

## MontanaView 2022 - 2023



## **MONTANAVIEW 2022 - 2023 ACTIVITIES**

MontanaView successfully completed the High Impact Activity "Fellowships for undergraduate and graduate students conducting applied remote sensing projects." The goals of this activity were to:

- 1) support students and provide encouragement and resources for them to pursue a career in geospatial sciences and remote sensing; and
- 2) benefit the state of Montana by providing information, data, and analysis that will improve the management of natural resources.

MontanaView awarded 8 fellowships (\$1,269 - \$1,800 per student) to students at four institutions across Montana. The following is a list of the students and their institutions, project titles, and faculty mentors (in parentheses):

- Carver Butterfield, University of Montana, Deconstructing the history of Pattee Creek (Dr. Anna Klene)
- Zack Deluca, University of Montana, Hydrogeomorphic response to severe flooding in northern Yellowstone National Park (Dr. Andrew Wilcox)
- Claire Bresnan, Montana State University, Environmental drivers of bison fission-fusion dynamics (Dr. Scott Creel)
- Jack Poole, Montana State University, Stubble height management impacts on field snow retention (Dr. Stephanie Ewing)
- Marisa Redgrave, Montana Tech University, Sheep creek spectral signature library (Dr. Xiaobing Zhou)
- Claire Mbia, Montana Tech University, Evaluation of mineral concentration using remote sensing (Dr. Xiaobing Zhou)
- Tyler Nite Baha, Salish Kootenai College, Mapping historic forest management with aerial photographs for the Confederated Salish and Kootenai Tribes (Dr. Robert Kenning)
- Amanda Berens, Salish Kootenai College, Mapping historic forest management with aerial photographs for the Confederated Salish and Kootenai Tribes (Dr. Robert Kenning)



University of Montana student Zack Deluca collecting grain size data in Yellowstone National Park.



Montana Tech student Marisa Redgrave collecting field data with a drone in western Montana.



Montana State University student Claire Bresnan launching a drone in north central Montana.

MontanaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.



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## **BENEFITS TO MONTANA**

The MontanaView High Impact Activity "Fellowships for undergraduate and graduate students conducting applied remote sensing projects" has several direct benefits to the state of Montana, namely:

- Supporting students and providing encouragement and resources for them to pursue a career in geospatial sciences and remote sensing.
  - Promoting undergraduate and graduate research and employment skills.
  - Advancing education and training, technology transfer, and outreach.
- Providing information, data, and analysis that will improve the management of Montana's natural resources.
  - Each fellowship recipient identifies Montana stakeholders, prepares a final report, and presents findings at a symposium event.
  - This activity serves to build and strenghten the MontanaView network and fosters collaboration among institutions aross the state.







Montana State University graduate student Claire Bresnan is collaborating with the American Prairie Reserve in north central Montana (map above), using geospatial technologies such as GPS ear tags (pictured above) and drones (pictured on first page) to understand bison movement patterns and vegetation impacts.

## MONTANAVIEW CONSORTIUM MEMBERSHIP













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