

Comparison of Biomass Harvest and Spring Prescribed Burns in Restored Native Grass Fields

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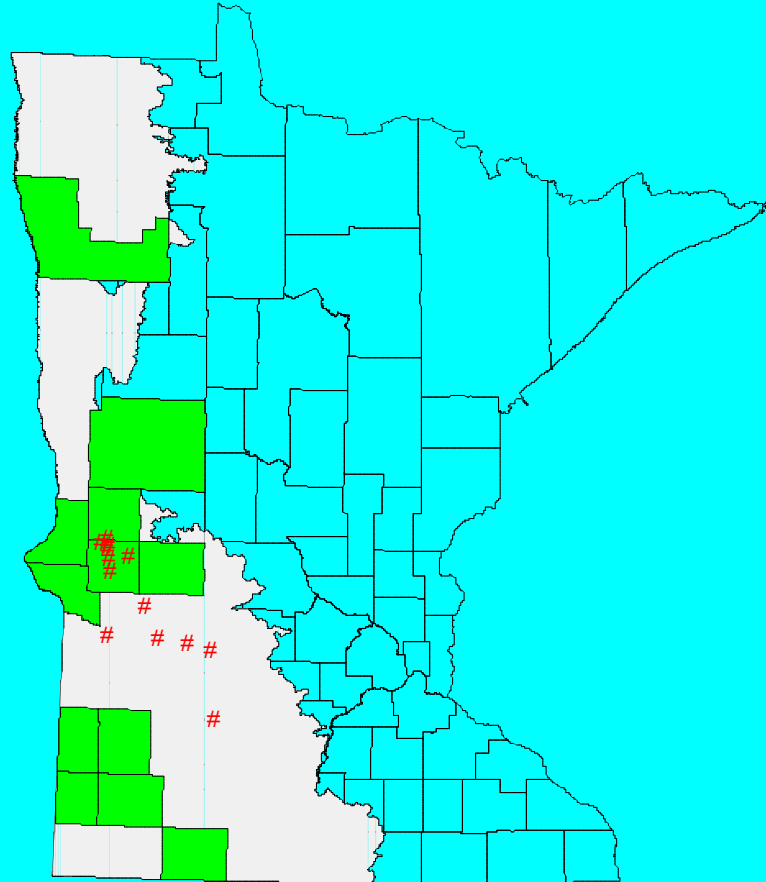




Objective

Compare vegetative response in subplots within restored native grass fields between fall Biomass Harvest and spring Prescribed Burn treatments

Study Area

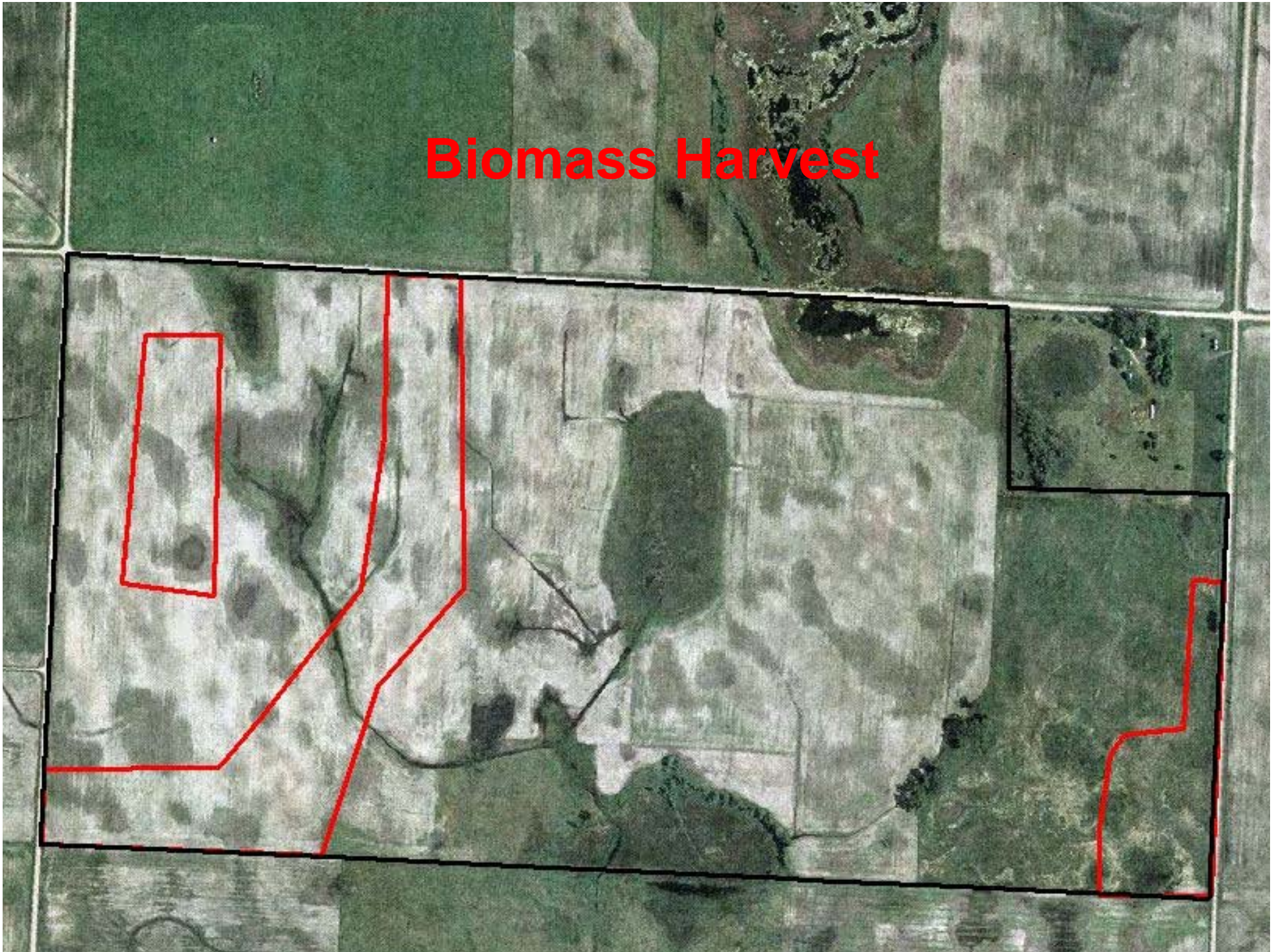


- # Study Site Locations
- Working Lands Initiative Focus Areas
- Minnesota Prairie Areas

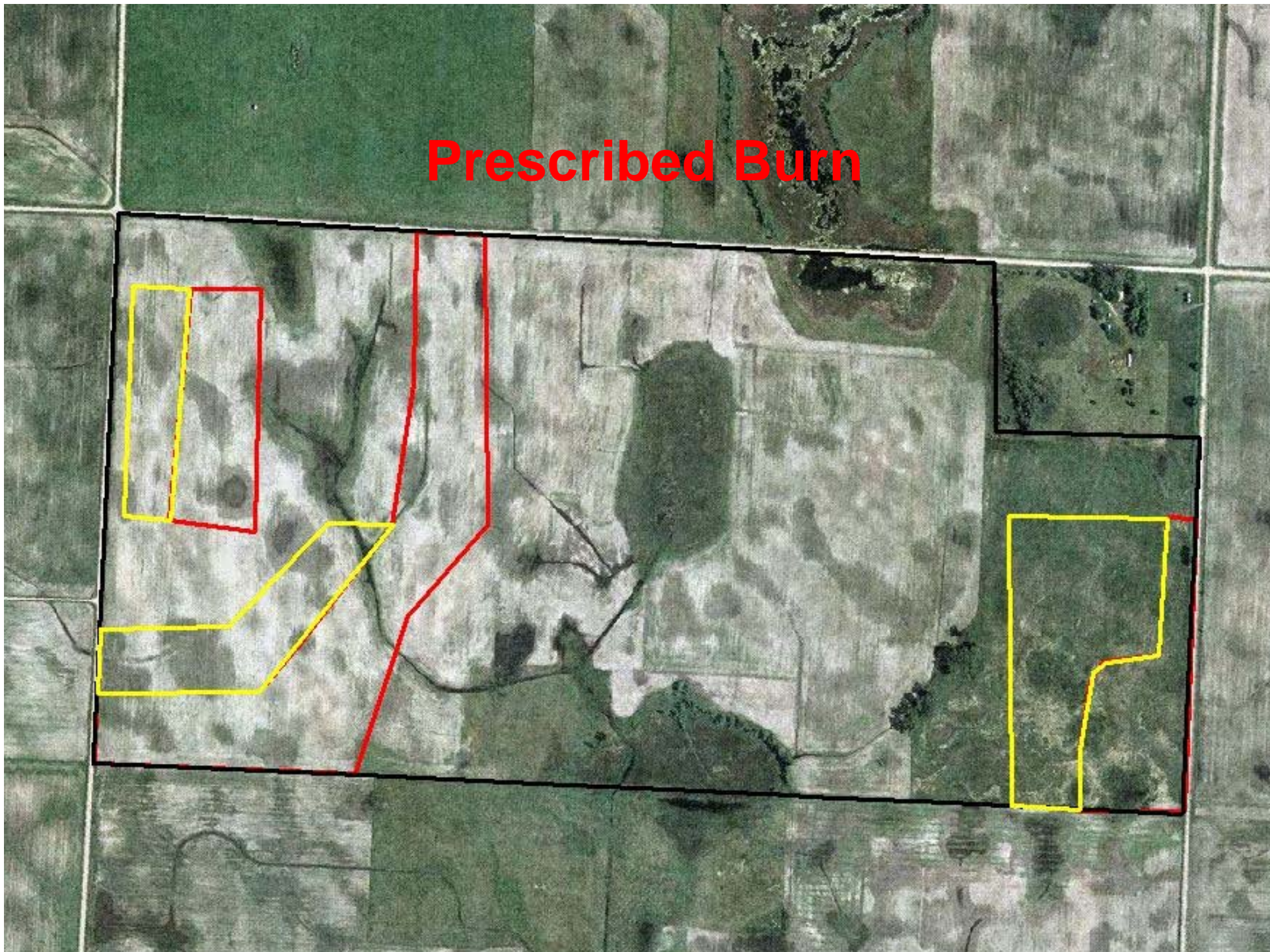
Methods

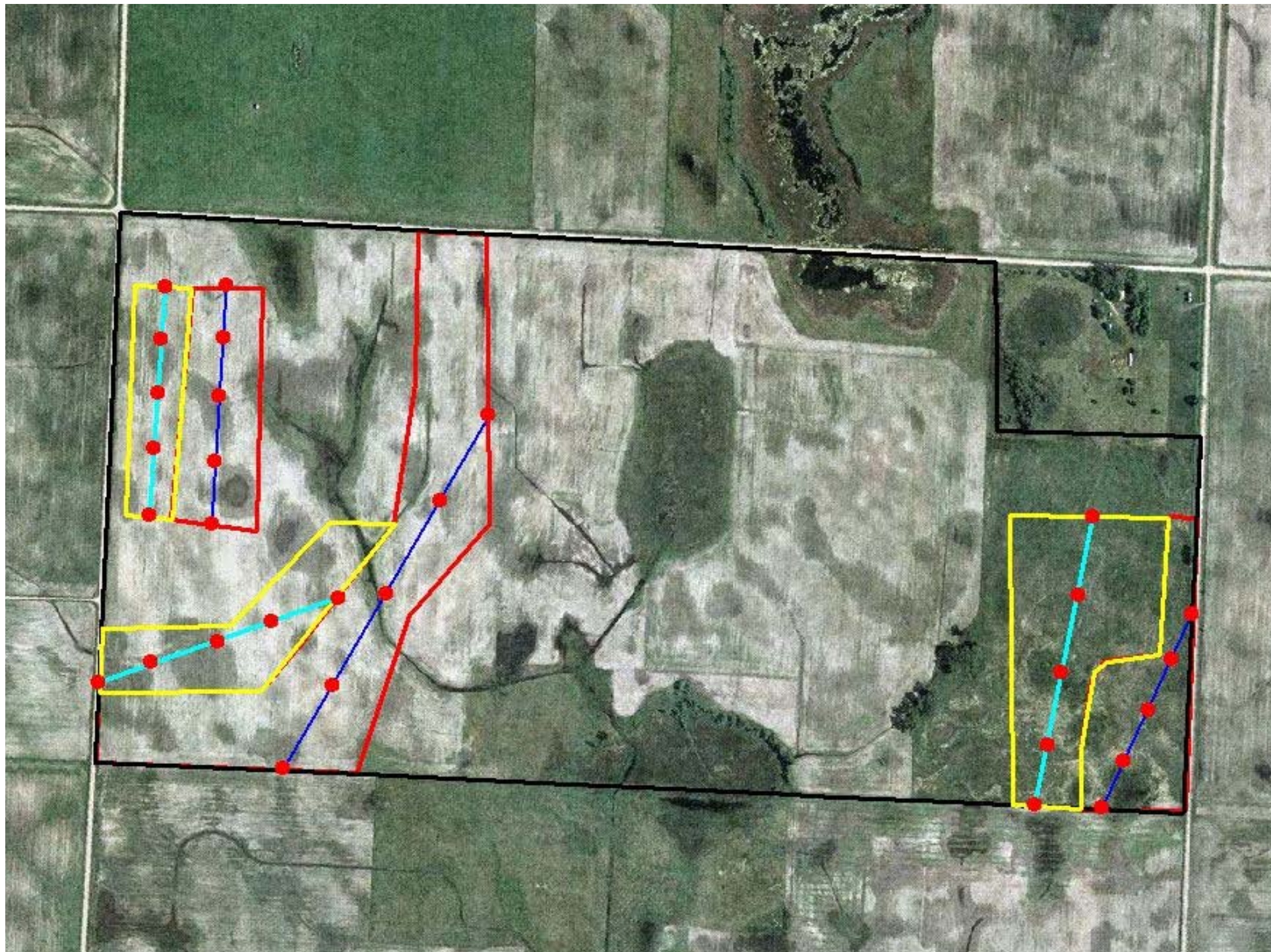


Biomass Harvest



Prescribed Burn





Methods

2007 – fall Biomass harvest on 3 WMA's
with corresponding spring 2008
Prescribed Burn

2008 – fall Biomass harvest on 5 WMA's
and 1 WPA with corresponding
spring 2009 Prescribed Burn

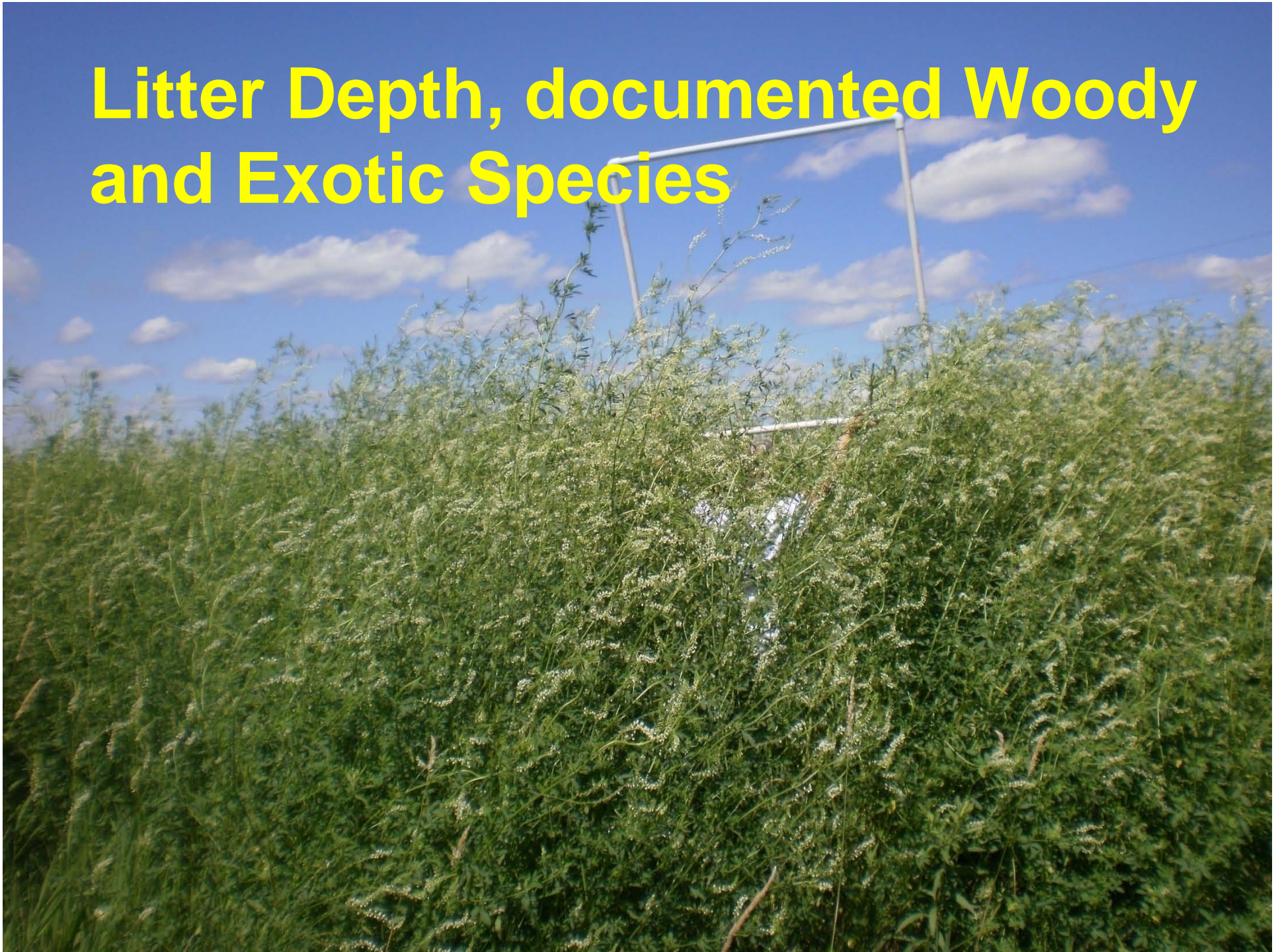
Robel Readings



Daubenmire frame



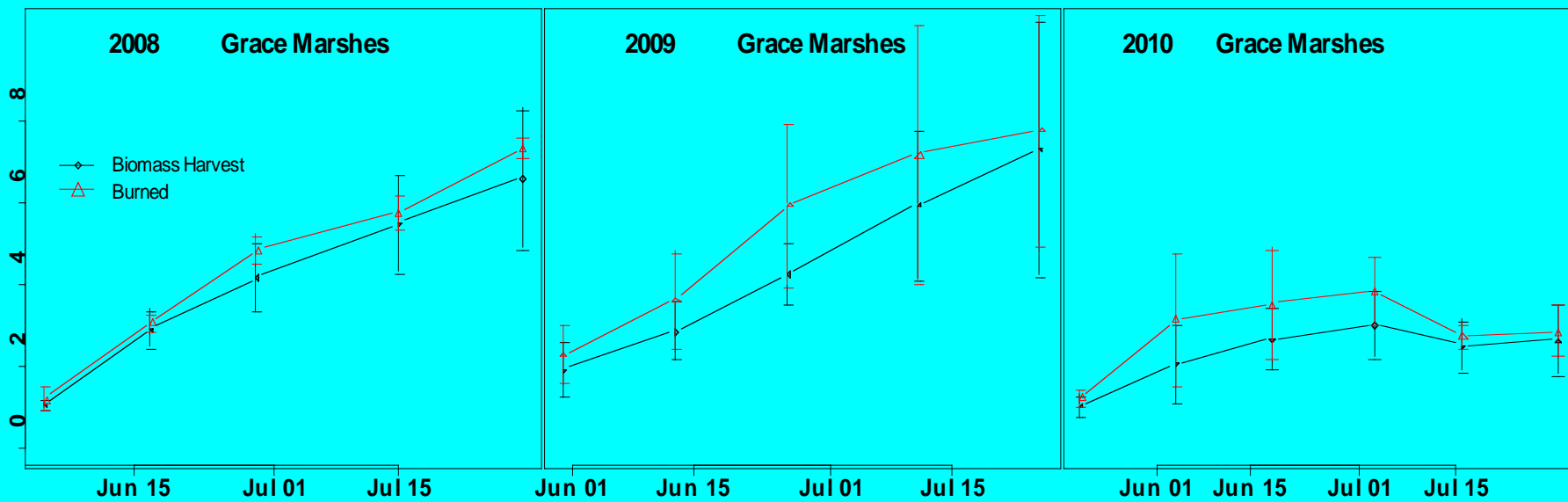
Litter Depth, documented Woody and Exotic Species

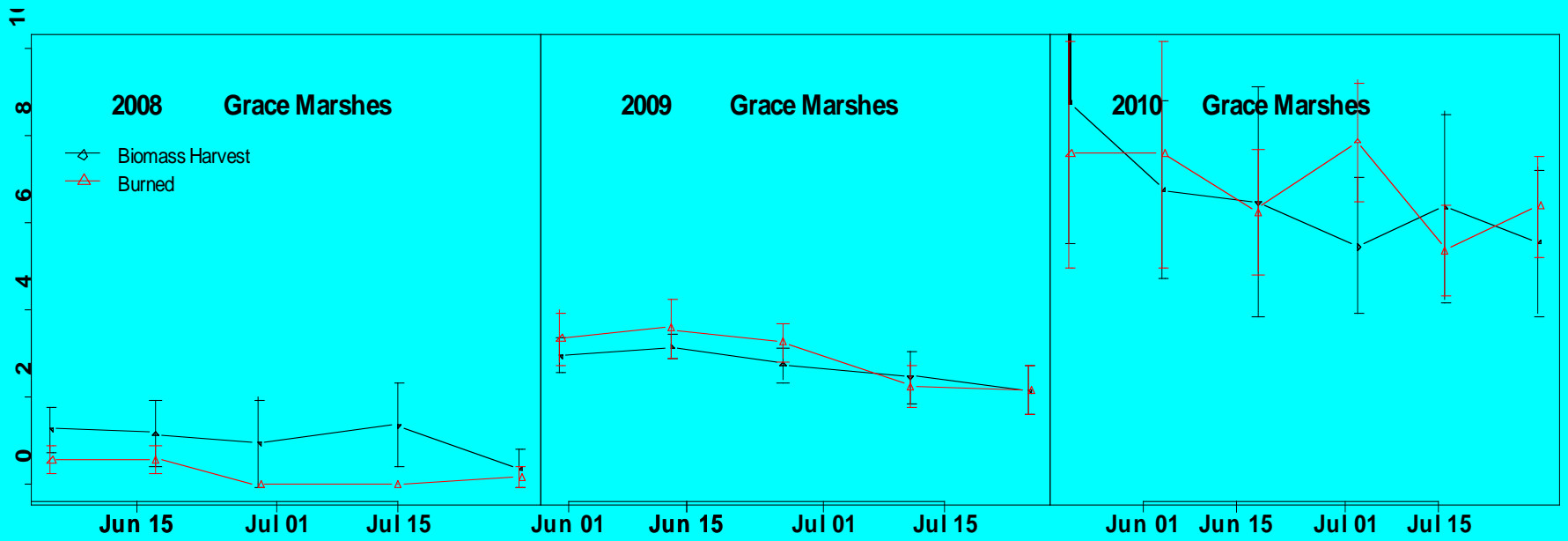


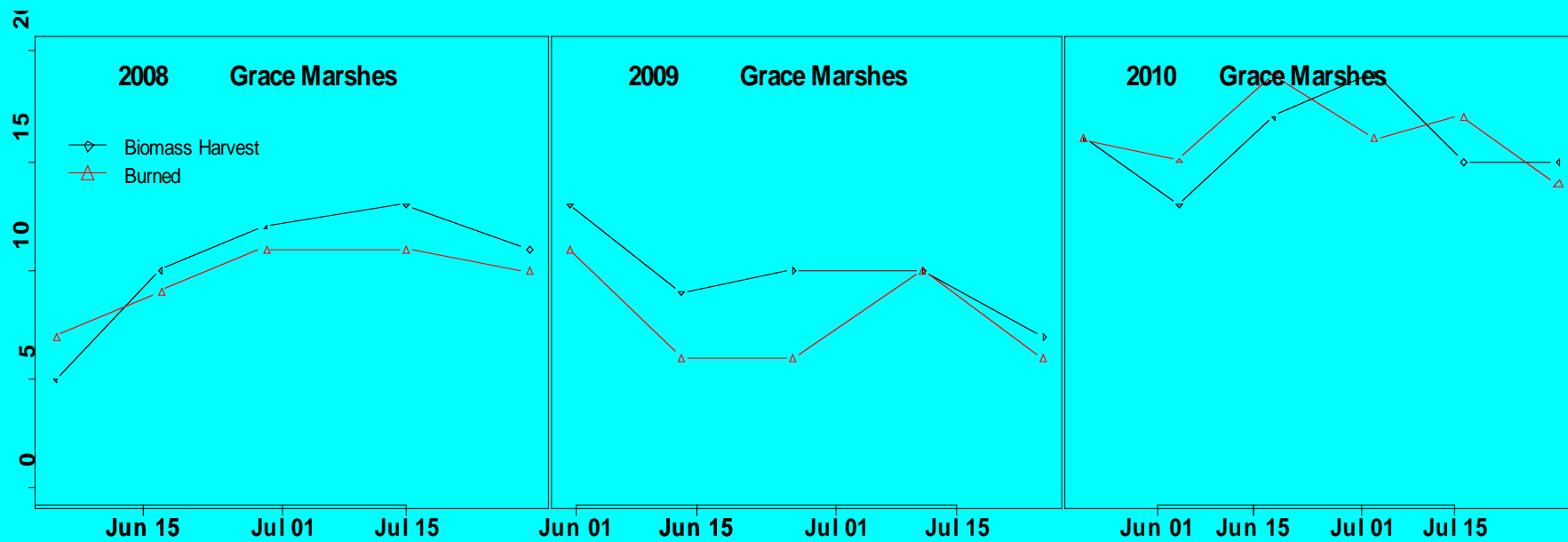
Results

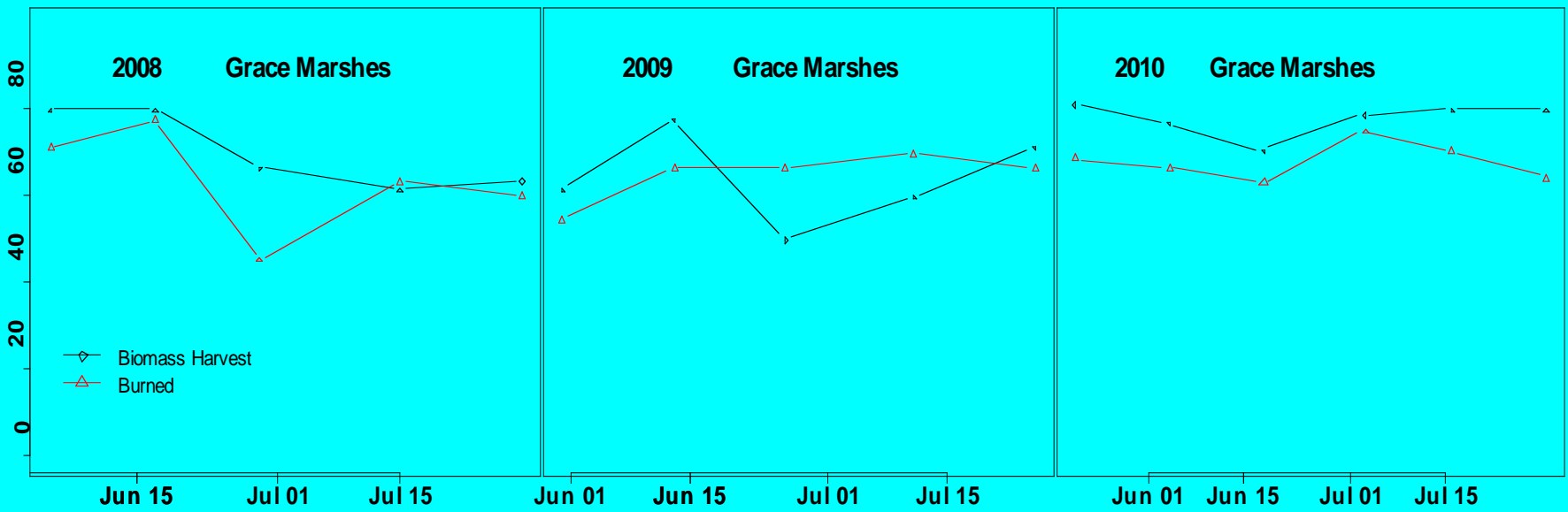


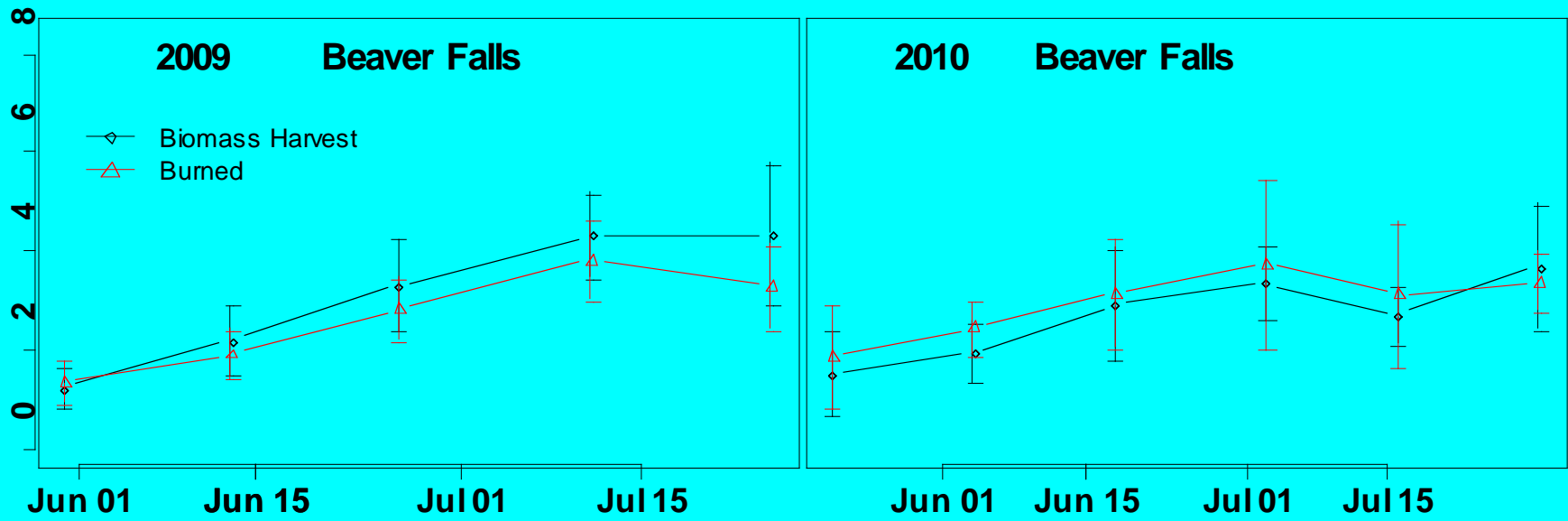
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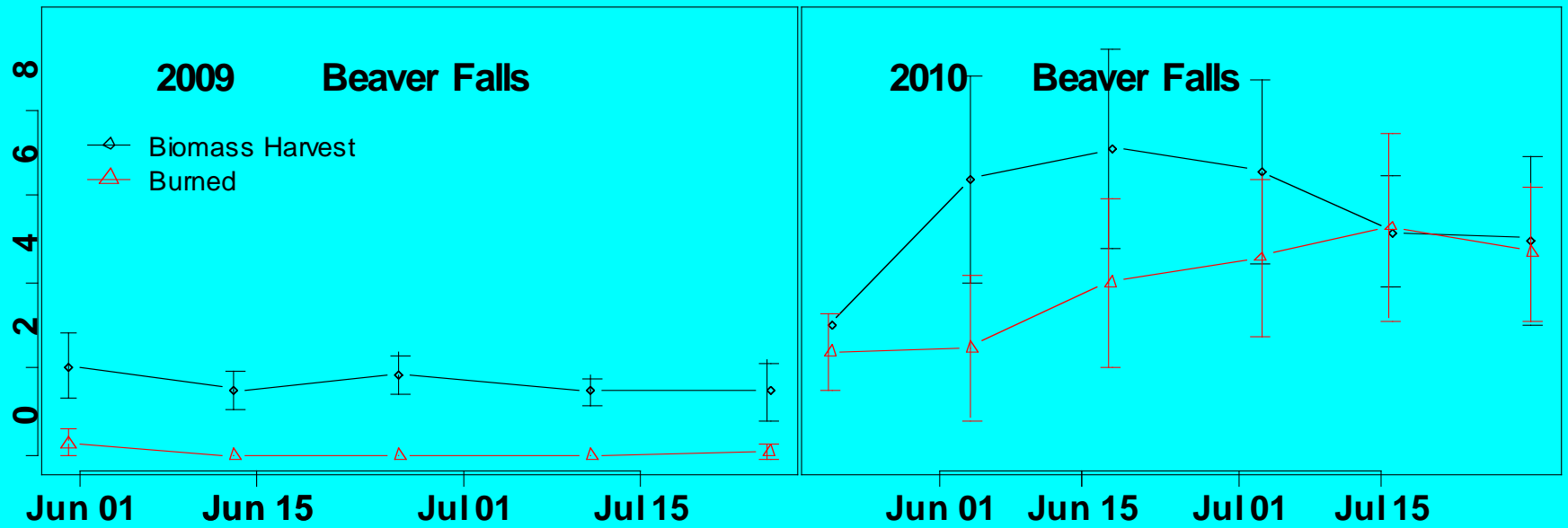


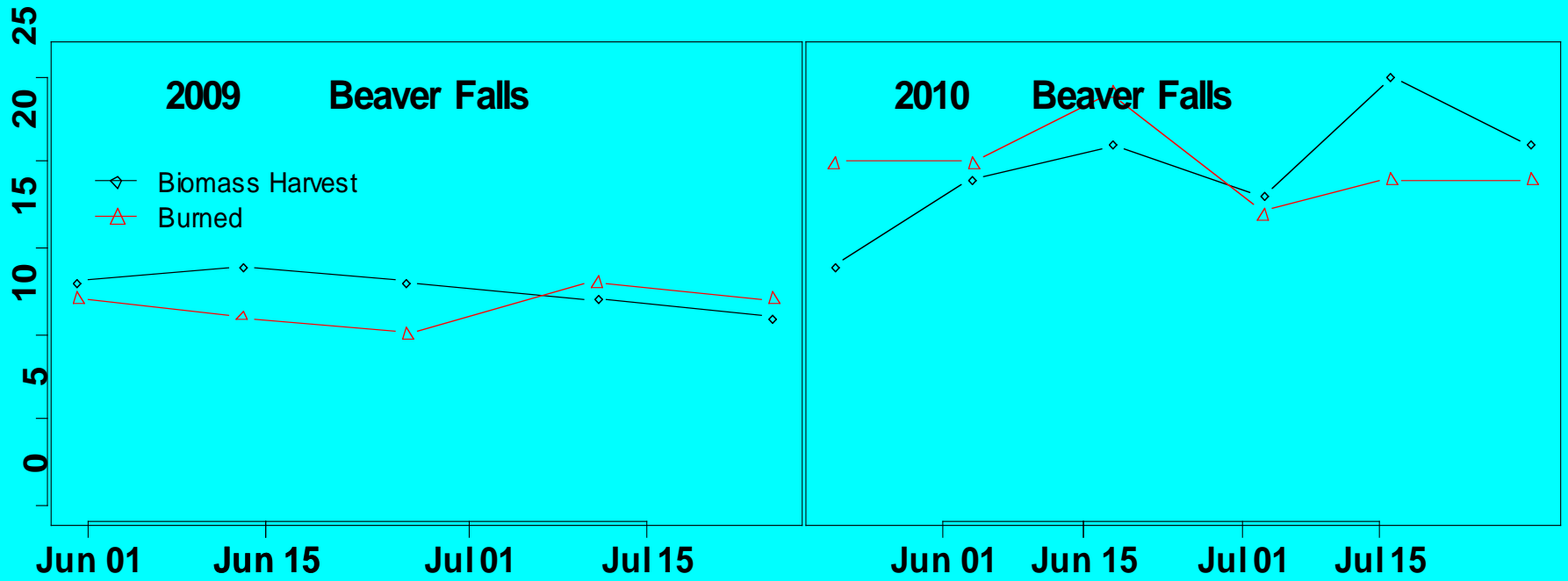


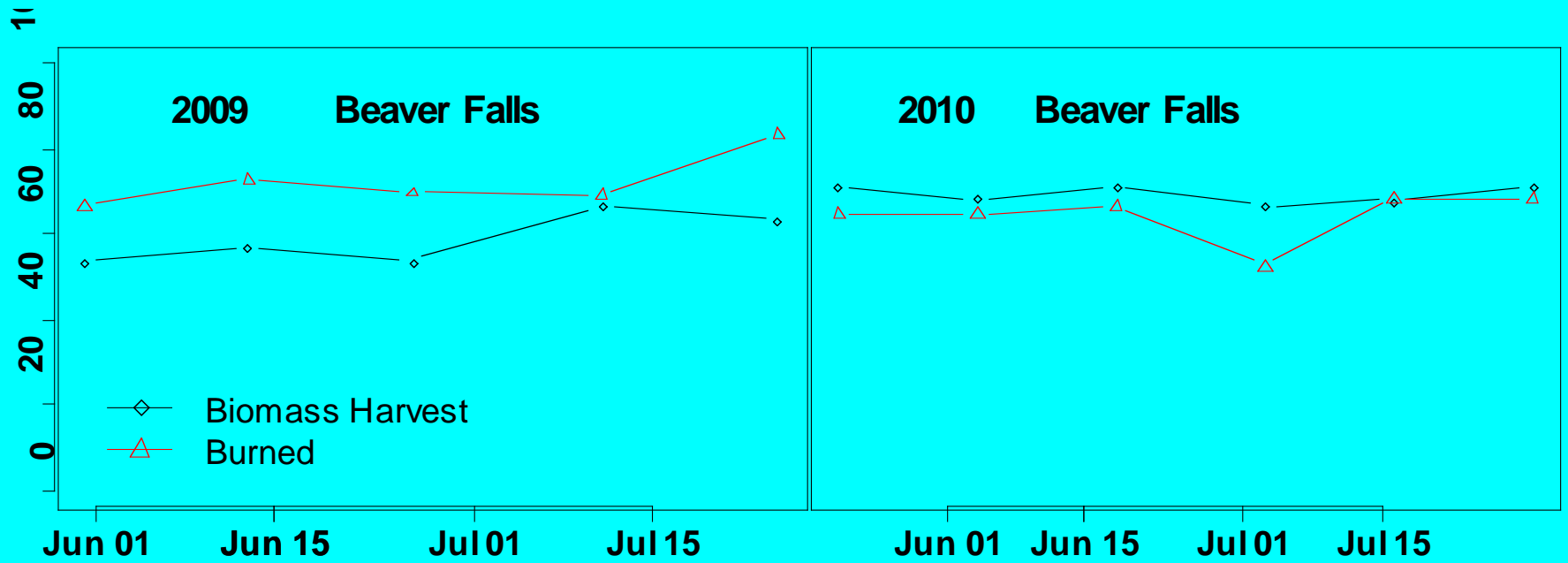












Additional Benefits of Biomass Harvest



Temporary and Seasonal Wetlands







Wilson's Phalaropes



Results Summary

- a) After 3 years of measuring, Robel readings, litter depth, mean number of species, and percent native species appear similar between treatments
- b) Short spring grass created by fall biomass harvest appears to benefit phalaropes
- c) Biomass harvest creates open water areas in temporary and seasonal wetlands, however, this effect only lasts for one spring

Discussion

- Appears after 3 years that managers of restored prairie grasslands can expect a similar vegetative response from both fall biomass harvest and spring prescribed burn
- After 3 years it does not appear that fall biomass harvest changes species composition or percent native species in restored prairie grasslands differently than a spring prescribed burn

Acknowledgments

A photograph of two ducks on a body of water. The duck in the foreground is a mallard, with its characteristic blue-green head and white body. The duck behind it is a canvasback, with its brown and white plumage. The water is dark blue, and some reeds are visible in the bottom right corner.

Granting Agency

Working Lands Initiative

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Morris

MN DNR

Curt Vacek, LeRoy Dahlke,
Kevin Kotts, Dave Trauba,
Jeff Zajac, Rich Olsen, Jeff Miller,
Jason Strege, Ken Varland
Kurt Haroldson, Molly Trannel