



## 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 in the Southern Lower Peninsula are generally in fair to good condition (~65%) as wildlife habitat. However, more than a quarter of idle/old field sites are degraded or very degraded.

### Associated Natural Communities

N/A – no native natural communities

### Associated Species of Greatest Conservation Need

#### INSECTS

a spur-throat grasshopper (*Melanoplus eurycercus*)  
blue-legged locust (*Melanoplus flavidus*)  
Hebard's green-legged locust (*Melanoplus viridipes*)  
woodland camel cricket (*Ceuthophilus silvestris*)  
woodland meadow katydid (*Conocephalus nemoralis*)  
conehead grasshopper (*Neoconocephalus retusus*)  
wild indigo duskywing (*Erynnis baptisiae*)  
persius duskywing (*Erynnis persius persius*)  
pipevine swallowtail (*Battus philenor*)  
Karner blue (*Lycaeides melissa samuelis*)  
frosted elfin (*Callophrys irus*)  
regal fritillary (*Speyeria idalia*)  
tawny crescent (*Phyciodes batesii*)  
golden borer (*Papaipema cerina*)  
maritime sunflower borer (*Papaipema maritima*)  
regal fern borer (*Papaipema speciosissima*)

#### AMPHIBIANS

smallmouth salamander (*Ambystoma texanum*)  
eastern tiger salamander (*Ambystoma tigrinum tigrinum*)  
Fowler's toad (*Bufo fowleri*)  
Blanchard's cricket frog (*Acris crepitans blanchardi*)  
western chorus frog (*Pseudacris triseriata triseriata*)  
pickrel frog (*Rana palustris*)  
northern leopard frog (*Rana pipiens*)

#### REPTILES

Kirtland's snake (*Clonophis kirtlandii*)  
blue racer (*Coluber constrictor foxii*)  
northern ringneck snake (*Diadophis punctatus edwardsii*)  
eastern fox snake (*Elaphe gloydi*)  
black rat snake (*Elaphe obsoleta obsoleta*)  
eastern hognose snake (*Heterodon platirhinos*)  
smooth green snake (*Liochlorophis vernalis*)  
copperbelly water snake (*Nerodia erythrogaster neglecta*)  
six-lined racerunner (*Apidoscelis sexlineatus*)  
eastern massasauga (*Sistrurus catenatus catenatus*)

### Associated Threats

#### MODIFICATION OF NATURAL PROCESSES

- Climate change

#### REPTILES cont.

spotted turtle (*Clemmys guttata*)  
Blanding's turtle (*Emydoidea blandingii*)  
wood turtle (*Glyptemys insculpta*)  
eastern box turtle (*Terrapene carolina carolina*)

#### BIRDS

Blue-winged Teal (*Anas discors*)  
Northern Bobwhite (*Colinus virginianus*)  
Northern Harrier (*Circus cyaneus*)  
Killdeer (*Charadrius vociferus*)  
Upland Sandpiper (*Bartramia longicauda*)  
American Woodcock (*Scolopax minor*)  
Yellow-billed Cuckoo (*Coccyzus americanus*)  
Short-eared Owl (*Asio flammeus*)  
Chuck-will's-widow (*Caprimulgus carolinensis*)  
Red-headed Woodpecker (*Melanerpes erythrocephalus*)  
Northern Flicker (*Colaptes auratus*)  
Eastern Kingbird (*Tyrannus tyrannus*)  
Sedge Wren (*Cistothorus platensis*)  
Brown Thrasher (*Toxostoma rufum*)  
Blue-winged Warbler (*Vermivora pinus*)  
Eastern Towhee (*Pipilo erythrophthalmus*)  
Field Sparrow (*Spizella pusilla*)  
Vesper Sparrow (*Poocetes gramineus*)  
Grasshopper Sparrow (*Ammodramus savannarum*)  
Henslow's Sparrow (*Ammodramus henslowii*)  
Dickcissel (*Spiza americana*)  
Bobolink (*Dolichonyx oryzivorus*)  
Eastern Meadowlark (*Sturnella magna*)  
Western Meadowlark (*Sturnella neglecta*)

#### MAMMALS

least shrew (*Cryptotis parva*)  
hoary bat (*Lasiurus cinereus*)  
evening bat (*Nycticeius humeralis*)  
eastern pipistrelle (*Pipistrellus subflavus*)  
least weasel (*Mustela nivalis*)  
prairie vole (*Microtus ochrogaster*)

**MICHIGAN'S WILDLIFE ACTION PLAN**  
**TERRESTRIAL SYSTEMS: SOUTHERN LOWER PENINSULA**

- Grazing and mowing patterns: A lack of disturbance results in succession to forest feature types, with a potential of reversion to historic or presettlement features.
- Altered fire regime: A lack of fire may aid in the establishment of invasive plant species. A lack of disturbance results in succession to forest feature types.

*HABITAT CONVERSION*

- Industrial, residential, and recreational development: Idle or old fields are being converted to residential development.
- Conversion to agriculture: Idle or old fields are being reclaimed to agricultural use.

*BIOLOGICAL INTERACTIONS*

- Invasive plants and animals: Invasive plants are more prevalent on disturbed sites which constitute most idle agricultural lands.

*EDUCATION*

- Social attitudes: There may be an aesthetic aversion in the general public to old fields and idle agricultural lands.

Conservation Actions Needed [Threats addressed]

*LAND, WATER & SPECIES MANAGEMENT*

- Manage to approximate natural disturbance regimes using prescribed fire, managed grazing or mowing. [Grazing and mowing patterns, Altered fire regime]
- Institute invasive species monitoring, prevention and control programs. [Invasive plants and animals]
- Provide contiguous dry and mesic grassland areas of at least 250 acres. [Habitat Conversion—multiple]

*LAW & POLICY*

- Work with municipalities to promote planning and zoning insuring adequate protection for old fields or their conversion to features that have greater value to wildlife. [Industrial, residential, and recreational development; Conversion to agriculture]

*EDUCATION & AWARENESS*

- Educate the general public as to the value of old fields for wildlife. [Social attitudes]

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 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.

Monitoring

- Track the total acreage of idle/old field in the ecoregion as well as its distribution across the landscape.
- Monitor the distribution and population size of invasive species