What are the opportunities and challenges of managed grazing on Wisconsin's public lands?

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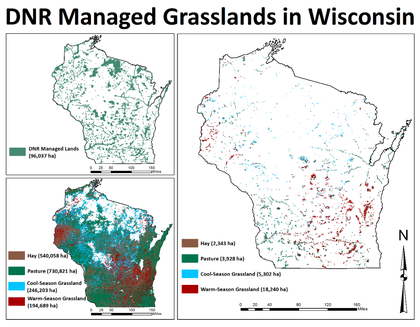
http://grazingpubliclands.wisc.edu/

Abstract

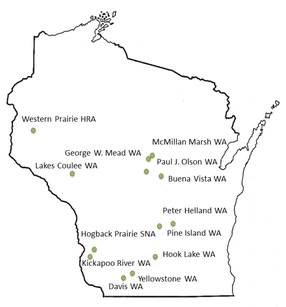
Woody plant succession is a management challenge on public grasslands in the Midwest, and rotational grazing by cattle is a potential solution. An emerging partnership between the Wisconsin Department of Natural Resources (WI-DNR) and private graziers presents an opportunity for University of Wisconsin-Madison (UW-Madison) researchers to investigate effective conservation grazing strategies from economic, ecological, and social perspectives.

Impaired grassland

DNR Managed Grasslands in Wisconsin



- WI-DNR is responsible for managing around 75,000 acres of grassland in the state of Wisconsin.
- Grasslands provide critical habitat and require regular disturbances to maintain.
- Managed grazing offers the possibility of maintaining habitat while generating revenue.
- A number of groups are experimenting with managed grazing as a grassland management tool: WI-DNR, MN-DNR, USFWS, TNC.



Wisconsin Public Lands Grazing Partnership 2015-2019

- **WI-DNR** offers impaired public grasslands for managed grazing
- **Private graziers** provide livestock and labor to rotationally graze impaired grasslands
- **University of Wisconsin-Madison** conducts research into economic, ecological, and social aspects of the project

UW-Madison Team

Sam Asper
Grassland bird response to grazing
Advisor: Chris Ribic

Jacob Grace
Shrub & forage response to grazing
Advisor: Mark Renz

Greta Landis
Site evaluation & land manager interviews
Advisor: Randy Jackson

Courtney Robinson
Economic survey of graziers
Advisor: Mark Rickenbach

Land Manager Perspectives	Interests	Concerns
• 38 public grasslands interested in conservation grazing • Site size ranges from 20 acres to over 300 (most between 60 and 80) • Most dominated by cool-season grasses • Most have little to no recent management	• Brush control • Increasing plant and wildlife diversity • Suppressing weeds and invasive species	• Meeting conservation goals • Setting up infrastructure • Finding interested, experienced graziers

Grazier perspectives	Interests	Concerns
• Collected from in-person interviews and a statewide survey • Interested in grazing 20 – 100 acres • Willing to travel 10 – 50 miles • Interested in grazing 10 – 200 head • Concerned about fencing, water, and access	• Reduced production costs • Closeness to farm • Ability to rest home pasture	• Liability • Fence & Water Infrastructure • Relationship with public land manager

Learn more:
http://grazingpubliclands.wisc.edu/
http://dnr.wi.gov/topic/lands/grazing.html

Shrub and forage response

- Can managed grazing reduce shrub density?
- Does managed grazing affect forage availability or utilization over time?
- How else does the plant community change in response to managed grazing?

Observations of cattle browsing (left) and damaging brush (right) in 2016.

Comparing Management Treatments in $20m^2$ x $20m^2$ plots

Treatments:

- Control; no grazing (top left)
- Rotational grazing only (top right)
- Foliar herbicide applied to shrubs, followed by rotational grazing (bottom left)
- Mowing with tractor & brush cutter, followed by rotational grazing (bottom right)

Compare at Different Shrub Densities:

- High (~35%)
- Low (~10%)

Measurements:

- Shrub stem counts based on size
- Plant species surveys
- Forage availability and utilization

Poster production courtesy of Midwest Perennial Forage Working Group, supported by
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