

**HUMAN WILDLIFE INTERACTION:
THE YOSEMITE BEAR PROJECT**

**Meeting Place: Yosemite National Park, CA
(exact time and location determined later)**

July 25-August 8, 2010

4 semester system units (equivalent to 6 quarter system units)

Program Fee \$1195 plus \$150 Application Fee

Thank you for your interest in the Yosemite Bear project. Team members will have a unique opportunity to gain an indepth understanding of the current challenges facing wildlife managers in Yosemite National Park. With nearly 95 percent of the park designated as wilderness, Yosemite offers endless opportunities for research, learning, and inspiration in its incredible scenic natural beauty. Yosemite National Park protects 1,169 square miles and is home to hundreds of wildlife species and thousands of plants. 3.5 million visitors come from around the world each year to experience Yosemite's natural grandeur. Our fieldwork will take us across a rich spectrum of dramatic habitats from the alpine meadows and granite peaks of the "high country" of Yosemite's Sierra Nevada Mountains down to the iconic Yosemite Valley where interactions between bears and park visitors are frequent. In Yosemite we will examine onsite one of the primary challenges park management faces: reducing conflict between humans and wildlife.

PROJECT GOALS & ACTIVITIES

Team members should arrive well prepared for a physically and intellectually challenging fieldstudy program. The first half of our project will be based in the field on an extended backpacking trip at high elevations (Tuolumne Meadows is 8,600') in Yosemite National Park. On this backpacking section we focus our efforts on studying the natural history of the American Black Bear, including bear habitat utilization and behavior. The second half of the course we will be centered in a basecamp in Yosemite Valley, where we will have the unique opportunity to join Park experts for onsite fieldstudies examining and utilizing the information we learned in the backcountry. We will share daily (and some nightly) forays with wildlife managers to learn firsthand about various methods for tracking bears and monitoring their behavior around the many people camping and living in Yosemite. Here too we will have the opportunity to debate the pros and cons of various management techniques. Different guest speakers will join us to discuss the current issues and challenges surrounding wildlife management in our national parks and other public lands.

On arrival day (July 25) team members will meet and organize gear, food, etc. and spend the night in a campground to ensure that everyone is well prepared for our backpacking portion. Our orientation will begin with a discussion of safety while living, camping and traveling in bear country. The course will then embark on an extended (5-6 days) backpacking trip through the varying habitat and ecosystems where the black bear ranges. Be prepared to pack up camp and hike 5-7 miles each day with a full backpack. The itinerary will be set to allow for adequate time to appreciate and learn about our spectacular surroundings and the unique attributes that make the area an excellent home for black bears. Team members will be asked to make use of our traveling library to develop and present short lectures for the group on the anatomy, physiology and biology of black bears in the Sierra Nevada. Everyone will learn essential methods for developing and delivering informative and engaging talks to a diverse audience. As we backpack we will be searching for signs of black bears (tracks, scat, hair, tree markings, etc.) and identifying possible high use areas where bear human interactions might occur. Though we are studying the black bear, a sighting of a wild bear is a rare and treasured encounter. In the

backcountry, team members will learn the importance of maintaining a detailed field journal and practice varied techniques to document our daily findings in their own journals. We will also spend time examining the flora and other fauna that make this unique ecosystem well suited for black bears. This ecosystem has also been shaped by a long history of different human uses. Understanding this history is an important component of effective human-wildlife interaction management. We will discuss Yosemite's human inhabitants from Native Americans to pioneers to modern residents and park visitors, examining the different influences that people have had on the region's black bears over the years.

During the second half of the course we will have the exciting opportunity to learn from and work with various experts in the realm of bear management. We'll hear from bear technicians about different management options including aversive conditioning, Karelian bear dogs, relocation, bear resistant food canisters (BRFC's) and other means of preventing bears from getting human food and trash, and how/ when the decision is made to take the life of a bear. We will build our understanding of and gain hands on experience with different methods of bear monitoring. Team members may have a chance to use radio telemetry, learn about ear tagging and other means of individual bear identification, perform day and nighttime roves of campgrounds, and see bear traps and how they work. The opportunities for field study are exciting in Yosemite Valley and will be determined by what the bears are up to and what wildlife managers need to do in response. Team members will also gain insight into the methods used by wildlife technicians in attempting to educate and change human behavior to reduce negative interactions between humans and bears.

During this latter portion of the course, team members will have access to the Yosemite research library, several experts, bookstores, and the traveling library with the expectation that individuals will take advantage of these resources to develop thoughtful, well-informed presentations and/or papers. By the end of the course each participant will leave with a broader perspective on what is necessary to improve black bear conservation in our precious wildlands. **Please note that previous field experience is not required for this course. All field methods and techniques will be taught and practiced on site.** It is expected that team members arrive excited and prepared for a rigorous learning experience that will demand a high level of engagement and participation at all times. Your hard work will be rewarded with a once in a lifetime experience in Yosemite National Park.

ACADEMIC CREDIT

Students will receive 4 semester units (6 quarter units) awarded through California State University Monterey Bay Extended Education. While students usually encounter no difficulties in transferring credit to their home campus, applicants should check with their advisors prior to enrolling. Our staff will be happy to explain the program in further detail to the applicant's advisor, if necessary. The Yosemite field studies program gives credit in one course: ENV5 370, Environmental Field Studies (4 semester system units).

Team members wishing academic credit will be evaluated on the quality of fieldwork; short quizzes; discussion participation; oral presentations; field journal quality; and a written analysis of field work. 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.

You are welcome to bring any texts, articles, or other resources you feel would be helpful for this course. We will also email a list of relevant websites and on-line articles for team members to read in advance of the program. You will need to bring your own field journal and writing utensils. Make sure they are reasonably light and small for backpacking and durable enough to withstand Yosemite's weather. We recommend packing it in a heavy duty Ziploc bag to protect them from the elements. The instructor will provide a traveling library. Participants will be asked to share the burden of carrying these books on the backpacking portion.

One copy of each of the following texts will be provided in the traveling field library:

Great Bear Almanac by Gary Brown

Bears: Monarchs of the Northern Wilderness by Dr. Wayne Lynch

Living with Bears: A Practical Guide to Bear Country by Linda Masterson

Bear-ology: Fascinating Bear Facts, Tales & Trivia by Sylvia Dolson

The Laws Field Guide to the Sierra Nevada by John Muir Laws

“Bears and Other Top Predators” magazine set

TEAM LOGISTICS

We will meet in Yosemite National Park, CA on the first day of the project. The exact location will be determined later and noted in our Logistics letter. Yosemite is accessible by bus, and private vehicles. There are several airports within a few hours of Yosemite including San Francisco, Oakland, San Jose, Fresno, Sacramento, and Reno. Greyhound Bus (www.greyhound.com) runs from many airports to Merced, CA. Amtrak trains also run to Merced from several locations (www.amtrak.com). From Merced the YARTS (Yosemite Area Regional Transportation System) bus (www.yarts.com) will take you into Yosemite. Check travel schedules on their websites to ensure that you can arrive in Yosemite at the appropriate place and time. We will organize carpooling as a group to campground locations when everyone is registered for the course.

All backpacking food for the first week of the course will be purchased in advance of course start. **Do NOT buy food in advance.** We will be carrying all food and toiletries in BRFCs and are VERY limited on space. Remember no food, trash, wrappers, coolers, grocery bags, scented items of any sort may remain in vehicles parked in Yosemite (food storage lockers are available in most parking areas). If you drive your own car make sure it is spotless before you leave it parked. Vehicle break-ins are a major concern with black bears in Yosemite and all Park food storage regulations must be followed.

When you enroll you will have the opportunity to notify the instructor of any food allergies or dietary concerns (e.g. vegetarian). For the second portion of the course you will have the opportunity to shop in small cooking groups for meals. You might have the opportunity to purchase one shower and one load of laundry after the backpacking portion, but come with the mindset of camping and living simply for two weeks. There is a small store in Yosemite Valley where you can obtain all basic groceries including camping food as well as fresh and frozen treats. Plan on bringing \$100 for food during the second week. Prices are high, but smart shoppers can stick to a reasonable budget. Bring another \$100 for spending money (souvenirs, possible shower/ laundry, treats). If you will want to buy several souvenirs plan on bringing more than the recommended amount of spending money. Each team member will also need to contribute \$250 for backpacking food during the first week, books, maps, trailhead and campground fees, BRFC rental, etc.

CLIMATE

Summers in the Sierra are warm and dry. Daytime temperatures in Yosemite Valley can sometimes reach 100°F while nights are cool. Temperatures in Tuolumne Meadows (where our backpacking portion will travel) are often in the 70s during the day and drop into the 30s at night. Heavy afternoon thunderstorms are common in the hot summer months. For more on weather see www.nps.gov/yose/planyourvisit. Be prepared with adequate gear for all of these conditions.

EQUIPMENT

We will organize the sharing of tents, stoves, and other equipment as a group before the course. You will need to rent (your local REI or other camping goods store should offer rental equipment) or purchase a backpack large enough to carry a bear can and all of your camping equipment for 5-6 days, a sleeping bag, and sturdy, **well broken in** hiking boots. You will receive a thorough packing list in after you enroll with our Logistics letter.

All participants need to bring their own field notebooks and writing/ art supplies. If you have binoculars they can be helpful for wildlife viewing. The photographic opportunities are excellent on this program and we recommend you bring a small camera if you have one.

PRE-TRIP PLANNING

Detailed information regarding gear/food, meeting plans, and academic preparations will be sent to all team members in a subsequent logistics letter about 8-10 weeks before the project initiates. Between now and summer, stay in good shape and prepare for a wildlands adventure second to none!

PROJECT COSTS

Program Fee:	\$1195 plus \$150 Application Fee. Program fee due May 15, 2010 Enrollment on a space-available basis after the fee due date until the program is full.
Estimated on site expenses:	\$50 per person (per person share of books, trail permits, maps, campground fees, transportation costs, BRFC rental)
Food for backcountry portion:	Approx. \$200 (1 week)
Food for second week campground portion:	Approx. \$100 (If you want to purchase more treats and/ or expensive foods plan to bring more)
Personal Spending Money:	\$100 (showers, laundry, souvenirs, etc.)

Students should inquire at the financial aid office of their home campus regarding the use of their loans or grants for this course. CSU Monterey Bay Extended Education/ Wildlands Studies are 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.



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PROJECT LEADER

JEN RAFFAELI is an ecologist with many years of experience teaching in Yosemite National Park. She remains interested in the balance between wildlife and visitors in wild places. She currently spends her summers working as an Interpretive Ranger for the National Park Service in Denali, AK.