

## La Toya Kissoon-Charles, PhD

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### EDUCATION

**PhD, Environmental and Conservation Sciences** (2012), North Dakota State University, Fargo, ND.

**BA, Environmental Studies and International Relations** (2005), Concordia College, Moorhead, MN.

### PROFESSIONAL EXPERIENCE AND AFFILIATIONS

- Associate Professor, Department of Biology, Missouri State University, 2024-present
- Assistant Professor, Department of Biology, Missouri State University, 2016-2024
- Postdoctoral Research Associate, Dept. of Biological Sciences, North Dakota State University, 2012-2016
- Graduate Teaching Assistant, Dept. of Biological Sciences, North Dakota State University, 2008-2010

### FELLOWSHIPS, GRANTS AND AWARDS

- Missouri State University Sustainability Fellow (2025)
- Missouri State University Faculty Research Grant \$7500 (2024)
- Missouri State University, College of Natural and Applied Sciences Faculty Excellence in Service (2025)
- Missouri State University, College of Natural and Applied Sciences Faculty Excellence in Teaching (2019, 2023)
- Missouri State University, Bear Bridge Outstanding Faculty-Student Mentoring Award (2022)
- Missouri State University, College of Natural & Applied Sciences Diversity Award (2022)
- Missouri State University, College of Natural & Applied Sciences Student Award for Faculty Excellence (2018)
- Missouri State University Assessment Grant \$500 (2018)
- Missouri State University Faculty Research Grant \$6793 (2017)
- National Park Service, \$16,938 (2016-2017)
- North Dakota EPSCoR Doctoral Dissertation Award, \$38,000 (2010-2012)
- The Wetland Foundation Wetland Field Grant, \$800 (2010)
- Sigma Xi Grants-in-Aid of Research, \$400 (2010)

### PEER-REVIEWED PUBLICATIONS

\* Indicates student lead author or coauthor

Tran IT\*, Heiman JA\*, Lydy VR\*, Kissoon LT (2023) Silver inhibits *Lemna minor* growth at high initial frond densities. *Plants* 12(5): 1104.

Heiman JA\*, Tran IT\*, Behlke-Entwisle M\*, Pavlowsky R, Kissoon LT (2022) Metal accumulation in American sycamores in a mining-contaminated river in southeastern Missouri. *Water, Air and Soil Pollution* 233: 125.

Cheri CR, Kissoon LT, Bowles DE (2022) Aquatic Flora of Fowler Lake, Buffalo National River, Arkansas. *Rhodora* 123: 133-148.

Kissoon LT, Cheri CR, Bowles DE (2020) *Landoltia punctata* (Araceae), A new distributional record for the Ozarks. *The Great Lakes Botanist*, 59: 229-233.

Yellick AH\*, Jacob DL, DeKeyser ES, Hargiss CLM, Meyers LM, Ell M, Kissoon-Charles LT, Otte ML (2016) Multi-element composition of soils of seasonal wetlands across North Dakota, USA. *Environmental Assessment and Monitoring*, 188: 1-14.

Kissoon LT, Jacob DL, Hanson MA, Herwig BR, Bowe SE, Otte ML (2015) Multi-elements in waters and sediments of shallow lakes: relationships with water, sediment and watershed characteristics. *Wetlands*, 35: 443-457.

- Sullivan RD\*, Kisson LT, Jacob DL, Hanson MA, Fischbach EK\*, Otte ML (2014) Variations in shoreline vegetation and turbidity of shallow lakes. *Wetland Science and Practice*, 31: 19-32.
- Kisson LT, Jacob DL, Hanson MA, Herwig BR, Bowe SE, Otte ML (2013) Macrophytes in shallow lakes: relationships with water, sediment and watershed characteristics. *Aquatic Botany*, 109: 39-48.
- Jacob D, Yellick AH\*, Kisson LT, Asgary A\*, Wijeyaratne D\*, Saini-Eidukat B, Otte ML (2013) Cadmium and associated metals in soils and sediments of wetlands across the Northern Plains, USA. *Environmental Pollution*, 178: 211-219.
- Kisson LT, Jacob DL, Otte ML (2011) Multiple elements in *Typha angustifolia* rhizosphere and plants: wetland versus dryland. *Environmental and Experimental Botany*, 72: 232-241.
- Kisson LT, Jacob DL, Otte ML (2010) Multi-element accumulation near *Rumex crispus* roots under wetland and dryland conditions. *Environmental Pollution*, 158: 1834-1841.

### **CONTRACT WORK AND OTHER PUBLICATIONS**

- Kisson-Charles LT (2022) More than just algae: aquatic plants in an Ozark spring-fed pond. *Aquatics* 44: 26-30.
- Kisson-Charles LT, Bowles DE, Dodd HR, (2017) Managing Aquatic Vegetation in Williams Pond at George Washington Carver National Monument. *Technical Report*, National Park Service.
- Hatch LM, Kisson-Charles LT (2017) Williams Pond: Aquatic Habitat and Vegetation Concerns. When too much of a good thing stops being good, what do you do? *Trifold National Park Brochure*, National Park Service.
- Hatch LM, Kisson-Charles LT (2017) Invasive. Exotic. Nuisance. Three words commonly used to describe the same thing, but what do they really mean? *Trifold National Park Brochure*, National Park Service.
- Hatch LM, Kisson-Charles LT (2017) Liberating or infesting? How to prevent spread of invasives. *Educational Flyer*. National Park Service.

### **INVITED PRESENTATIONS**

\* *Indicates student coauthor*

- Kisson-Charles LT, Miles D\*, Faust A\*, Whaley H\*. Invasive aquatic plants and their relation to water quality of two southwest Missouri reservoirs. Missouri Natural Resources Conference, Margaritaville Lake Resort Osage Beach, MO. 21 February 2025.
- Kisson-Charles LT. When the mentor makes mistakes. Joint Aquatic Sciences Meeting, Women in Wetlands Session, Lessons on Leadership and Mentorship: Tips and Stories. Grand Rapids, MI. 14-20 May 2022.
- Kisson-Charles LT, Hatch LM\*, Tran IT\*, Finn DS. What is happening to bugs and leaves in an Ozark mining-contaminated river? North Dakota State University, Environmental & Conservation Sciences Greenbag Seminar, virtual. 21 January 2021.
- Kisson-Charles LT. My journey in aquatic biology, Career Explorations Seminar at International Institute, Community Partnership of the Ozarks, Midtown Carnegie Library Branch, Springfield, MO. 24 June 2019.
- Kisson-Charles LT, Cornish C\*. Plants and metals in wet ecosystems of the Ozarks. Missouri Master Naturalists, Springfield Plateau Chapter monthly meeting, Springfield, MO. 17 June 2019.
- Kisson-Charles LT, Heiman J\*, Tran T\*, Behlke-Entwisle, M\*, Pavlowsky R. Metals in vegetation and sediment in a mining contaminated river. Missouri Department of Conservation, Big River Updates meeting, virtual. 13 November 2019.
- Kisson-Charles LT, Heiman J\*, Tran T\*, Behlke-Entwisle M\*, Pavlowsky R. What can we learn from vegetation in a mining-contaminated river? Watershed Committee of the Ozarks, monthly meeting, Springfield, MO. 3 August 2018.

Kissoon-Charles LT. Why is the water so green? Aquatic BioBlitz and Seminar, National Get Outdoors Day Event, George Washington Carver National Monument, Diamond, MO. 9 June 2018.

Kissoon-Charles LT. Wetland plants: what are they good for? Missouri State University, Armchair University Science Series, Library Center, Springfield, MO. 24 October 2017.

Kissoon-Charles LT. The role of wetland plants in the wet world. SW Chapter Missouri Native Plant Society monthly meeting, Springfield, MO. 28 February 2017.

## **OTHER RESEARCH PRESENTATIONS**

*\* Indicates student coauthor (since 2016)*

Kissoon-Charles LT, Johnson J\*, Faust A\*. Growth and survival of *Azolla caroliniana* (Carolina mosquito fern) after exposure to different temperatures. Aquatic Plant Management Society Annual Meeting, Providence, RI. 17 July 2025.

Kissoon-Charles LT, Pettington O\*. Metals and microbes in soils of remediated areas of the Missouri Tri-State mining district. Society of Wetland Scientists Annual Meeting, Providence, RI. 16 July 2025.

Kissoon-Charles LT, Miles D\*, Faust A\*, Whaley H\*. Long-term monitoring reveals impacts of invasive aquatic plants in two southwest Missouri reservoirs. Aquatic Plant Management Society Annual Meeting, St. Petersburg, FL. 15-18 July 2024.

Kissoon-Charles LT, Heiman J\*, Tran T\*, Behlke-Entwisle M\*, Pavlowsky R. What can we learn from vegetation in a mining-contaminated river? Great Plains Limnology Conference, Ames, IA. 18-19 October 2019.

Kissoon-Charles LT, Cornish C\*, Whaley H\*. Exploring relationships between wetland plants and sediment biogeochemistry. Society of Wetland Scientists Annual Meeting, Baltimore, MD. 28-31 May 2019.

Kissoon-Charles LT, Tran T\*, Heiman J\*, Sakidja R. *Lemna minor*: Response to nanoparticle exposure. Society of Wetland Scientists Annual Meeting, Denver, CO. 28-31 May 2018.

Kissoon-Charles LT, Deere T\*, Momsen J. A snapshot of student quantitative skills in introductory and upper-level biology. Society for the Advancement of Biology Education Research National Meeting, Minneapolis, MN. July 2016.

## **STUDENT-LED ORAL PRESENTATIONS**

*\* indicates undergraduate lead author or coauthor*

Pettington O, Kissoon-Charles LT. Microbial and metal composition of rhizosphere and bulk soils in areas of the Tri-State mining district. Einhellig Interdisciplinary Forum, Missouri State University, Springfield, Missouri, 25 April 2025 (*outstanding student presentation*).

Miles D, Whaley H, Faust A\*, Kissoon-Charles LT. Spread of invasive *Potamogeton crispus* after drawdown in an Ozark spring-fed pond. Margaritaville Lake Resort Osage Beach, MO. 21 February 2025.

Miles D, Whaley H, Faust A\*, Kissoon-Charles LT. The ripple effect of drawdowns: invasion of *Potamogeton crispus* in an Ozark spring-fed pond. Society of Wetland Scientists Student Virtual Conference. 31 January 2025.

Pettington O, Kissoon-Charles LT. Comparing plant rhizosphere microbiomes in mining-contaminated and remediated ecosystems. Webster Groves Nature Study Society Fall meeting, virtual. 2 October 2024.

Faust A\*, Kissoon-Charles LT. Implications of nitrate-providing species *Azolla* observed in Lake Springfield. Webster Groves Nature Study Society Fall meeting, virtual. 3 September 2024.

- Miles D, Whaley H, Faust A\*, Kisson-Charles LT. Impacts of invasive *Potamogeton crispus* on native plants and response to changing environmental conditions. Webster Groves Nature Study Society Fall meeting, virtual. 3 September 2024.
- Miles D, Whaley H, Faust A\*, Kisson-Charles LT. Impacts of water depth changes on aquatic vegetation and nutrients: insights for pond management. Aquatic Plant Management Society Annual Meeting, St. Petersburg, FL. 15-18 July 2024.
- Reifsteck A, Bowe LM, Kisson-Charles LT, Finn D. Aquatic plants affect insect diversity in frequently disturbed Ozark streams. Entomological Society of America Southeastern Branch Meeting, Little Rock, AR. 12-15 March 2023.
- Whaley H, Kisson-Charles LT. Seasonal and Spatial Distribution of Aquatic Plants in Spring-fed Ponds. Missouri Botanical Symposium. Rolla, MO. 4 November 2022.
- Whaley H, Kisson-Charles LT. Land use and spring-fed ponds: how plant communities shift with the landscape? Joint Aquatic Sciences Meeting, Grand Rapids, MI. 14-20 May 2022.
- Whaley H, Kisson-Charles LT. Ozarks spring-fed ponds: how does aquatic vegetation respond to land use? Einhellig Interdisciplinary Forum, Missouri State University, Springfield, Missouri, 7 May 2022 (*outstanding student presentation*).
- Tran IT, Hatch LM, Finn DS, Kisson-Charles LT. Decomposing sycamore leaves can be secondary lead contamination sources in streams of Missouri's Lead Belt (USA). Joint Aquatic Sciences Meeting, Grand Rapids, MI. 14-20 May 2022.
- Hatch LM, Tran IT, Finn D, Kisson-Charles LT. How does increased metal contamination affect macroinvertebrates in an Ozark River? American Fisheries Society, Missouri State University Subunit Seminar. November 2021.
- Hatch LM, Tran IT, Finn D, Kisson-Charles LT. The shredders don't lie: Increased metal concentrations in sycamore leaves inhibit community abundance. Great Plains Limnology Conference, virtual. 23-24 October 2021.
- Whaley H, Kisson-Charles LT. #NoFilter: How aquatic vegetation changes with land use in a limestone bedrock-dominated region. Great Plains Limnology Conference, virtual. 23-24 October 2021.
- Whaley H, Kisson-Charles LT. How does eutrophication impact aquatic vegetation in both rural and urban spring-fed ponds? Society for Freshwater Science Annual Meeting, virtual. 23-27 May 2021.
- Whaley H, Kisson-Charles LT. Relationships between nutrients and vegetation: Implications for the management of spring-fed ponds. Missouri Natural Resources Conference, virtual. 2-4 February 2021.
- Whaley H, Kisson-Charles LT. Macrophytes in spring-fed ponds: how do factors at different spatial scales affect their abundance? Great Plains Limnology Conference, virtual. 12-15 October 2020.
- Cornish C, Kisson-Charles LT (2018) Atrazine and macrophyte presence in wetlands in Southwest Missouri. Society of Wetland Scientists Annual Meeting, Denver, CO. 23-24 October 2021.

### **STUDENT-LED POSTER PRESENTATIONS**

\* indicates undergraduate lead author or coauthor

- Faust A\*, Johnson J\*, Cooper B\*, Kisson-Charles LT. *Azolla caroliniana* impacts algae abundance and nitrates in Lake Springfield, MO. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield, MO. 24 April 2025.

- Guymon S\*, Talbert R\*, Kisson-Charles LT. Country vs. city planaria: comparing abundance in rural and urban Ozark streams. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield, MO. 24 April 2025.
- Johnson J\*, Faust A\*, Kisson-Charles LT. Exposure to varying temperatures influences *Azolla* growth. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield, MO. 24 April 2025 (1<sup>st</sup> Place outstanding student poster).
- Johnson J\*, Faust A\*, Kisson-Charles LT. How exposure to cold temperatures influences *Azolla*. Emerging Researchers National Conference in STEM. Atlanta, GA. 4-6 April 2025.
- Faust A\*, Cooper, B\*, Kisson-Charles LT. The *Azolla* apocalypse? Appearance, spread, and impact of the nitrogen-fixing species in Lake. Margaritaville Lake Resort Osage Beach, MO. 21 February 2025.
- Pettington O, Kisson-Charles LT. Microbial composition of mining-contaminated and remediated soils in the Missouri Tri-State mining district. Geological Society of America Annual Meeting, Anaheim, CA. 22 September 2024.
- Faust A\*, Kisson-Charles LT. Growth response and nitrogen removal or release by an *Azolla* species. Aquatic Plant Management Society Annual Meeting, St. Petersburg, FL. 15-18 July 2024.
- Miles D, Whaley H, Faust A, Kisson-Charles LT. Impacts of low water depth on annual and seasonal aquatic vegetation growth in an Ozark spring-fed pond. Einhellig Interdisciplinary Forum, Springfield, MO. 27 Apr 2024.
- Pettington O, Kisson-Charles LT. Comparing plant rhizosphere microbiomes in mining-contaminated and remediated wet ecosystems. Einhellig Interdisciplinary Forum, Springfield, MO. 27 Apr 2024.
- Reifsteck A. Bowe LM, Kisson-Charles LT, Finn D. Gravel bar plant diversity in disturbance-prone Ozark streams with contrasting nutrient and sediment composition. Einhellig Interdisciplinary Forum, Springfield, MO. 27 Apr 2024 (Outstanding poster).
- Faust A, Kisson-Charles LT. Nitrate-providing species *Azolla* a source of nitrogen in Lake Springfield. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield, MO. 25 Apr 2024.
- Miles D, Whaley H, Faust A\*, Kisson-Charles LT. The demise of submerged aquatic plants during low water years in an Ozarks spring-fed pond. Missouri Natural Resources Conference, Margaritaville Lake Resort Osage Beach MO. 6-8 Feb 2024.
- Faust A\*, Kisson-Charles LT. Mutualism and Opportunism: Algae blooms and *Azolla* flourishes in nitrate enriched waters. Missouri Natural Resources Conference, Margaritaville Lake Resort Osage Beach MO. 6-8 Feb 2024.
- Miles D\*, Whaley H, Kisson-Charles LT. Algae growth surges while aquatic plants decline in winter and low water years in an Ozark spring-fed pond. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield MO. 28 April 2023.
- Miles D\*, Whaley H, Faust A\*, Kisson-Charles LT. Winter temperatures drive changes in aquatic vegetation in an Ozark spring-fed pond. Missouri Academy of Sciences Conference, Joplin MO. 21-22 April 2023.
- Miles D\*, Whaley H, Kisson-Charles LT. Algae blooms while submerged aquatic vegetation DIES in an Ozark spring-fed pond. Missouri Natural Resources Conference, Margaritaville Lake Resort Osage Beach MO. 7-9 Feb 2023.
- Frisby M\*, Miles D\*, Faust A\*, Stokesberry J\*, Kisson-Charles LT. No Metals, Please: Detrimental effects of metal contamination on macroinvertebrates in a Missouri stream. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield MO. 28 April 2023.

- Frisby M\*, Miles D\*, Faust A\*, Kissoon-Charles LT. Mining-contaminated sediments have detrimental effects on macroinvertebrate abundance in Missouri streams. Entomological Society of America Southeastern Branch Meeting, Little Rock, AR. 12-15 March 2023.
- Frisby M\*, Miles D\*, Faust A\*, Kissoon-Charles LT. Effects of yesterday's mining on today's Missouri stream macroinvertebrates. Missouri Natural Resources Conference, Margaritaville Lake Resort, Osage Beach, MO. 7-9 Feb 2023.
- Reifsteck A\*, Winslow J, Bowe LM, Kissoon-Charles LT, Finn DS. Water willow (*Justicia americana*): driver or passenger of its Ozark stream ecosystem? Joint Aquatic Sciences Meeting, Grand Rapids, MI. 14-20 May 2022.
- Tran IT, Hatch LM, Finn DS, Kissoon-Charles LT. Decomposing sycamore leaves and detritus accumulated lead over time in a mine-contaminated river. Einhellig Interdisciplinary Forum, Springfield, MO. 7 May 2022.
- Miles D\*, Whaley H, Kissoon-Charles LT. Story of a broken dam: Aquatic vegetation decreases while algae blooms. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield MO. 5 May 2022.
- Frisby M\*, Miles D\*, Tran IT, Kissoon-Charles LT. Metal contamination decreases macroinvertebrate abundance in Big River of southeast Missouri. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield MO. 5 May 2022 (*2<sup>nd</sup> place outstanding student poster*).
- Whaley H, Kissoon-Charles LT. How do environmental factors and watershed development influence aquatic plant communities? Einhellig Interdisciplinary Forum, Missouri State University, Springfield, Missouri, virtual. 28 April – 1 May 2021.
- Tran IT, Hatch LM, Finn D, Kissoon-Charles LT. Decomposing sycamore leaves added lead and zinc to the Big River environment. Great Plains Limnology Conference, virtual. 23-24 October 2021.
- Tran IT, Hatch LM, Finn D, Kissoon-Charles LT. UnbeLEAFable metals: Sycamore as secondary contamination in Big River, Missouri. Society for Freshwater Science Annual Meeting, virtual. 23-27 May 2021.
- Tran IT, Hatch LM, Finn D, Kissoon-Charles LT. Insight from leaf pack experiment: Effects of metal contamination on leaf decomposition in a Missouri stream. Missouri State University Einhellig Graduate Interdisciplinary Forum, Springfield MO, virtual. 28 April – 1 May 2021 (*outstanding student poster*).
- Hatch LM, Tran IT, Finn D, Kissoon-Charles LT. Shredder colonization of autumnal shed leaves in a mining contaminated river. Society for Freshwater Science, virtual. 23-27 May 2021.
- Hatch LM, Tran IT, Finn D, Kissoon-Charles LT. Inhibition of shredder colonization of autumnal shed leaves in a mining-contaminated river. Einhellig Graduate Interdisciplinary Forum, virtual. 28 April – 1 May 2021.
- Hatch LM, Tran IT, Finn DS, Kissoon-Charles LT. We all live downstream: Mining-contamination can inhibit leaf decomposition and invertebrate colonization downstream. Missouri Natural Resources Conference, virtual. 2-4 February 2021.
- Tran IT, Hatch LM, Finn DS, Kissoon-Charles LT. Metal-contaminated sycamore leaves in Big River: decomposition and metal loss. Missouri Natural Resources Conference, virtual. 2-4 February 2021.
- Giering A\*, Kissoon-Charles LT. Do Ozark native duckweed species stand a chance against non-native *Landoltia punctata* in ammonia polluted waters? College of Natural and Applied Sciences Undergraduate Research Symposium, virtual. 3 May 2021 (*1<sup>st</sup> Place outstanding student poster*).
- Whaley H\* and Kissoon-Charles LT. Does aquatic vegetation in a spring-fed pond follow a seasonal pattern? Missouri Natural Resources Conference, Osage Beach, MO. 4-6 February 2020.
- Tran IT, Kissoon-Charles LT. Are metals leaching from decomposing sycamore leaves in Big River, Missouri? Great Plains Limnology Conference, virtual. 12-15 October 2020.

Ryan B, Kissoon-Charles LT, Pavlowsky R. How do metal concentrations in American Sycamore (*Platanus occidentalis*) change along a concentration gradient in a mining-contaminated river? Great Plains Limnology Conference, virtual. 12-15 October 2020.

Hatch LM, Finn DS, Kissoon-Charles LT. Do metal-contaminated leaves taste bad to aquatic macroinvertebrates? Great Plains Limnology Conference, virtual. 12-15 October 2020.

Aguayo T\*, Kissoon-Charles LT. Does a rain garden design effect soil infiltration of stormwater? Emerging Researchers National Conference in STEM, Washington, D.C. 6-8 Feb 2020.

Whaley H\*, Kissoon-Charles LT. Does aquatic vegetation in a spring-fed pond follow a seasonal pattern? Great Plains Limnology Conference, Ames, IA. 18-19 October 2019.

Whaley H\*, Kissoon-Charles LT. Nuisance vegetation removal and its effect on plant community structure in a spring-fed pond. Society of Wetland Scientists Annual Conference, Baltimore, MD. 28-31 May 2019.

Whaley H\*, Kissoon-Charles LT. Restoration of native aquatic vegetation in spring-fed ponds. Missouri Natural Resources Conference, Osage Beach, MO. 5-7 February 2019.

Tran T\*, Heiman J\*, and Kissoon-Charles LT. Phytotoxicity of silver nanoparticles on *Lemna minor*. Society of Wetland Scientist Annual Meeting, Baltimore MD. 28-31 May 2019.

Tran T\*, Heiman J\*, Kissoon-Charles LT. *Lemna minor* growth and morphological responses to different forms of silver. Missouri Natural Resources Conference, Osage Beach, MO. 5-7 February 2019.

Tran T\*, Heiman J\*, Kissoon-Charles LT. Toxicity of silver nanoparticles in an aquatic environment. MSU College of Natural and Applied Sciences Undergraduate Research Symposium, Springfield, MO. 3 May 2019 (2<sup>nd</sup> place *outstanding student poster*).

Means D\*, Hopper T, Kissoon-Charles LT. What are student attitudes towards the use of math in general biology? MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield MO. 3 May 2019.

Means D\*, Hopper T, Kissoon-Charles LT. Students in general biology find math useful but is associated with extra effort and worries. Ozarks Technical and Community College Honors Conference, Springfield, MO. 13 April 2019.

Lydy T\* and Kissoon-Charles LT. How will a citrate buffer affect silver nanoparticles and plant growth? Great Plains Limnology Conference, Ames, IA 18-19 October 2019.

Heiman J\*, Tran T\*, Kissoon-Charles LT. Image analysis shows relationship between biomass and area cover. MSU College of Natural & Applied Science Undergraduate Research Symposium, Springfield MO. 3 May 2019.

Heiman J\*, Tran T\*, Kissoon-Charles LT. Chemical fingerprints of sycamore trees in Big River, MO. Missouri Natural Resources Conference, Osage Beach, MO. 5-7 February 2019.

Aguayo T\*, Kissoon-Charles LT. Does age play a part in rain garden infiltration rates? Great Plains Limnology Conference, Ames, IA. 18-19 October 2019.

Aguayo T\*, Kissoon-Charles LT. A tale of rain gardens: evaluation four years post construction. College of Natural and Applied Sciences Undergraduate Research Day, Springfield, MO. 3 May 2019.

Aguayo T\*, Kissoon-Charles LT. Rain gardens: assessment five years or more after construction. 2nd Annual MOLSAMP Undergraduate Conference, Jefferson City, MO. 8-10 March 2019.

Tran T\*, Heiman J\*, Kissoon-Charles LT. Toxic effects of silver nanoparticles on small floating aquatic plants. Great Plains Limnology Conference, Lawrence, KS. 5-6 October 2018.

Tran T\*, Heiman J\*, Kissoon-Charles LT. Lead concentration in sycamore trees of Big River gravel bar. Society of Wetland Scientists Annual Meeting, Denver, CO. 28-31 May 2018.

Tran T\*, Heiman J\*, Kisson-Charles LT. Accumulation of lead in sycamore trees on a mining-contaminated gravel bar in Big River, Missouri. MSU College of Natural and Applied Sciences Undergraduate Research Symposium, Springfield, MO. 3 May 2018 (2<sup>nd</sup> place *outstanding student poster*).

Heiman J\*, Tran T\*, Kisson-Charles LT. Chemical fingerprinting of trees in a mining contaminated river. Great Plains Limnology Conference, Lawrence, KS. 5-6 October 2018.

Heiman J\*, Tran T\*, Gurski M\*, Kisson-Charles LT. Using images to measure plant biomass and abundance. MSU College of Natural and Applied Sciences Undergraduate Research Symposium, Springfield, MO. 3 May 2018.

Heiman J\*, Tran T\*, Kisson-Charles LT. Metal concentrations in gravel bar vegetation in a mining-contaminated river. Symposium on Biogeochemistry of Wetlands. Coral Springs, FL. 23-26 April 2018.

Cornish C, Kisson-Charles LT. Relationship between atrazine distribution in wetland sediments and aquatic plant communities. Missouri Natural Resources Conference, Osage Beach, MO. 6-8 February 2018.

Cornish C, Kisson-Charles LT. Atrazine distribution in wetland sediments: relationship with aquatic plant communities. Great Plains Limnology Conference, Columbia, MO. 13-14 October 2017.

Gurski M\*, Griffin L\*, Heiman J\*, Kisson-Charles LT. *Lemna minor* growth: Effects of Silver Nanoparticles and Carbon. MSU College of Natural and Applied Sciences Undergraduate Research Symposium, Springfield, MO. 28 April 2017.

Heiman J\*, Griffin L\*, Gurski M\*, Kisson-Charles LT. *Lemna minor* tolerant of pollutants in oil refinery effluent? MSU College of Natural and Applied Sciences Undergraduate Research Symposium, Springfield, MO. 28 April 2017.

## **TEACHING OR RESEARCH-RELATED MEDIA ATTENTION**

- Watershed Committee of the Ozarks Fall Newsletter, October 2024: Higher Education. <https://tinyurl.com/27em72n6>
- MSU College of Natural and Applied Sciences NewsWatch, 2024: Empowering eco-explorers. <https://tinyurl.com/343mszz5>
- In Defense of plants podcast, Episode 299, 2021: Aquatic Plants and Phytoremediation. <https://tinyurl.com/mr4864j7>
- MSU College of Natural and Applied Sciences NewsWatch, 2020: Diving into aquatic plant research. <https://tinyurl.com/4vhpehed>
- MSU College of Natural and Applied Sciences NewsWatch, 2018: Opportunity knocks: Undergraduate research. <https://tinyurl.com/mwx49n33>
- Ozarks Public Radio, 2019: Metals in Plants; a Watery Scenario. <https://tinyurl.com/y8emr42c>

## **TEACHING AND ADVISING**

Missouri State University, Department of Biology (2016-present):

*Courses taught:*

Limnology (BIO 562/662) – Fall 2016-2017, 2019-present

Biology in Your World (BIO 101) – Fall and Spring 2017-present

Ecotoxicology (BIO 597/697) – Spring 2017, 2018-2024 (even years)

Aquatic Botany (BIO 530/629) – Spring 2023-2025 (odd years)

Water Resources (BIO 547) – Spring 2019, 2021, 2024

Introduction to Wetland Plants – Spring 2019-2022

Wetland Ecology – Spring 2017, 2018

Lake Ecology (BIO 597/697) – Fall 2018  
Science Communication (BIO 597/697) – Spring 2020  
Plants and Pollutants in Wet Ecosystems (BIO 728) – Spring 2018

*MS students supervised as major advisor:*

Christine Cornish (MS Biology, August 2018)  
Leslie Hatch (MS Biology, August 2022)  
Alexis Reifsteck (MS Biology, December 2024)  
Daphne Miles (MS Biology, August 2025)  
Ophelia Pettington (planned March 2026)  
Benjamin Cooper (planned May 2027)  
Indigo Tran (thesis in prep)  
Hannah Whaley (thesis in prep)

*Graduate Committee service (MS thesis):*

Samantha Meilink (MS Biology, December 2018)  
Amanda Coleman (MS Biology, August 2019)  
Ethan Hollender (MS Biology, May 2019)  
Tessa Middleton (MS Chemistry, December 2020)  
Ethan Rasset (MS Biology, May 2023)  
Wesley Smith (MS Biology, August 2024)  
Lyndsey Rightnowar (MS Biology, August 2025)  
Jordan Murray (current)  
Tabitha Moul (current)  
Christine Karn (current)

*Undergraduates supervised in the laboratory:*

Missouri Louis Stokes Alliance for Minority Participation (MoLSAMP) fellows: Jaslyn Johnson (2024-2025), Teresa Aguayo (2019-2020).

*Work-study students (undergraduates):* Emma Fonke (2019-2021), Sarahi Vera (2019-2020), Lauren Hutcherson (2023-2024).

*Independent research:* Madison Gurski (2016-2018), Jordan Heiman (2016-2019), Leslie Hatch (2017), Indigo Tran (2017-2019), Hannah Whaley (2018-2020), Tory Lydy (2019-2020), Deanna Means (2018-2019), Abigail Giering (2019-2020), Daphne Miles (2021-2023), Malachai Frisby (2021-2023), Anna Faust (2022-2025), Riley Talbert (2024-2025), Sarah Guymon (2023-present), Kendal Tavares (2023 – present), Teresa Kruit (2025-present), Riley Cook (2025-present).

*Other undergraduate lab members:* Chet Hall and Lauren Griffin (2017); Britt Masters and Mitchell Canada (2018); Kaitlyn Hui, Nicholas Barry and Tarkesia Blakely (2019); Amanda Heider, Brianne Edwards, Josh Jarvis, and Matt Keese (2020); Elizabeth Harris, Lia Biriwitz, and Morgan Burks (2021); Elizabeth Carrell (2020-2021); Jessica Stokesberry (2022-2023); Samuel Booth and Emily Holly (2024); Benjamin Cooper (2024-2025); Anna Schwarm and Alex Geeslin (2025-present).

*Undergraduate advisees:* advised an average of 30 students per semester. Met with students at least once a semester to discuss class schedules, degree requirements, and internship/career/graduate school opportunities.

Teaching and mentoring at North Dakota State University (2008-2016):

*Courses taught:*

General Biology I (2015-2016)  
Science of Learning (2015)  
Environmental Science (2012-2014)

General Biology I Lab (2008-2010)

*Undergraduates supervised in the laboratory:*

Carolyn Mauricio and Stephanie Franco – Nurturing American Tribal Undergraduate Research and Education (NATURE) Program, North Dakota State University, 2007.

*Independent research:* Joshua Borchardt (2010), Alex Yellick (2010), Emily Fischbach (2011), Candace Kraft (2011), Ryan Sullivan (2010-2011), Hannah Passolt (2011-2013), Nicholas Peterson (2012), Melissa Tracy (2013-2014), Courtney Bennett (2015), Trevor Deere (2016), Meghan O'Brien (2016).

*Undergraduate lab volunteers:* 22 students from 2010-2013.

## **UNIVERSITY, PROFESSIONAL, AND PUBLIC SERVICE**

**University Committees:** Environmental Biology and Evolution Curriculum, Greenhouse Committee, College Council (Chair), Peer Teaching Evaluation Development Committee, BIO 110 Course Coordinator.

**Professional Committees:** Society of Wetland Scientists Human Diversity Committee.

**Community outreach:** Community Partnership of the Ozarks International Institute (2019), George Washington Carver Aquatic Bioblitz (2018), George Washington Carver Annual Prairie Day (2017-2019), Missouri State University Majors Fair (2016-present).

**Conference mentor:** Society of Wetland Scientists Multicultural Mentoring Program (SWaMMP) (2013, 2018, 2019, 2022), Joint Aquatic Sciences Meeting (JASM) (2022).

**Discussion panels:** Missouri State University Student Activities Council Women's HerStory Month Panel (2022), Society of Wetland Scientists Minority Mentoring Program Career Panel (2018, 2019, 2021), Science Friday Women in Science Panel (2018), Armchair University Science Series (2017), Missouri Native Plant Society Meeting (2017), American Fisheries Society – Missouri State University Student Chapter Meeting (2017).

**Peer reviewer of scientific journals:** Annales de Limnologie - International Journal of Limnology; Chemical Speciation & Bioavailability; Environmental Science and Pollution Research; Environmental Toxicology, Florida Scientist; Journal of Inland Waters; Journal of Great Lakes Research; Limnology; Plant and Soil; Plant Physiology and Biochemistry; Prairie Naturalist; Wetlands.

**Student poster and presentation judge:** MSU Einhellig Interdisciplinary Forum (2024-2025), Joint Aquatic Scientists Meeting (2022), Society of Freshwater Scientists Annual Meeting (2021), Society of Wetland Scientists Annual Meeting (2018, 2021, 2022), Great Plains Limnology Conference (2019-2020), Ozarks Science & Engineering Fair (2017-2018), NDSU Office of Multicultural Programs Summer STEM internship program (2013-2014).

**Workshop and Webinar host:** Society of Wetland Scientists Monthly Webinar (2021-2023), GLADE Youth Conservation Leadership Academy (2019), NDSU Avenues of Science Discovery (2015), Ordination Methods in CANOCO (2014), Expanding Your Horizons Science Workshop (2012, 2013, 2014, 2016), Minnesota Wildlife Society Shallow Lakes Workshop (2013).

## **PROFESSIONAL MEMBERSHIPS**

Aquatic Plant Management Society, Great Plains Limnological Society, Sigma-Xi, Society for Freshwater Science, Society of Wetland Scientists.