



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 Western Upper Peninsula . Much of the orchard habitat in the Western Upper Peninsula is considered degraded as wildlife habitat (~60%), largely due to abandonment of old orchards. Most of the remaining areas are considered to be in fair condition (~40%).

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*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Grazing and mowing patterns: Abandoned and overgrown orchards convert to shrub and forested feature types.

HABITAT CONVERSION

- Industrial, residential, and recreational development

OTHER

- Historic status/current abundance: Orchards are an uncommon feature within the Western Upper Peninsula. Many of the orchards which do exist are old, overgrown, and degraded.

Conservation Actions Needed [Threats addressed]

LAND, WATER, & SPECIES MANAGEMENT

- Manage to approximate natural disturbance regimes using managed fire, grazing and mowing. [Grazing and mowing patterns]

LAW & POLICY

- Develop local planning to maintain the structural component of orchards or foster their conversion to features that have greater value to wildlife. [Industrial, residential, and recreational development]

ECONOMIC & OTHER INCENTIVES

- Encourage maintenance of orchards through private land conservation initiatives (CRP, CREP, etc.). [Industrial, residential, and recreational development]

Research and Survey Needs

- 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 value to wildlife of these systems. 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) with haying (cutting with biomass removal).
- Determine how orchard management has changed since its inception in the Southern Lower Peninsula. Have the species planted or management techniques changed? How has this altered the value of orchards for wildlife?
- 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.

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TERRESTRIAL SYSTEMS: WESTERN UPPER PENINSULA

- Track changes in timing and method of harvest.