

## A Sand Prairie Remnant on the Muscatine Island Research Farm

### RFR-A1933

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A sand prairie is defined as a dry native grassland community dominated by grasses or a unique type of prairie that developed on well-drained sand deposits typical of the alluvial soils along the Mississippi River. The ecosystem contains plants and animals more often found in desert areas of the Southwest.

In 2013, a 20-acre tract of land adjacent to the research farm was purchased. Staff became aware of an area along the railroad track with native plants and determined the 3-acre site is a sand prairie remnant (Figure 1). However, it has become somewhat degraded in places. Eastern red cedar trees and sumac have invaded the sand prairie and need to be removed to prevent further degradation.

Adam Janke, assistant professor and extension wildlife specialist at Iowa State University, said most sand prairies that once existed in Iowa are gone, and the Muscatine property offers a unique opportunity for conservation and to preserve an important part of Iowa's ecological heritage.

It is estimated over 99 percent of Iowa's land where there was once prairie has been plowed. These remnant spots, which often are odd areas along railroads, cemeteries, or roads, are unique areas.

Brian Wilsey, professor, ISU ecology, evolution, and organismal department, visited the site July 21, 2019, and found the following 16 native plant species and evidence of pocket

gophers. Several of the species are specific to sand prairies.

#### **Sand prairie species:**

Eastern prickly pear *Opuntia humifusa*  
Sand reed grass *Calamovilfa longifolia*  
Sand dropseed *Sporobolus cryptandrus*

#### **Dry prairie remnant prairie species:**

False gromwell *Onosmodium bejariense*  
Western ragweed *Ambrosia psilostachya*  
Porcupine grass *Stipa spartea*  
Stiff sunflower *Helianthus rigidus*  
Maximilian sunflower *Helianthus maximiliani*  
Little bluestem grass *Schizachyrium scoparium*  
June grass *Koeleria cristata*

#### **Typical prairie remnant species:**

Round headed bushclover *Lespedeza capitata*  
Vervain *Verbena stricta*  
False boneset *Brickellia eupatorioides*  
Scribners panicum *Dichanthelium oligosanthes*  
Big bluestem *Andropogon gerardii*  
Canada wildrye *Elymus canadensis*

The site was cleared October 12 by removing the invasive elm and red cedar trees. The event was attended by 12 volunteers and ISU staff. In five hours, the group removed several hundred small trees and numerous larger trees. They also identified native raspberry brambles and a native wild plum thicket. The site will be signed and is available for visits by local students and other interested groups. The sand prairie now is part of ISU's ecological portfolio and available for study and research projects. Plans also include work to eliminate other invasive plants and monitor for unique fauna.



Figure 1. The sand prairie remnant (outlined) near Fruitland, IA.