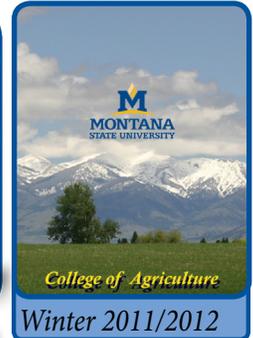


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Welcome back to campus for the 2012 Spring semester and to our winter LRES Newsletter! In this issue, we highlight our department's many accomplishments across research, teaching, extension and outreach mission over the past six months. We hope you enjoy learning more about us. *Let it snow!* ~Tracy Sterling, Professor & Department Head, LRES

## Ag Appreciation Weekend- October 28, 2011



On Friday, October 28, LRES participated in the Ag Fair as part of the College of Agriculture's Ag Appreciation Week. The Ag Fair included interactive, hands-on demonstrations of research and education projects as well as presentations about important agriculture topics in Montana. The LRES department featured a booth on "Our Montana Soils" presented by Clain Jones and Cliff Montagne and "MSU Efforts to Tackle the Wheat Stem Sawfly" presented by David Weaver. Perry Miller provided a presentation titled "From Humus to Hummus: What is the potential for pulse crop production in Montana?"

(summary prepared by Jane Mangold, photos by Matt Rognlie and Terry Rick)



More than 130 people visited the LRES Wheat Stem Sawfly booth to learn more about this serious pest of Montana wheat production. Visitors enjoyed the "Trap Crop Simulator" and "Parasitoid Release Targets" among other interactive games. Visitors had to guess how many wheat stem sawflies laid eggs in cereal stems during the exhibit interval. Congratulations to Danyelle Long for only missing the count by a couple of eggs. She won a pair of football tickets for the Bobcat game the next day. Matt Flikemma, who grows wheat west of Amsterdam, came in second. Jaime Martinez (6/8) and Renee Ruffin (5/8) were the most successful at hitting parasitoid release targets and each won an insect sweep net. Finally, in an odd version of 'guess the number of coins in a jar', Jeff Patriarche came closest to guessing the number of wheat "stubs" that were cut by wheat stem sawflies in a large jar. Many thanks are owed to all who participated in preparing and staffing the exhibit and to those who visited and asked lots of questions about this pest and how to manage it.

(Summary prepared by David Weaver, photo by Matt Rognlie)



## LRES Recognition

Several LRES department Faculty and Students were recognized at the joint annual meetings of the Entomological Society of America, Entomology Collections Network, and Coleopterists Society meetings jointly held in November in Reno, Nevada.



Bob Peterson was elected to the Executive Committee of the Governing Board of the Entomological Society of America. He also presented the paper, "Competing risk in insect mortality analysis: re-thinking efficacy in biological control."



Jerome Schleier and Bob Peterson presented "The joint toxicity of three pyrethroid insecticide types to *Drosophila melanogaster*".



Jeff Littlefield presented, "Greenhouse-based rearing and initial field releases of *Jaapiella ivannikovi* (Diptera: Cecidomyiidae), a classical biocontrol agent of the exotic Russian knapweed, *Acroptilon repens* (Asteraceae), in the western US.



Rex Davis and David Weaver presented, "Acetate esters as pheromone components in congeneric sympatric parasitoids of the wheat stem sawfly"



James Meadow won the Student Award for the 1st Place Oral Presentation, at the biannual Soil Ecology Society meetings at University of British Columbia (Onkagan campus) held May 24-27, 2011.



Jenny Bodin and Bob Peterson were invited to Present at the Idaho Mosquito and Vector Control Association Meet in Sun Valley, Idaho. "What factors influence the efficacy of ground ULV insecticides?" Jerome Schleier (pictured above), also presented at this conference with Bob Peterson.



Kendra Kaiser presented a poster entitled "Ecohydrology: Disturbance and the intersection of vegetation pattern and landscape structure" Click here for more information: <http://www.egu.eu/awards-medals/awards-and-medals/award/union-osp-award.html>



Undergraduate Environmental Science/Soil & Water Option student, Collin Preftakes, published his first senior-authored journal article in 2011. The paper is: Preftakes, C.J., J.J. Schleier III, and R.K.D. Peterson. 2011. Bystander exposure to ultra-low-volume insecticide applications used for adult mosquito management. *International Journal of Environmental Research and Public Health* 8:2142-2152.

Congratulations to Krista Ehler who was one of the four 2011 Montana Weed Control Association scholarship winners. Krista is an LRES graduate student in the LRES department. She received \$1000.



Rick Lawrence presented his research at the American Geophysical Union conference in San Francisco on December 9, 2011. For more information see: <http://www.montana.edu/cpa/news/nwview.php?article=10643>



Jerome Schleier (pictured at left) is the senior-author of an invited book chapter published in 2011. The chapter is: Schleier III, J.J. and R.K.D. Peterson. 2011. "Pyrethrins and pyrethroid insecticides". In O. Lopez and J.G. Fernández-Bolaños (eds.). *Green Trends in Insect Control*. RSC Green Chemistry No. 11. Royal Society of Chemistry, London

Susan Kelly is working with the American Honda Foundation grant for MSU science outreach to fourth grade students on Crow Indian Reservation.



<http://www.montana.edu/cpa/news/nwview.php?article=9938>

John Priscu was quoted in an article in the "Popular Science" magazine <http://www.nasa.gov/topics/earth/features/yellowstone-heat.html>. He also was interviewed by the BBC for a story on subglacial research,



<http://www.bbc.co.uk/programmes/b006qy5p>. Also, by invitation he traveled to South Korea (Korean Polar Research Institute) to discuss scientific exchanges. Finally, John has arranged for a visiting scientist from China, arriving this spring, to come and collaboratively work on life in and under ice.

Clain Jones was awarded an Excellence Award in the 2011 Extension Educational Materials Program by the American Society of Agronomy for the publication entitled "Nutrient Uptake Timing by Crops". Kathrin Olson-Rutz and Courtney Pariera Dinkins co-authored the publication.



Bill Inskeep received a community sequencing project from the DOE-Joint Genome Institute in collaboration with DOE scientists. The award will provide continued sequencing of microbial communities in Yellowstone National Park geothermal environments.



For more information see the DOE website: <http://www.redorbit.com/news/science/1112415342/massive-complex-projects-for-doe-jgi-2012-community-sequencing-program/index.html>

Tim McDermott and Susan Kelly (pictured above) were mentioned in the *Yellowstone Science* magazine for their work in Yellowstone National Park. For more information see: [http://www.nps.gov/yell/planyourvisit/upload/ys\\_19-3.pdf](http://www.nps.gov/yell/planyourvisit/upload/ys_19-3.pdf)



## Recognition- continued



Lisa Lone Fight (LRES graduate student), and Jason Baldes, (pictured at right), have been named as a Native Science Fellow by Hopa Mountain. See: <http://www.hopamountain.org/NativeScience-Fellows.php>.



Congratulations to Linda McDonald for completing 30 years of service to MSU. Linda started out in the Financial Aid office on December 14, 1981. She moved around campus over the years and worked in the Business Office 1990-1992, Animal & Range 1992-2000, College of Business 2000-2002, LRES Accounting 2002-2004. She has been in her LRES Student Services position from June 2004-present!

Jason Baldes, a grad student in the LRES program was the recipient of an EPA STAR graduate fellowship. As an award recipient he attended the 2011 EPA STAR fellowship conference in Washington, D.C. His abstract was titled, "Application of a Holistic Process to Improve Community and Ecological Health by Reintroduction of Plains Bison to the Wind River Indian Reservation" His project utilizes a community-based approach to improve environmental and health conditions for residents on the reservation, starting with the re-introduction of the buffalo. (From the MSU news services) <http://www.montana.edu/cpa/news/nwview.php?article=10479>



## Faculty Spotlight

### Cliff Montagne retires after 35 years of service



A retirement party was held on December 13 to recognize Cliff's 35 years of service here at MSU. Many colleagues, friends and family gathered to celebrate Cliff's accomplishments and many spoke about the dedication and passion Cliff has for his work. Cliff was recognized with several gifts including a ski jacket

with a custom logo designed by Tyler Maxwell to represent the major components of his extraordinary career which immersed students in the exploration of soil science, natural resource issues, and personal decision making (see below). In addition, the Cliff Montagne Scholarship was launched to honor Dr. Montagne and continue his impact; the scholarship will be endowed when we reach \$25,000 and we are well on our way with almost \$8000 already collected to date. Please contact Darin Paine at 994-7671 for more information.

Cliff received a doctoral degree from Montana State University in 1975. He began at MSU as an instructor and became an assistant professor in 1976. In the course of his 35 years at MSU, he has made important contributions to the institution through teaching, research and service.

Cliff's signature courses have included soil resources, landscape pedology and holistic management. He has also made significant contributions to the university honors, international education and undergraduate research programs. For his efforts Montagne has received several teaching awards, including the President's Excellence in Teaching Award, the North American Colleges and Teachers of Agriculture Institutional Award, and the Burlington Northern Foundation Faculty Achievement Award for Outstanding Teaching.

His research program started with examining soil-geology relationships and land resource inventory. Since 1998, his efforts have been directed toward the BioRegions Program, which uses a holistic problem-solving approach to improve resources. As part of the program, Montagne has led visits to Mongolia's Darhad Valley with more than 90 students, faculty and community members, and he has received multiple international awards recognizing these initiatives.

Cliff has also provided significant university service at MSU. He served as chair of the Teaching and Learning Committee and as the first sustainability liaison and chair of the MSU Sustainability Advisory Council.

Dr. Montagne will be named Emeritus Professor at the January Board of Regents meeting.



The back of Cliff's Jacket with the BioRegions logo



## Professional Spotlight



Liz Galli-Noble is the director of the Center for Invasive Plant Management (CIPM). Established in 2000 and housed within the Department

of LRES, CIPM collaborates extensively with Montana State University colleagues, state and federal agencies, Tribes, farmers, ranchers, the research community and Extension Service, county weed districts, and conservation organizations throughout western North America. The Center's team is made up of four MSU professional and classified staff: Emily Rindos, Kitty Weiss, Scott Bockness, and Ms. Galli-Noble. This team promotes and sponsors invasive plant management research; develops online instructional and outreach materials for varied audiences; maintains a comprehensive website to serve as an information clearinghouse; publishes brochures, books, field guides, fact sheets, and a quarterly

electronic newsletter distributed throughout the West; sponsors, conducts, and facilitates workshops, trainings, and conferences; coordinates multi-state projects and initiatives; and supports community-based cooperative weed/invasive species management areas. In addition, CIPM staff mentor undergraduate and graduate students, giving them real world natural resource management experience, while also providing opportunities for them to serve a wide range of local, state, regional, and national partners and stakeholders. Also housed within the Center is the Weed-Free Border Protection Project, which is coordinated by Kim Goodwin.

Liz Galli-Noble received an undergraduate degree at the University of Montana. She went on to obtain a Master of Forestry degree from the Yale University School of Forestry and Environmental Studies in 1995. She has over 25 years research and natural-resource management experience, including: serving as a Peace Corps Volunteer and working for the US Forest Service in Montana. She has conducted forestry

research in various places throughout the world. In addition to her current administrative and supervisory duties as CIPM director, Ms. Galli-Noble also serves on a wide array of boards and advisory committees, including: the North American Invasive Species Network, Board of Directors; Missouri River Watershed Coalition, Executive Committee; NRCS (Montana) State Advisory Committee; Western Weed Coordinating Committee; 2011-2012 Western Society of Weed Science, Education Committee; Montana Department of Agriculture-Weed Listing Committee; and National Park Service-Exotic Plant Management Team, National Review Panel.

Under Director Galli-Noble's supervision, the Center has dramatically cut its overhead costs, strengthened its relationship with the LRES Department, secured numerous grants, helped establish an effective six-state coalition, and has become more productive and responsive to the needs of its broad range of partners. The second decade for CIPM looks to be very promising.

## Ag Ambassador



Hi! My name is Megan Podolinsky and I'm a senior studying Environmental Biol-

ogy at Montana State University. This past spring, I was selected to be an Ag Ambassador. Ag Ambassadors is a group of students that strive to promote the College of Agriculture at MSU. Through interactive experiences and presentations, we try to inspire students to join and remain in the College of Ag. As an Ag Ambassador, I participate in activities including leading tours of the agriculture facilities of MSU, visiting with high school students around

the state about degrees and classes, and meeting alumni from the college. My favorite activity from this fall involved setting up and presenting a workshop on soils to middle and high school students for Montana Science Olympiad. The past semester I met other students from other agriculture disciplines and learned a lot about the other programs offered in agriculture. I am very much looking forward to this next semester of Ag Ambassadors!

## Graduate Student Organization (GSO) activities

### Friday socials

Please continue to be on the look out for invitations to the Friday socials at Columbo's. We are looking forward to having more graduate students attend, as we don't get many informal meetings as a department. I look forward to the next one!

### LRES Research Colloquium April 12

The second annual LRES research colloquium looks to build on the success of last years event by offering a wonderful afternoon of graduate student talks covering the depth and breadth of LRES research. Also, we look forward to the social hour/poster session where both undergraduate and graduate research will be displayed. Please encourage your lab members to not only submit an abstract, but attend the event this April 12! (submitted by Alex Michaud and Krista Elhert)



Research colloquium 2011

LRES GSO website:  
<http://sites.google.com/site/lresgso/home>

## Online Classes

### *Online Master's Degree in LRES*

Montana State University has announced a new online course in land resources and environmental sciences called "Environmental Risk Assessment." The three-credit graduate course is offered fully online and begins in January 2012. Participants do not have to be enrolled in an MSU degree program in order to take the course, and off-campus professionals are encouraged to register.

Environmental Risk Assessment is a pilot course for MSU's upcoming new online master's degree in Land Resources and Environmental Sciences, which will debut in Fall 2012. Students who successfully complete LRES 507 may apply the credits toward the new master's degree.

The course covers environmental and biological risk assessment, including case studies on natural resources management, pesti-

cides, biotechnology, natural resource extraction, food safety and invasive species. The instructor is Robert Peterson, MSU professor of entomology, who leads the research, teaching and outreach program in Agricultural and Biological Risk Assessment.

The course is appropriate for environmental law professionals; science teachers; and employees of federal agencies, environmental consulting firms and non-governmental agencies; as well as others interested in environmental science.

For more information, visit <http://eu.montana.edu/online/courses> where the course is listed under Land Resources and Environmental Sciences, or contact Lisa Brown in MSU Extended University at [lisa.brown@montana.edu](mailto:lisa.brown@montana.edu) or (406) 994-6550.

(compiled from the MSU news postings)

## Capstone Course

The LRES Capstone Course took a new turn, with a revised format for Fall 2011. The goal of the course is to provide students with a forum to work in groups and individually to synthesize the information from the coursework across all of the LRES majors, and to further develop written and oral communication skills. With the recent development of two LRES courses that incorporate field-based research projects (Geoff Poole's Stream Restoration Ecology course and Lisa Rew's course on Biodiversity Methods), and a project-based course focused on Applied Remote Sensing taught by Rick Lawrence, we had the opportunity to modify the capstone from its previous focus on a field-based research project. This year for the first time we used the capstone to provide a forum for students to address the relationship between science and policy. The topic for the course was the science and policy related to the Farm Bill, which is the comprehensive food and agriculture policy bill that is rewritten and passed every 5 years, and due to be passed during 2012. Because we don't offer courses that focus specifically on policy within LRES, students benefitted greatly from guest lectures by Professor

Linda Young, from the Political Science Department, a video-conference with Senator John Tester, and a discussion with Dennis Dellwo, Program Specialist for the Conservation Stewardship Program (CSP) from NRCS. The class research project focused on the science and policy behind one of the programs, funded by the Farm Bill that provides incentives to farmers to enhance conservation practices on agricultural lands. Students summarized the history of the farm bill, the research on the effects of agricultural practices on soil and water quality, and wildlife, and how the CSP works.

(compiled by Cathy Zabinski)



The capstone students put together a final presentation "The Science and Policy of Sustainability: An Overview of the Conservation Stewardship Program." and two papers, both of which can be accessed from the link: [http://landresources.montana.edu/lres\\_capstone.html](http://landresources.montana.edu/lres_capstone.html)

## New Classes and Other Events

### *New for Spring 2012:*

#### *Isotope Biogeochemistry LRES 558*

Fundamentals and applications of isotope systems useful in the environmental sciences, including light elements such as carbon, mid-mass elements such as iron, and heavy elements such as uranium. Measurement techniques will be discussed, and application to student inspired questions explored.

#### *Changes to LRES 594*

M.S. and Ph.D. students are required to complete one credit of LRES 594 Graduate Seminar. LRES 594 guidelines and instructor protocols must be followed. The seminar will be about the student's proposed thesis or dissertation research. This seminar should be timed so that it is presented early in the student's program (i.e., first or second semester). Students may take additional LRES 594 credits, but these are not required and a seminar presentation will be required each time LRES 594 is taken.

#### *LRES 511: "Environmental Data Management"*

"Environmental Data Management" is a course designed to introduce graduate students in the environmental and natural sciences to "data models" – explicit and specific representations of the real-world structures and relationships inherent in data sets. The course will cover the use of well-developed data models as the basis for database design and data management.

#### *Native Science Fellows Annual Gathering and Research Seminar:*

Dr. Gregory Cajete will be the keynote lecturer at the Native Science Fellows Annual Gathering and Research Seminar to be held March 2nd (9am-noon) at MSU in the Procrastinator Theatre in the SUB--in Bozeman, Montana. Dr. Cajete is, Director of Native American Studies and associate professor in the Division of Language, Literacy and Socio Cultural Studies in the College of Education at the University of New Mexico.

## *LRES Grants 2010-2011- New grants awarded from July 2010 through December 2011*

These funds fuel our research and teaching mission—to discover new knowledge, to engage and train students using laboratory and field studies across local to global scales, and to enrich the lives of Montanans. Please take a minute to congratulate our faculty and staff on their meaningful work and impressive accomplishments.

### *Agency & PI Title Montana Grants*

#### *Montana Department of Agriculture*

Maxwell, Zabinski	Nutritional Value of Locally Grown Vegetables: Determining Management Effects and Marketing Potential
Maxwell	Sustainability of market gardens in Montana
O'Neill, Delphia	Alfalfa Leaf Cutting Bee Research

#### *Montana Department of Environmental Quality*

Sigler	Volunteer Monitoring for E. coli
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#### *Montana Noxious Weed Trust Fund*

Galli-Noble	Missouri River Watershed Coalition Project Coordination 2010-2012
Goodwin, Galli-Noble	Continental Divide Invasive Weed Barrier Zone
Menalled, Engel, Mangold, Hatfield, Burrows, Miller	Integration of pathogens, sheep herbicides to manage cheatgrass
Mangold, Goodwin	Weed Management Certification Program
Littlefield	Russian knapweed biological control
Littlefield	Whitetop biological control
Littlefield	Invasive hawkweed biological control
Littlefield	Common tansy and ox-eye daisy biological control
Weaver	Optimizing Establishment of New Yellow Toadflax Biocontrol Agents
Weaver	Developing Candidate Biocontrol Agents to Stop the Spread of Russian Olive
Galli-Noble	Missouri River Watershed Coalition Program Coordination 2011-2013

#### *Montana Wheat & Barley Committee*

Mangold	Investigating the geographic distribution and disease incidence of the pathogen <i>Pyrenophora semeniperda</i> on weedy annual brome grasses, cereal grains, and native grasses
Miller	Dryland cropping systems: diversified high and low input strategies
Weaver	Host Plant Resistance and IPM for WSS
Weaver	Natural enemies, wheat, wheat stem sawfly
Weaver	Orange Wheat Blossom Midge Management
Weaver	Wheat Stem Sawfly IPM: Developing new forms of host plant resistance and implementing IPM systems statewide
Weaver	Wheat Stem Sawfly Parasitoid Redistribution, Monitoring and Education
Menalled	Optimizing management practices to minimize weed and pathogen impact in wheat
Miller	Diversified cropping systems: High and low input strategies

### *Regional and University Sponsored Grants*

#### *Pollinator Partnership*

O'Neill, Delphia	Pollinators Associated with Small-scale Horticulture in Southwest Montana
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#### *Northern Pulse Growers Association*

Jones, Miller, Zabinski	Phosphorus management for increased growth and N fixation in pulse crops
Davis, Menalled	Pulse crop tolerance to herbicides and weed control issues in ND and MT

#### *North Dakota State University*

Davis, Menalled	Effect of saflufenacil and flumioxazin applied preharvest on canola yield and seed quality
Davis, Menalled	North Central Region Canola Research Program

#### *University of North Dakota*

Lawrence	Upper Midwest Aerospace Consortium
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#### *University of Colorado*

Priscu	Increased Connectivity in a Polar Desert Resulting from Climate Warming-MCM4
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#### *Oregon State University*

Powell	Integrated, observation-based carbon monitoring for wooded ecosystems in Washington, Oregon, and California
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#### *Utah State University*

Engel/Miller/Jones	Enhancing no-till cropping system sustainability by Minimizing Ammonia-N losses from biological and Chemical inputs
Jones	Enhancing No-till Cropping System Sustainability by Minimizing Ammonia-N Losses from Biological and Chemical Inputs
Miller/Jones/Zabinski	Using cover crop mixtures to improve soil health in low rainfall areas of the northern Plains
Jones/Miller/Zabinski	Using cover crop mixtures to improve soil health in low rainfall areas of the northern Plains-Extension and physiochemical indicators
Maxwell	Multiple Forms of Uncertainty as a Barrier to the Adoption of Sustainable Farming Practices

## Grants Continued

Agency & PI	Title	Regional (continued)
<b>Wyoming Department of Agriculture</b>		
Galli-Noble	Missouri River Watershed Coalition Program Coordination 2011-2012	
<b>Grand Teton Association</b>		
Zabinski, Meadow	Novel Diatomaceous Biological Soil Crust Assemblage in Yellowstone National Park Thermal Soils	
<b>Confederated Tribes of the Umatilla Indian Reservation</b>		
Poole	CTUIR Evaluation of Hydrologic Effectiveness of Stream Reach Treatment Methods	
<b>Private Grants</b>		
<b>Gonzales Stoller Surveillance LLC</b>		
Rew, Maxwell, Lavin	Predicting the occurrence and spread of non-native plant species under different development scenarios	
<b>Federal Grants</b>		
<b>Bureau Of Indian Affairs</b>		
Weaver	Biological Control of Noxious Weeds	
<b>National Park Service</b>		
Sigler	Monitoring water quality at Bighorn Canyon NRA	
McDermott	Serpentine Hot Springs Microbiology	
Sigler, Kleehammer	Implementation of water resources monitoring at Bighorn Canyon NRA	
<b>National Science Foundation</b>		
McDermott	Collaborative Proposal: MIP The Thermo-acidophilic Cyanidiales	
Poole, Izurieta	Coupled C, N and S cycling in coastal plain wetlands: how will climate change and salt water intrusion alter ecosystem dynamics?	
Stoy	Scaling ecosystem function: Novel approaches from MaxEnt and Multiresolution	
Dore, McGlynn	Hydrologic influences on soil trace gas fluxes across complex terrain	
<b>National Resource Conservation Service</b>		
Engel, Mangold	Enhancing efficacy of herbicides to control cheatgrass and Japanese brome on Montana range, pasture, and CRP lands	
<b>US Animal And Plant Health Inspection Service</b>		
Littlefield	Biological Control Agents of Russian Knapweed - Rearing, Redistribution and Monitoring of Agents	
Weaver	Establishing <i>Mecinus janthinus</i> Insectaries on Yellow Toadflax	
<b>US Army Space &amp; Missile Defense Command</b>		
Peterson	Optimizing Control Efficacy and Placing ULV Technology on a Firm Scientific Foundation	
<b>US Department Of Agriculture</b>		
Mangold	Developing a Statewide Invasive Plant Early Detection and Rapid Response (EDRR) Program: The Foundation of Effective Integrated Pest Management	
<b>US Department of Agriculture- Forest Service</b>		
Weaver	Develop Environmentally Friendly Controlled Release Formulations of <i>Diorhabda</i> Biocontrol Agent Aggregations for Field Use	
Sterling	Student Technology Transfer Research Internship Program (STTRIP)	
Peterson	Influence of toadflax genotype and biocontrol agent biotype on plant primary physiological responses: A mechanistic approach to improving agent screening and enhancing impact	
<b>US Department Of The Army</b>		
Galli-Noble	Strategic Management of Invasive Species Workshops - NE & NW	
<b>US Department of Energy</b>		
Miller, Engel	Big Sky Regional Carbon Sequestration Partnership - Phase IIII- Miller/Engel	
Lawrence	Big Sky Regional Carbon Sequestration Partnership - Phase IIII- Lawrence	
<b>US Environmental Protection Agency</b>		
Montagne	STAR Fellowship	
<b>US Fish and Wildlife Service</b>		
Rew, Maxwell	Prioritizing invasive non-native plant populations and species to manage spatial distribution and spring models	
<b>US Geological Survey</b>		
Ewing, Stoy	Surface-atmosphere methane fluxes in the context of ebullition and energy balance with rapid permafrost degradation in a northern peatland	
<b>US Natural Resources Conservation Service</b>		
Galli-Noble	Innovative Conservation Approaches to Invasive Plant Management in the Missouri River Watershed - From prevention and control, to biomass utilization/bioenergy generation	

## Scholarships

### 2011-2012 Scholarship Banquet

The College of Agriculture annual Scholarship Banquet was held at the Grantree Holiday Inn on Friday, October 14, 2011. The speakers were: Dr. Jeff Jacobsen, Dean College of Agriculture and Director MAES, Chelcie Cremer (a scholarship recipient) and Dannie Pratt (a scholarship recipient).  
~ Linda McDonald

### LRES 2011-2012 Scholarship Awards

#### **Bill & Anita Jones Agriculture Scholarship**

Brackett Mays—Land Rehabilitation  
Colin Preftakes—Environmental Sciences  
Dylan Strike—Sustainable Food & Bioenergy

#### **Campbell Family Foundation**

Thomas Bogen—Environmental Sciences

#### **Erskine Excellence in Agriculture**

Shane Stoner—Land Rehabilitation  
Laura Whitmore— Environmental Sciences

#### **Anthony C. Gaffke**

Thomas Bogen

#### **Marion T. Hedegaard Scholarship**

Jessica Smith—Environmental Sciences  
**Land Resources Stewardship Scholarship**  
Hailey Buberl— Environmental Sciences  
Margaret Franquemont—Land Rehabilitation  
Carmel Johnson-Environmental Sciences  
Megan Primmer-Environmental Sciences  
Matthew Schmidt-Environmental Sciences

#### **Arthur H & Margaret Post**

Jessica Smith—Environmental Sciences

### President's list Fall 2011

Hannah Johnson, Environmental Biology  
Christian Larson, Land Rehabilitation  
Cassie Mosdal, Environmental Biology  
Collin Preftakes, Soil and Water Science

### Dean's list Fall 2011

Kathryn Abbott, Land Rehabilitation  
Allison Beall, Environmental Biology  
Jacquelyn Bergner, Environmental Biology  
Laura Bosacker, Land Rehabilitation  
Aaron Butler, Environmental Biology  
Luke Byington, Environmental Biology  
Russell Callahan, Geospatial & Environ Analysis  
Samuel Carlson, Environmental Biology  
Patrick Certain, Sustainable Food and Bioenergy  
Tara Donohoe, Soil and Water Science  
Darcy Goodson, Land Rehabilitation  
Alex Herbert, Environmental Biology  
Rachel Keiser, Sustainable Food and Bioenergy  
Ian Mascari, Sustainable Food and Bioenergy  
Ethan Mayes, Environmental Biology  
Brackett Mays, Land Rehabilitation  
William Moore, Land Resources Analysis & Mgmt  
Maxwell Moran, Environmental Biology  
Katelyn Noland, Soil and Water Science  
Megan Primmer, Environmental Biology  
Kristen Roberts, Soil and Water Science  
Jessica Smith, Environmental Biology  
Lucas Thompson, Land Rehabilitation  
Nathan Tomczyk, Land Rehabilitation  
Kristi VandeBergh, Environmental Biology  
Taylor Westhusin, Environmental Biology  
Laura Whitmore, Soil and Water Science

## Opportunities to Support LRES

A gift to the Department is a great way to support student and faculty endeavors. Donations can be earmarked for student scholarships or internships, graduate fellowships, undergraduate and graduate student programs, endowed professorships and more. For information about making a donation to the Department please contact:

Tracy Sterling Ph.D.  
Land Resources & Environmental Sciences  
Professor and Department Head  
P.O. Box 173120  
330 Leon Johnson Hall  
Bozeman, MT 59717-3120

(406) 994-4605



Land Resources and  
Environmental Sciences  
P.O. Box 173120  
Bozeman, MT 59717-3120

Find us on the web at:  
<http://landresources.montana.edu>