

Quantification of Cattails (*Typha* spp.) in the Prairie Pothole Region of North Dakota Using GIS and Remote Sensing In Relation to Blackbird / Sunflower Issues.

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Project Review



Glyphosate Cattail Control

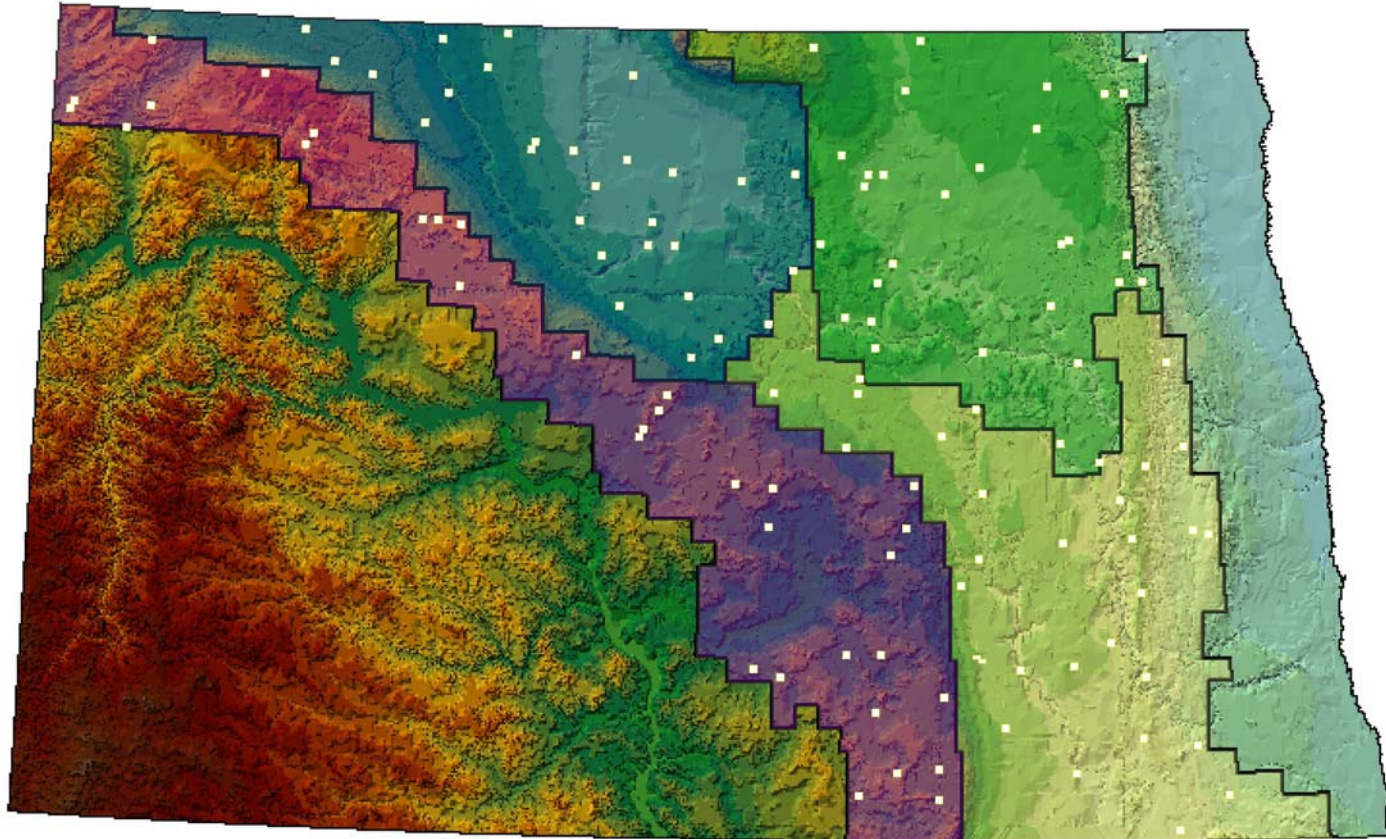


Objectives

- Quantify cattail acreage for use in blackbird related issues.
- Develop methods for future cattail quantification.
- Describe basic cattail wetland characteristics.



Sample Sites Within the Stratified Prairie Pothole Region of North Dakota

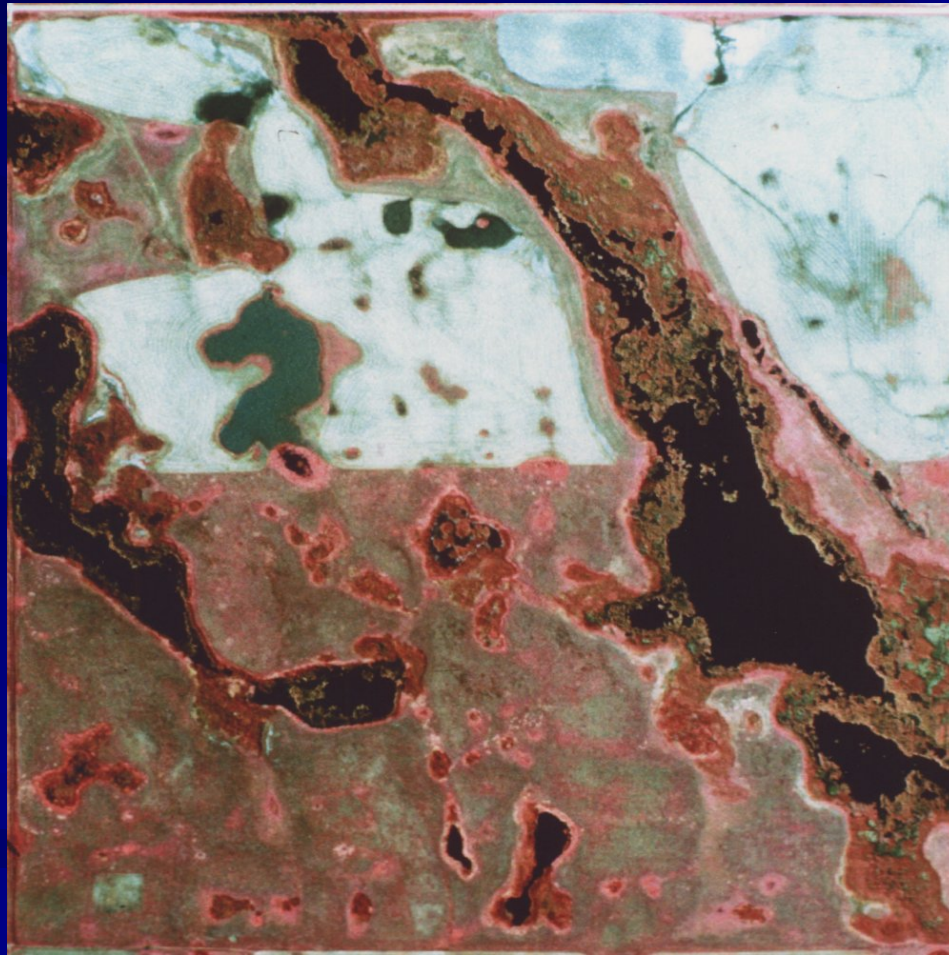


Legend

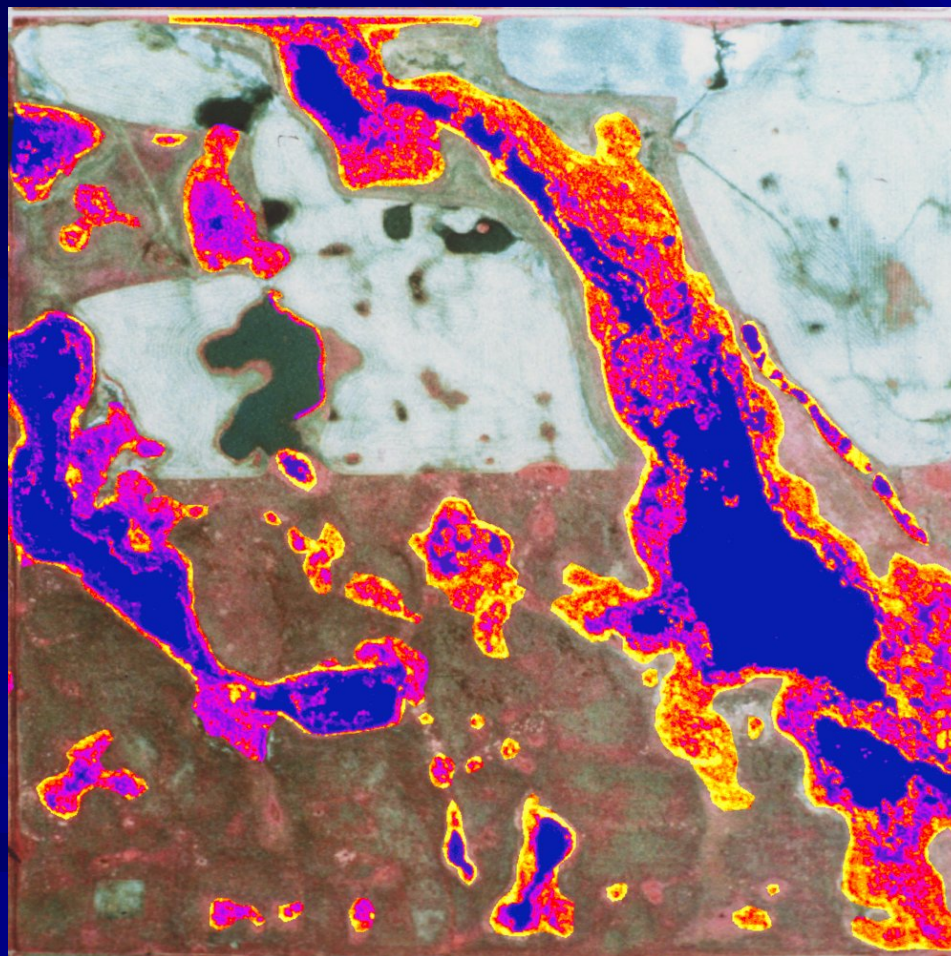
- Missouri Coteau
- North West Drift Plains
- North East Drift Plains
- Southern Drift Plains
- Sample Sites



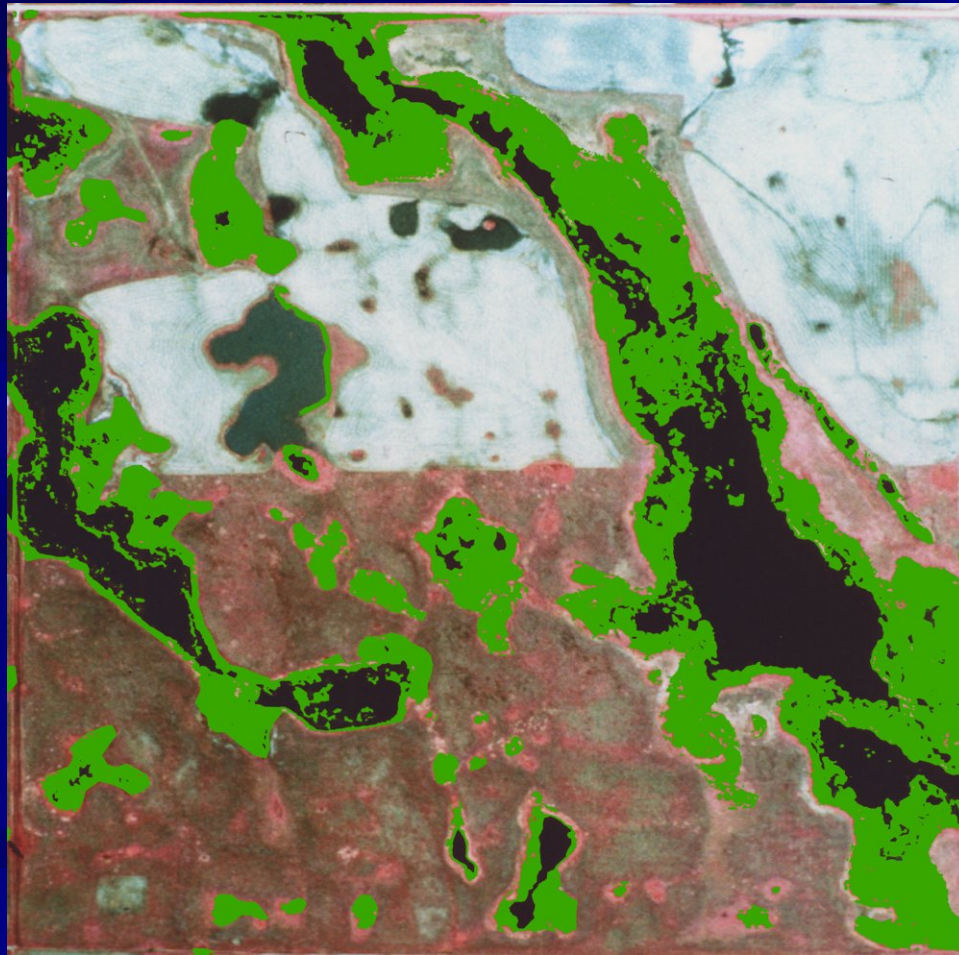
Aerial Infrared Photo



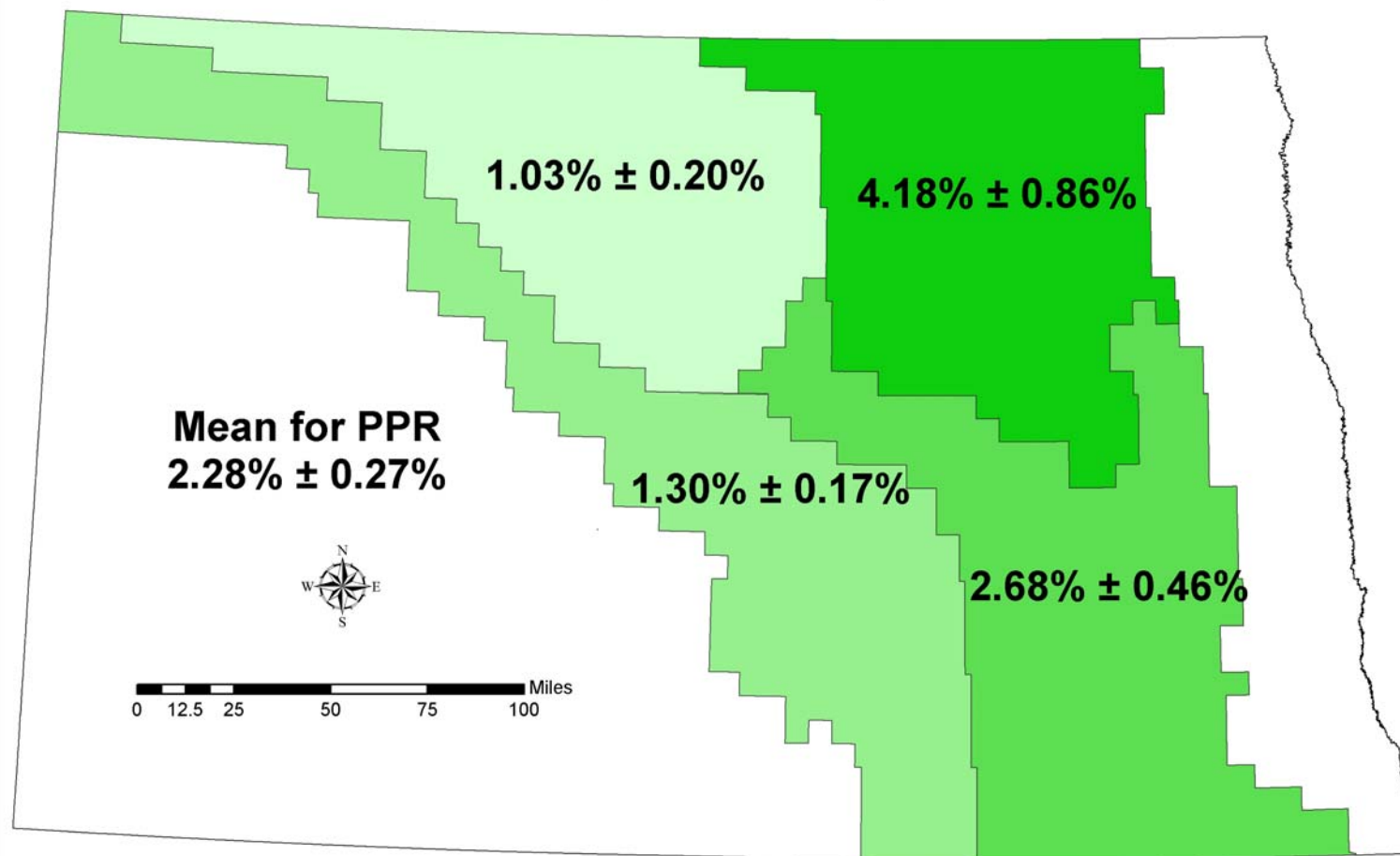
Pixel Reclassification



Cattail Extraction



Percent of Land Covered by Cattail in 2002 (Mean \pm S.E.)

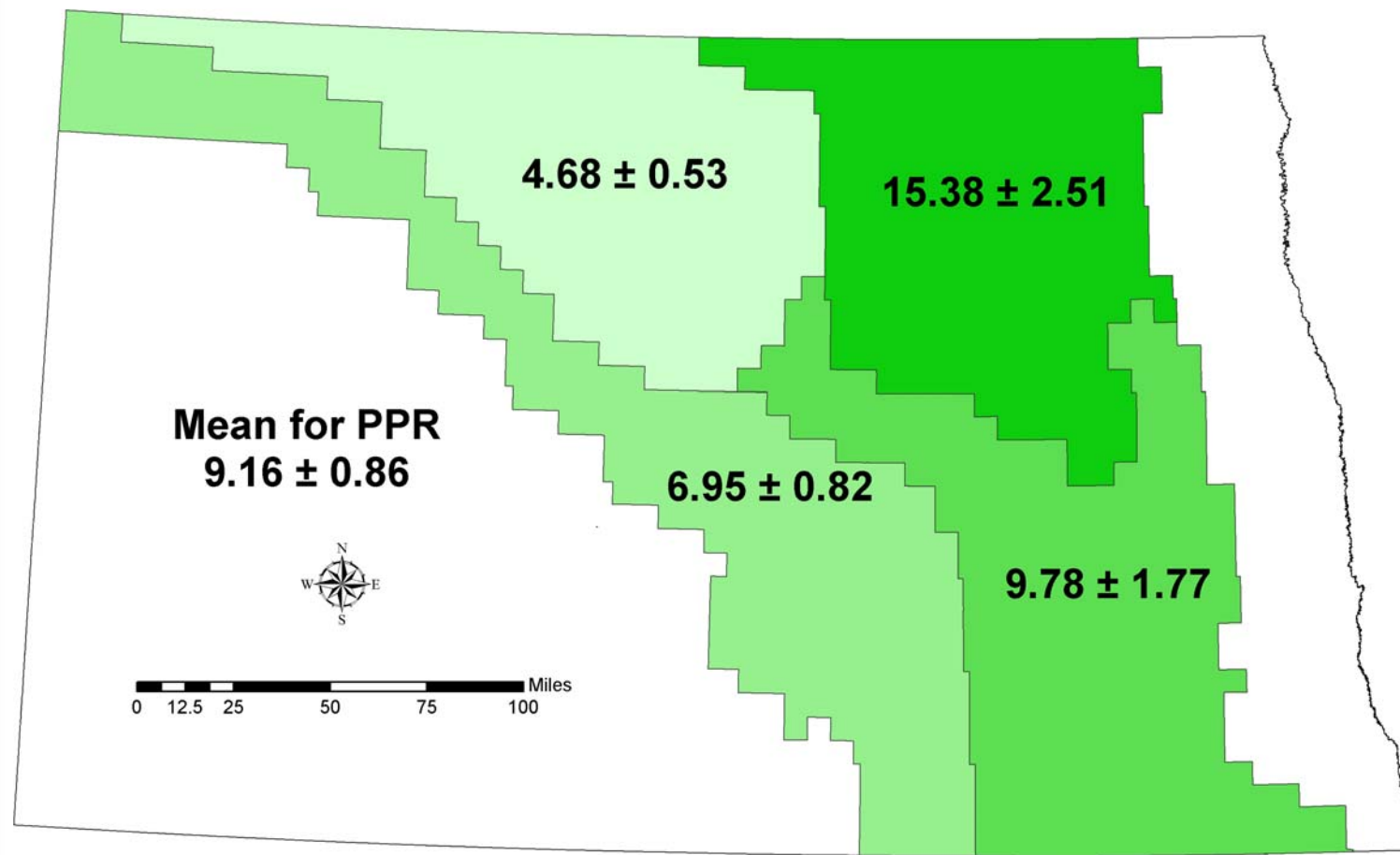


Cattail Acres Sprayed

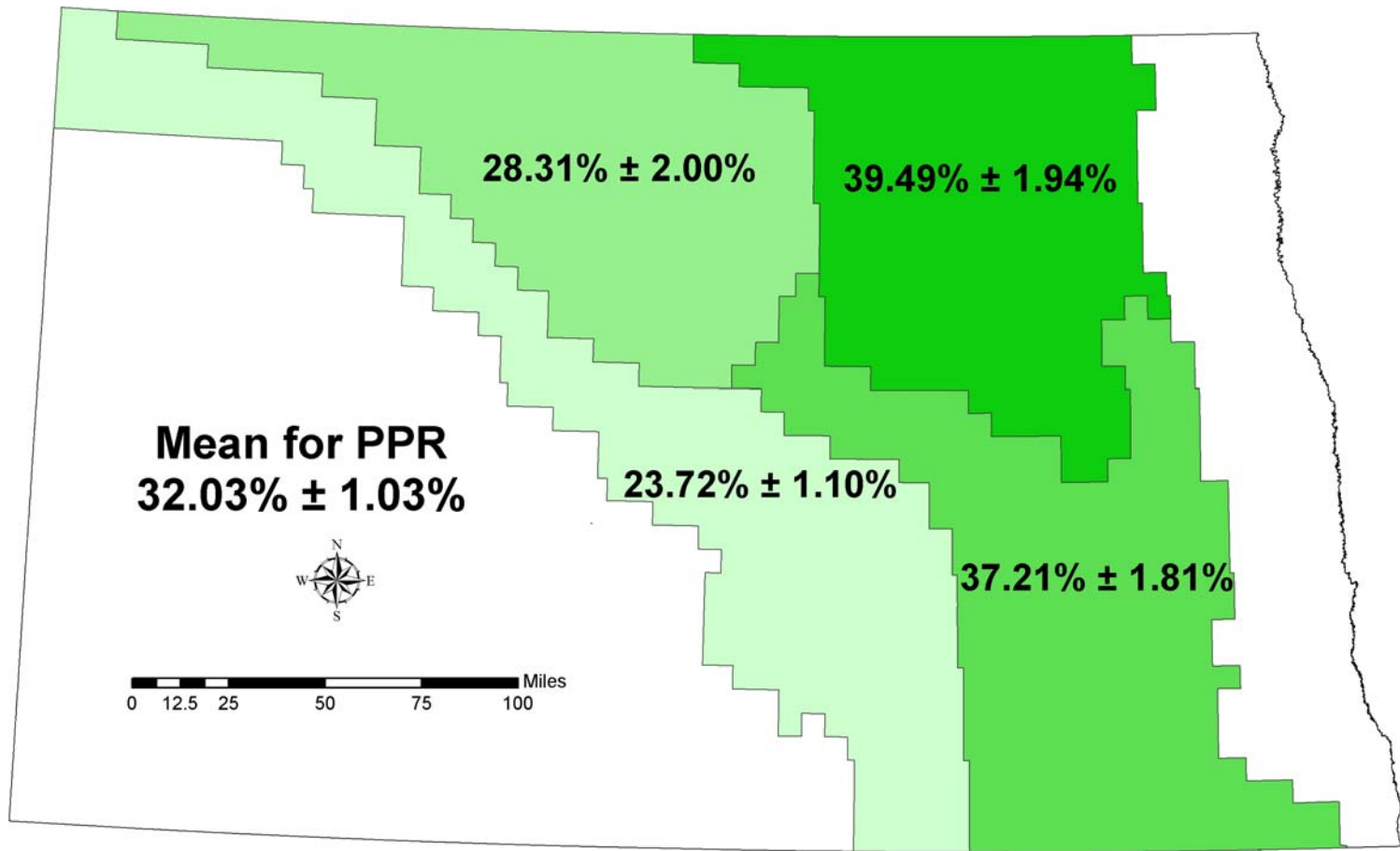
(535,981 Acres of Cattail Estimated)

Year	Acres Sprayed in ND	% of Estimated Total
1991	1,407	0.26%
1992	3,512	0.66%
1993	2,117	0.39%
1994	1,765	0.33%
1995	3,076	0.57%
1996	5,849	1.09%
1997	4,605	0.86%
1998	4,432	0.83%
1999	1,436	0.27%
2000	2,833	0.53%
2001	3,654	0.68%
2002	4,269	0.80%
2003	2,633	0.49%
All Years	3,199	0.60%

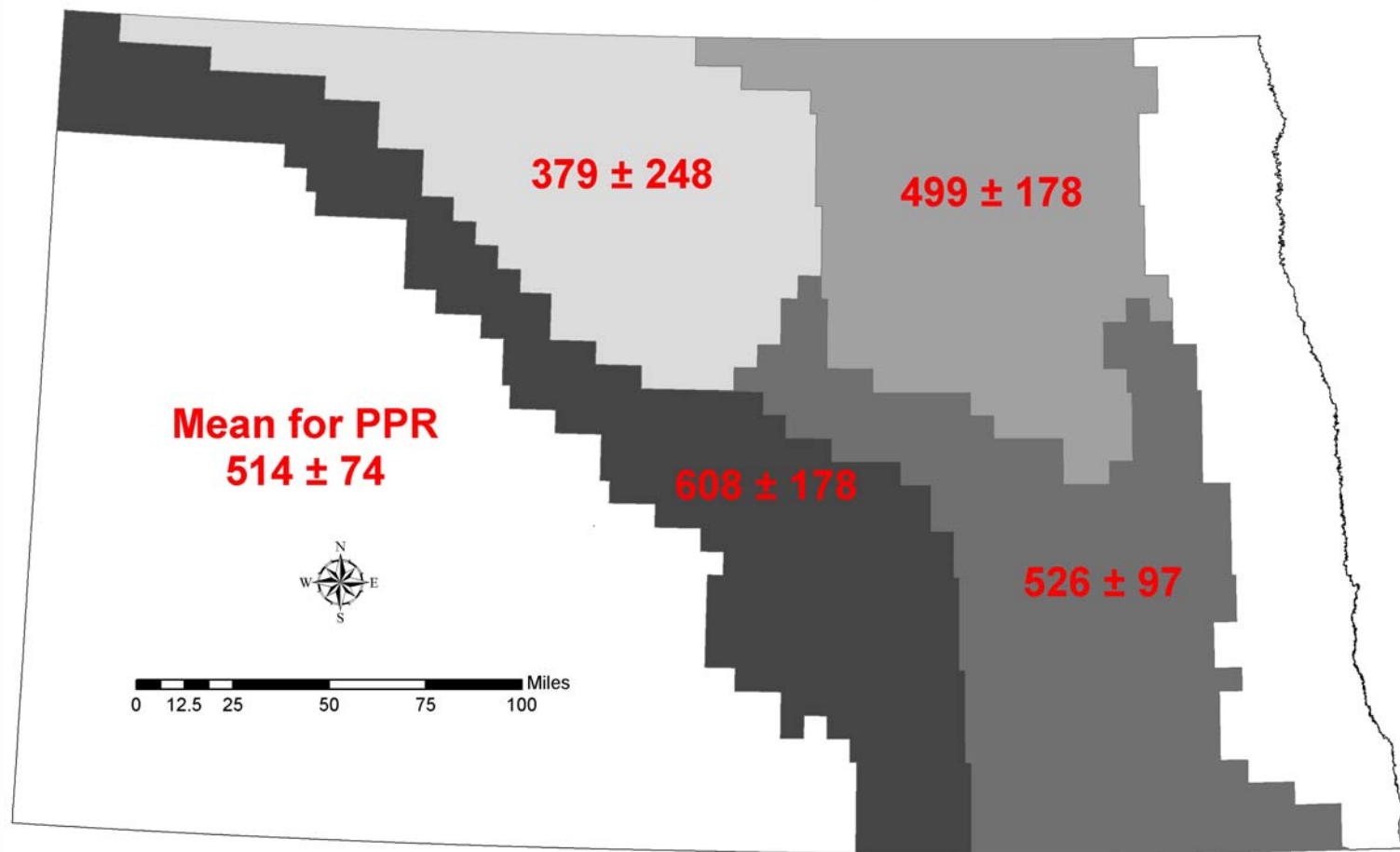
Number of Cattail Containing Wetlands / Square Mile in 2002 (Mean \pm S.E.)



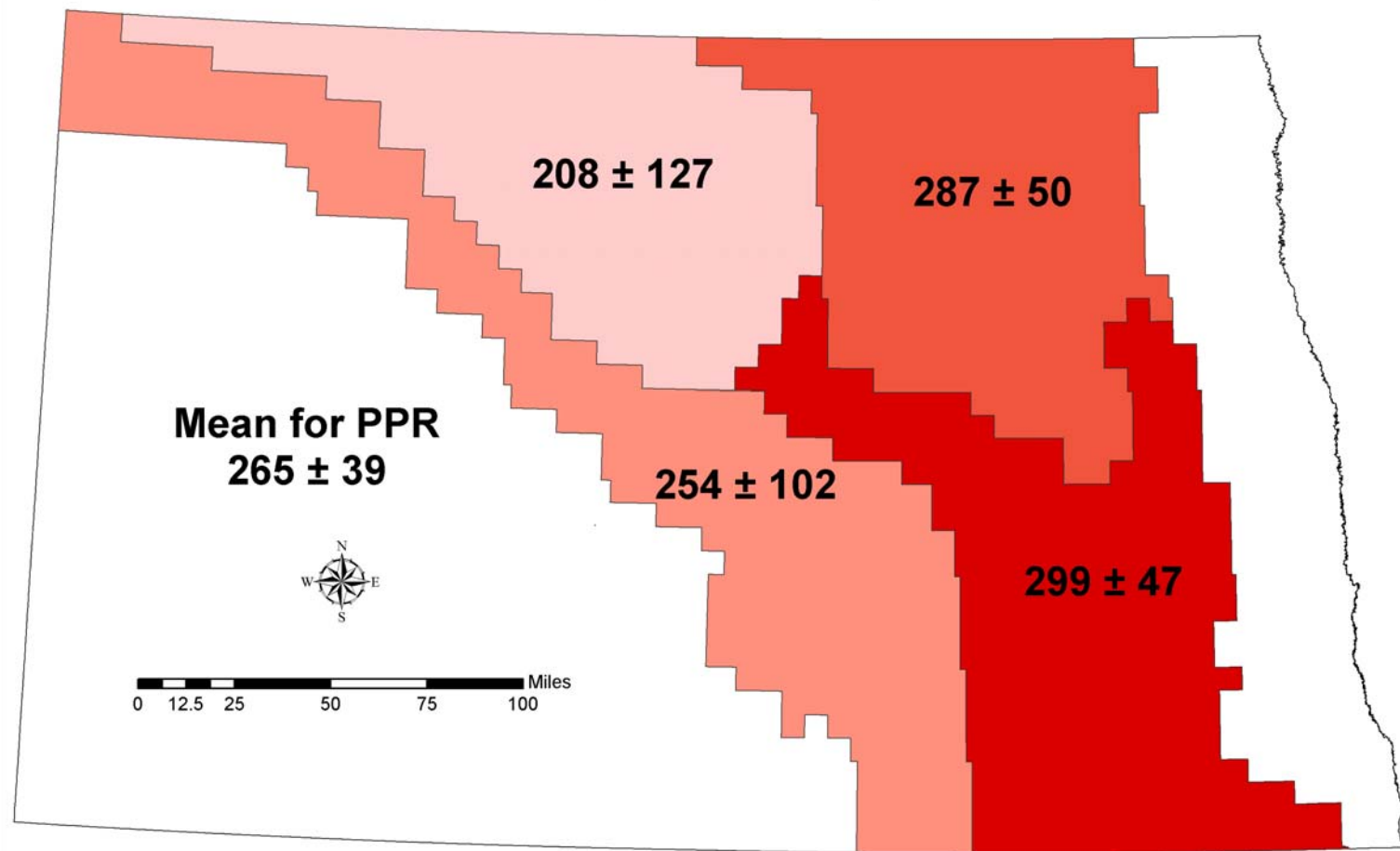
Percent of Wetland Basin Covered by Cattail in 2002 (Mean \pm S.E.)



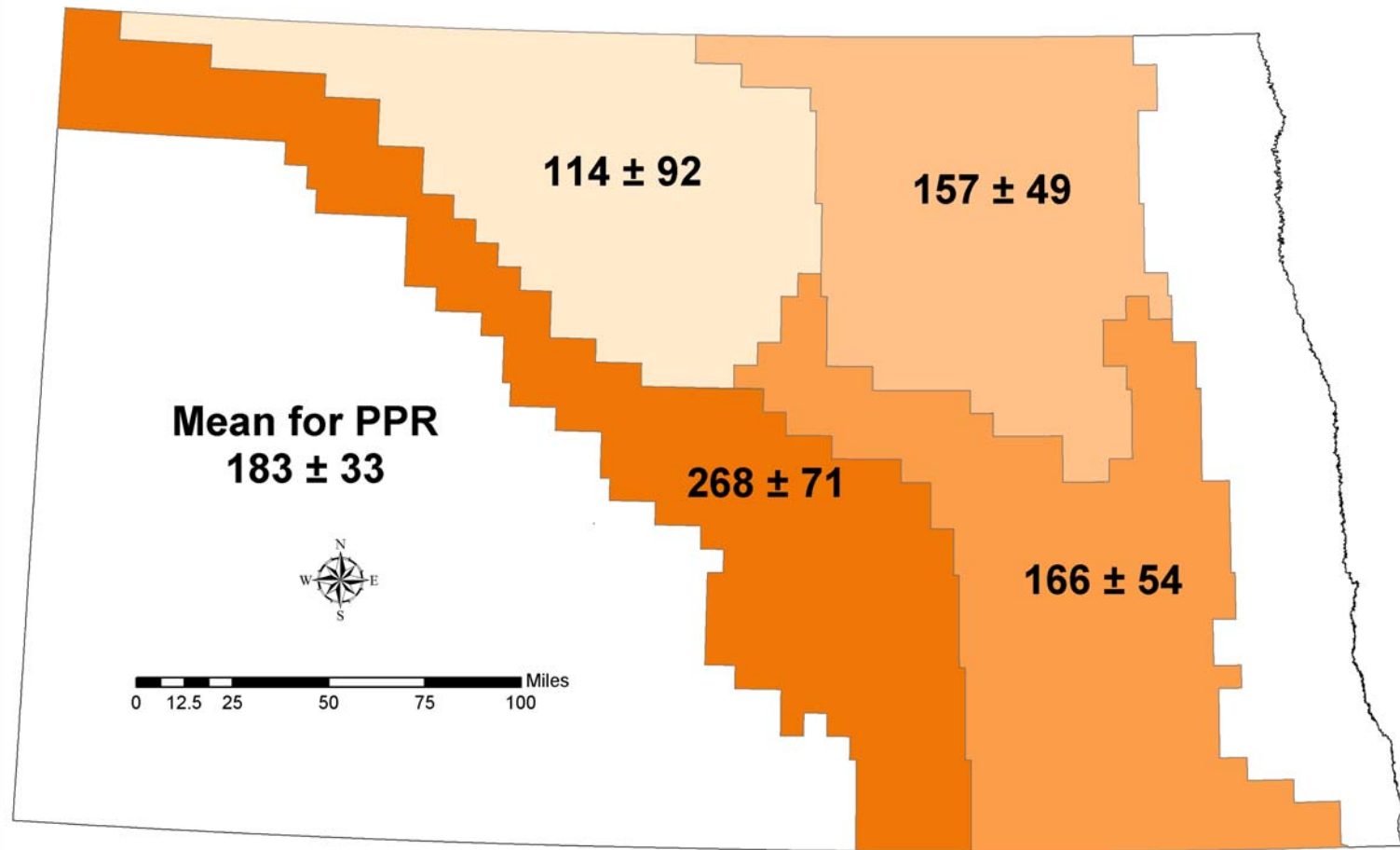
Blackbirds / BBS Route for 2001-2003 (Mean \pm S.E.)



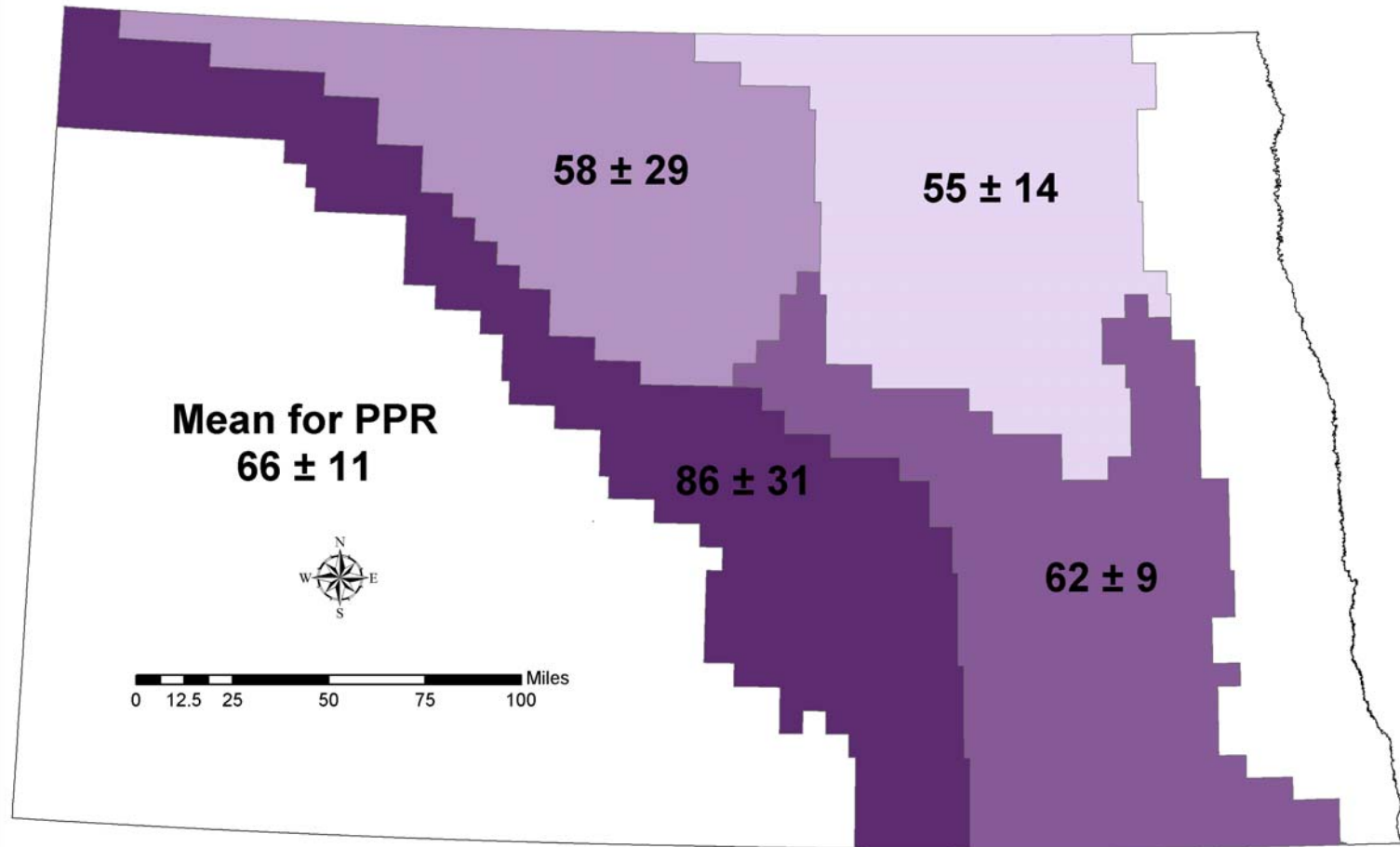
Red-winged Blackbirds / BBS Route for 2001-2003 (Mean \pm S.E.)



Yellow-headed Blackbirds / BBS Route for 2001-2003 (Mean \pm S.E.)

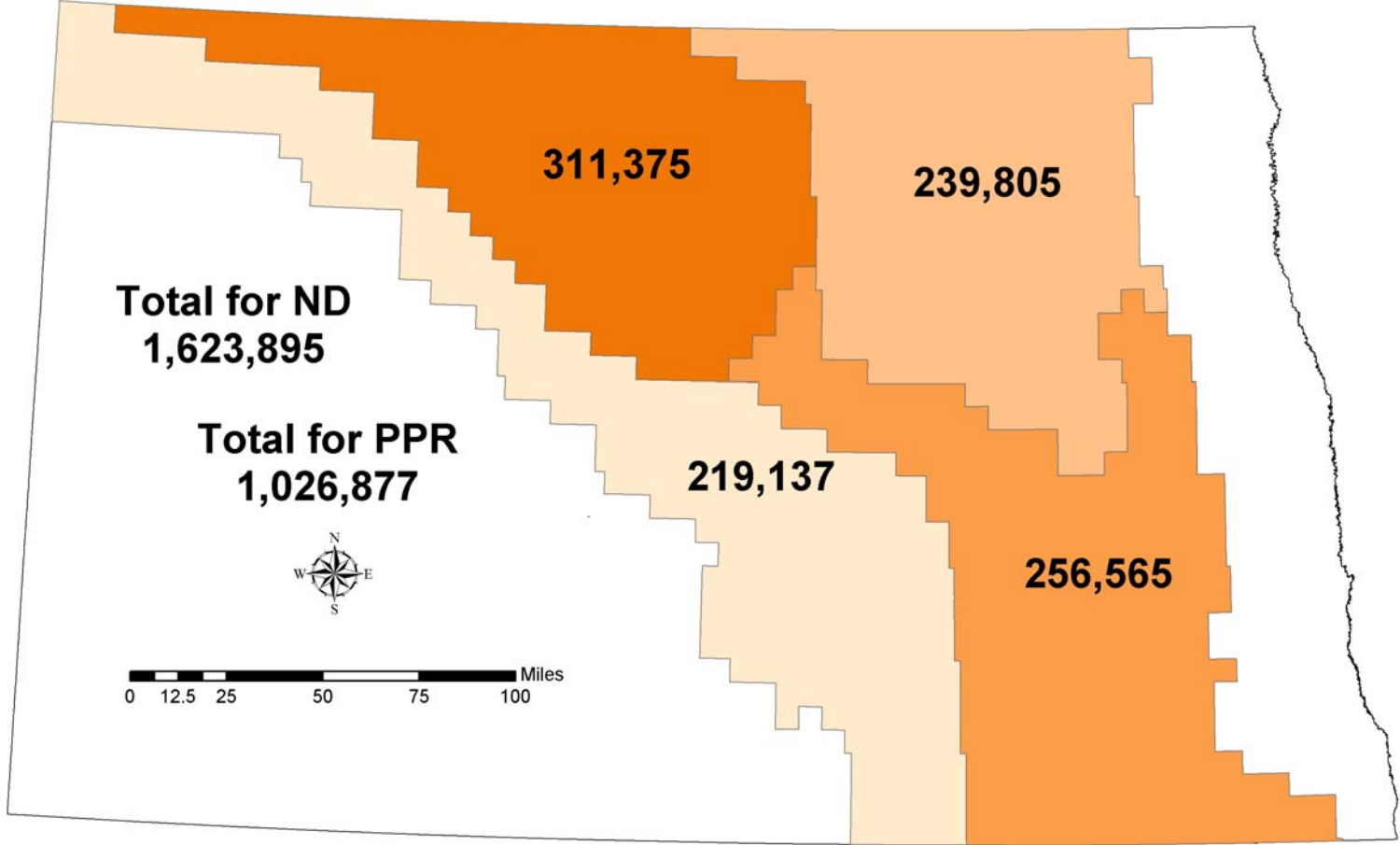


Common Grackles / BBS Route for 2001-2003 (Mean \pm S.E.)



Acres of Sunflower Grown in 2002

(NDSU Ext. Service / NASS)



Summary

- USDA Wildlife Services Cattail Management Program is affecting less than 1% of the total estimated cattail in ND.
- Areas most predisposed to cattail control are the Southern and Northeast Drift Plains.
- Data to be published within the next year.

Acknowledgments

- Dr. George Linz and the rest of the USDA-APHIS-WS Staff.
- Dr. Will Bleier and NDSU Biological Sciences Department
- Drs. Gary Clambey & Rob Aurthur
- Fellow Graduate Students.