

Rangelands Controversy & Collaboration



CSS 235 presentation by Professor Karen Launchbaugh

What are Rangelands?

- Rangelands **are** shrublands, grasslands, deserts, woodlands, and open forest.
- Several factors can preclude farming or timber production on these:
 - Limited precipitation
 - Sandy, saline, or wet soils
 - Steep topography
 - Rocks



Why are rangelands important?

They cover a lot of ground



47% of the EARTH is rangeland
(some estimates as high as 70%)



36% of the US is rangeland



53% of Western States is rangeland

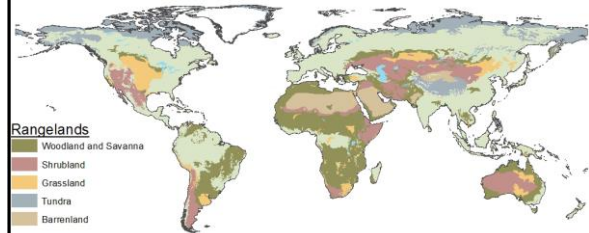


48% of the Idaho is rangeland

80% of the Nevada

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Rangelands of the World



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Why are rangelands important?

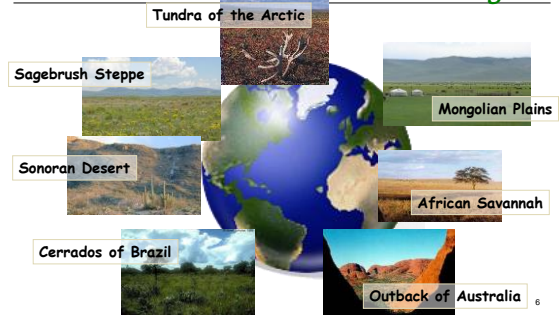
They cover a lot of ground

- Half of the earth's surface is rangeland
 - 47% = Rangeland
 - 25% = Forests
 - 10% = Cropland
 - 3% = Urban
 - 15% = Ice, rock, and barren desert

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Rangelands are Diverse and Extensive!

Across the globe



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Rangelands are Important

The Ranching Challenge

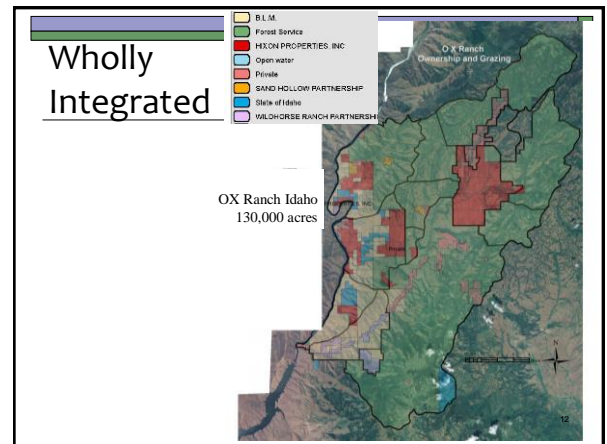
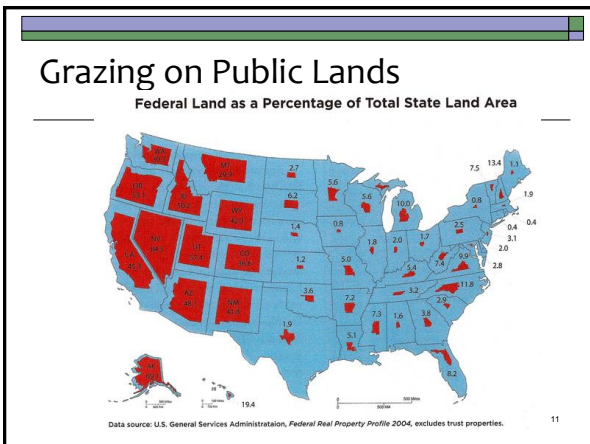
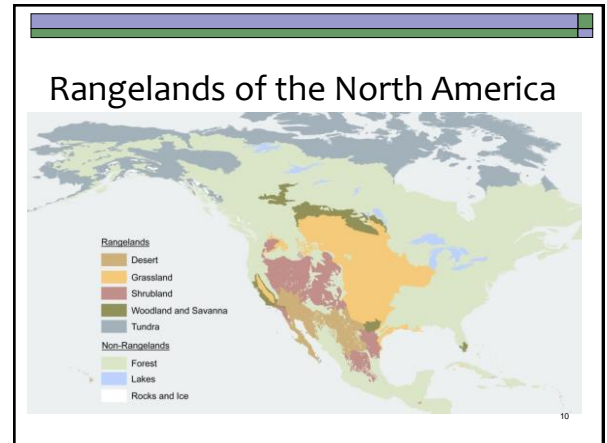
= few resources can be sold to pay for land and taxes

Greatest Concerns?

- Food for population
- Overgrazing & Desertification

What are Rangelands?

- Rangelands are a kind of land – not a specific land use.
- Grazing is Inherently Tied to Rangelands
 - Grazing as an important ecological process in all rangeland, but not all rangelands are grazed by livestock.
 - Grazing of domestic livestock affects more of the land surface than any other human activity.

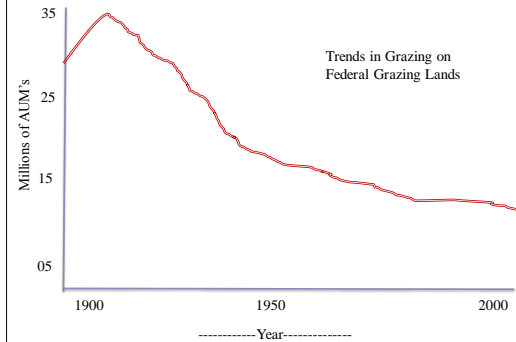


Grazing on Public Lands

- Grazing on private lands is wholly integrated with public grazing lands.
 - Livestock grazing occurs on:
 - 95% of BLM land
 - 58% of U.S. Forest Service lands
 - 88% of all beef cows in Idaho graze at least part of each year on BLM or USFS lands.

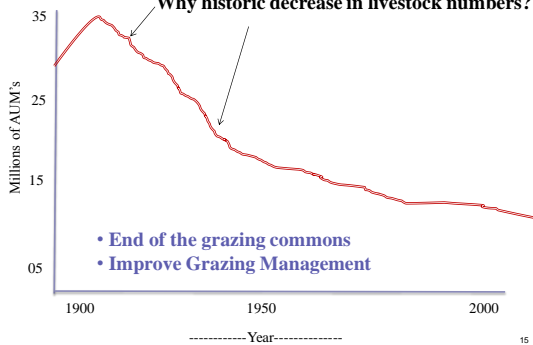
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Trends in Grazing on Federal Grazing Lands



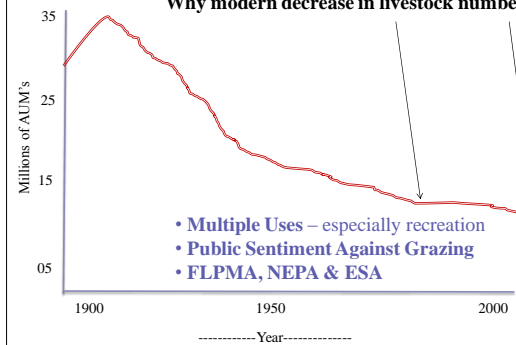
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Why historic decrease in livestock numbers?



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Why modern decrease in livestock numbers?



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Controversy - Federal Grazing Fee

- Grazing on Federal Lands often called “Welfare Ranching”
 - Federal Fee = \$1.35/AUM (BLM & USFS 2012)
 - State Fee = \$5.25/AUM (Idaho 2012)
 - Lease Fee on Private land = \$8 to \$15/AUM

... It depends on what comes with the lease and what it costs the rancher.

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Federal Grazing Fee (\$/AUM)


(1992, Idaho, Wyoming, New Mexico, Rimbey et al.)

	Private	Public
Lease Fee	9.06	1.35
Lost Animals	2.10	3.65
Moving Livestock	1.93	3.35
Herding	2.94	4.31
Imprv. Maintenance	1.84	3.18
Other	2.52	3.66
Total	\$20.39	\$19.50
Difference		\$0.89

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Livestock-Wildlife Interactions

Negative ← ????? → Positive



It Depends

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Properly Managed Grazing

- Create patchy habitat with high structural diversity.
- Open up dense vegetation canopies
- Reduce coarse grass & improve quality
- Stimulate browse production by reducing grass biomass
- Use livestock to manage weeds and fire risk
- Create bare ground for feeding, dusting, and display areas

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“Irresponsible Grazing”

- Reduce nest sites for upland game birds & wildlife
- Trample nests
- Disturb big game during fawning
- Reduce wildlife hiding cover
- Reduce forage for ungulates
- Reduce floral diversity
- Attract predators, parasites, or disease

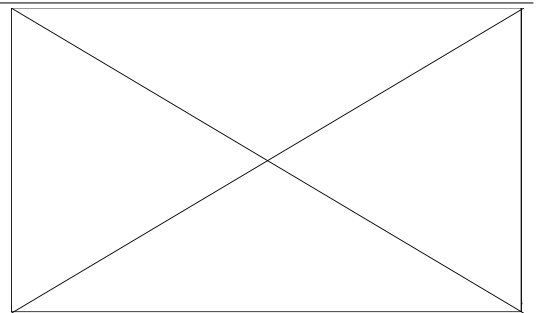
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A few examples

- Cattle --- Mountain Plovers & Dove
- Cattle & Sheep -- Sage-Grouse
 - Reduce fuels – increase insects & forbs
 - Reduce cover and
- Cattle -- Elk & Deer Fall Forage Quality
- Sheep & Goats - Reduce dense brush

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Example: Ranching and Wildlife



https://www.youtube.com/watch?v=-4wwCqrsj8c&feature=player_embedded

Wild Horses

- Horse populations growing at 15-20% a year.
- Major limiting factor is food (no predators).
- 1971, Wild Free-Roaming Horses & Burros Act
- >45,000 animals were in holding facilities
- Competition with livestock
- Few options for mgmt.



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Preserving Open Space

Ecological Impacts of Subdivision

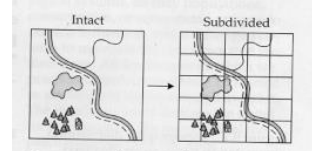


- The amount of land affected by sprawl & development = 3% per year
- Since 1978, Colorado ranchland has decreased by 90,000 ac/yr
- In the last 30 years, 16-23% of the land in the counties adjacent to Yellowstone-Tetons has been platted for or converted to ranchettes (20-40 ac parcels)
- Intermountain West is only region US where rural counties are growing

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Is Subdivision Good or Bad?

- Fragmentation
- Population Density
- Roads
- Fences
- Predators
- Exotic Species
- Wildlife Generalists/Specialists



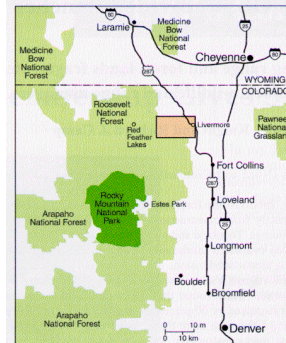
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The New Ranch House



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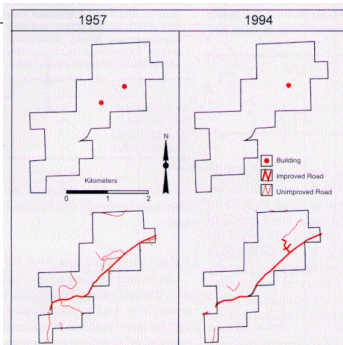
Changes 1957 to 1994



Mitchell, Knight & Camp. 2002.
Landscape Attributes of Subdivided Ranches

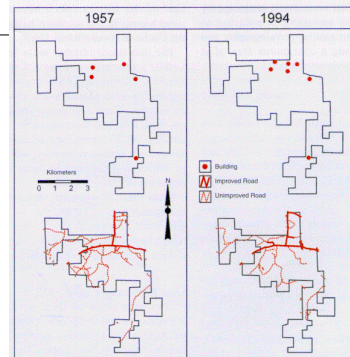
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Intact Ranch # 1

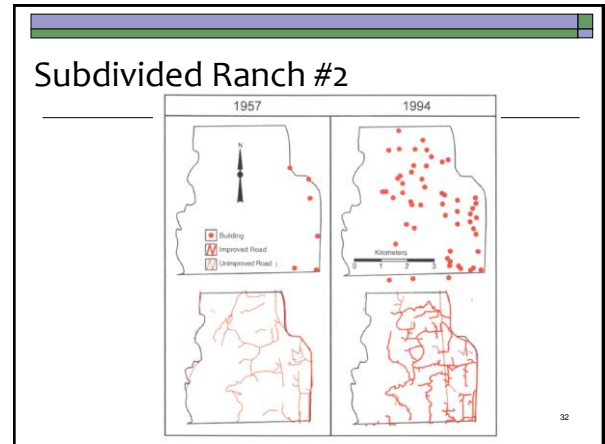
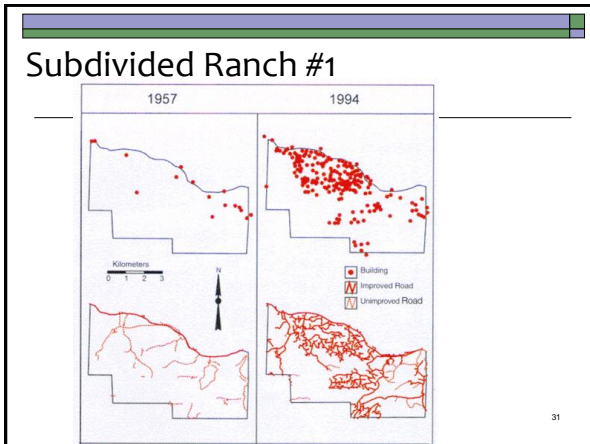


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Intact Ranch # 2



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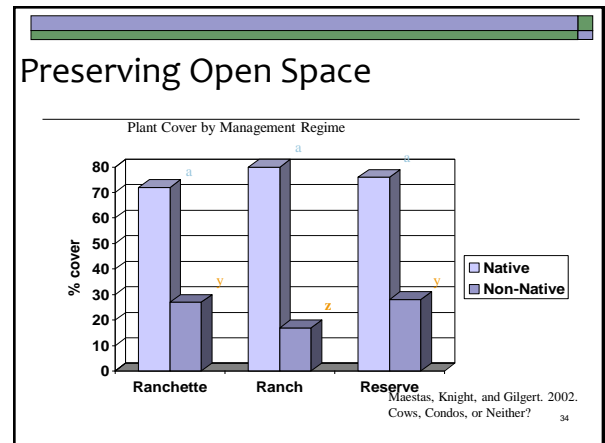


Preserving Open Space

	Road Density (mi./sec.)		No. of Buildings (no./sec.)		No. of Rangeland Patches	
	1957	1994	1957	1994	1957	1994
Intact Ranch	0.84	1.08	0.8	0.5	35	49
Sudivided Ranch	0.41	4.55	0.7	9.5	55	411

Mitchell, Knight & Camp. 2002.
Landscape Attributes of Subdivided Ranches

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Is grazing good or bad for animal and plant communities?

YES....

- Mangle wildfire
- Reduce or promote weeds
- Improve or damage watershed
- Create or destroy wildlife habitat


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Collaborative Planning

- Coordinated Resource Management Planning
- Cooperative Weed Management Area
- Local Sage Grouse Working Groups
- Owyhee Initiative
- What do all these group have in commons?

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Collaborative Planning




<http://www.lifeontherange.org/>

Fifty Years of Change in a Shadscale Stand in Idaho

Lee A. Sharp, Ken Sanders & Neil Rimbey

<http://www.cnr.uidaho.edu/range/Projects/Shadscale/>

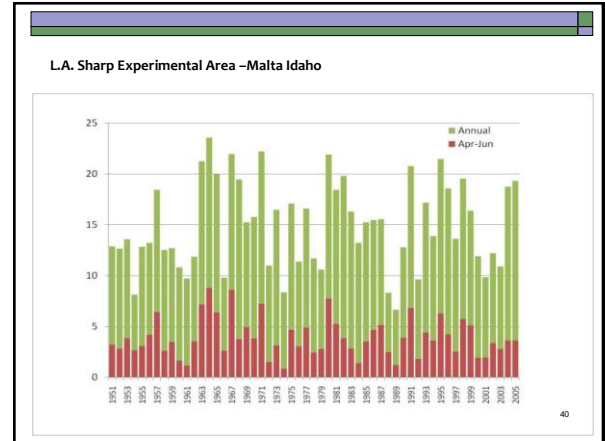
Background of Photos



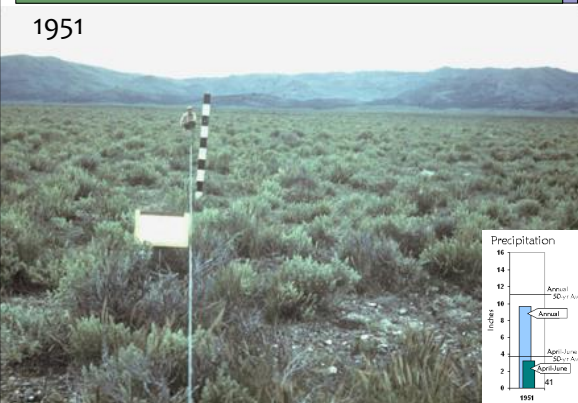
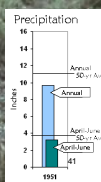
The following rangeland photo journal charts the changes that have occurred in a shadscale (*Atriplex confertifolia*) stand in southern Idaho starting in 1951.

- Photos of the site have been taken annually since 1955, but the selected photos show the dynamic nature of the site.

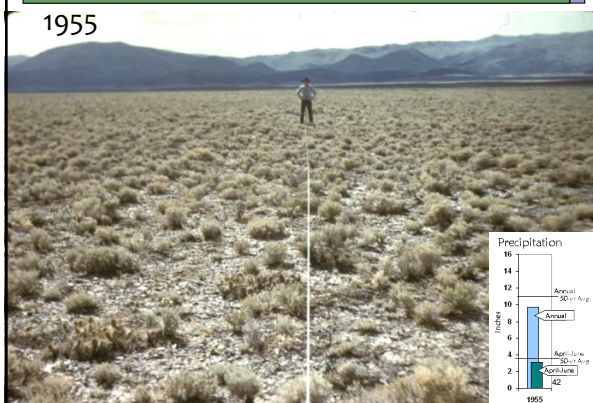
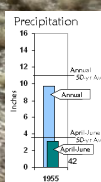
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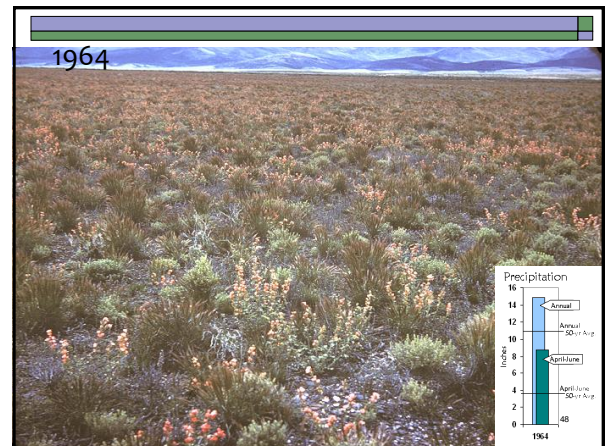
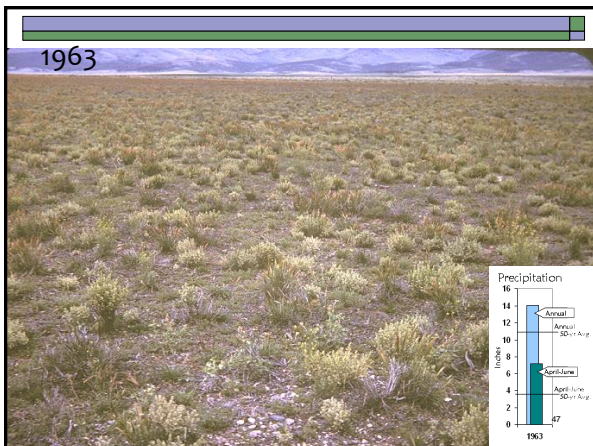
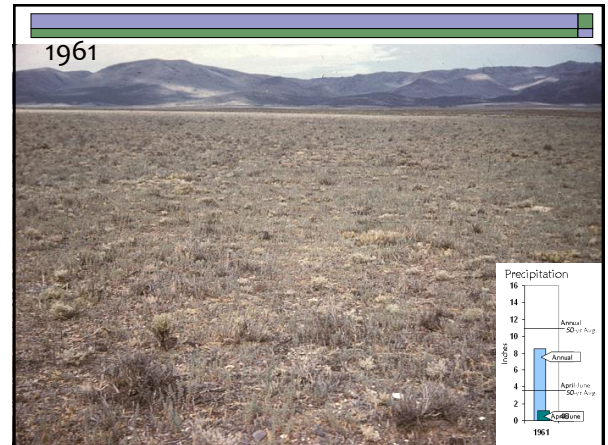
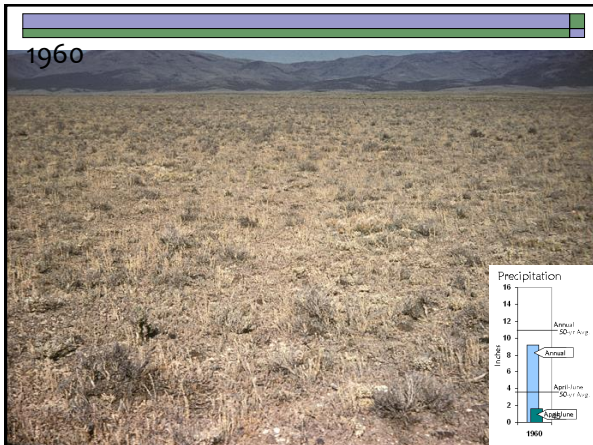
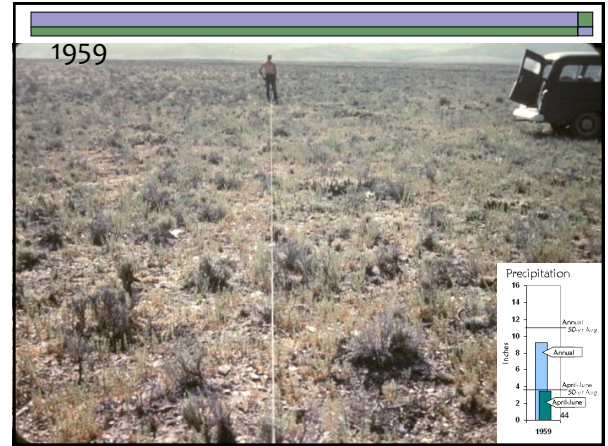
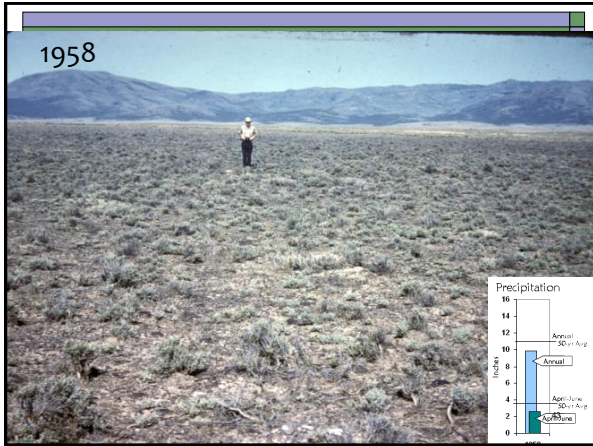


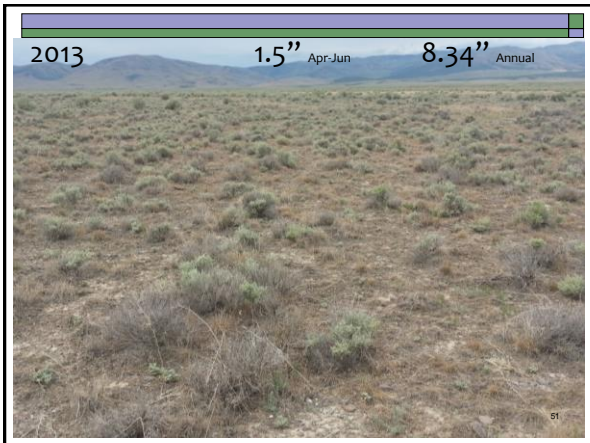
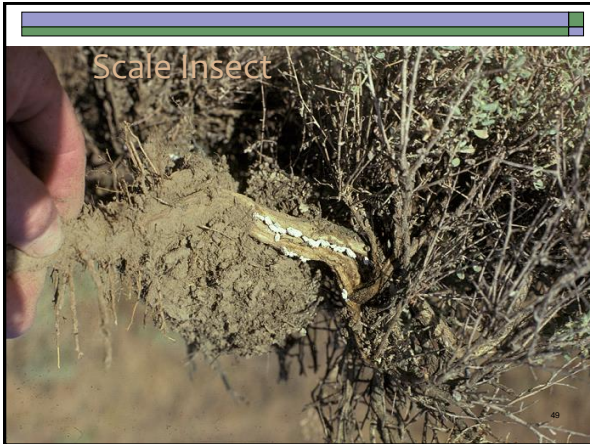
1951

1955





Rangelands Controversy & Collaboration

Three small landscape photographs are arranged horizontally. The first shows a field of purple wildflowers with mountains in the background. The second shows a valley with green fields and mountains. The third shows a hillside with a winding road and mountains.

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