



**THREATENED AND SENSITIVE SPECIES:
THE YELLOWSTONE PROJECT (MONTANA)**

June 28 - July 13, 2017

**Meeting Place: Bozeman, MT
5 quarter credits/3.35 semester credits**

FULL PROJECT DESCRIPTION

Thank you for your interest in our Yellowstone Project: Threatened and Sensitive Species. Our field work will take place in the wild mountains and valleys of the Greater Yellowstone Ecosystem, biologically diverse wildlands that provide critical habitat for grizzly bears, grey wolves, bison, elk and other sensitive wildlife populations. Our field study takes place in and around Yellowstone National Park, the heart of the largest intact wilderness region in the temperate zones of the earth. Much of our fieldwork will take place in wild forest backcountry and watersheds, prime locales for Yellowstone's wildlife. Not only does Yellowstone provide crucial wildlife habitat, it is also North America's premier location for observing and studying wildlife and multi-species interactions. Thus, it has become an immense natural laboratory presenting unparalleled opportunity for field work. While our primary foci on this project will be the grey wolf and grizzly bear, our wide-ranging explorations will allow us to investigate everything from butterflies to bison.

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I. Background Information

The Greater Yellowstone area is a highly complex and biologically diverse ecological system. It is one of the last ecosystems that still supports its entire pre-European compliment of species in the lower 48 states. Some of the biological components that are most emblematic of Yellowstone's high ecosystem integrity, such as wolves and bears, are continually shrouded in controversy. Complex issues addressing these fragile resources present difficult management problems with few easy decisions.

Extirpated in the 1920s, and restored in 1996, wolves remain Yellowstone's most controversial species. Every year thousands of people come to Yellowstone hoping for the chance to see a wolf in the wild. At the same time, record numbers of people are lining up for the chance to hunt wolves in Idaho and Montana. Thus, in addition to examining wolf ecology and behavior, we will also address the controversial issues of reintroduction and management.

Team members will participate in a firsthand investigation of major Yellowstone wildlife/habitat issues in and around the nation's first national park. With Yellowstone's Northern Range as our base, we will undertake field studies and conduct wildlife observations. This will include both day hikes and a multi-day backpacking exploration. Our hands-on field activities will be augmented by information exchanges with wildlife management experts and conservation community leaders as we explore the ecology of our study species and the complex management issues and controversies surrounding them.

II. Project Goals and Activities

Grey Wolf Reintroduction

Gray wolves (*canis lupus*) were restored to Yellowstone National Park under the Endangered Species Act, in one of the first attempts to introduce a large carnivore to former habitats. Recovery efforts have been tremendously effective and have been hailed as one of the greatest conservation successes of the 20th century. Among the results are a population of hundreds of wolves, unprecedented opportunities to observe and study these top predators, and widespread public acceptance. However, the efforts and achievement are not without critics, including local sportsmen and livestock growers whose opposition has challenged managers to work with difficult situations. This summer, we will examine on-site the successes and failures of the wolf recovery project, as well as ongoing obstacles to the full realization of long-term goals of restoring wolves to the West.

One of our goals will be to understand wolf ecology, habitat use, and the impact of wolves upon other wildlife. Bear in mind that there are approximately 500 wolves spread over a landscape nearly as large as the state of Maine. While we will likely discover physical evidence of wolf presence (tracks, scat, etc.) and/or hear wolves, actually seeing elusive wolves in the wild remains a quite fortunate event, not a certainty. Together we will also examine how other land uses such as livestock grazing, logging and recreational development has influenced and affected the wolf reintroduction process. In addition to exploring the role of wolves in the ecosystem, we will also discuss the human relationship with wolves, historically, as well as the current management issues.

Grizzly Bear Recovery

The grizzly bear (*Ursus arctos horribilis*) is another top predator that is listed under the Endangered Species Act. The current population of grizzlies in the Greater Yellowstone Area has increased from 250 in the 1970s to about 700 today, and the U.S. Fish and Wildlife is on the verge of delisting grizzly bears in the Greater Yellowstone (and the Northern Continental Divide Ecosystem that includes Glacier National Park). Critics, however, are still very concerned about the long-term future of the Yellowstone grizzly bear. Grizzly bears reproduce slowly and require large areas to meet their ecological requirements, yet shrinking habitat through roads and other human developments has left fewer places for bears to exist. Many sources of food are unreliable and face a questionable future, as do the bears themselves. We will examine bear habitats, actively search for signs of their presence and investigate firsthand the distribution and re-colonization success of bears in Yellowstone. As with wolves, actually seeing elusive bears in the wild should be considered fortunate. Today, research is being conducted to determine the extent to which bears are utilizing expanded wildland habitats, habitats that if found to be critical to bear survival could be excluded from human development options (road construction, timber harvesting, mining, etc.) that would otherwise fragment the wilderness and jeopardize grizzly bear persistence. Through our explorations, we will attempt to gain knowledge of the distribution, behavior and re-colonization success of bears in Yellowstone wildlands.

Bison Migration

Yellowstone National Park hosts the last free-ranging bison (*Bos bison*) herd in North America. They are managed under a policy of natural regulation that allows for natural process to determine the size and health of the herd. But when bison leave Yellowstone National Park and enter the state of Montana they are hazed, captured, or killed for fear of transmission of the disease brucellosis to livestock. However, transmission of the disease requires conditions that rarely, if ever, occur. The park, as well as outraged protesters, has fought the practices of the state in an on-going debate over the future of bison management. We will view several bison herds on their summer range in Yellowstone, talk with stakeholders in this debate and explore areas where bison management takes place.

By the end of the summer, each of us will have gained firsthand knowledge of Yellowstone's habitats, wildlife populations, and controversial management challenges. **All field methods and data collection techniques will be taught on-site. No prior research experience is required**, but we expect participants to arrive excited and prepared for a rewarding and challenging field study experience. We hope you can join us for personally exciting and academically rewarding wildlife field studies.

III. Academic Credit

Students will receive 5 quarter credits/3.35 semester credits from Western Washington University. Our staff will be happy to explain the program in further detail to the applicant's advisor, if necessary. This field studies program gives credit in one course: ESCI 497T, Environmental Wildlands Studies: 5 quarter credits/3.35 semester credits.

Students will be evaluated on their field journals, the quality of their fieldwork, exams, and participation in seminars/discussions.

Team members are expected to conduct themselves in a mature and responsible manner. Wildlands Studies reserves the right to require any student to withdraw from the program if their conduct is detrimental to or incompatible with the interests, safety, or welfare of any course participants. We ask all students to read the Student Program Manual before joining the project on-site.

IV. Team Logistics

We will first meet in Bozeman and then establish base camps in our Greater Yellowstone Ecosystem study areas. From here, we will go on daily field study explorations, which can involve early morning departures and long hours in wildland habitats waiting for wildlife observations. For much of the program we will undertake both short and long day hikes from base camps. We will be backpacking for several days through a selected study site as well. Therefore, physical conditioning, adequate equipment, and preparation are imperative.

Supplies will be purchased during the project. When team members arrive in Bozeman, we will break into cook groups and do most of our shopping for the project. There will also be time during the project to purchase supplies in small towns with limited selections. Any special foods that you would like for the latter part of the project should be bought on the first day of the project in Bozeman. All reasonable efforts will be made to follow the activities outlined above. However, please understand that on our project in Yellowstone, travel arrangements can remain tentative until the traveling actually takes place. Weather conditions and road closures may affect our plans.

Wildlands Studies has put together an innovative, unique program in Yellowstone, and team members need to be flexible, patient, and prepared to adapt to unexpected situations. Being flexible also allows us to take advantage of unique opportunities that inadvertently arise during our journeys, often producing some of the program's most memorable moments.

V. Accommodations

Primarily camping and backpacking.

VI. Official Documents/Visa

If you are a non-U.S. citizen, you will need a current passport that does not expire until after the end of the program. Contact your country's Consulate Office to determine if you need a tourist visa to enter the U.S.

VII. Language

This program is taught in English.

VIII. Pre-Program Mailings

Detailed information regarding travel/flight information, equipment/gear requirements, food costs, meeting plans, group expenses payment, medical recommendations, and academic preparations will be sent to all team members in a logistics letter emailed about 8-10 weeks before the project initiates. Stay in good shape and get ready for an exciting wildlife project.

IX. PROJECT LEADER

JEFF GAILUS: M.S. in Environmental Science, University of Montana, 2007; M.F.A., University of Montana, 2016. Jeff has been a university field instructor since 2007, focusing on conservation policy and wilderness education in the United States and Canada. He is an award winning author who has published two books and numerous essays and articles on wildlife conservation and natural resource policy. Jeff has taught at University of Oregon and the University of Montana and has been teaching with Wildlands Studies since 2012. He currently leads our Yellowstone and Northern Europe Projects.

X. Project Costs

Program Fee:	\$1900 plus \$150 Application Fee. Program fee due May 1, 2017. Enrollment on a space-available basis after the fee due date until the program is full.
Estimated On-site Expenses:	\$750 per person This includes transportation and fuel, camping, field activities/permits
Food in Yellowstone:	\$200
Personal Spending Money:	\$100 (this varies according to taste - but don't be caught short)
Estimated Airfare:	\$300-500 (depending on your location)

Students should inquire at the financial aid office of their home campus regarding the use of their loans or grants for this course. Wildlands Studies is not responsible for non-refundable airline or other tickets or payments or any similar penalties that may be incurred as a result of any course cancellation or changes.

XI. Contact Information

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