

## MTNHP 2019 BLM-AIM Surveys



Montana Natural Heritage Program (MTNHP) is pleased to be extending its long-term partnership with the Bureau of Land Management by providing support to Terrestrial and Aquatic AIM efforts in Montana and Idaho in 2019. The Assessment, Inventory, and Monitoring (AIM) strategy is targeted at collecting standardized inventory and long-term vegetation, soils and water data at multiple scales across BLM Districts in the Western U.S. This information is utilized by the BLM to make decisions that meet resource management objectives. Our work will encompass Northcentral Montana (Havre and Lewiston) and Central and Eastern Idaho (Idaho Falls, Salmon, Challis, Pocatello, Cottonwood and Upper Snake). We've assembled a group of talented, dedicated technicians to assist in this effort. Meet our MTNHP 2019 AIM Field Crews:

## Heidi Anderson

Idaho Aquatic AIM Crew Lead



Heidi Anderson grew up in western Oregon, a landscape that fostered an ongoing love of open lands and backcountry adventures. She earned a BA in Geology at Macalester College (Saint Paul, Minnesota) in 2014, where she studied how regional climate change and increasing human activity are reflected in the geochemical signals of lake sediment in Glacier National Park. After college, she spent a few years bouncing around the Rocky Mountain West working various seasonal jobs as biological technician in the summer and at animal shelters in the winter. Most recently, she finished a MS in Ecology at Montana State University (Bozeman, MT), where she researched how increasing water temperature and fine sediment inputs are influencing the life history and distribution of salmonfly populations in southwestern Montana. She is generally interested in the intersection of scientific research and on-the-ground conservation and restoration projects, and is eager to grow her knowledge of freshwater and riparian species in the American West through work with the Montana Natural Heritage Program.

## Reed Benkendorf

Idaho Aquatic AIM Crew Lead/Riparian Botanist



Reed Benkendorf grew up running around forests, ranches, and working on small farms, and at landscape companies in the Midwest. He graduated from the Evergreen State College in 2014 with a B.S. and dual-majors in Plant Biology and Biochemistry. Largely in partnership with the BLM he has spent five intensive field seasons implementing rare plant surveys, as well as wetland and upland vegetation monitoring across five Western States and has scoured several others while collecting botanical specimens. In his free time he mostly enjoys chasing his dream of seeing over  $\frac{3}{4}$  of the vascular plant species which grow in Western North America in the field, which he claims is a very fine excuse to be outside. He also loves cooking, reading, researching plant taxonomy, producing botanical illustrations, dancing, and falling a lot while he tries to telemark ski.

## Andrew Britton

Idaho Aquatic AIM Technician

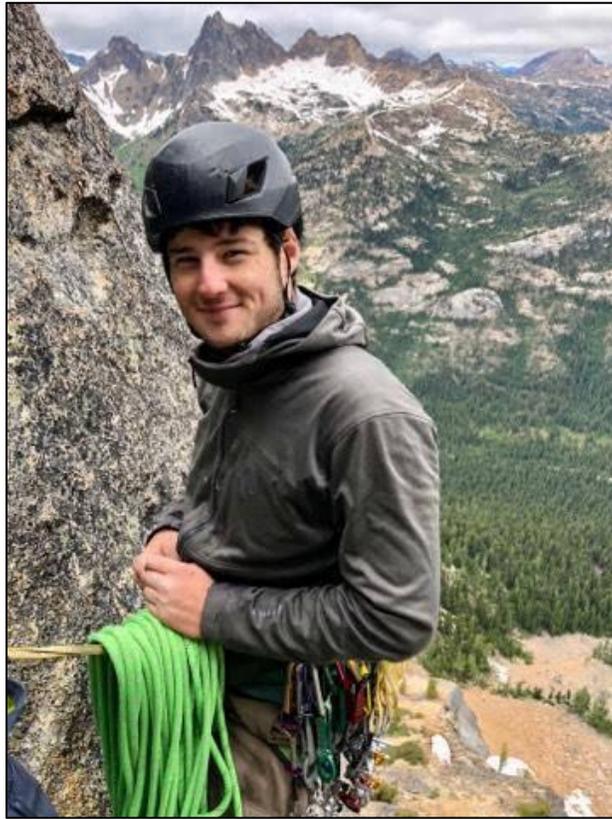


I grew up in Erie, Pennsylvania on the shores of Lake Erie enjoying activities from fishing, boating, swimming, and golf in the summer and fall, to snowmobiling, snowboarding, and fly tying in the winter. My ultimate passion is fly fishing for fall running, Lake Erie steelhead with my brother and cousins. I started operating our family fishing vessel, Fish n' Chips, four years ago fishing for walleye, and recently passed the Coast Guard captain's license course. I hope to one day run a charter in my free time in addition to offering my chartering services for charity trips. The past few years, I had the opportunity to work with a company that controlled the spread of various invasive plant species in northwest Pennsylvania using various methods. Additionally, I performed chainsaw work in the Allegheny National Forest, cutting diseased beach trees for crop tree release purposes.

I graduated from John Carroll University in the spring of 2018 with a degree in biology. The department was heavily herpetology based, predisposing me to primarily amphibian research. I published research identifying a behavioral preference for low levels of UV-B radiation in two neotropical frog species from Costa Rica. I also completed a GIS course and enjoyed it so much that I hope to incorporate it into my research as a master's student studying watershed science. I hope to one day find a position that allows me to restore and conserve our aquatic resources.

## Patrick Demaree

Idaho Terrestrial AIM Technician



Patrick Demaree grew up in the rain-soaked Willamette Valley of Oregon, before escaping to the slightly less rain-soaked Bitterroot. Having always enjoyed learning and exploring outside, he quickly fell in love with the striking landscape of western Montana. He recently graduated from the University of Montana with a B.S. in Biology, focusing on Organismal Biology and Ecology. While at UM, Patrick worked in the Sala Lab where he conducted several projects exploring the various ways in which relationships with soil fungi impact native plants under drought. In his spare time he enjoys mountain biking, rock climbing, skiing, staring at trees, and has grown to enjoy a good (or bad) plant pun.

## Phoebe Ferguson

Idaho Terrestrial AIM Technician



Phoebe is thrilled to be joining the AIM field crew as a terrestrial field technician. Hailing from central Florida, she found herself in the foothills of the Blue Ridge Mountains where she attended Furman University in Greenville, SC. Easily finding a family and her niche within the Earth and Environmental Sciences department, she thrived as Furman’s student farm manager, studied soil quality in response to agroforestry for her senior thesis, and practiced field ecology during her university’s study away program, termed the “Wild Semester.”

She will be relocating to Montana from her base in Denver, CO, where she was a Guest Scientist with the US Forest Service’s National Groundwater Program. This opportunity with GeoCorps America allowed her to travel the National Forests of the West, offering her a bird’s eye view of natural resources as well as public land management. Fun facts about her include, but not are not limited to, a fondness of alliteration, a good donut, running mid-distances, and she has touched a mountain lion.

## **Danielle (Danie) Frevola**

Montana Terrestrial AIM Crew Lead



Danielle (Danie) Frevola has always had a fascination with nature and knew from an early age she wanted a career where she could spend her time learning in the outdoors. In 2016, she earned her Bachelor of Science studying ornithology and animal behavior. For her Master of Science degree, she moved her focus to studying invasion biology and wetland ecology at The Ohio State University with Dr. Steve Hovick. While working on her master's, she became fascinated with invasive plants and preserving natural habitat.

After earning her master's in 2018, she took some time off to visit Glacier National Park and to backpack across the Pacific Northwest. She was in awe with the mountainous landscape and has dreamed about returning to the mountains to study plant ecology. After her backpacking trip, she worked with the Forest Service in Hawai'i on a restoration project and performed a census of two native forests on the island. Here, she also advanced her GIS skills by organizing and maintaining the team's GIS database. Now, Danie is ecstatic to be returning to Montana to move her career forward by performing vegetation surveys throughout the state.

## Meghan Heneghan

Idaho Terrestrial AIM Crew Lead



Born in Maryland, Meghan Heneghan grew up hiking through the state park in her backyard before moving to sunny southern California, where she received her degree in International Relations and a minor in Environmental Science from the University of Southern California. There, she spent most weekends and summers exploring the Sierra Nevada, the Pacific Ocean, and the greater southwest. She quickly developed an infatuation with these landscapes and resources, and a curiosity about the ways more of it could be conserved and sustainably managed. After a few years working as a consultant to the EPA in Washington DC, Meghan returned west, where she has been in Colorado, Nevada, and Utah doing AIM and GIS/planning work with the BLM.

Meghan spends much of her free time running long distances, rock climbing, and hiking. She is excited to spend the summer familiarizing herself with Eastern Idaho and beyond!

## Charles Herrick

Idaho Terrestrial AIM Technician



Lightning bugs, crawdads in the creek, summertime haying, and walking through the hardwood forests-Missouri. Charlie hails from that central state, minutes from the Missouri River and two skips from endless cornfields. Having graduated from Greenville University in southern Illinois in 2017, Charlie has since worked in the Sandhills of Nebraska at the Valentine NWR and in the Palouse area of Moscow, Idaho as an AmeriCorps biological restoration technician repairing natural areas around northern Idaho. With his interests in small-scale agriculture, layperson efforts for environmental restoration, reading, and woodworking, Charlie stays busy with too many hobbies. He and his wife enjoy hiking the Palouse range and the nearby CRP property with its two resident ruffed grouse, and finding adventure throughout their life. As a member of the upcoming season's AIM program, Charlie anticipates learning much about the ecosystems of intermountain West and the Rockies by making acquaintance with its many plants, animals, and soils too.

## Sam Isham

Idaho Aquatic AIM Crew Lead/Riparian Botanist



Sam Isham finished his undergrad at Colorado College in 2010, and moved up to Montana to start working for the MTNHP conducting wetland assessment on both the ReMAP project and the NWCA. Sam moved on to work at the Montana Department of Environmental Quality conducting wetland assessments as part of an ongoing water quality project. After four years with DEQ Sam is happy to be back working with the Heritage Program this summer.

## Kory Kolis

Idaho Terrestrial AIM Crew Lead



Kory Kolis spent his childhood in Havre, Montana and has finally found his way back. He has always been fascinated with the beauty and complexity of nature. While in undergrad, he was actively involved in both the arts and sciences, earning a B.A. from Gustavus Adolphus College, majoring in both biology and studio art. Since then, he worked as a lab manager at Rice University, assisting with a research project focused on understanding how biotic/abiotic factors influence recruitment, growth, and survival of Texas grasses. Finally, he has just finished a M.S. degree from the Organismal Biology, Ecology, and Evolution program at the University of Montana, where he studied evolutionary and population genetics of the yellow monkeyflower, which grow in the geothermal soils of Yellowstone National Park.

Outside of all the basic Montana activities (hiking, fly fishing, XC Skiing, enjoying the great expanse), he enjoys painting with watercolors, folding origami, and gardening.

## Mayra Melendez

Montana Terrestrial AIM Technician



Originally from Mexico, Mayra earned her B.S. in Biological Sciences from The University of Texas at El Paso (UTEP). Throughout her career she has worked in multiple projects in landscape and plant ecological research, including using remote sensing techniques to observe vegetation changes in the arctic tundra in Alaska, analyzing grasslands above and below ground responses to long-term grass removal and fertilization in Yukon, Canada and the use of CO<sub>2</sub> flux auto-chambers in Chihuahuan desert in New Mexico in order to describe influences of soil processes.

On her spare time she enjoys spending time outside either running, mountain biking, hiking or backpacking.

## Caitlin Miller

Idaho Aquatic AIM Technician



Caitlin Miller grew up in northern Virginia, just south of Washington, D.C. along the Potomac River. Caitlin attended Virginia Tech where she earned her Bachelor's degree in Wildlife Conservation with minors in biology and wetland science. While going to school in southern Appalachia, she developed an interest in maintaining waterways for both humans and wildlife. She supported her in-major studies through undergraduate research on streams and joined a water monitoring group to ensure pipeline construction compliance in the region. She found her love for remote, backcountry field work during a summer research trip to Belize. She enjoys kayaking, traveling, and scuba diving with her fiancé, and taking care of her pet hedgehog, Poppy.

## Hanna Mohr

Idaho Aquatic AIM Riparian Botanist



Hanna Mohr is originally from Ohio where she earned a degree in Wildlife and Conservation Biology from Ohio University. Her favorite class was a field course studying Ohio flora in the Appalachian foothills of southeast Ohio. During her time in college she also had the opportunity to intern for the Yosemite National Park vegetation management crew where her love of plants truly blossomed. Since then she has worked for the Sierra Nevada and Rocky Mountain Inventory and Monitoring Networks studying high elevation pine forests, wetland ecology, upland vegetation and stream ecology. For the last couple winters Hanna has lived in and traveled around the Northern Rocky Mountains and is very excited to spend the summer working for the Montana Natural Heritage Program studying the flora of Idaho. In her spare time, Hanna enjoys skiing, hiking, reading anything and everything, fermenting things, cooking, and painting.

## Meghan Montgomery

Montana Terrestrial AIM Crew Lead



Meghan grew up investigating what natural curiosities could be found in small slivers in between suburban developments, as well as more truly natural and wild spaces across central and southern Colorado. She earned Bachelor's degrees in Environmental Science and International Relations from the University of Colorado in 2012, and spent the following years working in conservation, environmental education, and land management across Utah, Colorado, California and Montana. She will complete a MS in Resource Conservation at the University of Montana in May 2019, where her research has focused on ecologically-based coffee production practices in southern Mexico and the impacts of sustainability certifications on growers. Her main interests lie in understanding how landowners access conservation resources to implement ecologically-based practices across the landscape. Meghan is excited to spend this season with the Natural Heritage Program in eastern Montana, learning about rangeland plants and contributing to projects that will benefit Montana's natural resources—and hopefully experience some dramatic thunderstorms in the process! When not working, you can likely find Meghan floating down a river in any number of craft, trail running, biking, writing, or working with clay.

## **Katie Pacholski**

Idaho Terrestrial AIM Technician



Katie grew up with a love for the outdoors thanks to many childhood memories of visiting and exploring our National Parks such as Yosemite, Mt. Rainier, Olympic, the Everglades and the Grand Canyon. She hails from Chicago, Illinois, where she received her BS in Environmental Science: Conservation and Restoration in 2015. It was after receiving her degree that she got the opportunity to work with the Bureau of Land Management in Buffalo, Wyoming as part of the National “Seeds of Success” program. It was during her time living in Wyoming that Katie first got her hands involved in botany, land management and restoration of western ecosystems. She loved it so much that two years later she found another opportunity to return to Wyoming to help out on a graduate research project studying ecosystem restoration and community assembly theory on restored natural gas wells. Katie has spent the last three field seasons returning to the West to work in various rangeland ecology projects and is excited to be back exploring another beautiful part of the region! In her free time, she enjoys hiking, yoga, camping, cuddling with her cat Lilah, and roller blading!

## Rachel Penders

Idaho Aquatic AIM Technician



I am an aquatic ecologist with research experience in freshwater monitoring and montane forest dynamics. I received a BS in Ecology at Plattsburgh State, where I fell in love with freshwater systems and the surrounding mountains. I grew up in western New York but constantly travelled, allowing me to gain an appreciation for environments around the world and how fragile they are. I have previously done work through the Lake Champlain Long Term Monitoring Project collecting and processing biological samples for the NYS DEC and the Lake Champlain Basin Program. In my free time I enjoy any paddle sport, drawing and reading. When there is time (and soil) I also love to garden.

## Rachel Renne

Idaho Terrestrial AIM Crew Lead



Rachel Renne grew up on 40 acres of overgrown oak and pine forest in rural southwest Florida. After graduating with a B.A. in entomology from New College of Florida in 2008, she began a three-mile-per-hour tour—on foot—of the subtle and dramatic shifts in vegetation across the American landscape, hiking over 10,500 miles on National Scenic Trails. In 2015, a field-season of AIM monitoring in Wyoming revealed her predilection for sagebrush, and she reoriented herself towards plant ecology. In 2018, she earned a Master’s of Environmental Science from the Yale School of Forestry and Environmental Science, where she expanded her love of plants to a fascination with how soils translate climate into vegetation in drylands. Her thesis research investigated the role of extreme weather and soils in a widespread big sagebrush die-off in southwest Wyoming and she utilized AIM data to explore how the interaction of precipitation and soils influences plant community structure across the big sagebrush region. This summer, she is looking forward to getting to know the plants and landscapes in a new corner of the West as lead for one of the Idaho Terrestrial AIM crews!

## Shane Sater

Montana Terrestrial AIM Technician



Shane Sater grew up fishing, hiking, gardening, and foraging in the extensive public lands of the Idaho panhandle and the suburban forest remnants of central North Carolina. His intense curiosity and love for the natural world eventually led him to the realm of field biology. He spent several years as an autodidact in northern Idaho, where he delved into bird ecology and plant communities and volunteered on projects ranging from grizzly bear hair collection to whitebark pine surveys. Since moving to Helena, he has conducted year-round bird surveys on a stream restoration site, databased thousands of plant and animal records for MNHP, and taught with live raptors on his glove at a wildlife rehabilitation center. Local botanical excursions and a summer grassland ecology internship in Phillips County have battered the cover of his copy of the Manual of Montana Vascular Plants.

Shane is currently a student in the undergraduate Environmental Science program at Carroll College, where he continues to delve into many aspects of the natural world. He serves as the editor of a monthly newsletter for Last Chance Audubon Society and has published articles in Montana Outdoors and Birdwatching. In his spare time, he enjoys bird photography, skiing, hiking, cycling, cooking with edible wild plants, and spending time with family and friends.

## **Nomi Sherman**

Idaho Terrestrial AIM Technician



Growing up in the Pacific Northwest, Nomi discovered a love for outdoor communities and open spaces at a young age through her passions for rock climbing and backpacking. It was her youthful obsession with climbing that originally brought her to the Rocky Mountains, where she received her B.A. in music with a focus on soundscapes and acoustic ecology from Colorado College. Along with her academic focus in soundscape ecology, Nomi found a personal hobby interpreting Colorado soundscapes through auditory identification of western birds. After undergrad, Nomi discovered a professional interest in conservation and ecology working in trail maintenance and construction, and conducting wilderness surveys for the BLM in Colorado. Currently, Nomi is excited to be working with MTNHP as an AIM terrestrial technician for the 2019 field season. Outside of work, Nomi continues to enjoy backpacking and rock climbing along with skiing, birding, playing tango music, and exploring western Montana from her new home in Missoula.

## Lauren Sinclair

Idaho Terrestrial AIM Technician



Lauren Sinclair grew up in the Minnesota northwoods, hiking, swimming, and being a child of the forest. It came as no surprise that she ended up working with plants as, at the age of 8, she said that her dream bedroom would have a huge tree growing right through the middle. She received her BSc in Botany and Environmental Science from the University of Wisconsin, where she truly fell in love with the wonder of plants through beautiful Wisconsin landscapes and four months doing field studies in Costa Rica. During college, she was fortunate enough to spend two summers with the US Forest Service in Pike National Forest near Denver, CO, exploring all the southern Rockies had to offer. At this point it was decided that the mountains just might be a place to call home someday. All these things eventually led her to the University of Alberta in where she has recently finished up a MSc on climate change and the its effects on drought tolerance in white spruce.

When not being a plant nerd, Lauren enjoys skiing, hockey (Minnesota is the hockey state after all), running, hiking, climbing, good books, and occasionally getting completely lost (and then found again) in nature. She is excited to be working with MTNHP as an AIM technician and can't wait to escape the city to spend time in some wide open spaces.

## Melissa Skelton

Idaho Aquatic AIM Technician



I grew up in the heart of Wichita, however I spent most of my free time at my father's cabin in the booming town of Toronto, Kansas; population 264. The cabin is where I developed my never-ending passion for the outdoors. I was heavily involved in hunting, fishing, hiking, and camping. My love of the outdoors really started with my interest in reptiles and amphibians. When it was warm outside, my sole purpose in life was to find as many of the biggest snakes as possible and bring them home to show my parents.

Since beginning my career in college, I have had the wonderful experience of working with Kansas Department of Wildlife, Parks, and Tourism for three years. This is where my love for aquatic ecosystems developed. My two first summers, I worked on the stream crews where I sampled for threatened and endangered species of fish in some of the most beautiful and hidden parts of Kansas. I learned so much about fish that I never knew existed, that I couldn't help but fall in love. This is why I have decided to dedicate my future to learning and working for the conservation of these underrated systems. Last summer, I worked on the terrestrial crew where I lead a crew and surveyed for the threatened Broad-headed Skink in woodlands eastern Kansas.

Currently, I attended Fort Hays State University located in Hays, Kansas. I am pursuing a Biological Sciences degree with an emphasis in Natural Resources. My goals are to pursue a master's degree somewhere in the western United States. I am hoping to continue a focus with aquatic ecosystems, although I haven't made any permanent decisions yet.

In my spare time, I hunt as much as possible. I am an avid deer and turkey hunter, though I love, squirrel, waterfowl, dove, and rabbit hunting as well. When I am not hunting, my dog (Kisses) and I enjoy long hikes through the woods and camping. I do anything I can to be outside all the time.

## Kym Sutton

Idaho Terrestrial AIM Crew Lead



Kym Sutton's early life began with plenty of poking at moss and banana slugs during long rainy wanders throughout the Pacific Northwest. After high school Kym moved from Edmonds, WA to Missoula, MT and attended college at the University of Montana. There she earned her B.S. in Biology with a focus on Ecology and Organismal Biology and minored in Climate Change Studies. She studied with the University of Notre Dame Environmental Research Center for two summers; first investigating insect herbivory on native and invasive honeysuckle in Michigan, and then researching the effects of cattle rangeland on plant heterogeneity, Coleopteran diversity and abundance in Montana.

After graduating, Kym worked as a Field Technician for the University of Notre Dame's Belovsky Lab, assisting on a 40-year project focusing on the effects of grasshopper herbivory on grassland ecosystems on the National Bison Range in Charlo, MT. She then moved to Nevada to serve on the Nevada Conservation Corps and then as an Ecological Field Monitoring Technician for Carson City's Bureau of Land Management. After a winter stint of learning to backcountry ski in the Wasatch Range of Utah, she is excited to make her way back north to join MTNHP as an Idaho Ecological Monitoring Field Lead.

## Hubert Szczygiel

Idaho Aquatic AIM Technician



Hubert Szczygiel was born in Poland, grew up in Hawaii, and graduated from Vassar College in 2018 with a degree in Earth Systems Science. Hubert is primarily interested in evolutionary and ecosystem ecology. For his senior thesis he used stable isotopes and fossil pollen to reconstruct the paleoclimate of the Adirondack Mountains. Throughout his undergraduate, Hubert studied frog behavioral ecology, which led him to a field season in Panama in 2016, where he solidified his love of fieldwork. He is now taking off several years before continuing on to graduate school to gain more field experience in a diversity of ecosystems and to travel. Since graduating from college Hubert has done a motorcycle tour of Tanzania, paddled 100km along Lake Tanganyika in a local fishing boat, and bike-camped around Poland. His hobbies include photography, hiking, climbing, and other outdoor pursuits. He is looking forward to new adventures this summer in Montana and Idaho.