



Source: IFMAP Michigan Land Cover dataset. Orchard/Vineyards/Nursery includes woody trees not grown for Christmas trees.

Grassland: Orchard

Description

Orchards are agricultural lands with fruit-bearing trees or vines or linear rows of early harvested trees (e.g., tree nurseries) within a managed (usually well-mowed) grassland.

General Condition of Feature

Orchards are rare across the landscape of the Eastern Upper Peninsula. Much of the orchard habitat in the Eastern Upper Peninsula is considered degraded as wildlife habitat (~60%), largely due to abandonment of old orchards. Much of the remaining orchard area is considered to be in fair condition (~25%).

Associated Natural Communities

N/A – no native natural communities

Associated Species of Greatest Conservation Need

REPTILES

- western fox snake (*Elaphe vulpina*)
- eastern hognose snake (*Heterodon platirhinos*)

BIRDS

- Yellow-billed Cuckoo (*Coccyzus americanus*)

BIRDS cont.

- Northern Flicker (*Colaptes auratus*)
- Least Flycatcher (*Empidonax minimus*)
- Eastern Kingbird (*Tyrannus tyrannus*)
- Northern Mockingbird (*Mimus polyglottos*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Grazing and mowing patterns: Abandonment or lack of maintenance may alter the value of orchards for wildlife.

BIOLOGICAL INTERACTIONS

- Other biological interactions: Girdling by rodents and hares or browsing by white-tailed deer (*Odocoileus virginianus*) may impact orchards.

OTHER

- Historic status/current abundance: This is not a prominent feature in the Eastern Upper Peninsula and was not historically.

Conservation Actions Needed [Threats addressed]

LAND, WATER & SPECIES MANAGEMENT

- Manage white-tailed deer densities to prevent high impact levels of browsing. [Other biological interactions]

Research and Survey Needs

- Compare the value to wildlife of active and abandoned orchards. [Grazing and mowing patterns]
- An inventory needs to be conducted to determine the location, condition, and size of orchards.
- Study the effects of timing and intensity of orchard management on the benefits of orchards to wildlife. Are there other variables associated with orchard management that affect their value to wildlife?
- Examine economic and wildlife impacts of changes in management techniques.
- Compare the impacts of mowing (cutting without biomass removal) vs. haying (cutting with biomass removal).
- Evaluate the impact of wildlife depredation on orchard plants. Develop techniques to reduce depredation and quantify their effectiveness.
- Assess the importance of orchards as wildlife habitat.
- Evaluate the fate of orchards after establishment. How often do Christmas tree plantings get neglected, remain unharvested, and transition to forested feature types? How does the value to wildlife of orchards change as they age?
- What is the impact of Destructive Insects and Plant Disease Act No. 72, Public Acts 1945 on the value of orchards to wildlife?

Monitoring

- Track acreage and distribution of orchards using collected county agriculture statistics.
- Track changes in species selected for cultivation. Changes to dwarf varieties may affect the value to wildlife of orchards.
- Track changes in timing and method of harvest.