

CHANGES IN VEGETATION DISTRIBUTION AFTER 17 YEARS IN A RESTORED WISCONSIN PRAIRIE, BARABOO, WI USA

MICHAEL S SAWYERS*, 1020 CARROLL ST. IOWA CITY, IA 52240

JEB A. BARZEN, E-11376 SHADY LANE RD. BARABOO, WI 53913

Abstract: The vegetation distribution of a restored prairie, Stedman Basin, was investigated at the International Crane Foundation (ICF) in Baraboo, WI USA. Because the ICF site is located in an area of historic prairie coverage, it provides an opportunity to engage in restoration of native ecosystems. Stedman Basin was seeded with a mix of wet-mesic seeds in 1989. Subsequent surveys showed uniform germination in the first two growing seasons. In 2007, a survey was conducted to determine whether plants have spatially sorted over time, if any vegetation patterns can be discerned, and if environmental factors can account for these distributions. Meter squared quadrats were systematically placed along five transects across the basin. Vegetation diversity, abundance, and abiotic factors were measured in each quadrat. Soil samples were taken from each quadrat for chemical analysis. Canonical correspondence analysis (CCA) was conducted to detect relationships between biotic and abiotic factors in the Stedman Basin. Based on current species distribution, the vegetation has changed in distribution over time, trending towards each species' environmental preferences. Factors related to soil structure and moisture content are important to plant distribution in the Stedman Basin. Long-term monitoring at Stedman Basin suggests efforts have been successful at reintroducing native prairie species in appropriate habitat within the basin.