



Grassland: Idle/old field

Description

Idle/old field is a grassland community of opportunistic plants and animals that take over bare ground previously disturbed by humans—usually for agricultural purposes. These grassland communities are often a mix of opportunistic (weedy) native and invasive species. These communities are often ultimately replaced by early successional trees if left alone without disturbance (e.g. fire).

General Condition of Feature

Idle or old fields are a fairly uncommon feature in the Western Upper Peninsula. Nearly half of the idle or old field occurrences in the Western Upper Peninsula are in fair condition, with most of the remaining areas degraded due to vegetative succession or development. Less than 15% of these areas are considered good or excellent.

Associated Natural Communities

N/A – no native natural communities

Associated Species of Greatest Conservation Need

INSECTS

tawny crescent (*Phyciodes batesii*)

AMPHIBIANS

pickerel frog (*Rana palustris*)

northern leopard frog (*Rana pipiens*)

REPTILES

blue racer (*Coluber constrictor foxii*)

northern ringneck snake (*Diadophis punctatus edwardsii*)

western fox snake (*Elaphe vulpina*)

eastern hognose snake (*Heterodon platirhinos*)

smooth green snake (*Liochlorophis vernalis*)

Blanding's turtle (*Emydoidea blandingii*)

wood turtle (*Glyptemys insculpta*)

BIRDS

Blue-winged Teal (*Anas discors*)

Sharp-tailed Grouse (*Tympanuchus phasianellus*)

Northern Bobwhite (*Colinus virginianus*)

Northern Harrier (*Circus cyaneus*)

Killdeer (*Charadrius vociferus*)

Upland Sandpiper (*Bartramia longicauda*)

American Woodcock (*Scolopax minor*)

BIRDS cont.

Yellow-billed Cuckoo (*Coccyzus americanus*)

Red-headed Woodpecker (*Melanerpes erythrocephalus*)

Northern Flicker (*Colaptes auratus*)

Eastern Kingbird (*Tyrannus tyrannus*)

Sedge Wren (*Cistothorus platensis*)

Brown Thrasher (*Toxostoma rufum*)

Golden-winged Warbler (*Vermivora chrysoptera*)

Eastern Towhee (*Pipilo erythrophthalmus*)

Field Sparrow (*Spizella pusilla*)

Vesper Sparrow (*Pooecetes gramineus*)

Dickcissel (*Spiza americana*)

Bobolink (*Dolichonyx oryzivorus*)

Eastern Meadowlark (*Sturnella magna*)

Western Meadowlark (*Sturnella neglecta*)

MAMMALS

hoary bat (*Lasiurus cinereus*)

eastern pipistrelle (*Pipistrellus subflavus*)

least weasel (*Mustela nivalis*)

deer mouse (*Peromyscus maniculatus gracilis*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Grazing and mowing patterns: Farm abandonment results in succession to forested landscape features. Timing of mowing may affect species composition and species use.
- Altered fire regime: A lack of fire results in succession to shrub and forest feature types.
- Altered hydrologic regimes
- Fragmentation

HABITAT CONVERSION

- Industrial, residential and recreational development: Conversion pressure leads to residential and industrial development.

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Scientific research

BIOLOGICAL INTERACTIONS

- Invasive plants and animals
- Other biological interactions: There is a lack of native plant species.

EDUCATION

- Social attitudes
- Lack of scientific knowledge: Many species associated with old fields lack adequate life history information.

Conservation Actions Needed [Threats addressed]

LAND, WATER, & SPECIES MANAGEMENT

- Develop and implement plans for invasive species control and prevention. [Invasive plants and animals]
- Find and use sources of native plant species to restore degraded features and create new ones. [Other biological interactions]
- Manage to approximate natural disturbance regimes using managed fire, grazing and mowing, prescribed fire, and restoration of water flow patterns. [Altered fire regime; Grazing and mowing patterns; Altered hydrologic regimes]
- Develop mowing guidelines to minimize seasonal habitat loss for wildlife. [Grazing and mowing patterns]

ECONOMIC & OTHER INCENTIVES

- Encourage maintenance of idle/old field features through private land conservation initiatives (CRP, CREP, etc.). Provide sustainable agriculture strategy training to help keep family farms afloat. [Grazing and mowing patterns; Industrial, residential, and recreational development]

Research and Survey Needs

- A better understanding is needed of the species associated with idle/old field communities. Are these systems sinks or are they valuable as wildlife habitat?
- A better understanding is needed of the role of idle/old field on the landscape. These systems may serve an important role as a buffer around other features.
- Study the species composition of idle/old fields. Are there native communities in old fields? Both native and non-native weeds may colonize fields after the cessation of agriculture.
- Compare the value of old field systems and row crops to wildlife. Is the value of old field significantly higher? Urban sprawl results in the conversion of agricultural land and unmanaged old fields. How do row crops and old fields compare to the value of man-made managed grasslands in residential areas?
- An inventory needs to be conducted to determine the location and condition of idle/old fields.
- Conduct research to fill gaps in species life history knowledge.

Monitoring

- Track the total acreage of idle/old field in the ecoregion as well as its distribution across the landscape.