

Jayden Skelly | jls4rivers@gmail.com | [Phone Redacted] | [Web](#)  
[Address Redacted]

## EDUCATION

Montana State University: <b>M.S. Student in Biological Sciences</b>	<b>Current</b>
Western Colorado University: <b>B.S. in Biology - Environmental Biology &amp; Ecology</b>	<b>2023</b>
Western Colorado University: <b>Geographic Information Systems (GIS) Certificate</b>	<b>2023</b>
National Outdoor Leadership School: <b>Emergency Medical Technician Certificate</b>	<b>2022</b>
University of Montana: <b>Field Study</b>	<b>2021</b>
GPA: <b>Undergraduate: 3.75, Dean's List, Magna Cum Laude, Graduate: 3.7</b>	

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## RESEARCH INTERESTS

My research interests are centered around **developing science to inform conservation** action. I see value in bridging the use of new quantitative methods and spatial dimensions with **field-based work**. My particular interest is **understanding how applications of spatial modeling, remote sensing, and movement ecology can answer large scale conservation questions**. One area I would like to grow is integrating **behavioral drivers related to habitat selection, connectivity, and distribution with other ecological processes**.

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## RESEARCH EXPERIENCE

### Graduate Research Fellow

August 2024 - Current

*Montana State University, Bozeman MT*

In development of M.S. project in Dr. Justine Becker's lab on winter pronghorn habitat selection and behavior around the state of Montana in partnership with MT FWP. Analyzing fine scale movement of ca. 700 collared animals in relation to winter weather, remote sensing, fences, drivers of movement etc.

### Research Technician / Research Affiliate

April 2024 - August 2024

*Yale University, New Haven CT*

Lead data collection for an international research project near Uatumã Preserve, Amazonas, Brazil at a remote research station. Handled logistics, day to day plans, 250+ gb of data management and local technicians. Work was centered around audio classification, biodiversity monitoring, species distributions and island biogeography.

### XPRIZE Rainforest Finalist

July 2024

*Yale University, Rio Negro, Brazil*

Competed in the finals on the Map of Life Rapid Assessments Team in the XPRIZE Rainforest 5-year \$10 million dollar biodiversity startup competition. Finals testing occurred near the Tumbira Community on the Rio Negro river, Brazil.

### USFWS Arctic Sea Duck Research Assistant

June 2023 - July 2023

*US Fish and Wildlife Service, Utqiagvik AK*

Assisted in research of the ESA listed Steller's and Spectacled Eider in remote arctic Alaska.

### USGS CO-OP Ungulate Research Assistant

May 2022 - Sept 2022

*University of Wyoming, Jackson WY*

Assisted on projects on bighorn sheep, moose, mule deer population nutrition, thermoregulation and disease dynamics. Captured lambs in rugged mountainous terrain, performed necropsies, ID'd alpine vegetative samples on week long backpacking trips.

### Remote Sensing Thesis Research

January 2021 - May 2022

*Western Colorado University, Gunnison CO*

Collaborated with the Bureau of Land Management to identify wildlife within areas impacted by severe beetle kill in the Powderhorn Wilderness, Colorado. Paired remote presence-absence surveys in winter with Landsat derived vegetation metrics.

### **Golden Eagle Toxicology Research Assistant**

*HawkWatch International, Salt Lake City UT*

Assisted on research of heavy metal toxicology and immune response in Golden Eagle nestlings. Access to nest sites for blood sampling and gps-logger installation performed with high-angle rope access.

### **Northern Goshawk Dispersal Research Assistant**

*Utah State University, Vernal UT*

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## **PROFESSIONAL EXPERIENCE**

### **BLM GIS Associate - Bureau of Land Management, Lakewood CO**

Provided GIS support for the BLM Colorado state office, Gunnison field office as an intern. Collaborated with far reaching partners across multiple scientific disciplines on conservation and land management.

### **Ski Patroller - Arapahoe Basin Ski Area, Crested Butte Mountain Resort CO**

Worked as an EMT to assist guests on hill with injuries, kept track of patroller locations around the mountain, dispatched reports from emergency numbers. Performed EMT-medicine in an austere environment.

### **Mountain Rescue Trainer and Responder - Western Mountain Rescue Team, Gunnison CO**

Volunteer responder on the primary search and rescue team of Gunnison County. Responded to calls with some missions reaching over 24hrs in length. Insertion to the scene occurred by foot, ski, climbing, mountaineering, helicopters, and snowmobile/ATV. Served on the board as the Field Trainer (2021) and Social Media-Marketing Coordinator (2020).

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## **FELLOWSHIPS AND AWARDS**

MSU Crawford Habitat Scholarship, 2025-2026 (\$10,000)

MontanaView Remote Sensing Award, 2025 (\$1,000)

XPRIZE Rainforest 2nd Place, 2024 (\$2,000,000 awarded to team)

National Science Foundation Graduate Research Fellowship Program, 2024 (\$159,000)

Western Colorado University, Casey McKenney and Matt Noddin Biology Award, 2021

Western Mountain Rescue, Paul Maniachi Avalanche Memorial Education Award, 2021

Western Colorado University, Ridgeline Merit Award, 2019 - 2023

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## **PUBLICATIONS AND PRESENTATIONS**

“Dynamic snow properties, vegetation access, and fencing shape pronghorn winter habitat selection across Montana” *The Wildlife Society, Montana Chapter Annual Conference*, Missoula, Montana. February 2026.

“Examining the Environmental Characteristics that Shape Winter Pronghorn Movement” *The Wildlife Society Annual Conference*, Edmonton, Canada. October 2025. (poster.)

“From sagebrush to simulations, unravelling pronghorn winter movement” *Thursday Science Seminars, Montana State University*, May 2025.

“Winter wandering: pronghorn strategies for surviving severe winters” *Thursday Science Seminars, Montana State University*, April 2025.

“Pine squirrels and remote sensing in the Powderhorn” *Western Colorado University Science Seminars*, November 2022.

Skelly, Jayden. Lake San Cristobal Priority Fuels Treatment GIS Development. *Bureau of Land Management*. 2023.

Skelly, Jayden. *Tamiasciurus hudsonicus* Presence-Absence in a Forest with Insect-Elicited Mortality. *Western Colorado University*. 2022. (Senior Thesis)

Skelly, Jayden. Losing the Whitebark Pine is more than losing a species. *Wild Rockies Field Institute*. 2021.

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## OUTREACH

- Conceptualized and maintain a 270 + enrolled [ecology job board alert system](#)
  - Ecological Society of America Member / The Wildlife Society Member, current
  - Mentored 1x undergraduate in developing research proposal for submission, 2026
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## SKILLS

### Fieldwork Based

- Wilderness Emergency Medical Technician, extensive experience in backcountry medicine
- Familiar with North American raptor banding & installation of gps-loggers on avian sp.
- Driving ATV, vehicles in 4wd, including safety oriented behavior
- Ungulate capture and handling, including installation of gps-collars
- Avian blood draw, assisted with ungulate blood draws, taken morphometrics
- Capable of working in remote, mountainous environments, or international locations
- Developed Survey123 data management tools
- Basic botany skills
- Familiar with flying in helicopters, riding in boats, snowcats or on snowmobiles
- Performed necropsies, habitat assessments, used ARU's, camera trapping, eDNA
- Attended 3-day wildlife chemical immobilization course, administered sedatives, 2025
- Attended 1-day Field Futures training on inclusive fieldwork, 2025

### Computer Based

- Advanced spatial analysis skills in R, and Python
- Advanced spatial analysis and cartography skills in ArcGIS Pro (including ArcPy) + QGIS
- Basic understanding in Google Earth Engine
- Basic instance development with linux, high performance computing, parallel computing
- Basic machine learning skills in Birdnet, Tensorflow, Scikit such as CNN classifiers
- Knowledge on web-scraping and data mining
- Learning and willingness to learn big data optimization especially on remote sensing
- Data transfer service, ie. Globus

### Statistical Based

- Knowledge on GLMs, Conditional Logistic Regression, OOS model validation
- Knowledge on resource selection functions ie. iSSA, and RSF
- Knowledge on animal movement analyses ie. HMMs, NSD, Brownian Bridge, KDEs
- Knowledge on MARK, Mark-Recap, Population estimations
- Attended 1-day SECR (Spatially Explicit Mark Recap) class by Dr. Beth Gardner (UW), 2025
- Attended 2-day workshop with Dr. Brian Smith on fitting GAMs to iSSAs, 2026
- Learning and willingness to learn Bayesian approaches

### Conservation and Policy Based

- Learning and willingness to learn application of science to policy
  - Lobbied Massachusetts representatives on environmental policy in high-school
  - Familiar learning to work with partner agency
  - Interested in the integration of science communication
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## SELECTED MEDIA COVERAGE

- [Kidangoor, Abhishyant. "At the 'Biodiversity...democratize rainforest tech' Mongabay. 2024.](#)
- [O'Donoghue, J. Amy. "Saving the golden eagle." \*Deseret News\*. 2021.](#)
- [O'Donoghue, J. Amy. "Golden eagle...struggling ...the West." \*Associated Press\*. 2021.](#)
- [Heaps, Spenser. "Capturing golden eagles. Here's how I got the pictures." \*Deseret News\*. 2021.](#)
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## **REFERENCES**

[References Redacted]