

Bioclimate Models and Change Projections to Inform Forest Adaptation in Southwestern Colorado

Final Results and Application to Vegetation Management

Forest adaptation can help reduce anticipated impacts of climate change and increase the likelihood of maintaining forest cover into the future. Bioclimate models provide spatially explicit projections of impacts to tree species that can be used to guide adaptation at landscape and project scales.

Using the latest improvements in modeling methods, climate projections used by IPCC with the latest emissions scenarios, and a large database of local distribution data, bioclimate models were developed for 14 tree species in southwestern Colorado and results mapped at high resolution.

Topics

1. Managing vegetation given the (un)certainty of climate change.
2. Forest adaptation planning/actions on other units.
3. Model development, associated reliability/uncertainty.
4. Changes projected for tree species in your area.
5. Application to landscape-scale and project planning.
6. Some specific silvicultural recommendations based on projections.

Results can be used to: (a) focus efforts to increase forest resilience where it has the greatest likelihood of long-term success, (b) identify potential climate refugia and develop appropriate management tactics for them, and (c) determine the most appropriate management actions for climate adaptation of vegetation for specific sites.

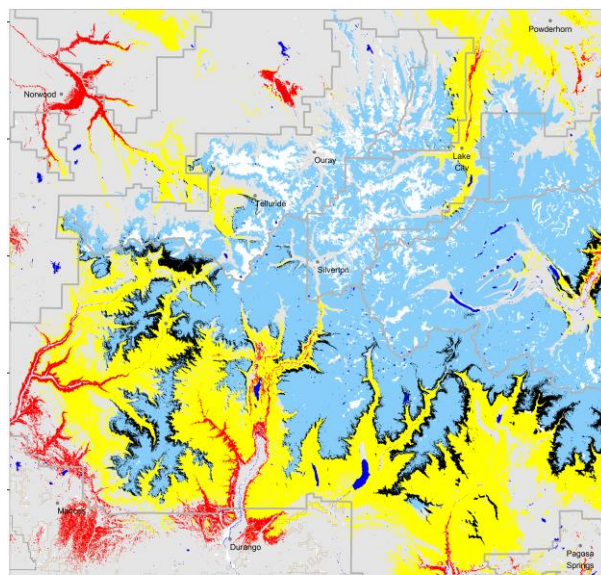
SPEAKERS will include an update from each unit plus: **Mike Battaglia**, RMRS research silviculturist; **Jeff Underhill**, USFS regional silviculturist; **Jim Worrall** and **Suzanne Marchetti**, USFS Rocky Mountain Region; and **Renée Rondeau** of Colorado Natural Heritage Program.

TO REGISTER: Visit www.mountainstudies.org or click [Bioclimate Workshop to register](#). Each unit will have an opportunity to report on their adaptation planning or efforts, especially for vegetation. Please indicate if you would be willing to speak or a potential speaker from your unit with your registration.

DATE & LOCATION: **November 2, 9 AM- 4 PM, Durango, CO**
The workshop, hosted by Mountain Studies Institute and Colorado Natural Heritage Program, will be held at the Durango Recreation Center in the Sunlight Room. Lunch will be provided.

Collaborators

Rocky Mountain Research Station
Colorado Natural Heritage Program
Mountain Studies Institute
Mesa Verde National Park
Southern Ute Indian Tribe
Tres Rios Field Office (BLM)
Mountain Studies Institute
Forest Health Protection (USFS)
San Juan National Forest
Rio Grande National Forest
GMUG National Forests
Western Wildland Envtl. Threat Assessment Center



2050 CGH Change Zones for PSME: Lambert Azimuthal Equal Area projection.

PSME Change: Lost (Red), Threatened (Yellow), Persistent (Black), Emergent (Light Blue), Water (Blue), Rock/Barren (White)

