

# 2013 *Festuca hallii* (Vasey) Piper Directed Surveys on the Arapaho-Roosevelt National Forests (ARP) in Colorado

Cameron Peak



Shipman Park



Presented at 11<sup>th</sup> Annual Colorado Rare Plant Symposium  
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# *Festuca hallii* Overview

- G4, S1 in CO and S2 in WY.
- Common in Canada, rare in WY, CO, NM.
- Range-wide declines due to human land use practices, including livestock grazing, agricultural conversion, and fire suppression.
- Sometimes confused with *Festuca campestris*.
- Forest Service Region 2 sensitive species. Directed surveys commissioned by ARP in 2013.

# *Festuca hallii* in Colorado

## Five Historic Occurrences:

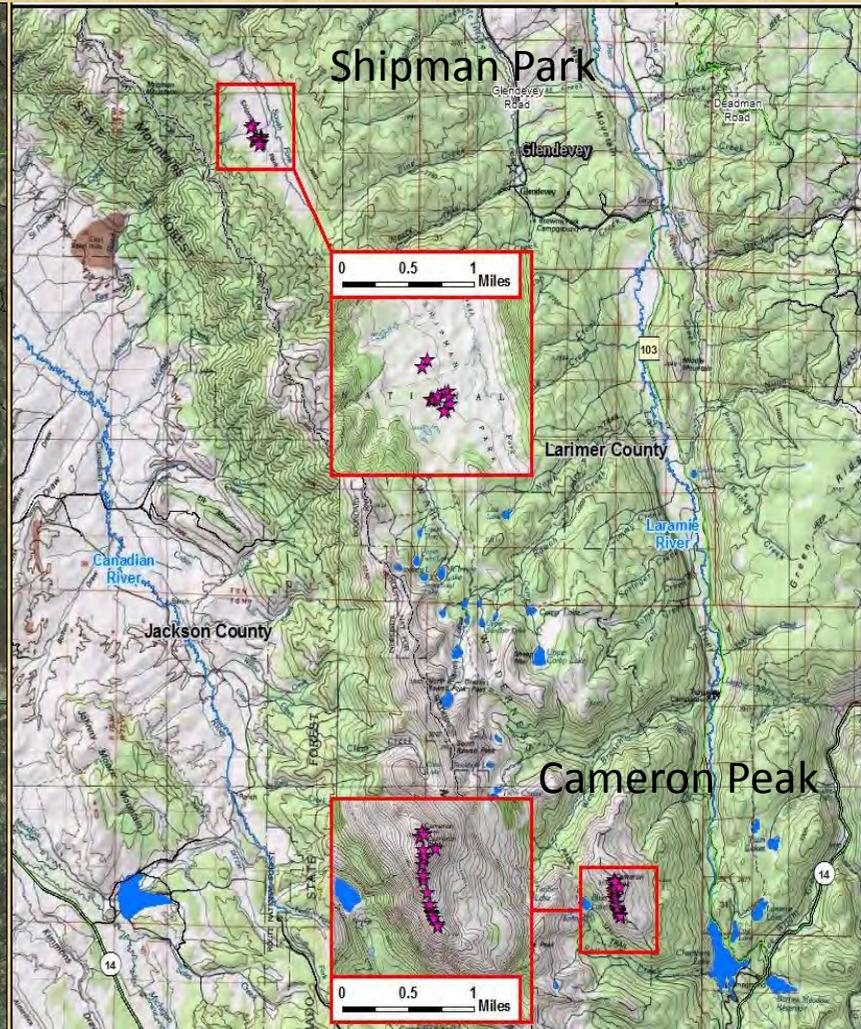
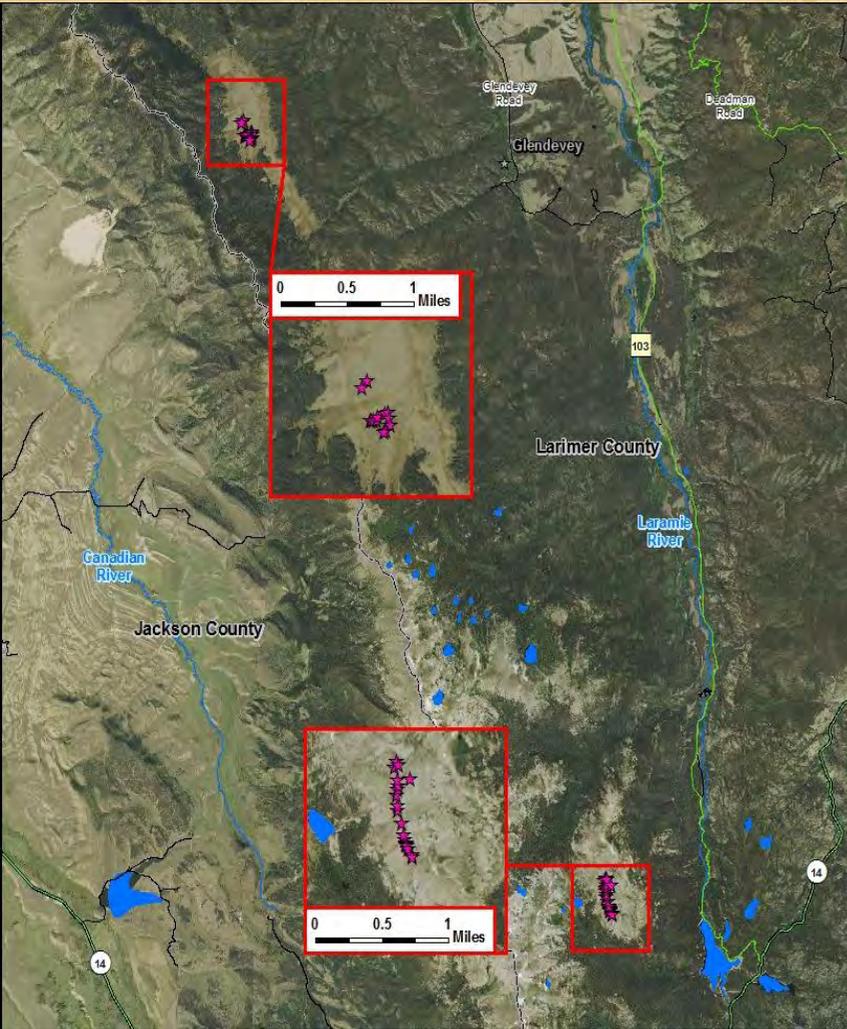
1. San Isabel National Forest. Spanish Peaks, rediscovered 2003, last seen 1978. Population size: Estimate of low thousands.
2. Roosevelt National Forest. Cameron Peak, rediscovered 2013, last seen 1956. Population size: 2,140 ramets counted.
3. Shipman Park, Roosevelt National Forest, rediscovered 2013, last seen 1954. Population size: 316 ramets counted, but probably an underestimate.
4. Northern South Park, the type locality probably on Pike National Forest or private, vague locality.
5. Custer County, in H.D. Harrington's notes, vague locality.

# 2013 *Festuca hallii* Surveys

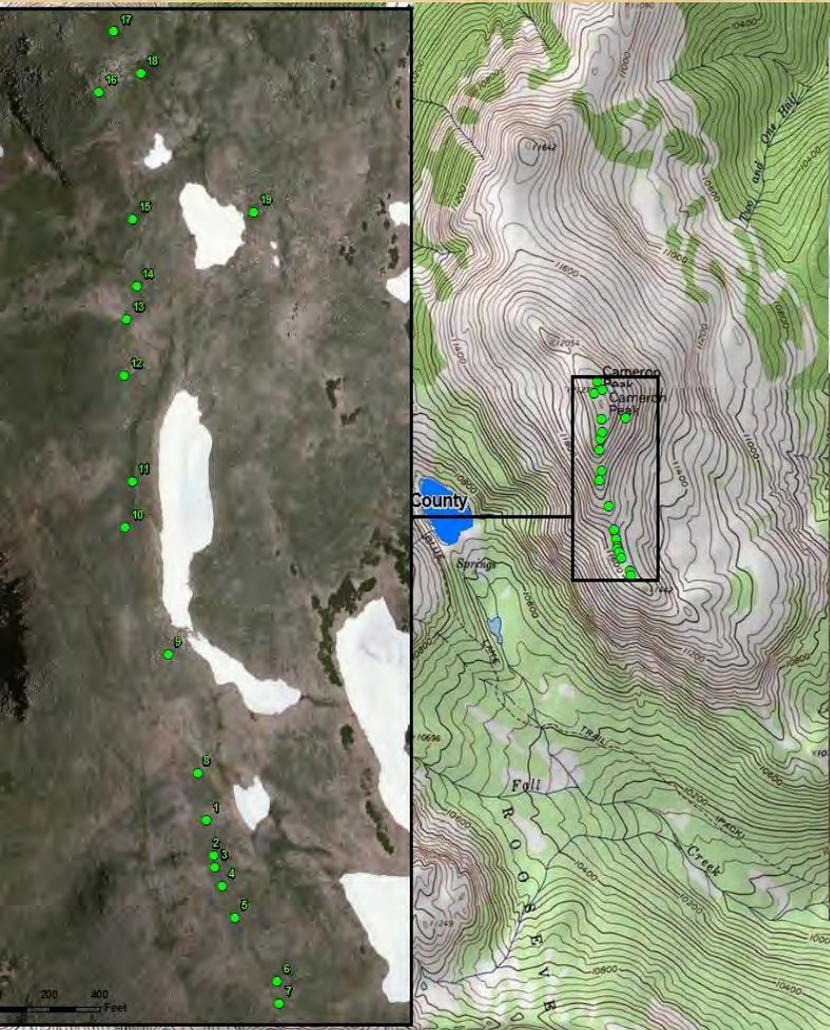
## Funded by ARP

- Two of Colorado's historic sites on the ARP rediscovered. Both sites are located in Larimer County:
  1. Cameron Peak not seen since 1956.
  2. Shipman Park not seen since 1954.

# Two Rediscovered Occurrences on the Roosevelt National Forest Cameron Peak and Shipman Park



# Cameron Peak: 19 subpopulations, 2,140 ramets.



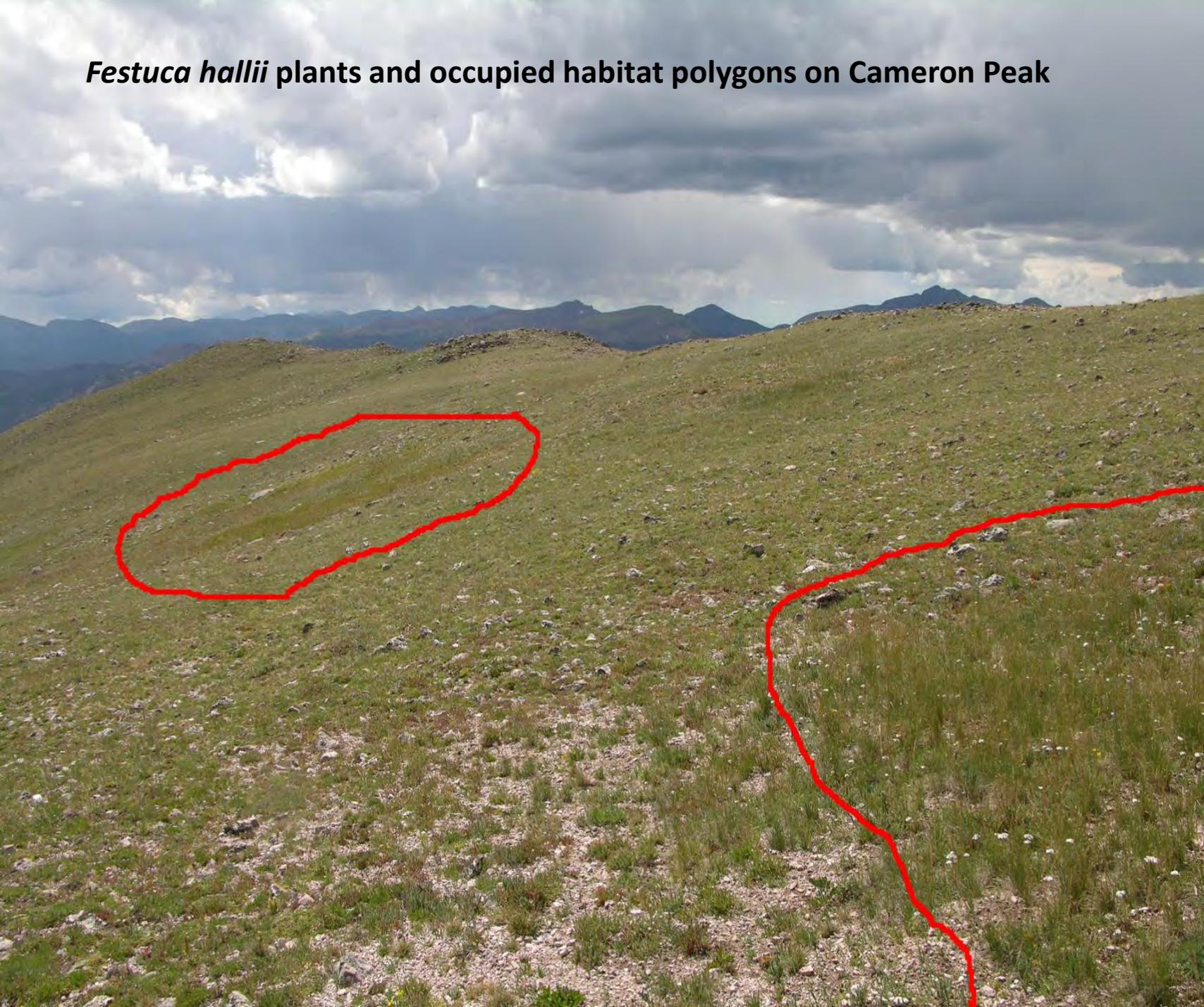
***Festuca hallii* plants and habitat on Cameron Peak**



**Rodent disturbance in *Festuca hallii* habitat on Cameron Peak**



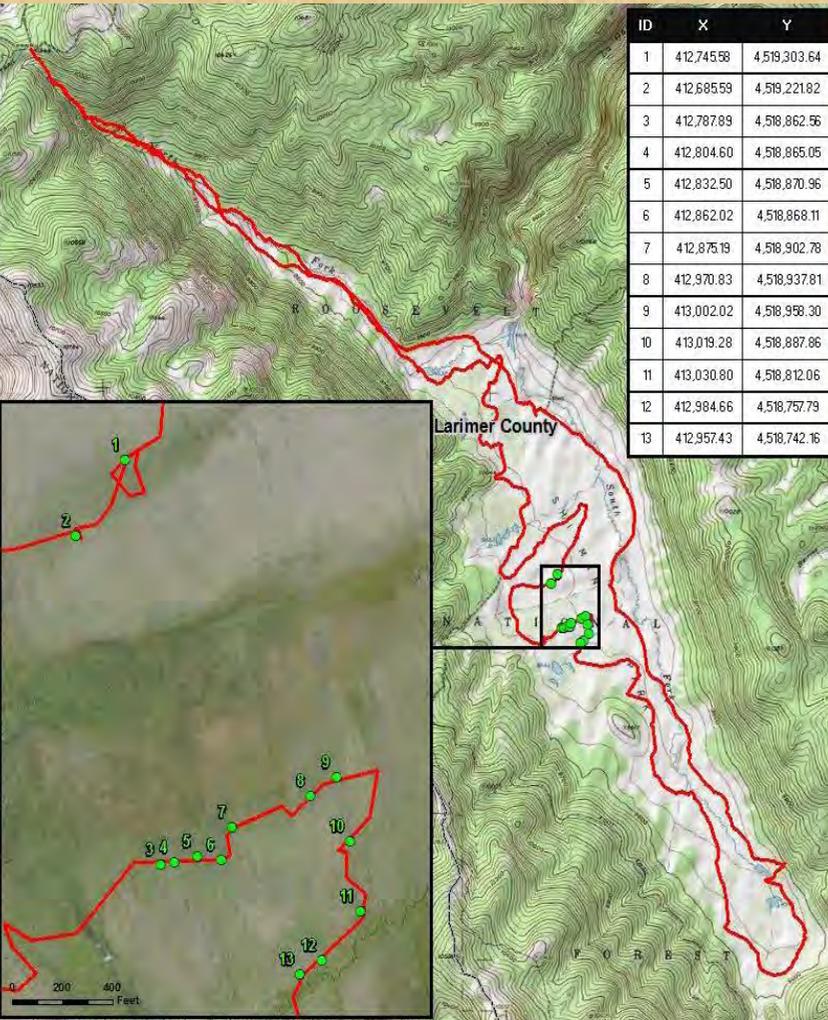
***Festuca hallii* plants and occupied habitat polygons on Cameron Peak**



Only the Uppermost Subpopulations Associated with *Kobresia*



# Shipman Park: 2 subpopulations, 316 ramets.



***Festuca hallii* plants and habitat in Shipman Park**  
**Circled area is a large *F. hallii* hummock**



***Festuca hallii* inhabiting a large hummock**



# Spanish Peaks Occurrence



# Rodent Disturbance



# Characters of *Festuca hallii*



# Field Identification of *Festuca hallii*

- Usually large and robust for a fescue
- All known Colorado populations with a contracted panicle
- Leaves one-half or over one-half the height of the stem
- Leaves quite narrow and involute
- Densely caespitose with a short and brittle rhizome
- Spikelets are relatively large for a fescue
- lemma is unawned and acute, or short-awned
- Glumes are nearly equal to exceeding the lemma, an unusual character in *Festuca*
- Stem often purplish at base