

**ALASKA WILDLANDS:  
THE WRANGELL MOUNTAIN PROJECT**

**Meeting Place: McCarthy, Alaska  
(Time & location determined later)**

**June 22 – August 10, 2010**

**12 semester system units (equivalent to 18 quarter system units)**

**Program Fee \$2495 plus \$150 Application Fee**

Thank you for your interest in the Wrangell Mountains Program. Here, you'll earn academic credit in an intensive program of summer field study amidst the peaks, glaciers, meadows and forests of the Wrangells wilderness, with the support of experienced faculty and our student group. 2010 celebrates our twenty-eighth year of Wildlands Studies field courses in Wrangell-St. Elias National Park & Preserve.

As a participant, expect to become an active member of our small community, learning from all aspects of your daily life and personal engagement with a spectacular land. We look forward to sharing our summer in the Wrangells with a curious, high-spirited group. Join us!

**BACKGROUND INFORMATION**

Using an interdisciplinary approach of rigorous natural history observation and experimental investigation, students will consider the interrelated geological, ecological, and social processes which shape the Wrangell Mountains, including their implications for public policy. Throughout, students will develop and sharpen their skills in scientific, creative and interpretive writing and in critical thinking. Techniques for nature observation and study, including drawing, illustration, and the collection of detailed field notes will be emphasized in journal exercises. There will be opportunity for essay writing, poetry and the visual arts. While considering the Wrangell Mountains from a variety of perspectives, we will integrate our observations of this particular landscape into a wider framework of social and ecological concerns. Program strengths include diverse faculty with many years experience in the Wrangells, opportunities for collaborative research, and its base within an active community of scholars and artists at The Wrangell Mountains Center, the environmental institute in McCarthy. Within the broad curriculum, participants can choose to emphasize earth sciences, ecology, writing and the arts, all with faculty support.

**PROJECT GOALS & ACTIVITIES**

Collaborative student-faculty groups will participate in several ongoing Wildlands Studies projects. Students will join faculty in studies of the local glacial and ice-edge environment, investigating the history of the advance and retreat of glaciers, uplift and erosion of the mountains, and the adaptation and responses of species and ecosystems to changing conditions. We will see the effects of climate change, both past and present, which leaves dramatic evidence on the Wrangells landscape, seeking to understand its patterns and processes, as well as the potential influence of human activities. In collaboration with the U. S. Geological Survey, our students also aid in an ongoing project to examine the effects of climate change on Dall Sheep populations in the

Wrangell mountains. In partnership with the National Park Service, we are monitoring backcountry conditions in the Kennicott Valley, with a focus on the effects of recreational use. Participation in this project provides opportunities for hands-on learning about land management issues and park planning. Participants can look forward to extensive field work in the backcountry, discussions with scientists and park staff, and a workshop leading to completion of reports on the summer's studies. We unite our diverse studies with a single theme: the nature and pace of change. Processes that form our world operate on an array of time scales, all uniquely visible to the careful observer in the Wrangells.

### **The Land**

McCarthy is located near the terminus of the Kennicott Glacier in a valley rimmed to the north by the main crest of the Wrangell Mountains, culminating in 16,390 foot Mt. Blackburn, the ice-covered core of an ancient volcano. To the south, the valley broadens into the Chitina Valley, where spruce, poplar, and aspen forests are cut by braided rivers and gravel floodplains. Willow, alder, and alpine tundra grow on the surrounding mountain slopes. Beneath the heights of the continent's largest icefields, Dall sheep and mountain goats inhabit flower meadows and rock faces, while bear, moose and wolves share the lower country with a small number of human residents.

In the Kennicott Valley we see first hand dramatic natural forces we might only read about elsewhere, including volcanism, uplift, erosion by glaciers and rivers, and ecological succession. Ice age events that shaped this mountain region are still working today, so massively and quickly that they act before our eyes. Three fragments of the earth's crust are colliding, resulting in tectonic uplift giving rise to five of the fifteen highest peaks in North America. While glaciers and permafrost are melting so rapidly that we can see changes over a single summer, we can also observe evidence of multiple ice advances and retreats cycling over many thousands of years. Plants and animals are responding to rapid change in unstable conditions, colonizing newly deglaciated terrain and adapting to landslides and shifting river channels.

### **The Human Environment**

The tiny town of McCarthy at the center of the Wrangell-St. Elias National Park & Preserve is the base for our studies. Together with adjacent parks in Canada and the U.S., Wrangell-St. Elias is part of the world's largest international area of protected conservation lands, recognized by the United Nations as a World Heritage Area of "outstanding universal value to mankind."

Wrangell-St. Elias National Park & Preserve alone is half the size of New England, twelve times the size of Yosemite. Most of it is designated wilderness. Although most land within park borders is federally owned, there is a substantial area of private and state property in the McCarthy vicinity. Approximately a hundred residents live in and near McCarthy, with legally protected rights to access and develop their private property within the park and for subsistence hunting and gathering on park lands. At the end of a long dirt road, a pedestrian-only footbridge provides our way across the Kennicott River and into town. A small plane brings in the twice-weekly mail. There is no electrical grid. Telephones were installed in the area only a decade ago. And yet the Kennicott Valley is becoming a tourist destination of international significance. In the context of such a massive wilderness, this small community is a significant outpost of civilization.

## **TEAM ACTIVITIES & LOGISTICS**

Our studies are conducted entirely within the frontcountry and wilderness surrounding McCarthy. In McCarthy the program bases at the “Old Hardware Store,” headquarters for The Wrangell Mountains Center, a private environmental institute in the park. A remnant from the mining days and a National Historic Site, the Hardware Store looks more like part of an old Western movie set than a classroom. The renovated building provides a modest and comfortable base for our program, guest scholars, and occasional special events. We cook there cooperatively in a large kitchen, and we are all responsible for the upkeep of our group meeting areas, a library, and an organic vegetable garden. Students sleep in tents a few minutes walk from town.

Approximately half of the program’s days will be in the backcountry. In several extensive and sometimes rigorous backpacking journeys, frequently off-trail, we study in extraordinarily wild surroundings. We will walk up the Kennicott Glacier, traveling safely (and without need for technical climbing skills) on a twenty-five mile-long ribbon of ice. Students will have the opportunity to hike extensively in one of the most spectacular mountain landscapes on the continent, exploring alpine meadows and windswept rock ridges. Our exact itineraries will be largely dictated by our research interests. The first part of the program emphasizes structured field work, faculty presentations, and related readings. During the second part, students have the opportunity to select a topic for in-depth study and presentation, with the support and within the framework of our collaborative group effort.

Developing self-confidence in a new and challenging environment is an important part of the program. Beyond academics, students find opportunity for personal growth in the daily rituals of cooperative group living and learning. The program is an intensive mental and physical endeavor, incorporating field observations and journaling, lectures and group discussions, backcountry hikes, and a final exam.

Because our program is small, with a low ratio of students to faculty, we can be responsive to the varying interests and prior experiences of our students. We can help upper division earth sciences students, for example, meet the field studies requirements of their major during the summer. Artists and writers with advanced skills can focus on their crafts, while also having the opportunity to learn scientific observation, without previous scientific training. At the same time, we work with students who are at introductory levels, enjoying and supporting their curiosity and exploration. The program is particularly suitable for students interested in ecology, geology and environmental studies from scientific, policy and/or artistic and literary perspectives.

**We require no previous experience in field research or natural science**, but we expect students to arrive in Alaska excited and prepared for a rewarding academic, social, and physical challenge.

## **ACADEMIC CREDIT**

Students will receive 12 semester units (18 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 Alaska field studies program gives credit in three courses:

ENVS 370, Environmental Wildlands Studies (4 semester system units)

ENVS 371, Wildlands Environmental Field Survey (4 units)

ENVS 372, Wildlands Environment and Culture (4 units)

Letter grades are based upon the breadth of our endeavors. Personal success will naturally follow from active daily participation in the living and learning community, an open inquiring mind, hard work, and thoughtful attention to formal assignments. Participants will be evaluated according to the following criteria: 1) Assigned field exercises, and formal presentations at group seminars; 2) Written examinations; 3) Written term paper; 4) Daily entries in field journal; 5) Required readings during the program; and 6) Maintenance of standards for group safety and conduct.

Team members are expected to conduct themselves in a mature and responsible manner. The Wildlands Studies Program 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.

### **PROJECT COSTS**

Program Fee:	\$2495 plus \$150 Application Fee. Program fee due May 1, 2010 Enrollment on a space-available basis after the fee due date until the program is full.
Estimated in-country Expenses:	\$1775 per person share of land/sea transportation and fuel, instructors transportation, group supplies, most food, lodging, field activities/permits, readings
Personal Spending Money:	\$350 (this varies according to taste - but don't be caught short)

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. Limited *scholarship funding* is available through the Wrangell Mountains Center. Information is at [www.alaska.net/~wmc/aws.html](http://www.alaska.net/~wmc/aws.html).

### **PRE-TRIP PLANNING**

Later this spring, once you have enrolled, you will receive further program information, including a detailed equipment list, a reading list, and travel suggestions. We purchase all food for the group in advance of the program. Our diet is primarily (but not completely) vegetarian; if you have special dietary considerations (such as allergies, or vegan diet) please let us know. The program begins and ends in Anchorage. Students with cars in Alaska may caravan with us from Anchorage to McCarthy.

## **PROJECT LEADERS**

**Benjamin Shaine** has more than thirty years experience leading student research groups in the Wrangells. Ben served with environmental groups supporting congressional passage of the legislation that designated Alaska national parks and conservation areas. His publications include land management policy papers and several books, including a novel set in the Wrangells, *Alaska Dragon*. His current projects include a book in preparation on the natural history of Wrangell-St. Elias National Park and Preserve.

**Megan Gahl** is an ecologist whose field work focuses on northern environments, including aquatic ecosystems and ecosystem response to changing conditions. She has fifteen years experience in field research, community service and backcountry leadership in environments ranging from Central and South America to Africa and the North American boreal and alpine.

**Tim Bartholomous** is a geologist and glaciologist whose research at the Institute of Arctic and Alpine Research has focused on the hydrology of the Kennicott Glacier in the Wrangell Mountains.

**David Mitchell** has coauthored two reports with Wildlands Studies students on backcountry conditions in Wrangell-St. Elias National Park and Preserve. In addition to his years of research and teaching in the Wrangells, Dave has been a biologist for the USGS in Rocky Mountain National Park. He now works with the Great Land Trust in Anchorage.

**Barry Hecht**, hydrologist and Quaternary geologist with a long history in McCarthy/Kennicott, is conducting detailed geologic mapping of the McCarthy area and with Ben Shaine preparing a geologic history of the Kennicott Glacier. A registered Alaska geologist, he is a senior principal with Balance Hydrologics, a habitat-restoration firm in Berkeley, California.

*The faculty posts information about the program at: <http://www.wrangells.org/aws.html>.*