

Technical Program

Wednesday, February 15, 2006

**Undergraduate Papers
 Fairmont, Boardroom – Wednesday,
 February 15
 8:00AM – noon**

Organizer: Val Jo Anderson

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| <p>8:00 Effects of short-term summer herbage degree of disappearance by wild horses on the Pryor Mountain Wild Horse Range - Jill Nannenga, North Dakota State University.</p> <p>8:15 Effects of prescribed burning following biocontrol of leafy spurge on the soil seedbank - Miranda A. Vlaminck, Connie O'Brien, Edward S. DeKeyser, and Donald R. Kirby, North Dakota State University.</p> <p>8:30 Effect of fire-induced cheatgrass invasion and subsequent land rehabilitation on diversity of ants and Tenebrionid beetles in a semi-arid shrub steppe - Eric Gardner, Robert L. Johnson, Val Jo Anderson, Brigham Young University, Provo, UT.</p> <p>8:45 Maintenance of population variability in rare plant species during seed increase for restoration - Eve Richards, Robert L. Johnson and Val Jo Anderson, Brigham Young University, Provo, UT.</p> | <p>9:00 Modeling seed germination and seedling seminal root growth using heat accumulation - Scott A. Davis and Bruce Roundy. Brigham Young University, Provo, UT.</p> <p>9:15 Conservation implications of Chukars (<i>Alectoris chukar</i>) in western North America - Aaron Robinson, Randy Larsen and Jerran T. Flinders, Brigham Young University, Provo, UT.</p> <p>9:30 Hydrothermal modeling of native grasses and forbs - Jennifer Coleman, Bruce Roundy and Brad Jessop. Brigham Young University, Provo, UT</p> <p>9:45 Two year evaluation of cultural practices on seed production of select native forbs - Brian G. Taylor, Robert L. Johnson, Val Jo Anderson and Bruce A. Roundy. Brigham Young University, Provo, UT.</p> <p>10:00 Tolerance of five perennial rangeland grasses to two rates and two dormant season application times of the herbicide JOURNEY - Zachary V. Anderson, Val Jo Anderson and Robert L. Johnson. Brigham Young University, Provo, UT.</p> <p>10:15 Effects of between row spacing and irrigation timing on seed production of four native forbs from the Uncompahgre Plateau - Mark Judson, Robert L. Johnson and Val Jo Anderson. Brigham Young University, Provo, UT.</p> |
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10:30 **Effects of spring precipitation on total and functional group forage production in three semi-arid rangeland ecosystems** - Erica L. East¹, Justin D. Derner², Bret W. Hess³, Rich A. Olson¹, Gerald E. Schuman² - ¹Department of Renewable Resources, University of Wyoming, Laramie, WY, ²Department of Animal Science, University of Wyoming, Laramie, WY, ³USDA-ARS, High Plains Grasslands Research Station, Cheyenne, WY.

10:45 **Changes in soil properties on former arable land after afforestation** - Adrienne Worley, University of Saskatchewan, Saskatoon, Saskatchewan.

11:00 **Management strategies for grazing legumes** - Beki Gummesson, University of Saskatchewan, Saskatoon, Saskatchewan.

11:15 ***Acremonium coenophialum* in tall fescue and its implications for grazing management** - Holly White, University of Saskatchewan, Saskatoon, Saskatchewan.

11:30 **The interacting effects of fire and grazing on plant species composition in the fescue prairie** - Nadia Mori, University of Saskatchewan, Saskatoon, Saskatchewan.

11:45 **There is higher non-weedy herbaceous biodiversity in natural windbreaks as compared to planted windbreaks, in**

Saskatchewan shelterbelts - Shannon Poppy, University of Saskatchewan Saskatoon, Saskatchewan.

**TECHNICAL SESSION: Plant Ecology
II*
Hyatt, Georgia B – Wednesday, February
15, 8:00 AM – 11:30 AM**

Moderators: Craig Carr and John Tunberg

8:00 **Clonal diversity and genetic ecology in plant populations of *Carex duriuscula* in the Songnen steppe** - Teng Xiao-Hua¹, Hong Rui-Min¹, Hu Bao-zhong¹, Wang Yu-Sheng¹ and Chen Di².
¹Grassland Research Station, College of Animal Science and Technology, Northeast Agriculture University Harbin, Heilongjiang Province, P.R.of China, ²Birth Control Bureau of Xiangfang District in Haibin Haibin, Heilongjiang Province, P.R.of China.

8:20 **Loss of perennial grasslands on pasture lands due to woody encroachment on the Canadian Prairies** - Marianne Schutz¹ and David Walker¹. ¹Department of Environment and Geography Winnipeg, Manitoba.

8:40 **Effects of the summer wildfires of 1999, 2000, and 2001 on riparian areas in Great Basin in Nevada** - Kurtiss M Schmidt¹ and Sherman R Swanson¹. ¹Natural Resources and Environmental Science Reno, NV.

9:00 **Spatial dependence of fire spread and fire effects to fuel**

- heterogeneity** - Dirac Twidwell¹, Sam Fuhlendorf¹, Charles Taylor² and Dave Engle¹. ¹Plant and Soil Sciences Department Stillwater, OK, ²Texas A&M Agricultural Experiment Station Sonora, TX.
- 9:20 **Feral alfalfa in native rangeland: species composition, biomass, and soil seed bank** - Lan Xu¹, Arvid Boe², Patricia S Johnson³ and Kevin Kephart⁴. ¹Dept. of Biology and Microbiology, South Dakota State University Brookings, SD, ²Dept. of Plant Science, South Dakota State University Brookings, SD, ³Dept. of Animal and Range Sciences, South Dakota State University Brookings, SD, ⁴South Dakota Agricultural Experiment Station Brookings, SD.
- 9:40 **Break**
- 10:10 **Grazing and prescribed fire effects on plant communities in a California oak woodland rangeland** - Barbara Allen-Diaz¹, Ann Huber¹ and Kenneth Tate². ¹University of California Berkeley, Berkeley, CA, ²University of California Davis, Davis, CA.
- 10:30 **Basalt Milkvetch: A promising north American legume for rangeland rehabilitation, conservation, and forage production** - Douglas A Johnson¹, Kishor Bhattarai², Thomas A Jones¹, Dale R Gardner³ and James H Cane⁴. ¹USDA-ARS Forage and Range Research Lab Logan, UT, ²Department of Forest, Range, and Wildlife Sciences Logan, UT, ³USDA-ARS Poisonous Plant Research Lab Logan, UT, ⁴USDA-ARS Bee Biology and Systematics Lab Logan, UT.
- 10:50 **Effect of oak canopy and cattle grazing on *Nassella pulchra* in Sierra Nevada foothill annual grasslands** - Leslie Roche, Kenneth Tate and Kevin Rice. University of California, Davis, CA.
- 11:10 **Influence of resource availability on *Juniperus virginiana* expansion in a forest-prairie ecotone** - Amy Ganguli¹, David Engle² and Paul Mayer³. ¹Ecosystem Management Research Institute Seeley Lake, MT, ²Oklahoma State University Stillwater, OK, ³U. S. Environmental Protection Agency, ORD, NRMRL Ada , OK.
- TECHNICAL SESSION: Vegetation Management/Reclamation/Restoration II***
Hyatt, Plaza A – Wednesday, February 15, 8:00 AM – 11:30 AM
- Moderators: Mark Estes and Linda Hardesty
- 8:00 **Aminopyralid: A New Herbicide for Broadleaf and Invasive Weed Control in Rangeland and Pastures in Canada** - D. Hare¹, A. McFadden¹, W. McGregor¹, L. Juras¹, N. Satchivi¹ and G. Turnbull¹. ¹Dow AgroSciences Canada, Inc. Calgary, Alberta, Canada.
- 8:20 **Managing USA Rangeland Invasive Plants with Aminopyralid** - Vanelle Carrithers¹, Robert Masters¹, Halstvedt Mary¹, Celestine Duncan², Joe DiTomaso³, Robert Wilson⁴ and Steven Dewey⁵. ¹Dow AgroSciences, LLC,

- Indianapolis, IN, ²Weed Management Services, Helena, MT, ³University of California, Davis, CA, ⁴University of Nebraska, Scottsbluff, NE, ⁵Utah State University, Logan, UT.
- 8:40 **Vegetative response of mixed conifer stands to different types and frequencies of silvicultural treatment** - Glenn Mason, Terrell Baker, Jon Boren, Doug Cram and Brian Hurd. PO Box 30003 MSC-3AE Las Cruces, NM.
- 9:00 **Preemergence-applied herbicides aid sand bluestem establishment** - Robert Gillen¹ and Robert Masters². ¹USDA-ARS Woodward, OK, ²Dow AgroSciences, LLC Lincoln, NE.
- 9:20 **Effects of supplemented fall sheep grazing on a plant community dominated by Wyoming big sagebrush** - Ryan Woodland, Neil West and Frederick Provenza. Department of Forest, Range and Wildlife Sciences, Utah State University, Logan, UT.
- 9:40 **Break**
- 10:10 **Influence of Soil Nitrogen and Phosphorus on the Competitive Relationship between Medusahead and Squirreltail** - Kert Young¹, Jane Mangold², Michael Borman³, Michael Carpinelli⁴ and Jennifer Kling⁵. ¹Oregon State University Graduate Student, Corvallis, OR, ²Eastern Oregon Agricultural Research Center Burns, OR, ³Oregon State University, Corvallis, OR, ⁴67826-A HWY 205 Burns, OR, ⁵Oregon State University, Corvallis, OR.
- 10:30 **Increasing the non-grass component of native seedings** - Dwight Tober¹ and Merle Bennett². ¹USDA NRCS Plant Materials Program Bismarck, ND, ²North Dakota Natural Resources Trust Bismarck, ND.
- 10:50 **Restoration of a Winterfat (*Ceratoides lanata*(Pursh)) dominated plant community: assessment of four seedbed preparations** - Mark Estes¹ and Tamzen Stringham¹. ¹Dept. of Rangeland Ecology and Management, Oregon State University, Corvallis, OR.
- 11:10 **Plant Community Response Following Dry Forest Ecosystem Restoration** - Timothy Ross¹ and Reg Newman². ¹Ross Range and Reclamation Services Cranbrook, B.C, Canada, ²BC Ministry of Forests Kamloops, BC, Canada.

SYMPOSIUM

Riparian Monitoring: Quantitative Methods

Hyatt, Plaza B – Wednesday, February 15
8:00 AM – 11:30 AM.

Organizer: Sherm Swanson;
Watershed/Riparian & Rangeland
Assessment & Monitoring

- 8:00 **Why Monitor Riparian Areas?** - Sherm Swanson. University of Nevada Cooperative Extension State Range Specialist.
- 8:15 **Adaptive Livestock Management, and the Need for Monitoring** -

- Sandy Wyman. National Riparian Service Team Ecologist.
- 8:30 **What to Monitor and Why from Stream Functions to Desired Future Conditions** - Ron Wiley. National Riparian Service Team Leader.
- 8:45 **Greenline Monitoring Considerations** - Kent McAdoo. University of Nevada Cooperative Extension Northeast Nevada Area Natural Resources Specialist.
- 9:00 **Riparian Vegetation Monitoring – Accuracy and Precision** - Marc Coles-Ritchie. Pacfish –Infish Biological Opinion Research Team Botanist.
- 9:15 **Assessing Condition and Trend of mountain meadows in the Sierra Nevada, CA** - Dave Weixelman. Ecologist, Tahoe National Forest Nevada City, CA.
- 9:30 **Break**
- 10:00 **Multiple Indicator Monitoring of Streamside Livestock Grazing** - Ervin Cowley. Rangeland and Riparian Management Specialist, BLM Idaho State Office and/or Tim Burton, Fish Biologist, BLM Idaho State Office.
- 10:15 **Monitoring Water Quality** - Mark Vinson. Research Assistant Professor, Utah State University, Department of Aquatic, Watershed, and Earth Resources.
- 10:30 **Monitoring Fish Habitat** - Rick Henderson. Fish Biologist, Pacfish Infish Biological Opinion

Effectiveness Monitoring Program. USFS Forestry Sciences Lab, Logan, UT.

- 10:45 **Landbirds as Indicators of Riparian Wildlife Habitat Conditions** - Terry Rich. Partners in Flight National Coordinator, USFWS, Boise ID.
- 11:00 **University of Idaho Stubble Height Report and Resulting Agency Policies** - Bruce Fox, Director of Forest and Rangeland Management Region I USFS, and Dick Mayberry, BLM Rangeland Management Specialist Washington Office.

SYMPOSIUM

Grazing, Riparian, Cold Water Fish: Is Beneficial Coexistence Possible?
 Hyatt, Georgia A – Wednesday, February 15
 8:00 AM – 11:30 AM

Organizer: Wendell Gilgert; Wildlife Habitat Committee.

- 8:00 **Introduction** – Carolyn Nistler. Montana State University.
- 8:10 **Research on effects of grazing on fisheries: past mistakes and future remedies.** – Al Zale. Montana Cooperative Fishery Research Unit, USGS, Bozeman, MT.
- 8:40 **A Ranchers Perspective for balancing fish and grazing interests** – John Hyde.
- 9:10 **Effects of grazing management on terrestrial invertebrate subsidies to trout in Wyoming rangeland streams** - W. Carl Saunders¹ and

Kurt D Fausch¹. ¹Department of Fishery and Wildlife Biology Fort Collins, CO.

9:40 **Break**

10:00 **How topography and land use can influence the distribution of Lahontan cutthroat trout in a desert stream** - George Boxall¹, Guillermo R Giannico¹, Hiram W Li¹, Matthew Varner², ¹Department of Fisheries and Wildlife Corvallis, OR, ²Division of Renewable Resources Winnemucca, NV.

10:30 **Characteristics of Successful Livestock Grazing Systems for Streams in Northern Nevada** - Carol C Evans: Bureau of Land Management, Elko Field Office, Elko, NV.

11:00 **Influence of Riparian Vegetation on Stream Ecosystems and Water Temperature** - Wayne Elmore¹ and Stan Gregory². ¹Full Stream Consulting Prineville, OR, ²Department of Fish and Wildlife Corvallis, OR.

WORKSHOP

Who Wants to Beat Invasive Species?
Hyatt, Plaza C – Wednesday, February 15
9:00 AM – 10:30 AM

Co-Organizers: Carolyn Hull Sieg and Lori Hiding.

9:00 **Introduction**

9:05 **Who Wants to Beat an Invasive Species? The Game Show**

9:50 **Discussion and Brainstorming**

10:20 **Awarding of Prizes/Wrap-UP**

SYMPOSIUM

Grassbanks

Hyatt, Plaza C – Wednesday, February 15
10:30 AM – 11:30 AM

Organizer: Maria Sonett.

10:30 **So you want to start a grassbank?**
- Maria Sonett. The Nature Conservancy Heart Mountain Grassbank Lander, WY.

Grassbanks have the potential to be a powerful tool for range management professionals, ranchers, and conservation organizations to collaborate on projects that offer conservation benefits to both the land and the people making their living from the land. Interest in starting new grassbanking projects has led to the need for a frank discussion of what it might take to start and run such a project. In this presentation, I will define and discuss three grassbank models. I will discuss funding, public relations, and ranch management needs and strategies for selected projects with the would-be grassbanker in mind.

WORKSHOP

Statistics Workshop: Sampling
Hyatt, Cypress – Wednesday, February 15
8:00 AM – 11:30 AM

Co-Organizers: Sara Duke, Susan Durham, and Tom Popham.

This workshop will address issues which arise when planning research frequently referred to as “Observational Research” where observation is of what is found *in situ*, not the result of pre-planned treatments.

Workshop leaders will address many topics and explain why the analytical methods may be different from those used for designed experiments. The intention is to provide participants with an understanding of why these issues are important to planning and conducting quality research. Workshop participants are encouraged to bring specific questions or difficulties from their own work for discussion.

***Continued in afternoon**

WORKSHOP
Sustainable Rangelands Roundtable
Hyatt, Grouse – Wednesday, February 15
8:00 AM – 11:30 AM.

Co-Organizers: Dennis Child and Kristie Maczko.

Workshop participants will have an opportunity to identify and evaluate data collection methods for SRR's 27 Core Indicators, concluding with recommendations to SRR, government agencies, and NGOs partners about the best methods to use to most accurately depict long term trends in social, ecological, and economic aspects of rangeland sustainability. Sustainable Rangelands Roundtable leadership will present a brief overview of roundtable background and introduce the 27 Core Indicators and existing data sets, organized by criterion. Workshop participants then will break out into small groups for each criterion and report back to the large group with recommended data collection methods for each Core Indicator.

POSTER SESSION 4 - Range Management

Hyatt, Regency E & F – Wednesday, February 15, 9:00 AM – 11:30 AM

- 1 **Production of a Brush Management Manual for Western Canada** - Ronald Moss. AAFC/PFRA, Manitoba, Canada
- 2 **Implementing weed control with multi-species grazing** - Amy Hummer⁴, Michael Carpine Ili¹, Michael Crowder⁴, James Dobrowolski^{2,3}, Craig Madsen⁵ and Richard Schreckhise⁴. ¹USDA-NRCS Grants, NM, ²USDA-CSREES Washington, DC, ³Washington State University, Pullman, WA, ⁴Washington State University Tri Cities Branch, Richland, WA, ⁵Healing Hooves, LLC Edwall, WA.
- 3 **Responses buffel grass degraded pasture to roller chopping** - Luis Perez Romero, Juan Lopez Gonzalez, Reginaldo De Luna Villarreal and Luis De Leon Gonzalez. Domicilio conocido s/n Buenavista Saltillo, Coahuila, Mexico.
- 4 **Effects of seedbed characteristic and disturbance on native grasses establishment under arid conditions** - Luis Perez Romero, Eduardo Ruiz Fernandez, Reginaldo De Luna Villarreal and Juan Reynaga Valdez. Domicilio Conocido s/n, Buenavista Saltillo, Coahuila, Mexico.
- 5 **Compensatory mitigation involving energy development and livestock grazing on federal lands: examples from Wyoming** - Matthew Hoobler. Wyoming Department of Agriculture Cheyenne, WY.

- 6 **Livestock toxic plants on Sonoran rangelands** - Francisco Denogean¹, Martha Martin², Fernando Ibarra² and Salomon Moreno¹. ¹Economy Professors, Department of Administration, Unidad Regional Norte Santa Ana, Sonora, Mexico, ²Range Scientists, CECAR-INIFAP, Hermosillo, Sonora, Mexico.
- 7 **Photosynthetic characteristics of three varieties of buffelgrass in Santa Ana, Sonora, Mexico** - Fernando Ibarra¹, Felix Ayala², Martha Martin¹, Mark Hussey³, Byron Burson³, Alfonso Ortega³, Francisco Denogean² and Salomon Moreno². ¹Range Scientists, CECAR-INIFAP, Hermosillo, Sonora, Mexico, ²Assistant and Economy Professors, Universidad de Sonora, Santa Ana, Sonora, Mexico, ³Professor and Head, Department of Soil and Crop Sciences, Texas A&M University, College Station, TX.
- 8 **Establishment of browse species to restore productivity in rangelands of communal use in Sonora, Mexico** - Martha Martin¹, Fernando Ibarra¹, Francisco Denogean², Ernesto Gerlach² and Lorenzo Olivas². ¹Range Scientists, CECAR-INIFAP, Hermosillo, Sonora, Mexico, ²Economy Professors, Department of Administration, Unidad Regional Norte, Santa Ana, Sonora, Mexico.
- 9 **Sustainable Rangelands, Planning and Management in Hells Canyon (Prairie and Canyon Ecosystems)** - Michael Hale¹ and Dennis Sheehy². ¹International Center for the Advancement of Pastoral Systems, Joseph, OR, ²International Center for the Advancement of Pastoral Systems, Wallowa, OR.
- 10 **Changes on the steppes: Herder and livestock practices in Mongolia** - Batjav Batbuyan. Center for Nomadic Pastoralism Studies, Ulaanbaatar, Mongolia.
- 11 **Grazing evaluation of four indiangrass populations** - Rob Mitchell¹, Kenneth Vogel¹, Terry Klopfenstein² and Bruce Anderson². ¹USDA-ARS, Lincoln, NE, ²University of Nebraska, Lincoln, NE.
- 12 **Impacts of Stocking Rates on Pasture Dugout Water Quality** – George C Chu¹ and Lawrence Townley-Smith². ¹PFRA/AAFC, Edmonton, Alberta, Canada, ²PFRA/AAFC, Regina, Saskatchewan, Canada.
- 13 **Disappearance of residual dry matter on annual rangeland in the absence of grazing** - William Frost¹, James Bartolome² and Ken Churches³. ¹University of California, Cooperative Extension, Placerville, CA, ²Environmental Sciences, Policy and Management, University of California, Berkeley, CA, ³University of California, Cooperative Extension, San Andreas, CA.
- 14 **Extreme makeover, habitat edition: Fuels management treatments and Greater Sage-Grouse** - Lucinda Salo¹, Steven Hanser¹, Robert Unnasch² and David Pyke³. ¹USGS Forest and Rangeland Ecosystem Science Center, Boise, ID, ²The Nature Conservancy, Boise, ID, ³USGS Forest and Rangeland Ecosystem Science, Center Corvallis, OR.
- 15 **Leafy Spurge Impacts and Management on Native Prairie Rangeland** - Mae Elsinger¹, Erl

- Svendsen² and William Houston².
¹Agriculture and Agri-Food Canada,
 Prairie Farm Rehabilitation
 Administration, Brandon, Manitoba,
 Canada, ²Agriculture and Agri-Food
 Canada, Prairie Farm Rehabilitation
 Administration, Regina, Saskatchewan,
 Canada.
- 16 **Understory Response to Cutting,
 Seeding, and Chip Application in a
 Pinyon-Juniper Dominated
 Rangeland** - Tracy Benson^{1,2}, Hudson
 Glimp¹, Barry Perryman¹ and Robin
 Tausch³. ¹University of Nevada – Reno,
 Reno, NV, ²Resource Concepts, Inc.,
 Carson City, NV, ³USDA Forest
 Service, Reno, NV.
- 17 **Cimarron X-tra: Postemergence weed
 control in improved pastures and
 rangeland** - Michael Edwards, Robert
 Rupp, Eric Castner, James Harbour, C.
 William Kral and Lawrence Tapia.
 DuPont Crop Protection, Wilmington,
 DE.
- 18 **Aminopyralid: Global Opportunities
 For a New Dow AgroSciences
 Herbicide** - Robert Masters, Vanelle
 Carrithers, Donald Hare, Anita
 Alexander, Alberto Reichert, Neivaldo
 Caceres, Adrian Chemello and John
 Troth. Dow AgroSciences, LLC,
 Indianapolis, IN.
- 19 **Effects of elevated zinc on
 germination, growth and development
 of Russian knapweed and restoration
 species** - Chris Call and Christo Morris.
 Forest, Range & Wildlife Sciences
 Department, Utah State University,
 Logan, UT.
- 20 **Defoliation management of grazing-
 and hay-type alfalfas in grasslands** -
- John Hendrickson, John Berdahl and
 Mark Liebig. Northern Great Plains
 Research Laboratory, Mandan, ND.
- 21 **Natural Recovery of Industrial
 Activity on Public Lands in
 Southeastern Alberta- A Producer's
 Perspective** - Tracy Kupchenko¹, Alicia
 Hargrave² and Joel Heese¹. ¹SRD-
 Public Lands and Forests, Medicine Hat,
 Alberta, Canada, ²Hargrave Ranching
 Company Inc., Walsh, Alberta, Canada.
- 22 **Factors impacting survival and
 growth of big sage transplants into
 existing grass cover** - Mark Stannard.
 USDA Plant Materials Center, Pullman,
 WA.
- 23 **Development of a regionally adapted
 alkali sacaton population for seeding
 in southern Nevada** - Mary
 Hershendorfer¹, E Garner¹ and Gayle
 Marrs-Smith². ¹USDA- Natural
 Resources Conservation Service,
 Tucson, AZ, ²Bureau of Land
 Management, Las Vegas, NV.
- 24 **Homoclimates and Ecological
 Sustainability Simulation Model for
 Northeast Rangelands of Coahuila,
 México** - Iliana Hernández Javalera,
 Heriberto Díaz Solís, Silvia González
 Aldaco and Miguel Hernández Ventura.
 Domicilio Conocido, Buenavista,
 UAAAN Saltillo, Coahuila, Mexico.
- 25 **Huisache Control on the Rio Grande
 Plains** - Jason Hohlt¹ and Stan Reinke².
¹USDA Natural Resources Conservation
 Service, Alice, TX, ²USDA Natural
 Resources Conservation Service, Corpus
 Christi, TX.
- 26 **Cheatgrass seedbanks 30 years after
 the Hallelujah wildfire** - Dan Harmon,

- Dan Sanchez, Charlie Clements and James A Young. USDA-ARS, Reno, NV.
- 27 **Biological Control?: Thirty Year Trend In Med Sage and An Introduced Med Sage Weevil** - Jeffrey Miller¹ and Eric Coombs². ¹Department of Rangeland Ecology and Management, Corvallis, OR, ²Oregon Department of Agriculture, Salem, OR.
- 28 **Germination potential of cheatgrass in relation to disturbance** - Bruce Roundy¹, Jeanne Chambers² and Susan Meyer³. ¹Wildlife and Wildland Conservation Program, Brigham Young University, Provo, UT, ²USDA Forest Service, Rocky Mountain Station, Reno, NV, ³USDA Forest Service, Rocky Mountain Station, Provo, Utah .
- 29 **Risk model of common gorse (*Ulex europaeus* L.) for Oregon** - Kipp Johnson¹, Michael Johnson², Mounir Louhaichi¹ and Douglas Johnson¹. ¹Department of Rangeland Ecology and Management, Corvallis, OR, ²University of Southern California, Los Angeles, CA.
- 30 **Implementing Weed Control Through Multi-Species Grazing** - Craig Madsen¹, Michael Carpinelli², Amy Hummer³, Andrea Mann⁴, Donald Nelson⁵, Michael Crowder⁶ and James Dobrowolski⁵. ¹Healing Hooves, LLC Edwall, WA, ²USDA-NRCS, Grants, NM, ³Washington State University - Tri-Cities, Richland, WA , ⁴USDA-NRCS, Ephrata, WA, ⁵Washington State University Extension, Pullman, WA, ⁶Barker Ranch, West Richland, WA.
- 31 **Does functional group diversity in shrub-steppe communities reduce invasion?** - Eamonn Leonard¹ and Thomas Monaco². ¹FRWS Department, Utah State University, Logan, UT. ²USDA-ARS, Utah State University, Logan, UT.
- 32 **Managing Invasive Plant Infested Lands after Wildfire** - Monica Pokorny¹, James Hafer², Kirk Denny³ and James S Jacobs¹. ¹Montana State University, Bozeman, MT, ²Chief Dull Knife College, Lame Deer, MT, ³Northern Cheyenne Extension Service, Lame Deer, MT.
- 33 **Soil chemical changes associated with Russian knapweed invasions** - Sarah Tyrer¹, Ann Hild¹, Larry Munn¹, Brian Mealor¹ and Stephen Enloe². ¹University of Wyoming, Department of Renewable Resources, Laramie, Wyoming , ²University of Wyoming, Department of Plant Sciences, Laramie, WY.
- 34 **There goes the neighborhood...or does it? Population resilience to exotic invasions** - Brian Mealor and Ann Hild. University of Wyoming, Laramie, WY.
- 35 **Synergistic action of native plants and a stem boring weevil (*Ceutorhynchus litura*) for control of Canada Thistle (*Cirsium arvense*), an invasive weed** - Ángel Ferrero-Serrano¹, Ann Hild¹, Brian Mealor¹, Timothy Collier¹, Stephen Enloe² and Stephen Miller². ¹Dept. of Renewable Resources, University of Wyoming, Laramie, WY, ²Dept. of Plant Sciences, University of Wyoming, Laramie, WY.
- 36 **Vegetation response after roller chopping and buffelgrass seeding in a semiarid ecosystem of Argentina** - Carlos Ferrando, Lisandro Blanco,

Fernando Biurrun, Enrique Oriente, Dario Recalde, Emiliano Quiroga and Pedro Namur. INTA EEA La Rioja, Chamental, La Rioja, Argentina.

37 **Can the impact of broadleaf weeds and legumes on forage production in pastures be isolated?** - Danielle Gabruck and Edward Bork. Agricultural, Food, and Nutritional Science Department, University of Alberta, Edmonton, Alberta, Canada.

38 **Use of goats in Russian knapweed management** - Lesley Richman¹, Larry Larson² and Michael Borman². ¹Burns District, Bureau of Land Management, Burns, OR, ²Department of Rangeland Ecology and Management, Oregon State University, Corvallis, OR.

39 **Blue Mustard in Cheatgrass Communities** - James Young and Charlie Clements. USDA-ARS, Reno, NV.

40 **The use of goat grazing to biologically suppress Perennial Pepperweed** - Charlie Clements and James Young. USDA-ARS, Reno, NV.

41 **Population Dynamics Of Selected forbs on Oregon s High Desert treated with Plateau® herbicide** - Mounir Louhaichi¹, Lesley Richman², Douglas Johnson¹ and Michael Carpinelli³. ¹Department of Rangeland Ecology and Management, Oregon State University, Corvallis, OR, ²USDI/BLM Burns District, Hines, OR, ³USDA/ARS, EOARC, Burns, OR.

42 ***Bromus tectorum*: Interactive effects of atmospheric CO₂ and elevation ecotype on plant growth, tissue biochemistry, and tissue**

combustibility - Robert Blank¹, Lewis Ziska², James Reeves³, Robert White⁴ and Charlie Clements¹. ¹USDA-ARS, Exotic and Invasive Weed Research Unit, Reno, NV, ²USDA-ARS, Crop Systems and Global Change Laboratory, Beltsville, MD, ³USDA-ARS, Animal Manure and By-Products Laboratory, Beltsville, MD, ⁴USDA-FS, Forest Products Laboratory, Madison, WI .

43 **Effects of shade on behavioral and physiological responses of goats raised in the south of Thailand** - Wirawat Chaya, Apichart Rainchana and Penapa Nakpeng. Animal Production Technology Program, King Mongkut's Institute of Technology, Ladkrabang Chumphon Campus, Pathiu, Chumphon, Thailand.

44 **Prescribed Sheep Grazing to Control Cheatgrass and Medusahead and Facilitate Restoration of Annual Grasslands** - Lovina Roselle and Karen Launchbaugh. Rangeland Ecology and Management, University of Idaho, Moscow, ID.

45 **Seasonal Dynamics of Nutritional Value of Key California Chaparral Plants** - Nelmy Narvaez and Wolfgang Pittroff. Department of Animal Science, University of California, Davis, CA.

46 **Perennial Pepperweed: Cover, biomass, intake and nutritional properties in sheep** - Pelayo Alvarez and Wolfgang Pittroff. Department of Animal Science, University of California, Davis, CA.

Business Meeting
Fairmont, Pacific Ballroom – Wednesday,
February 15
1:30 PM – 3:00 PM