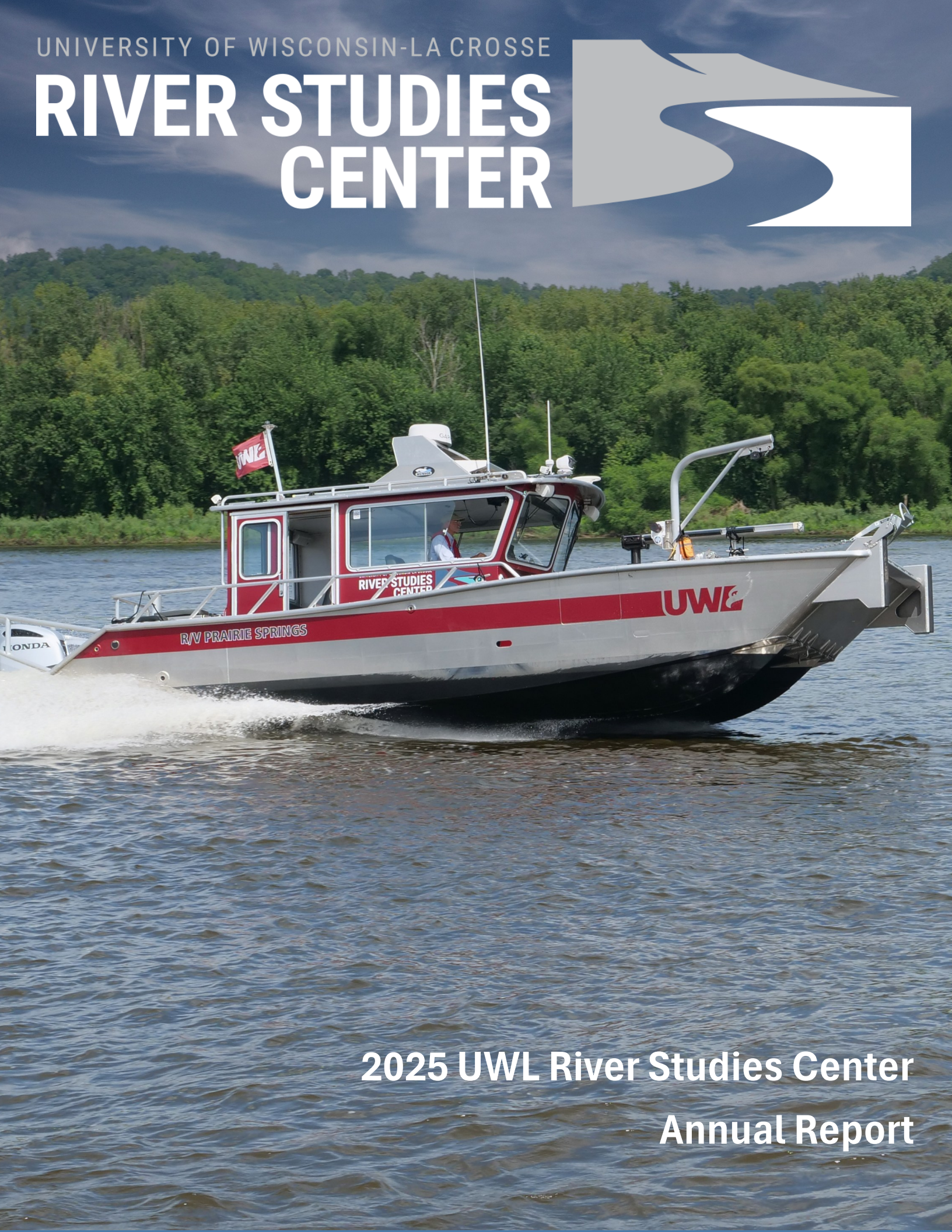
UNIVERSITY OF WISCONSIN-LA CROSSE

RIVER STUDIES CENTER



2025 UWL River Studies Center Annual Report

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DIRECTOR'S MESSAGE

I would venture a guess that a review of this report or any other assessment of the River Studies Center (RSC) at UW-La Crosse would conclude that the RSC is a diverse and collaborative collection of individuals connected by a common interest in the Upper Mississippi River or similar environments. The strength of the Center draws from its legacy of continually engaging with students and expanding its membership while encouraging the many different ways they stake value in or study these systems. While historically not always the case, our current broad interests span across multiple academic disciplines within the humanities and sciences.

As I was pondering about what I wanted to relay in this message, I began to reflect back on the many years I have been associated with RSC starting in 1999 when I began my U.S. Geological Survey (USGS) post-doc (but officially appointed at UWL). I thought about the Center's many research accomplishments, its dedicated leadership, the faculty members, and of course, the students. From my somewhat limited perspective, I recalled stability. There was of course the expected constant fluctuation of personnel and research interests, but, in general, there was a comfortable stability.

The RSC has a remarkable fifty-plus year history of conducting and communicating river-related science. Along the way, RSC has steadily grown in size, fostered partnerships, trained scientists, and advocated for healthy ecosystems. That is the foundation to where we are today, but it's easy to recognize that the RSC is currently now in a period of rapid change. This seems fitting because in many instances, river and stream ecosystems also experience long periods of relative stability that are interrupted by sudden, transformative events such as major floods, dam construction or removal, pollution, legislation, invasive species, or climate-driven shifts in precipitation.

Many of the recent changes in the RSC are highlighted in this report, but a quick listing would include our newly drafted mission and vision statements and the instillation of our first-ever governing bylaws. These new bylaws led to a transition from appointed to elected leadership and the initiation of a Leadership Team to increase the capabilities of the Center and to increase our ability to respond to the rapidly changing landscape in which we are operating. Two other major changes stem from very generous gifts—the Rada Endowed Fellowships in River Studies and our new flagship vessel, R/V Prairie Springs. In an effort to refocus our direction following these recent developments, we engaged in a strategic planning session to find areas and that will best support and promote our new mission and vision.

As I look forward, optimism and excitement best describe what I see. With an engaged and expanding membership, strong support from the University, truly great partnerships, and increasing resources only good things are on the horizon.

— Dr. Eric Strauss, Director

RIVER STUDIES CENTER MISSION STATEMENT

The RSC recognizes that the Upper Mississippi River (UMR) and all freshwater ecosystems are vital to the environmental, cultural, and economic health of the nation. Our mission is to conduct and collaboratively support research, creative activities, public outreach, and other endeavors related to the UMR and its connected ecosystems. Our central efforts are to:

- Prepare future scholars and professionals by creating experiential learning opportunities related to river systems
- Engage professional partners and community members in river-related research and other activities
- Contribute to the protection and promotion of freshwater ecosystems

We appreciate the value of bringing professionals together, including RSC members, state and regional partners, and national/international audiences in a spirit of inclusive excellence.

RIVER STUDIES CENTER VISION STATEMENT

We aim to foster within our members the curiosity, creativity, and expertise necessary to employ multidisciplinary approaches to address state, regional, and national challenges related to river systems. To optimize our ability to support the RSC mission, we will focus on the following strategic priorities:

- Increase the visibility of the RSC as a national and community leader in river research and engagement
- Strengthen existing and develop new partnerships
- Support and strategically expand RSC membership
- Build the philanthropic base that supports the RSC mission
- Develop clear roles for student involvement and a high level of engagement among RSC students

MEET THE RSC LEADERSHIP TEAM

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RSC VOTING MEMBERS 2024/2025

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Associate Professor
Microbiology

Joan Bunbury
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Gargi Chaudhuri
Professor
Geography & Environmental Sci

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Adam Driscoll
Associate Professor
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Jason Freund
Assistant Teaching Professor
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Laurie Harmon
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Rec Mgmt & Recl Therapy

Tisha King-Heiden
Professor
Biology

David Mindel
Associate Professor
Murphy Library

Niti Mishra
Associate Professor
Geography & Environmental Sci

James Pierce
Professor
Mathematics & Statistics

Brian Pompeii
Assistant Professor
Geography & Environmental Sci

Alysa Remsburg
Teaching Professor
Sustainability & Environmental Studies

Kristofer Rolfhus
Professor
Chemistry & Biochemistry

Daniel Sambu
Associate Professor
Geography & Environmental Sci

Gregory Sandland
Professor
Biology

David Schumann
Associate Professor
Biology

Eric Strauss
Professor
Biology

Kelly Sultzbach
Professor
English

Meredith Thomsen
Dean
Grad & Extended Learning

Ross Vander Vorste
Associate Professor
Biology

RADA ENDOWED FELLOWSHIPS IN RIVER STUDIES

At a news conference in May 2024, a $1.3 million gift from Ron and Jane Rada was announced to establish two permanent fellowships for the director and associate director of UWL's highly regarded River Studies Center.

The UWL River Studies Center has provided world-class education and research opportunities on all topics related to freshwater since its creation in 1972.

Eric Strauss, director of the River Studies Center, says La Crosse is an optimal location for this kind of philanthropic investment. "The Upper Mississippi and its connected ecosystems are special and revered by the historical Native peoples of this area and those that live here today," Strauss says. "These systems are heavily used commercially and recreationally. With that comes many challenges related to multiple uses, habitat alteration, water quality, native and invasive species, and climate change. The River Studies Center strives to advocate for these special systems, study the challenges they face and document their cultural and natural history.

"Transformational contributions like (this) will certainly help lead UWL to great achievements."

Ron Rada, a longtime UWL faculty member and administrator who led the River Studies Center from 1979 to 1997, says the impact will be felt beyond the sciences.

Ron and his wife, Jane, a former business instructor at Western Technical College, are particularly excited about the multidisciplinary nature of the center. This includes collaboration with members from UWL's departments of Biology, Chemistry, English, Geography & Environmental Science, Mathematics & Statistics, Microbiology, Recreation Management & Recreation Therapy, Sociology & Criminal Justice, and Sustainability & Environmental Studies.

"With all that expansion and activity, the center's visibility and relevance have increased," Ron says. "It's in recognition of this long, rich history and exceptional reputation that we make this gift. Our vision is that the center will use the endowed fellowships to enhance its reputation for excellence by building upon the multidisciplinary base of freshwater knowledge and education, and by further extending its influence beyond the whole of academia, ultimately informing, educating and inspiring individuals of all ages in the community and beyond."

The first Rada Endowed Fellowships in River Studies were awarded in summer 2025 to the director and associate director of the River Studies Center. These positions are selected by the River Studies Center membership, which seeks UWL faculty and staff who demonstrate leadership, professionalism, and an impact of the success of the center and the university as whole.

Endowed faculty positions are permanent revenue-generating investments that are critical to campuses like UWL. They provide perpetual financial support that enhances the work of faculty and their ability to deliver high-quality education to students.

Much of the above text was copied and modified from the "Transformational Gifts" article published in the Fall 2024 issue of *The Lantern*. The entire article also covers a similar endowment gift from Mike and Kathi McGinley to the UWL Department of Microbiology can be read at: https://www.uwlax.edu/news/posts/transformational-gifts/

R/V PRAIRIE SPRINGS

Campus and community partners gathered along the Mississippi River in May 2024 to christen Research Vessel Prairie Springs.

The vessel — supported by a $500,000 gift from Prairie Springs: The Paul Fleckenstein Trust to the La Crosse Community Foundation — will transform freshwater education at UWL.

"It's clearly the new flagship of the River Studies Center fleet," says Eric Strauss, director of UWL's River Studies Center. "It's head and shoulders above all of our other vessels as far as its size, technology, functionality and overall ability to enhance research and learning by our students and our faculty.

The 32-foot aluminum watercraft is designed to support a range of research, including water, biota, and sediment sampling, and sonar mapping of river habitats. Its twin 225-horsepower motors allow for a top speed around 40 mph. Additionally, the vessel's catamaran hull has a 20-inch draft, making it well-suited for the shallow backwaters of the Mississippi River.

"Training the next generation of water professionals is critical to Wisconsin's future," says Marissa Jablonski, executive director of the Freshwater Collaborative of Wisconsin. "The Research Vessel Prairie Springs offers a fantastic opportunity for the Freshwater Collaborative to expand its partnership with UWL and to help students throughout the state of Wisconsin gain valuable research skills right here on the Mississippi River."

La Crosse-based marine construction firm JF Brennan Company, which partners with UWL on the development of curricula, internship, and research opportunities, will store and maintain the vessel. "Through the Research Vessel Prairie Springs, which is giving young people access to one of the most incredible outdoor laboratories in this country, and through the curriculum with which we work, (we are) developing the minds that will work on these problems of great significance to our society." Says Matt Binsfeld, president and CEO of Brennan. "We are all planting seeds from which solutions will come long after our time is done."

Trustees Carolyn Fleckenstein Scott and her husband, Jay Scott, funded the vessel's construction in memory of Carolyn's brother, Paul, who was a powerful proponent of environmental education and conservation. Paul had a boat of his own, which he called Nereus, the personification of the sea in Greek mythology. When Carolyn and Jay sold the boat following Paul's death, they hoped to one day use those funds to support a new vessel for students and faculty who share Paul's passion.

"We're excited to partner with the outstanding faculty of UW-La Crosse to prepare leaders with experience in freshwater science," Carolyn says. "Nereus has been transformed into the Research Vessel Prairie Springs, and I'm confident my brother, Paul, is with us today and is grateful for this opportunity."

Much of the above text was copied and modified from the "Ready to Make Waves" article published in the Spring 2024 issue of *The Lantern*. The entire article also covers the 2024 Regents Business Partnership Award presented to J.F. Brennan recognizing their collaboration to UWL: https://www.uwlax.edu/news/posts/ready-to-make-waves

STRATEGIC PLAN

Members of the River Studies Center have recently developed an enhanced functional structure through the creation of bylaws, committees, and more formalized leadership roles. The next step was to engage in strategic planning to commit to a set of shared priorities and develop goals and action plans associated with each strategic priority to guide the RSC in decision making, resource allocation, and initiatives.

On January 7, 2025 UWL Management Professor Christa Kiersch facilitated a strategic planning session with fifteen participating RSC members in the Union. For the purposes of the session, members were encouraged to build towards a 3-5 year strategic plan that could guide initiatives and decision-making of the RSC and its members, while also remaining agile and capable of changing to meet unknown future needs and to achieve the RSC mission within unknown future conditions.

The strategic planning session focused on four priorities identified by the RSC Leadership Team that are central to the mission and vision of the RSC:

- Investing in our future – we will build the philanthropic base that supports the RSC mission.
- Increasing student engagement – we will develop clear roles for student involvement and a high level of engagement among RSC students.
- Supporting membership involvement & opportunities – we will support and strategically expand RSC membership; we will strengthen existing and develop new partnerships.
- Advancing river health & understanding – we will be known as a national and community leader in river research and engagement.

STRATEGIC PLAN (CONT.)

An important outcome of the strategic planning session was the revelation of four themes that will guide our efforts in the coming years. These four themes were:

- A desire for increased recognition and relevancy of the RSC and its work (e.g., greater awareness among UWL colleagues, increased engagement with community and government representatives).
- A perceived need for increased resources and support, including dedicated staff and physical space (which could also serve to increase awareness of RSC).
- The importance of getting students (perhaps even all UWL students) on the river, connecting students to the river.
- The idea of RSC as a hub, particularly one that external stakeholders can come to with questions or to receive guidance, to be seen as an academic resource, while also strengthening the internal community of RSC among interdisciplinary perspectives and members.

In alignment with these themes, our immediate goals/action items will be to:

- Update and increase utility of the RSC website as a vehicle to disseminate information
- Increase exposure through attractive promotional materials including clothing with new logo
- Increase RSC visibility to students and community by engaging with Eagle Fest and establishing a UWL River Day
- Initiate and maintain a calendar of river-related opportunities that would interest RSC members
- Gather and promote data for ongoing RSC student/faculty activities
- Develop an interdisciplinary River Studies curriculum that would have value to students entering the workforce
- Establish a list of funding priorities and goals through case statements to be shared with known and potential RSC supporters

RIVER STUDIES CENTER MEMBERSHIP COMMITTEE REPORT 2024-25

Members: Alysa Remsburg, Greg Sandland, Jason Freund

Chair: Meredith Thomsen

Activity in the past year

After the RSC by-laws were passed in September 2024, the membership committee chair surveyed the RSC membership to request volunteers for the standing committees, drafted committee assignments, and shared with RSC leadership. Committee assignments were finalized and shared with RSC members in October.

As dictated by the RSC by-laws, the membership committee chair organized the election for the RSC Director during the fall of 2024. The nominating survey was distributed in late September 2024 and the election was conducted during the first week of December, 2024.

The membership committee chair requested and collected submissions for an RSC membership slide show that was used to facilitate introductions at the January 2025 retreat.

The membership committee met in February and May 2025. The committee decided to prioritize the recruitment of Voting and Emeritus membership types. The committee developed a document to summarize "What does it mean to be a member of the RSC," detailing opportunities and expectations for those two member types; it is anticipated that it will be expanded to include information about the Adjunct and Student member types. The committee also developed an application form for Voting Members.

Current RSC members were asked to complete the Voting Member application. The 16 individuals who did so prior to the March 27, 2025 RSC membership meeting were approved as Voting Members on that date. The committee began the process of compiling profile information for Voting Members.

The committee drafted an email message that was sent by the Provost's office in early June 2025 to encourage new applications for RSC Voting Membership. The message was sent to instructional staff and the Academic Affairs Directors, with encouragement to share with any staff members who might be interested. RSC members were also asked to share the message with individuals in other divisions who might wish to consider RSC membership. Individuals were encouraged to complete their applications by June 30, allowing time for applications to be reviewed and approved in time for new members to participate in the August 2025 retreat. The committee also reached out to current RSC members who had not submitted an application to encourage them to complete that step prior to the deadline. Fourteen additional applications for voting membership were received and shared with Voting Members for review in early July 2025, along with a voting survey created by the membership committee chair.

Based on a list reviewed by the membership committee and the RSC leadership team, 10 individuals were invited in mid-June 2025 to become Emeritus Members of the RSC.

RSC MEMBERSHIP COMMITTEE REPORT 2024-25 (CONT.)

Goals for next year

- Define opportunities and expectations for Student and Adjunct RSC Members, and develop a process for inviting and/or reviewing applications for those types of members. For Adjunct Members, this will likely require coordination with the External Advisors Committee.
- Consider a revision to the definition of the Emeritus Member category to make it for any former RSC member who has retired (not necessarily retired from UWL specifically).
- Decide on approach to outreach to new potential members of all types (e.g. decide on an annual cycle of messages to campus).
- Determine how to carry out the following tasks listed for the committee in the RSC by-laws:
  - Provide the leadership team with profile information for new members
  - Carry out surveys of RSC membership as needed and collect data for the RSC annual report

REPORT FROM THE FRESHWATER COLLABORATIVE OF WISCONSIN

Chair: David Schumann

Connection of the Freshwater Collaborative of Wisconsin (FCW) to the River Studies Center (RSC)

The FCW has been formally connected to the RSC, the largest collaborative group of freshwater scientists and social scientists on campus, by including the FCW steering committee member in the RSC leadership team. This has been codified in the revised RSC Bylaws that have been approved by the full membership and includes language about the responsibilities of the Freshwater Collaborative liaison to the RSC leadership team.

The Freshwater Collaborative liaison:

- Provides input and recommendations regarding academic FCW programming and curriculum at UWL and throughout the Universities of Wisconsin.
- Solidifies FCW internship opportunities in the La Crosse region and provide students access to opportunities across the state.
- Attends and develops FCW conferences, meetings, and discussion groups at UWL and across the state.
- Strengthens the FCW grants program and processes at UWL.
- Broadens participation in the water sector from an academic perspective.
- During regularly scheduled RSC leadership team meetings, guidance and insight about how the FCW can help to further the mission of the RSC at UWL and statewide is shared. The leadership team represents diverse programs at UWL and serves as the advisory committee for the FCW by providing invaluable feedback on collaborative requests and initiatives. This group and the full RSC membership contributed greatly to the recent visit by the FCW Executive Director by demonstrating the tremendous capacity for river and aquatic research and teaching at UWL.

University of Wisconsin – La Crosse's role in the Freshwater Collaborative of Wisconsin: Expertise in the understanding of large rivers

As the only system campus situated adjacent to the upper Mississippi River, the University of Wisconsin – La Crosse (UWL) provides a unique location and an academic specialization focusing on the study of river science and its intersection with society. A multidisciplinary and research active faculty, well-established cooperative educational agreements with the U.S. Fish and Wildlife Service and the Upper Midwest Environmental Sciences Center, collaborative partners with numerous state, federal, and non-governmental conservation organizations, and a well-designed curriculum in environmental and aquatic science make UWL a leader in the matriculation of high-quality aquatic scientists and managers. The UWL River Studies Center, created in 1972, is a non-curricular unit focusing on research and informational programs pertinent to the Upper Mississippi River and its related resources. The 22 faculty members in the RSC provide leadership to understand, sustain, restore, and improve awareness of these valuable ecosystems. These endeavors prepare current and future aquatic scientists by creating experiential learning opportunities for several hundred undergraduate and graduate students since its inception. Thus, UWL offers a distinct instructional and research experience focused on the Mississippi River for students throughout the Universities of Wisconsin.

RIVER STUDIES CENTER FLEET COMMITTEE REPORT 2024-25

Members: Kris Rolfhus, Ross Vander Vorste
Chair: Colin Belby

River Studies Center Fleet

- 32-ft R/V Prairie Springs with two 225-hp motors at J.F. Brennan's harbor
- 16-ft flat bottom boat with 30 hp and 9.9 hp motors at Municipal Harbor
- 16-ft flat bottom boats with 30 hp and 9.9 hp motors stored off-campus
- 16-ft flat-bottom boat with a 27 hp surface drive motor stored off-campus
- 16-ft pontoon boat with a 30 hp motor stored off-campus
- Two We-no-nah Champlain canoes

Activity on R/V Prairie Springs

With over 260 hours logged on Research Vessel (R/V) Prairie Spring's twin 225 hp motors and 662 gallons of fuel consumed, the vessel has been active since arriving in November 2023. R/V Prairie Spring's was reclassified as an Oceanographic Research Vessel by the U.S. Coast Guard, enabling 140 students enrolled in 10 UWL courses from 6 Departments to engage in impactful experiences on the Mississippi River. Incoming students from UWL's First Year Research Exposure program participated in an outing on R/V Prairie Springs during their first week on campus last fall, and the past two summers over 50 middle and high school students enrolled in the My River Adventure pre-college camp learned about the Mississippi River aboard R/V Prairie Springs.

Graduate and undergraduate students collaborated with faculty mentors on research projects characterizing aquatic fungi and macroinvertebrates within the Mississippi River, and the first graduate thesis resulting from R/V Prairie Springs was completed by Megan Adams who quantified microplastics in waters of the Mississippi River.

The success of R/V Prairie Springs is possible through the generous support from Prairie Springs: The Paul Fleckenstein Trust, J.F. Brennan, Captain Fritz Funk, and numerous donors.

Goals for next year

We will kick off the fall semester by leading tours on R/V Prairie Springs while it is stationed on campus during Eagle Fest. During the year, the Fleet Committee will improve procedures for reserving RSC boats and documenting operations. We also will seek additional captains for R/V Prairie Springs and train additional RSC members to operate the vessel.

RIVER STUDIES CENTER AWARDS COMMITTEE REPORT 2024-25

Members: Anita Davelos, Joan Bunbury, Adam Driscoll

Chair: Bonnie Bratina

Rada Margins of Excellence Grant Program

One of the major tasks for the committee this year was dealing with the Rada Margins of Excellence (MOE) grant program. Bonnie Bratina met with Kris Rolfhus and Jake Speer about MOE part of the RSC web page last summer, in order to fix the site to match what the committee had come up with last year to increase the visibility and accessibility to the grant information and deadlines. This turned out to be the final year of the program, and so new deadlines were set up and additional advertising was done at the membership meeting and through emails notifying people of the end of the program and the final deadlines for submission toward the end of the fall semester. We received and reviewed 2 Confluence and 1 Tributary grant proposals (listed below) that were recommended for funding.

New Confluence Grant Awards

- Developing an Immersive Large River Research & Management Course on the UMR, Ross Vander Vorste
- Murphy Library's Driftless River Initiative Capacity Building, David Mindel

New Tributary Grant Award

- Extended Analysis of environmental microplastic particles via Fourier Transform Infrared Spectroscopy, Eric Strauss

Reports from the 3 grants awarded last year can be found at the end of this committee report.

Kristine Strodthoff River Studies Graduate Research Fellowship

The Kristine Strodthoff River Studies Graduate Research Fellowship was established by an RSC graduate student alum. The purpose of the fund is to support River Studies graduate research with awards being made annually based on RSEL proposal submissions. Fellowships were awarded this year to UWL Biology Graduate Students: Evan Sirianni, Kassandra Zimmer and Samantha Lyons (pictured to the right).

Goals for Next Year

One of the recent questions discussed at the Leadership Team meetings is what benefit is there for students to be an RSC member. Therefore, a goal for next year's committee is to develop student awards, such as:

- Outstanding Undergraduate RSC Senior
- Outstanding RSC Undergraduate Researcher
- Best Graduate Thesis

What exactly these awards would entail, their criteria, and how the selection process would work are some of the details that will need to be resolved.

RSC AWARDS COMMITTEE REPORT 2024-25 (CONT.)

Rada Margins of Excellence Confluence Grant Report from Spring 2023 Award:

Assessing Behaviors of Trout Anglers Related to Aquatic Invasive Species in the Upper Mississippi Basin

Adam Driscoll, Sociology and Criminal Justice

Project Summary

Research shows that aquatic invasive species (AIS) negatively impact the water quality of rivers, streams and lakes, as well as alter hydrology and potentially unbalance established ecosystems. The discovery of AIS, such as New Zealand mud snails, in Driftless Region streams poses risks to these water resources.

Reducing the spread of aquatic invasive species (AIS) has been successfully accomplished for recreational boating through the national “Stop Aquatic Hitchhikers! Clean-Drain-Dry” campaign. However, this campaign has inadequately addressed other recreational pathways by which AIS can spread, including wading trout anglers who pose risks for spreading AIS to tributaries of the Upper Mississippi River Basin.

To better understand this pathway, we propose surveying trout anglers in IA, MN, and WI, to establish baseline data to provide insights into the understanding, attitudes, beliefs, risks and behaviors of these anglers regarding water quality and aquatic invasive species. The results of this research can be used to guide outreach recommendations and evaluate the success of future behavior-change efforts. The funds requested were matching funds to help support a larger grant submitted to the USGS Water Resources Research Institute (WRI).

Tributary Grant Update

The Rada MOE Grant was used as matching funds for part of a larger ($260,000) USGS WRI grant entitled: "Assessing Behaviors of Trout Anglers Related to Aquatic Invasive Species in the Upper Mississippi Basin." This project consists of surveying trout anglers in a three state region (IA, MN, and WI) to establish baseline data that can provide insights into the understanding, attitudes, beliefs, risks and behaviors of these anglers regarding aquatic invasive species. This research will provide important data to guide outreach efforts and provide a reference point that can be used to evaluate the success of future behavior change efforts. Our survey instrument is currently in the field (sent to a sample of 4,500 anglers) and we already have over 500 responses.

RSC AWARDS COMMITTEE REPORT 2024-25 (CONT.)

Rada Margins of Excellence Tributary Grant Report from Spring 2023 Award:

30 years of bathymetric change within the Lake Onalaska Dredge Cut

Colin Belby, Department of Geography and Environmental Science

Project Summary

In 1989, the US Army Corps of Engineers dredged channels within Pool 7's Lake Onalaska as part of the Dredge Cut and Island Creation Habitat Rehabilitation and Enhancement Project. Their primary goal was to improve fish habitat by increasing depth and flow through backwater channels that had been experiencing rapid sediment infilling since Lock and Dam 7 construction in the 1930s. For this study that was supported by a Ron and Jane Rada Margins of Excellence Tributary Grant, a sonar unit and survey-grade GPS were used to map the dredge cuts and quantify the amount of change that has occurred over the past 30 years. Since 1994, up to 3.2 m (10.5 ft) of sedimentation occurred in the sediment trap at the mouth of Halfway Creek at a rate of 10.7 cm/yr (4.2 in/yr). Most areas experienced 0.4 to 0.8 m (1.3 to 2.6 ft) of deposition during the past 30 years at a rate of 1.3 to 2.6 cm/yr (0.5 to 1.0 in/yr). The dredge cuts remain deeper than the 1.8 to 3 m (6 to 10 ft) preferred by bluegills and bass. The cuts have not filled above 192.8 m (632.5 ft) NAVD88 and will not reach that elevation within the 50-year project life based on rates of sedimentation over the past 30 years.

UWL students Nick Horzewski and Cade Szymanski working with Dr. Belby to map the dredge cuts near Rosebud Island in Pool 7's Lake Onalaska.

Tributary Grant Update

The Ron and Jane Rada grant enabled hiring UWL Geography and Environmental Science majors Cade Szymanski and Nick Horzewski to assist with data collection and analysis. Additional funding was provided through a $10,000 Wisconsin DNR grant to the Lake Onalaska Protection and Rehabilitation District, a $2,000 UWL Undergraduate Research and Creativity Grant, and $2,250 in matching support from the River Studies Center and the Department of Geography and Environmental Science. The findings were shared with the Lake Onalaska Protection and Rehabilitation District, and they have been presented at the 2024 and 2025 Mississippi River Research Consortium meetings and the 2024 UWL Research and Creativity Symposium.

RSC AWARDS COMMITTEE REPORT 2024-25 (CONT.)

Rada Margins of Excellence Tributary Grant Report from Spring 2024 Award:

The effects of climate change on the occupation of a Mississippian settlement in southeastern Wisconsin 1000-1250 CE

Joan Bunbury, Department of Geography and Environmental Science

Project Summary

The Mississippian people occupied a site on the Crawfish River in southeastern Wisconsin 1000-1250 CE, however it is not clear why it was abandoned. One suggestion is that climate change caused the out-migration and a paleoclimate record from the area is needed to address this theory. Lake sediments preserve information that can be used to develop a record of past climate, and a sediment core was collected from Mud Lake, Wisconsin (~5 km from the Crawfish River site) for this purpose. Students have been an integral part of the generation of geophysical and geochemical data analyzed from the core through course-embedded research and undergraduate research experiences. Ages have been assigned to the sediment layers using standard radiometric dating techniques, and samples for pollen analysis have been processed and are ready to be counted. Funds were requested for a stipend to conduct pollen analysis that will lead to the completion of the project.

Tributary Grant Update

This proposal supports the priorities of the Tributary Grant by: 1) Providing experiential learning opportunities for undergraduate students by including them in the data generation and manuscript preparation. One geophysical analysis that is currently being completed by an undergraduate student is the charcoal analysis of the sediment core. Charcoal preserved in lake sediments provides a record of fire history and will be added to the manuscript to complement the pollen and other geochemical and geophysical records already completed. I also aim to recruit a second student in fall 2024 to help with figure preparation and drafting sections of the manuscript. 2) Disseminating the results to a general audience. I will offer to present these findings at the UMESC/UWL seminar series during the 2024-2025 academic year. Highlighting this research to local scientists, faculty, and students, could aid in the recruitment of partners or students to work on similar projects, potentially meeting another benchmark of the Margins of Excellence Program to "Create sustainable partnerships between the RSC, natural resource agencies, industry, and non-governmental organizations that provide experiential learning opportunities for UWL students."

Updated Timeline

1) Summer 2024: Bunbury to count pollen and begin drafting manuscript.
2) all 2024: Bunbury to finalize pollen counting and recruit an undergraduate student to help with figure and manuscript preparation. This will be done in consultation with collaborators. A second undergraduate student will complete the charcoal analysis pertaining to the 2,000-year period in question.
3) Winter/Spring 2025: Bunbury to finalize manuscript in consultation with collaborators, submit the manuscript to a peer-reviewed journal, and present the findings at MRRC.
4) 2024-2025: Bunbury to present at UMESC/UWL seminar series.

PUBLICATIONS

Cavallaro, M.C., and **D.A. Schumann**. 2025. Utility of artificial river reef structures to enhance fish habitat below a hydropeaking dam. River Research and Applications 41:531-538.

Driscoll, A., and B. Edwards. 2024. Concentrated Animal Feeding Operations. In The Encyclopedia of Technological Hazards and Disasters in the Social Sciences, (D.A. Gill, L.A. Ritchie, and N. Campbell, Eds.). London: Edward Elgar.

Driscoll, A., and B. Edwards. 2025. From Farms to Factories: The Social and Environmental Consequences of Industrial Swine Production in North Carolina. Chapter 13 in Twenty Lessons in Environmental Sociology. 4th, edited by K. A. Gould and T. L. Lewis. New York: Oxford University Press.

Driscoll, A., and N. Theis. 2025. The Power of Privilege: An Exploration the Role of Whiteness in a Rural Environmental Conflict. In: Forthcoming in Race and Racism in Rural America, (K. Robinson, M. Harvey, A. Carter, and K Tanaka, Eds.). University of North Carolina Press.

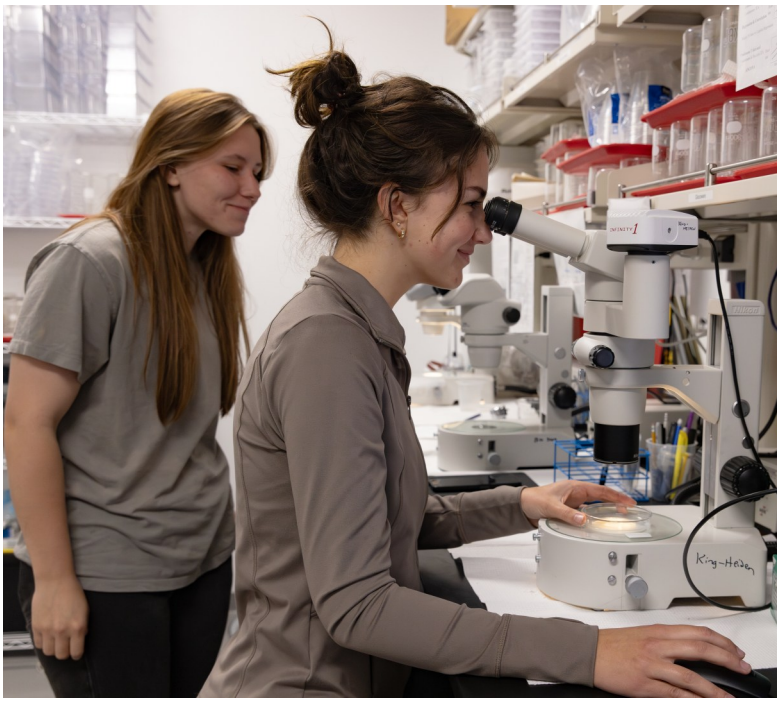
Engebos*, Z., **R. Vander Vorste**. 2025. Sticky and floating traps: Comparison of two methods to sample aquatic insects. UWL Journal of Undergraduate Research.

Foulquier, R., T. Datry, R. Corti, D. Von Schiller, K. Tockner, R. Stubbington,..(many co-authors)...**R. Vander Vorste**, ... 2024. Unravelling large-scale patterns and drivers of biodiversity in dry rivers. Nature Communications 15, 7233.

Kooij*, N., A. Fowle, S. Lyons*, A.M. Yu and **T.C. King-Heiden**. 2025. Comparative immunomodulatory effects of chronic exposure to imidacloprid and thiamethoxam on the respiratory burst response in zebrafish and fathead minnow larvae. Fish and Shellfish Immunology 165:110556.

*UWL Student

PUBLICATIONS (CONT.)



Kooij*, N., and **T.C. King-Heiden**. 2024. Adaptation of the in vivo respiratory burst assay for fathead minnow larvae (Pimephales promelas), Journal of Immunological Methods 536:113797.

Perner*, P., R. Kreiling, K.J. Jankowski, and **E. Strauss**. Variation and controls of sediment oxygen demand in backwater lakes of the Upper Mississippi River during winter. River Research and Applications. In Press.

Sambu, D. 2025. Community conservancies in Kenya: Navigating global perturbation to enhance community well-being and resilience. Society and Natural Resources 1–24.

Schumann, D.A., C. Dunn, M.E. Colvin, D.T. Jones-Farrand, K. Evans, M.D. Wagner, E. Rivenbark, and S. McRae. 2024. Using resilience, redundancy, and representation in a Bayesian belief network to assess imperilment in riverine fishes. Ecosphere 15 (1):e4738.

Stelzer, R., **E.A. Strauss**, G. Kleinheinz, J. Lucas, and J. Christus. 2025. Rayon is the predominant microplastic in zebra mussels (*Dreissena polymorpha*) from a North American lake in the context of a global analysis of bivalves. Water, Air, & Soil Pollution 236:673.

Stegen, J., A.J. Burgin, M. H. Busch, J. B. Fisher, J. Ladau, J. Abrahamson, L. Kinsman-Costello, L. Li, X. Chen, T. Datry, N. McDowell, C. Tatariw, A. Braswell, J. M. Deines, J. A. Guimond, P. Regier, K. Rod, E. K.P. Bam, E. Fluet-Chouinard, I. Forbrich, K. L. Jaeger, T. O'Meara, T. Scheibe, E. Seybold, J. N. Sweetman, J. Zheng, D. C. Allen, E. Herndon, B. A. Middleton, S. Painter, K. Roche, J. Scamardo, **R. Vander Vorste**, K.Boye, E. Wohl, M. Zimmer, K. Hondula, M. Laan, A. Marshall, and K. F. Patel. 2025. Reviews and syntheses: Variable inundation across Earth's terrestrial ecosystems. Biogeosciences 22: 995–1034.

Vander Vorste, R., S. Strassman, and S. Henkhaus*. 2024. Viability of phytoplankton, zooplankton, and aquatic macroinvertebrates in dredged river sediments of the Upper Mississippi River. River Research and Applications. https://doi.org/10.1002/rra.4402.

Vander Vorste, R., C. Ganong. 2024. Using aquatic macroinvertebrates in stream bioassessment. River Field Studies Network, (Version 1.1). QUBES Educational Resources.

*UWL Student

PRESENTATIONS

Note: Only presentations at non-UWL sponsored events listed

Adams*, M.C. and **E.A. Strauss**. 2024. Microplastic abundance in the main channel waters of the Upper Mississippi River Pool 8: Preliminary data. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Adams*, M., **E.A. Strauss**. 2024. Longitudinal profile of microplastics in the main channel of the Upper Mississippi River: Preliminary data. Poster presentation at the Annual Meeting of the Midwest Chapter of the Society of Environmental Toxicology and Chemistry. La Crosse, WI.

Adams*§, M.C. and **E.A. Strauss**. 2025. Microplastic abundance in main channel and backwater habitats of Upper Mississippi River Pool 8. Oral presentation at the Mississippi River Research Consortium Annual Meeting, La Crosse, WI.

Baker*, C., **E.A. Strauss**. 2024. Prevalence of microplastic particles identified in gizzard shad, *Dororsoma cepedian*, in the Upper Mississippi River System. Oral presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Bassham*§, C., and **R. Vander Vorste**. 2024. Changes in macroinvertebrate community composition and diversity across side channels of the Upper Mississippi River System. Oral presentation at the Mississippi River Research Consortium Annual Meeting, La Crosse, WI.

UWL graduate students, Megan Adams and Max Monfort, displaying their Best Oral Presentation and Student Scholarship Awards, respectively, at the 56th Annual Meeting of the Mississippi River Research Consortium.

Bassham*, C., **R. Vander Vorste**, K. Bouska, and M. Sobotka. 2024. Changes in macroinvertebrate composition across side channels of the Upper Mississippi River. Oral presentation at the Annual Meeting of the Society for Freshwater Science. Philadelphia, PA.

Belby, C. 2024. Driftless Area stream geomorphology. Oral presentation at the 12th Annual Trout Stream Restoration Workshop. Kickapoo Valley Reserve, WI.

Belby, C. 2025. Connecting watershed hydrology to stream processes in the Driftless Area. Oral presentation at the Wisconsin Wetlands Association Wetland Science Conference. La Crosse, WI.

Belby, C. 2025. 30 years of bathymetric change within the Lake Onalaska dredge cut. Oral presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Brino*, E.E., **D.A. Schumann**, and T. Osmundson. 2024. Genetic diversity and population structure of Southern Brook Lamprey (*Ichthyomyzon gagei*) in Wisconsin and Mississippi. Oral presentation at the Wisconsin Chapter of the American Fisheries Society Annual Meeting, Green Bay, WI.

Bunbury, J. 2025. Reconstructing environmental conditions following deglaciation in three regions of North America. Invited oral presentation to the South Dakota State University Geography Convention, Brookings, SD.

Bunbury, J., and S. Munoz. 2024. Engaging undergraduate students in research through the development of a climate record for a Mississippian site on the Crawfish River, Southeastern Wisconsin. Oral presentation to the Geological Society of America Connects 2024, Anaheim, CA.

*UWL student, §Awarded Best Student Oral Presentation

PRESENTATIONS (CONT.)

Chaudhuri, G. 2024. Impact of Mumbai Trans Harbor Link on future urbanization of the Mumbai Metropolitan Region. Oral presentation at the American Association of Geographers Annual Meeting, Honolulu, HI.

Driscoll, A., and T. Campbell. 2025. Assessing behaviors of trout anglers related to aquatic invasive species in the Upper Mississippi Basin. Oral presentation at Wisconsin Lakes and Rivers. Stevens Point, WI.

Driscoll, A., and C. Miller. 2025. Superman wears a tractor cap: Modern masculinity displays in advertising aimed at farmers. Oral presentation at the 86th Annual Meeting of the Rural Sociological Society. Madison, WI.

Driscoll, A. 2025. The hidden costs of America's 'other white meat. Invited seminar at the UWL River Studies Center & USGS Joint Seminar Series. La Crosse, WI.

Ellefson*, D., M. Waite*, S. Verhaalen, and **R. Vander Vorste.** 2024. Cultivation of non-biting midges (Chironomidae; Arthropoda) in a controlled environment. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Ellefson*, D., P. Kelly, and **R. Vander Vorste**. 2025 Dispersal limitation of aquatic macroinvertebrates in Pool 8 of the Mississippi River. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Elzen, D.V., G. Miller*, and **N. Mishra**. 2025. Comparing ground, drone, and spaceborne LiDAR-derived canopy height in high-elevation vegetation of Nepal's Annapurna Conservation Area. Poster presentation at the American Society of Photogrammetry & Remote Sensing (ASPRS) Spring Meeting. La Crosse, WI.

Fick*, B., K.C. Zimmer*, and **E.A. Strauss**. 2025. Microplastic abundance in bluegill from the Upper Mississippi River. Poster presentation at the Mississippi River Research Consortium Annual Meeting, La Crosse, WI.

Fisk*, K.R., M.F. Monfort*, J.J. Wamboldt, and **D.A. Schumann**. 2025. Longitudinal movement patterns of Grass Carp in the Upper Mississippi River. Poster presentation at the Mississippi River Research Consortium Annual Meeting, La Crosse, WI.

Galvin*$^{\Phi}$, J., J. Brier*, and **T.C. King-Heiden**. 2025. Cardiotoxic effects of 2 PFAS on zebrafish larvae. Oral presentation at the Midwest Society of Environmental Toxicology and Chemistry Annual Meeting. Maplewood, MN..

Haase*, P., and **R. Vander Vorste**. 2025. Influence of floodplain connectivity on aquatic insect emergence in the Upper Mississippi River. Poster presentation at the Mississippi River Research Consortium Annual Meeting, La Crosse, WI.

Hrdlicka*, V., and **E.A. Strauss**. 2025. Seasonal carbon and phosphorus availability in Cochran Lake, Vilas County WI. Poster presentation at the Mississippi River Research Consortium Annual Meeting, La Crosse, WI.

King-Heiden, T.C. 2024. Toxicity testing with small fish models: Bridging gaps between ecotoxicology and human health. Oral presentation at the University of Mississippi Biomolecular Sciences External Scientist Seminar Series. Oxford, MS.

King-Heiden, T.C. 2025. Minnow models for toxicology. Oral presentation at the Phenological initiatives for Indigenous Peoples in Limnology, Trout Lake Research Station. Boulder Junction, WI.

King-Heiden, T.C. 2025. Beyond the lab: Using your science to inspire community action. Virtual presentation for the WI Neonicotinoid Workgroup.

King-Heiden, T.C., N. Kooij*, and A. Fowle*. 2025. Chronic exposure to sublethal concentrations of imidacloprid and thiamethoxam suppresses the innate immune response of zebrafish and fathead minnow larvae. Poster presentation at the Society of Toxicology Annual meeting. Orlando, FL.

*UWL student, $^{\Phi}$Awarded Runner-up for Best Student Platform Presentation

PRESENTATIONS (CONT.)

King-Heiden, T.C., **B. Pompeii**, and L. Donahue. 2025. Panelists following ReproEco: Connecting Environmental Justice and Reproductive Health play series. Various locations in La Crosse, WI.

Lettenberger*, A., K. Koupal, S. Nevison, and **D.A. Schumann**. 2024. Structured decision-making to support the management of Plains Topminnow in Nebraska. Poster presentation at the Wisconsin Chapter of the American Fisheries Society Annual Meeting, Green Bay, WI.

Lettenberger*, A., and **D.A. Schumann**. 2024. Slimy Sculpin swimming performance declines on embedded gravel. Virtual presentation at the Driftless Area Stream Restoration Symposium.

Lueck*, D., and **N. Mishra**. 2024. Using deep learning for detecting spatially complex remnant hill prairies in remotely sensed imagery of Driftless WI. Poster presentation at the American Society of Photogrammetry & Remote Sensing (ASPRS) Spring Meeting. La Crosse, WI.

Lyons*, S. and **T.C. King-Heiden**. 2025. Comparative immunotoxicity of PFHxS and PFOS in larval zebrafish and fathead minnows. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Miller,* G., and **N. Mishra**. 2025. Evaluating drone-based LiDAR for wetland vegetation characterization: A case study of the La Crosse River Marsh", Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

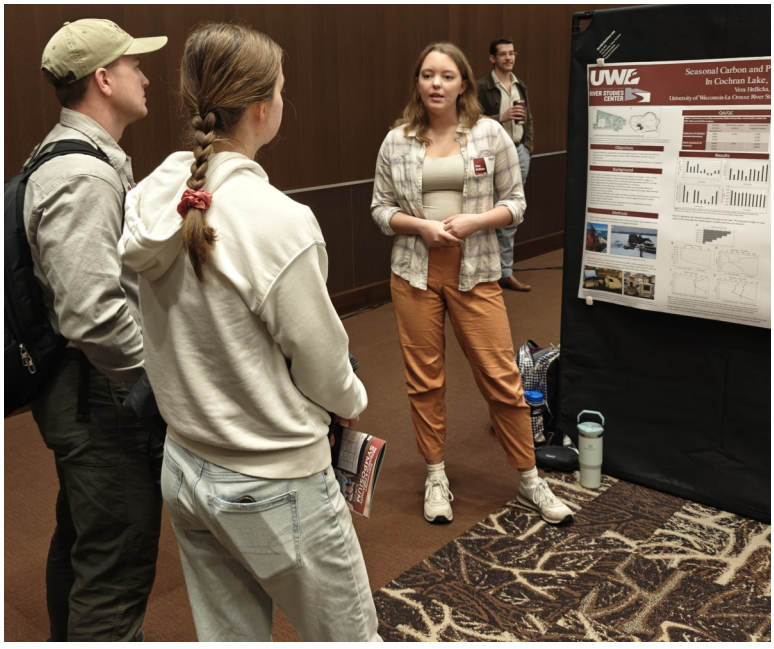
Mindel, D. 2024. AI and the library: Information professionals and the demands of an ever-changing landscape. Oral presentation at the Artificial Intelligence (AI) Summit. La Crosse, WI

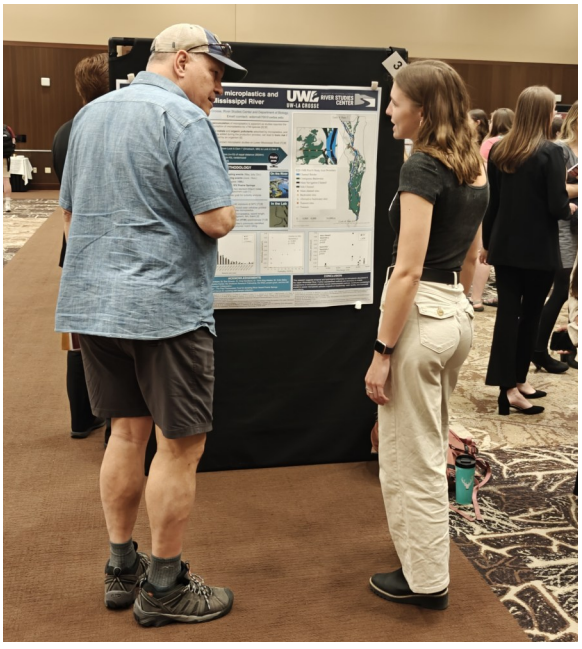
Mindel, D. 2024. The Driftless River Initiative at Murphy Library, UW-La Crosse. Invited seminar at the UWL River Studies Center & USGS Joint Seminar Series. La Crosse, WI.

Mindel, D. 2025. The Driftless River Initiative: Harnessing A Collection's Potential for Creating New Knowledge. Oral presentation at the Upper Midwest Digital Collections Conference 2025. St. Paul, MN.

Mindel, D. 2025. The Driftless River Initiative: Connections through collections. Oral presentation at the Wetland Science Conference, Wisconsin Wetlands Association. La Crosse, WI.

*UWL student





PRESENTATIONS (CONT.)

Mishra, N. 2024. Unveiling the skies: Drones for ecological monitoring and conservation in the Driftless Area. Ora; presentation for the Valley Stewardship Network, Viroqua, WI.

Mishra, N. 2024. Drone photogrammetry teaching & research at UW-La Crosse. Oral presentation at the American Society of Photogrammetry & Remote Sensing (ASPRS) Spring Meeting. La Crosse, WI.

Mishra, N., and Siepker, M. 2024. Limitation of very high-resolution satellite and drone imagery for detecting coldwater refuges in rivers and streams. Poster presentation at the Annual Meeting of the Association of American Geographers (AAG). Honolulu, HI.

Mishra, N. 2025. Revolutionizing conservation: The power of drones in ecological monitoring. Oral presentation for the City of La Crosse: Connect2Nature Program, La Crosse, WI.

Mishra, N., and G. Miller*. 2025. Advancing riparian mapping in La Crosse Marsh: Insights from drone LiDAR and SfM techniques. Poster presentation at the Wisconsin Wetland Association Wetland Science Conference, La Crosse, WI.

Monfort*, M.F., J.J. Wamboldt, M.R. Acre, and **D.A. Schumann**. 2024. Aggregation for eradication: An exploratory grass carp management strategy in the Upper Mississippi River. Oral presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Monfort*, M., J.J. Wamboldt, M.R. Acre, and **D.A. Schumann**. 2024. Assessment of automated bait delivery systems for Grass Carp aggregation in the Sandusky River, Ohio. Oral presentation at the Wisconsin Chapter of the American Fisheries Society Annual Meeting. Green Bay, WI.

Monfort*, M.F., J.J. Wamboldt, M. Acre, A. Mueller, D. Broadhus, J. Griffin, and **D.A. Schumann**. 2025. Baiting to aggregate Grass Carp for removal efforts. Oral presentation at the 85th Midwest Fish and Wildlife Conference, St. Louis, MO.

Monfort*, M.F., J.J. Wamboldt, A.A. Milde, D.H. Krause, M.R. Acre, A.T. Mueller, D.W. Broadhaus, J.N. Griffin, A.K. Fritts, and **D.A. Schumann**. 2025. Aggregation for eradication: An exploration of baiting to maximize Grass Carp removal efforts. Oral presentation at the Wisconsin Chapter of the American Fisheries Society Annual Meeting. La Crosse, WI.

Monfort*, M.F., J.J. Wamboldt, A.A. Milde, D.H. Krause, M.R. Acre, A.T. Mueller, D.W. Broadhaus, J.N. Griffin, A.K. Fritts, and **D.A. Schumann**. 2025. Aggregation for eradication: An exploratory Grass Carp management strategy in the Upper Mississippi River . Oral presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Murphy, W., A. Jahn, and **K.R. Rolfhus**. 2024. Assessment of trace metal exposure from ingestion of play surface materials. Poster presentation at the National Meeting of the Society of Environmental Toxicology and Chemistry. Ft Worth, TX.

Patschull*, B.D., **R. Vander Vorste**, and **D.A. Schumann**. 2024. Evaluation of an underwater camera method to sample freshwater fish assemblages during winter. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Patschull*, B., **R. Vander Vorste**, **D.A. Schumann**, and P. Kelly. 2025. Evaluation of an underwater camera method to sample freshwater fish assemblages under the ice. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Patschull*, B., **R. Vander Vorste**, **D.A. Schumann**, P. Kelly, and K. Bouska. 2025. Evaluation of an underwater camera method to sample freshwater fish assemblages under the ice. Poster presentation at the Wisconsin Chapter of the American Fisheries Society Annual Meeting. La Crosse, WI.

*UWL student

PRESENTATIONS (CONT.)

Pompeii, B. 2025. Household coping strategies and perceptions of health risk to PFAS water contamination on French Island, Wisconsin, USA. Oral presentation at the American Association of Geographers (AAG) Annual Meeting. Detroit, MI.

Sambu, D. 2024. Community conservancies in Kenya: Striving to enhanced community well-being and resilience in the face of historical challenges and global perturbations. Oral presentation at the American Association of Geographers Annual Meeting. Honolulu, HI.

Schreier, T.M. J.J. Wamboldt, M.E. Teale, M.F. Monfort*, **D.A. Schumann**, and S.F. Spear. 2024. Using eDNA and acoustic telemetry to guide site selection for the grass carp bait aggregation project. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Siepker, M., **N. Mishra**, and G. Simmons. 2024. Using high-resolution satellite imagery to detect coldwater streams in the Iowa Driftless Region. Oral presentation at the Midwest Fish & Wildlife Conference. Sioux Falls, SD.

Sirianni*[§], E., **D.A. Schumann**, **J.G. Freund**, and B. Thill*. 2025. Optimizing instream habitat sampling: How many transects are enough to describe habitat variability in Wisconsin Driftless Area streams. Oral presentation at the Wisconsin Chapter of the American Fisheries Society Annual Meeting, La Crosse, WI. best speed talk

Sirianni*, E.T., **D.A Schumann**, and **J.G. Freund**. 2025. Why here and not there? Habitat and fish assemblage factors influence sculpin distributions in Wisconsin's Driftless Area. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Sorensen*, A., E. Walkowiak*, and **J.G. Freund**. 2025. Towards a better understanding of variability in trout stream temperatures in the Central Driftless Area. Oral presentation at the Driftless Science Symposium. La Crosse, WI.

Sorensen*, A., E. Walkowiak*, and **J.G. Freund**. 2025. Towards a better understanding of variability in trout stream temperatures in the Central Driftless Area. Oral presentation to the Monroe County Climate Change Task Force. Sparta, WI.

Sorensen*, A., E. Walkowiak*, and **J.G. Freund**. 2025. Towards a better understanding of variability in trout stream temperatures in the Central Driftless Area. Oral presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Strauss, E.A. 2025. Nutrient availability and cycling in Driftless Area stream ecosystems: Assessments at multiple spatial scales. Invited seminar at the University of Notre Dame Environmental Research Center (UNDERC).

Szymanski*, C., N. Horzewski*, and **C. Belby**. 2024. Mapping three decades of sedimentation within the Lake Onalaska dredge cuts. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Vander Vorste, R. 2024. Aquatic insect emergence in dynamic floodplain habitats of a large river ecosystem. Oral presentation at the Annual Meeting of the Society for Freshwater Science. Philadelphia, PA.

Vander Vorste, R. 2025. Aquatic insect emergence in dynamic floodplain habitats of the Upper Mississippi River . Oral presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Vander Vorste, R. 2025. Desiccation-resistant phytoplankton, zooplankton, and macroinvertebrates: implications for transporting dredged sediments from the Upper Mississippi River. Oral presentation at the Upper Mississippi River Conservation Committee Annual Meeting. La Crosse, WI.

*UWL student, [§]Awarded Best Student Speed Talk

PRESENTATIONS (CONT.)

Verhaalen*, S., and **R. Vander Vorste**. 2025. Understanding the influence of substrate type on chironomid emergence in laboratory mesocosms. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Voigt*, S., C. Bassham*, K. Patterson*, S. Paradise*, and **R. Vander Vorste**. 2024. Environmental factors influencing aquatic insect emergence in Pool 8 of the Upper Mississippi River. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Waite*, M., S. Verhaalen*, D. Ellefson*, and **R. Vander Vorste**. 2024. Building mesocosms for aquatic invertebrate research and culturing. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Walder, H. and **K.R. Rolfhus.** 2025 Contemporary archaeology, indigenous communities, and the French absence from the Upper Mississippi Valley. Oral presentation at the Conference on Historical and Underwater Archaeology, Society for Historical Archaeology. New Orleans, LA.

Wall*, M., M.F. Monfort*, B.T. Thill*, A.J. Lettenberger*, L.W. Butler*, M.A. Dickson*, K.A. Frame*, C. Knoll*, B.M. Muhr*, S.B. Voigt*, M. Waite*, K.W. Olson, **J.G. Freund**, and **D.A. Schumann**. 2025. Fishing for a photo: Post-catch handling by anglers is not likely to cause Brown Trout mortality. Poster presentation at the Wisconsin Chapter of the American Fisheries Society Annual Meeting. La Crosse, Wisconsin.

Weckwerth*, P., **E.A. Strauss**. 2024. Investigation of a laboratory method for microplastic extraction from riverine sediments using density separation. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Weis*, M., M. Spychalla*, and **J. Bunbury**. 2024. A Fire History Reconstruction from a Lake in Southern Wisconsin. Poster presentation at the Midwest Undergraduate Geography Symposium. La Crosse, Wisconsin.

Zimmer*, K., and **E.A. Strauss**. 2024. Representation of microplastic pollution and abundance in silver carp from Pool 26 of the Upper Mississippi River. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

Zimmer*[§], K., and **E.A. Strauss**. 2024. Prevalence of Microplastic Particles in Digestive Tracts of Silver Carp from Pool 26 of the Upper Mississippi River. Poster presentation at the Annual Meeting of the Midwest Chapter of the Society of Environmental Toxicology and Chemistry. La Crosse, WI.

Zimmer*, K.C. and **E.A. Strauss**. 2025. Abundance of microplastic particles in avian species collected from the Upper Mississippi River watershed near La Crosse, WI. Poster presentation at the Mississippi River Research Consortium Annual Meeting. La Crosse, WI.

*UWL student, [§]Awarded Best Student Poster Presentation

In addition to the above cited presentations, many RSC-associated undergraduate and graduate student research projects are presented at UWL-sponsored research symposia. Recent numbers include:

- 2024 UWL Research & Creativity Symposium : 23 students; 20 presentations
- 2025 UWL Research & Creativity Symposium : 30 students; 24 presentations
- 2025 College of Science and Health Summer Research Symposium: 11 students; 11 presentations

RECENT RIVER STUDIES CENTER MS THESES

2024

Cheyana Bassham. 2024. Taxonomic and functional shifts in macroinvertebrates across side channels of a large river system. MS Thesis in Biology. Univ. Wisconsin-La Crosse. Advisor: R. Vander Vorste

Patrik Perner. 2024. Influence of sediment characteristics and oxygen demand on winter hypoxia in backwater lakes of the Upper Mississippi River. MS Thesis in Biology. Univ. Wisconsin-La Crosse. Advisor: E.A. Strauss

Brandon Thill. 2024. Evaluating suitable habitat for Brook Trout (*Salvelinus fontinalis*) in the Driftless Area of Wisconsin between sandstone and dolostone rock geologies. MS Thesis in Biology. Univ. Wisconsin-La Crosse. Advisor : J.G. Freund

Karly Yablonski. 2024. Evaluation of nutrient concentrations and genetic presence of cyanobacteria and their cyanotoxins in Lake Onalaska. MS Thesis in Microbiology. Univ. Wisconsin-La Crosse. Advisor: B. Bratina

RECENT RIVER STUDIES CENTER MS THESES

2025

Megan Adams. 2025. Spatiotemporal heterogeneity of microplastics and river hydrology in the Upper Mississippi River. MS Thesis in Biology. Univ. Wisconsin-La Crosse. Advisor: E.A. Strauss

Avery Lettenberger. 2025. Structured decision-making to inform a Bayesian decision network for Plains Topminnow management in Nebraska. MS Thesis in Biology. Univ. Wisconsin-La Crosse. Advisor: D.A. Schumann

Max Monfort. 2025. An evaluation of baiting strategies and calcified structures for advancement of Grass Carp management in the Mississippi River and Laurentian Great Lakes. MS Thesis in Biology. Univ. Wisconsin-La Crosse. Advisor: D.A. Schumann

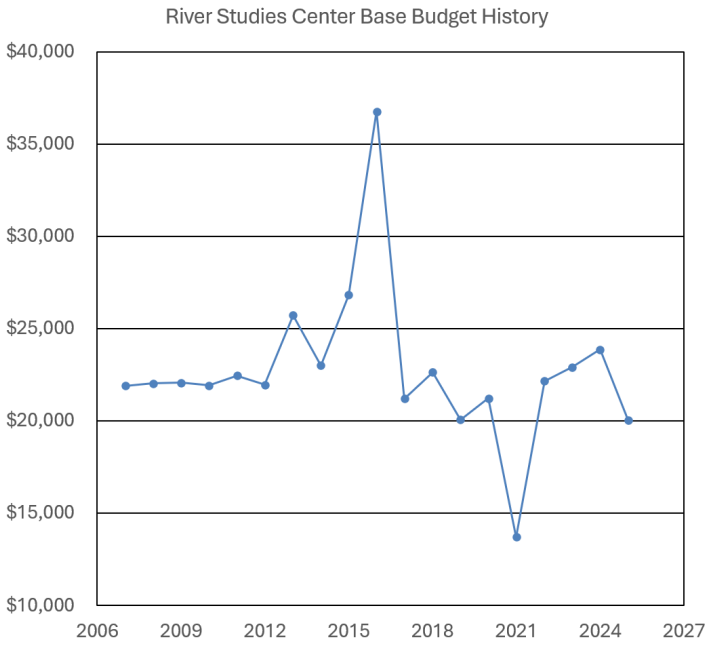
Nate Schimanski. 2025. Juvenile Muskellunge escapement and movement in an aging Wisconsin reservoir. MS Thesis in Biology. Univ. Wisconsin-La Crosse. Advisor: D.A. Schumann

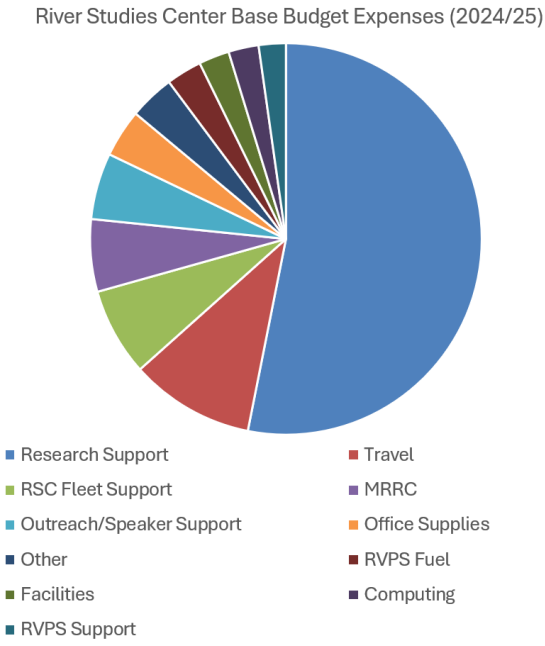
RSC FINANCIALS

Funding for the River Studies Center operations and activities generally originates from two sources:

- Base funding from the UWL College of Science and Health
- Philanthropic support

Base funding from the College of Science and Health is relatively stable with a mean annual budget of $22,771 over the previous 19 years. Two notable exceptions were 2016 when RSC received additional funds for purchasing new motors for the flatbottom boats in our fleet and in 2021 during COVID19. Expenditures vary yearly, but most funds are typically allocated for supporting research activities of members. Other significant expenses include maintenance of our boat fleet, facility and equipment maintenance, outreach/speaker support, and funding student attendance at the annual Mississippi River Research Consortium.





Philanthropic support of the River Studies Center is managed through the UWL Alumni & Friends Foundation and includes notable contributions through the Rada Endowed Fellowships in River Studies, Prairie Springs: The Paul Fleckenstein Trust, Kristine Strodthoff River Studies Graduate Research Fund, and the River Studies Strategic Initiatives Fund. These funds are often donor-directed and include support for:

- RSC Leadership Fellowships
- Graduate and Undergraduate Fellowships
- Instrumentation
- R/V Prairie Springs Operating Costs (fuel expenses alone in 2024/25 were $3,526)

The River Studies Strategic Initiatives Fund is where general contributions are located and are used for leveraging other funding opportunities, covering the costs of our planning retreats, and RSC-labeled items such as stickers, hats, clothing, banners, etc. Donations through annual giving drives, e.g., One Day for UWL, also go here. One Day for UWL in 2024 brought in $6,050 from 22 donations. Five of those donations were from RSC Members.


RIVER STUDIES
CENTER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