

# A NEW APPROACH TO TEACHING: INSPIRING A PASSION FOR WILDLIFE CONSERVATION

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College may not be what you recall. In the spring of 2013, we introduced a class of undergraduate students to the challenges of setting wolf management policy in the Northern Rockies and Upper Great Lakes. As part of that course, we took the students to Yellowstone for a week in March. Prior to the trip, we engaged students in a novel teaching program to introduce them to the formal process of sorting through the policy positions offered by the many stakeholder groups. Over the semester, we monitored personal opinions of the students about hunting of wolves. Students began the course with relatively simple ideas about wolf management and skepticism of the need for hunting. They left the course understanding why the issue was so complex and how such dynamic conflicts need to be managed. At the same time, they gained an appreciation for the role of lethal control. While the course introduced the students to important concepts, the trip to Yellowstone inspired them. Here we describe this new approach to a learning experience.



"It's looking right at me," Jen whispered, watching a large, amber eye fill the passenger-side mirror.

The van hummed with excitement as the juvenile bison sidled up next to the parked vehicle, peered into the window, and ambled casually across the road. It flopped down in the snow 100 yards away, dusting itself in the freshly fallen flakes, and the van erupted in laughter and expressions of disbelief. The students had been in Yellowstone National Park for less than an hour and had already experienced their first up-close and personal wildlife encounter.

The rest of the crisp, March afternoon would yield a bevy of wildlife sightings as we drove across Yellowstone's Northern Range. We happened upon elk, moose, bison, otters, coyotes, eagles, and foxes engaging in the industrious business of surviving the bitter Wyoming winter. The students snapped photographs, ogled the vast, impressive landscape of the Lamar Valley, and chattered with a palpable enthusiasm that proved contagious to us — the instructors of this novel Wildlife Policy course.

What were we all doing in Yellowstone National Park in the dead of winter? We were hoping to inspire the next generation of wildlife professionals with the awe and complexity of 21st century wildlife conservation issues.

### THE COURSE

In the spring semester of 2013, we introduced a class of undergraduate students from Michigan State University to the challenges of setting wildlife management policy. We wanted to approach the course in a way that inspired and interested students, but also provided them with a skill set that would serve them well as wildlife professionals. We thought the best way to do this was to engage students in a real-world policy problem fraught with complexity and conflict.

Because we were located in Michigan, we were in the midst of our own wildlife policy controversy relating to wolf recolonization in the upper Great Lakes. We thought the circumstances surrounding a proposed wolf harvest so close to home served as a topical and unique opportunity to investigate wolf management policy in the United States.

First, we used the wolf reintroduction program in the Greater Yellowstone Area (GYA) as a case study to explore the multidimensionality surrounding such a contentious issue. But instead of simply lecturing to students about ecological principles, legislative action, and opposing viewpoints, we opted to immerse the students in an experiential learning environment where they were required to actively participate in the conflict.

This active learning approach to instruction has proved to be extremely successful in preparing students

with critical thinking and synthesis ability, attributes that are essential to wildlife professionals operating in today's conservation arena. Wildlife policy issues like wolf management require advanced synthesis skills, because they exist at the boundary of biological, social, and economic considerations that are often at odds with one another.

But would it work? Could we get the students to participate in a meaningful way? Would they put aside personal beliefs and values to explore the multiple facets of such a complex issue? Could we push students to digest

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During our week in the Park, the Yellowstone Institute provided amazing experiences for our students. They hiked out to a bison carcass to see all of the species that benefit from the death of such a massive creature. They planted themselves behind spotting scopes in line with the “wolf watchers” to observe a pair of wolves moving along an adjacent ridge several miles away. They knelt in the snow to investigate tracks and learned how to identify the species that had left them behind.

enormous amounts of literature on widely varying topics of population dynamics, animal behavior, landscape ecology, economics, human dimensions, and sociology... and then begin to integrate these disparate ideas in just 16 weeks? Ho boy. We approached our experiment with hopeful trepidation and more than a few crossed fingers.

In the weeks leading up to our trip to Yellowstone, students were exposed to a variety of experiential learning techniques. Unlike traditional lecture environments where students mostly listen and take notes, our approach required their active involvement in the exchange of information. To our great delight, they rose to the challenge. They proved to be thoughtful, hard-working, and insightful in so many ways. They learned about population dynamics in a predator-prey system through computer-simulation modeling. They learned about the complexity of stakeholder influence by conversing with guest speakers from state agencies, nonprofit organizations, and lobby groups who were advocating a particular point of view. They developed their synthesis skills by developing detailed stock-and-flow diagrams of ecological systems and the way those systems interfaced with social and economic considerations.

Because the wolf debate in the GYA and in the Upper Peninsula (UP) of Michigan is such a socially and politically charged issue, we paid special attention to argument analysis. We had often observed that students, like most people, found compelling advocates on each side of an argument and had difficulty deciding which position to support. We wanted students to have the skills to be able to evaluate the arguments that different stakeholders were making about the wolf issue and about conservation issues in general.

We used a claim-evidence-warrant framework common in the legal world to help students learn argument analysis.

One morning we presented the students with a broadcast from Michigan Public Radio. The interviewer was covering the wolf debate currently raging in the UP and had guest speakers from Keep Michigan Wolves Protected and Michigan United Conservation Clubs. We asked students to listen to each advocate, and then identify specific claims each speaker was making. Once they had identified the major claims, we asked students to evaluate the evidence the speakers used to support their claims. Was the evidence accurate? Was it driven by emotion? Was it supported by science? Ultimately, students had to determine which speaker had made a more cogent argument. It was rewarding to watch our students pick through the details of each speaker’s platform with a new level of knowledge and sophistication.

We pushed the students to work hard in those first eight weeks of the semester. We asked them to become conversant with the material underpinnings of an extremely complicated issue. We challenged their viewpoints and asked them to critically evaluate the viewpoints of others. By the time the students stepped off the plane in Bozeman, they felt primed for all the arguments both for and against wolf restoration in the Northern Rocky Mountains.

And that’s when things got interesting. Our students had spent a good deal of time with the wolf management material. In fact, they reported that they spent more time studying and preparing for our class than any other. They felt confident in their knowledge of the subject matter and wolf management alternatives. They had a solid handle on the

ecological complexity occurring in the area and had developed an ability to listen carefully to the claims people made and to look for the evidence that supported those claims. But standing under the full weight and awe of Yellowstone National Park, with the brisk wind stinging their cheeks and the crunch of the snowpack drowning out conversation, it seemed that something altogether different was uncovered. They were finally inside the problem. They had puzzled for much of the semester about why there was such depth of the passion about wolves and why that passion seemed to make everything so much more complex. Now they understood. They had found the inspiration and the passion that fuels conservation efforts.

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These ecological experiences were life-altering for students, but we were surprised to find that they were not the experiences that students found most profound. That classification was reserved for the people we met in our travels. The National Park Service biologist who worked inside the delicate balance between humans and wildlife; the outfitter who was losing his family’s business because of the reduction in elk numbers; the graduate student

who was trying to find out how mange might be affecting wolf populations inside the Park; the rancher who feared for the legacy of her family’s cattle operation in the face of tighter brucellosis regulations; and the animal welfare advocate who was working with local farms to avoid lethal control of wolf populations. All of these people connected with our students in ways none had anticipated.

On our last day in the Park we visited a gentleman who had been operating a cattle ranch in the GYA for more than half a century. The afternoon was clear and the sun cast a shimmer on the snow. We parked our van outside an old barn and were met with the smell of wood smoke as we disembarked. The rancher greeted us with a warm handshake, introduced us to his son-in-law, and invited us to join him in his barn.

Hay bales were arranged around an old wood stove, and

as students settled in, the rancher began to tell them about his experience ranching in the GYA. His story wove together family, ranching, wolves, religion, finances, hopes, and aspirations in a beautiful fabric that somehow managed to capture the rich essence of this man’s time on earth in a few short hours. He ended by asking the students, above all, to be good people—to carry themselves with honor and to be true to themselves and to others. The students left that cozy barn in silent awe and spent our drive back to Bozeman in quiet reflection.



In the eight weeks leading up to our trip to Yellowstone, the students had heard all the arguments surrounding wolves and had been reasonably confident about the issues and their own sense of appropriate solutions. But after meeting with these various people, in their homes, their barns, and their offices, the students were not so sure anymore. They heard people who were able to convey the social and economic realities of management decisions, and the humanness of these stakeholders' stories reached the students at a fundamental level. The true multidimensionality of the issue had finally come into sharp focus.

### THE POLICY BRIEFING

The students returned from Yellowstone with a new perspective on the complexities surrounding wolf management policy, and it was then that their work really began. We asked students to create a policy briefing that took a position on two salient questions relevant to wolf management:

Should wolves be removed from the protections of the Endangered Species Act? Should wolves be managed

through regulated harvest?

This briefing required students to synthesize arguments in support of their position and to refute claims made by opposing viewpoints. They drew on the science they had learned to support or challenge claims. They identified the economic costs and benefits, both direct and indirect, of their position. And perhaps most interestingly, they provided the various social dimensions representing both sides of the issue with remarkable clarity and insight.

The students enrolled in university wildlife programs throughout the country are training to become our future wildlife professionals and policymakers. They will carry the burden of managing the ever-evolving dynamics between humans and wildlife, and they will ultimately bear the responsibility of conserving those things about wild places that we value as a society. It is critical that today's wildlife students be inspired with the passion needed to carry conservation into the 21st century. But they must also be equipped with the tools to think about difficult problems and weigh the often

disparate values associated with contentious ecological issues. Students must develop both an appreciation of the various perspectives and viewpoints imbedded in most wildlife/conservation disputes and an ability to discern the validity of arguments made by different stakeholders.

Our goal was to afford students a unique arena in which to learn about wildlife policy. We believed that it was essential to teach students to think critically about arguments made by different stakeholders and to appreciate multiple aspects of a system—social, economic, and ecological—in seeking common ground with contentious wildlife issues. The wolf debate, with all of its shifting components and complexities, served

as the perfect surrogate for many of today's stickiest wildlife problems.

As we watched our students presenting their policy briefings to the class, we were impressed with their command of the material and the conviction of their recommendations. They were savvy in their peer review as well. They asked challenging questions of one another and they dissected the validity of arguments made on both sides of the issue. We had taken a chance in designing this course in an unconventional way and the students had met us with unparalleled enthusiasm and dedication along the way. They learned to listen carefully, they became more sophisticated thinkers, and they made us very, very proud. ■

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