



Grazing Public Lands in Wisconsin

January 2020

Conservation Grazing Background

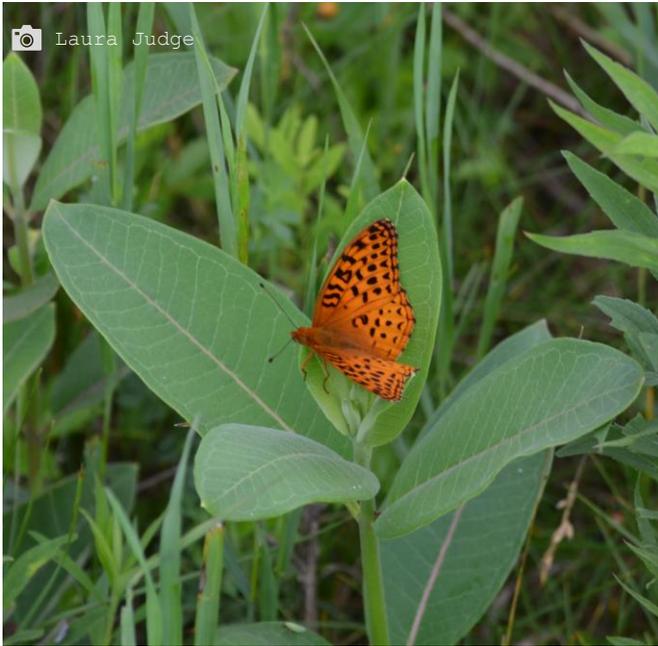
Many of Wisconsin's Wildlife Management Areas contain grassland habitats that depend on disturbance to maintain plant diversity and productivity. Wildlife managers at the Wisconsin Department of Natural Resources (WI-DNR) employ numerous methods to generate disturbance, including prescribed burning, mowing, haying and herbicide application. Conservation grazing, a type of managed grazing, is another method used by WI-DNR managers. Conservation grazing has the potential to mimic some of the positive impacts of historical native herbivores, such as deer, elk, and possibly bison on grassland ecosystems. Rotating livestock through paddocks via conservation grazing can create beneficial disturbance, if done with the right seasonality, intensity, and extent and followed by adequate periods of rest and recovery for the soil and plant communities.

Well-managed grazing on publicly managed grasslands has been shown to provide both environmental and economic benefits. Manure left behind by cattle improves soil health by supporting soil microorganisms as well as insects that can increase the food resources for game and birds. Grazing can increase the structural diversity of grassland plant communities, which benefit a host of organisms. Conservation grazing can also generate revenue for WI-DNR that may offset the public cost of managing the land with burning, mowing, and spraying.

Conservation grazing on public lands is a flexible tool that can be customized to meet a variety of objectives, including maintaining and improving habitat for wildlife species, specific plant communities, and recreational opportunities. Managers can create a mosaic of grazed and ungrazed habitat during nesting season that provides valuable habitat for some ground nesting birds. This is done by customizing stocking rate, timing, density, duration, seasonality and return interval – in addition to setting aside ungrazed “refuge” areas – to effectively manipulate and manage grassland habitat. If done correctly, this can reduce nest loss to trampling. In addition, opening conservation land to grazing creates economic opportunity for local agricultural producers. Healthy soils and diverse forage plants on conservation lands can produce healthy livestock with weight gains. Conservation grazing on public lands can be a ‘win-win’ for livestock and wildlife in Wisconsin.

WI-DNR Grazing Stats

- 2,800 acres of WI-DNR land in 13 counties are currently grazed
- 71% of that land, or over 2,000 acres, is managed using conservation grazing
- An additional 2,400 acres have grazing plans and infrastructure under development



While some types of poorly managed grazing can increase rates of runoff and reduce infiltration, research shows that when properly implemented, managed grazing has no detrimental impact on water retention and or the quality of water resources above and below ground. WI-DNR land managers will need to ensure that the introduction of livestock to a grassland ecosystem will not negatively impact the hydrology.

Researchers at the University of Wisconsin-Madison are studying the effects of grazing on grassland birds, soils, and plant communities, as well as producer perspectives on grazing public lands. Grassland ecosystems are complex and research on grazing grasslands reflects that complexity. Grazing can adversely impact some components of grassland ecosystems while benefiting others. Climatic variation, soil type, plant community composition, and herd management all influence

the ecological impact of grazing and can alter outcomes for biotic communities. Research will help describe the intricacies of grazing as a management tool and enable land managers to make more informed decisions. Additionally, WI-DNR and other partners have convened a grasslands and grazing research working group to prioritize research needs and plan research and monitoring efforts.

As of 2020, conservation grazing is being implemented on 24 sites and over 2000 acres of public land across Wisconsin, with an additional 23 sites in the WI-DNR approval pipeline. Projects are monitored to measure the impact of grazing on vegetation composition, structure, density and cost effectiveness. Projects are developed in consultation with a certified *grazing management plan* writer to ensure management goals are met.

Project Partners

This project is a collaboration among the WI-DNR, UW-Madison's Agroecology Program in the College of Agricultural & Life Sciences, and the Wallace Center at Winrock International's Pasture Project. WI-DNR continues to oversee the review and implementation of grazing plans, provide land manager training on conservation grazing, and perform outreach to local livestock producers. As described above, UW-Madison continues to conduct research related to grazing public lands. The Pasture Project provides grazing management plan development as well as economic and spatial analysis on sites appropriate for grazing.

**Interested in
learning more?**

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Pasture Project
AT THE WALLACE CENTER



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AT WINROCK INTERNATIONAL



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