

ANIMAL & RANGE SCIENCES NEWSLETTER

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Introduction from Dr. Glenn Duff, Department Head



As I reflect back on how far we have come during the last 9 months, sometimes it seems like Donna and I have been here a lot longer. We have found everyone welcoming as we travel the state getting to know the people and the lay of the land. We are both looking forward to getting out this summer to various parts of the state. There are several stories in this edition that illustrate why MSU Animal and Range Sciences Department is in many ways, already the premiere animal and range sciences department in the Western U.S.

Our first trip this spring will be with faculty and staff. Our first annual “Bringing MSU to You” tour will take us to Southeastern Montana. Our goal is to put a face with our department and head to different locations in Montana each year. Our agenda (found at: <http://www.montana.edu/cpa/news/nwview.php?article=9823>). Briefly, we will be meeting with producers, potential students and the public in Eastern Montana. We realize this is a busy time of the year and many places are

just now thawing out, but we believe it is important that your MSU and Department of Animal and Range Sciences gets out to talk about our programs.

The Department of Animal and Range Sciences finished the year off with a reception for our graduates in the commons area of the Animal Bioscience Building. We continue to believe our teaching program is second to none. We are, in fact, looking at revamping the curriculum to provide the latest information to prepare students to be successful in their chosen careers. We offer hands on training opportunities as the cornerstone curriculum of our department. Many land-grant institutions in the Western U.S. are losing these opportunities, which again makes our program unique to the region. In addition to our hands on experience, our regional proximity to natural resources is what sets us apart. We have and will continue to focus our efforts on improving livestock production and rangeland resources. We will soon be recruiting three new faculty positions to help fulfill our vision and we are looking at a cluster hire to help answer questions to maximize production in grazing livestock. The first position will be a geneticist.

Given the success and importance of the seedstock industry in Montana, this person will be able to utilize lines of cattle or sheep that have been selected for high and low reproductive efficiency to improve health and performance of ruminants. We will also be looking for a ruminal and/or gastrointestinal tract microbiologist that will look at changes in the microbiome due to changing environmental conditions. The third position will be a range scientist that has an interest in changing plant ecology due to changing environmental or stress conditions. All three individuals will complement an already established faculty.

Other stories in this edition highlight some of our unique programs. Thank you for continuing to support our program and please stop by to see us when you are in Bozeman. Remember Montana State University is your university.



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2011 Montana Wool Harvesting School at Red Bluff Research Ranch

The 2011 Montana Wool Harvesting School (better known as the Shearing School) was held March 12-14 (beginner) and March 15-16 (advanced) at the Red Bluff Research Ranch. A class of 18 were enrolled in the first segment of the school to learn the basics of how to shear sheep. Seven students received advanced training in the second school. Instructors Jim Moore, Sheep Institute Agent and Mike Schuldt, Blaine County Extension Agent, led the class, with assistance from Wade Kopren, Ralph McWilliams and Brent Roeder. Others who helped were Dr. Rodney

Kott, Dr. Lisa Surber, KC Davis, Erick Stedje, Erin Nix, Devon Powell, Hayes Goosey and others.

On of the participants, Linda Poole, had this to say about the school:

"Please accept my thanks for a job well done in the Montana Wool Harvesting School. As a lifelong learner and a natural resource professional, I've been to many dozen workshops and training sessions. Congratulations on putting on this well-organized, informative school... With the current trend of buying locally and increasing self-sufficiency, a workshop such as this is timely and much appreciated. I applaud MSU for providing this type of hands-on learning in agriculture."



Wool Harvesting school participants learn to shear sheep using the methods taught by instructors trained through the New Zealand TECTRA Training Program. The school offers a three day hands-on beginner course, and a three day advanced course jointly sponsored by the Montana Department of Agriculture Growth Through Agriculture Program, Montana Woolgrowers Association and the Montana State University Cooperative Extension. Some who attended the class were sheep owners who wanted to learn how to shear their own flocks. Others wanted to learn the trade and be able to shear as a source of income. But whatever the reason for coming, most left with a new appreciation for the physical exertion involved in the process.

This outreach event is held annually with dates coinciding with the scheduled shearing of sheep owned by MSU. This makes it a win-win situation, combining education with production needs. Anyone interested in attending next year's class (held mid-March, 2012) should contact Peggy Kelley at (406) 994-3415 or kelley@montana.edu.



Animal & Range Sciences Department Head, Glenn Duff and wife Donna got some hands-on experience.



Awards, Publications & Presentations



Tom is receiving his Hall Of Fame plaque from Frank Lessiter, editor/publisher of *American Farriers Journal*, which, along with the Kentucky Derby Museum, sponsors the International Horseshoeing Hall Of Fame. (Photo courtesy of *American Farriers Journal*).

Tom Wolfe, MSU Farrier School Director, was recently inducted into the International Horseshoeing Hall of Fame for his contributions to Farrier Education. The International Horseshoeing Hall of Fame is located at the Kentucky Derby Museum.

Tom has been a full time professional farrier since 1971 and has

worked with all breeds and types of horses. Prior to his appointment as the instructor in charge of the MSU Horseshoeing School, Tom was a farrier in Albuquerque, NM. He is a member of the Montana Professional Horseshoer's Association and the American Farrier Association. Tom has served for three years on the executive committee for the American Farrier Association and is also certified as a journeyman farrier for AFA. Tom received his B.S. degree in Biology from the University of New Mexico.

Please congratulate Tom on this well-deserved honor. He was presented the award during the 8th Annual International Hoof-Care Summit in early February in Cincinnati, Ohio. More information about the International Horseshoeing Hall of Fame can be found at the AFJ website, <http://www.americanfarriers.com>, under the "More" drop-down menu.

More information on the MSU Farrier School can be found at: <http://animalrange.montana.edu/horseshoe.htm>.

Rachel Frost was an invited speaker at the "Healthy Acres" seminar in Missoula County on March 26. Rachel presented on "Poisonous Plants in Montana."

Jeff Mosley, Rachel Frost and Jerry Marks (MSU Extension Agent from Missoula County) received a Noxious Weed Trust Fund Grant from the Montana Department of Ag for \$25,000 for the project "Can Biological Control and Targeted Grazing be Integrated to Suppress Spotted Knapweed."



Jim Knight had a proposal selected for funding from Western Sustainable Agriculture Research and Education (WSARE) in the amount of \$96,053. The purpose of Jim's proposal, "Wildlife Damage Control for Traditional and Organic Farmers—Tools for Trainers," is to provide the training and materials needed to allow educators to address the vertebrate pest control needs of organic and traditional farmers.

Jeff Mosley has a new section in the *Rangelands Journal* titled *Browsing the Literature*. This section reviews new publications available about the art and science of rangeland management. For more information you can contact Jeff Mosley at jmosley@montana.edu.

Glenn Duff received the University of Arizona Collegiate Cattle Growers Appreciation Award in a ceremony at the Mountain Oyster Club in Tucson, Arizona on April 30, 2011. Glenn served as the academic advisor for the club from 2004 to 2010. In addition, Glenn was instrumental in the formation of the club. The Collegiate Cattle Growers Association (CCGA) is a student run organization that provides hands-on experience for the University of Arizona. The CCGA generates approximately \$300/week to fund club activities.

Upcoming Dates

May 16-18	Animal & Range Sciences Dept. "Bringing MSU to YOU" Tour of Eastern Montana (see Page 1 of this newsletter for more information)
May 16, 2011	Summer Session Begins
May 30, 2011	Memorial Day Holiday
June 1-4, 2011	Beef Improvement Federation (MSU) http://www.bifconference.com/
June 9-10, 2011	Montana Stockgrowers Association Mid-Year Meeting (Animal Bioscience Bldg., MSU) http://www.mtbeef.org/Content/Announcements/2011MidYearReg.pdf
July 4, 2011	Independence Day Holiday

Classrooms in Action: ARNR Undergraduates at Work



In the picture to the left the students of Dr. Jane Anne Boles ARNR 316 class spend a semester working on carcass evaluations and cutting. Pictured are Jarad Foran (foreground), Spurr Watson (cutting), and Kelsi Gambill (instructing) boning a ham. During the semester, the students work on pork, lamb and beef carcasses.

The picture to the right is another shot of the ARNR 316 class. The two gentlemen demonstrating for the class are from C&K Meats in Forsyth, MT. On the left is Vern Brasel and with his back to the camera is Curt Gambill. The meat lab is still in Linfield Hall. It is nice that we have so many people in the state willing to come in and work with our student classes.



Students working at the Dean and Trudi Peterson ranch in Judith Gap, MT as a part of the Calving Management Class.

ARNR 235 Range and Pasture Monitoring is taught during the fall semester. In the picture to the right, instructor Rachel Frost is seen handing Katelyn Miller a soil sample to determine texture while Sherrie Proctor looks on. Other students gather soil samples to use to determine the ecological site of the pasture, from which they will be able to calculate stocking rate and determine a condition class for rangeland. ARNR 235 is a hands-on field class that teaches students the basic principles of designing and implementing vegetation monitoring plan for native rangeland and improved pastures.



The picture on the left was also taken during an ARNR 235 field session. Rachel Frost demonstrates how to wet a soil sample to determine its texture according to the soil triangle. Brian Bignell, Matt Morehead and Chris Jessop consult their notes on how to classify the soil based on its texture.

Dr. Pat Hatfield had some hay remaining from a research project his students were working on at Ft. Ellis. He donated the hay to the SAY program. The trailer is being offloaded by Tess Norvell, Chase Younkin and Chris Hooley. Chase is an undergrad from Hinsdale, MT studying Ag Economics. Chris is a graduate student of John Paterson's from the Kalispell area and Tess is a graduate student from Colorado.



On horseback is Billy Whitehurst, a graduate student working with Dr. John Paterson. Billy is teaching the ARNR 234, Livestock Management – Beef lab. It has been a great lab as Billy not only works with the students out at the BART, but has taken them onto many of the local ranches for true hands-on approach to learning cattle handling. The two students in the background are Duncan Fraser and Tucker Porter. Billy and his wife Marcie are the proud parents of three children and have a ranch north of Belgrade.

Classrooms in Action: ARNR Undergraduates at Work (cont'd)



These are two pictures from Dr. Pat Hatfield's ARNR 232 Sheep Practicum class. Elora Lula is trimming hooves in the picture to the right. And Pat, Kris Carda and Elora are returning an escapee to the draft in the picture to the left.



These three pictures are of Charles Glenn, an undergraduate student in the Animal & Range Sciences Department from Boone, NC. Charles is majoring in rangeland ecology with a wildlife habitat management focus. He is currently working with Rachel Frost as part of a research trial comparing mowing to sheep grazing as a method of suppressing the noxious weed on rangeland. Much of his work is done near Polson, MT during the summer months. The sheep used in

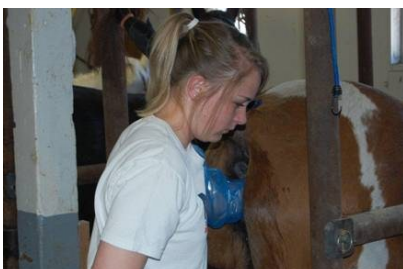


pictures are from MSU. Charles relates that he Flathead River to the grazing trial locations.



the picture spent a lot of time hauling water from the

Marc King, Duncan Fraser, Will Townsend, Mark Fleming, Roger Fithian and Tucker Porter evaluate SAY steers in the Introduction to Livestock Evaluation class. These steers are donated by producers throughout the state. The cattle are fed and managed by John Paterson's graduate students. The main value of the producer-donated cattle at MSU is to support the educational programs including the rodeo and judging teams. However, they are also very valuable in other ways. Instead of just finishing steers to market weight, students have learned how to vaccinate, de-worm and implant animals upon arrival at MSU. Other topics have included how to read bunks in the morning in order to determine how much to feed each day, switching steers from a high forage (80% hay) to a high concentrate (80% grain) diets over 21 days, spotting sickness early and the appropriate use of antibiotics and finally learning how to determine when an animal has reached choice quality grade and needs to be marketed. All students who are responsible for the steers are Beef Quality Assurance certified.

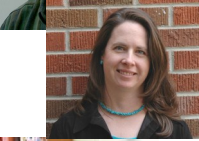


Jillian Hatfield in the Equine Reproduction class taught by Shannon Moreaux, DVM, Fall 2010. Jillian is a freshman in the Animal Science-Science degree.

Other News



The INIA forage and livestock researchers graciously hosted **Dr. Dennis Cash** on a tour of southern Patagonia (South America). The itinerary included site visits of forage research at Kampenaike and three private ranches in distinct ecological zones of the mainland and Tierra del Fuego. Dennis then wrote up comments about the progress of the INIA-Kampenaike forage research projects and some recommendations for future activities.



Dr. Jeff Mosley, Dr. Rachel Frost and Anita Gray are the MSU organizing committee for the annual meeting of the "Rangelands West Partnership" which will be hosted at Montana State University in the Animal Bioscience Building on May 22-24, 2011. They are expecting more than 40 people to attend from across the western United States, plus special guests from Canada and Australia. The Partnership is comprised of range scientists and natural resource subject librarians from each of the 18 participating land-grant institutions in the western United States. This group has been working for nearly a decade to expand internet access to the world's rangeland literature and educational resources. For more information go to: <http://nimss.umd.edu/homepages/home.cfm?trackID=8556>.



Dr. Glenn Duff has received tenure through Montana State University. Glenn is the Department Head and a Ruminant Nutritionist in the Animal & Range Sciences Department.



Dr. Shannon Moreaux has passed the retention review procedure through Montana State University and will be retained as a member of the MSU Faculty. Shannon is an Assistant Professor (Equine Science) in the Animal & Range Sciences Department.

Animal & Range Sciences Spring 2011 Graduating Graduate Students:

Kimberly Haile (Sisterdale, TX) MS in Animal and Range Sciences
Thesis "Fuel Load and Heat Effects on Northern Mixed Prairie and Four Prominent Rangeland Graminoids"

Kristina Hale (Bozeman, MT) PhD in Animal and Range Sciences
Thesis: "Proximate Causation of Stable Fly (*Stomoxys calcitrans* L.) Host Use: the Influence of Phenology and Host Blood Suitability"

Richard McCosh (San Diego, CA) MS in Animal and Range Sciences
Thesis "Effect of Rams on Temporal Hormone Concentrations in Targhee Ewes During the Transition into the Breeding Season"

CONGRATULATIONS!

Student Awards and Scholarships

The Department of Animal & Range Sciences is pleased to announce the recipients of the 2011-2012 scholarships and awards:

Martin Burris Scholarship: Lauren Klempel (Joliet, MT)

A.B. Cobb III Memorial Scholarship: Whitney Carr (Three Forks, MT)

Grieco Animal Science Award: Andrew Lybeck (KalisPELL, MT)

Hilger Ranch Memorial Scholarship: William Sparks (Plevna, MT)

Michael J. McLoughlin Scholarship: Whitney Carr (Three Forks, MT) and Rachael Tatarka (Bozeman, MT)

Dr. E.L. Moody Memorial Scholarship: Elizabeth Smith (Glen, MT)

Payne, Ryerson, Taylor Range Scholarship: Daniel Pratt (Miles City, MT)

Sitz Ranch Management Team Endowment: Jesse Wallewein (Sunburst, MT)

Oscar O. and Carol H. Thomas Memorial Scholarship: Carley Stone (Geyser, MT)

Verl M. Thomas Memorial Scholarship: Erin Nix (Bozeman, MT) and Devon Powell (Bozeman, MT)

Fred S. and Violet E. Willson Scholarship: Jeffrey Swartz (Bozeman, MT)

Ray Woodward Incoming Freshman Scholarship: Rebecca Ayre (Roberts, MT) and Jack Switzer (Richey, MT)

Chuck McGlothlin Outstanding Graduating Senior Range Belt Buckle: Kaitlin Keogh (Nye, MT)

Chuck & Penny Jarecki Scholarship: Scott Anderson (Alexander, N.D.)

Northern Great Plains, SRM Gerald Sharp Memorial Scholarship: Scott Anderson (Alexander, N.D.)

Don Ryerson/Ag Lenders Scholarship: Katie Bonogofsky (Belfry, MT) and Rebecca Johnstone (Chewelah, WA)

Animal & Range Sciences Graduating Senior Award: Lisa Hall (Lewistown, MT)

Animal & Range Sciences Prospective Spring and Summer 2011 Bachelor of Science Graduates:

Ryan Allen – Natural Resources and Rangeland Ecology
 Nikki Bailey – Animal Science
 Nathan Beck – Animal Science
 Chaney Bowen—Animal Science
 Joselyn Broksle – Animal Science
 Nicole Caban – Animal Science
 James “Bo” Carey – Natural Resources and Rangeland Ecology
 Audra Cornwell—Animal Science
 Aaron DeVries – Animal Science
 Jonathan Foster – Natural Resources and Rangeland Ecology
 Kevin Green—Animal Science
 Lisa Hall – Animal Science
 Elizabeth “Palmer” Harris—Animal Science
 Gannon Hester – Animal Science
 Cameron Ickes – Animal Science
 Ben Jensen – Animal Science
 Kaitlin Keogh – Natural Resources and Rangeland Ecology
 Lindsay Klouser – Animal Science

Curtis Leibrand – Natural Resources and Rangeland Ecology
 Michael Lucas – Natural Resources and Rangeland Ecology
 Jennifer Markuson – Animal Science
 Katelyn Miller – Natural Resources and Rangeland Ecology
 Cody O’Donnell – Animal Science
 John Pearson—Animal Science
 Peter Reinholz – Natural Resources and Rangeland Ecology
 Andrew Riedel – Animal Science
 Tanner Ripley – Animal Science
 Jacquelyn Schade – Animal Science
 Jordan Spears – Animal Science
 Kaitlyn Spence—Animal Science
 Jocee Stirling – Natural Resources and Rangeland Ecology
 Jennifer Tobiason – Animal Science
 Logan Tomschin – Animal Science
 Charles “Will” Townsend – Animal Science
 Spurr Watson – Natural Resources and Rangeland Ecology
 Jayme Willmore – Natural Resources and Rangeland Ecology
 Trista Zink – Animal Science

CONGRATULATIONS!

Student News

The Montana Livestock and Nutrition Conference was held on April 12th and 13th in Bozeman. The winners of the student poster contest were: First place, **Melissa Medley**: "Impact of Sheep Grazing on Demographic Parameters of Cheat Grass and Wild Oats". Second place went to **Tess Norvell**. Her poster was entitled "The Effects of Supplemental Magnesium on Mineral Consumption and Feeding Behavior by Beef Heifers." The third place winner was **Chris Hoolley**. His poster was "Optimizing Dietary Protein and Lipid Levels of Tilapia Cultured in High Intensity Systems." The Conference is sponsored by the MT Feed Association, MSU Extension and the Department of Animal and Range Sciences.

Collegiate Cattlewomen (CCW) is a great organization at MSU. Its mission is to support and promote agriculture in the state of MT with an emphasis on beef cattle. They work closely with the MT Cattlewomen and also the MT Beef Council. One of their projects is simply called CHEESEBURGER. They visit second grade classrooms in the state and talk about the nutritional composition of a cheeseburger. During the recent MT Nutrition Conference they worked with the MT Beef Council on several beef hor d'oeuvres that

were served to the attendees. Left to right: **Kelsi Gambill, Hailey Moore, Lisa Hall, Laurel Anderson, Dawnita Deichmann Charlene Rich** (Executive Director of the MT Beef Council), **Shelby Dye, Lindsey Cope, Kelly Rich, Katie Jacobs** and the CCW Advisor, **Dr. Jane Ann Boles**.



The Montana State University recognized **Bob Sager**, Animal & Range Sciences Graduate Student as one of two students to receive the Outstanding Graduate Student Award at the MSU Day of Student Recognition on April 26, 2011. Recognition of outstanding graduate students is based upon scholarship, leadership, and contributions to Montana State University.

Dr. Bok Sowell's Newest Recruits



Help Support Animal and Range Sciences

A gift to the Department is a great way to support student and faculty endeavors. Donations can be earmarked for student scholarship funds, faculty research, the new Animal Bioscience Building, and more.

For more information about making a donation to the Department contact:

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Newsletter edited and compiled by Susan Cooper

With special thanks to the entire A&RS Administrative Team



The new Animal Bioscience Building

