

Native Grasslands of the Great Plains of North America: Using Prairie Grouse as Flagship Species for Restoration

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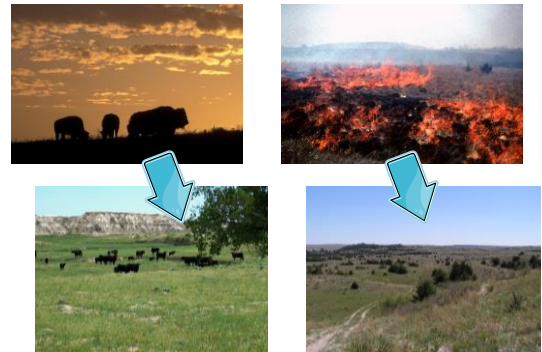
Grasslands of the Great Plains

- Historically occurred across 585 million acres of the U.S. and Canada
- Today they are considered among our most endangered ecosystems
- Many declining or at risk species

Direct Conversion



Indirect Conversion



Invasive Species and Exotics



Land Ownership

- 92% Private
- 8% Public

Conservation Strategy

- Considerations:
 - Bioreserve strategy not accepted
 - Need diverse support
 - Must engage private landowners
- Ecosystem restoration focus
- Prairie grouse as flagship species

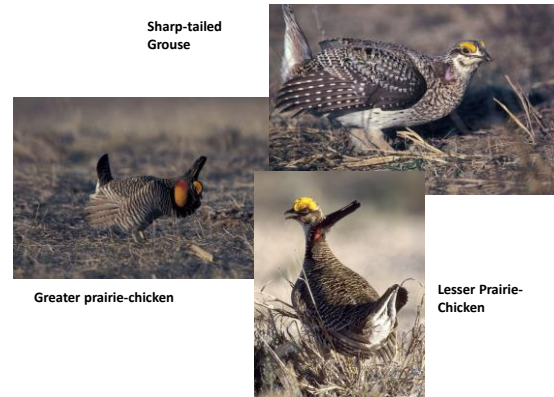
Grouse as Flagship Species for Prairies



- Flagship species: Species that can garner public support for their management, and in doing so, provide conservation for other species and ecosystems

Prairie Grouse as Flagship Species

- Desirable species- landowners like them
- Require large blocks of habitat
- Garner state agency support
- Meshes well with ecosystem restoration



Conservation Strategy

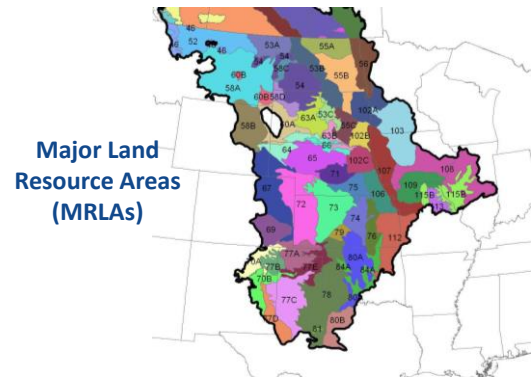
- Goal- Provide adequate representation of native ecosystems in terms of appropriate compositions, structures, and processes and in sufficient amounts and distributions to provide the habitat needed by native prairie species.
- Prairie grouse provide focus, amounts, and distribution of restoration needs

How to Accomplish Restoration

- Identify restoration goals
 - What specific plant communities to restore
 - How much is needed
 - Where is it needed
- Identify best treatments to restore desired conditions on specific sites

NRCS Ecological Sites

- Classification system for inherent diversity- abiotic environment
 - Largely climate and soils driven, but also terrain, water availability, and other factors
- ESD's provide information needed to describe native ecosystems in terms of their compositions, structures, and functions
- Characterized within Major Land Resource Areas
- Mapped in nearly all of the Great Plains



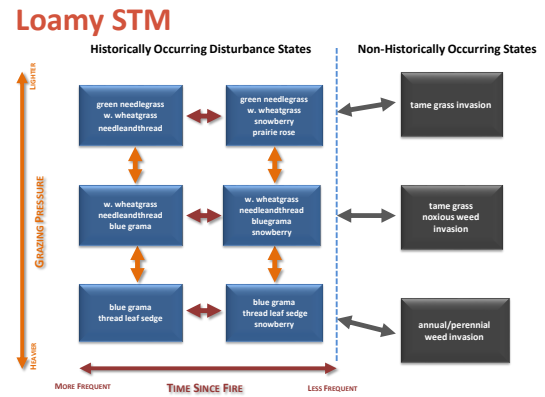
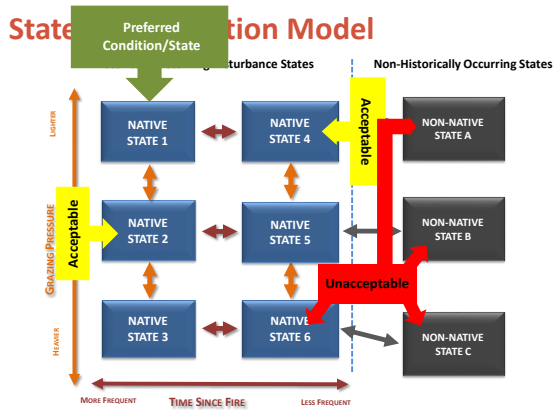
Historical Disturbance Regimes of the Great Plains

- Herbivory
- Fire
- Weather
- Prairie dogs



State and Transition Models

- States (ecosystems) under historical disturbance regimes define reference conditions
- Establishing the historical reference allows for a full cumulative change evaluation
- Anthropogenic impacts and disturbances can be added to understand current states



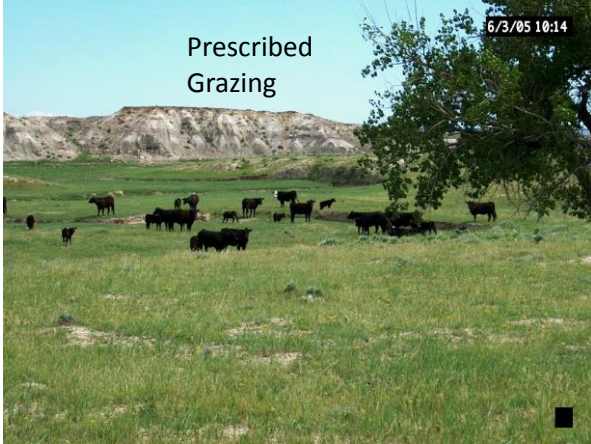
Loamy Ecological Sites, MLRA 53B

Preferred Condition/State:

- **Fire Return Interval:** <15 years
- **Grazing:** long-term light grazing (<25% utilization)
- **Dominant Species:** *grasses* – w. wheatgrass, green needlegrass, needleandthread, and porcupine grass; *forbs* – white sagebrush, purple coneflower, goldenrod, scurfpea, purple locoweed, scarlet globemallow, and western yarrow.
- **Structure:** mixed grasses, 11-20" average vegetation height

Examine existing conditions

- Compare existing plant community to desired plant community
- Determine what changes are needed
- Identify treatments to achieve change.





Numerous Existing Programs for Private land Grassland Management

- NRCS- EQIP, Sodbuster, GRP, etc.
- FSA- CRP
- USFWS Partners for Fish and Wildlife Program
- State habitat programs
- NGO efforts
 - EMRI, Pheasants Forever

Declines Still Occurring

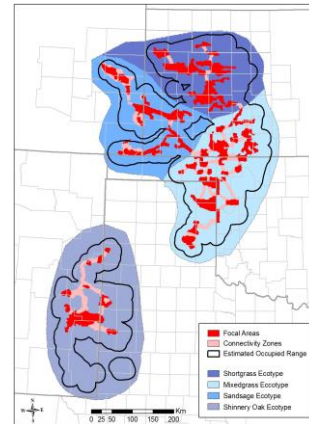
- Examples:
 - Listing of lesser prairie-chicken
 - Sprague's pipit under consideration
 - Grassland birds fastest declining group
- So despite the positive contributions of existing programs, they aren't succeeding.

Reasons for Continued Losses

- Lack of clearly described conditions for desired plant communities
- Lack of clearly delineated conservation areas
- Lack of clear descriptions of some management practices
- Need for increased agency coordination
- Lack of sufficient incentives
- Lack of industry engagement

Prairie Grouse Partners Initiative

- PGP members: EMRI, NAGP, Pheasants Forever, TRCP, Mule Deer Foundation, American Bird Conservancy
- Coordinated efforts to identify conservation focus areas
- Increased agency coordination
- Industry engagement and mitigation support



Summary

- Private landowners are essential for prairie grassland restoration and maintenance of prairie grouse populations
- Private landowners need adequate incentives to compensate for their economic needs
- Conservation areas are needed to focus efforts
- Agencies need to collaborate to deliver programs in CA's
- Industry needs to be engaged

Questions???

