

ENVIRONMENT AND NATURAL RESOURCES

YEAR IN REVIEW

July 1, 2011-June 30, 2012



UNIVERSITY OF WYOMING

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The Environment and Natural Resources Program advances the understanding and resolution of complex natural resource challenges through the Haub School and Ruckelshaus Institute.

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LETTER FROM THE DIRECTOR

Dear friend of ENR,

This has been a dramatic summer in the western U.S. From wildfires tearing through drought-stricken forests and destroying homes to hot, dry weather driving ranchers to sell off cattle, we're reminded daily of complex challenges at the interface between natural resources and human endeavors. Here in Wyoming, long-term changes in land use, forest health, and wildlife populations provide the backdrop to dramatic year-to-year variability in snowfall and energy prices. It is more important than ever that cutting-edge interdisciplinary natural resource information be made available and that future citizens and leaders are trained to take on the changes we can't always anticipate.


At the Haub School and Ruckelshaus Institute, we provide people with tools and resources to address these challenges. The Haub School graduated more students this year than any other and taught more students across campus the foundations of natural resource disciplines. We sent students into the field—in Wyoming and abroad—to work on hands-on solutions to natural resource problems. The Ruckelshaus Institute brought stakeholders together to recommend consensus solutions for issues such as elevated ozone levels in the Upper Green River Basin. We conducted professional trainings in negotiation, facilitation, and communication for natural resource conflicts. And we launched a new initiative to study energy development mitigation practices for wildlife in Wyoming. The Wyoming Conservation Corps once again supported 48 volunteers to improve public lands.

This year, UW's President Buchanan announced a new initiative, the Biodiversity Institute, which will reside within our Environment and Natural Resources program. Funded initially from private sources, this Institute will advance understanding of biodiversity through peer reviewed scholarship and outreach, drawing on UW faculty expertise from the life sciences, social sciences, and humanities. It will develop ideas and applications, often using Wyoming as a test-bed, that can be applied and adopted in the state and in other parts of the nation and the world. Look for announcements in coming months as we launch this important new initiative.

To meet the growing needs of the state and society, we'll continue to build onto our program of excellence. We are proud of our accomplishments and look forward to expanding our impact, addressing complex natural resource issues today and into the future. See page 7 of this report to learn how you can contribute to our mission.

Thank you for your interest in and support of this important work.

Sincerely,

Indy Burke




On the cover: Haub School students hike on El Teide, a volcano on Tenerife, one of Spain's Canary Islands, during the Environmental Assessment capstone course in January 2012. Photo by Melanie Matthews, M.S. in ENR/rangeland ecology and watershed management, '12.

HAUB SCHOOL OF ENR Students explore the wide world of natural resource issues

Students represent 22 degree programs

The ENR graduating class of 2012—the largest in the Haub School's history—comprised 53 students representing 22 distinct degree programs from the colleges of Arts & Sciences, Agriculture & Natural Resources, Engineering, Business, Law, and Education. The five most popular concurrent majors were:

- International studies (11%)
- Geography (10%)
- Rangeland ecology and watershed management (7%)
- Geology (6%)
- Wildlife and fisheries biology and management (5%)

Fostering a student community

The Haub School unveiled a revised curriculum that ties undergraduate studies to six essential learning outcomes. To engage academically promising first year students, we launched a Freshman Field Week in conjunction with the Freshman Interest Group, where entering ENR freshmen study and live together. Field week participants spent the days before the fall semester around Jackson, meeting community planning stakeholders and learning about natural resources decision making in Wyoming. Students also resurrected the ENR Club, which works with other student groups, staff, and faculty to promote understanding of natural resource issues.

Student achievements

Haub School students were once again top award winners during the university's commencement exercises. Chris

Michael (B.S. in ENR/political science) was one of six finalists for the prestigious Tobin award and named a College of Arts & Sciences outstanding graduate. Diem Pham (M.S. in ENR/zoology and physiology) won the Ellbogen Award for Outstanding Graduate Teaching.

Student travel and field courses

This year ten exceptional ENR students traveled to Spain's Canary Islands to study environmental assessment in the European Union. Our three newest field courses—two in Grand Teton National Park and one in Kenya—were popular offerings. Students also took winter field ecology courses with the Teton Science Schools. Another offering, the Yellowstone Field Course, combines study in ecology, geology, and policy.

Scholarships and student support

The Haub School awarded grants to 12 students to conduct independent research and pursue creative activities. A pair of civil engineering undergraduates traveled to Panama to develop a mathematical flood model for the Panama Canal. A graduate student hiked the Pacific Northwest Trail in search of inspiration for his forthcoming poetry collection, *The High Places*. A Kenyan student conducted field research in East Africa's savannas, aiming to improve wildlife management and conservation efforts there. The School also funded some of these students to present at academic conferences, dedicating over \$80,000 to student travel and field experiences.



RUCKELSHAUS INSTITUTE Supporting effective natural resource decision making



education, and decision-making assistance. The initiative's reports, dating back ten years, are now available on our website.

UW's National Forest research permitting

Staff worked with the Forest Service and University Research Office to create an institution-wide permitting process for UW research activities in the Medicine Bow-Routt National Forest.

Conference presentations

Ruckelshaus Institute staff presented a range of content at the Wyoming Landscape Conservation Initiative, Public Interest Environmental Law, and Environmental Conflict Resolution Conferences, among others.

Interagency brucellosis management

The Ruckelshaus Institute, National Wildlife Federation and Murie Center initiated a project to reinvigorate interagency cooperation around Yellowstone bison management and brucellosis control.

Hydraulic Fracturing: A Wyoming Energy Forum

Last September, the Ruckelshaus Institute and UW School of Energy Resources hosted a forum to provide factual information about technical issues and environmental concerns related to hydraulic fracturing for oil and gas development.

New publications

- *Natural Gas Development and Wildlife Mitigation: A Primer, Energy Mitigation Initiative* (May 2012)
- *Bark Beetles in the Intermountain West: Redefining Post-Disturbance Forests and Management Strategies for Minimizing Impacts*, workshop proceedings (January 2012)
- *Economic Contributions of the Wyoming Wildlife and Natural Resource Trust, Open Spaces Initiative* (December 2011)
- *Questioning Greater Yellowstone's Future: Climate, Land Use, and Invasive Species*, conference proceedings (2011)

"People in Wyoming care deeply about how our public lands and resources are managed. Wise management requires participation by people in industry and public agencies, landowners, local officials, conservationists, and active citizens."

Steve Smutko, Spicer Chair of Collaborative Practice

Air Quality Citizens Advisory Task Force

In response to levels of wintertime ozone in Wyoming's Upper Green River Basin exceeding national air quality standards, the state Department of Environmental Quality asked the Ruckelshaus Institute to coordinate and facilitate the Upper Green River Basin Air Quality Citizens Advisory Task Force, which drafted a set of recommendations for the state to consider.

2012 Summer Workshop Series

For the third consecutive year, the Ruckelshaus Institute offered a Summer Workshop Series in Wyoming. These skills-building professional trainings give agency staff, government representatives, and other engaged citizens tools for effective natural resource decision making, including ways to resolve complex issues, reduce conflict, and create value around natural resources challenges.

Energy Mitigation Research and Outreach Initiative

The Ruckelshaus Institute launched a new initiative in May that will gather, synthesize, and deliver information on mitigation practices to ameliorate consequences to wildlife from landscape-scale energy development. (See "New publications," this page.)

Open Spaces Initiative

This ongoing collaborative effort supports Wyoming citizens' effective maintenance of our state's open spaces through research,

WYOMING CONSERVATION CORPS Enhancing Wyoming's public lands



This year, the Wyoming Conservation Corps again provided thousands of hours of invaluable service to enhance Wyoming's public lands. Six crews traversed the state to work with agencies, conservation groups and industry. They built fence, repaired trails and campgrounds, and even built a yurt, which will serve as a Science Learning Center on the remote 300,000-plus-acre Arapaho Ranch.

Due to strategic restructuring at UW, WCC is being moved from ENR to the Office of Student Affairs. We're sorry to see WCC leave our group, and we look forward to coordinating with them on future projects to promote student understanding of natural resource issues in Wyoming. We're proud of all WCC has accomplished over the first six years of its work with ENR.

Events and outreach

FY 2012 HIGHLIGHTS

Green building education program

We led dozens of groups through the Kendall House, explaining features that make it sustainable. New signage supports self-guided tours, and smart tags on the signs link to our online virtual tour. >> UWYO.EDU/ENR/BIM-KENDALL-HOUSE

Speaker series

Nine guest lectures over the fall and spring semesters engaged the campus and wider community in ENR thinking from African American nature poetry, to biopolitics of our national elk herd, and other topics.

Career seminars

Professionals from a range of ENR fields came to campus to talk with our students about their training and career experiences and to offer advice for finding work with agencies, nonprofits, consultants, and private industry.

>> UWYO.EDU/ENR/UPCOMING-EVENTS

UPCOMING PRESENTATIONS

Across the Great Divide

August 13, noon, Buffalo Bill Historical Center, Cody, WY

Senator Alan K. Simpson, William D. Ruckelshaus and John F. Turner, who bring experience from national environmental policy arenas, will speak in a roundtable about collaboration in natural resource management. Michael J. Sullivan will moderate.

Guest Lecture: Photographer Joe Riis

October 11, Berry Biodiversity Center, UW campus

The Haub School and the UW Zoology & Physiology Department present National Geographic Photographer Joe Riis, who graduated with a degree from both in 2008. He'll show images from recent expeditions to Asia and South America documenting research of little-understood species in remote parts of the world.

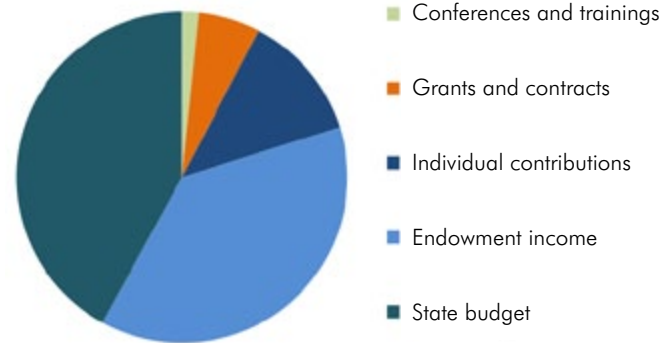
Listening to Nature

November 9, Berry Biodiversity Center, UW campus

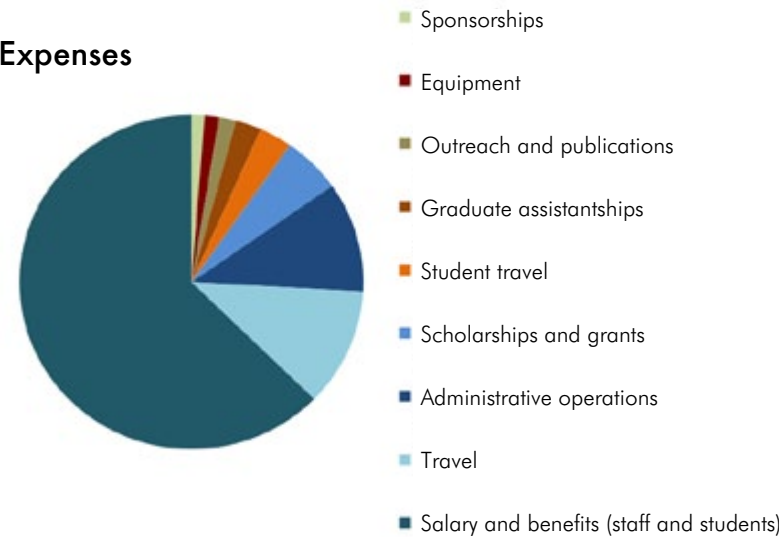
Join us for an evening of artwork, readings, and conversation with Wyoming artists and writers, hosted in collaboration with the Wyoming Outdoor Council and UW's Creative Writing program.

FINANCIAL SNAPSHOT

Income



Expenses



Total estimated revenues and expenditures are for Fiscal Year 2012 (July 1, 2011, to June 30, 2012). The total budget was \$924,000.

THE BIM KENDALL HOUSE Efficiency by the numbers

ELECTRICITY

39%

generated onsite by our rooftop photovoltaic panels

21%

offset with Blue Sky carbon credits

WATER

51%

saved by our new xeriscaping over previous landscaping

43%

saved by our low-flow fixtures over regular ones



Take a virtual tour of our green building
>> UWYO.EDU/ENR/BIM-KENDALL-HOUSE

THANK YOU TO OUR GENEROUS SUPPORTERS

Major Gifts and Endowments

FY 2012 Major Gifts

Liliane and Christian Haub

Knobloch Family Foundation

Mary A. H. Rumsey Foundation

Previous Major Gifts

Helga and Erivan Haub

Helga Otto Haub School of ENR Endowment (2005)
Erivan Haub Scholarship Endowment (2002)

Bim and Donald Kendall

Bim Kendall House (2005)

Jade and David Walsh

Jade and David Walsh Excellence Fund (2005)

Caryl and Roy Cline

Endowed Chair in Engineering, ENR (2003)

Jill and William D. Ruckelshaus

William D. Ruckelshaus Institute of ENR (2003)

Beverly and Eldon Spicer

Endowed Chair in Collaborative Practice (2002)

Mark Bressler

Vern Bressler Scholarship Fund (1997)

Evelyn and Chiles Plummer

Evelyn and Chiles Plummer Scholarship (1995)

Annual Giving FY 2012

\$1,001 to \$25,000

Devon Energy Corporation
Encana Oil & Gas USA, Inc.
Bim and Donald Kendall
Elizabeth and Whitney MacMillan
The Perkins Charitable Foundation
Rocky Mountain Power Foundation
Christine and James Scott
Ann and Senator Alan K. Simpson
Mary Lou and Richard Taggart
Mary Kay and John Turner

\$101 to \$1,000

Lora Bergert and Christopher Morgan
Indy Burke and Bill Lauenroth
Story Clark and Bill Resor

Gary Collins
Debra Donahue and C. L. Rawlins
Steve Duerr
John Haines
Larry Krause
Kevin McMahan
Stacy Page and Rodger Sanders
Andrew Scott
Jane and Mike Sullivan
Kathleen Taimi and Thomas McCall, Jr.
Laurence Weinberg
Dickson Whitney
Wind River Honey Co.
Amy and Stephen Unfried

Up to \$100

Eldon Ayers
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Marianne and Edward Pollak
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Don Tillotson

WCC Grants

AmeriCorps
Bureau of Land Management
Devon Energy
Encana Oil & Gas USA, Inc.
National Park Service
Natrona County
The Nature Conservancy
U.S. Forest Service
UW School of Energy Resources
Wyoming State Parks and Historic Sites

Support the ENR mission using UW's secure server: WWW.UWYO.EDU/GIVEONLINE

My gift/pledge to the University of Wyoming Environment and Natural Resources Program:

\$100 \$250 \$500 \$1,000 Other \$ _____

This gift is designated for the:

ENR General Fund

Haub School

Ruckelshaus Institute

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Donation by telephone: Call the University of Wyoming Foundation during normal business hours: (307) 766-6300 or (888) 831-7795.

Your gift is tax deductible as provided by law.

Thank you. Your gift makes a difference.



Haub School and Ruckelshaus Institute of Environment and Natural Resources

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ATTENTION ALUMNI

Keep an eye out for our upcoming survey

You are among a group of talented, innovative professionals changing the landscape of ENR issues, and we want to hear about your latest accomplishments. Take part in our 2012 alumni survey and help us revitalize our growing ENR alumni network.

It's easy to participate.

First, make sure we have your current contact information. Please send us an email with your updated info, or give us a call.

SEN@UWYO.EDU (307) 766-5080

Then, watch for a short, web-based survey heading to your inbox soon.

Thank you!