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## Fall 2009 Graduation

### College of Natural Resources' Valedictorian

- Nat B. Frazer  
Dean
- Mark Brunson  
Department of  
Environment and  
Society
- Chris Luecke  
Department of  
Watershed  
Sciences
- Johan du Toit  
Department of  
Wildland  
Resources



A native of Michigan's Upper Peninsula, Seth Ex grew up near the small community of Hubbell which has a population of about 1,000 residents. So, you'll excuse Seth when he says, "Logan is getting too big."

Seth entered CNR as a forestry major in fall 2007 after transferring from the University of Alaska – Anchorage. Prior to his undergraduate studies, he was a project manager for the Homer Soil and Water Conservation District in southern Alaska.

Since his arrival at USU, Seth has excelled as a student, a researcher and a peer leader. He served as president of the USU Forestry Club in 2008-09 and was a member of USU's 2008 national champion Society of American Foresters quiz bowl team.

Seth's research uses dendroecological methods (the use of tree rings) to study changes in ecological processes over time.

His major projects focused on examining the succession and stand structure of curl-leaf mountain mahogany in the Bear River Mountains with faculty mentor Jim Long and doctoral candidate Justin DeRose.

Seth conducted this research with funding from a USU Undergraduate Research and Creative Opportunities grant and a CNR Undergraduate Research grant. He presented his findings at USU's Student Showcase during this fall's CNR Week and at the 2009 Society of American Foresters Annual Convention in Orlando, Fla.

He is currently writing an article on this work for submission to a peer-reviewed journal. Seth has also collaborated with his fellow undergraduate Richie Gardner on mahogany genetics work under the guidance of faculty mentor Karen Mock.

Following graduation, Seth plans to pursue graduate studies in forestry at Colorado State University.

Of his experiences at USU, Seth says he's grateful he has had the opportunity to work with some great professors who truly care about students and emphasize depth in learning.

"Your career won't be made or broken by your undergraduate major or where you go to school," Seth says. "You should look for the 'whole package' when choosing where to study and seek out a program and location where you'll be happy."

Seth is the son of Sharon and Philippe Arend of Allouez, Mich. and Tom Ex and Donna Gladder-Ex of Hancock, Mich. ♦

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### CNR Students present research to Utah legislators

Four CNR undergraduates along with 27 other USU students presented their research to Utah legislators in the State Capitol on January 28, 2010.

■ See *CAPITOL*, page 7

## Department of Environment and Society

### Geography Students Capture Top Awards at Regional Gathering



**Justin Noyes and Jodie Madsen captured first place awards in their respective oral paper competitions**

Master's student Jodie Madsen finished first in the graduate oral paper competition. Madsen presented "*Latino Recreation in Cache Valley, Utah.*"

"Low minority visitation of national forests and parks has become an increasingly studied topic....Cultural and language barriers, lack of experience, economic constraints and amount of leisure time could explain this phenomenon..." Madsen said.

Undergraduate Jed Anderson was among the highest individual scorers in the Geography Bowl student competition and earned a place on the regional team that will compete in the Geography Bowl at the AAG's national meeting on April 14-18, 2010 in Washington, D.C.

Our six-member Geography Bowl team placed second. In addition to Anderson, team members included undergraduates Melissa Barfuss, Abigail Montandon and Jeff Ricks and graduate students Seth Price and Adrian Welsh. ♦

CNR's Geography students captured top awards at the Association of American Geographers Great Plains-Rocky Mountain Division Annual Meeting held Sept. 25-26 in Logan. More than 100 participants attended the USU/CNR-hosted conference, representing 15 western universities.

Justin Noyes placed first in the undergraduate oral paper competition. He presented "*From Bonanza to Bat Cave: How the Amazon Mine in Logan Canyon Evolved as a Natural Resource.*"

"The Amazon Mine, located in Logan Canyon, evolved from a working galena mine and the site of a questionable stock-selling business to an explorers' landmark and, currently, a sensitive species sanctuary," Noyes says.

The shaft now serves as a protected home for the imperiled Townsend's big-eared bat.



**Jed Anderson was among the highest individual scorers at the meeting's Geography Bowl.**



**Dr. Zhao Ma,  
Assistant Professor in ENVS**

### Worth Repeating...

Here's a little feedback worth repeating about Dr. Zhao Ma's ENVS 3000 NR Policy course. The comments were received from Casey Snider, a Quinney Scholar, who was recently hired as a fulltime staffer by Sen. Robert Bennett. Casey said, "I thought you might like to know that today I sat on a briefing analyzing a proposal by a government agency... it was exactly what we did in class, with the federal agency presenting their plan and us as congressional staff asking questions and analyzing what they had to say. For a moment it felt like (ENVS 3000)... I thought you might like to know that the material and projects...assigned are very pertinent and true to life." ♦

## Department of Watershed Sciences

### TRUTH IS STRANGER THAN FICTION: Undergrads Describe Unique Piscine Behavior and Reproduction

**W**ild fish stories filled the atrium as students in Dr. Phaedra Budy's WATS 3100 Fish Diversity and Conservation class hosted a welcoming poster session designed to engage and inform guests, while providing students with a forum to hone their presentation skills.

Co-sponsored by the Stokes Nature Center, the event attracted curious visitors to the CNR building with such student-inspired presentations as "Parenting Gone Wild" (mouth brooding and male pregnancy), "How Far Would You Go for Love?" (fish migration), "Dude Looks Like a Lady" (asexual reproduction).

"I chose [this theme] because fishes demonstrate some of the greatest diversity and most interesting reproductive tactics within the animal kingdom," says Budy, associate professor in WATS.

"Using a comparative approach, the students determined that habitat characteristics caused certain life history strategies to succeed and resulted in the evolution of similar lifestyles in different groups of fishes," says Chris Luecke, professor and WATS department head.

Presenter Michelle Denton, an elementary education major, says she looks forward to incorporating topics she's learned in the class into science projects for her young students.

"I've particularly enjoyed learning about deep sea species, such as the anglerfish and the plainfin midshipman," she says.

Poster session guests came away with enlightened knowledge about fish, including a fresh perspective on Disney's popular 2003 film "Finding Nemo." Student presenters pointed out that the animated adventure contains a few inaccuracies about the stranger-than-fiction lives of clownfish. In real life, Nemo's father, Marlin, would have changed into Nemo's mother (following her untimely death from a predator attack), and taken over the anemone household. Nemo's oldest brother would then have changed into the family's father. ♦



*Undergrad Wai Leung Chui, left, discusses fish migration with his poster 'How Far Would You Go for Love?' with teaching assistant Christy Meredith.*

### Jack Schmidt awarded Researcher of the Year for the National Park Service Intermountain Region



**D**r. Jack Schmidt was awarded this year's Researcher of the Year award from the National Park System Intermountain Region. The nomination came from Grand Teton National Park, and also recognized Dr. Schmidt's work throughout the Park system in Dinosaur, Grand Canyon and Big Bend.

Dr. Schmidt commented, "This award is really recognition for the hard work of all of you who are the present and past students for your thesis research, moving that research forward to publication, making contributions to professional meetings, and working with Park Service staff to make research relevant to on-going management decisions. The award also recognizes the support of the Park Service as a partner with whom we pursue our applied river research."

Schmidt continues, "To all of you, and to all of the past students who have worked in our lab, congratulations in contributing to understanding the great rivers of the American West and how we manage them. It is a privilege to all of us to have the opportunity to work in such spectacular riverscapes." ♦

## Department of Wildland Resources

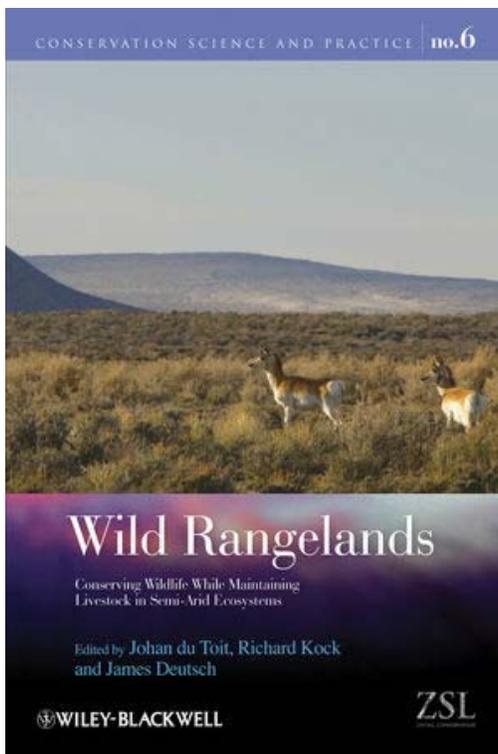
### Students place 3rd in The Wildlife Society Western States Student Conclave

**C**ongratulations to our team from the USU student chapter of The Wildlife Society, who competed in the TWS Western States Student Conclave at Texas A&M, Kingsville on March 15-17, 2010. They came third in the quiz bowl! See below for a report from Dustin Ranglack, who accompanied the team as their manager:

“USU took five students, Justin Hicken, Dustin Lamoreaux, Jason Carlisle, Carrie Jamieson and Elizabeth Goss. All five competed in the Quiz Bowl, where USU took 3rd place behind Humboldt and Tarelton State (TX). Other schools that competed were: New Mexico State, Colorado State, Idaho, Sul Ross (TX) and Nebraska. The team did well. Jason, Elizabeth and Justin also competed in the photo contest where Justin took 1st place in the wildlife division with a great picture of a cougar in the snow. Jason, Elizabeth and Dustin competed in the triathlon but did not place. The students in general had a great time and represented USU well.” ♦



**Conclave Team: (L-R) Justin Hicken, Dustin Lamoreaux, Jason Carlisle, Carrie Jamieson and Elizabeth Goss.**



Commissioned as a joint venture of the Zoological Society of London and the Wildlife Conservation Society of New York, the book was released January 2010 in a special series on conservation and practice by Wiley-Blackwell of Oxford, England.

*Wild Rangelands* provides discussion of the challenges of conserving wildlife while maintaining livestock communities in ecosystems considered wild; that is, areas without complete human control. The book also offers ideas and perspectives for decision makers involved in planning, approval and funding of projects that influence rangeland ecosystems on all continents, as well as researchers, conservation practitioners, educators and students. ♦

### A Question of Balance: Department Head Edits Book on World's Rangelands

**N**early 40 percent of the Earth's surface is identified as rangelands, those rolling landscapes of grass, trees and shrubs that stretch far beyond the horizon. Ancient storytellers to contemporary country crooners wax poetic on these terrains in narratives as seemingly limitless as the landscapes themselves. Yet dramatic social, economic, climatic and ecological changes are causing these fragile ecosystems to shrink in all corners of the globe.

“It is within rangelands that humans first arose, in which the genome we carry with us was selected and in which wild ungulates were first domesticated to begin the livestock breeds of today,” says Johan du Toit, professor and head of the Department of Wildland Resources. “But wild rangelands are rapidly disappearing and losing their capacity to support wildlife and livestock, as well as to provide the ecosystem services — water, food, fuel, carbon storage — on which millions of humans depend.”

In response, du Toit and colleagues assembled an internationally recognized and diverse group of ecologists, economists and sociologists involved in rangelands research to write *Wild Rangelands*.



**Johan du Toit's research focuses on ecology conservation of large mammal in terrestrial ecosystems.**

## New Faculty in College of Natural Resources

### CNR Welcomes Dr. Patrick Belmont to the Department of Watershed Sciences

Growing up between the grand Missouri and Mississippi rivers gave **Dr. Patrick Belmont** a passion for waterways at a young age. As the newest member of the Department of Watershed Sciences, the College welcomes Patrick's expertise and enthusiasm for research and teaching in the areas of hydrology and geomorphology.

Patrick began his studies at Texas Christian University in Molecular Biology. During that time Patrick discovered he "didn't want to be just extending lives, [he] wanted to make them better." The "environmental quality" aspect of the research was missing.

He took a year off to teach High School and loved it. Recalling the year Patrick said, "It gave me the time to think about what direction I wanted to go."

The following year Patrick returned to university intent on getting a Master's degree in limnology. But his advisor had a proposal funded to work on streams, particularly light penetration in streams. Patrick said, "This again changed the direction ...I was going." He embraced the project working in small streams in eastern Pennsylvania, and soon began to appreciate the importance of watershed context for understanding what was going on with the ecology in the streams. Patrick noted, "the geomorphology of the watersheds and the story of how the landscape has evolved influence the ecology we see today." Patrick changed advisors and changed disciplines, but stayed at Lehigh to complete his PhD studying long-term (millennial scale) landscape evolution in western Washington State and continued work on the relationships between geomorphology and stream ecology in 40 streams in eastern Pennsylvania.



"[Rivers] are such dynamic systems," said Patrick. "The fact that rivers change so much on an hourly timescale as well as a million year times-

scale was one of the big attractions for me...there is no shortage of interesting questions."



*Patrick's home—where the Mississippi and Missouri Rivers meet .*

Photo by Google Imagery

Patrick's plans are to continue searching for answers to understand how landscapes are shaped, what the physical processes are that shape them and how they change over time. "There are millions - literally millions of more detailed questions that go into that," said Patrick.

His research in hydrology and geomorphology will lead to findings that can be applied to managing watersheds and understanding how we should develop policy for regulating particular water resources.

Patrick looks forward to working with the faculty across the College of Natural Resources. He and his wife Shannon chose USU for its great people, well balanced lifestyle and incredible surroundings. Patrick said, "this is a fantastically dynamic and diverse landscape. Anywhere you go in any direction from USU you find very different processes occurring. That is one of the reasons I was excited to move here. There is just so much going on." ♦

Welcome Patrick!



### Mary Ann Lowe the Assistant to the Dean Retires

The Atrium filled as colleagues, friends and family gathered on December 17, 2009 to wish Mary Ann Lowe best wishes as she retired after 10 years of service in the College of Natural Resources as the Assistant to the Dean.



## Undaunted by Challenges, CNR Scholar Pursues International Internship



*Leah Hazlett with women of Ethiopia*

**E**nvironmental studies student Leah Hazlett, along with her six-year-old son Tasen, traveled to Ethiopia, where Hazlett pursued a summer internship with the U.S. Agency for International Development.

Study and work abroad can carry a fair share of challenges that can derail the best laid plans.

Rallying to Hazlett's cause were her faculty mentor Layne Coppock, who helped with grant funding; Kay Forysth, director of USU's Office of Study Abroad; and Patricia Stevens, now-retired director of the USU Women's Center, who rounded up private support for young Tasen's trip. Across the Atlantic, USAID official Joseph Hirschi handled a myriad of details to facilitate the family's arrival and Getachew Gebru, a USU research associate with Coppock's Ethiopia-based Pastoral Risk Management Project-PARIMA, located a nanny to care for Hazlett's son.

Alan Carpenter, a CNR alumnus, has been supporting Leah's education through an undergraduate scholarship during the regular academic year.

Hazlett's host USAID, funded by the U.S. State Department, has its largest African mission in Ethiopia.

■ See *UNDAUNTED*, page 6

## 68th Annual Loggers Ball



The 2010 Loggers Ball was held at the Hamilton's Restaurant. There was an abundance of food, prizes and dancing. The event was hosted by the Forestry Club.



## CAPITOL: Undergraduate Presentations to Legislators

■ *continued from page 1*

Each year, a select group of students throughout Utah gather in Salt Lake City for the “Research at Capitol Hill” event to showcase their research to Utah’s state legislators.

This event would not be possible without the guidance provided by university faculty who take the time to engage and mentor students in meaningful research projects.

Congratulations to Dr. David Koons & student Jessop Boden, Dr. Claudia Radel & student Danielle Babbel, Dr. Wayne Wurtsbaugh & student Erin Fleming, and Dr. Frank Howe & student Rachel Pyles. CNR appreciates these faculty members and students for representing the college so well at this public and important event.



*Erin Fleming presenting her poster at the 2010 “Research at Capitol Hill.”*

USU created Undergraduate Research Day in 2001, with the goal to communicate to legislators the value of students obtaining their undergraduate education at a research university. The university combined with the University of Utah to share students’ research from different disciplines from around Utah.

“One of the benefits of undergraduate research is that it provides a venue for students to apply their classroom skills to real-world issues, and it puts them in the practice of becoming society’s problem solvers,” said Brent Miller, vice president for research.

Erin Fleming, a sophomore studying fisheries and aquatic science, is one of the students whose research was presented. While working in the Limnology Lab on campus, she has done research on brine shrimp in the Great Salt Lake and the possibility of their role in transferring methylmercury, a toxic metal found in local waterfowl, from the deep brine layer of the South Arm to the birds feeding on them.

“Being able to present my research and represent our school at the Capitol is a huge honor,” Fleming said. “I will do my best to let our state politicians know how outstanding our school is.”

“The findings of these projects will be far-reaching,” USU President Stan Albrect said. “Some of them will be published in academic journals, while others will be presented at research conferences throughout the country. Many of them will be used to solve practical problems by guiding action on community and state issues.” *By Megan Allen, Statesman*

## UNDAUNTED: International Internship

■ *continued from page 6*



*Hazlett's son Tasen holds a dik-dik, a small antelope native to the Horn of Africa.*

USAID/Ethiopia coordinates efforts focused on environmental, health and economic issues with a range of public and private partners, including USU-led PARIMA.

With USAID-contracted consultant Tom Caterson, Hazlett helped with evaluations of varied USAID-funded entities involved in tasks ranging from malaria and HIV prevention and treatment, to public education and school improvement, to watershed improvement and erosion reduction projects.

Beyond the office, Hazlett and her son found opportunities for weekend trips to

the countryside that offered glimpses of Ethiopia’s unique wildlife — including a too-close encounter with vervet monkeys that entered the family’s living quarters and pilaged their belongings.

“Not everything went smoothly,” Hazlett says. “Tasen experienced some homesickness and culture shock but, all in all, he approached the experience with curiosity and enthusiasm.”

For Hazlett, the trip revealed that an international career isn’t beyond her reach.

“Before, I felt like certain options for international education and career development weren’t available for me,” she says. “Now I can see that the opportunities are there, if you’re willing to go after them.” ♦



## James E. B. "Jeb" Stuart, '68 Wildlife Management Alumnus

In December 2009, College of Natural Resources alumnus Jeb Stuart made a generous gift to create undergraduate scholarships at both the College of Natural Resources and the Emma Eccles Jones College of Education and Human Services. The scholarships are in memory of his wife, Linda Gurr Stuart, who recently passed away after a battle with cancer. Jeb was motivated to give back to USU because of the positive experience both he and Linda had at the university. Linda was an education major and went on to have a long, rewarding career as an educator.

Jeb specifically credits Professors Jess Lowe and Fred Wagner for launching him on a natural resources career. Professor Lowe helped Jeb get his first job out of college. The following is an excerpt from a recent conversation with Jeb about his career:

"The main reason I attended USU was because my mom introduced me to John Kiger, an assistant refuge manager at the Desert Game Range outside of Las Vegas, Nevada. She used to take her students out to the range on field trips. [John] was a Korean War vet who attended USU on the GI bill after the war. I was a late bloomer and did not start college until I was 24. [John's influence] helped me a lot. I went from being a C student in high school to Phi Kappa Phi in College.

I majored in wildlife management and also persuaded the College to let me minor in range management. At the time I graduated they didn't offer minors."



*Jeb Stuart with the big one that didn't get away.*

While at USU, Jeb received a National Science Foundation Grant, researching the effects of Halogeton on jack rabbits. He served as the president of the student chapter of The Wildlife Society and as the USU student senator for the College of Natural Resources. During Jeb's senior year he was selected as the Son of Paul (Bunyan) an award given to an outstanding student in the College for excellent grades and activities.

After graduating, Jeb returned to USU to work under Professor Fred Wagner as a research assistant on an Atomic Energy Commission Grant. Part of this work required Jeb to provide logistical support to Dr. Wagner's graduate students. Jeb learned background information that helped him with his future real estate position with the government.

Jeb set up the field station in Snowville, Utah. There he learned to research land records and screen military surplus at Hill Air Force Base to get surplus equipment for our graduate students.

Jeb then worked for New Mexico Game and Fish for seven years, U.S. Fish and Wildlife Service for two years, BLM for three years and then back to USFWS for another 20 years.

He served in many different positions, including non-game biologist, statistician, endangered species project leader and land specialist for NMG&F. During his BLM and FWS years he worked as a Realty Specialist, Real Estate Appraiser and Field

Land Acquisition Office Chief.

During his real estate career, Stuart acquired more than a half million acres of lands, minerals and water rights through fee acquisitions, conservation easements, land exchanges and donations for National Wildlife Refuges and about 35,000 acres for NMG&F. ♦

### In Memory

1938	Elvin Downs, Forestry
1949	Chester M. Hart, Wildlife Management
1950	Angus L. Ward, Game Management
1950	Albert F. Regenthal, Ecology-Fisheries and Wildlife
1950	W. Blair Low, Wildlife Management
1952	Edwin V. Rawley, Fisheries & Wildlife
1955	John A. Hafterson, General Range Management
1958	William E. Selby, General Range Management
1961	Jesse H. Bennett, Forestry
1963	Jack L. Walters, Forestry
1967	Richard Adams, Forest Range Management
1970	Ellen Drake, Ecology-Fisheries and Wildlife
1974	Daniel Bingham Gilbert, Game Management
1981	David R. Bliss, Geography
1986	Dale Braue, Watershed Science

Professor Ross Tocher, beloved professor in CNR during the 1950's and 60's died October 15, 2009.

### Bob Irvin, '80 Forestry Alumnus



Alumnus Bob Irvin, is co-editor and a contributor to *Endangered Species Act: Law, Policy, and Perspectives*, the second edition of which has been published by the American Bar Association. The book is a comprehensive treatment of the Endangered Species Act, with chapters by leading ESA practitioners. Bob is Senior Vice President for Conservation Programs at Defenders of Wildlife in Washington, DC. He is married to Nancy (Breer) Irvin, B.S., Horticulture '78. ♦