



# NSF EPSCoR IN MONTANA

Since 1980, NSF EPSCoR has supported the development and implementation of 7 Track-1 grants in Montana. NSF EPSCoR has played an important role in enhancing research capacity and competitiveness for Montana, supporting innovative education for development of Montana's STEM workforce, and linking science outcomes to business opportunities and solutions for pressing issues.

## NSF EPSCoR IMPACT in MONTANA | 2011 - 2021



NSF EPSCoR RII Track-1 Awards to Montana		New Funding Generated	Return on Investment (ROI)
2001 - 2004	\$9M	\$36M	309%
2004 - 2007	\$9M	\$21M	140%
2007 - 2011	\$10M	\$22M	114%
2011 - 2016	\$20M	\$70M	251%
2018 – present*	\$12M	\$8M	In progress

\*Current \$20M award, budget calculations in process 2018-2021

## EPSCoR RESEARCH



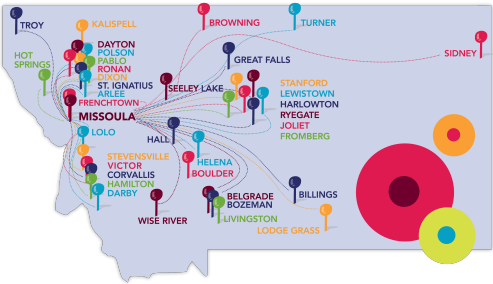
Montana State University graduate and undergraduate students begin the process of packing up a drone after a flight on the Upper Clark Fork River. The pictured drone carries the research team's hyperspectral imaging system, which is used to identify algal blooms and estimate water quality parameters for the current Track-1 Consortium for Research on Environmental Water Systems (CREWS) project.



# EDUCATION and OUTREACH

## University of Montana spectrUM Discovery Area

The spectrUM Discovery Area, UM's hands-on science center, was seeded with NSF EPSCoR funding in 2006 and has since grown to serve an estimated 100,000 visitors annually through museum engagement, a mobile science program that reaches people in rural and tribal communities statewide, educator professional development, and distance learning (see map below for spectrUM's statewide impact). Now supported by a diverse array of private, state, and federal funding sources, including as part of CREWS, spectrUM is based within the new Missoula Public Library and offers free admission for all.



## Montana Girls STEM Collaborative



The Montana Girls STEM Collaborative – a state chapter of the National Girls STEM Collaborative Project – began in 2012 as an outreach program of Montana NSF EPSCoR. The program is designed to share STEM programs and resources while building collaborations that inspire girls and youth from underrepresented audiences. From young citizen scientists in Sidney to video game-developing girls in Great Falls to budding computer coders in Butte, the Montana Girls STEM Collaborative has supported more than 1000 youth and hundreds of adults since its launch.

# WORKFORCE DEVELOPMENT



In 2020, CREWS launched an Innovation & Commercialization Internship Program, providing students and postdoctoral researchers the opportunity to explore the commercial potential of their science. Taylor Gold Quiros, a Ph.D. student at the University of Montana researching the impact of long-term stressors on the structure and function of aquatic communities and pictured above, participated in the internship during Spring 2020. As an intern, Taylor investigated the commercial potential of a phone application that would provide a data sharing platform for anglers, academics, and agencies. About her internship Taylor said, “My goal is to create an exchange of information; the app would create an opportunity for scientists to share data directly with people who may use it and have a citizen scientist component where the public can help scientists track demographics of the fish (and fishermen) on the river.”

## OTHER CURRENT NSF EPSCoR AWARDS

Award	Count	Amount
CIRCLES	1	\$240K
RII Track-2	3	\$14M
RII Track-4	4	\$810K
<b>Total</b>	<b>8</b>	<b>\$15M</b>