



## TECHNICAL PROGRAM

### MONDAY, Feb. 9th

#### 8am-10am: Plenary Session

Room: Steinbeck Ballroom (Monterey Conference Center--MCC)

#### 10:20am-5pm: Undergraduate Extemporaneous Speaking Contest

Rooms: Santa Monica and San Diego (Marriott)

#### 10:20am-Noon: Symposium: Producers Forum (Full Day)

Room: Ferrantes Bayview (Marriott)

Session Organizer: Cal-Pac Producer's Forum Committee

#### Session Description:

The Cal-Pac section and the California Grazing Lands Coalition are excited to bring two days of practicums highlighting range livestock production content for producers at the 2026 Annual Meeting in Monterey. We kick off the event on Sunday with a field day exploring Cowboy Corridors in a CA Central Coast context, and a stockmanship discussion and demonstration at a ranch setting and scale. Monday, we move inside to learn practical, in-the-field veterinarian skills for ranchers, discuss principles of building a low-input herd for profitable businesses and resilient landscapes, and a discussion with California and Hawaii ranchers who are navigating the complexities of Golden State and Island ranching.

#### AGENDA

10:20am-12:00pm: Building a low input herd for sustained profit and long-term resource sustainability:

1:20pm-3pm: Herd health diagnostics for producers

3:20pm -5pm: Ranchers as a Keystone Species: Culture, Ecology and Economics

### **10:20am-Noon: Symposium: Navigating Public Perception of Targeted Grazing**

Room: Bonsai II (Portola)

Session Organizer: Katherine White

Session Description: Targeted Grazing has gained popularity as a land management tool in recent years. In California, given the state's growing wildfire risk, many groups have turned to targeted grazing as a cost-effective and ecologically sensitive alternative to mechanical or chemical vegetation removal. Despite its benefits, the public remains generally unfamiliar with the practice. Effective communication and public engagement are critical to prevent misconceptions. This symposium will explore how rangeland managers can better connect with the public. Speakers in this session will include targeted graziers, agency personnel, and land managers who hire graziers to discuss bridging the gap between practice and perception.

#### AGENDA

### **10:20am-Noon: Symposium: Characterizing the Solar Savannah: Integrated Research Insights into a Novel Grazing Ecosystem**

Room: Colton II (MCC)

Session Organizer: Anna Clare Monlezun

Session Description: The solar savanna is a novel ecosystem where ecological function, solar energy generation, and animal performance are mutually prioritized. The integration of sheep grazing and solar PV is the most practiced form of "agrivoltaics." Despite its rapid expansion, we have a limited understanding of the layered ecological impacts of livestock grazing and solar PV infrastructure. Our long-term seven-year study uses traditional rangeland science methods to characterize the ecosystem dynamics within an agrivoltaic grazing system. Our research also seeks to understand how to responsibly shift from sheep to cattle integration on the solar savanna, and our research supports this agrivoltaic future.

#### AGENDA

10:20-10:35: The state of agrivoltaics grazing in research and in practice: Anna Clare Monlezun

10:35-10:50: Introducing the solar savanna: Nick de Vries

10:50-11:05: A rancher's experience with solar sheep grazing and research partnerships: John Benoit

11:05-11:20: Soil, vegetation, and microclimate dynamics in the solar savanna: Taylor Bacon

11:20-11:35: Using eddy covariance to understand carbon and water flux in a solar savanna: Rebecca Mitchell & Rob Clement

11:35-11:50: Modeling a novel ecosystem using the DayCent biogeochemical model: Keith Paustian

11:50-12:00: Q&A

## **10:20am-Noon: Symposium: Plot-based ecological site classification to support conservation grazing objectives in California rangelands**

Room: Bonsai I (Portola)

Session Organizer: Felix Ratcliff

Session Description: This session will highlight recent research into the development and application of plot-based ecological site classification at the scale of the ranch or ecological preserve. Of particular importance in California, where public Ecological Site Descriptions (ESDs) are unavailable or provisional for many rangeland areas, the session will explore methods for classifying ecological sites, their use for multiple-objective planning and decision-making, and specific applications for conservation, restoration, and fuel reduction. Presentations will highlight results from the San Diego Association of Governments (SANDAG)-funded grazing monitoring study in San Diego County, emphasizing the importance of conservation partnerships in building effective models.

### AGENDA

10:20am-10:40am: Introduction to data-driven ecological site classification – definitions, methods for development and applications to range management: Felix Ratcliff

10:40am-11:00am: History of ecological site model concept and the use of ecological sites in a management framework: James Bartolome

11:00am-11:15am: Multiple stakeholder coalitions to support effective ecological site model development and implementation: Sarah McCutcheon

11:15am-11:25am: Going from plot-based to landscape classification: Anson Tan

11:25am-11:40am: Using ecological site models to evaluate grazing impacts on biodiversity – Plants and Insects: Kaveh Motamed and Armando Valencia

11:40am-12:00pm: Using ecological sites and the Rangeland Analysis Platform (RAP) to guide adaptive grazing for vegetation conservation – a case study from the Jornada: Sheri Spiegel

## **10:20am-Noon: Symposium: Uncaged: How Bird-Friendly Ranching is Forging New Alliances on Rangelands**

Room: Redwood (Portola)

Session Organizer: Shana Risby, Senior Outreach Coordinator, Audubon Conservation Ranching

Session Description: Audubon's Conservation Ranching program is reaching new audiences by uniting ranchers, food advocates, bird experts, and conservationists through its "Grazed on Bird-Friendly Land" certification, a model that links healthy rangelands with bird populations and resilient food systems. This symposium will feature a panel of California-based collaborators sharing how strategic partnerships can create opportunities for ranchers, support sustainable sourcing for chefs, and advance grassland bird conservation. Together, these voices will highlight how food and birds intersect to inspire collaboration and strengthen both our landscapes and our food systems.

### AGENDA

10:20 – 10:45 a.m.: A Bird's Eye View of Audubon's Conservation Ranching Program Grace Ferguson, Program Manager, Audubon Conservation Ranching

10:45 – 11:05 a.m.: Stewarding Rangelands for Birds and People Joe Morris, Morris Grassfed

11:05 – 11:10 a.m.: Stretch break/ Guided break/ Movement break

11:10 – 11:30 a.m.: Partnering with Local Land Stewards for Bird Conservation - Monterey Audubon Society

11:30 – 11:50 a.m.: A Chef's Perspective to Land & Flavor Dennis Sydnor, Culinary Manager, Alchemist

11:50 – 12 p.m.: Group reflection

### **10:20am-Noon: Workshop: IYRP Workshop Action Planning for North America**

Room: Colton I (MCC)

Session Organizer: Layne Coppock

Session Description: This gathering will follow up on four previous SRM workshops held at Albuquerque, Boise, Sparks, and Spokane. The focus will be to refine a North American Action Plan for the 2026 International Year of Rangelands and Pastoralists (IYRP). Presentations will include project updates for the USA, Mexico, and Canada. Overall, the workshop will focus on how best to increase public awareness about rangelands and empower stakeholders to generate positive on-the-ground impacts for rangeland systems. This workshop will be organized across three parts on the same day.

#### AGENDA

##### PART 1:

10:20am-10:40am: Welcome and review of progress for 2025: Layne Coppock

10:40am-11:00am: Update on the IYRP North America documentary film project & Arizona celebrations; Barb Hutchinson

11:00am-11:20am: Update on an arts-based IYRP rangelands exhibit for your community—what's up, how to get one, and customization; Stephen Bramwell

11:20am-11:40am: Update on Mexico's strategy for the IYRP 2026; Javier Ochoa-Espinoza

11:40am-12:00pm: Update on the SRM President's Prize; Layne Coppock

### **10:20am-Noon: Contributed Oral Session: Virtual Fence 1**

Room: San Carlos IV (Marriott)

Dawson Uhl: Evaluating Virtual Fencing for Managing Cattle Grazing in Riparian Areas in the Northern Great Plains

Sean Kearney: Using near-real-time interactive maps for precision rangeland management: examples from the High Plains

Anthony Vorster: Integrating Virtual Fencing and Remote Sensing for Improved Pasture Design and to Characterize Grazing Patterns

Elias Velasquez Moreno: Assessing the impacts of virtual fence technology on grazing behavior, distribution, and growth performance on range beef cattle

Nicole Keefner: Virtual Fencing Applications: BLM California

**10:20am-Noon: Contributed Oral Session: Restoration 7**

Room: Los Angeles (Marriott)

Hunter Geist-Sanchez: Targeted species selection and seed sowing to slow bare ground expansion in rangelands

Seth Dettenmaier: Behaviorally Informed Conifer Management: Identifying Ecological Traps for Sage-Grouse to Guide Targeted Restoration

Michelle Jeffries: Improving the rationale for monitoring method selection: A systematic evaluation for rangelands

Shaelyn Rainey: Soil Health Changes During Native Grass Reclamation of Former Cropland

Josh De Santiago: Chain Harrowing, Seed Coating, and Microbial Inoculants to Improve Broadcast Seeding Success on Reclaimed Waste Rock Dumps

**10:20am-Noon: Contributed Oral Session: Invasives 2**

Room: San Carlos II (Marriott)

Josh Davy: Herbicide applications in California dryland perennial grasses improve forage yield and crop coverage

John Brock: Red brome grass and red sprangletop control with herbicides in a desert grasslands vegetation type.

Justin Luong: Mechanisms of multi-year secondary invasion across California grasslands

Derek Tilley: Defending Core Rangelands: New Resources to Reduce Conifer Encroachment in the Northwest Great Plains

Alex Stoneburner: Evaluating annual grass control with indaziflam at US National Parks in the desert southwest

**10:20am-Noon: Contributed Oral Session: Rangeland Plants and Forage 1**

Room: San Carlos I (Marriott)

Kelley Mundy: The Potential Effect of Environmental Changes on Herbicide Use in Managing Woody Plant Encroachment

Rosalie Terry: Change on the range: Characterizing tallgrass prairie plant community pathways between grazing states and the impact of nitrogen addition and insect loss

Melissa Burrell: Impacts of arbuscular mycorrhizal fungi on plants in degraded soils

Andrew Antaya: Ranch Reports: An Integrated Decision Support Tool to Estimate Forage Quantity and Quality for Land Managers

Massimiliano Shea: Seed and seedling functional traits reflect plant economic spectra within seven days of germination

### **10:20am-Noon: Contributed Oral Session: Fire Management/Fuels & Grazing 2**

Room: San Carlos III (Marriott)

Raechel Hunsaker: Wildfire Education in the Western US: Reviewing Precollege Standards and Opportunities for Integration

Martin Holdrege: Grazing as a Climate Adaptation Tool Leads to Regional Trade-offs Between Fire and Vegetation Outcomes in Sagebrush Ecosystems

Katherine Wollstein: Fire experience shapes perceptions of rangeland fuel conditions and their consequences

Marco Donoso: Community restructuring by fuel reduction treatments influences post-wildfire recovery in sagebrush ecosystems

Marc Horney: The California Vegetation Treatment Program (CalVTP) and Beyond: Expanding the pace and scale of vegetation treatment with prescribed herbivory

### **Noon-1:20pm: Lunch (On your own)**

### **1:20pm-3pm: Symposium: Producers Forum**

Room: Ferrantes Bayview (Marriott)

Session Organizer: Cal-Pac Producer's Forum Committee

Session Description:

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\*\*continued from 10:20am-Noon session

## AGENDA

1:20pm-3pm: Herd health diagnostics for producers

3:20pm -5pm: Ranchers as a Keystone Species: Culture, Ecology and Economics

### **1:20pm-3pm: Symposium: Livestock Foraging Behavior: Practical Use of Precisions Technologies for Grazing Animal Management**

Room: Bonsai I (Portola)

Session Organizers: Colin Tobin, Noah Davis

Session Description: The focus of this symposium is to showcase the applied use of emerging technologies available to livestock and land stewards. Off-the-shelf technologies have enhanced our ability to track, identify, and influence animal behavior across the landscape. This symposium will provide a valuable opportunity for professionals to engage and strengthen collegiality among users. Expected content will include research-based, private-sector, and federal applications of these working technologies. Skills covered in this interactive educational experience will include data collection and management techniques for on-animal sensors, as well as the practical use of technology in land management.

### **1:20pm-3pm: Symposium: Meeting the moment: current research to effectively scale targeted grazing for fire and invasive plant management**

Room: Bonsai II (Portola)

Session Organizers: Kelly Hopping, Briana Swette

Session Description: Interest in the use of targeted grazing by livestock as a vegetation management strategy is growing, and case studies on its application have proliferated. However, uncertainty remains about how the practice can be effectively and sustainably scaled up across environmental and institutional contexts. To advance understanding of targeted grazing's potential to manage invasive plants, fuels, and post-fire restoration, this session brings together field experiments, modeling, and regional syntheses not only of targeted grazing projects, but also of land managers' perspectives. Presentations will highlight emerging social and ecological considerations as targeted grazing continues to move into the mainstream.

## AGENDA

1:20pm-1:40pm: Evaluating effectiveness of small ruminant grazing in post-fire restoration: Dan Macon

1:40pm-2:00pm: Targeted grazing by sheep and cattle: a tool for modifying fire behavior: April Hulet

2:00pm-2:20pm: Performance of cattle grazing medusahead rangelands during the dormant season: Will Price

2:20pm-2:40pm: Estimating forage utilization under targeted grazing: challenges and opportunities: Kyle Palmquist

2:40pm-3:00pm: Social-ecological perspectives on cheatgrass targeted grazing with sheep: Kelly Hopping

## **1:20pm-3pm: Symposium: Rangeland Ethnobotany: Ecology and Management of Culturally Significant Plants**

Room: Colton II (MCC)

Session Organizer: Bryan Endress and Maren Peterson

Session Description: Millions of people rely on rangeland plants for more than forage; plants are used for food, medicine, fiber, and more; they are an important component people's livelihoods, food systems, economies, and cultural practices. Yet, research on culturally significant plants within the rangeland discipline is nearly non-existent, and research, management, policy and governance rarely acknowledge or address harvest, use, access and management issues. This symposium will: 1) provide a global overview of rangeland ethnobotany, 2) present current research addressing harvest, ecology, restoration and management, 3) explore current and emerging issues and themes, and 4) identify applied research opportunities that address needs, gaps and challenges.

### AGENDA

1:20-2:00: "Looking After the Meadows": Care of Traditional Root vegetables by First Nations of Southern Vancouver Island. Nancy Turner.

2:00-2:20: Tanán tk<sup>w</sup>átat & tawtnúk and future management plans. Rosa Arellanes and Cheryl Shippentower.

2:20-2:40: Treaty Rights and Access for Tribes to culturally significant medicines, foods, and materials. Colleen Friday

2:40-3:00: A First Foods approach to guide rangeland management and applied research. Bryan Endress

Session Continues at 3:30pm

## **1:20pm-3pm: Workshop: IYRP Workshop Action Planning for North America**

Room: Colton I (MCC)

Session Organizer: Layne Coppock

Session Description: This gathering will follow up on four previous SRM workshops held at Albuquerque, Boise, Sparks, and Spokane. The focus will be to refine a North American Action Plan for the 2026 International Year of Rangelands and Pastoralists (IYRP). Presentations will include project updates for the USA, Mexico, and Canada. Overall, the workshop will focus on how best to increase public awareness about rangelands and empower stakeholders to generate positive on-the-ground impacts for rangeland systems. This workshop will be organized across three parts on the same day.

\*\*continued from 10:20am-Noon session

### AGENDA

PART 2:

1:20pm-1:40pm; Update on IYRP in Nebraska--opportunity to raise grassland awareness; Bob Broweleit

1:40pm-2:00pm; Update on IYRP activities in Canada; Barry Irving

2:00pm-2:20pm; Update on IYRP proclamation and resolution activities; Mark Thorne

2:20pm-2:40pm; Update on building public awareness for global rangelands via social media and the World Cup 2026; Flavie Audoin

2:40pm-3:00pm; Discussion Q&A; Lauren Svejcar (moderator)

### **1:20pm-3pm: Workshop: Residual Dry Matter: its history, science, and new applications**

Room: DeAnza II (Portola)

Session Organizers: Matthew Shapero, Liz Duncan, Blake Duncan

Session Description: This multi-part session (1:20pm and 3:20pm) will first focus on the basic science of residual dry matter (RDM) and the reasons it became the most common tool utilized by rangeland managers in California. Next, the session will present recent developments in RDM science and forage analysis as it pertains to grazing management, wildlife habitat management, and fire fuel management. In the 3:20pm session, we will review practical sampling techniques for measuring RDM and biomass throughout the growing season and will discuss how ranchers and land managers can effectively integrate this data collection to meaningfully inform operational decision-making.

#### AGENDA

1:20-1:40pm: RDM history and science review: James Bartolome

1:40-1:55pm: RDM and understanding its disappearance during the summer months: Royce Larsen

1:55-2:10pm: RDM management as a tool for fire risk reduction: Matthew Shapero

2:10-2:25pm: RDM as a tool for managing wildlife habitat: Felix Ratcliff

2:25-2:40pm: RDM and water quality and erosion: [speaker invited]

2:40-3:00pm: Panel/Q&A Discussion

### **1:20pm-3pm: Contributed Oral Session: Soil Health 1**

Room: San Carlos IV (Marriott)

Nicki Nimlos: Global review of grazing beef cattle and methane emissions: More simultaneous animal and soil sampling needed to inform policy and management

Ember Bradbury: A mixed methods approach to tracking change in soil health, biodiversity, and relationships: a case study in Southwest Colorado

Alyssa Andrew: Sheep Grazing as a Multi-Benefit Agrivoltaic Strategy at Northeastern U.S. Solar Sites

Caroline Gatschet: Substrate induced microbial respiration and microbial community composition responses to timing of grazing on rangelands

Carrie Barker: Seeding of common native forbs into moss increases germination, height, and volume of individuals

### **1:20pm-3pm: Contributed Oral Session: Ecosystem Services Biodiversity 1**

Room: San Carlos III (Marriott)

Austin Housley: Effects of a trail for off-highway vehicles on the rare endemic St. Anthony Evening Primrose

Zeb Mendenhall: Mycorrhizal Associations in Old and New Growth Great Basin Bristlecone Pine (*Pinus longaeva*)

JEFFERY STACKHOUSE: Deciduous Oregon white oak and California black oak: Gaining understanding of successional challenges that lie ahead

Julie Finzel: Blue Oak Phenology, Vigor, and Mortality in Response to Climatic Variability

Jacob VanDress: Impacts of Plant Composition and Disturbance on the Western Prairie Fringed Orchid (*Platanthera praeclara*)

### **1:20pm-3pm: Contributed Oral Session: Ecosystem Services Wildlife 1**

Room: San Carlos I (Marriott)

Rae Nickerson: Evaluating the Effectiveness of Range Riders at Reducing Carnivore-Livestock Conflict Across the American West

Matt Barnes: Grazing Management and Low-Stress Herding to Prevent Livestock Predation by Grizzly Bears: A Case Study in the Rocky Mountains, USA

Jake Courkamp: The effects of invasive annual grass control on shrub leader growth and mule deer (*Odocoileus hemionus*) visitation in Boulder County, CO US

Shawn O'Neil: Advancing raven management tools for species of conservation concern in dryland ecosystems

John Scasta: Lessons learned and efficacy of BLM burros for sheep protection in Wyoming

### **1:20pm-3pm: Contributed Oral Session: Restoration 1**

Room: San Carlos II (Marriott)

Kirk Davies: Effects of indaziflam applied to control invasive annual grasses on diversity, biocrusts, and perennial vegetation

Caroline Havrilla: Effects of indaziflam herbicide on plant and soil communities in Colorado rangelands

Clayton Thompson: Woody Encroachment in Montana Rangelands – Long-term Costs and Benefits of Treatment

Molly Reichenborn: High bare ground connectivity reduces benefit of herbicide and Connectivity Modifiers (ConMods) on grass establishment in dryland restoration

Jeffrey Beck: Ten-Year Response and Recovery of Wyoming Big Sagebrush Communities to Mowing, Tebuthiuron, and Grazing Exclusion

**1:20pm-3pm: Contributed Oral Session: Remote Sensing & Modeling 4**

Room: Los Angeles (Marriott)

Michael Duniway: webDART: A web application for evaluating effectiveness of land treatments

Sarah McCord: Improving the Rangeland Analysis Platform with 10-m fractional cover maps

Brandon Kenneth Mayer: Georeferenced Range Integrated Design: Standardizing Field Monitoring for Remote Sensing Applications

Scott Morford: From NAIP to Canopy Height: A User-Friendly Deep Learning Model for Rangeland Structure Mapping

Tracy Shane: Use of uncrewed aerial vehicle (UAV) remote sensing, photogrammetry, and machine learning to evaluate grazing treatments for fuels reduction

**3pm-3:20pm: Afternoon Coffee Break in the Trade Show**

**3:20pm-5pm: Symposium: Producers Forum**

Room: Ferrantes Bayview (Marriott)

Session Organizer: Cal-Pac Producer's Forum Committee

Session Description:

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\*\*continued from 1:20pm-3pm session

AGENDA

3:20pm -5pm: Ranchers as a Keystone Species: Culture, Ecology and Economics

**3:20pm-5pm: Symposium: Meeting the moment: current research to effectively scale targeted grazing for fire and invasive plant management**

Room: Bonsai II (Portola)

Session Organizers: Kelly Hopping, Briana Swette

Session Description: Interest in the use of targeted grazing by livestock as a vegetation management strategy is growing, and case studies on its application have proliferated. However, uncertainty remains about how the practice can be effectively and sustainably scaled up across environmental and institutional contexts. To advance understanding of targeted grazing's potential to manage invasive plants, fuels, and post-fire restoration, this session brings together field experiments, modeling, and regional syntheses not only of targeted grazing projects, but also of land managers' perspectives. Presentations will highlight emerging social and ecological considerations as targeted grazing continues to move into the mainstream.

#### AGENDA

3:20pm-3:40pm: Current and future effects of targeted grazing on sagebrush plant communities: Catherine Schwartzmann

3:40pm-4:00pm: Social and institutional considerations for targeted grazing practice on National Forests: Briana Swette

4:00pm-4:20pm: Synthesizing science about the effectiveness of targeted grazing for controlling cheatgrass to inform federal decision-making and environmental analyses: Sarah Carter

4:20pm-4:40pm: An overview of targeted grazing activities on lands managed by the U.S. Forest Service: Matt Reeves

4:40pm-5:00pm: Moving into the mainstream? A panel discussion of targeted grazing: Dan Macon, April Hulet, Will Price, Kyle Palmquist, Kelly Hopping, Catherine Schwartzmann, Briana Swette, Sarah Carter, Matt Reeves

#### **3:20pm-5pm: Symposium: Rangeland Ethnobotany: Ecology and Management of Culturally Significant Plants**

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Session Description: Millions of people rely on rangeland plants for more than forage; plants are used for food, medicine, fiber, and more; they are an important component people's livelihoods, food systems, economies, and cultural practices. Yet, research on culturally significant plants within the rangeland discipline is nearly non-existent, and research, management, policy and governance rarely acknowledge or address harvest, use, access and management issues. This symposium will: 1) provide a global overview of rangeland ethnobotany, 2) present current research addressing harvest, ecology, restoration and management, 3) explore current and emerging issues and themes, and 4) identify applied research opportunities that address needs, gaps and challenges.

*\*\*continued from 1:20-3pm session*

#### AGENDA

3:20-3:40: Re-storying Rangeland Restoration and Relationships from a Tribal Perspective. Joseph Gazing Wolf

3:40-4:00: Wild plant use innovations as adaptive responses to food insecurity among agro-pastoralist communities in Karamoja, Uganda. Emiel de Meyer.

4:00-4:20: Blessing or Trap: Impacts of Caterpillar Fungus on Rural-urban Migrants' Livelihoods on the Qinghai-Tibetan Plateau. Zhiqi Zhang

4:20-4:40: Towards Inclusive Rangeland Research and Management. Maren Peterson

4:40-5:00: Panel Discussion

### **3:20pm-5pm: Workshop: IYRP Workshop Action Planning for North America**

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Session Organizer: Layne Coppock

Session Description: This gathering will follow up on four previous SRM workshops held at Albuquerque, Boise, Sparks, and Spokane. The focus will be to refine a North American Action Plan for the 2026 International Year of Rangelands and Pastoralists (IYRP). Presentations will include project updates for the USA, Mexico, and Canada. Overall, the workshop will focus on how best to increase public awareness about rangelands and empower stakeholders to generate positive on-the-ground impacts for rangeland systems. This workshop will be organized across three parts on the same day.

#### AGENDA

PART 3:

3:20pm-4:00pm; SRM section reports on IYRP activities; Layne Coppock (moderator)

4:00pm-5:00pm; Synthesis and way forward; Lauren Svejcar (moderator)

### **3:20pm-5pm: Workshop: Residual Dry Matter on the ranch: collection techniques, planning approaches, and incorporating RDM into management**

Room: DeAnza II (Portola)

Session Organizers: Matthew Shapero, Liz Duncan, Blake Duncan

Session Description: This multi-part session (1:20pm and 3:20pm) will first focus on the basic science of residual dry matter (RDM) and the reasons it became the most common tool utilized by rangeland managers in California. Next, the session will present recent developments in RDM science and forage analysis as it pertains to grazing management, wildlife habitat management, and fire fuel management. In the 3:20pm session, we will review practical sampling techniques for measuring RDM and biomass throughout the growing season and will discuss how ranchers and land managers can effectively integrate this data collection to meaningfully inform operational decision-making.

#### AGENDA

3:20-3:30pm: Facilitation/Introduction

3:30-3:50pm: RDM collection techniques, mapping, and the future of remote monitoring: Kaveh Motamed

3:50-4:10pm: RDM or what? Identifying the right metrics and thresholds to assess management objectives: Roxanne Foss

4:10-4:30pm: Incorporating RDM management into a cattle operation: Liz Duncan and Blake Duncan

4:30-5:00pm: Panel/Q&A Discussion

### **3:20pm-5pm: Ignite: Bolster the Range Profession**

Room: San Carlos IV (Marriott)

Session Organizers: Susan Edinger Marshall, Devii Rao

Session Description: Participants will share strategies and actions that support the Range Management Profession, covering a continuum from prospective students to seasoned professionals. This Ignite session followed by structured discussions will probe successful recruitment approaches, innovative educational opportunities for both undergraduates and mid-career professionals (i.e. supplementing allied disciplines with range coursework), cross-disciplinary training, certification and licensure processes, and other approaches. What are the qualifications for rangeland planning and monitoring? What defines a qualified person? How do we evaluate the effectiveness of strategies and actions taken to bolster the profession?

#### AGENDA

3:20 - 3:30 - Introduction to format and speakers - Devii Rao and Susan Edinger Marshall

3:30 - 3:40 - Rangeland Talent Pipeline Task Force – Karen Hickman

3:40 - 3:50 - SRM certifications - Tip Hudson (Cert. Prof. Range Manage.), TBD (Cert. Range Manage Consult.), Claudia Ingham (Targeted Grazing)

3:50 - 4:00 - California CRM and CRED classes - Devii Rao, Susan Marshall

4:00 - 4:10 - Univ. Nevada Reno 0454 Certificate - Lucas Phipps

4:10 - 4:20 - Academy for Rangeland Career Success (ARCS) program – Cindy Tusler and Chuck Butterfield

4:20 - 4:30 - Alberta Institute of Agrologists – Barry Irving

4:30 - 4:40 - How do other societies bolster their professions? - a tabular summary - Devii Rao and Susan Edinger Marshall

4:40 - 4:55 - Panel - What works across different regions and user groups - Delane Atcity (tribal), Sheila Barry (urban interface), TBD (public lands consultant/RCD/NRCS), Jeff Goodwin (predominantly private rangelands)

4:55- 5:00 - Wrap up

### **3:20pm-5pm: Contributed Oral Session: Ecosystem Services Biodiversity 3**

Room: San Carlos I (Marriott)

Lauren Porensky: Spray timing drives non-target effects of picloram herbicide in eastern Wyoming rangelands based on rancher-initiated research

John Yoder: Plant species composition differences in canopy and intercanopy zones of western juniper/low sagebrush tablelands

Bethany Robertson: Abundance and diversity of native bees and flowers across three rangeland grazing regimes in four years

Elana Feldman: Using grazing duration and timing as tools to manage ecosystem services related to plant biodiversity

Justin Luong: Solar microgrids create habitat heterogeneity on coastal prairies with varying effects on soil biogeochemistry, plant community composition and functional traits

### **3:20pm-5pm: Contributed Oral Session: Invasives 3**

Room: Santa Monica (Marriott)

Landon Neumann: Not all Woody Plants Negatively Impact Ecosystem Function in Rangelands

Lia Ossanna: Precipitation moderates the effect of native shrubs on invasive buffelgrass (*Pennisetum ciliare*) growth in the Sonoran Desert while local topography has less influence

Jacob Lucero: Shrub-facilitated invasion accelerates rangeland desertification

Shanna Gleason: Quantifying the Spatial Distribution of an Invasive Shrub (*Rosa bracteata*) Using Very Fine-Scale Resolution Imagery

Nicole Keefner: Overview of BLM California's Invasive Species Management Program

### **3:20pm-5pm: Contributed Oral Session: Restoration 2**

Room: San Carlos II (Marriott)

Natalia Rogova: Long-term disturbance shapes sagebrush steppe vegetation and management effectiveness in the Great Basin

Michael Otis Clyne: Accounting for life history in restoration seedings: A sagebrush steppe case study

Claire Williams: Woodland fuel reduction treatments impact key shrub species in sagebrush shrublands

Taylor Kaltenbach: Conifer Control in Sagebrush Steppe of Southwestern Montana: How Long Does It Last?

Carl Lundblad: Evaluating landscape-scale conifer removal efficacy for sagebrush ecosystem restoration via an indicator species approach with greater sage-grouse

### **3:20pm-5pm: Contributed Oral Session: Remote Sensing & Modeling 3**

Room: Los Angeles (Marriott)

Gonzalo Irisarri: Regional Patterns of Forage Crude Protein Shape Individual Weight Gain Across the North American Great Plains Rangelands

Hailey Melzow: Cracking the code of woody biomass estimation in rangelands: lessons from spaceborne lidar and machine learning

Luz Vigabriel Navarro: Remote Sensing and Machine Learning for Grassland Biomass Estimation in Central Texas Rangelands

John Severson: Quantifying vegetation state transition probabilities following fire and drought in the Upper Colorado River Basin

Erika Peirce: Considerations for ranchers using remotely sensed production and standing biomass products in support of their management of rangeland ecosystems with changing vegetation cover

### **3:20pm-5pm: Contributed Oral Session: Grazing**

Room: San Carlos III (Marriott)

Amanda Shine: Forty years of grazing (or not) on Conservation Reserve Program lands in the Texas Panhandle: what are the legacy effects on grassland birds, soils and vegetation communities?

Sean Di Stéfano: Rescuing Ecological Legacies: Linking Historical Grazing Records to Contemporary Rangeland Management at the SDSU Cottonwood Field Station

Garrett Keating: Influences of grazing management and floral resources on bumblebee occupancy in central Montana rangelands

Brett Blum: Two steps forwards and one step back: A conceptual model to leveraging historic data sets and emerging technologies on the Santa Rita Experimental Range

Billy Freeman & Brian Fagundes: Compost Application and Native Species Establishment on Sierra Foothill Rangelands: A Healthy Soils Program Demonstration Project

## **TUESDAY, Feb. 10th**

**8am-9am: Special Morning Coffee Break in the Trade Show**

**9am-10am: Plenary Session**

Room: Steinbeck Ballroom (MCC)

**10am-10:20am: Morning Coffee Break in the Trade Show**

**10:20am-Noon: Symposium: RTEC: The practical, applied use of drones in rangeland restoration and revegetation**

Room: Redwood (Portola)

Session Organizer: Beth Newingham and Kevin Gunnell

Session Description: New technologies are revolutionizing the way that we work and think about land management. In this symposium we will focus on drones and their practical use in restoration and revegetation efforts with an in-depth conversation about the potential and realities of using drones for on the ground landscape scale management. Topics will span the breadth of planning and implementing herbicide and seeding projects with drones, as well as navigating the necessary policy requirements of such projects.

#### AGENDA

10:20am-10:40am: (Topic - The evolution and current state of drone technologies for use in land management): Tracy Shane, PhD, University of Nevada Reno

10:40am-11:00am: (Topic - Policy and regulations on the use of drones for land management.): Alexander Ryan, Agrispray Drones, Director of Regulations and Policy (Virtual)

11:00am-11:20am: (Topic - The use of drones for seeding projects.): Trevor Larsen, Wild Ass Aerial Seeding and Spraying

11:20am-11:40am: Active Sagebrush rangeland restoration with herbicides through drone applications: Beau Miller, Corteva

11:40am-12:00pm: Panel Discussion and Q&A

#### **10:20am-Noon: Symposium: Global Herd, Shared Knowledge: Integrating Inclusive Practices in Rangeland Education**

Room: Colton II (MCC)

Session Organizer: Evan Tanner

Session Description: This session explores effectively embedding Diversity, Equity, and Inclusion (DEI) principles into rangeland education across multiple levels: K-12, higher education, and public outreach. Presenters will highlight case studies that promote inclusive learning environments and broaden participation in rangeland science. Emphasis will be placed on culturally responsive pedagogy, equitable access to resources, and collaborative partnerships with underrepresented communities. Attendees will gain insights towards impactful educational practices that foster a more inclusive future in rangeland stewardship.

#### AGENDA

TIME: 10:20-10:35 Pa' la Tierra, Pa' la Gente: Building Belonging in Land Stewardship: Masi Mejia

TIME: 10:35-10:50 The Story of Old Salt Co-op: Modeling Agriculture Worth Its Salt : Cole Mannix

TIME: 10:50-11:05 Discovering Your Path! Tribal Students Program: Kari Emm

TIME: 11:05-11:20 Inclusive Classrooms – An Environment Where Everyone Learns About Agriculture and Natural Resources: Milton Newberry III

TIME: 11:20-12:00 Discussion Panel

#### **10:20am-Noon: Symposium: The Wrangler, Ringer, and Gaucho's Assistant: Exploring the Science of Sensor and Surveillance Technologies Across Extensive Grazing Landscapes Worldwide**

Room: Colton III (MCC)

Session Organizers: Dr Thomas Williams, Dr Kieren McCosker

Session Description: Extensive grazing systems worldwide pose unique challenges to livestock and rangeland management. Their scale and remoteness limit direct observation, reducing herd managers' ability to respond quickly or apply timely interventions. Additionally, factors that are affecting production or management may be undervalued or go unrecognized due to limited monitoring and feedback.

This symposium will present recently completed and ongoing digital rangeland and livestock research initiatives from the United States, Australia, and other regions, focusing on addressing production constraints in free-grazing systems. Presentations will highlight innovative approaches that are transforming capacities to detect and interpret animal behaviour, environmental conditions, and landscape-scale dynamics. These tools provide new visibility into complex grazing environments, supporting sustainable rangeland stewardship, and improving production and welfare outcomes in low-input systems.

### AGENDA

Dr Thomas Williams - How much is enough? Exploring sensor resolution trade-offs for social, spatial metrics in extensive livestock systems

Dr Kieren McCosker - Can Australian Cattle Handle the Outback Heat? Assessing the Impact of Heat Load on Productivity, Performance, and Grazing Behaviour in Australia's Extensive Rangelands

Emeritus Professor Derek Bailey – Principal Research Scientist, Deep Well Ranch

### **10:20am-Noon: Workshop: Not If, but When: Preparing for Foreign Animal Disease on Public and Tribal Rangelands**

DeAnza II (Portola)

Session Organizer: Dan Macon

Session Description: Foreign animal diseases (FADs), like foot and mouth disease, present unique challenges for producers and range managers who work on public and tribal rangelands. Livestock owned by multiple producers may be run in common. Interactions with wildlife, which may be susceptible reservoirs for FADs, complicate control efforts. Stop movement orders and other containment efforts may conflict with grazing permit terms or require emergency provisions (and movement permits) for on-range feeding. This workshop will provide range managers, ranchers, and extension professionals with updates on state and federal containment plans, as well as scenario planning activities designed to encourage collaborative planning efforts.

### AGENDA

10:15am: Setting the Stage: Why Collaboration is Critical in FAD Outbreaks: Dan Macon, UC Cooperative Extension

10:35am: Sheep and Beef Secure Food Supply Plans: Dr. Rosie Busch, UC Davis Sheep and Goat Extension Veterinarian

11:05am: Partnerships and Results of Scenario Planning: Panel Discussion

Gilbert Jackson, US Forest Service Rangeland Program Manager (invited)

Brian Thrift, Bureau of Land Management Legislative Affairs Specialist (invited)

Dr. Paul Sciglibaglio, USDA APHIS (invited)

Dr. Kavishti Korkoram, California Department of Food and Agriculture

Dr. Pete Rolfe, Nevada Department of Agriculture (invited)

1:20pm: Producer Panel: Bronson Corn (New Mexico), Julie Van Winkle (Colorado)

2pm: Wildlife Considerations: Zach Mills, California Department of Fish and Wildlife, Dr. Nate LaHue, Nevada Department of Wildlife (invited)

2:30pm: Foreign Animal Diseases on Tribal Rangelands: Delane Atcitty, Indian Nations Conservation Alliance

3:20pm: Breakout Groups – Outbreak Scenarios

### **10:20am-Noon: Workshop: Young Producers Forum**

Room: Ferrantes Bayview (Marriott)

Session Organizer: YPC YPF Committee

Session Description: The Young Professionals Conclave Young Producers Committee is excited to host a workshop focusing on developing skills and expanding knowledge for young producers and professionals. The workshop will bring to the annual meeting hands-on learning

#### AGENDA

10:20am-10:30am: Welcome to the Workshop: Committee Chair

10:30am-11:40am: Stall of Wisdom: Breakdown of peer's skill they use and wish to share

11:40am-12:00pm: Discussion & Closing Remarks: Committee Chair

### **10:20am-Noon: Ignite: Grazing lands tools for conservation planning and assessment: recent research and products from the NRCS Conservation Effects Assessment Project**

Room: Ironwood (Portola)

Organizer: Mitchel McClaran

Description: US ranchers and grazing lands managers need tools to inform them of emerging threats to production and to assess the outcomes of management decisions. The USDA-NRCS Conservation Effects Assessment Project on grazing land works with partners across the US to develop decision-support tools for landowners and conservation planners. This session will highlight efforts to understand how range managers make decisions about conservation practices, develop tools to address threats to production, including wind and water erosion and woody plant encroachment, assess restoration outcomes, and develop systems to link tools and approaches to make data and rangeland knowledge more accessible to users.

## AGENDA

10:20am-10:25am: Introduction: Mitch McClaran

10:25am-10:30am: Understanding Landowner Motivations to Change: David Toledo

10:30am-10:35am: Landscape Data Commons for Decision Support: Nick Webb

10:35am-10:40am: The BLM Assessment, Inventory, and Monitoring (AIM) Strategy: Emily Kachergis

10:40am-10:45am: Panel Discussion: Mitch McClaran

10:45am-10:50am Rangeland Brush Estimation Tool (RaBET) for Detecting Woody Plant Encroachment: Chandra Holifield Collins

10:50am-10:55am: Enhancing RaBET: Identifying the Encroaching Woody Species: Cindy Norton

10:55am-11:00am: Soil Response to Riparian Restoration: Kendall Beals

11:00am-11:05am: Soil Retention Impacts on Water Balance and Vegetation: Dana Lapides

11:05am-11:15am: Panel Discussion: Mitch McClaran

11:15am-11:20am: rSVI-Wind: Rangeland Soil Vulnerability Index for Wind: Brandon Edwards

11:20am-11:25am: Treatment Effects on Soil Erosion from Wind: Ron Treminio

11:25am-11:30am: Spatial Implementation of AERO: Saroj Dhital

11:30am-11:35am: Panel Discussion: Mitch McClaran

11:35am-11:40am: rSVI-Water: Rangeland Soil Vulnerability Index for Water: Haiyan Wei

11:40am-11:45am: Accounting for Snow in RHEM: Patrick Broxton

11:45am-11:50am: NRI-RHEM (Rangeland Hydrology and Erosion Model) Erosion Modeling: Mariano Hernandez

11:50am-12:00pm: Panel Discussion: Mitch McClaran

### **10:20am-Noon: Symposium: People Before Pastures: Building the Core of Regenerative Agriculture**

Room: DeAnza I (Portola)

Session Organizer: Wayne Knight

Session Description: For newcomers to regenerative agriculture, it is easy to romanticize regenerative grazing as mimicking ancient wild herds. The reality is far more complex, involving risk, production challenges, social pressures, and human dynamics. Holistic Management is often mistaken for grazing management, but it is better understood as a Whole Management process. This session highlights the importance of addressing the “people” side of agriculture first, showing how beginning with the end in mind—balancing business, ecological, and family wellbeing—builds lasting success.

## **10:20am-12:20pm: Ignite: The 12 global themes of the International Year of Rangelands and Pastoralists (IYRP2026)**

Room: Colton I (MCC)

Organizers: Maryam Niamir-Fuller and Maria Fernandez-Gimenez

Session Description: Objectives of the IYRP 2026 are to raise awareness about the value of healthy rangelands and sustainable pastoralism, generate new knowledge, and positively impact laws and policies. The IYRP Global Alliance has adopted 12 themes, one for each month of 2026, that capture the full spectrum of sustainability - social, economic, environmental and governance. During 2024-25 special IYRP Working Groups consisting of scientists, practitioners and pastoralists developed key recommendations for each theme.

The Ignite Session will review these key messages, pointing out challenges and opportunities across the globe, and offering practical solutions for stakeholders to adopt in the coming decade. The first segment will give an overview and discuss economic aspects of production. The second segment will look at land and resource rights, indigenous knowledge, and pastoralist women. The third segment will cover climate variability, biodiversity and rangeland restoration. The final segment will highlight innovative solutions, pastoralist youth, and the future of rangelands and pastoralism.

### AGENDA

10:20-10:23 Introduction and session overview (M. Fernandez-Gimenez)

10:24-10:29 IYRP Theme: Who are pastoralists and what are rangelands? (M. Niamir-Fuller, Global Secretariat, IYRP Global Alliance, USA)

10:30-10:35 IYRP Theme: Livelihoods and economics (Serena Ferrari)(Virtual) (Socio-economist, UMR SELMET - Systèmes d'Élevage Méditerranéens et Tropicaux, CIRAD, Hosted by International Livestock Research Institute in Ethiopia)

10:36-10:41 IYRP Theme: Services and infrastructure by and for pastoralists (Jonathan Davies) (virtual) (IYRP Global Alliance Working Group Coordinator, UK)

10:42-10:47 IYRP Theme 9: Benefits to society (Pedro Herrera)(virtual) (Silvopastoralism expert at the COFO WG on Drylands Forests and Agrosilvopastoral Systems, Food and Agriculture Organization of the United Nations (FAO)

10:48-10:53 Q&A

11:54-10:59 IYRP Theme: Mobility, land and water security (Mark Moritz, Professor and Wicked Scientist, Department of Anthropology, The Ohio State University, USA)

11:00-11:05 IYRP Theme: Pastoralist women (Tungalag Ulambayar)( Director of Zoological Society Luujin, Mongolia)

11:06-11:11 IYRP Theme: Indigenous knowledge, culture and innovation (Anders Oskal)( Secretary General, World Reindeer Herders and Executive Director of the International Centre for Reindeer Husbandry, Norway)

11:11-11:16 Q&A and Discussion 2

11:17-11:22 IYRP Theme: Climate and resilience (Carmen Jaquez)(Virtual)(Mercy Corps)

11:23-11:28 IYRP Theme: Biodiversity and ecosystem services (Alexis Bonogofsky, Director of Sustainable Ranching Initiative, WWF-US)

11:29-11:34 IYRP Theme: Sustainable rangeland uses and restoration (Sairandhri Lapalikar)(Virtual)(Programme Officer, Forest and Grassland Team, Centre for Conservation Action, IUCN, Washington DC)

11:34-11:39 Q&A 3

11:40-11:45 IYRP Theme: Pastoralist youth (Elena Chen)(PhD candidate Yale School of Forestry)

11:46-11:50 IYRP Theme: Innovative solutions for a sustainable future (Igshaan Samuels)(Virtual)(Biodiversity & Conservation Biology, University of the Western Cape, Cape Town, South Africa)

11:50-12:00 Q&A and Discussion

### **10:20am-Noon: Contributed Oral Session: Virtual Fencing 2**

Room: San Carlos III (Marriott)

Bryan Murray: Virtual fencing technology maintains the health and increases the structural heterogeneity of rangeland vegetation

Theo Michaels: Virtual Fencing is an effective tool for grassland bird community conservation in tallgrass prairies

Joshua Wianeki: Comparison of the impacts of grazing technologies on forage utilization in an intensive grazing system

Flavie Audoin: Virtual Fencing Technologies: A Comparative Overview of Leading Companies

Hanifi Otgun: Virtual Fencing: Does it Make Cents?

### **10:20am-Noon: Contributed Oral Session: Soil Health 2**

Room: San Carlos II (Marriott)

Ava-Rose Beech: Novel management strategies in California annual rangelands: Linking soil microbial diversity, plant community composition, and forage productivity

Joseph G. Toman: Developing a plant-driven landscape assessment in Mixed-grass Prairies: Implications for soil organic carbon and climate-smart grazing management

Kerri Minatre: Soil responses to grazing and fuel reduction treatments in pinyon-juniper woodlands

Lindsey Stone: Predictive Mapping of the Moss Component of Biological Soil Crusts

Lea Condon: The best restoration is one that does not need to happen: Looking towards land management that maintains biological soil crusts.

## **10:20am-Noon: Contributed Oral Session: Ecosystem Services Biodiversity 2**

Room: San Carlos I (Marriott)

Lubna Hassan: Sudan's Rangeland Ecosystems: A Cornerstone for Livelihoods, Economic Growth, and Global Food Security

Mounir Louhaichi: Silvopastoral Systems Enhancing Livestock Productivity and Ecosystem Restoration in the Southern Mediterranean Basin

Remy Sutherland: Stocking rate modulates spatial scale effects in the fire-grazing interaction: Implications for grassland biodiversity

Jacob Harvey: Upland Grazing Strategies in the Nebraska Sandhills: Long-Term Effects on Biomass and Species Composition

Kyndra McGovern: Patterns of Seed Dispersal within Tamaulipan Thornscrub Across a Gradient of Urban and Forested Landscapes

## **10:20am-Noon: Contributed Oral Session: Ecosystem Services Carbon 1**

Room: San Carlos IV (Marriott)

Jocelyn Torres: Seasonal Variation of Enteric Methane by Beef Cows Grazing in Wyoming Sagebrush Rangelands

A. Joshua Leffler: Methane consumption in a South Dakota rangeland does not depend on short- or long-term grazing management

Edward Raynor: Enteric methane emission classification and ranking of growing steers in the western Great Plains

Seren Bagcilar: Cheatgrass (*Bromus tectorum*) invasion outpaces fuel treatment effects on shrubland ecosystem carbon stocks in the Intermountain West, USA

Walter Wafula: When to Graze: Aligning Livestock Herbivory with Precipitation Cycles

## **10:20am-Noon: Contributed Oral Session: Ecosystem Services Water**

Room: Santa Monica (Marriott)

Ed Rhodes: Déjà vu: Are we heading towards another Dust Bowl on the Southern High Plains?

Nicole Havrilchak: Runoff water quality and hydrology immediately following compost amendment in an annual grass-dominated rangeland

Brian Morra: Fire effects on plant-available water and timing of seed germination in the Great Basin USA

Maria Iglesias-Thome: Water use of mature western juniper (*Juniperus occidentalis*) in Central Oregon, USA

Carlos Ochoa: Findings of a long-term study on the hydrological response to western juniper removal

### **10:20am-Noon: Contributed Oral Session: Fire Management/Fuels & Grazing 4**

Room: Los Angeles (Marriott)

Devan McGranahan: Remotely-sensed burn severity tracks with measured fire behavior, and is similar across prescribed burns and wildfires in semi-arid rangeland

Claire Tortorelli: To burn or to mow? Fuel reduction treatments in mule deer migration corridors

Amy Symstad: Weather conditions before, the day of, and following prescribed fire affect outcomes in northern mixed-grass prairie

Kay Strain: A synthesis of shifting Great Basin fire regimes

Keith Harmoney: Effects of Two Central Kansas Dormant Season Wildfires

### **10:20am-Noon: Contributed Oral Session: Human Dimensions 1**

Room: San Diego (Marriott)

Cory Farnsworth: 53 Years of Utah High School Range Camp

Zubair Barkat: Amplifying Women's Voices in Rangelands: AI, Digital Narratives, and Standpoint Theory

Melissa Shehane: Developing the future of rangelands and professionals: A High-impact Professional Master's Program

Melissa Shehane: Developing Agents of Change in Secondary Education, Higher Education, and Natural Resource Outreach

Melissa Shehane: Preparing the Next Generation of Rangeland Stewards through High-impact Internships: A Closer Look at an Internship Program Design

### **Noon-1:20pm: Lunch & Learn Session (Hosted lunch for ALL meeting registrants!)**

### **1:20pm-3pm: Symposium: Five Years of 3M: Monitoring Impacts of Grazing Management Across Ecological and Socioeconomic Dimensions**

Room: Redwood (Portola)

Session Organizer: Paige Stanley

Session Description: Grazinglands are dynamic social-ecological systems, requiring interdisciplinary approaches to study the land, people, and management together. The 3M (Metrics, Management, and Monitoring) project is a five-year, multi-institutional effort exploring how grazing management influences soil health, ecosystem function, producer wellbeing, and its socioeconomic drivers across both experimental and 58 commercial cow-calf operations. This half-day session will feature results from 13 scientific teams across biophysical and socioeconomic disciplines, highlighting findings from five years of data collection across

diverse U.S. grazinglands. Presentations will focus on cross-cutting themes and lessons learned from coordinating data collection, analysis, and interpretation in a large-scale, collaborative research network.

### AGENDA

1:20-1:34pm: Metrics, Management and Monitoring (3M); An Introduction and Path Forward for Science and Industry: (Jason Rowntree)

1:34pm-1:43pm: From Great Lakes to Great Plains: Grazing Management Across the 3M Network: (John Derek Scasta)

1:43pm-1:52pm: From Great Lakes to Great Plains: Grazing Management Across the 3M Network: (Joao Sacramento)

1:52pm-2:01pm: From Great Lakes to Great Plains: Grazing Management Across the 3M Network: (Isabella Maciel)

2:01-2:16pm: Quantifying the Art of Grazing: Building a Grazing Management Continuum: (Jeff Goodwin)

2:16pm-2:31pm: Establishing the Baseline: Soil Carbon Variability and Depth Dynamics in 3M Soils: (Erica Patterson)

2:31pm-2:46pm: Insights from 3 years of soil moisture monitoring in diverse grazing ecosystems: (Alex Kuhl)

2:46–3:00: Round 1 Q&A: (All)

3:00–3:20: BREAK

### **1:20pm-3pm: Symposium: Exploring Habitat Conservation Economics and Community Satisfaction Related to Lesser Prairie Chicken (LPC) Management in the Southern Great Plains**

Room: Ironwood (Portola)

Session Organizer: Kristie Maczko

Session Description: Community satisfaction seeks to identify community connections to its natural environment. A survey in Kansas, New Mexico, Oklahoma and Texas was conducted to establish the association between satisfaction and attitudes toward environment, with measures of knowledge concerning the Lesser Prairie Chicken (*Tympanuchus pallidicinctus*). Ranch economics and economic impacts were also assessed in these states. Researchers sought to determine how attitudes about local environment, conservation, ranching/agriculture, and a local species (the LPC) affect community satisfaction. Secondary questions addressed whether strong opinions and values for conservation, ranching, and species management engender support for practices including brush removal, prescribed burning, and prescribed grazing.

### AGENDA

1:20pm: Community Satisfaction as a Nonmonetary Measure of Conservation Benefits: Background, Survey Instrument, Sample, Process, Results, Next Steps – Aaron Harp, PhD, Rangelands Roundtable

1:40pm: Ranch economics of Lesser Prairie Chicken Habitat Conservation in the Southern Great Plains – Jessica Windh, PhD, University of Idaho

2:00pm: Using IMPLAN to Evaluate Economic Impacts and Elements of Community Satisfaction Assessment – David “Tex” Taylor, PhD, Rangelands Roundtable

2:20pm: SocialMapper: Applying a Tool for Evaluating Community Characteristics, Proximities, and Interrelationships – Chris Mihlar, PhD, USDA Forest Service

2:40pm: Questions and Discussion

**1:20pm-3pm: Workshop: Prairie Project infographics – High-impact resources for education and outreach**

Room: Colton III (MCC)

Session Organizers: Laura Goodman, X. Ben Wu

Session Description: This workshop will have 3 parts: (1) an overview of the expanding collection of infographics on the Prairie Project Facebook page (<https://www.facebook.com/prairierestored>) and design principles to make current science and evidence-based practices accessible to practitioners, students, and general public; (2) rapid use-case sharing by a diverse group of educators and extension/agency colleagues on effective use of these infographics in their classes and outreach programming; and (3) participants work in groups to brainstorm the use of specific infographics in their own classes and programming, discuss challenges and solutions, and identify topics for new infographics to support their teaching and outreach efforts.

AGENDA

1:20 – 1:40 The Prairie Project Infographic Collection: Common Topics and Design Principles for Evidence-Based Visuals

Speaker Names: Laura Goodman, Kayla Moss

1:40 – 2:20 Use-Case Scenarios of Infographics for Collegiate, Secondary Education, and Extension Programming

Speakers: Ben Wu, Sam Fuhlendorf, Jeff Goodwin, Amour Beals, Ryan Benjamin, Mitch Stephenson, Morgan Treadwell, Bryan Yockers, Dana Zook, Laura Goodman

2:20– 2:40 Workshop Session: Ideas to incorporate infographics in the classroom and extension programming, challenges, solutions, and additional infographic ideas for rangeland misconceptions and misunderstandings.

Moderator: Ben Wu, Laura Goodman, Kayla Moss

2:40 – 3:00 Wrap-up Discussion: Ideas to Expand to Broader Audiences with Evidence-Based Science Infographics

Moderator: Ben Wu, Laura Goodman, Kayla Moss

**1:20pm-3pm: Workshop: Not If, but When: Preparing for Foreign Animal Disease on Public and Tribal Rangelands**

Room: DeAnza II (Portola)

Session Organizers: Dan Macon, Roselle Busch, Gary Mccuin, Tracy Shane

Session Description: Foreign animal diseases (FADs), like foot and mouth disease, present unique challenges for producers and range managers who work on public and tribal rangelands. Livestock owned by multiple producers may be run in common. Interactions with wildlife, which may be susceptible reservoirs for FADs, complicate control efforts. Stop movement orders and other containment efforts may conflict with grazing permit terms or require emergency provisions (and movement permits) for on-range feeding. This workshop will provide range managers, ranchers, and extension professionals with updates on state and federal containment plans, as well as scenario planning activities designed to encourage collaborative planning efforts.

### AGENDA

Producer Panel (30 min) – ASI, NCBA, Public Lands Council, Targeted Grazing Contractors

Wildlife Considerations talks (15 min) – Nevada Department of Wildlife, California Department of Fish and Wildlife (confirmed)

Tribal Rangelands (30 min) - Navajo Nation, Duck Valley Reservation

### **1:20pm-3pm: Workshop: Managing Scarcity: Holistic Drought Strategies for Livestock Producers**

Room: Bonsai II (Portola)

Session Organizers: Wayne Knight, Exec. Dir. Holistic Management International & Casey Wade, CEO, Dixon Water Foundation

Session Description: Drought is inevitable, but stress and loss don't have to be. This 3-hour workshop offers ranchers a practical framework for proactive drought planning. Participants will learn how mindset, timely decision making, and effective inventory management shape outcomes. Through hands-on exercises, we will practice forage assessment, estimate drought duration, and calculate stocking reductions. We will also explore the cost of delayed action and strategies for rebuilding after drought. Leave with tools to plan confidently, protect your resources, and build long-term resilience.

### **1:20pm-3pm: Workshop: A Career in Rangeland Management: Are you Ready**

Room: Bonsai I (Portola)

Session Organizers: Steven Evans, Jeff Goodwin

Session Description: The field of Rangeland Management includes a diversity of disciplines and draws upon scientific understanding and practical experience to build success in the art and science of Rangeland management. The education one receives in an undergraduate program is an important first step in setting a foundation for a career in rangeland management. This session will allow you to share your educational experience as a young professional and how it prepared you to enter the field of rangeland management. This workshop will focus on what young professionals identify as important components to have in an undergraduate rangeland management program.

### **1:20pm-3pm: Workshop: Cultivating Leadership: A Workshop for Building Stronger Student Range Clubs**

Room: Colton II (MCC)

Session Organizer: Doan Charles Goolsby, Student Conclave

Session Description: This interactive workshop will equip student leaders with tools to strengthen their Range Clubs, foster member engagement, and build leadership capacity across campuses. A rotating panel of current and past student officers, faculty advisors, and professional mentors will share insights, answer questions, and facilitate discussion. Attendees will leave with actionable strategies and a renewed sense of purpose for advancing student leadership in rangeland management.

### **1:20pm-3pm: Contributed Oral Session: Fire Management/Fuels & Grazing 5**

Room: Los Angeles (Marriott)

Theresa Becchetti: Vegetation Change Following Wildfires in California

Noah Davis: Influence of graded protein supplementation on the space use and foraging behavior of beef cows on dormant foothill rangeland

Olivia Strong: Defoliation Effects on Root Characteristics of an Early Successional Native Grass

Sergio Arispe: Managing Invasive Annual Grasses on Public Lands Using Dormant Season Grazing in the Northern Great Basin

Francis Kilkenny: Sowing SEEDS: A new network of experimental, post-wildfire seeding sites

### **1:20pm-3pm: Contributed Oral Session: Ecosystem Services Wildlife 2**

Room: San Carlos IV (Marriott)

Jess Pletcher: Home, home on the range: Drivers of songbird breeding habitat selection at the sagebrush-woodland ecotone

Evan Wilson: Non-stationary effects of forest cover on a widely distributed game bird species

Amanda Norton: Monitoring songbird breeding success under traditional and adaptive rotational cattle grazing in Wyoming

Michael Ferrara: Local and Landscape Drivers of Avian Community Composition in and Around PV Solar Arrays

Caleb Roberts: Where are we winning and losing in the fight to conserve North American grassland birds?

### **1:20pm-3pm: Contributed Oral Session: Human Dimensions 2**

Room: Santa Monica (Marriott)

Casey McFarland: Standardizing Range Riding to Reduce Carnivore Livestock Conflict and Improve Stakeholder Collaboration

Tracy Burnett: "Butter" Together: Do Obligations to Provide Animal Products Stabilize Pastoralist Communities?

Lara Mengak: Examining the Role of Interpersonal and Institutional Trust in Navigating Producer–Wolf Conflict

Bildo Saravia: The importance of markets to keep ranchers ranching, or Successful Ranchers have healthy Ranges!!!

David M: Do Land Steward Amenity Migrants Underestimate Their Impact? Aligning Perceptions with Ecological Evidence

### **1:20pm-3pm: Contributed Oral Session: Invasive Species 1**

Room: San Carlos I (Marriott)

Derek Sebastian: Restoring cheatgrass invaded critical winter range and limiting non-target impacts

Paul Akpejelu: Modeling the Spread of the Invasive Grass *Imperata cylindrica* (Cogongrass) in the United States using Integrated Species Distribution Models

Gopal Marwaha: Prairie Resistance: Enhancing Native Functional Diversity as a Restoration Strategy Against Kentucky Bluegrass Invasion

John Hendrickson: Using demography to identify management strategies to control invasive grasses: A case study with smooth brome grass (*Bromus inermis* Leyss.).

Rabeya Shikdar Orpa: Reviving Native Ecosystems: Harnessing Soil Amendments to Reclaim Native Plant Communities in Post-Mining Environments

### **1:20pm-3pm: Contributed Oral Session: Restoration 3**

Room: San Carlos II (Marriott)

Mounir Louhaichi: Restoring Mediterranean Drylands: Evidence-Based Strategies for Sustainable Silvo pastoral Systems

Dan Harmon: The Effect of Seeding Rate on the Establishment of Great Basin Rangeland Perennial Grasses

Nora Bales: Testing functional trait-based approaches to seed mix design in dryland rangeland restoration

Tyler Geltmacher: Competitive and priority effects of native cool-season grasses on invasive *Bromus* species in the Northern Great Plains

Trace Martyn: An aspirin for restoration plants: Testing the impacts of salicylic acid seed priming on germination and growth

### **1:20pm-3pm: Contributed Oral Session: Remote Sensing & Modeling 1**

Room: San Carlos III (Marriott)

Logan Vandermark: Developing a Mobile Learning Lab to Advance Extension Precision Technology Programming

Mike Anderson: A LiDAR-Guided Spatial Workflow for Individual Tree Delineation and DBH Estimation in Varying-Density Juniper Stands

Mike Anderson: Customizing Geospatial Data Delivery to Support Varied Policy and Management Objectives

Joseph Smith: Combining field data and remotely sensed predictions Part 1: the ground truth fallacy

Brady Allred: Combining field data and remotely sensed predictions Part 2: improving inference for decision making

### **3pm-3:30pm: Afternoon Coffee Break in the Trade Show**

### **3:20pm-5pm: Symposium: Five Years of 3M: Monitoring Impacts of Grazing Management Across Ecological and Socioeconomic Dimensions**

Room: Redwood (Portola)

Session Organizer: Paige Stanley

Session Description: Grazinglands are dynamic social-ecological systems, requiring interdisciplinary approaches to study the land, people, and management together. The 3M (Metrics, Management, and Monitoring) project is a five-year, multi-institutional effort exploring how grazing management influences soil health, ecosystem function, producer wellbeing, and its socioeconomic drivers across both experimental and 58 commercial cow-calf operations. This half-day session will feature results from 13 scientific teams across biophysical and socioeconomic disciplines, highlighting findings from five years of data collection across diverse U.S. grazinglands. Presentations will focus on cross-cutting themes and lessons learned from coordinating data collection, analysis, and interpretation in a large-scale, collaborative research network.

\*\*continued from 1:20-3pm session

#### AGENDA

3:20–3:35: General trends in monitoring ecological system health across the 3M project: (Morgan MathisonSlee)

3:35–3:50: Near-real time vegetation monitoring from satellites: Model performance, transferability and applications: (Sean Kearney)

3:50–4:05: Grazing management insights using continuous atmospheric flux monitoring: (Beccy Mitchell)

4:05–4:20: Integrating Social and Ecological Perspectives to Understand Grazing Land Dynamics: (Ada Smith)

4:20–4:35: Economic costs and benefits of grazing strategies within the 3M project: (Dabit Bista)

4:35–4:50: MEMS 3.0: A Process-Based Model for Rangeland Carbon, Forage, and Grazing Dynamics (Yao Zhang)

4:50–5:00: Round 2 Q&A + Wrap-up: (All)

### **3:20pm-5pm: Symposium: Beyond Trade-offs: Managing Ecology, Profit, and People While Achieving Exceptional Ecological Improvement**

Room: Cottonwood (Portola)

Session Organizers: Wayne Knight, Richard King, Michael Dennis

Session Description: Ranchers often feel as if they face tough trade-offs: invest in ecology, animal performance, or profitability? Too much emphasis on one can weaken the others. This session introduces Holistic Management® as a management process to balance these competing demands.

Presenters Richard King (consultant, rancher and Holistic Management Certified Educator), Michael Dennis (rancher and veterinarian), and Wayne Knight (Rancher, Holistic Management Educator and Executive Director of HMI) will share lessons from California and Southern Africa. Participants will learn how this approach strengthens business viability while regenerating ecological resilience and long-term balance.

### **3:20pm-5pm: Workshop: The Missing Link in Rangeland Success: The Manager's Mindset**

Room: Ironwood (Portola)

Session Organizer: Christine Martin

Session Description: This interactive workshop explores how a manager's mindset—habits, paradigms, and internal narratives—can create or constrain success in rangeland systems. Through reflective exercises, peer dialogue, and hands-on frameworks, participants will uncover how their mental models shape their decisions. By developing self-awareness and adaptive thinking, attendees will gain practical tools to strengthen decision-making, navigate complexity, and improve ecological and financial outcomes. The manager is not separate from the system- they are part of it.

### **3:20pm-5pm: Workshop: Not If, but When: Preparing for Foreign Animal Disease on Public and Tribal Rangelands**

Room: DeAnza II (Portola)

Session Organizers: Dan Macon, Roselle Busch, Gary Mccuin, Tracy Shane

Session Description: Foreign animal diseases (FADs), like foot and mouth disease, present unique challenges for producers and range managers who work on public and tribal rangelands. Livestock owned by multiple producers may be run in common. Interactions with wildlife, which may be susceptible reservoirs for FADs, complicate control efforts. Stop movement orders and other containment efforts may conflict with grazing permit terms or require emergency provisions (and movement permits) for on-range feeding. This workshop will provide range managers, ranchers, and extension professionals with updates on state and federal containment plans, as well as scenario planning activities designed to encourage collaborative planning efforts.

### **AGENDA**

Outbreak Scenarios: Participants work in groups to work through outbreak scenarios and design lines of separation (mapping), mapping, cleaning and disinfection stations, work through just-in-time and contingency planning for public lands. Virtual participants will participate in facilitated Zoom breakout rooms.

### **3:20pm-5pm: Workshop: A Career in Rangeland Management: What do you need to know?**

Room: Bonsai I (Portola)

Session Organizers: Steven Evans, Jeff Goodwin

Session Description:

As a seasoned professional in the field of rangeland management we would like to hear what Knowledge, Skills and Abilities have served you well in successful rangeland management. This information will be used to inform undergraduate rangeland management programs across the US when developing rangeland curriculum. This session will identify what seasoned range professionals believe are important components to have in an undergraduate range program.

### **3:20pm-5pm: Workshop: Managing Scarcity: Holistic Drought Strategies for Livestock Producers**

Room: Bonsai II (Portola)

Session Organizers: Wayne Knight, Exec. Dir. Holistic Management International & Casey Wade, CEO, Dixon Water Foundation

Session Description: Drought is inevitable, but stress and loss don't have to be. This 3-hour workshop offers ranchers a practical framework for proactive drought planning. Participants will learn how mindset, timely decision making, and effective inventory management shape outcomes. Through hands-on exercises, we will practice forage assessment, estimate drought duration, and calculate stocking reductions. We will also explore the cost of delayed action and strategies for rebuilding after drought. Leave with tools to plan confidently, protect your resources, and build long-term resilience.

### **3:20pm-5pm: Workshop: Art as education: Using natural pigments and fibers to boost learning about rangelands and pastoral themes for IYRP**

Room: Colton III (MCC)

Session Organizer: Lauren Svejcar

Session Description: Come celebrate rangelands and IYRP through art! Join us in learning about using local, natural pigments (soil and plants) as paint and about the diversity of natural fibers from around the world. Discover how art can be a powerful tool for outreach in your community and beyond. This event is part of the IYRP initiative to use creative expression to raise awareness about rangelands. Attendees will learn about arts education resources, paint with natural pigments, try drop spindle spinning and felting, and connect with others passionate about rangelands and creativity. All materials provided.

AGENDA

3:20pm-3:40pm: Introduction to IYRP and educational resources - Lauren Svejcar

3:40pm-3:50pm: Painting the land: Creating paint from local plants and soils - Danielle Clenet

3:50pm - 4pm: Knitting together concepts - connecting rangeland and pastoral themes using fiber arts - Trace Martyn

4pm-5pm: Open workshop time (three stations: fiber, painting, educational packets)

### **3:20pm-5pm: Symposium: Hope for the Future: Science, Stories, and Lessons-Learned from Rangeland Restoration Successes in the Great Basin**

Room: DeAnza III (Portola)

Session Organizer: Liz Munn

Session Description: Over the last decade, an interdisciplinary team from Mining, Conservation, and Federal Agencies have worked together on a mitigation banking project to develop and deploy the science, commitments, and restoration techniques that have led to thousands of acres of restored rangelands in the central Great Basin across public and private lands. Join us as we discuss the key elements of the project, including the most recent restoration successes, and the ways in which these approaches may be adapted for other projects.

#### AGENDA

3:20 pm: The Maps, Models, and Metrics used for Landscape Scale Planning: Louis Provencher, Kevin Badik

3:40 pm: Translating Modeling Science to Implementation of Conservation Actions for a Mitigation Bank: Brian Taylor, Chris Jasmine

4:00 pm: Policy & Agreement Context: the challenges and solutions of managing a mitigation bank: Liz Munn, Lara Enders, Holley Kline

4:20 pm: Results to date viewed both on the ground and through remotely-sensed change detection: Chris Jasmine, Sarah Byer

4:40: Panel Discussion: Presenters, Moderated by Megan Creutzberg

### **3:20pm-5pm: Workshop: Ag Tech on Rangelands – The new Range Tech and how Range Tech helps tell our story**

Room: DeAnza I (Portola)

Session Organizer: Jack Alexander

Session Description: The Range Tech has always been a valued role on rangelands. This person did the grunt work and collected the data. The new Range Tech is not a person but a wealth of new technology for collecting and communicating data. Combining new ways to collect data with new data analysis and cost efficiencies leverage both data and expertise across larger scales. By making human time more efficient and providing better decision-making input and tools, Range Tech can better tell the story of rangeland to bigger and more diverse audiences of range users, policy makers, and the public.

## AGENDA

Enriched Ag – Billy Cook

EarthOptics – Ryan Dierking

RanchBot – Andrew Coppin

Open Range Consulting – Eric Sant

### **3:20pm-5pm: Contributed Oral Session: Invasive Species 4**

Room: San Carlos I (Marriott)

Janet Prevey: Flora and flames: How does pre-fire vegetation affect post-fire plant invasion in the western United States?

Erin Teichroew: Impacts of NutraFix on native and non-native grasses across growth stage and environments

Doan Goolsby: Significant overlap in niche of fire-promoting invasive species threatens biodiversity of Sonoran and Madrean Archipelago Ecoregions

Alex Stoneburner: Invasive Species: Tonto National Monument

Jacqueline Ott: Competition affects current and future aboveground tiller production rather than belowground rhizome demography to favor the invasive Smooth Brome grass over the native Western Wheatgrass

### **3:20pm-5pm: Contributed Oral Session: Restoration 4**

Room: Santa Monica (Marriott)

Theo Knowles: More Forbs, Same Spurge: Limitations of Functional Similarity in a Tallgrass Prairie Restoration

Sam Ahler: From Seed to Service: The assembly of grass communities and ecosystem services in response to rangeland microsite variation

Jason Cox: Assessing Long-Term Vegetation Response to Multiple Restoration Methods in Utah: A Time-Lapse Photo Tour of Range Trend Monitoring

Madeline Mayorga: Exploring Drivers of Soil Seed Bank Composition for More Effective Restoration

Allison Rofe: Livestock Pond Management: a multi stakeholder success story to protect listed species habitat and livestock water

### **3:20pm-5pm: Contributed Oral Session: Remote Sensing & Modeling 2**

Room: San Carlos II (Marriott)

DANIEL CLEVELAND: Quantifying Management Impacts on Rangeland Drought Resilience with Remote Sensing

Geoff Bedrosian: Threat Integration Model for Sagebrush (TIMS): A Framework for Using Spatial Decision Support Tools for Strategic Management of Invasive Annual Grasses and Conifers in Sagebrush Ecosystems

Matthew Rigge: Integrating species-specific exotic annual grass information at weekly intervals into the Rangeland Condition Monitoring Assessment and Projection dataset

Logan Megard: Enhancements to the Exotic Annual Grass (EAG) dataset.

Mike Anderson: Analyzing Vegetation Outcomes Through Threat-Based State and Transition Models Using GIS: Assessing Management Impacts Across Western Sagebrush Ecosystems

### **3:20pm-5pm: Contributed Oral Session: Ecosystem Services Carbon 2**

Room: San Carlos IV (Marriott)

Savannah Adkins: Improving Dryland Soil Carbon Storage Through Grazing Management on the Colorado Plateau

Daniel Gomez: Soil Carbon and Nitrogen stocks in Rangelands of Oregon, USA.

Scott Morford: Woody Encroachment Amplifies Aridity-Driven Water Consumption in U.S. Drylands

Carlos Ochoa: Carbon Sequestration Potential in Oregon's Rangeland and Pasture Ecosystems

John Kang: The effect of grazing on soil carbon dynamics within a strip-thinned lodgepole pine silvopasture in southern interior British Columbia

### **3:20pm-5pm: Contributed Oral Session: Virtual Fencing 3**

Room: San Carlos III (Marriott)

Logan Vandermark: Combining GPS Tracking, In-pasture Weighing Technology, and Nutrition Models to Estimate Cattle Energetics in Grazing Systems

Baili Foster: Something old and something new: Employing virtual fencing to target fine fuels in northwest Colorado

Brian Allen: Using virtual fence to target invasive Medusahead and Barb Goatgrass on California Rangelands

Elizabeth Reikowski: Adventures in Topography: Exploring the efficacy of virtual fence for conservation grazing in the Santa Cruz Mountains

Austin Lemons: Targeted Grazing of Cheatgrass: Is Virtual Fencing the Answer?

### **3:20pm-5pm: Contributed Oral Session: Miscellaneous**

Room: Los Angeles (Marriott)

Anuj Ghimire: Reviving our grassland heterogeneity: Connecting management types, livestock use and birds

Brook Constantz: A Hybrid Field and Machine Learning Method to Remap Riparian Vegetation

Hailey Wilmer: Opening the bear trap: Using social-ecological mental models to work with and through public lands conflict for sustainable range sheep systems

William Price: The Impact of Dormant Season Grazing on Predicted Fire Behavior Using FCCS Fuel Models on Degraded Rangelands in the Northern Great Basin

Dabid Z. Garcia: Modeling Rangeland Soil Carbon Dynamics Using Vegetation, Soil, and Climate Predictors

## **WEDNESDAY, Feb. 11th**

### **8am-10am: Plenary Session: *International Plenary, International Year of Rangelands and Pastoralists (IYRP) 2026***

Room: Steinbeck Ballroom (MCC)

#### AGENDA

8:00 to 8:05: Layne Coppock, Professor Emeritus, Dept. Environment & Society, Utah State University, and IYRP Co-Chair for North America. In-person presentation. "Welcome and Screening of a Short FAO IYRP Video."

8:05 to 8:15: Kaitlynn Glover, Executive Director of the Public Lands Council and Executive Director for Government Affairs for the National Cattlemen's Beef Association. In-person presentation. "Challenges for the Sustainability of Rangeland Systems in the USA"

8:15 to 8:25: Igshaan Samuels, Senior Scientist, Agricultural Research Council of South Africa, and Co-Chair of the IYRP Global Alliance. Virtual presentation, "Challenges for the Sustainability of Rangeland Systems in Southern Africa."

8:25 to 8:35: Javier Ochoa-Espinoza, Professor and Researcher, Department of Renewable Natural Resources Universidad Autónoma Agraria Antonio Narro, Saltillo, México, and IYRP Co-Chair for North America. In-person presentation, "Challenges for the Sustainability of Rangeland Systems in northern Mexico."

8:35 to 8:45: Dana Kelly, Co-chair, Secretariat for the International Rangeland Congress and Adjunct Professor, Center for Applied Climate Sciences, University of Southern Queensland, Toowoomba, Australia. Virtual presentation, "Challenges for the Sustainability of Rangeland Systems in Australia."

8:45 to 8:55: Barry Irving, Retired Staff Member, University of Alberta, and IYRP Co-Chair for North America. In-person presentation, "Challenges for the Sustainability of Rangeland Systems in Canada."

8:55 to 9:00: Layne Coppock, Professor Emeritus, Dept. Environment & Society, Utah State University, and IYRP Co-Chair for North America. In-person presentation, "A Provocative Synthesis of Speaker Presentations."

9:00 to 9:40: Lauren Svejcar, SRM International Affairs Committee Chair and Collaborator, University of Arizona. In-person presentation, "Guided Discussion with a Panel of Pastoralists" (panelists to be named)

9:40 to 10:00: Lauren Svejcar, SRM International Affairs Committee Chair and Collaborator, University of Arizona. In-person presentation, "Open Session Questions & Answers with All Participants"

### **10am-10:20am: Coffee Break in the Trade Show**

## **10:20am-Noon: Symposium: Managing variability and non-equilibrium in rangelands: from theory to practice**

Room: Bonsai I (Portola)

Organizer: Brandon Bestelmeyer and Nathan Sayre

Description: The non-equilibrium character of extensive, low productivity rangelands creates ongoing challenges for producers, land managers, and policymakers. Variable rainfall falls on landscapes that vary in their inherent productivity and historical legacies. This creates hard-to-predict variations in productivity and risks of land degradation. Strategies to cope with these variations through monitoring, mobility, and flexibility are well known, yet we understand little about how approaches work together in different circumstances. New precision ranching and remote sensing tools are rapidly becoming part of the mix. This symposium will highlight rancher/pastoralist experiences with managing non-equilibrium as well as new tools that can assist their efforts.

### AGENDA

10:20am-10:45am: Introduction to managing nonequilibrium in rangelands: Nathan Sayre

10:45am-11:45pm: Producer, policy, and science panel: John Austel, Liz Duncan, Garry Mahrt, Bianca Soares Shapero, Tungalag Ulambayar, Santiago Utsumi, Susi Vetter, Mike Williams

11:45am-12:00pm: Wrap up

## **10:20am-Noon: Symposium: State of the Science: Climate Outcomes from Grazing Lands Management Practices**

Room: Bonsai II (Portola)

Session Organizer: Sasha Gennet

Session Description: Rangeland and pasture management offers significant opportunities for climate mitigation, though verifiable outcomes vary in space and time based on factors including site characteristics and implementation. Further, climate goals like carbon storage may conflict with production, biodiversity, or other objectives. Existing research on practices such as prescribed fire, brush management, prescribed grazing, plantings, and wetland restoration provides insights, but gaps remain. What do we need to know to achieve optimal climate outcomes and better understand tradeoffs? We will present findings from recent literature syntheses with NRCS and facilitate a discussion to identify priority evidence gaps and strategies to address them.

### AGENDA

10:20am-10:35am: Large-scale quantification of soil organic carbon in response to grazing management changes: Jenny Watts and Jon Sanderman

10:35am-10:50am: GHG drawdown potential from Wetland Restoration: Kris Hulvey

10:50am-11:05am: Prescribed Burning and Brush Management climate outcomes: Megan Nasto

11:05am-11:20am: Influence of Range and Pasture Plantings on soil organic carbon storage and the current state of rangeland soil carbon models: Sam Willard

11:20am-11:30am: A path forward, applying lessons learned for the scientific community: Sasha Gennet

11:30am-12:00am: facilitated discussion: Sam Willard

**10:20am-Noon: Symposium: From South to North America: Perspectives on diverse pastoral systems in celebration of the IYRP**

Room: Colton Room (MCC)

Session Organizer: Lauren Svejcar and Javier Ochoa

Session Description:

The challenges faced by pastoral people are both similar and different across the South and North American continents. Our rangeland landscapes vary from hot desert shrublands to cold alpine grasslands. Traditions and cultural customs differ. The languages we use are different and include English, Spanish and a wide range of indigenous languages. However, even though many differences exist, the challenges that our rangelands and pastoral people face are strikingly similar and interconnected. In this symposium, we will discuss the differences and similarities between our American rangeland systems with talks in Spanish.

Los retos a los que se enfrentan los pastores son a la vez similares y diferentes en los continentes sudamericano y norteamericano. Nuestros agostaderos varían desde los calurosos matorrales desérticos hasta los fríos pastizales alpinos. Las tradiciones y costumbres culturales difieren. Los idiomas que utilizamos son diferentes e incluyen el inglés, el español y una amplia gama de lenguas indígenas. Sin embargo, aunque existan muchas diferencias, los retos a los que se enfrentan nuestros agostaderos y pastores son sorprendentemente similares y están interconectados. En este simposio, debatiremos las diferencias y similitudes entre nuestros sistemas de agostaderos americanos con charlas en español.

AGENDA

10:20-10:22am: Bienvenidos: Javier Ochoa (in-person)

10:22-10:40am: Beneficios del manejo integrado de fuego y ganado en las llanuras del Norte de los Estados Unidos de America: David Toledo (in-person)

10:40-11am: Desafíos, oportunidades y tendencias del pastoralismo en la Puna de Argentina: Mariana Quiroga (virtual)

11-11:20am: Retos a los que se enfrentan los jóvenes pastores en los Andes: Enrique Michaud y Cecilia Turin (virtual)

11:20-11:40am: Uso de la tecnología para informar sobre la gestión de pastizales en diversos sistemas: Xavier Jaime (in-person)

11:40-12pm: Degradación y restauración de la tierra en México: Javier Ochoa and Elisabeth Huber-Sannwald (in-person)

## **10:20am-Noon: Symposium: The 7th Bud Williams Memorial Stockmanship Symposium: Stockmanship 'Round the World**

Room: Redwood (Portola)

Session Organizer: Kent Reeves, Kelsey Nelson, Matt Barnes

Session Description: Since 2015 there have been six Stockmanship Symposia at SRM Annual Meetings with the most recent in 2024. This Seventh Symposium for the 2026 SRM AM will provide a historical global perspective of stockmanship and how it has shaped range management on six continents. This symposium brings together livestock producers, researchers, and educators for an introduction and global history of Low Stress Livestock Handling and an interactive panel discussion of the practical use of Stockmanship for managing rangelands globally (Canada, Mexico, United States, Venezuela, Australia, Namibia, Kenya, United Kingdom, Mongolia).

### AGENDA

Delane Atcitty - Executive Director at Indian Nations Conservation Alliance – Taos, New Mexico

Derek W. Bailey, Ph.D. – Professor of Range Science; New Mexico State University – Las Cruces, New Mexico

Matt Barnes – Rangeland Scientist and Wildlife Conservationist; Shining Horizons Land Management, LLC– Montezuma, Colorado

Brittany “Cole” Bush – Shepherdess, Rancher, Advocate, Entrepreneur, and Educator; Shepherdess Land & Livestock Company – Ojai, California

Whit Hibbard, Ph.D. – Educator & Rancher, Publisher of Stockmanship Journal; Sieben Livestock Company – Adel, Montana

Dawn Hnatow – Educator & Rancher; Cattle Up Stockmanship & CU Ranching, LLC – Sulphur Springs, Texas

Roger Ingram – Educator & Rancher; County Director Livestock and Natural Resources Advisor UCCE Retired, Placer & Nevada Counties – Auburn,

Kelsey Nelson – Rancher, Horsewoman, Packer, Educator, Ranch Manager; Eames Institute – Petaluma, California

Byron Palmer – Rancher, CEO, Co-founder of Grounded: Evolutionary Grazing – Petaluma, California

Kent Reeves – Range & Wildlife Conservationist, Rancher to Rancher Network – Jamestown, California

Chris Schachtschneider - Lightning S Livestock Solutions,

Dave Voth – Rancher, Stockman, CPRM – Integrated Grazing Management – Elko, Nevada

Tina Williams and Richard McConnell – Hand ‘n Hand Livestock Solutions – Bolivar, Missouri

## **10:20am-Noon: Symposium: Ranching with Wolves: The Policy, Politics, and Price of Coexistence in California**

Room: DeAnza III (Portola)

Session Organizer: Tracy Schohr

Session Description: Gray wolves have reestablished in California at a rapid pace, presenting complex challenges in balancing conservation goals with social and economic realities. This session will feature research on the ecology and behavior of California's wolf population, outcomes of social study of ranchers impacted by wolves, and economic impacts to livestock producers. Attendees will also take a virtual tour of ranches in wolf country and hear directly from producers navigating life and working in wolf-occupied landscapes. Together, we will explore managing livestock alongside wolves in California.

### AGENDA

10:20 to Noon - Part 1

10:20 Welcome and Overview of Wolves in California - Tracy Schohr, Livestock and Natural Resources Advisor, University of California Cooperative Extension (moderator)

10:30 The Cost of Cohabitation: Economic Consequences for California Ranchers - Tina Saitone, Professor of Cooperative Extension, Agricultural and Resource Economics, University of California, Davis

11:05 Humans, Herd, and Help: How Northern California's Cattle Producers are Experiencing the Presence of Gray Wolves on California's Working Lands - Dara Noonan, Master's Candidate, Rangeland and Wildlife Management, University of California, Berkeley

11:30 Social and Ecological Dimensions of California's Wolves - Kaggie Orrick, Director of the California Wolf Project, University of California, Berkeley

### **10:20am-Noon: Workshop: Integrating actionable information: Technical transfer to empower rangeland managers with science and technology**

Room: Cottonwood (Portola)

Session Organizer: Mariah McIntosh

Session Description: Over the past decade, an explosion of new science and technology has improved our understanding of rangeland ecosystems, yet has left many of us stuck in information overload. This interactive workshop will help participants build skills to conduct effective technical transfer, which helps empower managers and practitioners to apply relevant science, data, technology, and best practices to improve management outcomes on the ground. We will guide participants through resources developed by the Sagebrush Technical Transfer Network, including a framework, technical transfer planning worksheet, and case studies designed to help make technical information more accessible and practical for management decision-making.

### AGENDA

10:20-10:40 am: Introducing the Sagebrush Technical Transfer Network and the Technical Transfer Framework

10:40-10:50 am: Getting Familiar with Our Case Study

10:50-11:50 am: Applying the Technical Transfer Framework as a Group Using a Case Study

11:50 am-12:00 pm: Reflections and Wrap-Up

## **10:20pm-Noon: Symposium: Metabolic Health: The Rangeland Connection: Metabolic Health Introduction**

Room: Ironwood (Portola)

Session Organizer: Peter J. Ballerstedt, PhD

Session Description: Metabolic health is increasingly recognized in medical and public spheres for its role in chronic disease prevention. Controversial nutrition guidelines and policies often overlook malnutrition's impact on health. Misunderstandings of these issues influence rangeland policies and practices. Given the global burden of malnutrition-related chronic illnesses, the importance of animal source foods (ASF) in human health, and rangelands' critical role in ASF production, this topic is vital for Society for Range Management members. This session explores how metabolic health connects to rangelands, informing better policy and practice for sustainable food systems and human well-being.

Introduction – Peter Ballerstedt

The Historical Perspective – Gary Taubes

The Scientific Perspective – Stephen Phinney

Wrap-up – Peter Ballerstedt

## **10:20am-Noon: Contributed Oral Session: Ecosystem Services: Food and Fiber Production 1**

Room: San Carlos IV (Marriott)

Rhyse Champion: Economic Comparison of Season-Long and Adaptive Rotational Grazing Systems for Stocker Steers in the Shortgrass Steppe: A Decade-Long Analysis

Nicolas Caram: Trade-offs in productivity and climate resilience of intensified native grasslands

Jameson Brennan: Quantifying animal movement behavior and landscape utilization of a managed bison (*Bison bison*) herd in the Nebraska Sandhills

David Augustine: Shifts in the contribution of C3 versus C4 perennial grasses to overall forage production following a decade of adaptive, multi-paddock grazing management in the shortgrass steppe.

Derek Bailey: Potential of Pattern Mining to Analyze Behavioral Patterns of Livestock Grazing on Rangelands

## **10:20am-Noon: Contributed Oral Session: Climate 1**

Room: San Carlos III (Marriott)

Maria Stahl: Managing Rangelands During Prolonged Drought: Using a Heritage Cattle Breed to Maintain Ecosystem Function Under Livestock Production

Trinity Long: The effects of climate change on the productivity of native berry-producing plants in Alberta

Luci Lu: Identifying Drought Refugia: Locating and Understanding Key Forage Resources in Non-Equilibrium Rangelands with Satellite Data

John Tull: Integrating climate science into resource management decision space: filling the science gaps

Thomas Merchant: Differential effects of multiple dimensions of short-term droughts and grazing on above and belowground biomass in a semi-arid rangeland

**10:20am-Noon: Contributed Oral Session: Ecosystem Services Wildlife 3**

Room: San Carlos II (Marriott)

Lawrence Ford: Endangered Ohlone Tiger Beetle Habitat Management

Mike Anderson: Quantifying the Components of Sage-grouse Habitat to Inform A Range of Habitat Assessment Frameworks

Cody Griffin: Woody Cover and Grassland Bird Populations: Uneven Effects Across Space and Species

OPEN

OPEN

**10:20am-Noon: Contributed Oral Session: Fire Management/Fuels & Grazing 1**

Room: San Carlos I (Marriott)

E.J. Bates: Grazing intensity effects on herbaceous community composition in burned sagebrush-steppe

Kaylee Wheeler: The value of native plant diversity for mineral nutrition in grazing livestock.

Lydia O'Halloran: Assessing cattle impacts on tree health in restored longleaf pine woodlands

Ashley Santiago: Understanding the effects of livestock grazing and fuel treatment on woodland encroachment in sagebrush-steppe habitat

Flavie Audoin: Navajo-Churro Sheep as a Tool for Buffelgrass Management

**10:20am-Noon: Contributed Oral Session: Restoration 5**

Room: Los Angeles (Marriott)

Danielle Clenet: Low sagebrush community recovery following wildfire

Steve Hromada: Sheep grazing as a method to improve endangered species habitat

Tolibjon Mukimov: NATURAL AND ANTHROPOGENIC CHANGES IN THE PASTURES OF THE ARAL SEA REGION

Lily Strachan: Grasses and Forbs Reveal Patterns of Variability in Artemisia arbuscula (Low Sagebrush) Communities

Ruby Harris-Gavin: Conservation Grazing in the West of Ireland: Diet Differences and Ecosystem Effects of Dexter and Mixed-Breed Cattle

**Noon-1:20pm: Lunch on your own**

**1:20pm-3pm: Symposium: Managing variability and non-equilibrium in rangelands: from theory to practice**

Room: Bonsai II (Portola)

Organizer: Brandon Bestelmeyer and Nathan Sayre

Description: The non-equilibrium character of extensive, low productivity rangelands creates ongoing challenges for producers, land managers, and policymakers. Variable rainfall falls on landscapes that vary in their inherent productivity and historical legacies. This creates hard-to-predict variations in productivity and risks of land degradation. Strategies to cope with these variations through monitoring, mobility, and flexibility are well known, yet we understand little about how approaches work together in different circumstances. New precision ranching and remote sensing tools are rapidly becoming part of the mix. This symposium will highlight rancher/pastoralist experiences with managing non-equilibrium as well as new tools that can assist their efforts.

\*\*continued from 10:20am-Noon session

AGENDA

1:20pm-1:40pm: Can new technologies change how we manage variability in rangelands?: Brandon Bestelmeyer

1:40pm-2:10pm: Application of precision adaptive rangeland management at the Jornada Experimental Range: Lara Macon

2:10pm-2:40pm: Panel reactions—will this help and how can this scale?

2:40pm-3:00pm: Open discussion

**1:20pm-3pm: Symposium: Anthropologists on the Range: Some ethnographic views of livestock care, precarity, and life-ways in North America and Africa**

Room: Bonsai I (Portola)

Session Organizer: Ken C. Erickson, Ph.D

Session Description: Range Management's interest in human factors has added participant observation & rancher collaboration to the toolkit. Meanwhile, anthropologists have rediscovered North American ranching, applying global studies of pastoralism to understand—and participate in—ranching in North America. This session highlights the precarity and stubbornness of livestock life-ways. We will share our ethnographic work in Kansas tallgrass landscapes, with Wyoming sheep outfits, among New Mexico's Hi-Lo country ranchers and day-workers, and among African livestock folk. We will show how rangeland ethnography with an anthropological catch-rope can document ways of living that challenge current theory, policy, and practice on the range.

AGENDA

Ken C. Erickson, Folsom Museum & Eastern New Mexico University

Robert K Hitchcock, University of New Mexico

Kimberly Sanchez, U. Michigan

Ryan T. Klataske, PhD, University of Nebraska Medical Center, Ancient Ocean Beef Co.

### **1:20pm-3pm: Symposium: Using Smart Foodscapes to Enhance the Sustainability of Western Rangelands**

Room: DeAnza I (Portola)

Organizer: Juan Villalba

Description: Rangelands across the West have become increasingly uniform—dominated by a few grass species that limit both livestock nutrition and wildlife habitat. This symposium explores the concept that a diversity of perennial legumes, forbs, and shrubs with high nutrient content and functional biochemicals can be established in “resource islands” across low-diversity rangelands. These islands serve as low-cost supplementation for beef cattle, improving productivity while also enhancing wildlife habitat and reducing environmental impacts. A transdisciplinary team is advancing this concept from foundational restoration ecology through nutritional and medicinal complementarities among forages, to practical implementation at the ranch scale. Results are also being integrated into grazing schools and STEAM (Science, Technology, Engineering, Arts, Mathematics) education, engaging current and future land stewards in rangeland sustainability.

#### AGENDA

1:20–1:30 pm: Introduction – Forage Diversity for Rangelands: The Elementary Idea: Juan J. Villalba

1:35–1:50 pm: Forage Species Selection for Smart Foodscapes: Jennifer MacAdam

1:50–2:05 pm: Designing and Measuring Smart Foodscapes: Islands, Sensors, and Grazing Patterns: Iddy Muzzo

2:05–2:20 pm: Visual Cues for Novel Virtual Fencing Applications: Using Resource Islands to Move Animals Across the Landscape: Sebastian Schreiber-Pan

2:20–2:35 pm: From Pasture to Practice: Producer-Driven Implementation: Eric Thacker and Matt Palmer

2:35–2:50 pm: Shared Landscapes: Wildlife Use of Restored Rangelands: David Dahlgren

2:50–3:05 pm: Advancing Social Science in Smart Foodscapes: Surveys, Interviews, and AI-Driven Insights: Jessica Schad & Zubair Barkat

3:05–3:20 pm: Educating Future Land Stewards with Smart Foodscapes: Kathy Cabe Trundle

### **1:20pm-3pm: Symposium: The 7th Bud Williams Memorial Stockmanship Symposium: Stockmanship ‘Round the World**

Room: Redwood (Portola)

Session Organizer: Kent Reeves, Kelsey Nelson, Matt Barnes

Session Description: Since 2015 there have been six Stockmanship Symposium at SRM Annual Meetings with the most recent in 2024. This Seventh Symposium for the 2026 SRM AM will provide a historical global

perspective of stockmanship and how it has shaped range management on six continents. This symposium brings together livestock producers, researchers, and educators for an introduction and global history of Low Stress Livestock Handling and an interactive panel discussion of the practical use of Stockmanship for managing rangelands globally (Canada, Mexico, United States, Venezuela, Australia, Namibia, Kenya, United Kingdom, Mongolia).

## AGENDA

Delane Atcitty - Executive Director at Indian Nations Conservation Alliance – Taos, New Mexico

Derek W. Bailey, Ph.D. – Professor of Range Science; New Mexico State University – Las Cruces, New Mexico

Matt Barnes – Rangeland Scientist and Wildlife Conservationist; Shining Horizons Land Management, LLC– Montezuma, Colorado

Brittany “Cole” Bush – Shepherdess, Rancher, Advocate, Entrepreneur, and Educator; Shepherdess Land & Livestock Company – Ojai, California

Whit Hibbard, Ph.D. – Educator & Rancher, Publisher of Stockmanship Journal; Sieben Livestock Company – Adel, Montana

Dawn Hnatow – Educator & Rancher; Cattle Up Stockmanship & CU Ranching, LLC – Sulphur Springs, Texas

Roger Ingram – Educator & Rancher; County Director Livestock and Natural Resources Advisor UCCE Retired, Placer & Nevada Counties – Auburn,

Kelsey Nelson – Rancher, Horsewoman, Packer, Educator, Ranch Manager; Eames Institute – Petaluma, California

Byron Palmer – Rancher, CEO, Co-founder of Grounded: Evolutionary Grazing – Petaluma, California

Kent Reeves – Range & Wildlife Conservationist, Rancher to Rancher Network – Jamestown, California

Chris Schachtschneider - Lightning S Livestock Solutions,

Dave Voth – Rancher, Stockman, CPRM – Integrated Grazing Management – Elko, Nevada

Tina Williams and Richard McConnell – Hand ‘n Hand Livestock Solutions – Bolivar, Missouri

## **1:20pm-3pm: Symposium: Ranching with Wolves: The Policy, Politics, and Price of Coexistence in California**

Room: DeAnza III (Portola)

Session Organizer: Tracy Schohr

Session Description: Gray wolves have reestablished in California at a rapid pace, presenting complex challenges in balancing conservation goals with social and economic realities. This session will feature research on the ecology and behavior of California’s wolf population, outcomes of social study of ranchers impacted by wolves, and economic impacts to livestock producers. Attendees will also take a virtual tour of ranches in wolf country and hear directly from producers navigating life and working in wolf-occupied landscapes. Together, we will explore managing livestock alongside wolves in California.

## AGENDA

Part 2 *\*\*continued from 10:20am-Noon session*

1:20- 3:00pm - Part 2

1:20 Welcome - Tracy Schohr, Livestock and Natural Resources Advisor, University of California Cooperative Extension (moderator)

1:30 Living and Ranching with Wolves: Virtual Tours and Producer Perspectives

Rick Roberti, Sierra Valley Rancher, and President of the California Cattlemen's Association

Paul Roen, Sierra Valley Ranch Manager and Sierra County Board of Supervisor

**1:20pm-3pm: Symposium: Metabolic Health: The Rangeland Connection; Workshop: Application and Implications**

Room: Ironwood (Portola)

Session Organizer: Peter J. Ballerstedt, PhD

Session Description: Metabolic health is increasingly recognized in medical and public spheres for its role in chronic disease prevention. Controversial nutrition guidelines and policies often overlook malnutrition's impact on health. Misunderstandings of these issues influence rangeland policies and practices. Given the global burden of malnutrition-related chronic illnesses, the importance of animal source foods (ASF) in human health, and rangelands' critical role in ASF production, this topic is vital for Society for Range Management members. This session explores how metabolic health connects to rangelands, informing better policy and practice for sustainable food systems and human well-being.

Introduction – Peter Ballerstedt

Clinical

Local, Rural Perspective – John Madany

At scale -Stephen Phinney

What role in IYRP and SRM? – Ballerstedt, Madany, Phinney

**1:20pm-3pm: Ignite: Case Studies for Integrating Remote Sensing and Field Data for Rangeland Monitoring and Decision-Making**

Room: Cottonwood (Portola)

Session Organizer: Georgia Harrison

Session Description: This session explores the complementary roles of remotely sensed and field-based data in rangeland monitoring, assessment, and management. Presentations will showcase integration strategies across diverse applications such as grazing management, post-fire recovery planning, restoration monitoring, and biome-wide strategy mapping. These case studies will highlight how combining data sources enhances spatial insight, ecological relevance, and decision-making transparency. The session will also address best practices for local accuracy assessments and embedding remote sensing into operational workflows. A panel

discussion will follow the presentations, offering perspectives on lessons learned and emerging opportunities to scale integrated approaches across rangelands.

## AGENDA

1:20 – 1:25 PM – Opportunities for Synergy in Rangeland Decision-Making by Using Field and Remotely-Sensed Data — Georgia Harrison

1:25 – 1:30 PM – Strategic Conservation Planning to Inform Post-Fire Treatment — Chad Boyd, Katherine Wollstein, Cameron Duquette, Dustin Johnson

1:30 – 1:35 PM – Using RAP to Inform Landowner Decision-Making — Retta Bruegger

1:35 – 1:40 PM – Can We See the Outcomes of Rangeland Treatments from Space? Evaluating Seeding Success a Decade After the Long Draw Fire — Megan Creutzburg

1:40 – 1:45 PM – Identifying a Suitable Invasive Annual Grass Layer within the Gunnison Sage-grouse Range — Cameron Aldridge

1:45 – 1:50 PM – Use of Remote Sensing in BLM Land Health Assessments — Heather Nenninger, Jess McDermott, Nicole Hupp

1:50 – 1:55 PM – Using RAP to Gain Efficiency in Land Health Evaluations — Rachel Miller

1:55 – 2:00 PM – Using the Rangeland Analysis Platform (RAP) to Inform Stocking Rate Decisions in the Chihuahuan Desert — Micah Funk, Darren James, John Ragosta, Andres Cibils, Sheri Spiegel, Georgia Harrison

2:00 – 2:05 PM – Application of State-and-Transition Models to Remotely Sensed Fractional Cover Datasets — Lucas Phipps

2:05 – 2:10 PM – Integrating Remote Sensing into Reclamation Outcome Assessments — Michael C. Duniway, Gayle L. Tyree, Katie Eckhoff, Anna Knight

2:10 – 2:15 PM – Classification of RAP Data to Produce Annualized Fire Behavior Fuel Model Data for Rangelands — Kayla Johnston

2:15 – 2:20 PM – Rangeland Remote Sensing and Ground Data Fusion Case Studies: Lessons Learned and Educational Opportunities — Anthony Vorster, Nicholas Young

2:20 – 2:25 PM – Bringing It All Together in the Land Treatment Exploration Tool — Michelle I. Jeffries and David S. Pilliod

2:25 – 2:30 PM – Considerations for Local Accuracy Assessments — Matthew Rigge

2:30 – 3:00 PM – Panel Discussion on the Use of Remote Sensing and Field Data for Rangeland Decision-Making — Sarah McCord, Matthew Rigge, Tim Assal, Emily Kachergis, Georgia Harrison (Facilitator)

**1:20pm-3pm: Ignite: The voice of Pastoral Youth from South to North America: celebrating the IYRP *El voz de jovenes pastores desde sudamerica hasta norteamerica: una celebración del AIPP***

Room: Colton Room (MCC)

Session Organizer: The International Year of Rangelands and Pastoralists, Young Professionals Conclave

Session Description: The future of pastoralism, as a progressive component of a sustainable global food system, will depend on the innovation and inspiration of future generations. There are many challenges and opportunities that face the next generation of pastoral people, and this ignite session will highlight the voices of pastoral youth from South to North America. What similar challenges do people in this generation face? What are the differences? How can we all come together to work for a better future for the next generations

*El futuro del pastoralismo, como componente progresista de un sistema alimentario mundial sostenible, dependerá de la innovación y la inspiración de las generaciones futuras. La próxima generación de pastores se enfrenta a numerosos retos y oportunidades, y esta sesión de debate pondrá de relieve las opiniones de los jóvenes pastores de América del Sur y del Norte. ¿A qué retos similares se enfrenta esta generación? ¿Cuáles son las diferencias? ¿Cómo podemos unirnos para trabajar por un futuro mejor para las próximas generaciones?*

## AGENDA

1:20pm-1:30pm: Welcome & Introductions

1:30pm-2:30pm: Youth Pastoralists from the Americas

2:30pm-2:45pm: Q&A with pastoral youth

2:45pm.-3:00pm: IYRP & Closing

### **1:20pm-3pm: Contributed Oral Session: Fire Management/Fuels & Grazing 3**

Room: San Carlos IV (Marriott)

Matt Reeves: Geospatial Approach to Converting Grazing Data to Fuel and Fire Behavior Expectations

Peter Olsoy: Evaluating indicators of fire-induced perennial bunchgrass mortality

Maddy Case: Fuel monitoring methods for pre-fire planning in sagebrush rangelands

SydneyTurner: Identifying critical live woody fuel moisture thresholds for extreme fire behavior in sagebrush ecosystems

Tara Bishop: State-and-Transition models and Ecological Site Groups for fire and fuel management

### **1:20pm-3pm: Contributed Oral Session: Human Dimensions 3**

Room: San Carlos III (Marriott)

Ada Smith: Monitoring on U.S. Pasture and Rangelands: Highlighting the Value of Informal Approaches for Practical Use

Zubair Barkat: Expanding Rangeland Social Science Research with Artificial Intelligence: Insights from the Smart Foodscapes Project

Tungalag Ulambayar: Evaluating Mongolia's 2024 herder policies for sustainable rangelands and pastoralism: A Case study in Khoid Mogoin Gol Teel Local Protected Area

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OPEN

**1:20pm-3pm: Contributed Oral Session: Restoration 6**

Room: San Carlos I (Marriott)

Justin Clarke: Mapping the Future of Grasslands with a Geospatial Framework for Conservation and Woody Plant Management

Emily Lockard: Increasing rangeland resilience through collaborative, climate-adaptive, community-engaged rangeland restoration in Southwestern Colorado, USA

Mike Anderson: Restoring Desert Watersheds: A GIS Approach to Nature-Based Solutions for Watershed Disruption at MCAS Yuma

Brett Alberts: Evaluating restoration success in a Conservation Reserve Program planting under different precipitation and weed pressure regimes

Olivia Panning: Effects of Disturbances Using a Combination of Grazing and Fire on Plant Community Composition on the Ft. Pierre National Grassland

**1:20pm-3pm: Contributed Oral Session: Riparian 1**

Room: San Carlos II (Marriott)

Elise Bakke: Diagnosing a Riparian Woodland through Vegetation Surveys and Seed Bank Collection

Benjamin Menapace: Plant community indicators of channel stability and incision for intermittent prairie streams

Victoria Dungey: Restoring Riparian Function with BDAs in South Dakota's Black Hill's: Early Results from Silver Creek

Russell Torgersen: Ecosystem recovery in natural springs following springbox removal in sagebrush-steppe landscapes

Kris Mueller: Reconnecting Green Ribbons: Targeting Mesic Restoration in the Sagebrush Biome for a Resilient West

**1:20pm-3pm: Contributed Oral Session: Management**

Room: Los Angeles (Marriott)

Kali-Jo Bentz: Evaluating heifer feeding behavior and performance on Northern Great Plains rangelands.

Hannah Allen: Collaborative Adaptive Management in the Sandhills: Integrating Fire, Grazing, and Stakeholder Decision-Making

Md. Faizul Kabir: Rancher Preferences for Grassland Conservation Reserve Programs in the Northern U.S.  
Great Plains

John Watson: Indaziflam treatment reduces wildfire risk in semi-arid grassland plant communities

OPEN

**3pm-3:30pm: Afternoon Coffee Break**

Room: Steinbeck Lobby

**3:30pm-6pm: SRM Student and Honor Awards**

Room: Steinbeck Ballroom