Grasslands: The Importance of Mosaics for Wildlife

Range Cattle Research and Education Center
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www.rangelandwildlife.com

Dr. Raoul Boughton

Grasslands of the World

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European Grassland loss 2000-2006

US Grassland Conversion continues 2008-2011

• “The rates of grassland conversion to corn/soy (1.0 – 5.4 percent annually) across a significant portion of the U.S. Western Corn Belt are comparable to deforestation rates in Brazil, Malaysia and Indonesia”

Proceedings of the National Academy of Sciences
Florida Grassland Communities

A changed landscape
Less Water - drainage

Water: a key factor defining habitats

A changed landscape
Less Water - drainage

Florida 30-80 Lightning Strikes/M²/yr

Legacy Affect

A changed landscape
Less Fire - suppressed

Fire: a key environmental process shaping habitats
Piney-Flatwoods
Longleaf-Savanna
Marshlands-Seasonal Wetlands

Wet and Dry Prairie

Improved Pastures

Natural Florida Mosaics

Agricultural and Natural Mosaics

Ranch Mosaics = Wildlife Habitats
Natural Grassland Preference

Mixed Grassland Preference

Improved Pasture Preference

Improved Pasture Preference
Burrowing Owls

Florida ranchers provide habitat mostly in the form of improved pasture.
Rural Owls are probably an important part of the population of Burrowing Owls.
Urban owls especially on the cost of Florida are declining.
Ranchers are providing protection for a declining species and should be recognized for that service.
Cattle and Owls can co-exist.

Study sites across 6 ranches in Florida

Environment is unpredictable

- 17-18 May 2016 – unusual heavy rains for May across Central Florida
- One owl population 14 of 16 burrows flooded with much of the juvenile population not surviving.
- Highlighting the importance of never put all your eggs in one basket (population). Other populations of Owls were not as impacted showing multiple population are very important for maintenance of wildlife species

12 days old – unlikely to survive

Young forced to the entrance of burrows – many suffering exposure

The oldest 35-40 days were able to escape and have moved to other cover