



Grassland: Hayland

Description

Hayland is agricultural grassland from which the "grass" is periodically harvested. Small grain crops (e.g., wheat) were included here since they are structurally similar to hayland during the growing season. Hayland has fewer plant species than native prairie or old fields and is simpler structurally.

General Condition of Feature

Most of the hayland in the Southern Lower Peninsula is considered to be in fair or good condition as wildlife habitat (~70%). Much of the remaining area is considered degraded or very degraded.

Associated Natural Communities

N/A – no native natural communities

Associated Species of Greatest Conservation Need

AMPHIBIANS

northern leopard frog (*Rana pipiens*)

REPTILES

blue racer (*Coluber constrictor foxii*)

eastern fox snake (*Elaphe gloydi*)

black rat snake (*Elaphe obsoleta obsoleta*)

copperbelly water snake (*Nerodia erythrogaster neglecta*)

eastern massasauga (*Sistrurus catenatus catenatus*)

Blanding's turtle (*Emydoidea blandingii*)

BIRDS

Blue-winged Teal (*Anas discors*)

Northern Bobwhite (*Colinus virginianus*)

Northern Harrier (*Circus cyaneus*)

BIRDS cont.

Upland Sandpiper (*Bartramia longicauda*)

American Woodcock (*Scolopax minor*)

Barn Owl (*Tyto alba*)

Sedge Wren (*Cistothorus platensis*)

Savannah Sparrow (*Passerculus sandwichensis*)

Grasshopper Sparrow (*Ammodramus savannarum*)

Dickcissel (*Spiza americana*)

Bobolink (*Dolichonyx oryzivorus*)

Eastern Meadowlark (*Sturnella magna*)

Western Meadowlark (*Sturnella neglecta*)

MAMMALS

least weasel (*Mustela nivalis*)

prairie vole (*Microtus ochrogaster*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Grazing and mowing patterns: Timing of mowing may affect community composition and species use.
- Altered fire regime: A lack of fire may aid the establishment of invasive plant species.

HABITAT CONVERSION

- Industrial, residential, and recreational development
- Conversion to agriculture: The economics of farming favor the conversion of dairy farms to row crops and reduction in the amount of hayland.
- Incompatible natural resource management: Changes in agricultural practices and equipment may reduce the value of haylands for wildlife.

BIOLOGICAL INTERACTIONS

- Other biological interactions: There has been a reduction in the diversity of species planted as combinations of timothy and clovers have been replaced by alfalfa.

Conservation Actions Needed [Threats addressed]

LAND, WATER & SPECIES MANAGEMENT

- Manage to approximate natural disturbance regimes using managed grazing and mowing and prescribed fire. [Grazing and mowing patterns; Altered fire regime]

LAW & POLICY

- Work with municipalities to promote planning and zoning to protect haylands from development or to convert it to features that have greater value to wildlife. [Industrial, residential, and recreational development]

EDUCATION & AWARENESS

- Provide information on the benefits to wildlife of diversity in plantings in haylands. [Incompatible natural resource management; Other biological interactions]

ECONOMIC & OTHER INCENTIVES

- Provide education to family farms on the development of agricultural strategies that allow for profitable dairy farming. [Industrial, residential, and recreational development, Conversion to agriculture; Incompatible natural resource management]

Research and Survey Needs

- An inventory needs to be conducted to determine the location, condition, and size of haylands.
- Study the effects of timing and intensity of haying and hayfield management on the value to wildlife of these systems. Are there other variables associated with haying and hayfield management that affect their value to wildlife? Strong regional differences have been observed in haying practices and the value of haylands to wildlife.
- Evaluate opportunities for wildlife and economic benefits from hayland management. Examine economic impacts and changes in value to wildlife resulting from changes in management.
- Compare small grain crops to hay crops in terms of value to wildlife. Are small grain crops more similar to hay crops or row crops in terms of their value to wildlife? Harvest schedules for small grain crops are likely to differ from those for hay crops.
- Compare the impacts of mowing (cutting without biomass removal) with haying (cutting with biomass removal).
- Determine how wildlife use changes as a result of seasonal (height of vegetation, presence of seed, amount of stubble, etc.) or annual (crop rotation, etc.) fluctuations of cover crops.

Monitoring

- Analyze county agriculture statistics to determine trends in acreage and distribution.
- Track changes in species composition under cultivation.
- Track changes in haying, both in timing and techniques.
- Monitor the distribution of invasive species