2024 HIGHLIGHTS

YELLOWSTONE FIELD PROGRAM

In the Greater Yellowstone Ecosystem (GYE), the EPI Yellowstone program spearheads immersive field courses spanning five to nine days for middle and high school students. In 2024, students continued researching bison and ungulates, while improving wildlife habitat in the Gardiner Basin. They engaged in research activities to understand ecological dynamics and GYE management issues. Through hands-on experience collecting real-world data for research partners, students built perspective on conservation challenges in this unique ecosystem. The courses integrated cooking, shared living, community-building, and collaborative learning, fostering personal growth that supplements the academic field experience.

FIELD PROGRAM AT-A-GLANCE

174	LOCAL PARTICIPANTS
202	VISITING PARTICIPANTS
2,806	TOTAL PARTICIPANT FIELD DAYS

CONSERVATION SERVICE

Enhancing Pronghorn Migration

As development encroaches and habitats degrade, pronghorn encounter numerous migration obstacles. Collaborating with the National Parks Conservation Association, EPI addresses these challenges. Our joint efforts focus on the modification or removal of fencing structures, particularly raising the lowest level of 18" barbed wire fencing on private lands bordering the park. This critical adjustment enables pronghorn passage through the Paradise Valley, mitigating barriers to their migration routes. EPI students dedicated **179 hours** to fence modification in 2024!

Removing Invasive Species

The threat of invasive non-native plants disrupting native species, including those unique to the GYE's geothermal habitats, persists. These invasives' spread is facilitated by various means—human activities, wildlife, construction materials like sand and gravel, among others. EPI Yellowstone partners with the Park County Environmental Council to assist in their monitoring and invasive removal efforts. In 2024, EPI students spent a total of **173 hours** in the Custer-Gallatin National Forest and on private lands at B-Bar ranch removing Spotted Knapweed and Houndstongue in an effort to protect native species.

FIELD RESEARCH

Home on the Range Study

The bison population in Yellowstone continually grows, despite constrained habitat and annual population targets set by the National Park Service. The study's focus is centered on assessing the impact of bison on the grassland ecosystem's health and the dynamics among various ungulates sharing their habitat—such as elk, pronghorn, and bighorn sheep. The "Home on the Range" ungulate study aims to portray the coexistence of these species as they navigate the landscape. This year, EPI participants played a pivotal role by employing radio telemetry to track animals, categorizing ungulate herds based on age and gender, gathering fecal samples, and documenting habitat details.

Monitoring Amphibian Populations

Amphibians act as vital indicators reflecting the impacts of land management on ecosystem well-being. These creatures heavily rely on fleeting vernal pools, essential breeding habitats within the park's expanse. EPI students undertake expeditions to ponds within the Custer-Gallatin National Forest, conducting thorough surveys to assess amphibian presence and breeding activity, focusing on the western toad.

Observing Wolves

Students on Yellowstone courses get the unique opportunity to view wolves with the guidance of a YNP Wolf Team researcher. In 2024 Winter Ecology courses, **81 students** saw a wolf for the first time, allowing them to connect first-hand with the star of a world-famous conservation success story.

PROGRAM IMPACTS

Our instructors assess students' ecological knowledge, dispositions, competencies, and social-emotional skills before and after participating in EPI Yellowstone field courses. This process helps in identifying educational gaps for future courses and pinpointing areas where students excel. In 2024, our students saw an average increase of **36% in knowledge** of how to take direct action to support conservation of the GYE.

During Summer Wildlife Ecology courses, camping provides an opportunity for students to build self-efficacy as they live and care for themselves in the outdoors. Our summer students saw an **10% improvement** in their self-reported belief that they can face their fears in a learning environment.

STUDENT STORIES

"This trip has strengthened by choice to get a job in science…I have grown my perspective of science research and its necessity."

- Student from Moscow, ID

"My EPI experience changed my perspective by showing us parts of Yellowstone, but also exposing us to actual people and the community."

- Student from Gardiner, MT

"It was great getting to go out into the park and learn more about the animals all around me."

- Student from Gardiner, MT

EMPOWERING STUDENTS

Research & Service Efforts

EPI field courses allow students to grow both academically and personally. Participants contribute directly to field research and gain understanding of how each research projects impact GYE conservation issues. Students learn to build an inclusive group culture by working as a team to ask questions, make observations, collect and analyze data, and share conclusions. A total of **406 students and teachers** participated in EPI Yellowstone Wildlife and Winter Ecology courses in 2024. On our five- to nine-day courses, each participant completes more than **20 hours of service** learning, including hands-on research, habitat improvement, and academic coursework.

Bear Safety Social Science

On behalf of the National Park Service, students on Yellowstone Ecology courses survey park visitors' compliance with bear safety recommendations. Monitoring for presence of bear spray, bear bells, or firearms along with group size, these surveys are an opportunity to observe how visitors engage with the wilderness of the National Park. Their findings reveal compelling discussions about equity, education, and safety in ecotourism.

FUNDERS

AMB West
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Cinnabar Foundation
Cross Charitable Foundation
Dennis and Phyllis Washington Foundation
First Interstate Bank Missoula & Billings
Headwaters Foundation
Lightfoot Foundation
Montana GEAR Up
Montana Rail Link
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PARTNERS

BBar Ranch
Buffalo Nations Food System Initiative
YNP Bison Ecology & Management Office
Custer Gallatin National Forest
Fort Peck Community College
National Parks Conservation Association
Park County Environmental Council
Yellowstone Wolf Project