



VOLUME I, No. 4: SPRING 2011

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*Committed to interdisciplinary  
and collaborative approaches to  
teaching, research, and service*



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## LETTER FROM THE DIRECTOR

As excited as all Wyomingites are by the beginning of spring, it is an especially exciting time at the university and in the Environment and Natural Resources Program. It is the time when we wrap up classes, begin new projects, and start traveling with ease again out into the field with students. It also seems that the focus on environment and natural resources picks up with the warmer weather—this week alone there were Wyoming news stories on flooding after years of drought, sage grouse and their current decline, mule deer movement, conflicts over motorized recreation in national parks, possible new reservoirs for power storage, and transmission associated with wind energy. For us, it is the best time of year, and UW is the best place in the world to work on interesting and complex issues in natural resources.

The Ruckelshaus Institute is fully engaged in studying these issues by responding to requests and by proactively beginning studies we think will be on policymakers' lists of concerns. We recently released a toolkit (in collaboration with the U.S. Forest Service) for public land managers working on private lands conservation, and this summer we will publish the proceedings of a technical workshop on the management of bark beetle. We will also release a Wyoming Open Spaces Initiative publication focused on the historical and current trends of land use and land-use planning in Wyoming, and, together with UW's Cooperative Extension Service and the School of Energy Resources, an updated landowner's guide for commercial wind development. Also in collaboration with the School of Energy Resources, we will release a review paper and host a conference on hydraulic fracturing on September 26–27 at the UW Conference Center at the Hilton Garden Inn in Laramie.

This summer will also be an exciting time for our collaborative decision-making program, as we once again offer trainings for natural resource professionals in collaboration and communications. In the coming months, we will also work with agencies to address bison management in the Greater Yellowstone Area using a collaborative process approach.

Through the Haub School, we are graduating students with the skills to address complex natural resource issues in Wyoming and worldwide. The class of 2011 includes 36 students representing



SPRING 2011

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## CONTINUED

21 primary majors from every college at UW. The range of these students' accomplishments and accolades is impressive. The 2011 class includes three new inductees to Phi Beta Kappa, six members of the University Honors Program, and three students graduating magna cum laude, with highest honors. This group of graduates includes students who have radio-collared wolves in Yellowstone, fought fires for the U.S. Forest Service, and analyzed wildlife data in the Snowy Range. Their work has led them far beyond the West, to a sea turtle conservation field team in Costa Rica, a tropical ornithology center in Belize, and to Panama, where students evaluated watershed management practices alongside scientists of the Smithsonian Institute. In short, this is a group that has amazed our faculty and staff in ENR. They have earned our esteem and our confidence and we wish them all the best.

And finally, this week, we launched 48 Wyoming Conservation Corps volunteers into the rangelands and forests of our state. As I write, they are braving an icy, foggy camp, learning first aid and other practical natural resource management skills, including leadership, teamwork, and forbearance under difficult conditions.

We at ENR wish you a wonderful summer. And, as always, if your summer travels bring you to Laramie, please stop by and visit us.

Director of ENR, Wyoming Excellence Chair



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## SNAPSHOT OF ENR STUDENT RESEARCH

### **The Cultural Ecology of the “Trueque Chilote,” Potato-Wood Barter Trade Routes in the Chiloé Region of Chile**

**By Richard Vercoe**

**Candidate for the Master of Arts**

**Geography/Environment and Natural Resources**



An endemic potato-wood barter system known as “Trueque Chilote” has been in place between the islands of Chiloé and the surrounding mainland communities of Patagonia for hundreds of years. This has produced unique natural and cultural dynamics based on primary food production and natural resource needs. This study describes the current socio-ecological implications of the barter system for the conservation of heirloom crops and forest sustainability in the region. The project includes three core elements: field observations based on semi-structured interviews with inhabitants describing the trade networks between the island and forest communities; site visits to the participating communities and homesteads to document forest type, cover, and productivity as well as the agricultural productivity of the potato producing sites; and an analysis of remote sensing imagery to determine and corroborate field observations for forest coverage and potato field coverage and productivity at a regional scale. The project combines these three study methods to derive a current description of the geographical extent and implications of the Trueque Chilote barter trade in the area. It appears that the Chilote island potato-wood barter system serves an important role in maintaining the production of heirloom potato varieties and the independent non-monetary peasant lifestyles that characterize the region and has a limited effect on the forest ecology of the mainland.



Scan this mobile tag with your smartphone to view a video vignette of Richard Vercoe’s thesis work and research in Chile. This video is also available online at [www.uwo.edu/enr/haub-school/index.html](http://www.uwo.edu/enr/haub-school/index.html).

## AWARDS AND HONORS

- **Amy Rieser of Jackson, Wyoming**, Bachelor of Science in Sociology and Environment and Natural Resources, received the Rosemarie Martha Spitaleri Award given to the University of Wyoming's outstanding graduating woman. The award, established in 1964, recognizes Rieser for exhibiting exceptional leadership, academic integrity, and citizenship qualities. Also notable, **Ryan Anderson of Cheyenne, Wyoming**, Geography and ENR, was selected as one of six finalists for the Tobin award, which recognizes the outstanding male graduate.
- **Ernest Lawson of Riverton, Wyoming**, was the recipient of a \$3,500 fellowship from Wyoming's Experimental Program to Stimulate Competitive Research (EPSCoR). Lawson's data will contribute to a larger study predicting the impact of climate change on forest-sagebrush steppe composition in southeastern Wyoming. Lawson is a candidate for a Bachelors of Arts in American Studies and ENR and is interested in natural resource management issues impacting American Indian communities.
- **John Pokallus of Gillette, Wyoming**, was lead author of "The Landscape of Ecology," published in the February issue of the journal *Ecosphere*. Recognition

in a major publication is a rare achievement for an undergraduate student, made more impressive because Pokallus' work was chosen as the cover article. Pokallus recently earned the Bachelor of Science in Wildlife and Fisheries Biology and Management and ENR.

- **Chris Michael of Kansas City, Missouri**, will travel to the province of Aceh, Indonesia, on the island of Sumatra, this summer, thanks to a \$3,000 College of Arts and Sciences fellowship. Michael is a junior studying Political Science and ENR, motivated by a desire to understand the human dimensions of catastrophic ecological events. Michael and UW student Becca Skinner have partnered with National Geographic photographer James Balong to create a photo documentary on an Indonesian community's recovery after the devastation caused by the tsunami that hit the island nation in 2004.
- The university recently named two recipients of the 2011 Outstanding Thesis Award, both ENR alumna. **Emilene Ostlind of Big Horn, Wyoming**, produced "Pronghorn Passage," a work of literary nonfiction documenting one of the longest recorded land animal migrations in the Western Hemisphere. Emilene earned the Master of Fine Arts in Creative Writing and ENR in 2010. **Jeminie Shell of Buffalo, Wyoming**, received the university's highest honor for graduate research for her analysis of community-based reintegration efforts by young mothers formerly associated with armed groups in Sierra Leone. Shell received the Master of Arts in International Studies and ENR in 2010. Each was awarded a \$3,000 honorarium.
- In April, University Disability Support Services presented its "Going the Extra Mile" award to UW faculty, staff, and departments. **Jarod Waite of Hinesburg, Vermont**, candidate for the Master of Science in Natural Science Education/ENR and Haub School Assistant Director, Courtney Carlson, were among the 10 recognized for "demonstrating qualities of knowledge, sensitivity and helpfulness in assisting students with disabilities at the University of Wyoming."



*Ernie Lawson measures snow depth in the Medicine Bow National Forest.*

# WCC 2011 FIELD SEASON

This summer 48 UW students will complete 36 service projects in 10-day hitches to benefit Wyoming's public lands. Projects explore a range of natural resource topics, including agriculture, recreation, energy, wildlife, cultural, and forestry management.

For the 2011 field season, the WCC's goal is to provide more than 30,000 service hours on Wyoming public lands. The program will accomplish its projects through a variety of partnerships, including Wyoming State Parks and Cultural Resources, Bureau of Land Management, National Park Service, National Forest Service, Laramie County Conservation District, EnCana, Devon Energy, and The Nature Conservancy.

In preparation for each field season, crew leaders undergo a variety of trainings, including taking a WCC course on Leadership for Natural Resource Management. This classroom-based course provides members with upper-division UW credit within ENR while supplying them with leadership and project management skills and knowledge of public lands management. In 2011, a total of 72 upper-division ENR credits and more than \$83,000 in academic scholarships will be awarded to WCC students.

WCC crew leaders were also certified in CPR for the professional rescuer as part of a Wilderness First Responder course by the Wilderness Medicine Institute

of the National Outdoor Leadership School. WCC crew leaders were also chainsaw certified as "S-212 A: Sawyers" by the Colorado Fire Camp. Chainsaws are utilized by the WCC for a variety of projects ranging from beetle kill mitigation to cutting poles for fencing.

In addition to educating students in natural resource management, WCC aims to cultivate leaders in public service. This goal is realized through WCC's many civic volunteer initiatives, which during the year included:

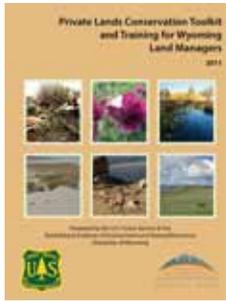
- Supporting UW's Center for Volunteer Service on Martin Luther King Jr. National Day of Service;
- Supporting nearly 150 volunteers who participated in a cleanup effort for the Laramie Plains Civic Center. The Civic Center was originally built in 1878 and was the first school building in the state. Recently, the Laramie City Council elected an action board to revive the building for the public's benefit;
- Volunteering 30 hours per week at the Laramie Rivers Conservation District building birdhouses and raising beds in preparation for two school/community gardens;
- Operating an interactive "watershed trailer" at the 2011 Conservation and Sustainable Living Expo at the Albany County Fairgrounds; and
- Volunteering a total of 10 hours per week during the academic year for the local chapter of Trout Unlimited and assisting in the organization of fly fishing workshops.

Most recently, in April, WCC crew leaders and staff traveled to Buffalo, Wyoming, to participate in a National Volunteer Week event sponsored by Devon Energy, in collaboration with the BLM Field Office in Buffalo. The group removed nearly 1 mile of old fencing, picked up trash, and built three new H braces on the Welch Recreation Area.

*For UW's Earth Day celebrations, the Wyoming Conservation Corps built a 12-foot wind turbine made out of plastic bottles and recycled materials to demonstrate the importance of recycling and using renewable energy resources. Crew leaders Darrin Lutz and Chelsea Lowry, featured in the photo, answered students' questions about the WCC during the event.*



# CONSERVATION TOOLKIT



State and national studies over the last decade suggest that development of private lands in the West has reached unprecedented levels, leading resource managers to take actions to better conserve these lands.

The Ruckelshaus Institute has partnered with the U.S. Forest Service to develop the *Private Lands Conservation Toolkit and Training for Wyoming Land Managers*, a reference guide for public land managers working to conserve private lands.

“While Wyoming is known for its open spaces, private lands feature some of the most vital wildlife habitats in the state, including winter habitat and migration corridors,” said Tex Taylor, professor in UW’s Department of Agricultural and Applied Economics and ENR Senior Advisor. “If those lands continue to be developed, there will be a significant decrease in areas that benefit the state’s natural resources and provide for our quality of life.”

The Ruckelshaus Institute and the Forest Service have made it a priority to address the loss of open space in Wyoming. “It is important that we all work together, and empower land managers with the tools and knowledge to address this growing challenge,” said Rick Cables, Regional Forester, U.S. Forest Service, Rocky Mountain Region.

Retention of open space on private lands is key to land management efforts, particularly since the Rocky Mountain West’s population is growing faster than any other region in the United States. “Rural development in the West is one of the main factors contributing to the loss of privately-held open space. And with nearly half of Wyoming under private ownership, the loss of open space to rural development is of particular concern,” said Taylor, who over the last decade has conducted research for the Ruckelshaus Institute’s Wyoming Open Spaces Initiative.

The U.S. Forest Service projects that nearly 22 million acres of private, rural lands adjacent to national forest and grasslands nationwide will undergo residential development by 2030. According to the American Farmland Trust,

more than 2.6 million acres of “prime” rangeland in Wyoming could potentially be developed by 2020. This represents nearly one-third of the total prime rangeland identified in Wyoming, according to the analysis. “Prime rangeland” is defined as quality agricultural lands that also have desirable wildlife characteristics. In addition, five counties in Wyoming: Sublette (13th), Park (15th), Uinta (19th), Big Horn (20th), and Fremont (21st) ranked in the top 25 counties in the Rocky Mountain Region for future development of open space.

The goal of the toolkit is to outline the strategies, tools and resources available for private land conservation, which can:

- Help buffer public lands,
- Reduce the risk to communities from wildfires and other natural disasters,
- Protect critical wildlife corridors and habitat,
- Provide greater access to public lands for recreation,
- Preserve important watersheds, and
- Maintain scenic vistas and culturally significant landscapes.

The resource guide will be distributed to land managers throughout Wyoming and is also available online at [www.uwyo.edu/toolkit](http://www.uwyo.edu/toolkit).





## STAFF NEWS



ENR is pleased to welcome a new member to its staff. Elizabeth Spaulding will serve as a Public Policy Mediator/Facilitator for the Ruckelshaus Institute beginning June 1. As a public policy mediator, Elizabeth's role will be to engage the citizens of Wyoming and the West in productive dialogue and decision processes on critical issues related to natural resource management and environmental policy.

Elizabeth is from Eugene, Oregon, where she served as lead facilitator for the City of Eugene's Spencer Butte Challenge Course. She holds a JD/MS in Conflict and Dispute Resolution from the University of Oregon School of Law, and a BA in Journalism, also from the University of Oregon. Elizabeth has worked with Eugene Community Mediation Services, co-mediating community conflicts, and she served as a mediator in Lane County Small Claims Court.

Elizabeth will work closely with UW Spicer Chair in Collaborative Practice, Dr. Steve Smutko, to design, convene, and facilitate conversations and collaborative decision-making processes related to pressing natural resource issues.



Haub School Assistant Director Courtney Carlson is the recipient of the UW Promoting Intellectual Engagement (PIE) Award, honoring instructors who inspire excitement, inquiry, and autonomy in first-year courses. Sophomore students nominate instructors, and a selection committee chooses recipients based on the thoughtfulness and volume of student nominations.

## INSTITUTE WORKSHOPS

The Ruckelshaus Institute and the Wyoming Agriculture and Natural Resource Mediation Program will again co-sponsor a summer workshop series on natural resource management issues and collaborative decision making.

Starting in July, the series will include four major workshops in basic and advanced negotiation, facilitation, and strategic communications.

"Natural resource issues are inherently contentious. Workshop participants will come away with a better understanding of how to facilitate groups, negotiate with multiple parties, and communicate science to a broad audience," said Steve Smutko, UW Spicer Chair in Collaborative Practice and lead facilitator with the Ruckelshaus Institute.

The online registration and payment system is now open at [www.uwyo.edu/enr/ienr](http://www.uwyo.edu/enr/ienr). The cost for each two-day workshop is \$375, or \$335 for participants registering for two or more workshops. Discounts are also available to UW Cooperative Extension Service employees.

The schedule for the Ruckelshaus Institute Summer Workshop Series:

- July 14-15: Basic Negotiation Skills in Natural Resource Management, Sheridan
- Aug. 11-12: Advanced Negotiation Skills in Natural Resource Management, Lander
- Aug. 18-19: Essentials in Facilitating Controversial Public Meetings, Laramie
- Sept. 14-15: Strategic Communications in Natural Resource Management, Cheyenne



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