
Chironomid Taxonomist, Aquatic Biology Associates & Tethysphere Biodiversity Research
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Barbara Hayford
Curriculum Vita

Professional Preparation

Metropolitan State College, Denver, Biology and English, BS
Colorado State University, Pueblo, Applied Natural Science, MS
The University of Kansas, Entomology, Ph.D.

Graduate and Postdoctoral Advisors (With gratitude)

MS: Scott Hermann and Jim Sublette, Colorado State University, Pueblo
PhD: Leonard Ferrington, Jr. University of Kansas
Postdoc: Don Huggins, Kansas Biological Survey (note, this developed into an Assistant Director position)

Academic and Research Appointments

2024-present	Chironomid Taxonomist, Tethysphere and Aquatic Biology Associates, Ocean Shores, WA 98569
2018-present	Research Affiliate, Division of Biological Sciences, University of Montana, Missoula, MT, 59812
2018-present	Research Affiliate, Rhithron Associates, Inc., Missoula, MT, 59804 Invertebrate taxonomist/Research Affiliate, Rhithron Associates, Inc., Missoula, MT, 59804
2000-04, 2007-18	Associate Professor to Full Professor of Life Sciences, Wayne State College, Wayne, NE 68787
2005-2007	Assistant Professor of Biology, Chadron State College, Chadron, NE, 69337
2004-2005	Assistant Project Scientist, Aquatic Ecosystems Analysis Laboratory, John Muir Institute for the Environment, UC Davis, Davis, CA 95616

Leadership Appointments

2022-2023	Director – Executive Director Coastal Interpretive Center, Ocean Shores, WA 98569
2008-2015	Director, A. Jewell Schock Museum of Natural History, WSC, Wayne, NE 68787.
1998-2000	Assistant Director, Central Plains Center for BioAssessment, Kansas BioSurvey, Lawrence, KS, 66047.

Museum and Outreach Appointments

2021-2022	Events and Programming Specialist, North Valley Public Library, Stevensville, MT 59870
2000-04, 2007-18	Curator, A. Jewell Schock Museum of Natural History, WSC, Wayne, NE 68787

Field Experience

USA: Washington (Olympic Peninsula, 2022-present), Montana (Intermountain region, 2018-present), Nebraska (Pine Ridge, Sand Hills, 2003-2018), California (San Joaquin and Sacramento River watersheds, 2004, 2005), Central Plains (1993-1999), Colorado (1989-1992); MONGOLIA (Summer 1995, 1997, 2003, 2004, 2005, 2009, 2010); TASMANIA (Summer 1996); PANAMA (Spring 1995).

Memberships in Professional Organizations

Society for Freshwater Science, SFS Pacific Northwest Chapter, The Dipterists Society, Central States Entomological Society

Grants (I like to write grants)

75% success rate (=30 out of 40 proposals funded)

\$4 million + in funding for basic and applied research, service-learning, education and outreach

National Science Foundation, EPA, USFS, Nebraska Department of Education, others

Peer Reviewed Publications (Heading toward 50 papers, thanks to my amazing collaborators. Here are some publications from the last 10 years).

- Fassbender, A., R. Spring, **B. Hayford**. *Accepted, In Revision*. Description of *Parakiefferiella ferringtoni* with discussion of relationships within the *Parakiefferiella* group, *Chironomus: Journal of Research on Chironomida*.
- Blomstrom, S, **B. Hayford**, J. Detore-Nakamura. *In Press*. Student engagement in listening strategies impacts self-evaluation of academic achievement and personal life. *International Journal of Listening*. <https://doi.org/10.1080/10904018.2025.2491306>
- Herrmann, S.J., J.E. Sublette, and B.L. Hayford. 2024. Limnological characteristics of, and ecology and diversity of Chironomidae (Insecta: Diptera) from, high alpine lakes of the Sangre de Cristo Range, Colorado, USA. *Western North American Naturalist*. 84(4): 478-505. <https://doi.org/10.3398/064.084.0406>.
- Bouchard, R.W., Jr., **B. Hayford**, L.C. Ferrington, Jr. 2022. Diversity of Chironomidae (Diptera) along a salinity gradient in lakes of the endorheic Great Lakes region of western Mongolia. *Hydrobiologia*. <https://doi.org/10.1007/s10750-022-04856-2>
- Bouchard, R.W., Jr, **B. Hayford**, and L.C. Ferrington, Jr. 2022. *Chironomus gelhausi*, a new species of surface-mating *Chironomus* Meigen, 1803 (Diptera: Chironomidae) from Mongolia. *Zootaxa* 5116 (1):123–135. <https://doi.org/10.11646/zootaxa.5116.1.6>.
- Yadamsuren, O., Ch. Suvdtsetseg, E. Sanaa, **B. Hayford**, and C. Goulden. 2022. Effects of grazing on taxonomic and functional diversity of benthic macroinvertebrates of six tributary streams of the eastern shore of Lake Hövsgöl, Mongolia, *Inland Waters*. JA, 1-36. <https://doi.org/10.1080/20442041.2022.2099218>
- Erdenee, B. A. Maasri, J.K. Gelhaus, **B. Hayford**, J.H. Thorp, and N.E. Kotlinski. 2021. Comparison of streamflow patterns in drainages of two major terminal basins: the United States Great Basin and Mongolia's Central Asian Internal Drainage. *Inland Waters*, DOI: [10.1080/20442041.2021.1956269](https://doi.org/10.1080/20442041.2021.1956269)
- **Hayford, B.**, T. Forster, V. Patel, and C. Chaboo. 2021. Aquatic flies (Diptera) in phytotelmata of Neotropical Zingiberales plants. *Journal of Natural History*. 54:43-44, 2815-2838, DOI: [10.1080/00222933.2020.1871522](https://doi.org/10.1080/00222933.2020.1871522)
- Thorp, J.H., C.J. Robbins, W.K. Dodds, A.Maasri, E.R. Arsenault, J.A. Lutchen, G.S. Mathews, F. Tromboni, **B. Hayford**, M. Pyron, A. Schechner, and S. Chandra. 2021. A Framework for Lotic Macrosystem Research. *Ecosphere*. 12(2). <https://doi.org/10.1002/ecs2.3342>
- Yadamsuren, O., J.C. Morse, **B. Hayford**, J.K. Gelhaus and P.H. Adler. 2020. Macroinvertebrate community responses to land use: a trait-based approach for freshwater biomonitoring in Mongolia. *Hydrobiologia*, 847(8): 1887-1902. <https://doi.org/10.1007/s10750-020-04220-2>
- Maasri, A., **B. Hayford**, B. Erdenee, and J. Gelhaus. 2018. Macroscale drivers influencing the structural and functional organization of stream macroinvertebrate metacommunities: potential role of hydrological connectivity. *Freshwater Science*, 37(1): 159-168.
- **Hayford, B.**, C. Wessel, and J. Wimmer. 2018. Patterns of diversity and community structure of non-biting midges (Diptera: Chironomidae) support a targeted landscape approach of Nebraska's State Wildlife Action Plan. *Great Plains Research*. 28(1): 25-38.

- Jurotich, M.M., **B. Hayford**, K.M. Dougherty, S. Clark. 2017. Linking Taxonomic Diversity and Trophic Function: A Graph-Based Theoretical Approach. *Transactions of the Nebraska Academy of Sciences* 37, pp. 47–53. <http://digitalcommons.unl.edu/tnas/512/>
- **Hayford, B.L.**, A. Caires, and S. Chandra. 2016. A Tale of Three Lakes: A Comparison of Biodiversity between Lake Tahoe and Crater Lake, USA, and Lake Hövsgöl, Mongolia. *Mountain Views: Brevia*. 10(1): 37-42.
- Caires, A., S. Chandra, **B. Hayford**, and M. Wittmann. 2016. Deep Trouble: The Dramatic Loss of Benthic Invertebrates at the Bottom of Lake Tahoe. *Mountain Views: Brevia*. 10(1): 33-36.
- **Hayford, B.**, A. Caires, S. Chandra, and S. Girdner. 2015. Patterns in benthic biodiversity link lake trophic status to structure and potential function of three large, deep lakes. *PLOS One* 10(1): e0117024. doi: 10.1371/journal.pone.0117024
- **Hayford, B.**, S. Blomstrom, and L. Mumpower. 2015. Formation and Evaluation of a Tool to Evaluate STEM Literacy in Service-learning Projects. *Journal for Excellence in College Teaching*. 26 (4):73-101.
- Oyunchuluun, Y., J. Gelhaus, **B. Hayford**, L. Ariuntsetseg, C. Goulden, S. Podenas, and V. Podeniene. 2015. Declines in diversity of crane flies (Diptera: Tipuloidea) indicate impact from grazing by livestock in the Hövsgöl region of Mongolia. *Journal of Insect Conservation*. DOI 10.1007/s10841-015-9767-4
- **B. Hayford**, R. Newell, and Z.J. Crete. 2014. Survey of Chironomidae from the Kuskokwim River watershed in western Alaska. *Western North American Naturalist*. 74(2): 208–215
- **B. Hayford**, S. Blomstrom, and B. DeBoer. 2014. STEM and Service-learning: Does Service-learning Increase STEM Literacy? *The International Journal of Research on Service-Learning and Community Engagement*. 2(1): 32-43.

Selected Scientific Presentations (So many, like over 70! Here are just a few).

(Oral Presentations unless otherwise noted, * indicates undergraduate coauthor)

- **Hayford, B.** and R.W. Bouchard. 2024. Review of the Use of Chironomid Surface-Floating Pupal Exuviae in Bioassessment. Annual Meeting of the Society for Freshwater Science, Pacific Northwest Chapter, November 2024, Olympia, WA. USA.
- **Hayford, B.**, M Jurotich, and R. Davey. 2023. Bioassessment of Ocean Shores' Freshwater Ecosystems Based on Chironomid Communities. Annual Meeting of the Society for Freshwater Science, Pacific Northwest Chapter, November 2023, Hood River, OR, USA.
- **Hayford, B.** and RW Bouchard, Jr. 2022. Diversity of Chironomidae (Diptera) from Saline and Freshwater Lakes in a Grass-Stabilized Sand Dune Region of North America. 21st International Symposium on Chironomidae. Tsukuba, Japan, Remote.
- Hogerhuis, D. N. Eldridge, **B. Hayford**. 2022. Lemonade from Lemons: CIC remodel & exhibit gallery project. Annual meeting of the Washington Museum Association, Olympia, Washington.
- Tromboni F., Arsenault E., Boldgiv B., Bowes R., Chandra S., Costello J., Dash T.R., Dodds W.K., Erdenee B., Gelhaus G., **Hayford B.**, Kenner S.K., Maasri A., Pyron M., Schechner S., Thorp J.H. 2022. Hierarchical functioning of river macrosystems in temperate steppes – from continents to hydrogeomorphic Patch Scales. Annual Meeting of the Society for Freshwater Science, Grand Rapids, Michigan.
- **Hayford, B.**, R. Spring, and A. Fasbender. 2019. Chironomidae of the Pacific Northwest: taxonomic needs and new records. Annual Meeting of the Pacific Northwest Society for Freshwater Science, Newport, Oregon.
- **Hayford, B.**, S. Clark, M. Jurotich, and J.K. Gelhaus. 2019. Linking variables across different scales in river macrosystems research: a graph-based theoretical approach. Annual Meeting of the Pacific Northwest Society for Freshwater Science, Newport, Oregon.
- **Hayford, B.**, K. Dougherty, A. Maasri, B. Erdenee, and J.K. Gelhaus. 2019. Variation of functional redundancy between functional process zones in western North American streams. Annual Meeting of the Society for Freshwater Science, Salt Lake City, Utah, USA

- **Hayford, B.** 2019. The Theory and Practice of Studying Large Lakes as Macrosystems. Montana Aquatic Research Colloquium, Annual meeting, Flathead Lake Biological Station.
- Hansen, K*, B. Hansen*, **B. Hayford**, and G. Zardenata. 2018. Implications for human health of nitrosylation of cytosolic and membrane proteins of *Chironomus dilutus*. Annual Meeting of the Nebraska Academy of Sciences. Lincoln, NE.
- **Hayford, B.** and C. Chaboo. 2017. Diptera associated with Neotropical Zingiberales phytotelmata. Annual meeting of the Entomological Collection Network, Denver, CO.
- Clark, S., K. Dougherty*, **B. Hayford**, and M. Jurotich*. 2017. Graph theoretic analysis of taxonomic and functional diversity as related to stream ecosystem condition. Annual Meeting of the Nebraska Academy of Sciences. Lincoln, NE.
- *Dougherty, K. Clark, S. Jurotich*, M. and **B. Hayford**. 2017. From Graph Theory to Multidimensional Analysis: A Functional Approach to Stream Ecosystem Condition. Mathematics on the Northern Plains. Annual Conference. Augustana University, South Dakota.
- **Hayford, B.** and K. Faltys*. 2016. Macroinvertebrate diversity and community structure in alkaline wetlands of the Nebraska Sandhills. Natural Legacy Conference, Broken Bow, Nebraska
- **Hayford, B.**, R.W. Bouchard, and L.C. Ferrington, Jr. 2016. Lakes in Drylands: Variation in chironomid communities in western Mongolia Lakes. Annual meeting of the Society for Freshwater Sciences, Sacramento, CA.
- Blomstrom, S. and **B. Hayford**. 2015. STEM Literacy. International Higher Education Teaching and Learning Conference. Orem, Utah.
- Blomstrom, S., L. Mumpower, **B. Hayford**, and A. Bobinsky*. 2015. Multiple Perspectives Community Engagement Assessment Model. Meeting of the International Association for Research on Service Learning and Community, Engagement. Boston, MA, 16-18 November.
- **Hayford, B.** 2015. Influence of grazed riparian vegetation on aquatic insects in Western Mongolia. Annual meeting of the Ecological Society of America. Baltimore, MD, 9-14 August.
- Boldgiv, B. O. Jensen, and **B. Hayford**. 2015. Ecosystem Science in Mongolia: Past Research and Future Prospects Under a Regime of Increasing Environmental Impacts. Special Session: Annual meeting of the Ecological Society of America. Baltimore, MD, 9-14 August.
- **Hayford, B.**, W. Mausbach*, and K. Faltys*. 2015. Macroinvertebrate diversity in Nebraska's Biologically Unique Landscapes. Natural Legacy Conference. Kearney, Nebraska, 28-29 September.
- **Hayford, B.**, A. Caires, and S. Chandra. 2014. Environmental stressors influence spatial variation of macroinvertebrate communities in the nearshore zone of Lake Tahoe. Annual meeting of the Society for Freshwater Sciences (Joint annual meeting with Association for the Sciences of Limnology and Oceanography, Phycological Society, and Society of Wetland Sciences). Portland, OR, 22 May.
- **Hayford, B.**, B. DeBoer, and S. Blomstrom. 2013. STEM and Service-Learning: Does Service-Learning Increase STEM Literacy? International Association for Research on Service-Learning and Community Engagement 13th Annual Conference, November 6-8, 2013, Omaha, NE
- Faltys*, K. and **B. Hayford** 2013. Comparison of midge communities from saline and non-saline lakes of the Nebraska Sandhills. Annual Meeting of the Nebraska Wildlife Society. Chadron, NE.

Production Taxonomy, 2018-2021, 2024-Present

General Arthropods: 230 samples, 100 individuals/sample, 23,000

Chironomidae: 4340 samples, 175 individuals/sample, 786,500

Chironomidae: outside of production taxonomy, 42,000

Periphyton: 243 samples, 400 individuals/sample, 97,200

Zooplankton: 131 samples, 300 individuals/sample, 39,300

Environmental Education and Outreach (Creation and/or participation in service, team building, partnership organization)

- Coastal Interpretive Center, TPACEM (Tidal Pool and Coastal Erosion Monitoring Program), 2022-Present
 - Collaborators: City of Ocean Shores, WA DNR, Grays Harbor County Marine Resources Committee
 - Participants: Community scientists
- Coastal Interpretive Center, Summer Program, 2022-Present
 - Collaborators: City of Ocean Shores
 - Participants: Open to the public
- Coastal Interpretive Center, Education Program Events, 2022-Present
 - Collaborators: Grays Harbor Stream Team, Grays Harbor Youth Works, Grays Harbor YMCA
 - Participants: Open to schools and other educators in Western Washington
- Green Crab Monitoring, Ocean Shores, Washington, 2022-present
 - Collaborating under the direction of Washington Sea Grant Crab Team
 - Participants: Staff and volunteers of the Coastal Interpretive Center
- IKES Lake Family Outdoor Day, annual event, 2015-2017
 - Host: Izaak Walton League, Wayne Chapter
 - Participants: Open to the community
- Water Bugs Activity, annual event, 2010-2017
 - Host: Missouri River Expo
 - Participants: Fifth grade students from Northeast Nebraska, Northwest Iowa, and Southeast South Dakota.
- Stream Ecology for Continuing Educations (Teachers), annual event, 2011-2017
 - Host: Nebraska Legacy in Environmental Education Discovery, Nebraska Game and Parks
 - Participants: Teachers
- IKES Lake Fishing Derby, annual event, 2008-2010
 - Host: Izaak Walton League, Wayne Chapter
 - Participants: Open to the community
- Bazile Creek Biomonitoring, 2004, 2007-2009
 - Organized and Conducted with Partners: Northeast Nebraska RC&D
 - Participants: General Citizens, Members of RC&D, Student Volunteers
- Outdoor Education, 2005-2006
 - Organized and Conducted with Partners: Chadron Area Teachers, U.S. EPA
 - Participants: Area Middle School Students
- Content expert and community partner for digital tours, Embry-Riddle Aeronautical University for the AJSMNH, WSC. Review between 20-90 tours a semester twice (2012-2019)

Creative Products

Published Scientific Illustrations

- Alexander, D. 2000. *Nature's Flyers: Birds, Insects, and the Biomechanics of Flight*. The Johns Hopkins Press. Maryland. 384 pp.
- Mangano, G., L. Buatois, C. Maples, and W. Lanier. 1998. *Tongonoxichnus* gen. nov. A new trace fossil from the upper Carboniferous of Eastern Kansas. *Lethaia*.

Exhibits

- Hayford, B., L. Caldwell, and R. Davey. 2022-2023. Skull Evolution and Morphology. Coastal Interpretive Center, Ocean Shores, WA.
- Caldwell, L. and B. Hayford. 2022-present. Damon Point. Habitat Exhibit, Coastal Interpretive Center, Ocean Shores, WA.

- Hayford, B L. 2017-present. "Conservation Biology". Lobby, Second floor, Carhart Science Building, Wayne State College.
- Hayford, B.L. and K. Dilliard, curators. 2016 "Facing up to Beetles: An Entomologist's Perspective." Traveling exhibit, co-curators: CS Chaboo, University of Nebraska State Museum & M. Darby, British Museum. Contributing artists: Sara Taliaferro, Happy Beetle Studio & Tierney Brosius, Augustana College, Illinois. Wayne State College, 3 October-18 December.
- Evolution and the Geologic History of Earth. 2012-2015. Natural History Exhibit in collaboration with Mark Hammer, Kelly Dilliard, and Ronald Loggins. A. Jewell Schock Museum of Natural History, Wayne State College, Wayne, NE.
- Evolution and Diversity of Life on Earth. 2008-2011. Natural History Exhibit. A. Jewell Schock Museum of Natural History, Wayne State College, Wayne, NE.

Graphic Design (Freehand, Adobe Illustrator, Adobe Photoshop, Canva)

- Managed and executed graphic design needs for the Coastal Interpretive Center
 - Event posters
 - Program and event calendar posters
 - Brochures, Center Brochure, Outdoor Exhibits Brochure, Weatherwax Brochure
 - Annual report layout and design
 - Collaborated with COMIT group on graphic design for website and Giving Tuesday campaign
- Managed and executed graphic design and web needs for the Central Plains Center for Bioassessment
 - Website design management and oversight
 - Brochure
 - Logo, Central Plains Center for Biodiversity

Art

1. Conservation Biology Exhibit. 2017-present. Two pieces: "Swallowtail and Coneflower", mixed media; "Milkweed", mixed media. Carhart Science Building, Wayne State College, Nebraska, USA.
2. Under 200. 2017. Open call exhibition. 3 pieces: "Early Snow", pen and ink; "Multiverse", mixed media; "South Logan Creek Gothic", oil pastel. Blue Cat Gallery, Wayne, Nebraska. USA.
3. Art in the park. 1998. Two pieces: "Cat Conversation", pastels; "Aspen Boles", colored pencil on board. Open call annual exhibition. Lawrence, Kansas, USA.
4. Campus exhibit. 1995. Open call exhibition, One piece, "Dinky", ink stippling. University of Kansas, Lawrence, Kansas, USA.
5. Colorado State Fair. 1990. Juried exhibition. One piece, "The Trees Have Eyes", acrylic painting, 3rd place. Pueblo, Colorado, USA.

Poetry

- "Wetland Archipelago", 2020. *Tiny Spoon*, online literary journal
- "An honor". 2018. *Chiron Review*, St. Johns, Kansas
- "Outdoors with Olaf". 2018 *Chiron Review*, St. Johns, Kansas
- "Organic". Submitted. 2018. *Chiron Review*, St. Johns, Kansas
- "Death haunts a woman". 2001. *Judas Goat*. Wayne State College Press, Wayne, NE.
- "Grandma" 1990. *Pen and Palette*. University of Southern Colorado Press, Pueblo, CO
- "Dream" 1990. *Pen and Palette*. University of Southern Colorado Press, Pueblo, CO

Service

Service-Learning (Team building, partnership organization, service, and pedagogy) Service-learning, both a service and a pedagogy (2000-2004, 2005-2018, 2022-present).

- Museum Content and Displays, 2012-2018
 - Community Partner: The A. Jewell Schock Museum of Natural History
 - Participants: Biology Concepts and Evolution Classes
- IKES Lake Outdoor Education, 2008-2015

- Community Partner: Izaak Walton League, Wayne Chapter
- Participants: Biology Seminar: Biomonitoring Class, Environmental Concerns Class, Freshwater Invertebrate Zoology Class, Third Grade Teachers at Wayne Elementary School, Nebraska Game and Parks Commission, Wild Turkey Federation, Parents
- Public Brochures on Safe Disposal of Pharmaceuticals, 2011
 - Community Partner: City of Wayne, Wayne State College,
 - Participants: Environmental Studies Class, Kathy Mohlfeld and the Wayne Counseling Center, WSC health center, Northeast Nebraska Department of Public Health
- Science Fair Judging, Introduction to Research, 2007-2010
 - Community Partner: Wayne Community Schools
 - Participants: Introduction to Research Class
- Painting and Maintenance of Park Structures, 2007
 - Community Partner: Ponca State Park
 - Participants: Biology Concepts Class, Wayne State College
- Bioassessment White River and Chadron Creek, 2005-2006
 - Community Partner: City of Chadron
 - Participants: Fish Biology Class, Chadron State College
- Bluebird Trail, Chadron State College, 2005-2006.
 - Community Partner: Bluebirds Across Nebraska, Chadron Chapter
 - Participants: Zoology Class, Chadron State College
- Campus recycling, 2000-2004
 - Community Partner: Wayne State College
 - Participants: Environmental Concerns Class, Wayne State College
- Bioassessment of South Logan Creek, 2002
 - Community Partner: City of Wayne
 - Participants: Limnology Class, Wayne State College

College Committees

- Coordinator, assessment design and analysis for the Department of Life Sciences (2010-2018)
- One percent for art campus community committee (2015-2016)
- Mathematics faculty search committee (2015-2016)
- President's Council on Diversity, Wayne State College (2014-2016)
- Library Committee member (2012-2014)
- WSC Assessment Oversight Committee (2012-2014)
- Dean of the School of Natural and Social Sciences, search committee, WSC (2009-2010)
- Environmental Health Team for the All Hazards Planning and Response Task Force of the Northeast Nebraska Partnerships for Healthy Communities (2008-2010)
- Safe Pharmaceutical Disposal Committee, WSC, (2008-2009)
- General Education Committee, Wayne State College (2007-2010)
- INBRE Steering Committee member representing Chadron State College (2007)
- International Students Committee (CSC Presidential Committee) (2006- 2007)

Social Media

- Society for Freshwater Science, Pacific Northwest Chapter. Facebook, Instagram, LinkedIn. Posted 2023-present.
- Coastal Interpretive Center. Facebook, Instagram, and Twitter. Maintained and posted 2022-2023
- Jewell Schock Museum of Natural History. Website. Originated site and maintained from 2008-2012
- Jewell Schock Museum of Natural History. Facebook site, twitter. Originated sites and maintained from 2014-2018
- MACRO rivers. Facebook site. Originated site and maintained from 2015-2017, 2019-2020
- Tethysphere. Website and Facebook sites. Originated sites and maintained from 2018-present

Service to Discipline

- Special session co-organizer, Ecology and taxonomy of Chironomidae (Diptera): A memorial session to honor Leonard C. Ferrington, Jr., Society for Freshwater Science Annual Meeting, 2023-2024.
- Field meeting co-chair (with Andrew Fassbender), North American Dipterist Society (2022-2024).
- Meeting Planning Committee, Society for Freshwater Science, Pacific Northwest Chapter (2022-present)
- Associate editor, *Chironomus: Journal of Chironomidae Research* (2019-2020)
- Session Chair, Environmental Science session, Nebraska Academy of Sciences (2016-2018)
- At-large board member, Nebraska Chapter of the Wildlife Society (2016-2017)
- Session co-organizer with Olaf Jensen and lead organizer Bazartseren Boldgiv. Special Session #10756, "Ecosystem science in Mongolia: past research and future prospects under a regime of increasing environmental impacts. " 100th ESA Annual Meeting (August 9 -- 14, 2015)
- Organizer, co-chair, session on Mongolian Aquatic Research, NABS/ASLO mtg (2010)
- Nomination Committee, Central States Entomological Society (2004)

Funding Panels

- National Science Foundation, Directorate of Environmental Biology, three panels: Systematics and Biodiversity and Biotic Surveys and Inventories

Proposal Reviews

- National Geographic research grants
- National Science Foundation
- Nebraska Environmental Trust

Journal Reviews

Ad hoc reviewer for *Aquatic Insects*, *Chironomus: Journal of Chironomidae Research*, *Conservation Biology*, *Environmental Earth Sciences*, *Environmental Entomology*, *Freshwater Ecology*, *Freshwater Science*, *Great Plains Research*, *Hydrobiologia*, *Inland Waters Limnology*, *Insects Journal of the Kansas Entomological Society*, *Water*, *Western North American Naturalist*

Graduate and Undergraduate Students (Working directly with students on research was one of the best parts about working in academia!)

Doctoral student committee

- Bolortsetseg Erdenee (PhD) 2019-2022. External Member, Academy of Natural Sciences of Drexel University. The response of macroinvertebrates to flow regimes in temperate steppe rivers.

Undergraduate Honors

- Kaitlyn Dougherty, 2017. From Graph Theory to Multidimensional Analysis: A Functional Approach to Stream Ecosystem Condition. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation. Co-advised with Sally Clark.
- Rachel Bukoskie of Elkhorn. 2017: Macroecosystem Comparison of Non-Biting Midge Taxonomic and Functional Trait Diversity Between the Hovsgol Region of Mongolia and the Pine Ridge Region of Nebraska. Honor's Thesis. Wayne State College Fall 2017 Honors Colloquium.
- Wimmer, Jessica. 2010. Honors thesis. Correlation between visual estimates and measured range community dynamics along riparian zones of streams in Mongolia.

Undergraduate Research (30+ theses, here are a few recent ones before I moved on from academia)

- Meghan Krajicek. 2018. Occurrence of disease vector mosquitoes in Neotropical phytotelmata.
- Rachel Bukoskie, 2017. A comparison of Chironomidae (non-biting midges) between the Darhod and Hovsgol regions of Mongolia and the Pine Ridge region of Nebraska. WSC

Senior Research Thesis, Undergraduate Research Symposium, Wayne State College
Department of Life Sciences. Poster

- Marty Kreitman, 2017. Variation in Fish Assemblages of Nebraska Streams Based on Physical, Chemical and Functional Trait Constraints. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation.
- Jaelyn Lewis. 2017. Nitrosylation of Proteins in *Chironomus dilutus*: Toxicity and Protein Modification Analysis. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation. Co-advised with Gustavo Zardeneta.
- Zach McPhillips. 2015. Comparison of Sedimentation in Two Streams and their Macroinvertebrate Communities. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation.
- Sarah Plessing. 2015. *Chironomus dilutus* Response to Nitrites. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation. Co-advisor G. Zardeneta.
- Alisha Rewinkel. 2014. A Seasonal Distribution of Sediments of Willow Creek. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation. Co-advisor K. Dilliard
- Macy Diel. 2014. Benthic Macroinvertebrate Sampling Methods for Sandy-Bottom Streams. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation.
- Kaylee Faltys. 2014. Spatial patterns in macroinvertebrate communities from saline wetlands and lakes of the Nebraska Sandhills. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation.*
- William Mausbach. 2012. Large branchiopods of the Nebraska Sandhills. LSBI Senior Research Thesis/ Undergraduate Research Symposium Presentation.*
- Tim Catlett. 2012. Changes to proteins in bloodworms (Diptera: Chironomidae: Chironomini) resulting from exposure to pesticides. Co-advised with Gustavo Zardeneta.