

Summer Field Tour

Restoring and Conserving Great Basin Ecosystems

July 11 and 12, 2017 – Austin, Nevada



Please join us for a two-day summer field tour in the central Great Basin on July 11th and 12th!

Day 1: Watersheds, Riparian Ecosystems, and Meadows. Tour leaders are Jeanne Chambers (USFS Rocky Mountain Research Station), Jerry Miller (Western Carolina University), and Peter Weisberg (University of Nevada, Reno).

We will revisit our long-term research sites and discuss the geomorphic and hydrologic controls on these ecosystems and their influence on vegetation dynamics. We will discuss building on our existing work to develop a multi-scale resilience-based framework for restoring and conserving Great Basin wet meadows and riparian ecosystems. We will discuss management strategies for watersheds and meadows with differing resilience.

Day 2: Sagebrush Ecosystems: Pinyon and Juniper expansion, Cheatgrass Invasion, and Fire. Tour leaders are Peter Weisberg and Jeanne Chambers.

We will visit our long-term Pinyon and Juniper Demonstration area and discuss the factors that affect resilience to both wildfire and prescribed fire. We will discuss our recent Joint Fire Sciences and National Fire Plan sponsored work on: (1) the longer-term response of sagebrush ecosystems exhibiting pinyon and juniper expansion to fire; (1) resistance of sagebrush ecosystems to invasion by cheatgrass; and (3) factors that influence sagebrush recruitment. We will describe how this work is being used to develop management strategies to conserve sagebrush ecosystems and Greater sage-grouse habitat.

A tentative agenda follows. We will meet at 8:00 am on both mornings at the Austin District Ranger's Office on the west side of town. You are welcome to attend one or both days. The tours will require high clearance vehicles, and we can car pool if necessary. We will have lunch in the field on both days, so be sure to bring your own food and water. We have had sun, snow, and rain during these field tours, and it would be wise to bring all-weather gear.

Local motels include the Pony Canyon (775) 964-2605, the Lincoln (775) 964-2698, and the Cozy Mountain Motel (775) 964-2471. Campgrounds are available at Bob Scott Summit, Kingston Canyon, and Big Creek Canyon.

The night of the 11th, we will have a barbecue in the Austin City Park. Everyone is invited. We will have plenty of food and are asking for a small contribution (\$10). Please bring your beverage of choice.

If you plan to attend the field tour and barbecue, please RSVP to Jeanne Chambers (jchambers@fs.fed.us; 775-224-1854). We have a lot of new information to share, and we looking forward to seeing many of you in Austin!

Restoring and Conserving Great Basin Wet Meadows and Riparian Ecosystems

Tuesday, July 11th, 2017

- 8:00 am MEET AT AUSTIN DISTRICT RANGER'S OFFICE
-Welcome, Humboldt-Toiyabe Forest Supervisor (Bill Dunkelberger)
-Introductions, Field Tour Agenda, and Safety (Jeanne Chambers, RMRS)
- 8:30 TRAVEL TO KINGSTON CANYON

- Project Overview – Building on Our Current Understanding (Jeanne Chambers)
-Watershed Management Considerations (John McCann, FS; Sarah Peterson, BLM)
-Watershed Resilience to Disturbance (Jerry Miller, WCU)
-Watershed Controls on Riparian Vegetation (Peter Weisberg, UNR)
- 10:00 TRAVEL TO UPPER KINGSTON MEADOW

-Watershed Controls on Meadow Distribution (Jerry Miller, Mark Lord, WCU)
-Hydrologic Controls on Springs and Meadows & Response to Incision (Mark Lord)
-Geomorphic and Hydrologic Controls and Vegetation Response to Incision (Jeanne Chambers)
-Stabilization of Kingston Meadow (Jerry Miller, Jeanne Chambers, Mark Lord)
- 12:00 TRAVEL TO BIG CREEK MEADOW (LUNCH)

-Water Sources and Change in Water Tables Over Time (Mark Lord, Jerry Miller)
-Influence of Pinyon and Juniper Expansion on Water Tables (Keirith Snyder, ARS)
-Guidelines for Meadow Restoration (Mark Lord, Jerry Miller)
- 2:30 TRAVEL TO WASHINGTON/COTTONWOOD CREEK
-Species at Risk and Conservation Efforts (Shawn Espinosa, NDOW; Chad Mellison, FWS; Jason Dunham, USGS)
-Prioritizing Watershed Restoration (Jeanne Chambers and Group)
- 4:30 TRAVEL TO AUSTIN CITY PARK FOR BARBECUE

Restoring and Conserving Great Basin Sagebrush Ecosystems – Pinyon and Juniper expansion, Cheatgrass Invasion, and Wildfire

Wednesday, July 12th, 2017

- 8:00 am MEET AT AUSTIN DISTRICT RANGER'S OFFICE
-Welcome, Humboldt-Toiyabe Forest Supervisor (Bill Dunkelberger)
-Introductions, Field Tour Agenda, and Safety (Peter Weisberg, UNR)
- 8:30 TRAVEL TO BARRETT CANYON
-Project Overview – Building on Our Current Understanding (Peter Weisberg, Jeanne Chambers, RMRS)
-Recent and Historical Pinyon and Juniper Dynamics in the Central Great Basin (Peter Weisberg)
-Pinyon Pine Establishment and the Lower Tree Limit (Ali Urza, UNR)
- 10:30 TRAVEL TO UNDERDOWN CANYON – JFS DEMONSTRATION AREA
Site 8
-Fire Use and Fire Management in Pinyon-Juniper and Sagebrush Ecosystems (Lisa Kemper, FS)
-Long-term Vegetation Response to Prescribed Burns in Underdown Canyon: Lessons Learned (Ali Urza, Peter Weisberg, Jeanne Chambers)
-Recent Fire Patterns in Pinyon-Juniper Ecosystems (Dave Board, RMRS)
- 12:00 pm LUNCH
-Response of Birds and Butterflies to Fuels Management and Fire (Erica Fleishman, CEMML & UC Davis)
- Sagebrush Ecosystem and Greater Sage-Grouse Conservation (Shawn Espinosa, NDOW; John Tull, FWS and Great Basin LCC)
-Regional Impacts of Pinyon and Juniper Removal on Insect, Bat, and Reptile Communities (Kevin Shoemaker, UNR)
- Site 1**
- Resilience and Resistance of Sagebrush Steppe Ecosystems – Lessons from SageSTEP (Jeanne Chambers)
-Soil Response to Fire in Pinyon and Juniper Ecosystems and Effects on Carbon Sequestration (Ben Sullivan, UNR)
- Lower Cheatgrass Plots**
- Longer-Term Effects of Removing Perennial Herbaceous Species Removal and Fire on Ecosystem Resilience (Jeanne Chambers)
-Fuels Treatments and Resilient Great Basin Ecosystems (Peter, Jeanne, Group)
- 4:00 ADJOURN