

# ANIMAL & RANGE SCIENCES NEWSLETTER

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## Introduction from Dr. Glenn Duff, Department Head



Greetings and welcome to the latest version of the Department of Animal and Range Sciences Newsletter. The last few months have been filled with exciting events for our department and Montana State University.

We have completed the searches for our three new faculty positions. As I mentioned in our last newsletter, Dr. Craig Carr accepted the position as Assistant Professor Range Ecologist and started his new position in February. We were also able to hire Dr. Carl Yeoman as our new Assistant Professor Rumen/Gastrointestinal Microbiologist. Dr. Yeoman received his undergraduate and graduate degrees at Massey University/AgResearch in New Zealand and is currently working as a Post-Doctoral Research Associate at the University of Illinois. Dr. Yeoman will start his position in August. Dr. Jennifer Thomson has accepted the Assistant Professor Geneticist position. Dr. Thomson received her B.S. and M.S. degrees from Oregon State University and her Ph.D. from Washington State University. Dr. Thomson is currently working as a Post-Doctoral Fellow at the University of Alberta in Edmonton, Alberta, Canada. She will be joining us in July. I would like to thank the search committee for all of their efforts in the hiring process. New faculty positions have been considered for some time and we are excited to have them on board. All of the hard work from the College of Agriculture (Dean Jeff Jacobsen) and MSU Administration is also recognized.

The Department of Animal and Range Sciences will be hosting graduation ceremonies in the Animal Bioscience Building on May 4. This is a chance for faculty and staff to interact with graduating seniors and graduate students and their families. I am proud of all of our graduates and wish them luck in the future.

The Department of Animal and Range Sciences reinitiated the Academic Quadrathlon competition this year and Dr. Rachel Endecott was instrumental to its success. The winning team will travel to Phoenix this summer to compete with other teams in the Western Section. I appreciate all the efforts that Dr. Endecott and faculty did to make this event a success.

Departmental faculty and staff will travel to the north-central Montana for the Second Annual "Bringing MSU to YOU" tour. We will start this tour in Great Falls, travel to Havre, Chinook, Malta and end in Lewistown. This event allows our faculty and staff to meet with producers and potential students. It also puts a face to the Montana State University Department of Animal and Range Sciences. This year, our new faculty hires will also travel with us on the tour. The tour ends with a meeting of the Animal and Range Sciences Advisory Committee.

Finally, mark your calendar for the annual Top of the West Horse Sale and Derby Day Celebration at Copper Spring Ranch on May 5<sup>th</sup>. This event features horses trained by students in the Colt Breaking class and is presented by the Equine Boosters at Montana State University.

Please stop by and see us if you are in Bozeman. Your continued support of the Department of Animal and Range Sciences is much appreciated.

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## Awards, Publications & Presentations

**Jeff Mosley** was presented the Fellow Award by the Society for Range Management during the 65th Annual Meeting of SRM in Spokane, Washington. The Fellow Award is presented for exceptional service and dedication to SRM and the range management profession. Jeff's leadership contributions have included SRM President, University Accreditation Panel Chair, Professional Affairs Committee Chair, International Mountain Section President, and President of the Range Science Education Council, in addition to service on the SRM Board of Directors, Finance Committee, Certified Professional in Rangeland Management Committee, Targeted Grazing Committee, and the Idaho Section Board of Directors. Jeff also was recognized for contributing his "Browsing the Literature" feature to the journal *Rangelands*. For the past 15 years (and counting), Jeff's bimonthly summaries of new range-related publications have helped keep rangeland managers, scientists, ranchers, and others up-to-date on the latest advances in the art and science of rangeland management.

**Rachel Frost, Brent Roeder, Jeff Mosley, Craig Carr, and Clayton Marlow** altogether contributed a total of 13 presentations at the 65th Annual Meeting of the Society for Range Management in Spokane, Washington.

**Shannon Moreaux**, Equine Science professor, has recently received a Faculty Development Award in order to receive advanced training in nutrient analysis. This award will allow Dr. Moreaux to learn advanced techniques for analyzing specific carbohydrates important to his equine research. This award will benefit graduate and undergraduate research assistants in the Animal and Range Science Department and ultimately the horse industry in Montana.

**Hayes Goosey** was recently awarded a grant from the Montana Department of Fish, Wildlife and Parks State Wildlife Grants Program. The title of the grant is "The influence of livestock grazing on arthropods serving as food items of sage-grouse chicks and non-game migratory birds, and West Nile virus vectors." The Project Staff from MSU also includes **Greg Johnson** and Kevin O'Neill.

The US State Department has translated an MSU Extension bulletin coauthored by **Jeff Mosley** into the Pashto language to aid agriculturalists in Afghanistan. The bulletin is entitled, "Dryland Pastures in Montana and Wyoming: Species and Cultivars, Seeding Techniques, and Grazing Management".

New publication: Roberts, A.J., L.E. Wallace, **M. M. Harbac**, and **J.A. Paterson**. 2012. Case Study: Retention and readability of radio frequency identification transponders in beef cows over a 5-year period. *Prof. Anim. Sci.* 28:221-226.

New publication: **Frost, R.**, J. Walker, C. Madsen, R. Holes, J. Lehfeldt, J. Cunningham, K. Voth, B. Welling, T.Z. Davis, D. Bradford, J. Malot and J. Sullivan. 2012. Targeted Grazing: Applying the Research to the Land. *Rangelands* 34(1):2-10.

New publication: **Manzano, R.P., J. Paterson, M.M. Harbac** and R.O. Lima Filhot. 2012. The effect of season on supplemental mineral intake and behavior by grazing steers. *Prof. Anim. Sci.* 28:73-81.

**Rodney Kott** was recently awarded a grant from the University of Wyoming. The subaward was titled "Improving Profitability and Sustainability of Sheep Production."

## 2012 Montana Nutrition Conference and Livestock Forum

10 graduate students presenting posters at the 2012 Montana Nutrition Conference. Topics included sheep and beef nutrition, management, and grazing behavior, nutritional management of fish, and soil and entomology consideration when incorporating sheep into farming systems. The winners were:



Pictured on the left are first place winner, Devon Ragen. Devon's poster is titled: "Individual Mineral-Supplement Intake by Ewes Swath Grazing or Confinement Fed Pea-Barley Forage." Pictured with Devon is third place winner, Billy Whitehurst. Billy's poster is titled: "Comparison of Methionine Chelated vs. Sulfate Form of Trace Minerals on Rate and Efficiency of Gain and Pregnancy Rates in Beef Heifers."

Pictured on the right winner is second place winner, Katie Tierney. Katie's poster is titled: "Can Cattle be Trained to Graze Weeds?"



## Graduate Student Highlight: Omolola Betiku

Omolola Betiku, a graduate student in the Department of Animal and Range Sciences at Montana State University, has been awarded a fellowship from the Schlumberger Foundation in support of her PhD program. Omolola is from Osun State, Nigeria.

Omolola is interested in finfish diet development. Her present research focus is using alternative ingredients in formulating cost-effective fish diets that support maximum growth and health of fish. She won the fellowship of the African Women in Agricultural Research and Development (AWARD) 2009-2011 sponsored by USAID/Bill and Melinda Gates Foundation. This opportunity gave her the platform to compete through a research proposal competition for a 9-month Advanced Research Training in Aquaculture, which she performed at the USFWS-Bozeman Fish Technology Center, Bozeman. During this period she worked under Dr. Sealey and they investigated the potentials of using algae oil in rainbow trout nutrition. Omolola has great passion to encourage more women participation in science career. She was part of the team that deliberated on how to encourage girls and women into science at the US State Department in June 2011.



The Schlumberger Foundation Faculty for the Future fellowships are awarded to women academics in science and engineering from developing and emerging countries, and provide funding for advanced graduate study at top universities abroad. The long-term goal of the Faculty for the Future program is to generate conditions that result in more young women pursuing scientific disciplines. Grant recipients are therefore selected as much for their leadership capabilities as their scientific talents and they are expected to return to their home countries to continue their academic careers and inspire other young women. Launched by the Schlumberger Foundation in 2004, Faculty for the Future has grown to become a community of 257 women from 62 countries.

[www.facultyforthefuture.net](http://www.facultyforthefuture.net).

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## Student News

The Pork Checkoff and PIC have awarded 15 scholarships to college students around the United States as part of their strategy to develop the pork industry's human capital for the future. The top candidate, **Anna Samson**, will receive a \$5,000 scholarship. Anna is from Three Forks, MT, is an undergraduate at MSU majoring in Animal Science.

Eleven MSU undergraduates attended the Society of Range Management (SRM) meeting in Spokane, WA on January 29-February 2, 2012 and took part in the Student Conclave, URME exam and Extemporaneous Speaking Contest. Rachel Abeh served as the student conclave vice-president and Danny Pratt served as student conclave secretary. All eleven students (**Loni Blackman, Clay Bott, Nina Atamaniuk, McKenna Brown, Rachel Abeh, Ben Lynn, Jeremiah Jansen, Ben Hauptman, Ben Johnson, Danny Pratt, and Robbyn Reukauf**) took part in the URME exam that is designed to challenge the top level seniors. The high scores for the exam were the 80%. The MSU team placed 7th out of 25 teams and Nina Atamaniuk placed 7th individually. Placing in the top 10% of all individuals taking the URME exam Nina will no have to take the Certified Professional in Range Management (CPRM) exam to become CPRM Certified.

**Emily Muir**, sophomore in NRSM, was selected as a State FFA Officer at the 2012 Montana State FFA Convention in Bozeman, MT. FFA state officers travel to Montana's six FFA districts to provide leadership training for local chapter officers.

## Prospective M.S. Animal & Range Sciences Spring 2012 Graduating Graduate Students:

Blake Hauptman (Drummond, MT)

Thesis: "The Evaluation of Ethanol Yeast as an Alternative Protein Source for Rainbow Trout (*Oncorhynchus mykiss*)"

Plans after graduation: Blake states "Still deciding if I want to be a cowboy or a fish farmer. So I am still searching for employment."

Chris Hooley (Kalispell, MT)

Thesis: "Examination of the Effects of Protein and Lipid on Growth and Stress Response of Nile Tilapia (*Oreochromis Niloticus*) Cultured in High Intensity Systems."

Plans after graduation: Headed to Gavins Point National Fish Hatchery (Yankton, SD) to work as a Fisheries Biologist.

Erin Nix (Bozeman, MT)

Thesis: "Effect of Swath Grazing on Forage Intake and Wastage by Ewes."

Plans after graduation: Now residing in Los Angeles, CA where she is pursuing her interests in animal behavior, animal training and captivity enrichment.

Glenn Owings (Missoula, MT)

Thesis: "Patterns of Gray Rubber Rabbitbrush Occurrence in Burned Sagebrush-Grasslands, Missouri River Breaks, Montana."

Plans after graduation: Glenn will begin a range conservationist position with the Sublette County Conservation District (WY) in May.

Devon Ragen (Mercer Island, WA)

Thesis: "Individual Mineral Supplement Intake by Ewes Swath Grazing or Confinement Fed Pea-Barley Forage."

Plans after graduation: Devon will be staying in Bozeman having just accepted a research job in the Animal & Range Sciences Department.

Elizabeth Read (West Point, UT)

Thesis: "Investigation of the Effects of Copper Source, Copper and Zinc Levels, and Dietary Protein Source on CU Bioavailability in Rainbow Trout."

Plans after graduation: Liz is headed to Utah State University this Fall to start Vet School.

Robert Sager (Wilsall, MT)

Plans after graduation: Bob relocated to Columbia, MO, where he is a faculty member at the University of Missouri, College of Veterinary Medicine.

William Whitehurst (Belgrade, MT)

Thesis: "Comparison of Organic vs. Inorganic Trace Minerals on Rate and Efficiency of Gain and Conception Rates in Beef Heifers."

Plans after graduation: Billy is planning on staying and getting his PhD from MSU.

# CONGRATULATIONS!

## Animal & Range Sciences Fall 2011 Bachelor of Science Graduates:

Scott Anderson - Natural Resources and Rangeland Ecology  
 Erin Gorsett - Animal Science  
 Andrew Lybeck - Animal Science

Jennifer Miller - Animal Science  
 Rich Kelly - Natural Resources and Rangeland Ecology  
 Megan Scherting - Animal Science  
 Lindsey Vaughan - Animal Science

## Animal & Range Sciences Prospective Spring and Summer 2012 Bachelor of Science Graduates:

Tiana Armbrecht - Natural Resources and Rangeland Ecology  
 Nina Atamaniuk - Natural Resources and Rangeland Ecology  
 Christine Balsley - Animal Science  
 Anna Berg - Animal Science  
 Katie Bonogofsky - Natural Resources and Rangeland Ecology  
 Ashley Boomer - Animal Science  
 Eric Bronson - Animal Science  
 Whitney Carr - Animal Science  
 Mary Grace Dailey - Animal Science  
 Jana Duty - Animal Science  
 Luke, Ellsbury - Natural Resources and Rangeland Ecology  
 Jared Foran - Animal Science  
 Rocky Forseth - Animal Science  
 Duncan Fraser - Animal Science  
 Montana Jane Getz - Animal Science  
 Charles Glenn - Natural Resources and Rangeland Ecology  
 Nicole Gray - Animal Science  
 Kevin Green - Animal Science  
 Kelsey Guffey - Animal Science  
 John Guthrie - Natural Resources and Rangeland Ecology  
 Megan Hansen - Animal Science  
 Amanda Hart - Animal Science  
 Brandon Hartz - Natural Resources and Rangeland Ecology  
 Reta Hatton - Animal Science  
 Ben Hauptman - Natural Resources and Rangeland Ecology

Jasmine Haynie - Animal Science  
 David Henckler - Natural Resources and Rangeland Ecology  
 Renae Hockaday - Natural Resources and Rangeland Ecology  
 Allison Kraft - Animal Science  
 Cassandra Lannen - Animal Science  
 Katie Lewis - Animal Science  
 Mark Lincoln - Natural Resources and Rangeland Ecology  
 Megan Lynch - Animal Science  
 Jennifer Matelski - Animal Science  
 Elizabeth Messier - Animal Science  
 Troy Nagle - Animal Science  
 Daniel Pratt - Natural Resources and Rangeland Ecology  
 Jodeen Rademacher - Animal Science  
 Lexy Rianda - Animal Science  
 Kasey Russell - Animal Science  
 Anna Marie Samson - Animal Science  
 Brittnee Sayler - Animal Science  
 KaeDee Shay - Animal Science  
 Elizabeth Smith - Animal Science  
 Molly Spencer - Animal Science  
 Andrew Stuart - Animal Science  
 Jeffrey Swartz - Animal Science  
 Latrice Tatsey - Natural Resources and Rangeland Ecology  
 Alexis Wainwright - Natural Resources and Rangeland Ecology  
 Jesse Wallewein - Animal Science  
 Seth Weisser - Natural Resources and Rangeland Ecology  
 Katherine Zajac - Animal Science

# CONGRATULATIONS!



## Upcoming Dates

- May 5, 2012 MSU Commencement
- May 5, 2012 Equine Boosters of MSU Top of the West Horse Sale and Student Competition  
The Equine Boosters of MSU will host the 6th Annual Top of the West Horse Sale and Student Horse Training Completion at Cooper Spring Ranch in Bozeman. The student completion will be held on May 3rd. The sale preview will begin at 10:00 am and the sale begins at 4:30 pm on Saturday May 5th. Please join us to support the students in the MSU Equine Science program.
- May 8-10, 2012 HAACP Training (MSU, Animal Bioscience Building) for details contact Jane Ann Boles: [jboles@montana.edu](mailto:jboles@montana.edu)
- May 14, 2012 Summer Semester Classes Begin
- May 14-15, 2012 Bringing MSU to YOU (Faculty/Staff tour of Montana) for details contact Susan at [scooper@montana.edu](mailto:scooper@montana.edu)
- May 28, 2012 Memorial Day Holiday
- June 18-21, 2012 MSU Extension Youth Horsemanship School  
The MSU Extension Youth Horsemanship School is scheduled for June 18-21st and fifty young horse enthusiasts from around the region have already signed up to attend. Six equine science student interns are in the process of creating the curriculum for the week long school and many equine science students and faculty have volunteered to ensure the schools continued success. Three students have received scholarships to attend the school this year thanks to supportive donors. The MSU Youth Horsemanship School Scholarship Fund provides horses, tack and accommodations to young horse lovers who would not otherwise have the opportunity to experience the value of the horse-human bond. To support this critical fund please contact Julie Hager ([jhager@montana.edu](mailto:jhager@montana.edu)) or Dr. Moreaux ([moreaux@montana.edu](mailto:moreaux@montana.edu)) in the Animal and Range Science Department.
- June 24-26, 2012 National Association of Equine Affiliated Academics (NAEAA) 2012 Conference (Big Sky, MT) Contact Shannon Moreaux: [moreaux@montana.edu](mailto:moreaux@montana.edu)
- July 4, 2012 Independence Day Holiday

## Recent Events Held in the Animal Bioscience Building



February 8, 2012 Stillwater Range Association Meeting

March 6, 2012 Montana Farriers Association Meeting

March 7, 2012 Bair Ranch Foundation Meeting

April 12, 2012 4H Board Meeting

April 12-13, 2012 Academic Quadrathlon

## Research Highlight: Dr. Hayes Goosey Presenting Current Research Work in Moscow, Russia



Dr. Hayes Goosey, Research Scientist in the Department of Animal and Range Sciences, recently traveled to Moscow Russia to attend the 'Russia Agrofarm' trade show where he presented some of his most recent research. The 'Russian Federation Ministry of Agriculture' and the 'Russian Federation National Union of Sheep Breeders' organized the domestic sheep symposium at the February 2012 AgroFarm trade show and through the Montana Department of Agriculture invited Dr. Goosey to present a temperature based sheep grazing model he developed for strategic management of alfalfa weevil populations.

Marty Earnheart, livestock marketing specialist with the Montana Department of Agriculture, contacted Dr. Goosey at the 2011 Montana Wool Growers Convention and inquired if he would accept an opportunity to present research on a Global level. During travels to the Russian Federation, Mrs. Earnheart had become aware of an increasing interest, from Russian sheep producers, on integrated grazing systems. The Montana Department of Agriculture received grant funding from the 'U.S. Livestock Genetics Export' group to host several speakers at the 2012 Agrofarm trade show. Mrs. Earnheart, aware of the interests of the Russian sheep industry, extended an invitation to Dr. Goosey to provide pertinent information and research on systems which effectively integrate crop and sheep production.

Along with presenting the grazing model, Dr. Goosey also provided insight on the benefits these types of grazing systems have to both the crop and livestock industries through partnering enterprises for increased profitability, overall productivity, and conservation of renewable and non-renewable resources. The audience was comprised mainly of University system scientists, representatives from the Russian Federation Ministry of Agriculture, and sheep industry representatives from multiple countries. An interpreter was also present and translated the seminar into the Russian Language and also acted as an intermediary by translating during the question and answer session.

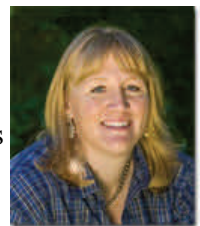


## Other News



A big welcome back to **Jim Berardinelli**, who underwent triple bypass surgery in early March. Jim's surgery was very successful and we are happy to see his smiling face back at work. Jim wishes to thank all for their get well wishes.

**Rachel Endecott** was awarded tenure and promotion from Montana State University. Rachel is now an Associate Professor of Animal Science (Extension Beef Cattle Specialist). Congratulations Rachel!!



Shannon Moreaux would like everyone to check out MSU Equine Science on Facebook. The Facebook page has been set up to provide horse enthusiasts, students and graduates information, horse events, educational and career opportunities. Please visit us at: <http://www.facebook.com/#!/MsuEquineScience>.

## 2012 Academic Quadrathlon Winning Team: The “Honey Dippers”



The Academic Quadrathlon contest returned to the MSU Animal and Range Sciences Department during April 12-14, 2012. This 4-part animal science contest consists of an oral presentation, a written exam, a hands-on lab practicum, and a double-elimination quiz bowl tournament. Five, 4-person teams competed in this year's contest and a great time was had by all involved! Rachel Endecott, Extension Beef Cattle Specialist based in Miles City, organized the quadrathlon. The winning team of **William Sparks, Lyle Peters, Andrew Williams, and Jeffrey Swartz** earned a spot in the Western Region Academic Quadrathlon Contest which will be held in July during the 2012 American Society of Animal Science meetings in Phoenix, AZ. Congratulations and best of luck to the team this summer!

## 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*