin, K. A. 2012. Experimental additions of alum and nitrogen to large-scale *in situ* mesocosms to reduce algal biovolume and microcystin concentration. 32nd Annual meeting of the North American Lake Management Society. Madison, Wisconsin, USA. November 7-9.

Harris, T. D., Wilhelm, F. M., Graham, J. L., and Loftin, K. A. 2012. Potential short-term management strategy to reduce toxic cyanobacterial blooms by manipulation of the nitrogen to phosphorus ratio. 2012 Governor's Conference on the Future of Water in Kansas. Manhattan, Kansas, USA. October 30-31.

Harris, T. D. 2012. Suppression of toxin producing algae by experimental manipulation of the nitrogen to phosphorus ratio in large-scale *in situ* mesocosms. 2012 Innovation showcase. Moscow, Idaho, USA. April 19.

Harris, T. D., Wilhelm, F. M., Graham, J. L., and Loftin, K. A. 2011. Alteration of nutrient regimes in large-scale *in situ* enclosure experiments to reduce cyanobacterial biovolume and toxicity. 31st Annual meeting of the North American Lake Management Society. Spokane, Washington, USA. October 25-28.

Harris, T. D. and Wilhelm, F. M. 2011. Willow Creek Reservoir: cyanobacteria and toxin production related to nutrient ratios. 2011 Oregon Lakes Association annual meeting. Portland, Oregon, USA. October 21-22.

Harris, T. D. 2010. An in-lake experimental test of algal density and toxicity in altered nutrient regimes. FISH 501. Moscow, ID, USA. October 18.

Workshops Attended

2012	Collection, identification, ecology, and control of freshwater algae- advanced course. Taught by: Ann St. Amand, Ken Wagner, Andy Chapman, and Barry Rosen. Madison, WI. Nov 6.
2011	Collection, identification, and ecology of freshwater algae. Taught by: Ann St. Amand. Saint Joseph, MI. July 7-8.

Published USGS datasets

Graham, J.L. and Harris, T.D. 2016. Phytoplankton data for Cheney Reservoir near Cheney, Kansas, June 2001 through November 2015: US Geological Survey data release. Website: http://dx.doi.org/10.5066/F71N7Z7V

Graham, J.L. and Harris, T.D. 2016 (In press). Zooplankton data for Cheney Reservoir near Cheney, Kansas, October 2008 through November 2015: US Geological Survey data release.

Volunteer Experience

2013- 2016	University of Kansas sailing club coach, Lawrence, KS. Instruct undergraduate, graduate, and faculty on skills ranging from basic sailing to advance racing techniques and tactics.
2010-2011	University of Idaho Swimming Sprint Coach, Moscow, ID. Coached 10 women daily throughout the 2010-2011 season. Nine of ten went personal best times in 2 or more events. Through coaching for the University of Idaho, I was able to improve my skills in collaboration, motivation, and leadership (with swim team and coaching staff members). Additionally, it has helped me learn how to challenge swimmers and other coaches in a positive way; ultimately leading to positive atmosphere that supports improved performance.
2010	Missouri Chestnut Roast, New Franklin, Missouri. Worked at the information desk.
2009	Popular Bluff Swim Coach, Popular Bluff, Missouri. Coached 30-40 kids throughout the 2009 summer.
2007	Seattle Yacht Club Instructor, Seattle, Washington. Coached novice to advanced sailors.
2005-2008	Multiple Sclerosis 150 Bike Ride Columbia, Missouri. Worked at rest stops during the annual event.
2003-Present	Stroke Tech, Inc., Greenville, Illinois. Coach and advise elite youth swimming.

MADISON AND LILA SELF GRADUATE FELLOWSHIP, THE UNIVERSITY OF KANSAS

Strong Hall, 1450 Jayhawk Blvd., Room 158, Lawrence, Kansas 66045
(785) 864-7249 – www.selfgraduate.ku.edu

Self Graduate Fellows are selected on the basis of their academic ability and achievements, leadership attributes, vision, and motivation to make significant contributions in their fields and in society. The Fellow Development Program is a distinctive feature of the Self Graduate Fellowship. It provides general education and training in communication, management, and leadership to assist Fellows in their preparation for future leadership roles, complementing the specialized education and training provided in Ph.D. programs. The four-year development program includes individual coaching in oral and written communication, skill sessions, a symposium, luncheons, and a government and science policy seminar in Washington, D.C.

FELLOW DEVELOPMENT PROGRAM
2013–2017 Self Graduate Fellows

2013–2014 *(58 contact hours)*
Public Policy: Kansas Energy Resources. Rex Buchanan, Kansas Geological Survey. *3 hrs.*
Effective Decision Making: Obstacles and Skills. Rick Larrick, Fuqua School of Business, Duke University. *14 hrs.*
Cultural Influences on the Communication Processes. Yan Bing Zhang, communication studies, University of Kansas. *4 hrs.*
How to Win Friends and Influence People in Business. Ron Cox, Dale Carnegie Training. *7 hrs.*
Exercising Leadership for Progress: Adaptive Leadership and Change. Ron Alexander, R. E. Alexander and Associates. *14 hrs.*
Energizing Change: The Self Graduate Fellowship's Action Imperative. Karl B. Brooks, Region 7 Administrator, United States Environmental Protection Agency. *2 hrs.*
Graduate Writing: Where the Rubber Meets the Road. Christine Jensen Sundstrom, Applied English Center, University of Kansas. *6 hrs.*
Effective Communication and Critical Thinking. Robert Rowland, communication studies, University of Kansas. *8 hrs.*

2014–2015 *(50 contact hours)*
Public Policy: The Affordable Care Act and Health Care Reform. Linda Sullivan, Kansas Health Institute. *1 hr.*
Financial Accounting. Allen Ford, accounting, University of Kansas. *6 hrs.*
Personal Finance and Investment Strategies. Kelly Welch, finance, University of Kansas. *7 hrs.*
Ideas in Chains: Innovation Law. Andrew Torrance, law, University of Kansas. *3 hrs.*
Career Development. Thomas Krieshok, psychology and research in education, University of Kansas. *6 hrs.*
The Human Side of Leading Innovation. Ralph Katz, business, Massachusetts Institute of Technology/Northeastern University. *13 hrs.*
Understanding the Evolution of Healthcare. Matt Ackerman, Lilly USA. *2 hrs.*
Communication: Social Media and Integrated Communications. Hyunjin Seo, journalism, University of Kansas. *4 hrs.*
Communication: Seminar Presentation. Robert Rowland, communication studies, University of Kansas. *8 hrs.*

2015–2016 *(75 contact hours)*
Public Policy: Higher Education Leadership and Policy Introduction. Lisa Wolf-Wendel, education, University of Kansas. *2 hrs.*
Public Policy: Higher Education Leadership and Policy History. John Rury, education, University of Kansas. *1 hr.*
Negotiation and Conflict Resolution. Michael Haselhuhn, School of Business Admin., University of California, Riverside. *14 hrs.*
Government and Science Policy Seminar. Washington, D.C. *20 hrs.*
Business Planning for New Technology-based Ventures. Matthew McClorey, CritiTech, Inc. *13 hrs.*
Accounting for Business Costs. Kelvie Crabb, business, University of Kansas. *4 hrs.*
Wireless Technologies: From Entertaining to Essential. Cory Beard, School of Engineering, University of Missouri-Kansas City. *2 hrs.*
Written Communication: Writing for Publics. Amy Devitt, English, University of Kansas. *4 hrs.*
Communicating about Your Research: Key Messages. Susan Bell Tomai and Bill Connor, Oratorio Media Training. *7 hrs.*
Communication: Public Presentation. Robert Rowland, communication studies, University of Kansas. *8 hrs.*

2016–2017 *(47 contact hours)*
Public Policy: Governing Speech in a Networked Society. Jonathan Peters, journalism, University of Kansas. *2 hrs.*
Increasing your "EQ" for Positive Outcomes. Chad Carden and Adam Carroll, The Carden Group. *15 hrs.*
Strategic Crisis Communication. Sharon Watson, Johnson County Kansas. *7 hrs.*
Project Management – An Art and Science. Kenneth Ward, business, University of Kansas. *7 hrs.*
White House Decision Center. Harry S. Truman Presidential Library and Museum. *6 hrs.*
Making a Difference – What's Love Got to Do With it? Charles Svoboda, Boeing Research & Technology. *2 hrs.*
Communication: Job Talks. Robert Rowland, communication studies, University of Kansas. *8 hrs.*

In addition, each year two to six luncheon speakers provided examples of public policy topics and leadership, and career strategies in business, government, and higher education.