6-1-2018

June 2018 news releases

University of Montana--Missoula. Office of University Relations

Let us know how access to this document benefits you.
Follow this and additional works at: https://scholarworks.umt.edu/newsreleases

Recommended Citation
https://scholarworks.umt.edu/newsreleases/31820

This News Article is brought to you for free and open access by the University Relations at ScholarWorks at University of Montana. It has been accepted for inclusion in University of Montana News Releases by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.
June 2018 News

06/29/2018 - UM Study: Forests May Lose Ability to Protect Against Extremes of Climate Change - Kimberley Davis

06/29/2018 - Montana Public Radio, Broadcast Programs Receive Statewide Recognition - Ray Ekness

06/28/2018 - UM Named Among Top 5 Online Colleges for Students with Disabilities - Amy Capolupo

06/26/2018 - UM Wilderness Institute Offers Four Volunteer Trips to Lee Metcalf Wilderness - Lisa Gerloff

06/25/2018 - Registration Now Open for Montana Farm to School Summit at UM - Aubree Roth

06/25/2018 - UM Family Medicine Residency Program Graduates 12 Family Physicians - Rebecca Morgan

06/25/2018 - UM Receives $5.4M Grant to Develop Vaccine Against Bacterial Infection - Scott Whittenburg

06/21/2018 - UM Research Identifies How Snowshoe Hares Evolved to Stay Seasonally Camouflaged - Jeffrey Good

06/21/2018 - UM Bio Station, Volunteers Help Keep Flathead Lake Swim Areas Safe - Tom Bansak

06/21/2018 - Public Invited to Observe Osprey Chicks Up Close - Dalit Guscio

06/20/2018 - UM Honors College to Welcome Best and Brightest Students This Fall - Kaetlyn Cordingley
06/20/2018 - Missoula College to Host Free Application Event - Emily Ferguson-Steger

06/18/2018 - Married Musical Duo to Perform at UM in September - Thomas Webster

06/18/2018 - High Plains Book Award Finalists Have UM Connections - Ashby Kinch

06/15/2018 - UM Invites Public to Summer Matinee Series at the Planetarium - Mark Reiser

06/15/2018 - UM Hires Vice President for Enrollment and Strategic Communications - Paula Short

06/13/2018 - UM Graduate Student Earns National Science Foundation Fellowship - Ben Colman

06/13/2018 - UM Releases Results of 2018 Public Lands Survey - Rick Graetz

06/12/2018 - Two UM Graduate Students Receive National Forest Foundation Fellowships - Leana Schelvan

06/11/2018 - UM Hosts U.S. Department of State Global Educators - Caitlin Sager

06/11/2018 - UM Bio Station Researchers Make Astonishing Discovery with DNA Tracking Device - Tom Bansak

06/06/2018 - Accreditors Recognize UM Clinical Psychology Program for Diversity - Bryan Cochran

06/06/2018 - UM Welcomes 2018 Presidential Leadership Scholars - Kaetlyn Cordingley

06/05/2018 - Missoula MedStart Offers Weeklong Student Immersion Camp - Martha Robertson

06/05/2018 - Montana Women Convene for Second Annual Leadership Institute - Sara Rinfret

06/01/2018 - UM AIBL Students Win Business Plan Competition at National Conference - Larry Gianchetta, faculty adviser, UM American Indian Business Leaders, .
MISSOULA, Montana – Forests, one of the most dominate ecosystems on Earth, harbor significant biodiversity. Scientists have become increasingly interested in how this diversity is enhanced by the sheltering microclimates produced by trees.

A recent University of Montana study suggests that a warming climate in the Pacific Northwest would lessen the capacity of many forest microclimates to moderate climate extremes in the future.

The study was published in Ecography: A Journal of Space and Time in Ecology. It is online at http://bit.ly/2KcO1iC.

“Forest canopies produce microclimates that are less variable and more stable than similar settings without forest cover,” said Kimberley Davis, a UM postdoctoral research associate and the lead author of the study. “Our work shows that the ability of forests to buffer climate extremes is dependent on canopy cover and local moisture...
availability – both of which are expected to change as the Earth warms.”

She said many plants and animals that live in the understory of forests rely on the stable climate conditions found there. The study suggests some forests will lose their capacity to buffer climate extremes as water becomes limited at many sites.

“Changes in water balance, combined with accelerating canopy losses due to increases in the frequency and severity of disturbance, will create many changes in the microclimate conditions of western U.S. forests,” Davis said.

Other researchers contributing to the work include UM’s Solomon Dobrowski and Philip Higuera, Zachary Holden with the U.S. Forest Service and the University of Idaho’s John Abatzoglou.

###

**Contact:** Kimberley Davis, UM postdoctoral research associate, 406-243-5529, [kimberley.davis@umontana.edu](mailto:kimberley.davis@umontana.edu); Solomon Dobrowski, UM associate professor of landscape ecology, 406-243-6068, [solomon.dobrowski@umontana.edu](mailto:solomon.dobrowski@umontana.edu).
MISSOULA – Montana Public Radio recently received E.B. Craney Awards from the Montana Broadcasters Association and the Greater Montana Foundation for the news podcast “SubSurface: Resisting Montana’s Underwater Invaders” and the MTPR website.

The E.B. Craney Awards recognize excellence in local news, production, promotion, programs and public service in...
both radio and television stations across the state. The awards were presented Saturday, June 16, at the MBA annual convention in Whitefish.

In the Radio Non-Commercial Program of the Year category, “SubSurface,” produced by Nicky Ouellet and MTPR news director Eric Whitney, took an in-depth look at the possible threat to Montana’s waterways from invasive zebra and quagga mussels.

“It’s a dense topic. It’s not sexy. But we found our people,” Ouellet said. “Listeners want substantive stories that dive into complex science and tease out nuanced opinions.”

MTPR’s website won Radio Website of the Year for the second straight year. MTPR online editor Josh Burnham accepted the award and thanked the news staff and MTPR’s donors.

Two other UM programs became finalists for the awards.

“Backroads of Montana: Rich With Tradition,” finished in second place for Television Non-Commercial Program of the Year. William Marcus, Gus Chambers, John Twiggs and Ray Ekness produce the popular MontanaPBS program.

The MTPR children’s program “Kids Like You and Me,” produced by Annie Garde, Cherie Newman and Beth Anne Austein, was runner-up in the Radio Non-Commercial Radio Program of the Year category.

“Kids Like You and Me” creates a unique and nurturing place to hear radio stories from children about how it feels to be excluded, mocked and bullied because they’re different – in color or ability – or how it feels to be accepted despite those differences.

Montana Public Radio and MontanaPBS are part of the University of Montana’s Broadcast Media Center.

Montana Public Radio airs across much of western and central Montana at 89.1 and 91.5 in Missoula, 89.1 and
Montana Public Radio, Broadcast Programs Receive Statewide Recognition - UM News - University Of Montana

91.5 in Missoula, 91.9 in Hamilton, 89.5 in Polson, 90.1 in Kalispell, Whitefish and North Valley, 90.5 in Libby, 91.7 in Kalispell, 101.3 in Swan Lake, 91.3 in Butte, 91.7 in Helena, 89.9 in Great Falls, 91.7 in Dillon and online at http://mtpr.org.

MontanaPBS (KUFM-TV in Missoula, KUSM-TV in Bozeman, KUKL-TV in Kalispell, KBGS-TV in Billings, KUGF-TV in Great Falls and KUHM-TV in Helena) is a service of UM and Montana State University. For more information visit http://www.montanapbs.org/.

###

**Contact:** Ray Ekness, director, UM Broadcast Media Center, 406-243-4154, ray.ekness@umontana.edu.
UM Named Among Top 5 Online Colleges for Students with Disabilities

June 28, 2018

MISSOULA – The University of Montana leads the nation in providing students with disabilities a positive online learning environment. UM earned the fourth overall spot in the 2018 Disability-Friendly Online Colleges study, completed by SR Education Group.

Schools receive high marks for providing access for the visually, hearing- and speech-impaired, as well as offering comprehensive services for students with learning disabilities.

“We are proud to once again be recognized by these rankings,” said Amy Capolupo, director of UM’s Disability Services for Students. “We strive to exceed compliance standards whenever possible, and providing access to education is something we take very seriously. Our faculty and staff members not only understand their obligations in terms of access, but seek to go beyond the basics to make campus a welcoming and hospitable environment for all students.”

UM was lauded for its 18 online degrees.
“At the University of Montana, the Disability Services for Students ensures that programs are as accessible and usable by students with disabilities and collaborates with UM faculty, staff and departments to ensure students have equal accessible access to educational opportunities,” the report notes.

The full report is online at http://bit.ly/2IAPoBP. For more information about disability services at UM, visit http://www.umt.edu/dss/.

###

**Contact:** Amy Capolupo, director, UM Disability Services for Students, 406-243-4584, amy.capolupo@umontana.edu.
MISSOULA – The Citizen Science Program of the University of Montana Wilderness Institute seeks volunteers to work with experienced field leaders to conduct social encounter monitoring, campsite monitoring and mapping of social trails in the Lee Metcalf Wilderness.

“Wilderness stewardship is a job that is never finished,” said Lisa Gerloff, director of the Wilderness Institute’s Citizen Science Program. “These trips are a great way to get into the backcountry with a fun group of people while collecting information essential to caring for these landscapes.”

The trips are free and open to the public, although advanced registration is required. The Lee Metcalf Wilderness is rugged terrain, so some backcountry experience is helpful. Dinner is provided daily, and transportation is available from Missoula and select towns in the vicinity of the study areas.

All trips are held on Tuesdays and Thursdays throughout July and August and will last six days. Current dates and excursions include:
UM Wilderness Institute Offers Four Volunteer Trips to Lee Metcalf Wilderness

- **July 12-17**: Monument Mountain Unit
- **July 26-31**: Spanish Peaks
- **Aug. 9-14**: Taylor Hilgard Unit #1, Papoose and Sun Creek
- **Aug. 23-28**: Taylor Hilgard Unit #2, Moose Creek

The project is in partnership with the Custer Gallatin National Forest and made possible through a grant from the National Wilderness Stewardship Alliance.


###

**Contact**: Lisa Gerloff, citizen science program director, UM Wilderness Institute, 406-243-6936, lisa.gerloff@umontana.edu.
Registration Now Open for Montana Farm to School Summit at UM

June 25, 2018

MISSOULA – Registration is now open for the 2018 Montana Farm to School Summit, “Cultivating Connections,” which will be held Sept. 13-14, at the University of Montana. The early bird registration and discount ends Saturday, June 30. The conference is co-hosted by Montana State University’s Montana Team Nutrition Program.

Summit participants learn and share how schools and programs are cultivating connections across Montana through the core elements of farm to school – serving local foods, school gardens, nutrition, agriculture and food education. Workshops, field trips and networking opportunities will provide inspiration, ideas and resources. Anim Steel, co-founder of Real Food Challenge, will provide an inspiring keynote address that is also open to the public. The conference features presenters from across Montana and the country.

All individuals interested in farm to school programs are encouraged to attend, including food producers and food businesses, school and summer food service personnel, afterschool program coordinators, teachers, school administrators, preschool and childcare providers, parents, students, farm to school practitioners and groups that support farm to school efforts. Continuing education units will be available through the Early Childhood Project and the Office of Public Instruction’s teacher and school nutrition professional programs.
Farm to school programs aim to improve child nutrition by helping children understand and experience where their food comes from. The programs incorporate healthy, farm-fresh food in school meals and snacks; provide increased opportunity for garden-based learning and agriculture education across the curriculum; and strengthen community-wide connections to support local farmers and children’s well-being.

Additional conference co-hosts are Eat Right Montana/Action for Healthy Kids, Eat Smart Missoula, Garden City Harvest, Lake County Community Development Corp., Montana Department of Agriculture, Montana Farmers Union, Montana Food Bank Network, Montana FoodCorps, MSU Extension, National Center for Appropriate Technology, National Farm to School Network, the Office of Public Instruction, UM Dining, USDA Farm to School, Western Montana Growers Cooperative and Whitefish Public School.

For more information and to register visit [http://www.montana.edu/mtfarmtoschool/summit.html](http://www.montana.edu/mtfarmtoschool/summit.html) or call Aubree Roth, Montana Farm to School coordinator, at 406-994-5996 or email aubree.roth@montana.edu.

###

**Contact:** Aubree Roth, Montana Farm to School coordinator, 406-994-5996, [aubree.roth@montana.edu](mailto:aubree.roth@montana.edu).
MISSOULA – Montana and the Pacific Northwest will gain 12 new doctors on Sunday, July 1, when the University of Montana graduates its third class of family physicians from the Family Medicine Residency of Western Montana.

Of the dozen graduates, a record number of 11 physicians accepted employment to stay in the state. Eight will enter practices in rural and underserved areas in Montana and Oregon.

“It is extremely satisfying to see the fulfillment of our mission become a reality as our graduates head to the rural and underserved communities of Montana and the region,” said Ned Vasquez, program director. “The fact they are doing so speaks highly of the individuals we have recruited and the curriculum they have experienced in their time with us.”

Noor Bass, Christina Richards and Ethan Richards will work at Providence Health & Services Western Montana in Missoula, and Andrew Stritzke will be employed in Missoula at Community Medical Center. Mariah Bonner, Laura Hoganson and Tyler Thorson will work at St. Luke Community Healthcare in Ronan. Cassandra and Brian Lopez will practice in Lewistown at Central Montana Medical Center. Felicia Lucas will work with the Northwest
Community Health Center in Libby. Amy Dear-Ruel will practice in Northwest Montana, and Elizabeth Erikson will work in rural Oregon.

A vast majority of Montana – 53 out of 56 counties – is still medically underserved, and 11 counties are without a physician. When the residency program began in 2013, Montana ranked 50th in the nation for graduate medical education per capita. The creation of FMRWM more than doubled the number of family medicine physicians trained in Montana each year and slowly shifted Montana to 46th in the nation for graduate medical education. UM’s residency program continues to impact the state’s shortage of primary care doctors in rural communities.

“The Family Medicine Residency program has proven to be an excellent way to integrate interprofessional opportunities and training within the college and residency,” said Reed Humphrey, dean of UM’s College of Health Professions & Biomedical Sciences. “UM’s sponsorship and close relationship with the residency program is incredibly valuable.”

Headquartered in Missoula, FMRWM is sponsored by UM and affiliated with the University of Washington Family Medicine Residency Network. The program is dually accredited by the Accreditation Council for Graduate Medical Education and the American Osteopathic Association.

The program’s sponsoring hospitals in Western Montana include Kalispell Regional Healthcare, as well as Providence St. Patrick Hospital and Community Medical Center in Missoula. Residents are involved in continuity clinic training at Partnership Health Center in Missoula and Flathead Community Health Center in Kalispell.

Additionally, the program works with an extensive rural training network of 10 sites, including Blackfeet Community Hospital in Browning, Northwest Community Health Center in Libby, Providence St. Joseph Medical Center in Polson, Clark Fork Valley Hospital in Plains, St. Luke Community Healthcare in Ronan, Marcus Daly Memorial Hospital in Hamilton, Community Hospital of Anaconda, Barrett Hospital and Healthcare in Dillon, St. James Healthcare in Butte and Central Montana Medical Center in Lewistown.

For more information visit http://health.umt.edu/fmrwm/.

Note to the media: FMRWM welcomes members of the media to interview graduating residents from 2:45 to 3:30 p.m. Sunday, July 1, ahead of the formal ceremony, at the Ranch Club, located at 8501 Ranch Club Rd.

To coordinate in advance, call FMRWM project and communications manager Rebecca Morgan at 406-544-5085 or email rebecca.morgan@umontana.edu.

Contact: Rebecca Morgan, project and communications manager, UM Family Medicine Residency of Western Montana, 406-544-5085, rebecca.morgan@mso.umt.edu.
MISSOULA – The University of Montana has received a $5.4 million grant from the National Institutes of Health to help develop a vaccine against bacterial infection.

The principal investigator on the five-year award, titled “Immunization against filamentous bacteriophages to prevent bacterial infection,” is Patrick Secor, assistant professor in the Division of Biological Sciences at UM.

Other investigators on the award include Dr. Jay Evans from UM and Inimmune, a start-up located in UM’s business incubator, MonTEC; David Burkhart and Kendal Ryter from Inimmune; Paul Bollyky and Gina Suh from Stanford University; and Chandan Sen, Sashwati Roy and Valerie Bergdall from Ohio State University. The team’s goal is to develop a vaccine to prevent infections caused by the common bacteria pathogen Pseudomonas aeruginosa.

P. aeruginosa is a deadly pathogen and a major cause of infections in diabetic wounds, lungs and other settings. Due to extensive antibiotic resistance, it is increasingly difficult to treat infections once they are established. Although it is ideal to vaccinate at-risk patients against P. aeruginosa before they develop infections, there are no approved vaccines to prevent infection.
The novel UM research approach does not target the bacteria itself, but a type of virus, or bacteriophage, that is prevalent among not only P. aeruginosa, but many other species of bacterial pathogens.

“Most people think of bacteriophage as simple bacterial parasites. Our work challenges this assumption,” Secor said. “The idea that bacteriophage could play a direct role in infection pathogenesis was very exciting to us. It was this idea that eventually led us to develop an anti-bacteriophage vaccine. We were ecstatic when our vaccine produced positive results.”

The type of bacteriophage targeted by the vaccine has a long filamentous shape. Secor’s research shows that when filamentous bacteriophage accumulate at sites of infection, they increase mucus viscosity and promote bacterial colonization.

“You can imagine how having all of these filamentous bacteriophage in the mucus of your lungs – 10 million or more bacteriophage per gram – might prevent you from coughing up and clearing a lung infection,” Secor said. “They reinforce the mucus kind of like rebar reinforces concrete.”

Secor said he hopes the research will improve the efficiency of the vaccine and prepare it for Phase 1 clinical trials.

According to Scott Whittenburg, vice president for research and creative scholarship at UM, the grant funding is a result of partnerships.

“Combining the novel research approaches of University faculty with the expertise and knowledge-base of a company like Inimmune provides a great platform for developing solutions to real-world problems,” Whittenburg said. “The fact that the lead researcher on this grant is one of our newest faculty members is an indication that the University continues to attract some of the best young researchers from around the country.”

“Being able to secure this type of grant funding during my first year at the University of Montana really shows what is possible when you get the right group of people together to work toward a common goal,” Secor said.

The researchers hope their vaccine strategy targeting bacteriophage can apply to other types of infection-causing pathogens, such as E. coli, Salmonella, bacteria that cause cholera and many others. Secor expects that targeting P. aeruginosa is only the beginning.

“Our work has the potential to help a lot of people in a wide variety of diseases contexts,” he said.

Contact: Scott Whittenburg, UM vice president for research and creative scholarship, 406-243-6670, vpr@umontana.edu.
UM Receives $5.4M Grant to Develop Vaccine Against Bacterial Infection - UM News - University Of Montana
MISSOULA – Many animals have evolved fur or feather colors to blend in with the environment and hide from predators. But how do animals stay camouflaged when their environment changes with each new season? Researchers at the University of Montana recently discovered that hybridization played an important role in snowshoe hare evolution.
hares’ ability to match their environment.

An international scientific team led by UM Associate Professor Jeffrey Good and graduate student Matthew Jones set out to discover how snowshoe hares have evolved to molt to a white coat in areas with prolonged winter snow cover while populations from mild coastal environments of the Pacific Northwest retain brown fur year-round.

“Like other seasonal traits, the autumn molt in snowshoe hares is triggered by changes in day length,” Good said. “But the color of their winter coat is determined by genetic variation that has been shaped by evolution to match the local presence or absence of snow.”

In a new article published in the journal Science, Good’s team discovered that the development of brown or white winter coats in snowshoe hares is controlled by genetic variation at a single pigmentation gene that is activated during the autumn molt.

“This result is exciting because it shows that critical adaptive shifts in seasonal camouflage can evolve through changes in the regulation of a single gene,” Jones said.

The genetic discovery came with a surprising twist.

“When we looked at the same gene in other closely related species,” Jones said, “we found that the brown version of the gene in snowshoe hares was recently acquired from interbreeding with black-tail jackrabbits, another North American species that remains brown in the winter.”

Hybridization between species has played a key role in the development of many domestic plants and animals, and recent research suggests that it is also surprisingly common in nature. In snowshoe hares, hybridization with black-tailed jackrabbits provided critical coat color variation needed to adapt to coastal areas where winter snow is ephemeral or absent. But what does this mean for snowshoe hares going forward?

“Brown winter coats are currently rare across the range of snowshoe hares,” Good said. “If snow cover continues to decrease due to climate change, brown winter coats may become more common in the future and play a critical role...
in the resilience of this species. These discoveries are helping us understand how organisms adapt to rapidly changing environments."

UM Professor Scott Mills is a co-author on the paper. For this research, UM partnered with the Universidade do Porto and CIBIO-InBIO in Portugal, North Carolina State University, Arizona State University, Ecole Polytechnique Fédérale de Lausanne in Switzerland and University of Cambridge in the United Kingdom.

For more information on the research, visit http://www.thegoodlab.org and http://www.umt.edu/research/millslab/coat.php.

###

**Contact:** Jeffrey Good, associate professor, UM Division of Biological Sciences, 406-493-9186, jeffrey.good@umontana.edu; Matthew Jones, graduate student, UM Division of Biological Sciences, 505-235-0664, matthew2.jones@umontana.edu.
UM Bio Station, Volunteers Help Keep Flathead Lake Swim Areas Safe

June 21, 2018

MISSOULA – Ever wonder what else is swimming in your favorite swimming hole? Now, thanks to the Swim Guide Project and a few dedicated volunteers, those who swim in Flathead Lake can know the answer.

Recently, the University of Montana’s Flathead Lake Biological Station joined the collaborative Swim Guide Project, along with the Confederated Salish and Kootenai Tribes and Flathead Lake Open Water Swimmers, a United States Masters Swimming club located in Polson.

The community-driven project provides water quality information on the Swim Guide website and smartphone app. Swim Guide helps users easily find which beaches are open for public swimming and if those beaches meet water quality standards to prevent waterborne illnesses. The site currently delivers real-time water quality information for over 7,000 swimming areas in six countries, including Canada, the United States, Mexico and Australia.

In the Swim Guide Project, dedicated volunteers collect water samples from their local recreational or public swim areas and then submit those samples to a laboratory for analysis.
The idea for bringing this project to Flathead Lake came from Mark and Dana Johnston, local community members who founded FLOW Swimmers in 2014.

“They were interested in conducting E. coli testing at public swim areas,” said Adam Baumann, manager of the bio station’s Freshwater Research Lab, where the water samples are analyzed. “I thought it was a really good idea, and we kind of ran with it together. Then they went back to the community to drum up interest in the project.”

Last year, during the project’s inaugural run at Flathead Lake, members of FLOW Swimmers collected samples from three public swimming areas in Polson: City Park, Salish Point and Boettcher Park. Once a week, they sent a sample from each location to FLBS for E. coli testing.

Baumann’s team then processed the samples and returned the data to FLOW Swimmers the following day. The FLOW Swimmers submitted the results to the local newspaper and posted the information on the Swim Guide app.

This year, the number of testing locations at Flathead Lake for the project is expected to double.

“It’s only going to keep growing,” Baumann said. “Not only at Flathead, but surrounding lakes as well. The people who get involved with community-based science projects like this do so because they care about their local environment, their home. In the Flathead Valley, a lot of people care about clean water, so this has a lot of potential.”

Funding for the Swim Guide Project is provided locally by FLOW Swimmers Mark and Joslyn Shackleford of Alpine Designs in Polson and Glenn Malloy of UBS Denver. The Greater Polson Community Foundation also supports the project and accepts tax-deductible donations through its Directed Gift program.


The FLBS Freshwater Research Laboratory is an ecosystem science facility providing both grant/contract and fee-based analytical services. It offers analyses on water, soil, air, biological and radiochemical samples. For more information visit https://flbs.umt.edu/newflbs/services/freshwater-analyses/.

Contact: Tom Bansak, assistant director, Flathead Lake Biological Station, 406-982-3301 ext. 229, tom.bansak@flbs.umt.edu; Ian Withrow, FLBS media/information specialist, ian.withrow@flbs.umt.edu.
MISSOULA – Members of the public are invited to join University of Montana researchers from the Montana Osprey Project as they handle live osprey chicks and collect valuable data on the health of the Clark Fork River at 9 a.m. Thursday, July 12.

The Montana Osprey Project is a long-term study of osprey ecology and heavy metal contamination in the upper Clark Fork River and its tributaries.
The research team invites bird enthusiasts of all ages to join them July 12 as they visit a Missoula-area nest to collect valuable data from young osprey chicks. Participants can see the chicks and learn more about the Montana Osprey Project.

To reserve a spot on the field trip, email Dalit Guscio at dalit.guscio@mso.umt.edu with the number of people in your party. Those who sign up for the event will receive information on where the event will take place before July 12.

Contact: Dalit Guscio, Montana Osprey Project, 406-361-0599, dalit.guscio@mso.umt.edu.
MISSOULA – The University of Montana’s Davidson Honors College is an increasingly popular choice for the best and brightest high school graduates from Montana. After drawing a record-breaking class of 209 new honors students to campus last fall, the DHC is set to welcome another banner class of approximately 200 students this August.

“We don’t have final numbers on our overall class size this year, but between our incoming class of Presidential Leadership Scholars, our new Montana University System Honors Scholars, National Merit Scholarship Finalists and Valedictorians, I think this may be our most decorated class to date,” DHC Dean Brock Tessman said.

The quality of the DHC incoming class is higher than it has ever been, with the entering group of Presidential Leadership Scholars boasting a grade-point average of 4.0 and an average ACT score of over 32, in the 98th percentile nationally.

These students had offers from other prestigious institutions and chose UM and the Davidson Honors College for a liberal arts experience at Montana’s flagship university.
“I believe that, when we gather all of our Presidential Leadership Scholars in our DHC Ephron Student Lounge, we have more raw intellectual horsepower under one roof than in any other location in Montana,” Tessman said.

The MUS Honors Scholarship is a four-year scholarship based on academic merit that waives tuition for an incoming student at an eligible campus. This year’s incoming MUS winners will engage in exemplary educational offerings in diverse majors from across campus and a welcoming community at UM, the DHC and Missoula, as well as a connection with the outdoors.

The incoming DHC MUS Honors Scholarship recipients include:

**Bigfork**

- Grace Olechowski, who graduated from Bigfork High School and plans to study pre-journalism.

**Bozeman**

- Elliot Johnson, who graduated from Bozeman High School.
- Augusta Reinhart, who graduated from Bozeman High School.

**Columbia Falls**

- Hunter Grimes, who graduated from Whitefish High School and plans to study pre-medical sciences.
- Madeline Jarvis, who graduated from Columbia Falls High School and plans to study music.
- Kennedy Payne, who graduated from Columbia Falls High School and plans to study music.

**Dillon**

- Sarah Griffin, who graduated from Beaverhead County High School and plans to study environmental studies.
- Heidi Martin, who graduated from Beaverhead County High School.

**Great Falls**

- Jacob Baroch, who graduated from Great Falls High School and plans to study biology.
- Gerrit Bloemendaal, who graduated from C.M. Russell High School and plans to study business administration.
- McKenna Osentowski, who graduated from C.M. Russell High School and plans to study pre-pharmacy.
- Emma Tovson, who graduated from C.M. Russell High School and plans to study psychology.

**Helena**

- Emily Burke, who graduated from Capital High School and plans to study pre-medical sciences.

**Huson**

- Madeleine Boller, who graduated from Frenchtown High School and plans to study biology.
Kalispell

- Millie Espeseth, who graduated from Glacier High School and plans to study pre-law.
- Jenna McCrorie, who graduated from Glacier High School and plans to study French.

Missoula

- Katya Brown, who graduated from Sentinel High School and plans to study music.
- Camryn Cooper, who graduated from Hellgate High School and plans to study pre-pharmacy.
- Cory Emlen, who graduated from Sentinel High School and plans to study mathematics.
- Esther Lyon Delsordo, who graduated from Hellgate High School.
- Emma Lyon Delsordo, who graduated from Sentinel High School.
- Niel Mondova, who graduated from Hellgate High School and plans to study biochemistry.
- Amy Ostertag, who graduated from Sentinel High School and plans to study elementary education.

###

Contact: Kaetlyn Cordingley, director of career development and community partnerships, UM Davidson Honors College, 406-243-2579, kaetlyn.cordingley@umontana.edu.
UM Honors College to Welcome Best and Brightest Students This Fall - UM News - University Of Montana
Missoula College to Host Free Application Event

June 20, 2018

MISSOULA – Prospective students and their families are invited to the Missoula College Application Assistance Event any time between 3 and 7 p.m. Wednesday, June 27, at 1205 E. Broadway in Missoula.

The event includes assistance completing a Missoula College application, as well as the Free Application for Federal Student Aid. Participants also can explore Missoula College’s programs and offering, take a tour of the new building, and learn about student services, including tutoring, Career Services, the Veterans Education and Transition Services Office, Curry Health Center, housing, dining, transportation and more. Free food is provided.

Attendees should bring a high school transcript, GED/HiSET score or college transcript. Missoula College will waive the $30 application free and admit on the spot prospective students who submit an online application during the event.

For more information call Emily Ferguson-Steger, UM Undergraduate Admissions Office director, at 406-243-6268 or email emily.steger@mso.umt.edu.
Contact: Emily Ferguson-Steger, director, UM Undergraduate Admissions Office, 406-243-6268, emily.steger@mso.umt.edu.
Married Musical Duo to Perform at UM in September

June 18, 2018

MISSOULA – Grammy-award winning jazz pop icons and husband and wife duo Herb Alpert and Lani Hall will perform at 7:30 p.m. Thursday, Sept. 20, in the University of Montana Dennison Theatre.

Alpert is the founder of Herb Alpert & the Tijuana Brass, and Hall is the lead singer for Sergio Mendes and Brasil ’66. Alpert has won nine Grammys and earned 14 Gold and 15 Platinum albums, and Hall has won two Grammys. Alpert and Hall have stayed active and relevant over the years, nominated for best contemporary instrumental album at the 2016 Grammy Awards.

The September performance marks their first appearance in Missoula. Tickets are available at all GrizTix locations, by phone at 406-243-4051 or 1-888-MONTANA and online at https://bit.ly/2JoTmTu.

The concert is presented by Singer and Simpson Productions. For more information call Tom Webster, UM Dennison Theatre director, at 406-243-2853 or email thomas.webster@umontana.edu.

###
Married Musical Duo to Perform at UM in September - UM News - University Of Montana

Contact: Thomas Webster, director, UM Dennison Theatre, 406-243-2853, thomas.webster@umontana.edu.
MISSOULA – The High Plains Book Award has announced finalists for its 2018 awards, including two books with University of Montana connections.

UM environmental studies Associate Professor Rosalyn LaPier received the honor for her recent University of Nebraska Press book, “Invisible Reality: Storytellers, Storytakers and the Supernatural World of the Blackfeet.” Her book was nominated in the Indigenous Writer category.

Randall Gloege’s collection of poems, “The Bunch Grass Motel,” also was named a finalist in the Poetry category. The book was published by UM Press in fall 2017 and edited by Bernard Quetchenbach.

“Randall Gloege bears witness to the quirks, specifically, and beauty of his Montana homeland, performing that essential lyric function of revealing the world that makes and unmakes us,” said Ken Egan, director of Humanities Montana at UM.

The awards will be announced in October at the High Plains BookFest.
“UM is proud of its strong support of faculty research and writing, including its promotion of the distinctive voices of the state’s varied and deep cultural heritage,” said Ashby Kinch, director of UM Press.

For more information about LaPier’s book, visit http://www.umt.edu/umpress/umpress-books/gloege.php.


Contact: Ashby Kinch, UM professor of English and associate dean of the Graduate School, director of UM Press, 406-243-6695, ashby.kinch@mso.umt.edu.
UM Invites Public to Summer Matinee Series at the Planetarium

June 15, 2018

MISSOULA – Members of the community are invited to explore the wonders of the universe inside the planetarium at the University of Montana this summer. During each matinee show, experts will present on points of interest in the sky, from planets and stars to the Aurora Borealis.

UM’s Department of Physics and Astronomy will host 60-minute shows inside the Payne Family Native American Center Star Gazing Room from 1 to 2 p.m. and from 2:15 to 3:15 p.m. on the following Thursdays:

- June 21
- June 28
- July 12
- July 26
- Aug. 2
- Aug. 16

Tickets cost $6 for adults and $4 for children ages 12 and under, and they are available for purchase at
All ages are welcome, but organizers find that children ages 7 and older enjoy the public shows the most, as the material often is presented at a more advanced level. Children must remain quiet and attentive for the entire program.

The maximum capacity for public shows is 28 people, so tickets are limited. Shows often sell out in advance, and tickets cannot be purchased at the door.

Attendees should arrive 10 minutes before the beginning of the show to check in. The planetarium entrance will be locked after the show begins. As part of the Elouise Cobell Land and Culture Institute, UM’s planetarium is housed in the Star Gazing Room in the basement of the Native American center in Room 013.

Contact: Mark Reiser, outreach coordinator, UM Department of Physics and Astronomy, 406-243-2074, mark.reiser@umontana.edu.
UM Hires Vice President for Enrollment and Strategic Communications

June 15, 2018

MISSOULA – The University of Montana has hired Catherine Cole as vice president for enrollment and strategic communications, completing a reorganization to integrate marketing, communications and enrollment at UM announced earlier this spring.

UM President Seth Bodnar announced the hire and reflected on Cole’s expertise.

“UM is a world-class university and this reorganization creates the opportunity to better integrate and more effectively tell our story,” Bodnar said. “Cathy Cole has impressive and documented professional success in these areas and I look forward to the energy she will bring to campus.”

Cole comes to UM from the University of North Florida in Jacksonville, a university with approximately 15,800 students. There she serves as assistant vice president of Enrollment Services and director of Integrated Marketing and Strategic Communications.

“I am very excited to join President Bodnar’s team and to hit the ground running for the University of Montana,” she
said. "With the support of the University and Missoula communities, we are going to make some positive steps forward. It is a great time to be a Grizzly. My family and I are looking forward to our move and this next chapter."

As VP for enrollment and strategic communications at UM, Cole will oversee Integrated Communications, including University Relations, collegiate licensing, marketing, the Office of Alumni Relations and UM's Broadcast Media Center, as well as the offices of admissions and financial aid.

Cole’s selection comes after a national search for the position, which yielded 35 applicants, four of which visited the campus over the past two weeks as finalists.

Violet Hopkins, evaluations supervisor in UM’s admissions office and a member of the search committee, said she was pleased with the hiring process and selection.

“Cathy brings an incredible amount of experience related to enrollment management – and specifically marketing to prospective students, as well as keeping our current students engaged,” Hopkins said. “I’m excited to work with her.”

UM faculty members who participated in the campus forums with the finalists also acknowledged Cole’s experience with marketing academic programs.

Jenny McNulty, math professor and associate dean of UM’s College of Humanities and Sciences, noted Cole’s willingness to create marketing plans for each department across campus.

“Cathy has a wealth of university experience, deep insight into today’s students and a vision for UM to focus on connections and collaborations,” McNulty said. “She’s a great addition to the UM team.”

Cole will relocate to Missoula in the coming weeks and will begin her duties full time in Missoula in late July or early August.

###

Contact: Paula Short, director of communications, UM Office of the President, 406-243-2311, paula.short@mso.umt.edu.
UM Graduate Student Earns National Science Foundation Fellowship

June 13, 2018

MISSOULA – The National Science Foundation recently announced that Kaitlin Perkins, a master’s student in systems ecology at the University of Montana, will receive its prestigious Graduate Research Fellowship Program award.

Perkins is a part of UM BRIDGES, a NSF-funded national research traineeship for leaders to tackle research related to the nexus of water-energy-food systems. Perkins works with Assistant Professor Ben Colman in the W.A. Franke College of Forestry & Conservation at UM to investigate the relationship between nutrient and metal contaminant cycling in the Clark Fork River and land use, such as agriculture.

Perkins’ research will inform agricultural operations management under the Clean Water Act to improve water
quality locally and globally through watershed science and policy. Her bio is online at http://www.umt.edu/bridges/people/trainees.php?id=5401.

The GRFP recruits high-potential, early-career scientists and engineers and supports their graduate research training in science, technology, engineering and mathematics fields. The National Science Foundation selects 2,000 awardees from more than 12,000 applicants from across all U.S. states and territories. Launched in 1952, NSF’s GRFP represents the nation’s oldest continuous investment in the U.S. STEM workforce.

###

**Contact:** Ben Colman, UM assistant professor of aquatic ecosystem ecology, 406-243-6315, ben.colman@umontana.edu; Alisa Wade, program coordinator, UM BRIDGES, 406-529-9722, alisa.wade@umontana.edu.
UM Graduate Student Earns National Science Foundation Fellowship - UM News - University Of Montana

University of Montana
32 Campus Drive
Missoula, MT 59812
Phone: (406) 243-2522
news@umontana.edu
MISSOULA – Recent results from a University of Montana survey of likely Montana voters found growing support for public lands across the state and for policies that protect and expand them, including the Land and Water Conservation Fund, new wilderness designations and a new National Monument designation near Glacier National Park.

That’s according to the third biannual Public Lands Survey commissioned by UM’s Crown of the Continent and Greater Yellowstone Initiative, which surveyed 500 registered Montana voters. The goal, Program Director Rick Graetz said, is a better understanding of where Montanans align on current issues and policies that impact the state’s public lands and the people who use them.

“Regardless of the policy we tested, Montanans are more often on the side of enhancing public lands, not removing protections,” said Graetz, who also teaches in UM’s Department of Geography. “This support seems to be intensifying and is driven by our frequent use of public lands and the positive economic benefits associated with them.”
The poll was conducted by Republican pollster Lori Weigel of Public Opinion Strategies and Democratic pollster Dave Metz of Fairbank, Maslin, Maullin, Metz & Associates. The pollsters say findings are similar to past surveys, but new data shows growing support for specific policies that protect public lands.

For instance, Montanans are more likely to support new wilderness destinations than they were when the question was first asked in 2014. Support for federal wilderness jumped to 57 percent this year, climbing to 65 percent when Montanans learn that 3 percent of the state’s lands currently are protected as wilderness.

Montanans also are more likely to reject current legislative policy that proposes to eliminate protections for 29 Wilderness Study Areas across the state, with the majority of respondents (54 percent) indicating they want to keep the areas the way they are. Only 11 percent of voters surveyed said that they believe that the existing protections should be eliminated.

“Compared to our survey four years ago, we see even stronger support for maintaining or adding to wilderness in Montana,” Weigel said. “The majority of Montanans either want to keep things the way they are or designate new lands as wilderness. They also definitely feel the process should be informed by local communities and stakeholders.”

Voters also are more likely to support the Land and Water Conservation Fund than they were four years ago. Seventy-six percent of Montanans support the Land and Water Conservation Fund, which is four points higher than in 2014.

New public lands issues surveyed this year include the Antiquities Act and its potential use in the state. Montana voters also overwhelmingly support the president’s authority to declare a National Monument. Support for this authority is bipartisan but is strongest among the state’s GOP voting block.

Seventy-six percent of voters also support a recommendation by the Trump administration to declare the Badger-Two Medicine region near Glacier National Park a National Monument. When asked to prioritize management considerations for a potential National Monument, Montanans are more likely to say a monument should protect existing recreation, conserve fish and wildlife habit and provide opportunities for community input.

The survey also asked Montana voters to weigh in on the following issues regarding public lands in the state:

- 73 percent support the Blackfoot Clearwater Stewardship project, which strengthens protections for 80,000 acres of land in western Montana, while opening new areas for motorized recreation and timber harvest.
- 72 percent of Montanans would support a proposal to feature less-visited public lands in the state’s tourism promotion efforts.
- 82 percent of Montanans say public lands help the economy. The economic impact of public lands is far more likely to be realized today than it was four years ago.
- 87 percent of Montanans say conservation issues are important considerations in their voting decisions.

Graetz said his program doesn’t take positions, but he hopes the results enable more discussion as public lands debates about wilderness protections, conservation funding and National Monuments unfold in the Crown of the Continent and Greater Yellowstone Ecosystems.
“We are in the midst of several policy discussions right now about the long-term protection of various public lands, and I think it’s good to understand how voters are reacting,” he said. “I would encourage all of Montana’s elected officials to take these results to heart.”

A summary of the results and the full survey is available online at https://crown-yellowstone.umt.edu/voter-surveys/2018/.

The 2018 Public Lands Survey was conducted by telephone from April 12-17 with a margin of error of +/- 4.38 percent.

###

**Contact:** Rick Graetz, director, UM Crown of the Continent and Greater Yellowstone Initiative, 406-439-9277, rick.graetz@umontana.edu.
Two UM Graduate Students Receive National Forest Foundation Fellowships

June 12, 2018

MISSOULA – Two graduate students in the W.A. Franke College of Forestry & Conservation have become the first Conservation Connect Fellows at the National Forest Foundation.

Hannah Leonard and Adam Snitker received the fellowships to support their collaborative and conservation-oriented practical projects.

Leonard, from Missoula, earned her bachelor’s degree in business administration and marketing from UM’s College of Business. Her master’s project, a partnership with UM research Assistant Professor Alex Metcalf, will examine how to use marketing theories and methods to understand conservation-related behaviors and behavior change.

Snitker, from Keizer, Oregon, earned a bachelor’s degree in sociology from Seattle Pacific University. As a master’s student in UM’s forestry college, Snitker continues to explore society as it navigates food and water availability in a changing climate.

Conservation Connect Fellows gain direct experience with the NFF and partners. They receive a stipend of $5,000.
Two UM Graduate Students Receive National Forest Foundation Fellowships - UM News - University Of Montana

over 18 months and complete on-site practicums at the NFF office in Missoula or a participating host organization.

The NFF, chartered by Congress, engages Americans in community-based and national programs that promote the health and public enjoyment of the 193 million acre National Forest system. NFF addresses critical forest and watershed restoration needs across our most iconic national forests and grasslands.

###

**Contact:** Leana Schelvan, director of communications, W.A. Franke College of Forestry & Conservation, 406-273-6693, leana.schelvan@umontana.edu.

---

University of Montana
32 Campus Drive
Missoula, MT 59812
Phone: (406) 243-2522
news@umontana.edu
UM Hosts U.S. Department of State Global Educators

June 11, 2018

MISSOULA – In line with its mission to promote global connections for Montanans, the University of Montana’s Maureen and Mike Mansfield Center is hosting 20 global educators in Missoula through Friday, June 29.

Representing 20 different countries – from the South Pacific to the Middle East – the exchange provides cross-cultural opportunities rare to western Montana.

The program is part of the U.S. Department of State’s Study of the U.S. Institutes for Secondary Education. Global educators receive an in-depth study of U.S. culture and society through the lens of liberty, equality and the American dream. They will have daily contact with Montanans by collaborating with Missoula students and teachers, conducting service work at the Missoula Food Bank and giving cultural presentations in schools and at Sunrise Rotary.

The group will spend four weeks based in Missoula while traveling throughout the state to Helena, Butte, Yellowstone National Park and the Flathead Indian Reservation. They complete their introduction to the U.S. with a week in both Charleston, South Carolina, and Washington, D.C.
The program is sponsored by the Bureau of Educational and Cultural Affairs of the U.S. Department of State to promote mutual understanding between people of the U.S. and people of other nations, as well as to strengthen curricula, such as curricula taught about the United States in academic institutions abroad. UM is one of only three institutions nationwide selected to host this program.

“We’re honored to bring this program to Montana given the demonstrated impacts these exchanges have on our communities,” said Mansfield Center Program Director Deena Mansour. “One such benefit was the creation of partner classrooms at Big Sky High School with counterparts in Lithuania and Iraq. These experiences allow our students to better engage in an increasingly interconnected world.”

UM’s Mansfield Center promotes global relations, leadership and ethics in public affairs in the spirit of U.S. Senator Mike Mansfield (1903-2001) and his wife and life partner, Maureen Hayes Mansfield.

For more information on Study of the U.S. Institutes programs hosted by the Mansfield Center visit http://bit.ly/2sRSvQ3.

Contact: Caitlin Sager, program manager, UM Maureen and Mike Mansfield Center, 406-243-2988, caitlin.sager@mso.umt.edu.
MISSOULA – In mid-April, a team of University of Montana researchers from the Flathead Lake Biological Station traveled to the Lake Mead National Recreation Area in southern Nevada to conduct field tests on a new, cutting-edge device called the “DNA Tracker.”

The group consisted of FLBS Director Jim Elser, research professor and technologist Cody Youngbull and research scientist Zane.
Lindstrom.

They arrived with hopes the DNA Tracker would perform as it had dozens of times before in the laboratory – detecting invasive mussel DNA extracted from samples collected from plankton net tows – thereby proving its potential as an invaluable tool in the fight against aquatic invasive species, or AIS.

But that's the thing about research and field work. Things don’t always go as planned.

"It was like we built this machine to make this discovery," said Youngbull, inventor of the device. "And, ironically, it came out of a Hail Mary pass to save a field deployment."

What the researchers found was that the device could read a type of DNA usually destroyed or thrown away, making it a revolutionary resource in the detection of AIS. To better understand what happened at Lake Mead, a little background on the DNA Tracker is required.

Invasive mussels were first detected in the Missouri River Basin of Montana in 2016. They're a highly damaging species, often spreading like an infection and greatly impacting the economy and ecology of a region. Agencies and stakeholders across Montana have increased AIS education and prevention measures to keep the invasive mussels from spreading elsewhere in the state.

They especially have dedicated efforts toward keeping the Flathead, Kootenai and Clark Fork River systems clear. These are the headwaters of the Columbia River, the last major river system in the U.S. that doesn't have invasive mussels.

In the battle against AIS, early detection is key, as finding small localized populations of invaders gives the best hope of eradication and preventing further spread. This is where the DNA Tracker comes in.

The DNA Tracker is a digital PCR – polymerase chain reaction – machine. It’s manufactured by Youngbull and his team in the FLBS SensorSpace environmental sensor lab and specifically designed to analyze and test water samples in near real-time for evidence of the organisms that live there using environmental DNA, or eDNA.

DNA is the building block of life, and organisms are continually leaving it behind through their shed cells, waste
products and carcasses. Unlike traditional PCR machines, which are large and expensive and meant to be operated in a lab, the DNA Tracker is lightweight and cost-effective, runs on battery power and is small enough to carry in a backpack.

Here’s how it works.

Samples of filtered lake water containing extracted eDNA are sucked into the machine through a small tube roughly the same diameter as pencil lead. The device carries the water through the tube and breaks it down into thousands of individual droplets, each less than one-billionth of a liter in size. The machine analyzes each droplet to see if it contains the targeted eDNA by comparing it to a template.

The DNA Tracker’s efficiency of detection, when combined with its portability and affordability, would be enough to set it apart in the field of eDNA analysis. But the innovations don’t stop there.

Before testing, DNA usually is extracted by a process through which it is isolated and purified. The most important phase of extraction is known as lysis, which is the disintegration of a cell by rupturing its wall or membrane. It’s the step that gets the DNA out of the cell. In a laboratory, a typical extraction process can take anywhere from several hours to a day or more. Such a lag time simply isn’t feasible out in the field.

So, thanks to a U.S. Fish and Wildlife Service grant, Youngbull and his team came up with a new extraction process – one that could be done rapidly and inexpensively in the field.

“We gave ourselves restrictions,” Youngbull said. “We decided our sample prep could take no longer than 15 minutes, had to be able to be performed by an untrained person in nearly any location and had to cost less than $3 per sample. We followed these parameters and felt like we came up with a pretty good process.”

Armed with these new extraction protocols, the DNA Tracker now had the ability to indicate the presence of invasive species DNA in less than an hour. Youngbull and his team effectively created a portable PCR device that could analyze eDNA on site and rapidly. After numerous rounds of testing at FLBS, there was only one thing left to do.

The DNA Tracker needed to be tested beyond the lab and in an ecosystem already infested with invasive mussels. Lake Mead was the obvious choice.

Invasive quagga mussels first were discovered in Lake Mead in 2007. Since then, the mussels have enjoyed a decade of unchallenged growth, clogging up water and hydropower infrastructures, such as Hoover Dam, and overwhelming the downstream Lake Mohave and Lake Havasu. This has caused a dramatic impact on the economy, ecology and human enjoyment of the region, and it stands as an ominous warning to other freshwater ecosystems in the western U.S. It also serves as a prime location for those looking to put an innovative, portable PCR machine through a trial run.
With DNA Tracker in hand, Elser, Youngbull and Lindstrom flew down to Nevada and promptly went to work. Assisted by National Park Service researchers, they prepped their boat, readied their instrument and with high hopes ventured across the lake to collect mussel larvae in plankton nets and extract their DNA to test their first mussel-infested water body. But there was a problem.

It didn’t work.

They tried again, with different samples. Again, the DNA Tracker yielded no results. While the DNA Tracker itself seemed to be in operating order, some sort of glitch in the extraction process prevented them from receiving any detection. The field test, it seemed, was quickly turning into a bust.

“The next day, we said, ‘Well, let’s see what we can do to try to salvage this trip,’” Youngbull said.

The new plan was to collect a water sample, pass it through a filter to rid the sample of debris and then run the filtered sample through the machine without the extraction process. There was a chance, they reasoned, that the invasive mussel cells would go through the lysis phase inside the DNA Tracker. Which brought them to another problem: The only filter they had on board the boat was highly constricted, with pores only a couple of hundred nanometers across. While it would effectively remove all the grit and other particles that might clog the Tracker’s delicate internal passageways, complete mussel cells would be eliminated from the sample as well.

Still, the researchers figured it was worth a shot.

They passed fresh lake samples through the filter and into the DNA Tracker. Less than an hour later, they had results – positive hits for invasive mussel DNA.

Youngbull attributes the positive hits to something called free eDNA. In a freshwater ecosystem – and everywhere, for that matter – cells are dying all the time. As they decay, they naturally go through the lysis phase, and there is a window in which DNA is present. The problem with free eDNA from a research standpoint is that it doesn’t last long – only hours or days. Free eDNA quickly is eaten by other cells or broken down by UV light.

“This is the stuff that everyone throws away,” Youngbull said. “That’s what we put in our machine, and it quantified very nicely. We discovered the utility of this machine as a free eDNA analyzer, which makes it totally unique, as compared to any other tool out there.”

The ability to test free eDNA makes the DNA Tracker a game-changer.

“We’ve always had in mind that Cody’s instrument could run autonomously,” Elser said. “Ideally, that’s what you want: To not have to go out and manually run something through a system. So that’s the hope, now. By taking the extraction step out of the process, you have a tool that’s more efficient and easier to use and that might even run robotically.”

In the two days following their discovery, the researchers used the DNA Tracker to analyze levels of free eDNA in Lake Mead. They also validated their new discovery on a boat that had recently come out of the water. They collected samples from the boat, ran them through the DNA Tracker and got a positive hit for invasive mussel DNA.
The boat then went through the decontamination process, and they ran the tests again. This time, there was no evidence of mussel DNA. The DNA Tracker had provided empirical validation that the boat was clean.

Contaminated boats are the biggest threat to spreading invasive mussels to uninfected areas like Flathead Lake. And once invasive mussels get in, it’s nearly impossible to get them out. This is why the state operates boat inspection stations around the perimeter of Montana, as well as at all entry points to the Columbia River Basin of Western Montana. This also is why the U.S. Fish and Wildlife Service funded FLBS to test and use Youngbull’s DNA Tracker at boat inspection stations in the Flathead.

“The question is: Will it help a lot?” Elser said. “That depends on how fast it can be deployed, how reliable it can be, and how it can be used most effectively. Right now, preventing the spread of aquatic invasive species is the most important thing.”

Youngbull and his team are investigating ecological field uses of the tracker that include early detection of a variety of AIS, as well as determining the presence/absence and relative abundance of any fish or wildlife species of interest. There also may even be a “smoke alarm” version that could be placed near a boat loading area and “alert” whenever an AIS-contaminated boat hits the water.

This summer, Youngbull will have a student intern dedicated to the DNA Tracker work on Flathead Lake to map distributions of free eDNA from various species around the lake. To this point, no invasive mussels, nor their DNA, have been found in Flathead Lake.

Youngbull also said his SensorSpace lab actively is looking for potential partner-customers interested in using the DNA Tracker in other fields. He sees possible applications in the food industry, such as detecting the presence of food-borne illnesses like E. coli or detecting respiratory diseases that occur in shared water troughs used by cattle and other livestock.

In the meantime, a vigilant focus remains on stopping invasive mussels and other AIS from reaching Flathead Lake and other waters of Montana.

“Some people tend to get resigned to mussel invasion,” Elser said. “They have this idea that as soon as an infected boat touches Flathead Lake, the lake is done.

“Now, it might only take one contaminated boat, that’s true. But one contaminated boat doesn’t guarantee an established infestation of mussels – the chances of successful invasion are actually quite low. I like to think of each contaminated boat that goes into the lake as a ticket to a really bad lottery where the ‘prize’ is a ruined lake. Nobody wants to win this really bad lottery. So what do you do? We have to ensure we’re buying as few tickets as we can.”

Now, with the help of the DNA Tracker, such an objective may be well within reach.

For more information about the DNA Tracker and other SensorSpace lab developments, email FLBS Assistant Director Tom Bansak at tom.bansak@flbs.umt.edu.

To partner or use the services of the SensorSpace lab, visit the website at https://sensorspace.tech/contact.html.
Contact: Tom Bansak, assistant director, UM Flathead Lake Biological Station, 406-243-3301 ext. 229, tom.bansak@fbs.umt.edu; Ian Withrow, FLBS media information specialist, ian.withrow@flbs.umt.edu.
Accreditors Recognize UM Clinical Psychology Program for Diversity

June 06, 2018

MISSOULA – Doctoral students who choose to study clinical psychology at the University of Montana are learning from a program that has continuously met and exceeded accreditation standards for nearly five decades – and one of the leading programs for training American Indian and Alaska Native (AI/AN) phycologists.

The Clinical Psychology Ph.D. program at UM recently received reaccreditation status and recognition for diversity from the American Psychological Association’s Commission on Accreditation. The UM program has been accredited since 1970.

“The APA confirmed our commitment to providing excellent clinical and research training opportunities to prepare students to work in the field,” said Bryan Cochran, director of clinical training. “We are particularly proud that reviewers acknowledged our efforts to increase the proportion of psychologists who are currently underrepresented in our profession.”

In its review, the commission noted UM’s program adheres to the recently updated Standards of Accreditation in Health Service Psychology. This decision affirms the quality of clinical and research training experiences, the
commitment to recruitment and retention of diverse faculty and students, the excellence of current and past students in meeting professional competencies, and the dedication of faculty and staff to the program.

A site visit review in 2017 noted specifically that through the Indians Into Psychology (InPsych) training program, the program at UM has trained a significant portion of AI/AN clinical psychologists currently working in the U.S.

The doctoral program, one of the largest at UM, receives over 150 applications on average each year, admitting a cohort of five to seven students working toward their Ph.D. degrees.

Students engage in diverse clinical training settings throughout Western Montana throughout their time in the program, providing high-quality assessment and psychotherapy services under the supervision of faculty and affiliates.

Original research products from the program include dozens of peer-reviewed publications on various topics related to mental health and grants from National Institutes of Health, the Health Resources and Services Administration and Indian Health Service. Program graduates become licensed psychologists throughout the U.S., with careers spanning areas of academia, direct clinical service, research, consultation and administration.

“We are so proud of the difference our students make,” Cochran said.

For more information visit http://hs.umt.edu/psychology/.

**Contact:** Bryan Cochran, professor and director of clinical training, UM Department of Psychology, 406-243-2391, bryan.cocharn@ms.o.umt.edu.
UM Welcomes 2018 Presidential Leadership Scholars

June 06, 2018

MISSOULA – This fall, the Davidson Honors College at the University of Montana will welcome more than 200 of the best and brightest students from across the country and state. Thirty-one of these students are recipients of the Presidential Leadership Scholarship, UM’s premier freshman scholarship.

Presidential Leadership Scholars are chosen based on leadership, service and academic merit, with scholarships renewable for a total of four years. The incoming PLS cohort had an average weighted grade-point-average of 4.0, an average ACT score of 32 and more than 60 percent were first in their class for schools that rank their students.

Many of the students chose UM and the Davidson Honors College over other prestigious institutions for a liberal arts experience within Montana’s flagship university, exemplary educational offerings, a welcoming community and connection with the outdoors.

“Our team is proud to welcome a large and incredibly accomplished class of Presidential Leadership Scholars from around Montana and across the country,” DHC Dean Brock Tessman said.
Of the 31 students receiving the PLS, 11 are from out of state and 20 are from Montana – with the greatest number from Missoula, including two National Merit Semifinalists.

The Presidential Leadership Scholars for 2018 from Montana include:

**Bigfork**

- Grace Olechowski, who graduated from Bigfork High School and plans to study pre-journalism.

**Bozeman**

- Augusta Reinhart, who graduated from Bozeman High School.
- Elliot Johnson, who graduated from Bozeman High School.

**Columbia Falls**

- Hunter Grimes, who graduated from Whitefish High School and plans to study pre-medical sciences.

**Frenchtown**

- Kyler Rebich, who graduated from Frenchtown High School and plans to study computer science.

**Great Falls**

- Gerrit Bloemendaal, who graduated from Charles M. Russell High School and plans to study business administration.
- Jacob Baroch, who graduated from Great Falls High School and plans to study biology.

**Hamilton**

- Morgan Kellar, who graduated from Hamilton High School and plans to study theater.

**Helena**

- Seely Hoffman, who graduated from Capital High School and plans to study history.
- Addie Slanger, who graduated from Helena High School and plans to study journalism.

**Kalispell**

- Hanna Brann, who graduated from Flathead High School.
- Millie Espeseth, who graduated from Glacier High School and plans to study pre-law.
- Jenna McCrorie, who graduated from Glacier High School and plans to study political science.

**Livingston**
UM Welcomes 2018 Presidential Leadership Scholars - UM News - University Of Montana

- Elizabeth Mickelson, who graduated from Park High School and plans to study English.

Missoula

- Cory Emlen, a Sentinel High School graduate and a National Merit Scholarship Semifinalist who plans to study mathematics.
- Betta Lyon Delsordo, who graduated from Big Sky High School and plans to study computer science.
- Esther Lyon Delsordo, who graduated from Hellgate High School.
- Niel Mondava, who graduated from Hellgate High School and plans to study biochemistry.
- Anna Vonessen, who graduated from Sentinel High School and was a National Merit Scholarship Semifinalist.
- Lindsey Roosa, who graduated from Sentinel High School and plans to study Japanese.

Out-of-state Presidential Leadership Scholars include:

Belmont, California

- Kendall Butler, who graduated from Carlmont High School and plans to study neuroscience.

Blaine, Minnesota

- Wyatt Nielsen, who graduated from Spring Lake Park High School and plans to study wildlife biology.

Carmichael, California

- Chloe Behan, who graduated from Bella Vista High School and plans to study medical laboratory science.

Dunwoody, Georgia

- Samuel Mothner, who graduated from Dunwoody High School and plans to study wildlife biology.

Homer, Alaska

- Andie Sonnen, who graduated from Homer High School and plans to study forestry.

Manassas, Virginia

- Sean Kellogg, who graduated from Seton School and plans to study wildlife biology.

Northbrook, Illinois

- Jack St. John, who graduated from Glenbrook North High School and plans to study wildlife biology

Oxford, Missouri

- Raina Woolworth, who graduated from Oxford High School and plans to study wildlife biology.
Perry, Kansas

- Brenna Spurling, who graduated from Perry-Lecompton High School.

Webster Groves, Missouri

- Claudia Petersen, who graduated from Webster Groves High School and plans to study wildlife biology.

Winona Lake, Indiana

- Grace Erba, who was homeschooled and plans to study wildlife biology.

###

Contact: Kaetlyn Cordingley, director of career development and community partnerships, UM Davidson Honors College, 406-243-2579, kaetlyn.cordingley@umontana.edu.
MISSOULA – Dissecting pig hearts, practicing wilderness medicine skills, making ice cream at GlaxoSmithKline pharmaceuticals, concocting native herbal salves, mixing aspirin and job shadowing at 15 Missoula health facilities are just some of the activities 26 Montana high school juniors and seniors will participate in as part of Missoula MedStart.

The event is a weeklong, health science immersion camp hosted Sunday through Thursday, June 10-14, at the University of Montana. This is the eighth year UM's Western Montana Area Health Education Center has hosted the program, which gives preferential acceptance to rural, disadvantaged, first-generation college, ethnically diverse students.

To date, 180 students have completed the program, and 94 percent of attendees have gone on to college. Western Montana AHEC hosts the healthcare career awareness program as part of its mission to connect students to careers, professionals to communities and communities to better health.

Although health care has been one of the state’s fastest-growing industries, with a compounding employment...
growth rate of 2.8 percent annually since 1990, Montana rural communities struggle to recruit and retain qualified health professionals.

Missoula MedStart is one of five summer MedStart programs hosted in Montana. Montana AHEC regional offices also host MedStart camps in Billings, Butte, Great Falls and Miles City.

One day of Missoula MedStart is spent on campus with UM Health & Medicine faculty, staff and graduate students who offer workshops in forensics, chemistry, psychology, pharmacy, biomechanics and social work.

Danica Luedtke with the Salish Kootenai College Dental Assisting Technology program will host a session in dental assisting, and UM chemistry Professor Emeritus Garon Smith – also known as G. Wiz – will return to campus to host his notorious magic show.

Parents join students on the last morning of camp to participate in college readiness seminars on mapping career pathways, financial aid and scholarships, the college essay and student money management.

Missoula MedStart is made possible in part through a grant from the Charlotte Martin Foundation and through support from CVS Health, Montana Gear Up, Jobs for Montana Graduates, Clark Fork Valley Hospital, Kalispell Regional Hospital, St. Luke Community Healthcare, North Valley Hospital, Valley Oak and the Goodman Group.

For more information contact program coordinator Martha Robertson at 406-243-4746 or email martha.robertson@mso.umt.edu.

###

**Contact:** Martha Robertson, program coordinator, 406-243-4746, martha.robertson@mso.umt.edu
MISSOULA – Sixteen undergraduate women from across the state are participating in the second annual Montana NEW Leadership Institute until Thursday, June 7, at the University of Montana.

As part of the nonresidential program, the participants meet local, state and national leaders and develop leadership skills through discussions, workshops and hands-on projects. Participants share what they have learned in their respective communities and become more engaged in community leadership.

“Walking into the first day of the Montana NEW Leadership program was akin to stepping into the most thought-provoking, introspective and inspirational classroom the Montana University System has to offer,” said Dani Daly, a student at Montana State University and participant in the inaugural Montana NEW Leadership program. “A week of discussion and debate between individuals from all backgrounds and with varying interests reaffirmed my confidence in the goodness of my peers and in the abilities that I bring to the table.”

This year’s participants include:
Leaders of the program include Sara Rinfret, academic director in UM’s Master of Public Administration program; Deena Mansour, administrative director of the Mansfield Center at UM; and Kimberly Dudik, political director representative of Montana House District 94.

The Montana NEW Leadership Initiative is part of the national bipartisan NEW Leadership program developed by the Center for American Women and Politics at Rutgers University. CAWP is recognized as the national leading source of scholarly research and current data about American women’s political participation, and it works to enhance women’s influence and leadership in public life.

Despite wide underrepresentation in political offices – only 28 percent of Montana legislators and 20 percent of the members of the U.S. Congress are female – women cast more votes than men, and a higher percentage of eligible women vote in presidential elections than eligible men, according to CAWP. Leadership skill training like the Montana NEW Leadership Program may help women bridge the gap between political interest and political leadership.

The Montana NEW Leadership Institute is hosted by UM’s Mansfield Center. The Mansfield Center promotes ethics in public affairs and leadership, as well as global understanding in the spirit of Sen. Mike Mansfield (1903-2001) and his wife and life partner, Maureen Hayes Mansfield.

"With its focus on ethics and leadership, this program represents the core interests and hallmarks of Sen. Mansfield’s career," Mansour said.

For more information on the program, visit http://www.umt.edu/mansfield/academics/newleadership/default.php.

###

Note to media: Interview and photo opportunities are available.

Contact: Sara Rinfret, academic director, Montana NEW Leadership Institute, 406-243-4702, sara.rinfret@umontana.edu.
MISSOULA – The University of Montana’s chapter of American Indian Business Leaders attended the 24th annual National AIBL Leadership Conference in Chandler, Arizona, in April, and earned first place in the University Division of the conference business plan competition.

The UM chapter developed plans for an aquaponic garden located on the Northern Cheyenne Reservation in eastern Montana called Cultivated by Native Montana.

The UM chapter took seven members, all from different tribes and fields of study. The UM attendees and their areas of
study were:

- Jordynn Paz, Crow, journalism and Native American studies.
- Courtney Little Axe, Northern Cheyenne and Absentee Shawnee, anthropology.
- Lauren Clairmont, Salish and Little Shell, French and Native American studies.
- Craig Brown, Dine, business.
- Zachary Wagner, Northern Cheyenne and Blackfeet, Native American studies.
- Richard Mittens, Blackfeet, business management.
- Terydon Hall, Blackfeet, political science.

AIBL is a national organization that seeks to increase the representation of American Indians and Alaskan Natives in business and entrepreneurial ventures. It was founded at UM in 1994. Today, there are more than 75 chapters nationwide.

The national conference promotes leadership in American Indian youth by providing engaging workshops led by American Indian entrepreneurs and competitions such as a Business Plan, Elevator Pitch and Chapter of the Year. AIBL students from high schools, tribal colleges and universities from throughout the U.S. attended this year’s conference.

“The UM AIBL Chapter would like to express their thanks to the UM and Missoula community for all their help in making this year a great year for the chapter,” said Larry Gianchetta, faculty adviser to UM’s AIBL chapter.

###

**Contact:** Larry Gianchetta, faculty adviser, UM American Indian Business Leaders, larry.gianchetta@business.umt.edu.
UM AIBL Students Win Business Plan Competition at National Conference - UM News - University Of Montana