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UM / News / July

# **JULY**

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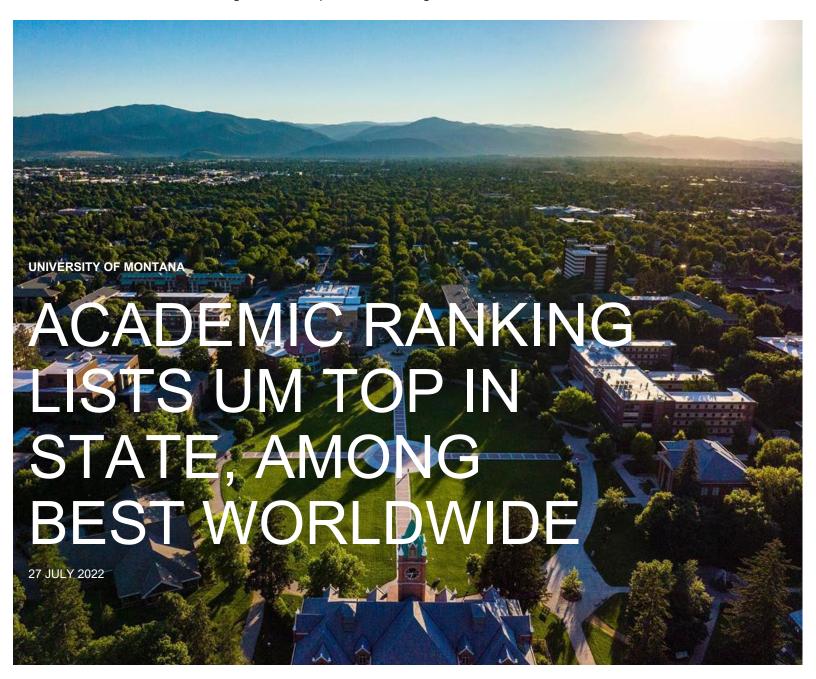
COLLEGE OF HUMANITIES AND SCIENCES

UM Bio Station Researchers Discuss Mine Risks to Salmon Rivers

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UM / News / Academic Ranking Lists UM Top in State, Among Best Worldwide



The University of Montana was ranked as the top academic institution in the state by the Academic Ranking of World
Universities.

**MISSOULA** – The Academic Ranking of World Universities recently named the University of Montana as the top academic institution in the state and among the best in the world. UM has made the list every year since the world ranking began in 2003.

This year, UM ranked between 701 and 800 in the study out of 2,000 universities worldwide,

and between 169 and 179 nationally. The ARWU study is published by ShanghaiRanking Consultancy, a fully independent organization dedicated to research on higher education intelligence and consultation.

"More than 2,000 of the top universities world-wide were included and for UM to be ranked in the top third of those schools is quite a testament to the quality of the faculty here," said Scott Whittenburg, vice president for Research and Creative Scholarship at UM. "Even more impressive is that we have two disciplines, ecology and atmospheric science, ranked in the top 100 world-wide."

Part of the ARWU study is a Global Ranking of Academic Subjects that ranks universities in 54 subjects across natural sciences, engineering, life sciences, medical sciences and social sciences.

UM's ecology and atmospheric science disciplines were ranked in the top 100 worldwide. UM's ecology was ranked 51 to 75 and atmospheric science was ranked 76 to 100.

Whittenburg said it is important to understand the metrics and data that are used to compare the research universities in the ARWU study. The metrics used in the ARWU and the GRAS are the pinnacle of academic achievement and include the number of faculty and alumni with the Nobel Prize or Fields Medal, Highly Cited Researchers and papers published in the top research journals.

The metrics also include the total number of times a faculty researcher at other research universities cite and use the results of papers that UM faculty publish, Whittenburg said.

"These are all indicators of world-class faculty conducting top-tier research here at UM," Whittenburg said.

To explore the global rankings and methodology, visit ShanghaiRanking's website.

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**Contact:** Dave Kuntz, UM director of strategic communications, 406-243-5659, dave.kuntz@umontana.edu

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UM / News / Montana University System leaders announce new director of Bitterroot College



Bitterroot College in Hamilton, Montana.

**HELENA, MT** – Montana University System officials announced today that Dr. Angela McLean will serve as the interim director of Bitterroot College at the University of Montana, effective Aug. 2, 2022. Dr. McLean currently serves as the Director of American Indian/Minority Achievement and K-12 Partnerships in the Office of the Commissioner of Higher Education in Helena. OCHE staff will support her continued leadership in this role as she steps in to lead Bitterroot College.

"I'm incredibly pleased that Angela is stepping in to lead Bitterroot College," said Montana Commissioner of Higher Education Clayton Christian. "In addition to being a strong leader, Angela is a dedicated advocate for education at all levels. Angela also understands the importance of working with the community and key stakeholders to meet the needs of students and the community."

Located in Hamilton, Bitterroot College connects a diverse rural community to a wide array of learning opportunities to prepare students for future success and support workforce development. Offering more than 30 college credit courses, students at Bitterroot College can earn an associate's degree, complete prerequisite courses for leading fields, earn credits that are transferable across the MUS and obtain certificates in business, computers and industrial trades – all while staying close to home.

Seth Bodnar, president of the University of Montana said, "I'm excited to welcome Dr. McLean to the UM family. She brings the right mix of experience at the local and statewide level to lead the next chapter of Bitterroot College. She has a strong history of putting students at the center of everything she does, which is core to the UM experience whether at Bitterroot College or our main campus in Missoula."

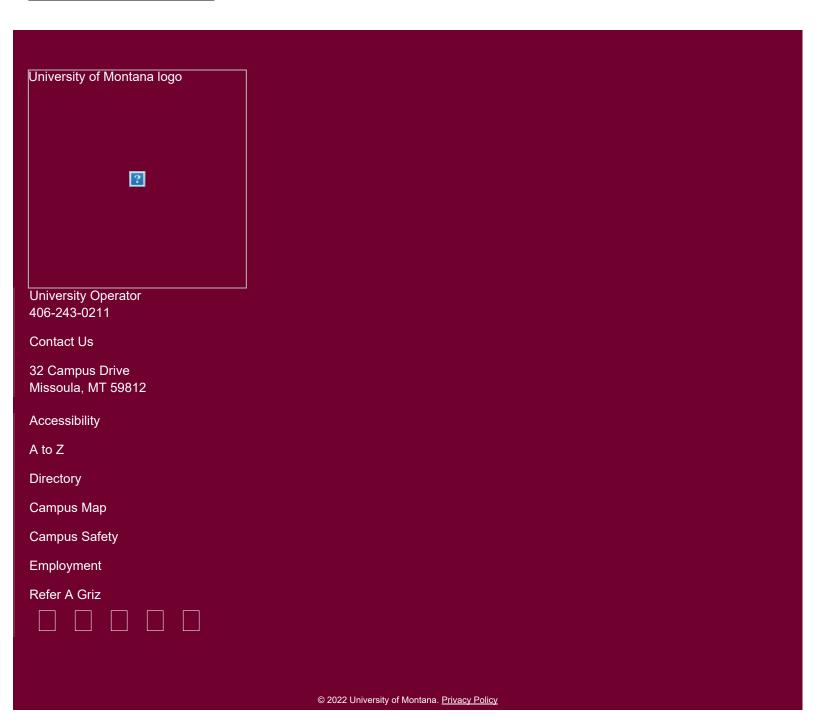
McLean began her teaching career in the Arlee Public Schools and has two decades of experience in the classroom. McLean has been a leading voice for Montana's education community, having served on both the Board of Public Education and the Board of Regents. As Montana's 31st lieutenant governor, she continued her strong advocacy for Montana's schools, teachers and students.

Upon being appointed, McLean said, "I'm very excited for this opportunity. My priority is connecting with local leaders and stakeholders to ensure the programs and opportunities available through Bitterroot College align with community needs. Many in the community have worked tirelessly to ensure the success of this institution, and I'm looking forward to engaging

and learning how we can work together going forward."

###

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UM / News / UM Names 2022 Distinguished Alumni



**MISSOULA** – The University of Montana Alumni Association is proud to announce the four recipients of this year's Distinguished Alumni Awards.

Recipients of the award are individuals who have distinguished themselves in a particular field, bringing honor to the University, the state or the nation. The recipients are respected in their careers and communities. They were nominated by their peers and selected by a committee of UMAA members.

Carlson

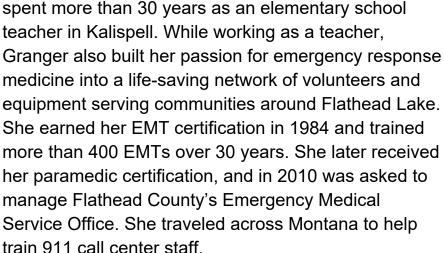
Bob Carlson, BA '76, JD '79, of Butte, has achieved

some of the highest honors in the legal profession. He has been active in the Montana State Bar Association for decades, as well as the American Bar Association, of which he was president from 2018 to 2019. Carlson has received the AV Preeminent rating from Martindale-Hubbell, which recognizes attorneys who have proved themselves to be outstanding in their field. He gives back to his alma mater by serving on the law school's Clinical Board of Visitors.



Granger

Mary Granger, BA '71, of Lakeside,

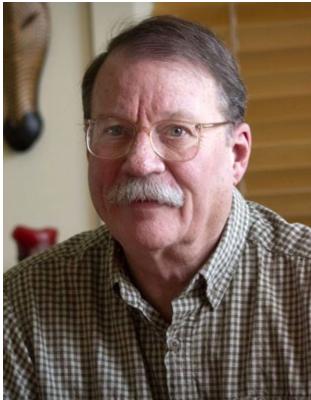


Johnston

Bill Johnston, BA '79, MPA '91, of Missoula, served as UM's director of Alumni Relations for decades. In that role, he built connections between UM and its alumni and represented the University at events across the country. He also spent many years as a lobbyist for UM's priorities in the state Legislature. His passion and dedication helped improve access to UM and higher education for students across Montana. Johnston also is active in several community organizations and

Que.

nonprofits. He serves as the Community Relations Officer for First Security Bank.



Sweeney

Pat Sweeney, BA '72, of

Billings, is one of the most influential figures in creating environmental policy in the western United States. Sweeney dedicated his career to helping Montanans and their neighbors protect vital resources, like land, water and clean air. He was a founding staff member of Northern Plains Resource Council now one of Montana's biggest conservation organizations. Sweeney was vital in passing historic environmental legislation, including the Montana Major Facility Siting Act. He is also a strong voice for voter engagement in the state.

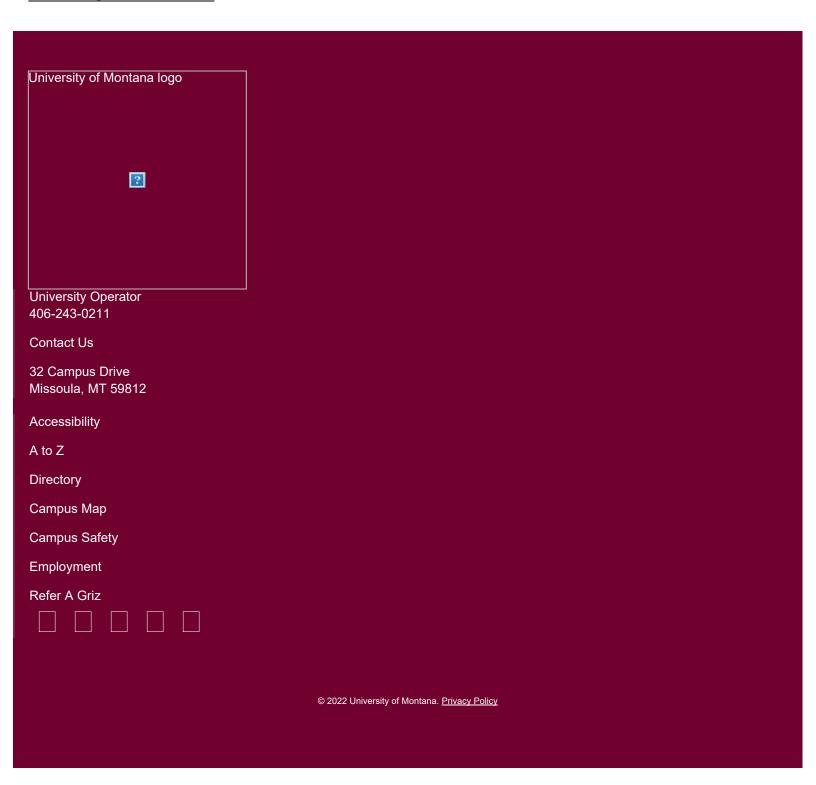
UMAA and UM are excited to welcome these incredible alumni to campus during Homecoming week. To learn

more about the award or this year's recipients, please visit UMAA's website.

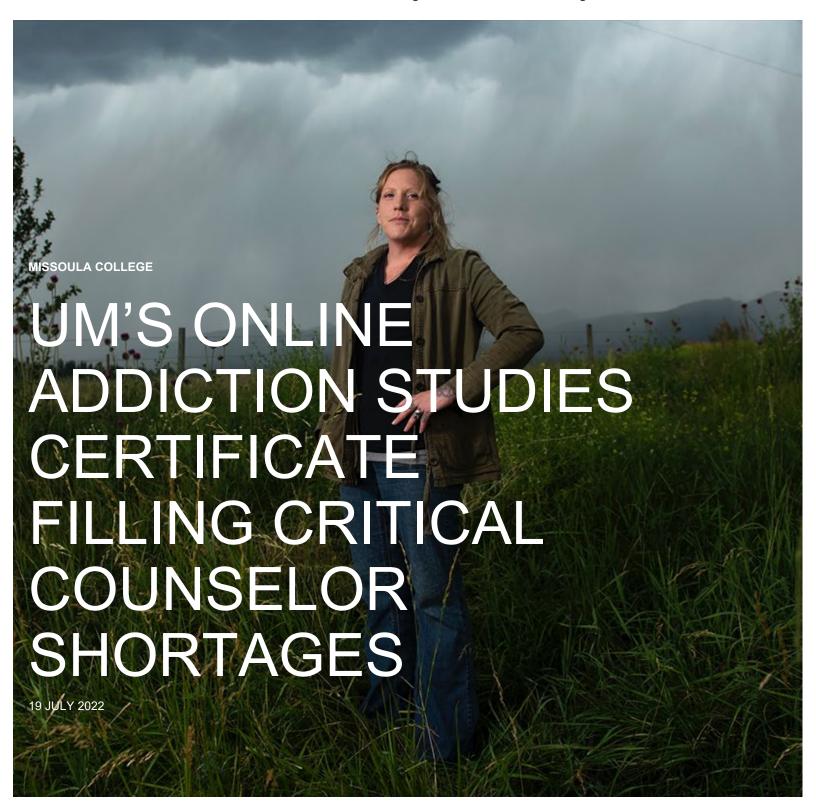
For questions or additional information, email alumni@umontana.edu or call Jodi Moreau at 406-243-6124 or email jodi.moreau@mso.umt.edu.

###

**Contact:** Jodi Moreau, associate director UM Alumni Relations, 406-243-6124, jodi.moreau@umontana.edu.



UM / News / UM's Online Addiction Studies Certificate Filling Critical Counselor Shortages



UM student Amanda Martinez plans to use her studies in Missoula College's Chemical Addiction Studies program to help other woman like herself who are recovering from addiction.

**MISSOULA** – For University of Montana student Amanda Martinez, the decision to study addiction counseling was both academic and deeply personal.

Recovering from drug addiction, Martinez wanted to use her difficult life experiences to help other women struggling with drugs and alcohol and knew she needed training to succeed.

"My story is not unique and that is sad," said Martinez, a mother to two daughters. "For so many women something dramatic happens and they don't know what to do. They lose their kids, and they are hurt, and the vicious cycle begins. I want to be an advocate for women and mothers."

That desire led Martinez to enroll in Missoula College's Addiction Studies Program, which now offers a fully online Certificate of Technical Studies to help address the growing issues related to substance abuse while increasing the number of professionals practicing in the field.

According to the Montana Substance Use Disorder Task Force, an estimated 79,000 Montanans struggle with substance abuse disorders, with drug overdoses being the fourth leading cause of injury related deaths in the state. Meanwhile, a study by the Substance Abuse and Mental Health Services Administration, found 92% of Montanans with a substance abuse disorder are not receiving treatment.

"In every community there is a workforce shortage for people who want to treat substance abuse disorders. And that gets even harder in rural areas," said Katie Smith, an adjunct faculty member in UM's Chemical Addiction Studies program. "Substance abuse is treatable if we have the resources.

"And every single person who completes this program is that resource."

The Addiction Studies CTS provides students wherever they live with the online coursework needed to apply for a Licensed Addiction Counselor license. With the training complete, graduates are fully employable, and can apply for their license after completing 1,000 supervised hours working in the field, Smith said. The certificate also can be combined with Missoula College's General Studies Certificate to complete an Associate of Arts degree.

Patrick Ryan, clinical program supervisor of Recovery Center Missoula, calls Missoula College's Chemical Addiction Studies program "essential" to the treatment of substance abuse in the community.

Patrick Ryan, clinical program supervisor of Recovery Center Missoula at the Western Montana Mental Health Center, serves on the advisory board for the program and calls it "essential" to the treatment of substance abuse in the community.



"Demand for services always outweighs supply," said Ryan, a recovering alcoholic himself. "I have patients waiting three to five weeks to get one of our beds. While they're waiting, they will continue to use. Not all of them will make it to their admission."

Sober since April 23, 2012, Ryan said he tried for years to manage a disease that is unmanageable without help, finally getting into a long-term treatment program offered by WMMHC's Share House. While there, he was accepted into the state's Vocational Rehabilitation Program and enrolled in Missoula College's Chemical Addiction Studies program. He eventually moved his way up from a volunteer at WMMHC to a Licensed Addiction Counselor and is now the director of the recovery center.

"The fact that I have come full circle has not been lost of me," Ryan said. "To go from patient to student to professional. That is what this is all about."

Smith and Ryan stressed that while many students in the program are in recovery or have family experience with addictions, it isn't necessary to succeed as an addiction counselor.

"Being in recovery can help you establish relationships, but you still have to have the tools to understand how to help," Ryan said. That includes, he adds, understanding how trauma can play a driving force in alcoholism and drug abuse.

For Martinez the death of her mother in a car crash exacerbated her drug use.

"I wasn't participating in life, and I got into a lot of trouble," Martinez said. "I tried to manage it myself, but I didn't have any guidance on how to do that."

After serving time and completing a Montana Department of Corrections treatment program, Martinez returned to her family's home in Victor and is working on fixing relationships with her daughters, establishing a community of recovery and crafting a new future for herself.

"I thought maybe I could go back to school but then thought, no, I am a felon, on probation and a drug addict," Martinez said. "My dad said fill out the application, see what happens. The worst thing they can say is no."

Missoula College didn't say no, and Martinez went on to complete her associate's degree and now wants to pursue a bachelor's degree.

"My instructors never made me feel less, they celebrated my accomplishments and explained things to me," Martinez said. "I felt I had nothing to offer, that I was too tarnished. But it's your world experiences that make you."

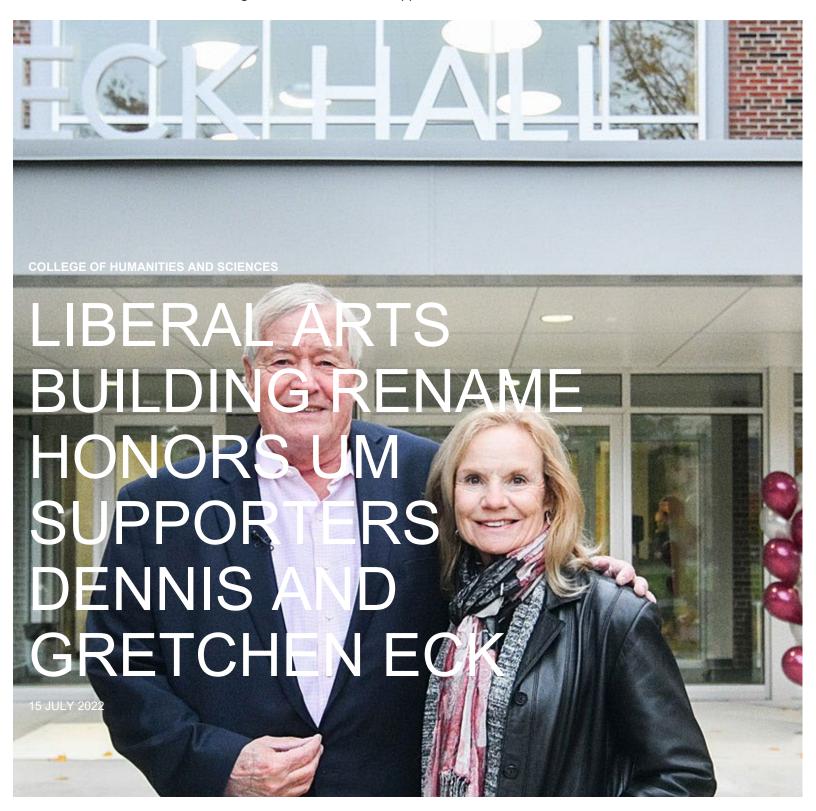
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UM / News / Liberal Arts Building Rename Honors UM Supporters Dennis and Gretchen Eck



Dennis and Gretchen Eck pose before the former Liberal Arts Building at UM, which has been renamed in their honor.

### **MISSOULA**

- The
Montana
University
System
Board of
Regents
has
approved
the
University of
Montana's
request to
rename its
Liberal Arts



Building the Dennis and Gretchen Eck Liberal Arts Building.

The renaming honors longtime UM supporters Dennis and Gretchen Eck, who have contributed nearly \$11 million to the University. Their gifts have funded renovations to most of the Liberal Arts Building, one of the most frequented buildings on Montana's flagship campus.

In 2017, the Board of Regents approved the University's request to name the Academic Hall of the Liberal Arts Building after Dennis and Gretchen. The new renaming applies to the entire building in recognition of their ongoing philanthropic gifts and continued dedication to transforming the Liberal Arts Building to better serve UM students, faculty and the community.

"The improvements that have been made to the Liberal Arts Building, because of the vision and generosity of Dennis and Gretchen, will benefit UM students for years to come," said Julie Baldwin, interim dean of UM's College of Humanities & Sciences. "It is important that the building now reflects their names."

UM's Liberal Arts Building was constructed in 1953 and has served as the primary home for the

institution's humanities offerings. Due to the contributions of the Eck Family, the building now features many renovated spaces, including 25 classrooms with innovative teaching technology, a 120-seat auditorium, a new central building entrance on the famed Oval, three student and faculty engagement hubs, several ADA-accessible restrooms and a new academic advising center, as well as significant upgrades to the building's sprinkler, electric, HVAC and internet infrastructure.

"The teaching, learning and technology environment of this building is completely transformed by the renovations," Baldwin said.

The Ecks also gave a significant gift in 2019 to support the University's S.E.A. Change Initiative, which prepares students to be change drivers and next-generation leaders who champion gender equity. They also established a scholarship fund for Native American students.

A native of **Wolf Point** and the **Fort Peck** Indian Reservation, Dennis Eck earned his degree at UM in history and political science. Gretchen Eck was raised in **Butte** and also attended UM. After completing a degree in history and political science in 1967, Dennis Eck launched a successful career in corporate retail, serving in executive leadership positions with Jewel Companies Inc., The Vons Companies, Coles Myer and Ulta Beauty Inc. Today, he is the principal of DKE Retail Studies.

The UM Foundation is an independent nonprofit organization that has inspired philanthropic support to enhance excellence and opportunity at UM since 1950.

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**Contact:** Elizabeth Willy, director of communications, UM Foundation, 406-243-5320, elizabeth.willy@supportum.org.

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UM / News / Lasting Melodies: UM Music Camps Enjoy 7 Decades



The University of Montana School of Music summer camps attract K-12 students from Montana and across the region for a week of intensive, residential music instruction and community. The camps have been running at the University every summer since 1949.

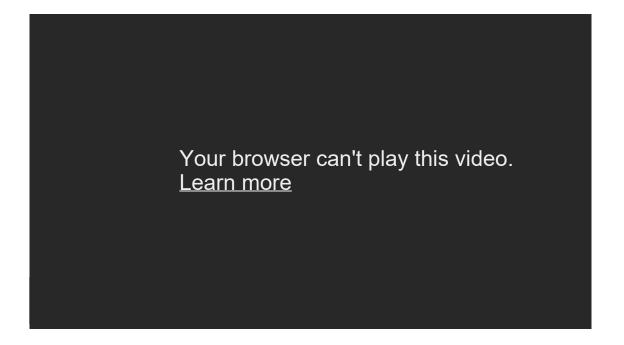
**MISSOULA** – McCann Purcell had never seen 10 bassoons in one room until he attended a University of Montana band camp this summer.

"I mean, we don't even have one bassoon in my band at home," said Purcell, who is from **Fairfield**, which he describes as "somewhere between Great Falls and Choteau."

Purcell will be a junior in high school next year in a class of about 30 students. He loves music and plays trombone and piano, but given the size of his town – some 700 people – access to diverse music instruction is limited.

That's why he was excited to be in Missoula, at UM and with a group of about 85 other music campers that he called "his people."

The University's School of Music has offered its popular music camps for 73 years, with the first one being held in 1949. The camps draw students from all over Montana and across the country for instruction from UM music faculty and interaction with other middle and high school musicians.



For many students like Purcell, the camps serve as music melting pot for expertise, community and instruction for young music talent.

"I've met so many people," Purcell said. "Missoula is like no other town I've been to in Montana. It's like New York City!"

This year's music camps will bring 150 to 200 students to UM. Many chose to live in dorms during the camps, trying out University dining and getting a feel for what it might be like to be a UM student.

Jim Smart, UM's director of bands, said the camps are a beloved tradition at UM that allow

talented students to improve their skills while exploring whether they want to continue their musical journeys at UM. Many UM students pair a music minor or major with another major outside the School of the Music.

Each spring, Smart and his colleagues Margaret Baldridge (String Camp), Rob Tapper (Jazz Camp) and Chris Hahn (Piano Camp) send letters, emails and advertise on social media throughout the Northwest to promote the music camps. Locally, they attend concerts and visit classrooms to encourage students in seventh through 12th grades to attend because they know the power of those experiences. Such exposure, particularly for students in rural communities, is critical in Montana, which Smart said suffers from a shortage of music teachers.

"In a small band program, if you really turn one kid on to music, it can be infectious," Smart said. "I can remember when I was a kid, it wasn't the daily band class that got me thinking of going into music. It was the summer experiences – the honor ensembles – that made me want to pursue music."

The experience of playing with new musicians creates a camaraderie necessary to excel not just in music, but in life, Smart added.

"At camp they get an immediate peer group, and it's an opportunity to get together with kids from other schools that hopefully will energize them to seek higher levels on their instruments and new experiences," Smart said. "Music attracts kids from lots of different backgrounds and is a collaborative activity. As humans we are social beings, and I think putting kids into an environment where they don't know everybody helps them grow."

They also get individualized instruction from UM School of Music faculty who maintain high standards of performance excellence.

"It's a camp experience, so we want to keep it fun, but we push the kids, and there is a performance expectation," Smart said "They work hard and they focus, but there's the social stuff, too, like attending Out to Lunch downtown and a barbecue at Bonner Park. We want them to take this experience and excite them about music."

It's not uncommon, Smart added, for someone to attend camp six years in a row from middle to high school.

Stella Gardner, who plays oboe; Eleni Spaliatsos, who plays clarinet; Sarah Ratz, who plays bassoon; and Julien Alviar, who plays alto saxophone; try to come every year. They all live in Missoula and attend Hellgate High School.

"It's a lot of fun and it's relaxed," Ratz said. "I always learn a lot about my instrument."

She and fellow campers will take what they learn back to the many bands they participate in, including marching band, pep band, concert band and symphonic band.

For Purcell, the social element of camp meant he tried Boba Tea for the first time and walked to get pizza with a few hometown kids. Meeting new friends, elevated expectations and watching someone play the instruments he loves will keep him coming back to music camp at UM.

"I always really loved music," Purcell said. "I listened to musicals when I was little and want to pursue music professionally. Listening to my trombone instructor play – he's so good – he moves the slide so fast and seeing him improv and hearing him on the piano and the trombone is inspiring. I'll be back next year for sure."

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UM Music Student Overcomes Obstacles To Follow Passion for Performance UM Music Students Bring Music Education to Rural Schools

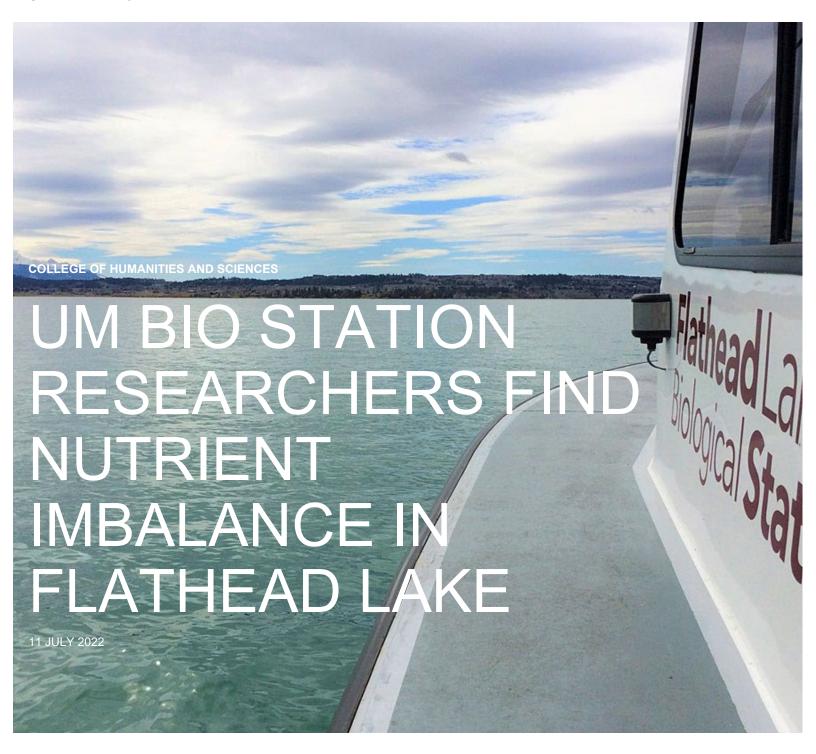
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UM / News / UM Bio Station Researchers Find Nutrient Imbalance in Flathead Lake



UM researchers use the Jessie B. to study the renowned waters of Montana's Flathead Lake.

By Ian Withrow, UM News Service

FLATHEAD LAKE - As any gardener or farmer can tell you, nitrogen and phosphorus are

chemical elements found in soils and fertilizers that plants need to grow. They also know different ratios of nitrogen and phosphorus are ideal or detrimental for different types of plants and crops.

Nitrogen and phosphorus also play a powerful role in lakes and can alter the clear and pristine waters of low-nutrient lakes. But while considerable efforts have been made to monitor the amounts of each nutrient element separately, limited research has assessed how the ratio of nitrogen to phosphorus being supplied to lakes might also alter algae growth and water quality in consequential ways.

Now a team of researchers led by scientists from the University of Montana's Flathead Lake Biological Station has examined nearly 40 years of nutrient dynamics in Flathead Lake. This unique dataset, assembled by the FLBS Flathead Monitoring Program, documents a sustained imbalance between nitrogen and phosphorus that likely has significant ecological consequences in Flathead Lake, as well as other low-nutrient ecosystems.

Their work was published July 11 by the Proceedings of the National Academy of Sciences.

"Since the early 1990s, I've worked to better understand when and where nitrogen and phosphorus limit the growth of lake organisms, such as plankton," said FLBS Director Jim Elser, a member of the National Academy of Sciences and the lead author on the study. "It turns out that strong imbalances in the ratio between nitrogen and phosphorus in ecosystems and organisms can have big impacts. I wanted to see if this was going on in Flathead Lake."

For over a century, research and monitoring programs at FLBS have served as the first line of defense against ever-looming threats to the renowned water quality of the Flathead watershed. The primary threats of nutrient pollution and invasive species have remained the bio station's oldest foes in the fight to sustain the lake's condition and excellent water quality.

Flathead Lake is known for its clean and clear water, largely because the geology encompassing its watershed is ancient and low in nutrients, especially the nutrient phosphorus. This means there are very low levels of nutrients that can be weathered from the bedrock to reach the lake through rainstorms and snowmelt. Therefore, naturally there are low levels of nutrients available for lake algae to grow, and Flathead Lake remains clear and blue instead of green and murky.

This low background of naturally supplied nutrients makes Flathead Lake very sensitive to

human-driven inputs of nutrients. Such human-driven inputs of nutrients into Flathead Lake and associated algal blooms raised concerns in the 1970s and '80s. Subsequently, research conducted by FLBS scientists led to nutrient reduction measures in the Flathead watershed, including one of the nation's largest bans on phosphorus-containing laundry detergents and a multimillion-dollar overhaul of local wastewater treatment facilities to remove phosphorus to very low levels.

But in recent years, Elser and his colleagues began to wonder if monitoring nitrogen and phosphorus in isolation was enough. Given his long history in developing and testing the theory of ecological stoichiometry – the study of the balance of multiple chemical elements in ecological interactions – Elser was eager to find out.

"We found that the overall levels of nitrogen and phosphorus in Flathead Lake and its surrounding rivers and streams, while variable within years and year-to-year, are low but not increasing," said Elser. "In fact, nitrogen and phosphorus levels coming into Flathead Lake from its larger rivers actually appear to be slowly declining. This is great news for the water quality and clarity in our beloved Flathead Lake, while water quality in many of the world's lakes is declining due to increasing nutrient inputs."

Then came a surprising development. While the overall levels of nitrogen and phosphorus in Flathead Lake weren't increasing, the researchers discovered that the lake has sustained a high ratio of nitrogen to phosphorus across a span of four decades, often reaching values that greatly exceed the normal nitrogen-to-phosphorus recipe that matches the needs of most phytoplankton, the lake's microscopic floating algae.

To put it another way, just as humans benefit from a well-balanced breakfast or farmers apply a fertilizer with the appropriate ratio of nitrogen to phosphorus for specific crops, microorganisms that make up the foundation of a lake's food web depend on a very specific ratio of nutrients. When the ratio between nitrogen and phosphorus is high, as it is in Flathead Lake, plankton growth is likely limited by lack of available phosphorus for much of the year.

Through a series of experiments, the team of researchers showed that Flathead Lake phytoplankton are phosphorus-limited. This means the algae are forced to build cells that have low content of phosphorus, making them not particularly nutritious. For the tiny lake animals, zooplankton, which eat those phytoplankton and thereby sustain the lake's high transparency, this amounts to the equivalent of a "junk food" diet. As a result the zooplankton also become phosphorus-limited and their abundances low.

Finally, the team showed that the strong nitrogen-to-phosphorus imbalance in Flathead Lake sets the stage for potential production of the greenhouse gas methane. This occurs when phosphorus-hungry microbes start to scavenge phosphorus from organic molecules and produce methane as a byproduct.

These findings have implications not only for Flathead Lake but also for lakes globally. Wastewater treatment systems, agricultural runoff and urban influences are increasingly recognized as contributing to nitrogen-to-phosphorus imbalance in a variety of situations.

"At Flathead Lake, implementation of wastewater treatment processes that more effectively remove nitrogen would help balance the lake's nitrogen-to-phosphorus ratio," Elser said. "Regionally, a reduction of the atmospheric transport of nitrogen, which occurs through fossil fuel combustion or volatilization of agricultural fertilizers or animal wastes, would also help reduce nitrogen inputs to the lake."

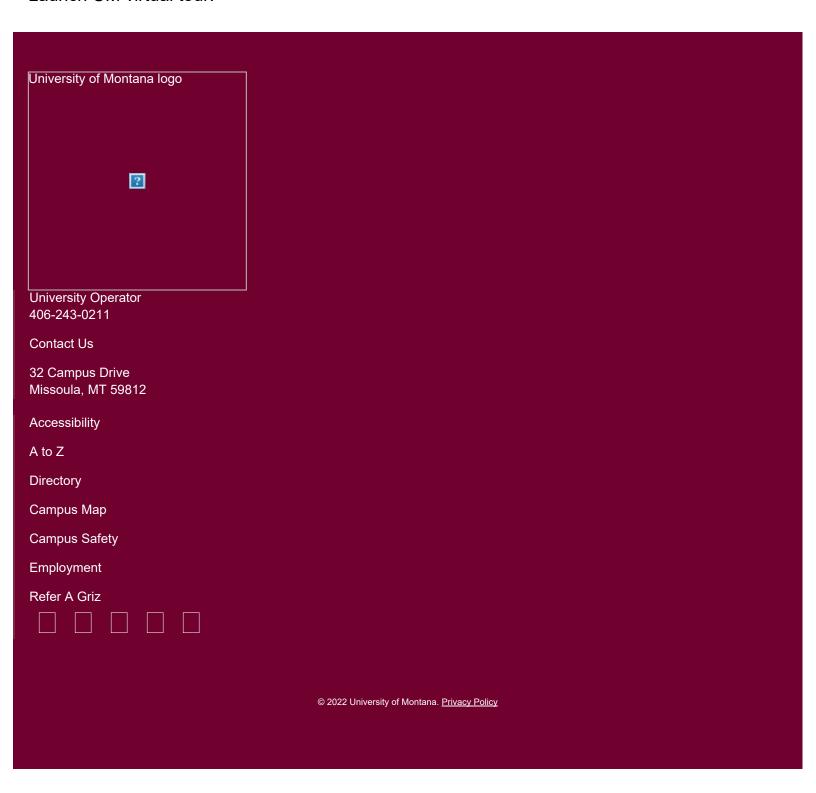
When it comes to the building blocks of our lake ecosystems, in other words, nutrient balance matters.

Besides Elser, authors on the study include FLBS lake ecologist Shawn Devlin, Nanjing Institute of Geography and Limnology scientist Jinlei Yu, FLBS lab manager Adam Baumann, FLBS microbial ecologist Matthew Church, Montana State University Research Professor John Dore, FLBS stream ecologist Robert Hall, FLBS student and UM researcher Melody Hollar, Oklahoma State University scientist Tyler Johnson, Great Lakes Research Center Assistant Professor Trista Vick-Majors and FLBS student and UM researcher Cassidy White.

For the complete study, visit the Proceedings of the National Academy website at https://www.pnas.org/eprint/BTJ6FEQZNWYCSCB93R2U/full.

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UM / News / Four UM Students Land Prestigious Gilman Scholarships to Study Abroad



**MISSOULA** – Four University of Montana undergraduates have won 2022 Gilman Scholarships and are now planning to take their studies abroad.

Samantha Boutte, a senior from Nampa, Idaho, will head to Spain for an internship.

The new Gilman Scholars are Samantha Boutte, a senior from **Nampa**, **Idaho**, who will head to Spain for an internship; Stephanie Kowal, a junior from **Great Falls**, who has her sights set on studying in the United Kingdom; Quemarr Moatamedi, a junior from **Winter Garden**, **Florida**, who hopes to study in Spain; and Ethan Seiler, a junior from **Missoula**, who will spend a full academic year in Japan.

The Gilman Scholarship is a U.S. Department of State program that enables students who may face financial



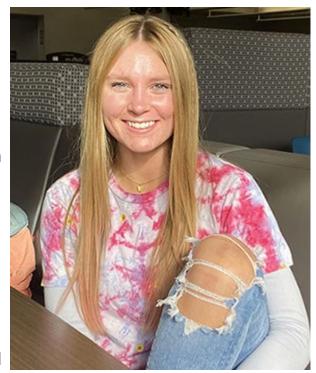
barriers to study or intern abroad. The program aims to increase the number of U.S. citizens who study abroad to foster mutual understanding between the people of the United States and other countries.

Each UM student earned \$5,000 toward a semester or full-year abroad. Dr. Kylla Benes, director of UM's Office of External Scholarships and Fellowships, said scholars are selected for their academic preparedness, program alignment with their long-term career goals, contributions to program diversity and potential impact on their communities abroad and at home.

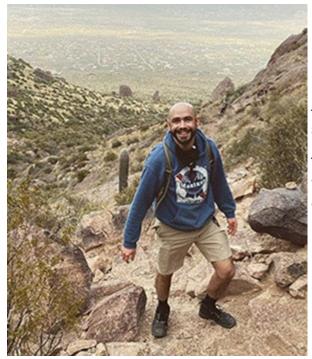
Stephanie Kowal, a junior from Great Falls, has her sights on studying in the United Kingdom.

Samantha Boutte is a social work major and also is earning a Global Leadership Certificate. She wants to use time abroad to gain work experience. She will intern for a non-profit in Spain that assists with refugees and immigrant resettlement. As she prepares for a career in social work in the U.S., Boutte said "the internship I received is my dream job. I want to learn about the culture, meet new people and grow my work experience."

Davidson Honors College student Stephanie Kowal said



earning the Gilman "means that I have an opportunity I never previously dreamed of existing for me – to go and explore another country and gain enriching experiences and new perspectives that will make me a better individual and student." To fulfill her dream, Kowal is applying to study at the University of Roehampton in London or the University of Essex. Both universities will offer new and unique courses in her fields of psychology and sociology, while serving as a gateway to explore places rich in culture and history.



Quemarr Moatamedi, a junior from Winter Garden, Florida, hopes to study in Spain.

A transfer student who earned the scholarship in his first semester at UM, Quemarr Moatamedi said "the Gilman Award gives me a newfound confidence in my ability to achieve my long-term goals. It shows me that with effort and determination I can change the trajectory of my life."

Ethan Seiler, a junior from Missoula, will spend a full academic year in

Japan.



Moatamedi is pursuing a career in translation and hopes to study Arabic, Spanish and translation/interpretation at the University of Granada, Spain. Driven by his passion for learning about other cultures, Moatamedi hopes that this will be the first of many adventures abroad.

Ethan Seiler, a history major with minors in Russian and Japanese, will use the Gilman Scholarship to study at Waseda University in Tokyo for the full 2022-23

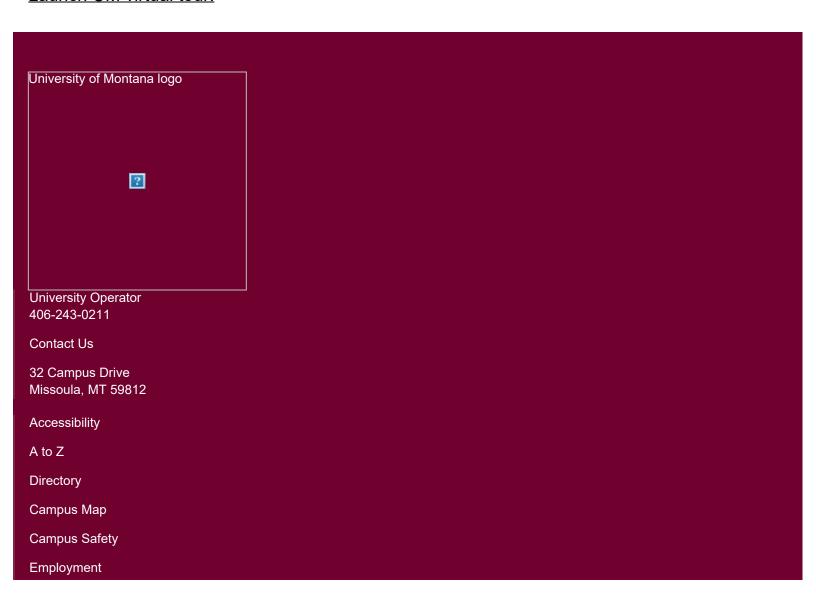
academic year. Seiler is excited to see something totally different from his life in Missoula, plunge into Japanese culture, and explore the differences and similarities between the U.S.

and Japan. Seiler also said the award gave him "a sense of purpose with going abroad, as I'm now spreading the word about both the program and my learning experiences in Japan via social media thanks to the program."

"For students, traveling and living abroad is a life-changing experience, but for many students this opportunity feels out of reach," Benes said. "I hope that more UM students will apply for the Gilman Scholarship and other campus awards and resources to make it possible."

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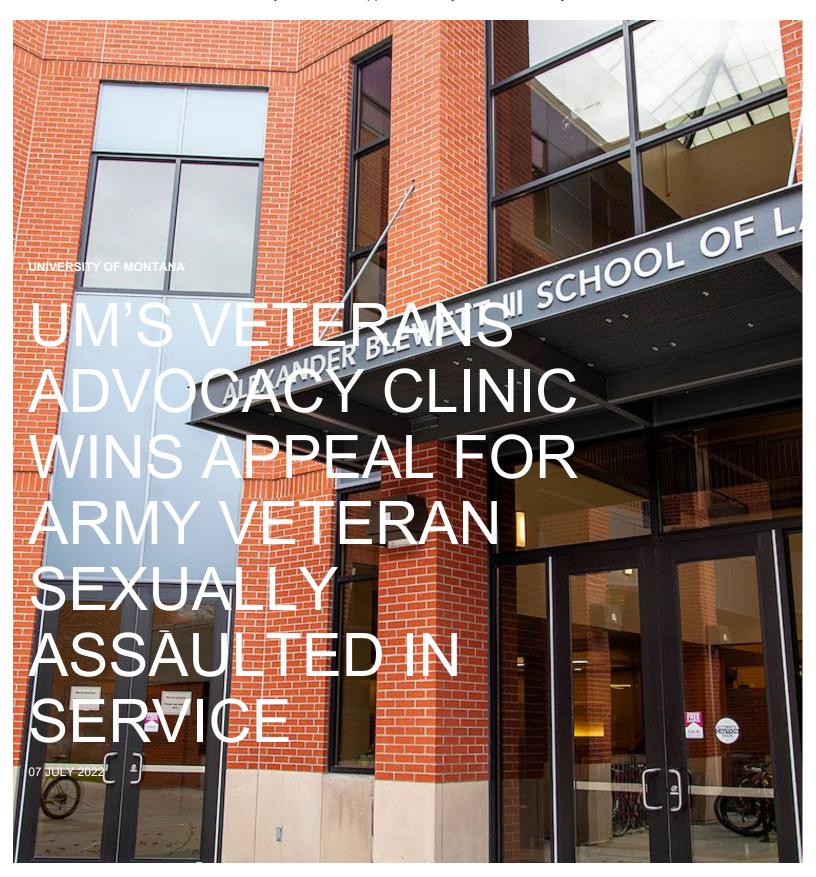
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Four UM Students Land Prestigious Gilman Scholarships to Study Abroad

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UM / News / UM's Veterans Advocacy Clinic Wins Appeal for Army Veteran Sexually Assaulted in Service



**MISSOULA** – The Veterans Advocacy Clinic at the University of Montana's Blewett School of Law won an appeal at the Board of Veterans Appeals for an Army veteran who was sexually assaulted by fellow service members during service.

The successful appeal was made possible through the effort of recent School of Law graduate, Elizabeth Webster, Class of 2020, who now clerks for Montana Supreme Court Justice Dirk Sandefur. Webster wrote a brief to the Board of Veterans Appeals while a third-year law student in the Veterans Advocacy Clinic, under the supervision of UM Professor Hillary Wandler.

Wandler praised Webster's work on the appeal, describing it as "above and beyond.

"Elizabeth gathered extensive facts and records through meetings with the client and records requests to formulate and then support her argument," said Wandler. "Her diligent and detailed review of the medical records revealed an error in VA's reasoning on the effective date of this veteran's service connection. Elizabeth's argument was successful because it persuasively marshalled the facts to present overwhelming support for reversing the VA's original decision."

The veteran served in the Army during the Gulf War era. The VA granted the veteran service connection disability for trauma-related mental health symptoms, but it assigned an erroneously-late effective date. Based on Webster's arguments, the Board determined that the VA Regional Office had erred by failing to recognize the severity of the veteran's disabling symptoms when she first filed her claim. The Board directed the VA Regional Office to reconsider the effective date and award back pay of more than \$120,000.

Webster was thrilled that her brief resulted in a win for her client. "This veteran's story needed to be told, and needed to be told in a way that would compel the board to hear it, understand it, and act on it. I am grateful for the Veterans Clinic and the opportunity to do meaningful work for clients, grateful for the outcome, and grateful for this veteran's strength and courage throughout the process."

The retroactive compensation was only part of the victory for the veteran, who reacted with relief and appreciation for the closure the Board's decision finally provided.

"It still comes in waves," said the veteran, whose name is not being disclosed because of privacy standards that are supported by the court and UM, "The fight for adequate support was taxing mentally, physically, and spiritually. I am thankful for Professor Wandler and Elizabeth

Webster and University of Montana for their support. Being heard and validated, even vindicated through proper acknowledgment, has played a role in my continuing to pursue my best health on all levels."

The Veterans Advocacy Clinic provides free legal representation to military veterans seeking disability benefits from the VA and to military veterans seeking upgraded discharges. The Veterans Advocacy Clinic is part of the School of Law's Clinical Program, founded in 1966, in which law faculty and other supervising attorneys supervise third-year students in a variety of practice settings, from criminal defense and prosecutors' offices to environmental nonprofits and government agencies. The Clinical Program is a capstone of the School of Law's required curriculum designed to help law students prepare for practice before they graduate.

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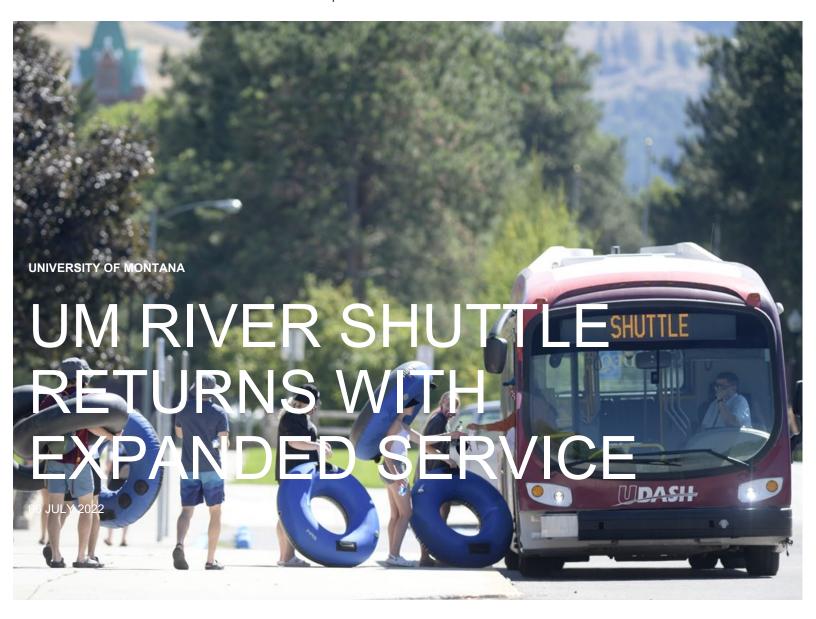
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UM's Veterans Advocacy Clinic Wins Appeal for Army Veteran Sexually Assaulted in Service

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UM / News / UM River Shuttle Returns with Expanded Service



UM's free Clark Fork River Recreation Shuttle will return Thursday, July 7.

## **UM News Service**

MISSOULA – More floaters will be able to grab their tubes this summer and hop on the University of Montana's free Clark Fork River Recreation Shuttle.

The UDASH shuttle has expanded services in its second year and will start Thursday, July 7, and run each Thursday through Sunday until August 28. Shuttles will run every hour on the hour, starting at noon, with the last trip departing UM at 6 p.m. Half-hour service will be provided on Saturday and Sunday from 1-4 p.m.

Each shuttle, which can accommodate up to 20 people and their floatation devices, will run from UM's Campus Recreation Center to the Sha-Ron Fishing Access Site in East Missoula and to Milltown State Park upon request.

"I am beyond excited for this shuttle," said Elizabeth Bowles, president of the Associated Students of the University of Montana (ASUM). "The Office of Transportation has done a great job of providing students and community members with an easy and worry-free solution to enjoying the river."

The shuttles began last summer as a pilot project developed in partnership with Montana Fish Wildlife & Parks, Clark Fork Coalition, the Missoula Downtown Partnership, Mountain Line, Missoula County and the City of Missoula.

A year after its successful pilot run, the UM River Shuttle is back with expanded service thanks to generous contributions from Mountain Line, the UM Excellence Fund, the Vice Provost for Student Success and the UM Summer program.

"The great support and use of the pilot river shuttle last summer helped reduce parking congestion at one of our most popular Missoula access sites," said Randy Arnold, regional supervisor at Montana Fish, Wildlife & Parks. "We're really excited to see the building off of that success, while adjusting to what we collectively learned."

Floaters can bring their inflated or deflated tubes on the bus, and tubes are available to rent at UM Campus Recreation's Outdoor Program. Large groups are strongly encouraged to RSVP. Those needing to park on campus can obtain a parking permit from the shuttle drivers.

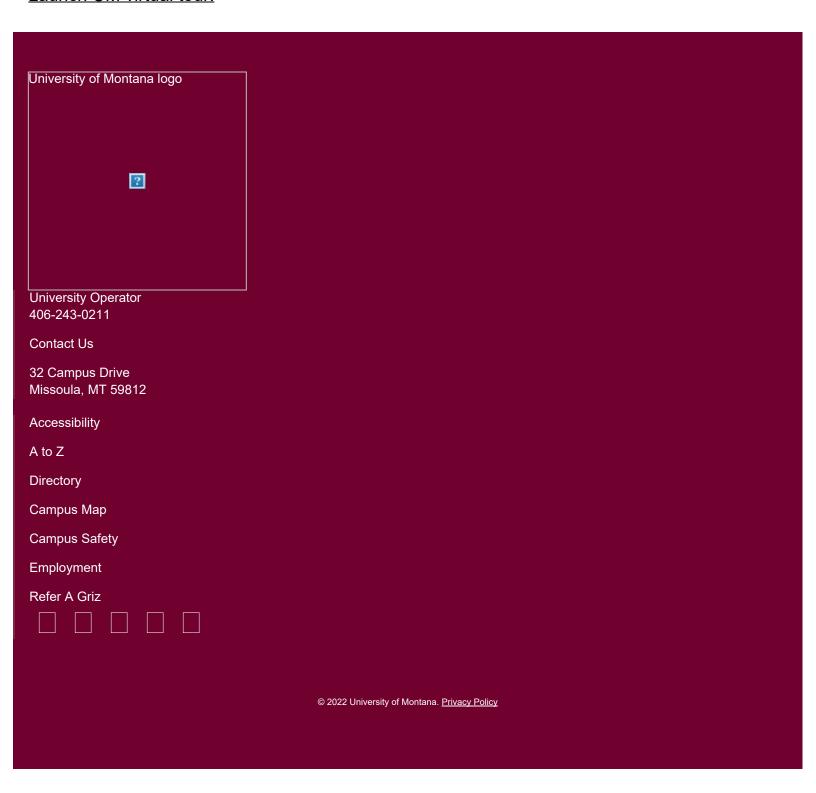
There are a host of take-out spots on the Clark Fork River near campus. For a detailed map visit https://destinationmissoula.org/files/downtown-river-map.pdf. For more information on the UDASH River Shuttle, visit udash.org/river.

"We were really impressed by the immediate popularity of this service," said Danny Gundlach, transit supervisor for UM's Office of Transportation, which operates the UDASH bus service. "We are very proud to offer a service that improves student safety, enhances access to recreation and reduces congestion at river access sites."

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UM / News / UM Bio Station Researchers Discuss Mine Risks to Salmon Rivers



FLBS researchers Erin Sexton (right) and Chris Sergeant watch spawning salmon in a groundwater channel of the mineimpacted Tulsequah River in British Columbia. (Photo by Jonathan Moore, Simon Fraser University)

**FLATHEAD LAKE** – Recently, a group of 23 science and policy experts from the U.S. and Canada published a review of mining risks to watersheds ranging from Montana to British

Columbia and Alaska.

The paper in the journal Science Advances brought together experts in salmon ecology, watershed science, mining impacts and mining policy to integrate knowledge across research fields that often work independently from one another. Led by UM researchers at the Flathead Lake Biological Station, the team found past and present mining pressures are extensive across the region and often overlap with important populations of salmon, trout and char.

"Our paper highlights the mosaic of more than 3,600 active and abandoned mines sitting amongst some of the most valuable fish habitat in western North America," said Chris Sergeant, an FLBS research scientist and the paper's lead author. "The largest of these mines processes around 160,000 metric tons of earth every day."

Sergeant said not all mines pose the same level of risk, but their review revealed that harm from mining can be severe and long-lasting. The extent of mining pressures on these watersheds underscores the importance of accurately assessing risk to water, fish and communities.

The study reviewed the ecological complexity of rivers and how mines can impact culturally and economically important fish species such as salmon by contaminating waters with heavy metals, burying stream habitat and diverting water for processing ore. When not managed properly, these cumulative impacts can be impossible to reverse and degrade landscapes for decades to centuries.

"Unfortunately, in some cases, we are learning the hard way that mines can have profound impacts on aquatic ecosystems, leaching far down the watershed from the actual mine site, at scales that were not anticipated in the original impact assessment", said Erin Sexton, a paper co-author and FLBS senior scientist. "For example, impacts from the Elk Valley coal mining complex in southeast British Columbia have been documented over 155 miles downstream of the mines, crossing the U.S.-Canada international boundary."

The authors emphasize that up-to-date and transparent science has an important role to play in managing the potential impacts of mines. Emerging science on salmonid ecology, cumulative effects and how climate change is altering these landscapes can improve risk assessment of mines.

The authors highlighted four key issues that will be foundational to modern, science-based risk

assessment and mitigation: understanding stressor complexity and uncertainty, accounting for cumulative effects of mining activities across a mine's life cycle, developing realistic mitigation strategies and recognizing the potential for climate change to magnify risk.

"Emerging science is revealing the complex realities of how salmon watersheds work in this era of climate change and also the many different risk pathways posed by mines," said co-author Jonathan Moore of Simon Fraser University in British Columbia. "Informed decision-making will need risk assessments that embrace these challenging topics, ranging from cumulative effects to climate change."

While a low-carbon future will depend to some extent on mined minerals, it is important to consider whether current and future mining projects are operated in such a way that protects fish, water and well-functioning watersheds.

"Our paper is not for or against mining, but it does describe current environmental challenges and gaps in the application of science to mining governance," Sergeant said. "We identify a need and opportunity for strong science-based and transparent risk assessment, as well as the integration of goals and values of impacted communities. In the end, it is possible that some specific places might just be too valuable to risk with major mines."

The full paper can be found on the Science Advances website at https://www.science.org/doi/10.1126/sciadv.abn0929.

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