

Great Basin Consortium IV (February 17-18, 2015; Boise State University)

The Forage and Range Research Lab presented three posters at the meeting. These were titled: 1) Plant material testing for rangeland establishment (Rigby et al.), 2) Development of North American forb plant materials for rangeland revegetation and restoration (Connors et al.), and 3) Native grass plant materials developed at the FRRL (Jones et al.).

Jim Lyons, deputy assistant secretary of the Interior, opened the meeting discussing policy and his long-term experience with the endangered-species listing of the northern spotted owl as a background for the current sage grouse situation. At the time, he was in the Clinton administration and was named as the defendant in the spotted owl lawsuit filed by the Seattle Audubon Society. In 2010 the U.S. Fish & Wildlife Service stated that listing of the sage grouse was warranted but delayed recommending listing due to other priorities. They are supposed to revisit this decision by September 30, 2015. A Fire & Invasive Assessment Team (FIAT) will be sent to the Secretary of the Interior (Sally Jewell) on March 1, 2015 identifying the best-quality grouse habitat for preservation. Jim reminded us that policy not based on sound science is poor policy and will lead to adverse outcomes and a need for more research.

Steve Jackson (USGS, Tucson) is a paleoecologist who has been heavily involved in the novel ecosystem arena. He is able to discuss how climate change has impacted plant communities since the Pleistocene. They are characterized by change as climate changes, thus the plant communities that we may think of as static are really only snapshots in time. He made the point that there need not be a single arbitrary target for restoration. His take-home message was that we need to accept and deal with change.

Kelly Redmond (Desert Research Institute, Reno) talked about climate change. The models predict temperature to increase in a stair-step fashion rather than linearly. This may explain the failure of temperatures to increase substantially over the last 15 years in spite of increased atmospheric CO₂.

Emile Elias (ARS, Las Cruces, NM) reported on the on the new USDA regional climate hub headed by Al Rango at the Joranada Experimental Range. The hub has a major extension mandate to work with producers in managing climate-change impacts.

Cindy Fritz (BLM, Boise, ID) talked about her experience doing Emergency Stabilization & Rehabilitation in the Boise BLM district, specifically the Nichol Pit area near Mountain Home Air Force Base. She feels fortunate that introduced plant materials are available to deal with the cheatgrass problem. She sees them as a critical component of 'assisted succession,' with the idea being that they can control cheatgrass prior to reestablishment of natives. Note: I believe we could assist in this regard by providing a sterile crested wheatgrass, perhaps an interploidy hybrid, which would not generate seedlings to compete with seeded natives. Cindy discussed her successes at extremely dry (5-7 inch precipitation) sites. She also discussed the appropriate use of herbicides to control weeds and of grazing to remove old growth of mature plants. She emphasized that restoration requires multiple steps. We need to take advantage of every opportunity for restoration. Don't give up!

Francis Kilkenny's (USFS, Boise) mission is to increase the percentage of natives in seed mixes by developing plant materials that are more effective in dry areas. The stated approach is to apply "the

right seed at the right place at the right time.” He discussed the results of the big sagebrush common garden at Glenn’s Ferry, ID (Sands & Welch) that was established in the 1980s in which the Glenn’s Ferry accession did best. As a developer of seed transfer zones, Francis is looking for seed sources that may work in novel climates. He stated that the Snake River Plain will likely become incapable of supporting bluebunch wheatgrass. During the question-and-answer period, Francis stated that there may be other suitable approaches toward plant material development besides the seed zone approach.

Beth Leger (University of Nevada-Reno) discussed the traits that confer adaptation of plant materials to some of the driest sites, e.g, early green-up, early flowering, early germination, small seedling and mature-plant size, and early root growth. She emphasized that we need highly adapted populations, not just individual plants. The plant population is the unit of restoration, thus she wants to identify more effective populations within a seed transfer zone.

Jeff Ott (USFS, Boise) discussed the most effective seeding techniques for burned dry sites.

Great Basin Consortium Conference

*Climate programs, water limitations, and
geospaces in the Great Basin*

**Conference Program
February 17-19, 2015**

Boise State University
Student Union
Boise, Idaho, USA

Participating Organizations:

Great Basin Cooperative Ecosystem Studies Unit (GB-CESU)

Great Basin Environmental Program (GB-EP)

Great Basin Fire Science Exchange Project (GB-FSE)

Great Basin Landscape Conservation Cooperative (GB-LCC)

Great Basin Research and Management Partnership (GB-RMP)

Guest Partner: Great Basin Native Plant Project (GB-NPP)



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