#### Middle Park, Colorado, Rare Lichen Survey Results

Rare Lichen Habitat in Middle Park, Colorado



Presented at 11<sup>th</sup> Annual Colorado Rare Plant Symposium Ft. Collins, CO, 10/03/14

Presented by Brian Elliott, Elliott Environmental Consulting, and Steve Popovich, Forest Botanist, Arapaho-Roosevelt National Forests

### Recent Surveys

- 2013 Western Area Power Administration Rights-of-Way.
- 2014 Arapaho-Roosevelt National Forest funded surveys near Granby.
- 2014 BLM State Office-funded survey in Kremmling area.

### Three Species of Interest

- 1. Xanthoparmelia idahoensis Hale
- Circinaria rogeri Sohrabi
   (Aspicilia fruticulosa (Eversm.) Flagey
   misapplied.)
- 3. Dermatocarpon reticulatum H. Magn. vagrant "form".

#### Evolution of Our Knowledge Regarding These Rare Lichens in Colorado

- Known Occurrences in Colorado Based on Vouchers.
- Numbers in *bold italic font* indicate sites with vouchers verified by Roger Rosentretter.
- All sites were vouchered, and 2014 results are awaiting verification.
- Each site may not be a new element occurrence!

Taxon	Pre-2013	2013	2014
Xanthoparmelia idahoensis	3	5	18
Circinaria rogeri	1	6	19
Dermatocarpon reticulatum vagrant form	1	3	5

### Xanthoparmelia idahoensis



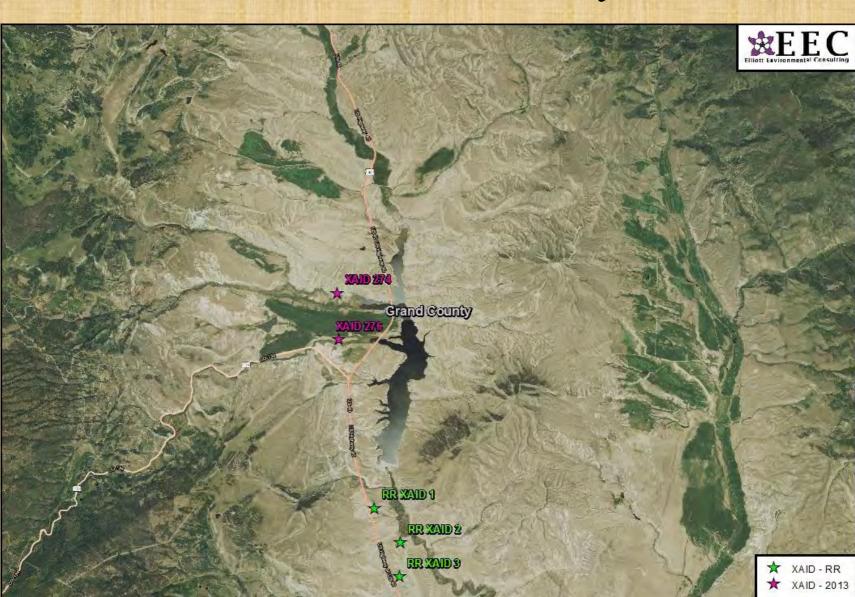
#### Xanthoparmelia idahoensis Habitat



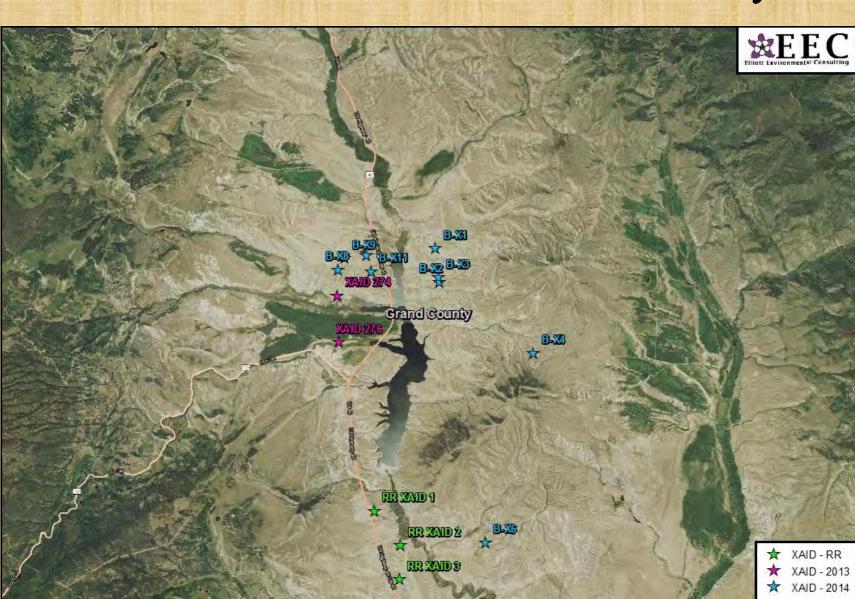
## Original Site Discovered Roger Rosentretter in 1995 Two Additional Sites in 2011



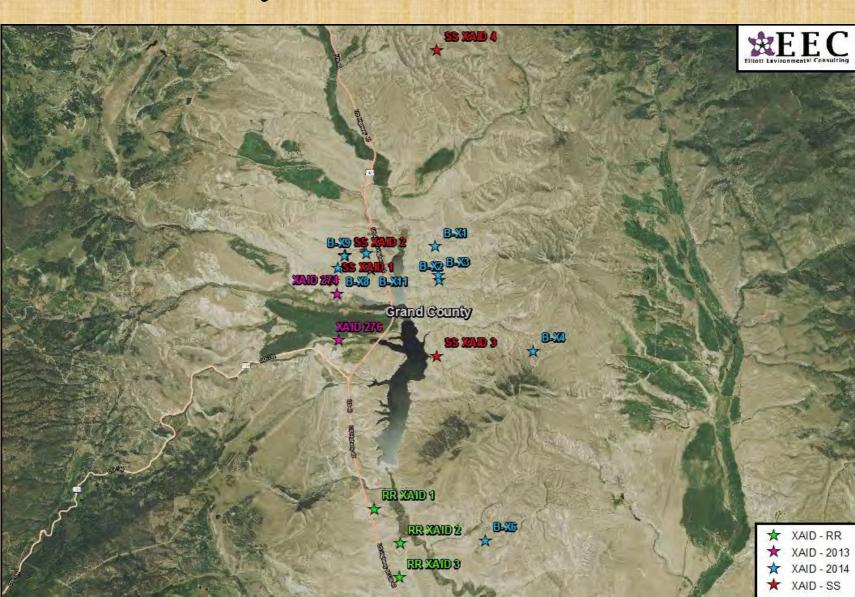
# Additional Sites Discovered During 2013 WAPA Survey



# Additional Sites Discovered During 2014 BLM Funded Directed Survey



# Additional Sites Discovered By Scott Smith 2014



## Circinaria rogeri



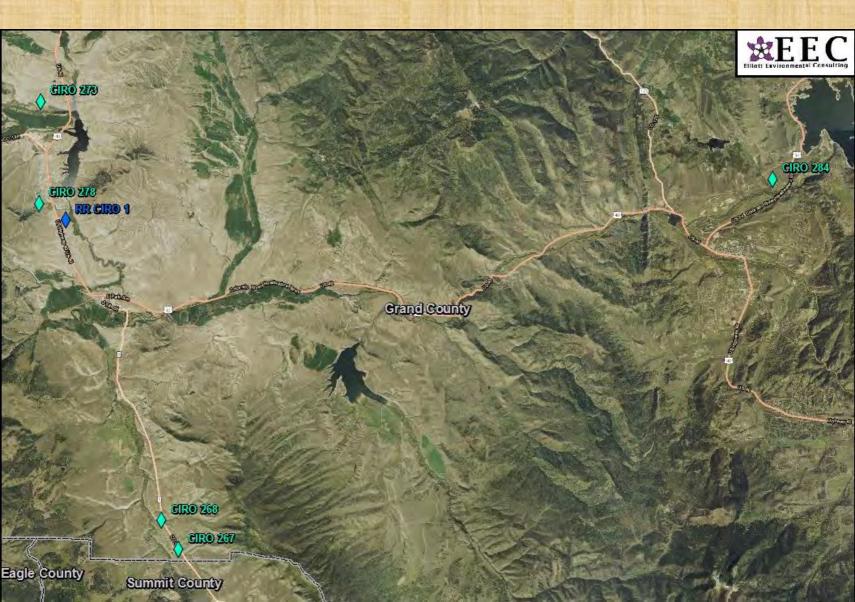
## Circinaria rogeri Habitat



#### Original Site Discovered Roger Rosentretter in 1995



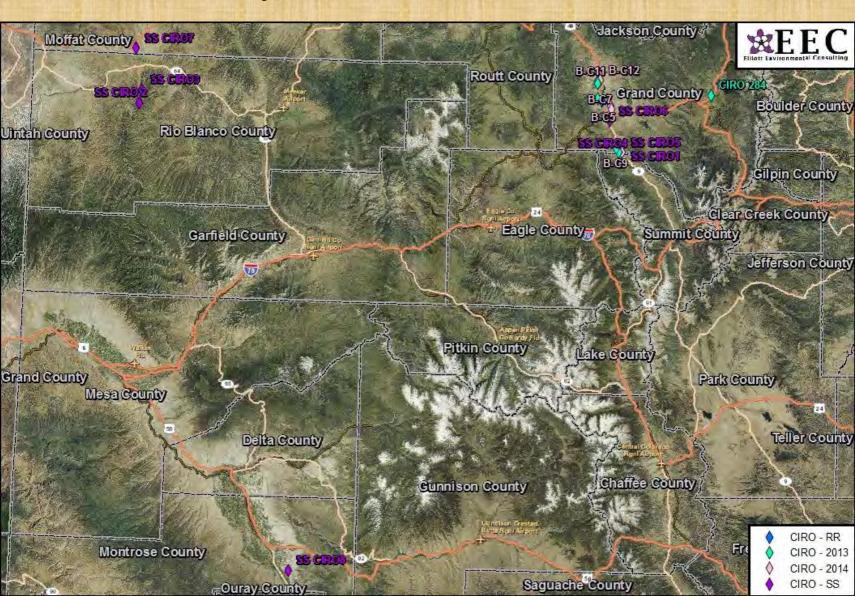
## Additional Sites Discovered During 2013 WAPA Survey



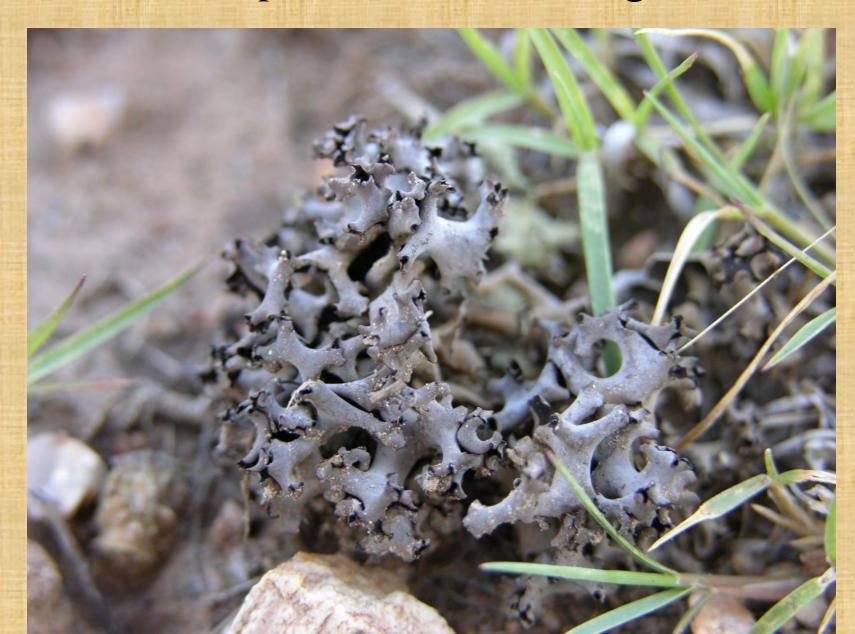
## Additional Sites Discovered During 2014 BLM Funded Directed Survey



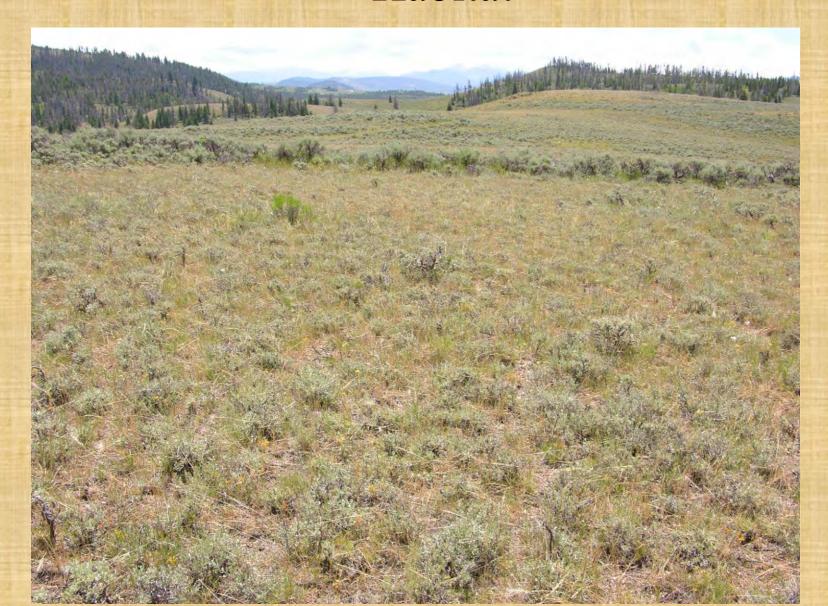
### Additional Sites Discovered By Scott Smith 2014



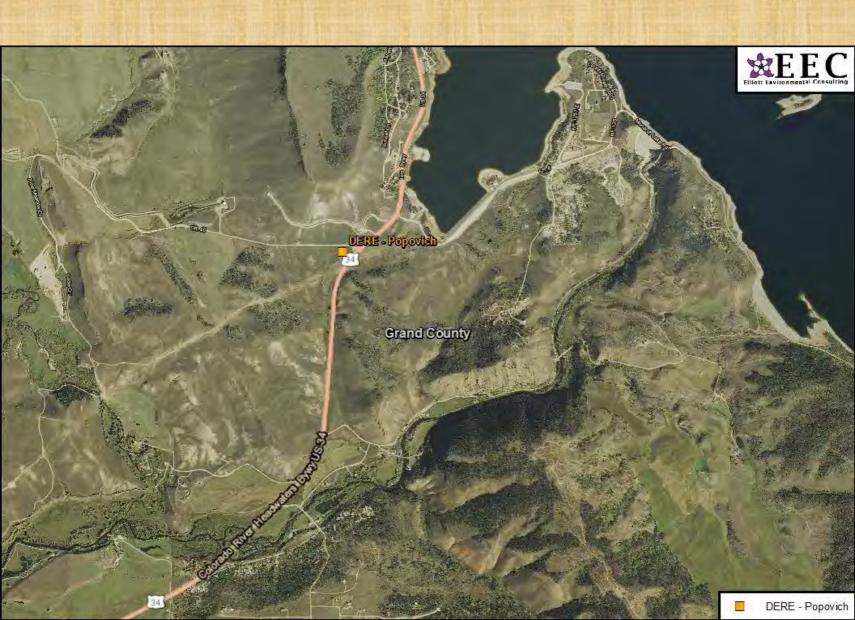
#### Dermatocarpon reticulatum vagrant form



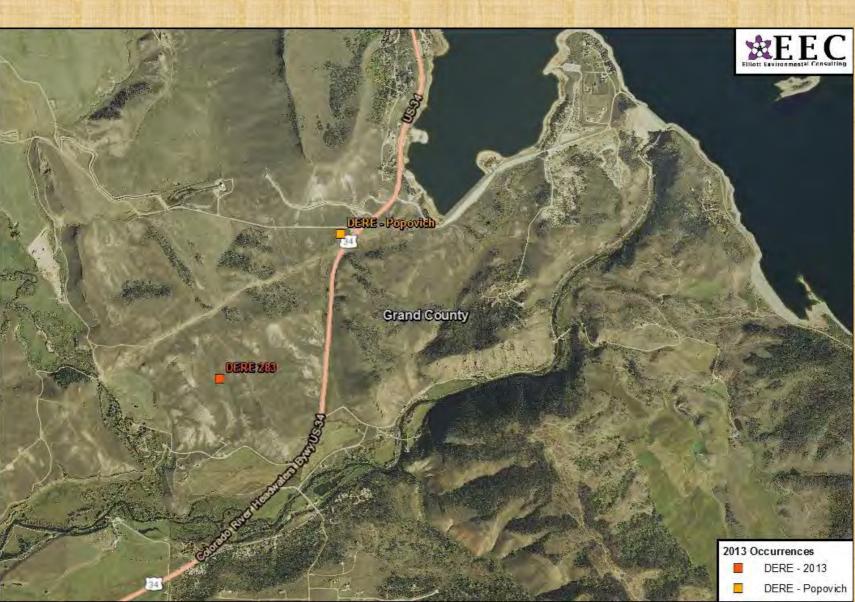
# Dermatocarpon reticulatum vagrant form Habitat



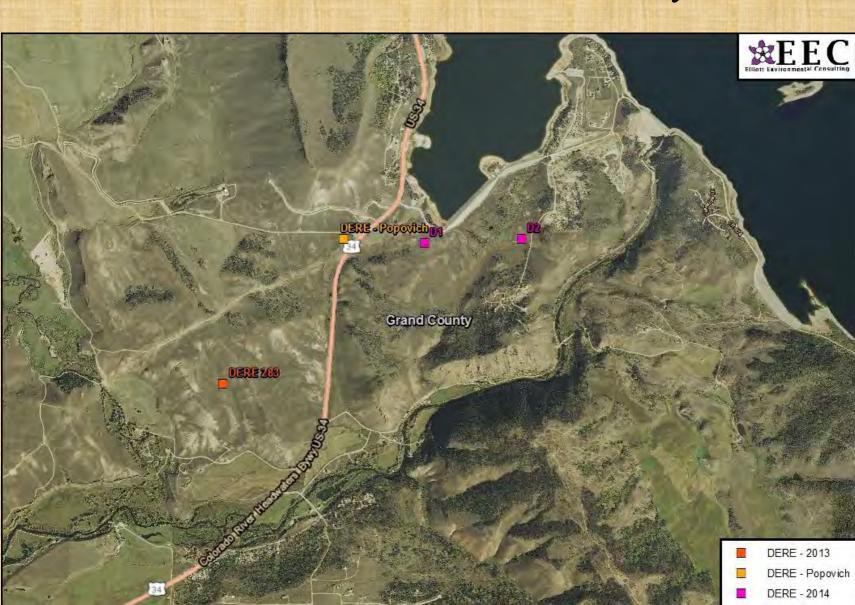
#### Original Site Discovered by Steve Popovich



## Additional Site Discovered During 2013 WAPA Survey



## Sites Discovered During 2014 ARP Funded Directed Survey



### Summary

- These lichens are more common than previously thought but still rare.
- Potential status change (S1 to S2).
- Little survey effort relative to other S1 species in Colorado.
- Threats include any activity that creates ground disturbance.