

Autumn 2005

## Exploring the Refuge

Two students scribble furiously on the classroom whiteboard as their classmates call out suggestions. They are trying to capture, in words, the essence of Alaska's vast and remote Arctic National Wildlife Refuge. The task proves challenging.

Just days earlier the class returned from Alaska, where they rafted through the refuge and met with federal agency, environmental, political, and Native leaders to discuss its future.

It was all part of a month-long summer course offered by the UW's [Program on the Environment](#), inspired by an [exhibit of Arctic National Wildlife Refuge \(ANWR\) photographs at the Burke Museum](#). Twelve students — six undergraduates, six graduate students — participated.



Karen Jettmar studies the Arctic National Wildlife Refuge landscape through a spotting scope. Photo by Nate Mantua.

The course introduced students to the complex and often controversial issues surrounding ANWR, a 19 million-acre swath of land that has been protected since 1960, first as a wilderness range and later as a refuge. Congress is currently debating a provision in the budget bill that would permit drilling for oil in the 1.5 million acre coastal plain of ANWR.

“Millions of Americans read about this issue every day,” says David Secord, director of the Program on the Environment, “but almost no one gets to see the place. The Arctic National Wildlife Refuge may be many things, but a frozen wasteland— as it is sometimes depicted in the media— is not one of them. We wanted students to see that.”

## First, A History Lesson

The course was divided into three segments. First the students were brought up to speed on ANWR's history—geological, cultural, and political—through readings and guest speakers in Seattle. Then the group traveled to Alaska, touring the refuge for eight days before meeting with experts in Fairbanks. Finally the students returned to Seattle, where they synthesized what they had learned and prepared a proposal for an ANWR museum exhibit as their final project.

Lead instructor Nate Mantua, affiliate assistant professor of atmospheric sciences and research scientist at the UW Joint Institute for the Study of the Atmosphere and Ocean, assigned a wide range of reading prior to the Alaska trip, including the National Research Council's report on the environmental effects of oil and gas activities on Alaska's North Slope. UW Professor Emeritus Gordon Orians, a lead author of the report, spoke to the class.

"Before the course, I had heard about ANWR but wasn't well informed," says Amy Groesbeck, an undergraduate biology major. "There was a lot of information to digest in a short amount of time."

Unlike Groesbeck, Dan Morgan knew quite a bit about ANWR. A graduate student and teaching assistant in Earth and Space Sciences, Morgan had regularly used ANWR as an example in a lab exercise for introductory students. "I would assign students roles such as recreational hunters, Sierra Club volunteers, or Alaskan senators, and have them debate ANWR issues," he says. "It's a perfect working example of the interdisciplinary nature of science and how it relates to our lives."

But even Morgan and instructors Mantua and Secord had not actually visited the refuge before the class headed there in July.

## A Week to Observe

The trip began with a flight to Fairbanks, continuing on to Arctic Village where the class visited an indigenous community that borders the refuge. After meeting with Gwich'in tribal elders to discuss their relationship with the land and their views on the current political debate, the class began an eight-day journey through ANWR, rafting with river guides.

Exploring the region by river allowed the class to cover far more territory and view more wildlife than would have been possible by foot. The group saw caribou, willow ptarmigan, snowy owls, and grizzly bears, including a bear that came within 500 yards of camp.

Thanks to their preparation in Seattle, the students had plenty to ponder as they floated down the river. And their varying perspectives—they came from

disciplines ranging from biology to geology to political science to economics—led to some intriguing discussions.



Tim Yang and Simone George sit at the bow of a raft piled high with supplies on the first day of the river trip.  
*Photo by Nate Mantua.*

“At the end of the week,” says Secord, “one of our river guides told me that she loved being around these students who were so well informed. She said it was like being on the river with a think tank.”

Yet careful observation, not conversation, was the top priority on the river. “During all other parts of the course, the students were intensively reading, writing, and debating

issues,” says Secord. “During those days on the river, we wanted them to observe and collect a different sort of data.”

That data—in the form of notes, photographs, drawings, and other observations—would be invaluable when the students returned to Seattle to plan their ANWR exhibit. Co-instructor Louise St. Pierre, an industrial design professor, spoke with the students about exhibit design prior to the trip, encouraging them to keep individual journals documenting the experience.

“To develop an exhibit, you want to engage people at a sensory level, which is new for these students,” explains St. Pierre. “They had a really unusual opportunity, getting to visit this incredible place. The challenge was figuring out how to capture that subjective experience and share it.”

Each student documented the refuge in a different way. One kept a biology field journal with sketches of plants. Another collected tactile objects. There was a video journal, and a journal that documented the logistics of the trip. Groesbeck created an audio journal, using a borrowed CD recorder. She recorded river sounds, bird calls, the sounds of the group tromping through the tundra, conversations with indigenous people, and rain on the tent.

She could have recorded the sounds of mosquitoes as well. They were so large and abundant that they sounded like hail when they swarmed the tent each morning—another reality of the Arctic National Wildlife Refuge.

“The mosquitoes were really intense, but the students tolerated them quite well,” says Mantua. “Not just anyone could handle that.” Groesbeck shrugs. “I had three layers on the bottom and three or four layers on top,” she says, “so the only place they could have gotten me was my hands.”

## Finding Common Themes

After experiencing the Arctic National Wildlife Refuge themselves, the students spent three days at the University of Alaska in Fairbanks talking with ANWR experts, including wildlife biologists, Alaskan political staffers, and indigenous leaders.



The class talks with Gwich'in elder Gideon James (center, wearing cap), whose community borders ANWR. Amy Groesbeck, next to James, prepares to record the conversation for her audio journal. *Photo by Nate Mantua.*

“It was a great way to think about what we had just experienced,” says Morgan. “We had a lot of questions to ask at that point. Many of these people have been involved with the area for 20 to 30 years. A lot of what we got from them was their personal attachment to the area.”

Back in Seattle, the students faced the challenge of expressing their *own* attachment to ANWR and planning an exhibit that reflected their views. It may have been the most challenging part of the course.

“Everybody has strong opinions about what’s up there,” says Mantua. “To tell that story as a group and come up with a single story line that everyone could agree upon was really challenging. There are so many dimensions to ANWR.”

To get the group started, St. Pierre had each student jot down what he or she considered most important for the public to know about ANWR. Those thoughts were transferred to the whiteboard for discussion.

“We combined them, erased parts, brainstormed,” says Groesbeck. “It was a good way to start thinking about the layers of information—what we wanted to present first, and what we wanted people to walk away with.”

As Mantua watched the students that final week, he was struck by how much they had learned. “Because they had bonded in the field, they were able to have the best kind of respectful debate,” he says. “They respected what each other knew and valued. They were just grappling, always grappling. It was like watching



this organism evolve.”

By week’s end, the group had crafted an exhibit plan that all could agree on. Intended as a learning tool rather than the starting point for an actual exhibit, the assignment served its purpose.



Nate Mantua, his head protected with mosquito netting, poses with a fresh catch from the Aichilik River. *Photo by Joel Randrup.*

“This approach was much more challenging and rewarding than simply writing a paper,” says Morgan. “Finding ways to express yourself to a larger audience than just your professor is difficult.”

The students continued to share their message in the months following the course. In September, with funding from the Lucky Seven Foundation (which also helped fund the course, along with donor Tom Campion), ten of the twelve students traveled to Washington, D.C., where they visited eight Congressional offices representing Washington and Oregon. They discussed ANWR with elected officials and staff from both political parties.

“The visit to D.C. was an amazing ongoing learning experience for everyone,” says Secord. “This was one of those courses where the end felt like the beginning because so much continues to come out of it. It’s really taken on a life of its own.”

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