



## Grassland: Prairie

### Description

Prairies are a type of natural grassland that is dominated by herbaceous plants. Trees are either absent or only widely scattered on the landscape (<5% canopy cover). There are many prairie communities that differ in plant composition due primarily to differences in soil moisture, hydrology, geology, landscape context, and frequency of disturbance. Prairies range from dry sandy prairies associated with savannas to wet prairies that are also ephemeral wetlands. Prairies are disturbance-dependent and must be maintained either by fire, seasonal inundation, or droughty soil conditions that are not amenable to tree growth. Without these frequent disturbances, prairies are invaded by trees or shrubs.

### General Condition of Feature

Most of the prairie in the Western Upper Peninsula, nearly 75%, is considered to be in fair to good condition. Most of the remaining prairie areas are considered degraded. Many specific prairie natural communities are classified as imperiled or critically imperiled within the State due to high or extreme rarity.

### Associated Natural Communities

N/A – no native natural communities

### Associated Species of Greatest Conservation Need

#### *INSECTS*

gorgone checkerspot (*Chlosyne gorgone carlota*)

#### *AMPHIBIANS*

pickerel frog (*Rana palustris*)

northern leopard frog (*Rana pipiens*)

#### *REPTILES*

blue racer (*Coluber constrictor foxii*)

western fox snake (*Elaphe vulpina*)

eastern hognose snake (*Heterodon platirhinos*)

smooth green snake (*Liochlorophis vernalis*)

Blanding's turtle (*Emydoidea blandingii*)

#### *BIRDS*

Blue-winged Teal (*Anas discors*)

Sharp-tailed Grouse (*Tympanuchus phasianellus*)

Northern Bobwhite (*Colinus virginianus*)

American Bittern (*Botaurus lentiginosus*)

#### *BIRDS cont.*

Northern Harrier (*Circus cyaneus*)

Upland Sandpiper (*Bartramia longicauda*)

Red-headed Woodpecker (*Melanerpes erythrocephalus*)

Eastern Kingbird (*Tyrannus tyrannus*)

Purple Martin (*Progne subis*)

Sedge Wren (*Cistothorus platensis*)

Field Sparrow (*Spizella pusilla*)

Vesper Sparrow (*Pooecetes gramineus*)

Savannah Sparrow (*Passerculus sandwichensis*)

Dickcissel (*Spiza americana*)

Bobolink (*Dolichonyx oryzivorus*)

Eastern Meadowlark (*Sturnella magna*)

Western Meadowlark (*Sturnella neglecta*)

### Associated Threats

#### *MODIFICATION OF NATURAL PROCESSES*

- Grazing and mowing patterns: Farm abandonment results in succession to forested landscape features.
- Altered fire regime: A lack of fire leads to succession to shrub and forested feature types.
- Altered hydrologic regimes
- Fragmentation

#### *HABITAT CONVERSION*

- Industrial, residential, and recreational development

#### *POLLUTION*

- Pesticides and herbicides

#### *EDUCATION*

- Social attitudes: The public is not aware that declining species of birds are open land and shrubland birds. There is a lack of awareness of the differences between grassland types and their different values to wildlife.
- Lack of scientific knowledge

#### *OTHER*

- Historic status/current abundance: There is little prairie within the Western Upper Peninsula, and most candidate areas are more accurately classified as savanna. This is not a feature that was historically common within the Western Upper Peninsula.

### Conservation Actions Needed [Threats addressed]

#### *LAND, WATER, & SPECIES MANAGEMENT*

- Manage to approximate natural disturbance regimes using managed fire, grazing and mowing, prescribed fire, and restoration of water flow patterns. [Grazing and mowing patterns; Altered fire regime; Altered hydrologic regimes]

**MICHIGAN'S WILDLIFE ACTION PLAN**  
**TERRESTRIAL SYSTEMS: WESTERN UPPER PENINSULA**

*EDUCATION, AND AWARENESS*

- Provide information to private landowners regarding the value of grasslands and their value to wildlife. [Grazing and mowing patterns; Industrial, residential, and recreational development; Social attitudes]
- Encourage agriculture practices that reduce the use of pesticides and herbicides. [Pesticides and herbicides]

*ECONOMIC & OTHER INCENTIVES*

- Encourage maintenance of prairie features through private land conservation initiatives (CRP, CREP, etc.). [Industrial, residential, and recreational development; Social attitudes]

Research and Survey Needs

- Inventory existing prairie features in the Western Upper Peninsula [Historic status/current abundance, Fragmentation]
- An inventory needs to be conducted to determine the location, condition, and classification of remnants and of the opportunities for restoration.
- Test the assumption that remnants are widely dispersed and becoming more fragmented resulting in a loss of species diversity.
- Study the groundwater recharge capacity of prairie systems. High infiltration converts sheet flow to groundwater rather than increasing discharge into riparian systems. Determine the impacts on this dynamic and groundwater quality of the addition of pollution to prairies.
- Do structures like freeway corridors act as a substitute for prairie on the landscape?
- A better understanding is needed of the historical temporal distribution of fire and its influence on prairies.
- A better understanding is needed of the history of prairie sites. Many sites have been retained through cultural activities that foster maintenance of prairie features.
- Techniques need to be developed using remote sensing and physical inventorying to create digital data sources for use in research and planning.

Monitoring

- Track the total acreage of prairie in the ecoregion as well as its distribution across the landscape.
- Track changes in the floristic composition of prairies.