



Haub School UPDATE

News from our academic programs, Ruckelshaus Institute, and Biodiversity Institute





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The Haub School of Environment and Natural Resources advances the understanding and resolution of complex natural resource challenges through our academic programs, the Ruckelshaus Institute, and the Biodiversity Institute.

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LETTER FROM THE DIRECTOR

Dear friend of the Haub School,

This issue of our newsletter introduces you to a number of exciting developments in our program. Our most noteworthy evolution is the launch of the University of Wyoming's new Biodiversity Institute, part of the Haub School of Environment and Natural Resources. We are excited to embrace this organization, as well as to announce several major accomplishments of the Ruckelshaus Institute and the continued growth of our academic programs with more courses, more enrolled students and majors, and more field and international opportunities than in any previous year.

In recognition of our developing programs, we have a new organizational structure, which reflects the close connections among our academic, scholarly, and outreach activities, collected now under the umbrella of a school (the Haub School), the organizational construct for universities with a strong investment in interdisciplinary programs that cross traditional college and departmental lines. To help us communicate this structure, we are launching a new logo and color scheme. Our new look, which we've spent several months designing, will help our partners and constituents recognize our work and enhance the clean, professional look of the important reports, conference proceedings, presentations, and other materials we produce. The image of a road winding toward the mountains is reminiscent of our past mountain logo, while noting human presence in the landscape. The three colors correspond to the three components of the Haub School: academic programs, Ruckelshaus Institute, and our new Biodiversity Institute.

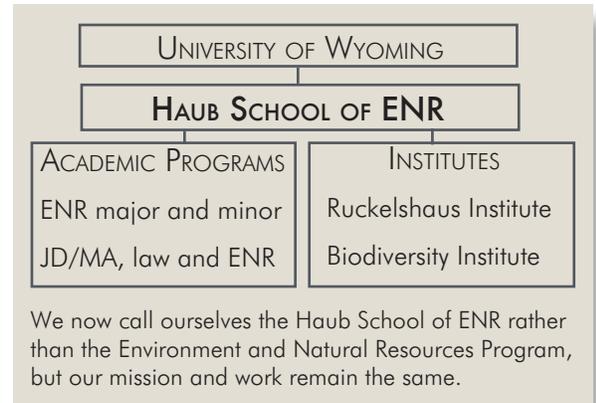
As you learned from our last newsletter, the Wyoming Conservation Corps, which was housed in the Haub School for six years, has moved to the Division of Student Affairs where they join departments including the Outdoor Program and Campus Recreation. We'll look forward to working with them on future projects, and will continue to support WCC through internship credits for our ENR students.

As we embrace these changes, our work to advance understanding and resolution of complex environment and natural resource challenges continues full bore. Our academic programs supported two classes of students during a hands-on field week in Jackson Hole at the beginning of the fall semester. The air quality task force in Pinedale, facilitated by the Ruckelshaus Institute, submitted recommendations to the state to address ground-level ozone in Sublette County. Read on for more details about our accomplishments and vision.

Sincerely,



On the cover: Haub School student BJ Bender, Rangeland Ecology and Watershed Management with an ENR minor, canoes on String Lake, Grand Teton National Park, during the Freshmen Interest Group field week, August 2012.



We now call ourselves the Haub School of ENR rather than the Environment and Natural Resources Program, but our mission and work remain the same.

BIODIVERSITY INSTITUTE UW's newest institute joins the Haub School

This fall the University of Wyoming launched a new Biodiversity Institute. Expanding the mission of the Haub School of Environment and Natural Resources, the Biodiversity Institute will promote research, education, and public engagement surrounding the science of biological diversity and its relationship to society. It will advance understanding of the physical, biological, and human forces that impact biodiversity in order to foster conservation.

After conducting an international search, the university selected Carlos Martínez del Rio to direct the Biodiversity Institute. Martínez del Rio earned his PhD in Zoology from the University of Florida and taught at Princeton before coming to UW's Department of Zoology and Physiology, where he has been for 19 years. He and his students conduct research on birds and bats as pollinators and seed dispersers, among many other subjects.

In addition to Martínez del Rio, the Haub School welcomes Dorothy Tuthill and Brenna Marsicek. Tuthill has a PhD in botany from UW, and has been both a research scientist and a lecturer for the university. She develops and delivers educational

programs for all age groups, especially K-12. Marsicek brings a background in geography, international studies and environmental studies, as well as a wealth of creativity, to her position as Program Manager for the Biodiversity Institute. The Biodiversity Institute team is housed in the Berry Biodiversity Conservation Center, a building that also boasts research laboratories, the vertebrate collection, and many faculty and graduate students among its inhabitants.

The Biodiversity Institute team brings new creative capacity and enthusiasm to the Haub School. The Biodiversity Institute will focus on interdisciplinary biodiversity research; outreach activities designed to serve the needs of the public, Wyoming agencies and non-governmental organizations; and development of curricular components including student research, field experiences and internships.

Biodiversity Institute Mission:

We foster the conservation of biodiversity by bringing together researchers, students, and the public in a forum that enables all citizens to both participate in scientific discovery and develop understanding of the physical, biological, and human forces that impact and shape the character of biological diversity.

I hope that, in the near future, every student who graduates from the university will have a good understanding of why biodiversity matters and why we must strive to use it wisely and protect it.

Carlos Martínez del Rio
Director, Biodiversity Institute





ACADEMIC PROGRAMS

Interdisciplinary opportunities reach more students

Fall is an exciting time at the Haub School as we welcome new student cohorts and kick off new activities.

Expanding international experiences

- Biosecurity, Prof. Steve Williams, with travel to New Zealand
- Ecology and Conservation of African Savannas, Prof. Jake Goheen, with travel to Kenya
- Lakipia Wildlife Forum exchange, brings Kenyan students to UW

In addition, for the second year students in ENR's capstone course series will travel to Tenerife, Canary Islands, Spain, over winter break to meet with local stakeholders and La Laguna University professors. Prof. Bill Lauenroth leads this international environmental policy course.

Freshman Interest Groups go into the field

We launched the fall semester by bringing incoming freshmen to Jackson Hole to explore Wyoming's natural resource challenges and to interact with on-the-ground professionals. Many of these students will declare an ENR major or minor.

In the field lab associated with ENR 1100, Problems and Policies, students surveyed management challenges surrounding busy Highway 22 over Teton Pass as it relates to wildlife movement. ENR 1200, Environment, an introductory environmental science course, introduced students to field aspects of inquiry, hypothesis,

experimental design, and data collection as they worked with biologists and managers to conduct a water sampling lab, grazing ungulate survey, and vegetation analysis.

The Haub School has led campus efforts to recruit and retain first year students through innovative field experiences such as these.

Campus and community events

In addition to our academic offerings, the Haub School enriches student experiences on campus by hosting speakers and other events. Our fall events included:

Paul Sutter, environmental historian, "Origins of Modern American Wilderness," co-sponsored by the Medicine Bow-Routt National Forests and Thunder Basin National Grassland

Joe Riis, National Geographic Young Explorer, "Conservation Photography from Around the World," co-sponsored by the Zoology and Physiology Department and the Berry Biodiversity Conservation Center

Jack Ward Thomas, ecologist and 13th chief of the U.S. Forest Service, "Ecosystem Management in Transition" and "The Future of National Forests," co-sponsored by the College of Agriculture and Natural Resources



THE FALL 2012 SEMESTER BY THE NUMBERS

ENR courses offered	28
ENR course enrollments	401
Undergrads who've declared ENR	110
Grad students who've declared ENR	48
Law students pursuing ENR	9
Members of the Freshmen Interest Groups	31

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RUCKELSHAUS INSTITUTE Supporting efforts toward shared decisions

Steve Smutko and Elizabeth Spaulding, members of the Ruckelshaus Institute's facilitation team.



Across the Great Divide

In August, the Ruckelshaus Institute hosted a roundtable among Alan Simpson, William Ruckelshaus, and John Turner. In a conversation moderated by Wyoming Governor Michael Sullivan, these acclaimed natural resource leaders and collaborators spoke to a full house about the value of collaboration in natural resource management. Find a video of the entire discussion, as well as Wyoming PBS's interview with Ruckelshaus on our website, UWYO.EDU/ENR/RUCKELSHAUS-INSTITUTE.

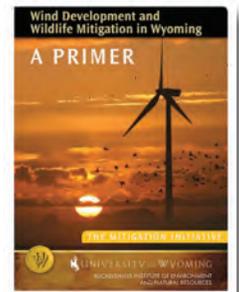
New publications

The Ruckelshaus Institute bridges scholarly research conducted at UW to decision makers and communities. Our reports and proceedings are a critical resource for natural resource stakeholders statewide.

Wind Development and Wildlife Mitigation: A Primer

Anne Jakle

This second publication of our Energy Mitigation Research and Outreach Initiative outlines known practices to avoid or minimize impacts of wind facilities on wildlife, and highlights existing wind energy policies with current mitigation guidelines.



Population Growth in Wyoming, 2000-2010 and Second Home Growth in Wyoming, 2000-2010

David T. Taylor and Shawn Lanning

These two publications from the Open Spaces Initiative provide overviews of population and second home growth patterns in Wyoming to inform planners and decision makers who wish to maintain Wyoming's working landscapes and open spaces.



Ozone recommendations heralded

Since last February, the Ruckelshaus Institute has provided facilitation services to the Upper Green River Basin Citizens Advisory Air Quality Task Force. The Task Force was charged with making consensus recommendations to the state Department of Environmental Quality to reduce levels of ground-level ozone in the vicinity of the western Wyoming natural gas fields.

Steve Smutko, UW's Spicer Wyoming Excellence Chair in Environment and Natural Resources, and Elizabeth Spaulding, Public Policy Mediator, designed and facilitated a collaborative decision making process for the 26-member group and were instrumental in its development of recommendations to reduce ozone levels.

In September, the group submitted 10 recommendations to the state, and Governor Matt Mead thanked the task force for its effort. "The members of the task force brought different perspectives and came together in a productive manner," Governor Mead said. "I appreciate the many hours they contributed to this important issue."

As DEQ reviews the recommendations, recently retired Director (and ENR board member) John Corra, says it's a strong list that could "make a big dent in the ozone problem."



SENIOR ADVISORS

Experts and professionals add depth to our work

The Haub School and Ruckelshaus Institute are fortunate to have access to a team of 28 Senior Advisors with expertise in a range of fields. These business leaders, lawyers, academics, agency staffers, elected officials, and consultants provide guidance on research projects, review our publications, and mentor our students. Their service adds depth to our work and helps us stay relevant and trusted. As our program grows, we look forward to continuing to work with and learn from this esteemed group.

Meet a Senior Advisor: Mike Brennan

One of our Senior Advisors, Mike Brennan, has just been named Adjunct Professor in the Haub School. Brennan is a nationally recognized practitioner in environmental and natural resources law. He served as Executive Assistant to the Director of the U.S. Fish and Wildlife Service within the Department of the Interior (1989-2003) and later as an attorney in private practice with Holland and Hart, LLC. In 2011, Mike left the partnership of Holland and Hart to initiate a small private practice engaged in the development of innovative conservation strategies for the

resolution of complex natural resource conflicts nationwide – a perfect match for the work of the Haub School. He has worked closely with the Haub School over the last year as an advisor, guest lecturer, student mentor, and contributor to the intellectual content of our work, and we're pleased to formalize his connection to our program by recognizing him as Adjunct Professor.



Senior Advisor Mike Brennan is now a Haub School Adjunct Professor.

Haub School of Environment and Natural Resources Senior Advisors

- Rosie Berger - Big Horn, WY - Wyoming State Representative
- Gary Beauvais - Laramie, WY - Director, Wyoming Natural Diversity Database, UW
- Mike Brennan - Jackson, WY - Attorney
- Ralph Cavanagh - San Francisco, CA - Attorney, Natural Resources Defense Council
- Roger Coupal - Laramie, WY - Associate Professor, Department Head, Agricultural and Applied Economics, UW
- John Ehrmann - Denver, CO - Senior and Managing Partner, Meridian Institute
- Todd Graham - Bozeman, MT - President, Aeroscene Land Logic
- Steve Gray - Fairbanks, AK - Director, Alaska Climate Science Center
- Jeff Hamerlinck - Laramie, WY - Director, WYGISC, UW
- Christian Haub - Greenwich, CT - President, Emil Capital Partners
- Stephanie Kessler - Lander, WY - Wyoming Program Manager, The Wilderness Society
- John Knight - Portland, OR - Developer, Element Power
- Jeff Lockwood - Laramie, WY - Professor, Philosophy, UW
- Luke Lynch - Jackson, WY - Wyoming State Director, The Conservation Fund
- Daniel Luecke - Boulder, CO - Hydrologist and Environmental Scientist
- Tad McCall - College Station, TX - Program Manager, Institute of Renewable Natural Resources, Texas A&M University
- Ginger Paige - Laramie, WY - Associate Professor, Water Resources, UW
- George Parks - Cheyenne, WY - Director, Wyoming Association of Municipalities
- Ben Rashford - Laramie, WY - Assistant Professor, Agricultural and Applied Economics, UW
- Mark Reid - Sheridan, WY - Sheridan County Planner
- Lara Ryan - Pinedale, WY - Director, Wyoming Land Trust
- John Schiffer - Kaycee, WY - Wyoming State Senator
- Jay Shogren - Centennial, WY - Stroock Professor, Natural Resource Conservation and Management, College of Business, UW
- Tom Spicer - Rock Springs, WY - M.D., Former UW Trustee
- Jim Steidtmann - Laramie, WY - Emeritus Professor, Geology and Geophysics, UW
- Tex Taylor - Laramie, WY - Professor, Agricultural and Applied Economics, UW
- Peter Wold - Casper, WY - President, Wold Oil Properties, Inc.
- Anne Young - Cody, WY - Emeritus, Board of Trustees, The Nature Conservancy



PROFILE: EDGE ENVIRONMENTAL

A prosperous business counts on Haub School graduates

“ENR is a very, very, very important program in the University,” says Archie Reeve, founding principal of Edge Environmental. In 2005, Reeve, who earned his PhD in Zoology and Physiology from UW ('84), and three other partners created the consulting firm, which conducts environmental impact assessments of large projects for federal agencies. From offices in Lakewood, Colo., and Laramie, Wyo., the nine-member staff analyzes potential impacts of energy developments (coal, oil, natural gas, uranium), transport (roads, pipelines, railroads), and other projects, and writes environmental assessments and impact statements to fulfill requirements of the National Environmental Policy Act.

Over the years, Edge Environmental has hired eight Haub School alumni. Currently two – Josh Moro, who earned his M.A. in American Studies and ENR in 2007, and Rebecca Buseck, who earned her M.S. in Animal and Veterinary Science and ENR in 2004 – are full-time staff. Two others – Erin Hill, a senior in Biology and ENR, and Clark Van Hoosier, who earned his B.S. in Rangeland Ecology and Watershed Management and ENR in 2011 – work part-time for Edge Environmental.

One big project that led to Reeve hiring Hill and Van Hoosier requires assessing the fish and wildlife impacts from a pipeline connecting to a liquefied natural gas export terminal at Coos Bay in Oregon. Such analysis requires careful research and literature synthesis, quantification of risk and impacts, and putting information in the context of law and policy. Reeve says the skills he values most in employees are critical thinking, clear writing, and the ability to step out of one's discipline and tackle different problems. Reeve has been Adjunct Professor in ENR, and over the years has often turned to Haub School graduates to find qualified job candidates, having known



Archie Reeve and Josh Moro of Edge Environmental.

many of them personally and professionally. As energy production intensifies, he says, it will be even more important for natural resource professionals to understand how to analyze, contextualize, and communicate about such development, skills the Haub School offers graduates.

Support our mission

Each year a significant portion of our budget is made up of individual contributions from people who believe in our mission and want to make a difference in the future of natural resource management in the West and beyond. Your support of our academic programs and institutes will advance resolution and understanding of some of the world's toughest natural resource challenges by helping us educate tomorrow's professionals, communicate relevant research, and enable shared solutions. The Haub School of Environment and Natural Resources fulfills a critical role in ensuring the future of our natural resources. Please consider making a contribution.

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

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

This gift is designated for the:

Haub School General Fund Ruckelshaus Institute
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Nancy Hoffer, *Senior Office Associate*
Maureen Morrison, *Administrative Associate*
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Mandy Bohlender, *Senior Office Assistant*

Alex Johnson, *Office Assistant*
Andrea Lyon, *Student Employee*

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Maggie Bourque, *Student Advising Coordinator*

Ruckelshaus Institute

Anne Jakle, *Assistant Director (interim)*
Jessica Clement, *Research Scientist, Collaborative Leadership Program Director*
Elizabeth Spaulding, *Public Policy Facilitator*
Mary Hogarty, *Research Scientist (interim)*

Biodiversity Institute

Carlos Martinez del Rio, *Director*
Dorothy Tuthill, *Associate Director*
Brenna Marsicek, *Program Manager*

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ALUMNUS SPOTLIGHT

Chris Michael, B.S. Political Science and ENR, minor Environmental Values, '12

As a Haub School student, Chris Michael traveled to Banda Aceh, Indonesia, to document recovery from the 2004 tsunami, resulting in a stunning multimedia presentation. He was a finalist for the Tobin Award, which recognizes UW's outstanding male graduate, and graduated *cum laude*, one of the College of Arts and Sciences Top Twenty students, a Political Science Outstanding Senior, and a member of Phi Beta Kappa honor society. He says ENR added breadth to his studies at UW and exposed him to "countless issues, cultures and avenues of thinking about the problems (and bright spots) in our world as a whole."

After graduating, Michael found a job with Bright Agrotech, a Laramie-based startup innovating ways to grow fresh, local produce year round. Founded by two other UW grads, Bright Agrotech builds and sells towers they invented for vertical indoor farming and produces fresh herbs and greens for the community. Michael's role there includes everything from website design and email marketing to planting and harvesting in the greenhouse. Though he hopes to go into political office one day, for now he enjoys the fast-paced entrepreneurialism and is excited to be "creating a movement around a new farming future, one where farmers can live better while growing healthy food for their communities with limited space."



Attention alumni: We want to know your latest accomplishments. Please update us at UWYO.EDU/ENR/HAUB-SCHOOL. Thanks!