

Neal Smith NWR Watershed Vegetation Survey 2009

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Methods

- 12 experimental watersheds
- Each watershed assigned to 1 of 4 treatments
 1. 90% crop, 10% prairie buffer strip at bottom
 2. 90% crop, 10% prairie buffer strips throughout
 3. 80% crop, 20% prairie buffer strips throughout
 4. 100% crop
- Twelve 0.5-m² quadrats placed along transect in both crop portion and prairie buffer strip portion of each watershed (treatment 4 had 24 quadrats in the crop area)
- Vegetation identified to species, classified into seven % cover classes
- Midpoints of the cover classes were used for analyses: 0.5%, 3%, 15%, 37.5%, 62.5%, 85%, 97.5%

Objectives

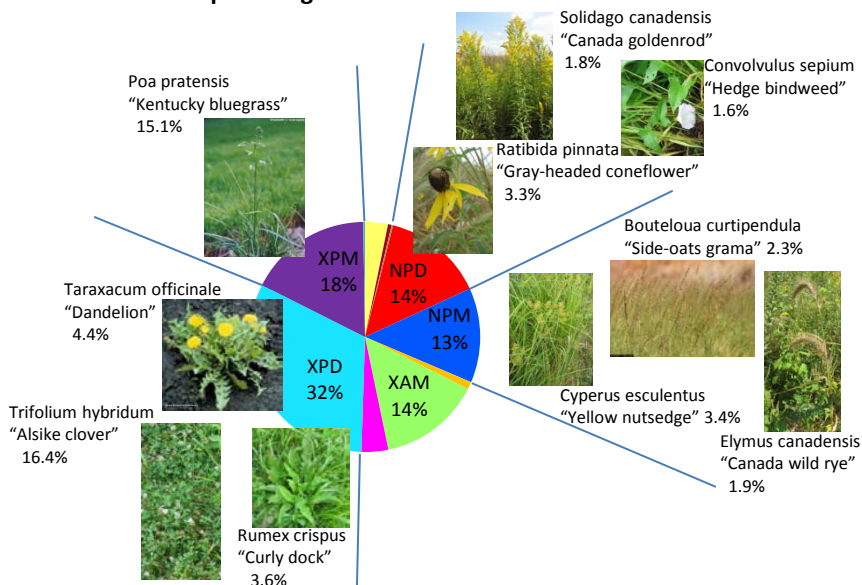
1. Measure cover by different species (prairie perennials and weeds)
2. Compare species diversity in cropped and non-cropped areas



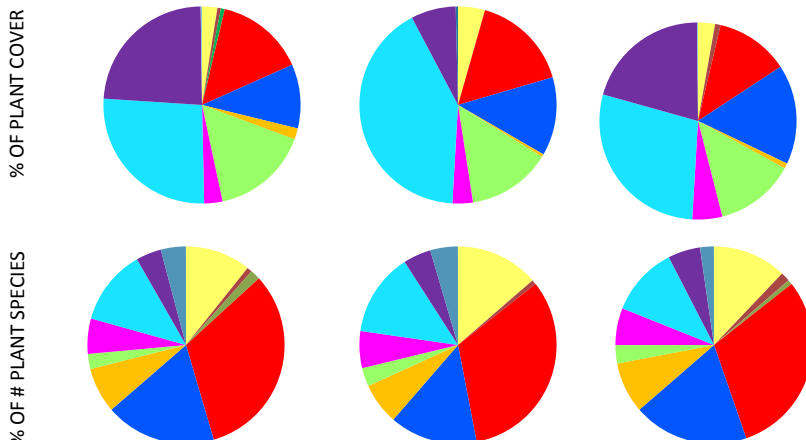
• Species grouped in 12 vegetation classes:

- NAD = Native annual dicots
- XAD = Non-native annual dicots
- ?D = Unknown dicots
- NAM = Native annual monocots
- XAM = Non-native annual monocots
- ?M = Unknown monocots
- NBD = Native biennial dicots
- XBD = Non-native biennial dicots
- NPD = Native perennial dicots
- XPD = Non-native perennial dicots
- NPM = Native perennial monocots
- XPM = Non-native perennial monocots

Proportional Composition of Plant Cover In Watershed Buffer Strips Emphasizing Predominant Perennial Plants

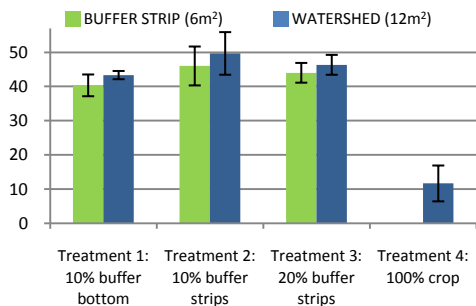


GROUP 1: 10% BUFFER BOTTOM GROUP 2: 10% BUFFER STRIPS GROUP 3: 20% BUFFER STRIPS

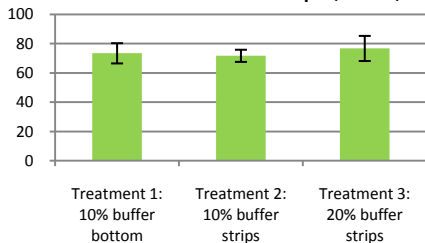


Proportional composition of number of plant species and plant cover in buffer strips of the three prairie buffer strip treatment groups (see color coded vegetation classes above)

Number of Species Found (±1 SE)



% Plant Cover in Buffer Strips (±1 SE)



% Non-crop Cover Within Soybean (±1 SE)

