

## Land Protection

- Protect old fields, fallow pastureland, pine-oak barrens, open woodlands, and reclaimed mine areas with known breeding populations, particularly in eastern U.S. and Canada.
- Protect wetland shrub communities from human development, hydrologic changes, and degradation. In particular, protect large wetland shrub complexes of northwestern WI and northeastern MN. Alder or willow-dominated wetlands that are relatively flat and sprawling may be preferred over narrow riparian strips with steep grades.
- Where possible, allow natural disturbance regimes to maintain shrubby conditions. Alternatively, use management strategies to maintain large complexes of grassy-shrubby, early successional habitat.

For specific land protection and habitat management recommendations for your area, please see the website or contact a regional coordinator.



Photo: Nathan Klaus

Old field-forest mosaic with habitat elements preferred by Golden-winged Warbler.

## Research Needs

1. Identify areas of high population concentrations using surveys and regional habitat models.
2. Evaluate forest harvest and burning prescriptions that promote quality habitat.
3. Evaluate strip-cutting of lowland shrub communities or mechanical cutting strategies.
4. Compare habitat quality across community types used by Golden-winged Warblers in each region.
5. Identify community types and management strategies that promote segregation between Golden-winged and Blue-winged Warblers.
6. Determine role and significance of beaver in creating habitat.
7. Evaluate significance and quality of breeding habitat for post-breeding and migratory needs.

## For More Information



To join the conversation on Golden-winged Warbler conservation or to join a Working Group Listserv

Visit online at <http://gwwa.utk.edu>

## GOLDEN-WINGED WARBLER CONSERVATION INITIATIVE



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## BREEDING HABITAT GUIDELINES

for the Eastern U.S. & Canada



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## Golden-winged Warblers in Crisis

The Golden-winged Warbler, *Vermivora chrysoptera*, is a Neotropical migratory songbird that breeds in eastern North America from northern Georgia to Canada.

### Populations in Decline

Over the last 40 years, Golden-winged Warbler populations have declined rangewide by 3.1% per year with declines of up to 16% per year in some states (USGS Breeding Bird Survey, see map). This decline is attributed partially to loss of breeding habitat due to forest maturation. Other causes may include migratory/wintering habitat loss, hybridization with the Blue-winged Warbler, and climate change. Currently, the Golden-winged Warbler is federally listed as Threatened in Canada. It is state listed as Endangered in IN, OH, MA, and GA, Threatened in KY, and a conservation priority in 12 other states.

### Habitat Needs

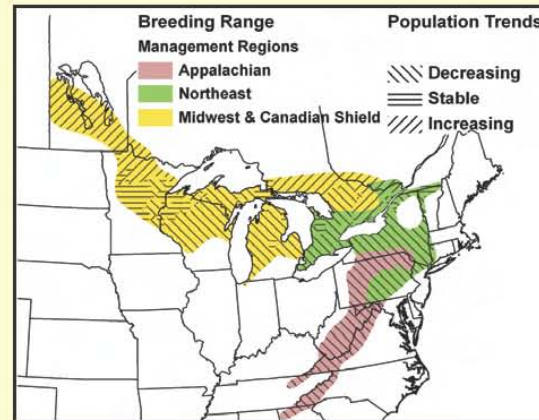
The Golden-winged Warbler breeds in open-canopy shrublands interspersed with grassy or herbaceous vegetation patches, often including a forest edge. This early successional habitat has declined across eastern North America along with associated plants and animals that rely on it for survival. Historically, this habitat was created and maintained by disturbance regimes (fire, wind, flooding, beaver activity). Today, restoration and management activities play an important role in Golden-winged Warbler conservation.



Photo: Kelly Canuso

## Stewardship Guidelines

Golden-winged Warbler community type preferences vary geographically, and therefore some conservation strategies are region specific. Many recommendations are generic and based on expert opinion until more detailed information becomes available.



### Where to Focus Stewardship?

Protect and manage habitat in areas:

- in proximity to known Golden-winged Warbler breeding populations.
- with low rates of Brown-headed Cowbird nest parasitism.
- within forest-shrubland-abandoned field mosaics in the eastern U.S. and Canada.
- within extensive forested landscapes with significant early successional or wetland shrub components.
- within landscapes designated for early successional management emphasis (vs. scattered small parcels in older forests where deer impacts may be an issue).

### Habitat Management Strategies

- Rotationally manage sites or stands in close proximity (with prescribed burns, timber harvest, etc.) to maintain an early-successional component in an area.
- Where Blue-winged Warblers co-occur, manage habitat to encourage population segregation when possible.
- Promote utility rights-of-way (ROW) management that encourages native shrubs with grassy/herbaceous patches.
- Discourage habitat manipulation (e.g. ROW maintenance, timber harvest, burning) during nesting (May-July).
- In the Appalachians, manage grassy, shrubby habitat (including balds) above 2000 ft elevation to create more favorable habitat elements.
- Manage pine-oak barrens, open oak woodlands, and oak savannah for an open shrub/herbaceous understory with mechanical cutting, prescribed fire, and/or herbicide application.
- In the Midwest, where appropriate, use clearcutting, seed trees, and retention of scattered hardwoods/conifers in aspen-dominated forests and protect wetland inclusions from machinery impact.
- For mine reclamation sites, conduct prescribed burning on a 5-7 year rotation such that only a portion of any one site will be burned each year to sustain Golden-winged Warbler populations over time.
- If exotic vegetation is problematic on disturbed sites, plant native warm and cool season grasses with forbs and a woody shrub component.