UNIVERSITY of WYOMING

# Haub School UPDATE

NEWS FROM OUR ACADEMIC PROGRAMS AND RUCKELSHAUS INSTITUTE

SPRING 2015 IN THIS ISSUE

Haub School Research

Highest Student Enrollment Ever

Field and International Courses

**Ruckelshaus Institute Publications** 



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The Haub School of Environment and Natural Resources advances the understanding and resolution of complex natural resource challenges through interdisciplinary education, research, dissemination of information, and collaborative decision-making.

### University of Wyoming

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### LETTER FROM THE DIRECTOR

Dear Friend of the Haub School,

For over twenty years the Haub School of Environment and Natural Resources at the University of Wyoming has been educating future problem solvers, building collaborative decision making capacity, conducting relevant and important research on natural resources, and helping people understand the science that can inform responsible management of our natural resources. The student enrollment graph on the following page illustrates one way our programs have expanded over the years. We've also seen parallel growth in the reach and influence of the publications and collaborative solutions work from the Ruckelshaus Institute.

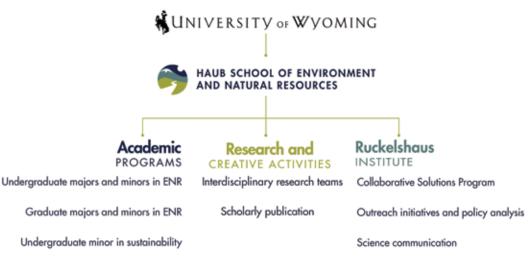
In the last six months we welcomed Jo Albers to our faculty. She fills the newly endowed Knobloch Chair in Conservation Economics and Finance. We are currently hiring an Assistant Professor in Natural Resource Science who will bring expertise in natural resources science relevant to management, and policy.

As our student enrollment and faculty numbers grow, the time has come to formalize the environment and natural resource research contributions from our group. You will find descriptions of some our ongoing research projects, ranging from reclamation in sagebrush ecosystems to research on Tanzanian bird populations, in this newsletter. New knowledge and understanding generated by research at the Haub School supports sound decision making for the future.

Sincerely, Indy Burke

I. J. D. I. Dimeter

Indy Burke, Director



JD/MA degree in law and ENR

On the cover: Haub School students learned in the Wyoming mountains during our fall 2014 Field Week.

### **RESEARCH AT THE HAUB SCHOOL**

### **Research Highlights**

Faculty members at the Haub School conduct research in many disciplinary fields to advance the understanding of complex environment and natural resource systems. Learn more about these projects by visiting the research page of our website: uwyo.edu/haub/research.

#### Fertilizing Western Rangelands for Ungulate Conservation

The Haub School's Indy Burke and Nicole Korfanta authored a *Wildlife Society Bulletin* paper with implications for habitat management in Wyoming. To offset habitat loss from energy development, wildlife managers are experimenting with large-scale sagebrush fertilization on western public rangelands. The authors synthesized what is known about basic sagebrush ecosystem biogeochemistry and ungulate nutritional ecology to assess the benefits and risks of this emerging mitigation tool. They concluded that potential ecosystem risks of excess nitrogen outweigh the benefits of fertilization, which are generally minimal and expensive to achieve.

#### Deforestation Effects on Bird Communities in Tanzania

This long-running project assesses the effects of tropical deforestation on understory bird populations of the Usambara Mountains in Tanzania. Current work focuses on reserve design to improve avian survival and reproductive success to sustain populations into the future. Nicole Korfanta, Ruckelshaus Institute director, is a principle investigator for this project along with William Newmark, a research associate and conservation biologist in the Natural History Museum of Utah, and Matthew Kauffman, leader of the Wyoming Cooperative Fish and Wildlife Unit at the University of Wyoming. Jo Albers, Knobloch Chair in Conservation Economics and Finance, is exploring the socioeconomic impacts of conservation planning for this study.

#### **Reclamation Practices Old and New**

Oil and gas development has been occurring in the sagebrush ecosystems of the western U.S. for about a century, providing an opportunity to evaluate the long-term recovery of drilled lands under a variety of reclamation practices. Indy Burke, Haub School Director, working with botanist Bill Lauenroth and ENR/ ecology PhD student Caitlin Rottler, are investigating how plants and soils have recovered over time under different reclamation regimes.





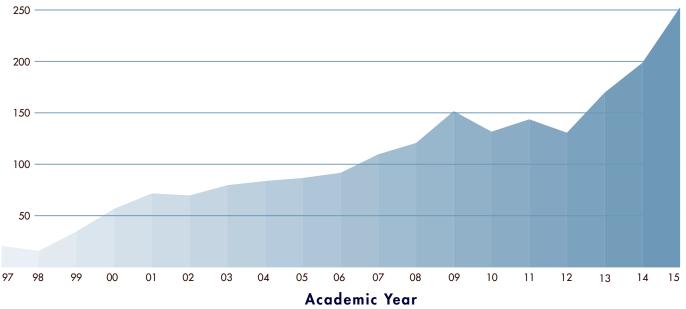
#### Dr. Ogden Receives Arid Lands Hydraulic Engineering Award

Fred Ogden, Cline Distinguished Chair of Engineering and Environment and Natural Resources, will receive the 2015 Arid Lands Hydraulic Engineering Award from the Environmental and Water Resources Institute of the American Society of Civil Engineers at the World Environmental and Water Resources Congress in Austin, Texas, this May. The award recognizes Dr. Ogden's contributions to helping people better understand surface water hydrology through developing models and other work.



### ACADEMIC PROGRAMS Growing Student Enrollment

The number of UW students who are pursuing a major, minor, or joint degree from the Haub School jumped this spring. We now have over 250 students enrolled to earn a major or minor in environment and natural resources, a minor in sustainability, or a joint JD/MA in law and ENR. About 60 of these are graduate students, mostly from the colleges of Law, Education, Agriculture and Natural Resources, and Arts and Sciences. Students in the Haub School are pursuing 49 different primary degrees from all seven of UW's colleges.



### **Declared Haub School Students**



### SCIENCE AND ENVIRONMENTAL WRITING WORKSHOP

The Haub School is offering a new Science and Environmental Writing course this June. Interested students pitched ideas for reported articles about science and environmental topics. Over four weeks this summer, the top 12 selected students will outline, report, write, edit, and polish a magazine-style article about a subject of their choosing. The course is taught by Abe Streep, contributing editor for *Outside* magazine and a widely published magazine writer who lives in Laramie.

### International and Field Courses



Our international and field courses continue to be some of the richest experiences we offer.

Over winter break, 29 students from UW and other universities studied sustainable design and energy conservation in our new Sustainability Seminar, and investigated the Greater Yellowstone Ecosystem in our Winter Ecology field courses offered in partnership with Teton Science Schools.

In January students in our capstone course, Environmental Assessment in the European Union, spent ten days exploring environmental management and sustainability in Tenerife, one of Spain's Canary Islands.

And the UW Nordic Ski Team, including six Haub School students, traveled to Slovakia this January to represent the United States in the World University Games. With funding from the Haub School, the students are taking a course on the environmental impacts of the international athletic event, and conducting independent research into the climate-related, socioeconomic, and environmental impacts of the games.

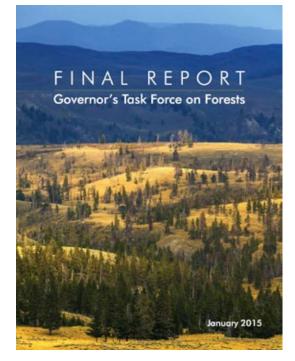
**Above:** Haub School students explored natural resource science and management in Grand Teton National Park during our Field Week for incoming freshmen.

**Right:** Haub School student and UW Nordic Skier Kyle Bochanski represented the U.S. at the World University Games in Slovakia. **Left:** Aerial view of of cattle near a tributary to the Green River in western Wyoming.





### RUCKELSHAUS INSTITUTE Collaborative Solutions



### GOVERNOR'S TASK FORCE ON FORESTS FINAL REPORT

Governor Matt Mead created the Task Force on Forests in 2013 to study the benefits forests provide and to make recommendations for active and passive management. The Forest Task Force, facilitated by Ruckelshaus Institute collaborative practitioners, reached consensus on 12 major recommendations comprising 53 sub-recommendations, for the Governor's consideration.

"I asked for a plan that fit Wyoming. The Task Force got it right. This diverse group brings a complete vision of forest management with a broad perspective that is bigger than a single interest."

—Governor Matt Mead

#### ITERATIVE NEPA AND COLLABORATION: PROCEEDINGS OF THE INEPA WORKSHOP

In 2008 the U.S. Forest Service updated its National Environmental Policy Act (NEPA) procedures to facilitate collaborative public engagement. Iterative NEPA, or iNEPA, allows practitioners to incrementally improve proposed actions and alternatives to meet stakeholder interests. The Ruckelshaus Institute led a workshop among experienced NEPA practitioners to discuss integrating iNEPA into agency practice. We published the workshop proceedings this winter.





### COLLABORATION PROGRAM IN NATURAL RESOURCES

The Ruckelshaus Institute's Collaboration Program in Natural Resources provides mid-career professionals with hands-on training in negotiation, facilitation, mediation and other skills to lead and engage in collaborative natural resource decision-making processes. The program meets six times over the course of a year. Participants create individually tailored projects that apply real-world collaborative problem solving skills in their communities and beyond. The 2014-15 cohort presented their final projects and completed the program in April. We are now reviewing applications to select participants in our fourth year of the program.



Above: Jessica Clement directs the Collaboration Program in Natural Resources.

### UWYO.EDU/HAUB/RUCKELSHAUS-INSTITUTE

### **New Publications**



### PUBLIC OPINION ON NATURAL RESOURCE CONSERVATION IN WYOMING

A recent statewide poll of Wyoming voters documented a strong interest in conservation and support for dedicating additional state funds to protect land, air, water, wildlife habitat, and ranchlands in the state. As part of our Wyoming Open Spaces Initiative, the Ruckelshaus Institute partnered

with the Wyoming Stock Growers Association, the Wyoming Stock Growers Land Trust, and The Nature Conservancy in Wyoming to commission the poll. Overall, the poll found that Wyoming voters view the loss of family farms and ranches, availability of water for farming and ranching, and the decline in numbers of big game animals as the top three most serious conservation issues facing the state. Respondents support state funding of projects to conserve these values.

## Confluence



#### WESTERN CONFLUENCE MAGAZINE

Western Confluence magazine, published twice each year, covers natural resource science and management in the West. Our most recent issue, out in January, explores how we allocate, store, transport, plan for, and use water in the West. Stories examine how irrigation efficiencies affect downstream users, a new hydrologic model of the Colorado River Basin, aquifer recharge

management to help cities sustain future water supplies, and efforts to restore damaged rivers.

Email editor@westernconfluence.org or visit www.westernconfluence.org to be added to the mailing list for this publication.



#### WISHING NANCY A HAPPY RETIREMENT

After over a decade of service at the University of Wyoming our Accountant and Office Manager, Nancy Hoffer, has retired. She is moving to Billings, Montana, to live near her three granddaughters. Nancy, we wish you many happy years of retirement and thank you for your patience, attention to detail, and years of diligent work at the Haub School.

### Support Our Mission

The Haub School advances the understanding and resolution of complex environment and natural resource challenges. A significant portion of our budget comes from individual supporters who believe in our mission. There are three easy ways to support our work:

> GIVE ONLINE THROUGH UW'S SECURE PLATFORM: www.uwyo.edu/giveonline

SEND YOUR CONTRIBUTION IN THE MAIL: University of Wyoming Foundation 222 S 22nd St Laramie, WY 82070

CALL DURING NORMAL BUSINESS HOURS: (307) 766-6300 or (888) 831-7795

Your gift is tax deductible as provided by law. Thank you for your support.

Please reference giving code N15HS.



Haub School of Environment and Natural Resources Academic Programs | Ruckelshaus Institute | Research

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#### **ALUMNUS SPOTLIGHT**

Tyson Finnicum, Planning and Environmental Specialist, Bureau of Land Management, Wyoming Communications and Environment and Natural Resources, 2012

Tyson Finnicum has to know a little of everything—mapping, environmental law, outreach, and much more—for his job managing Wyoming public lands. He grew up in a ranching and coal mining family in southeast Montana and eastern Wyoming. As a student at the University of Wyoming, he participated in a Bureau of Land Management internship program doing public relations work in Rock Springs. In 2012, he graduated with a dual degree in communications and ENR, and the BLM Wyoming state office hired him full time. Eventually he moved into the renewable energy coordination office where he worked on environmental analysis for Chokecherry/Sierra Madre, a large wind energy facility planned for south central Wyoming. Last November his career took another step when he moved into the BLM's planning and NEPA office. There he is working on 17 environmental impact statements, including one for statewide sage grouse management on BLM and Forest Service lands. His favorite thing about his job is collaborating with staff from other agencies, local governments, and nongovernmental organizations to craft solutions for resource management.



"The ENR program helps you think differently, in the big picture, especially when it comes to involving stakeholders. That's my job, to be the big picture person. The Haub School helped build that well-roundedness."