

Conserving Shrublands, Conserving Species

New England Cottontail

New England cottontail rabbits prefer dense thickets such as overgrown fields and forests less than fifteen years old. These rabbits occur in a small region east of the Hudson River. They feed on grasses and leaves of wildflowers in the summer and bark



and twigs of shrubs and trees in the winter. Populations of these rabbits have suffered from habitat loss and the introduction of Eastern cottontail rabbits. For more information about New England cottontail conservation, visit New York State Department of Environmental Conservation website: <http://www.dec.ny.gov/animals/67017.html>.

American Woodcock

The woodcock requires a diverse mix of habitats to thrive, including shrublands and forests in riparian areas (land along riverbanks), upland shrublands, young forests, and forest thickets. The woodcock uses second growth hardwoods as nesting habitat. Areas with thick cover, moist fertile soil, and abundant worms are used as



feeding grounds. New clear-cuts, large fields and pastures are ideal for breeding displays and night roosting. Over the past several decades, woodcock populations in the eastern United States have been declining. For more information about American Woodcock, visit <http://timberdoodle.org>.

Golden-winged Warbler

The Golden-winged Warbler nests in early successional fields, with a preference for shrubby and open areas. In New York, this type of habitat is found in abandoned farmlands, utility right-of-ways, scrub/shrub wetlands, and forest regeneration after cutting.



This species is becoming increasingly localized and uncommon throughout the state. Threats to Golden-winged Warbler populations in New York State include habitat loss, competition and hybridization with blue-winged warblers, and nest parasitism by brown-headed cowbirds. For more information about the Golden-winged Warbler, visit the Golden-winged Warbler Working Group website: <http://www.gwwa.org/>.

Wildlife Found in Shrubland Habitat

Many wildlife species use shrublands, including those listed below. You can follow stewardship guidelines to help maintain and enhance their habitat. All of the species listed below have been categorized as Species of Greatest Conservation Need by the New York State Department of Environmental Conservation. Species of Greatest Conservation Need are those identified for a focus of conservation efforts in the state.

Birds

- American Woodcock
- Black-billed Cuckoo
- Brown Thrasher
- Canada Warbler
- Golden-winged Warbler
- Northern Bobwhite
- Ruffed Grouse
- Whip-poor-will
- Willow Flycatcher
- Yellow-breasted Chat

Reptiles & Amphibians

- Black rat snake
- Coal skink
- Common five-lined skink
- Fence lizard
- Northern black racer
- Northern copperhead
- Short-headed gartersnake
- Smooth green snake
- Timber rattlesnake

Mammals

- Eastern red bat
- Hoary bat
- Indiana bat
- Least shrew
- Least weasel
- New England cottontail
- Silver-haired bat
- Small-footed bat

Authorship

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About the Habitat Stewardship Series

Much of the land in New York State is privately owned. These landowners are the primary stewards of our wildlife and woodlands, and also help to provide us all with clean water, scenic views, fresh air, natural and cultural heritage, and recreational resources. The Habitat Stewardship Series has been created to help landowners and land managers recognize the habitats critical for wildlife species at risk, and to illustrate the role private landowners can play in sustaining these species through conservation, management, and sound stewardship. For more information: <http://www.landownerdecisions.org> or <http://www.nyfoa.org/swg>

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Shrublands

Habitat Stewardship Series



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**Cornell Cooperative Extension,
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Shrublands...

Shrubland habitat is characterized by the dense growth of shrubs, young trees, grasses and herbs. New York's climate and soils are especially suitable for growing trees, so if an open field or a clearing from logging is left alone, unmowed, for just a few years, shrubs and young trees will start to grow there. Many wildlife species rely on the resulting shrubland habitat for food, cover, and a breeding area. However, shrublands are becoming



increasingly rare throughout the state. As trees grow, they shade out grasses, wildflowers and shrubs. Within twenty-five to thirty years, the area that was once a field will become a young forest. This process of vegetation change over time is called succession. Old fields, shrublands, and young forests are often called early successional habitats. As forests mature and disturbance is restricted, these early successional habitats decrease, as is currently happening throughout New York State.

Most shrublands in New York are found in old fields and pastures, powerline corridors, gravel pits, and recent clearcuts. These shrublands exist as a result of human activities—through mowing, tree cutting, or abandonment of agricultural fields. Naturally-occurring shrublands also exist on the landscape. Natural shrublands include abandoned beaver ponds, wet shrub swamps, patches of juniper, and very dry oak barrens, which under natural conditions, are kept shrubby by periodic fires. These natural shrublands may remain open for thirty or more years, but in the absence of additional natural disturbance, these areas too will continue into mature forest.

Plants of shrublands

Shrubland habitats contain thickets of shrubs and young trees mixed with scattered grasses and wildflowers. Typical plants include dogwood, viburnum, and many other species. Types of sun-loving trees of the early successional habitat include aspen, poplar, oak, cherry, birch and ash.

Bigtooth Aspen, *Populus grandidentata* (shown on the right), is a type of aspen native to New York.



Why are shrublands important?

For some species of wildlife, such as the American Woodcock and Ruffed Grouse, shrublands provide necessary cover to escape predators and raise young. These shrubs and young trees also provide an abundance of berries and fruit that are eaten by many birds and mammals. By managing land for shrubland habitat, landowners can help ensure wildlife have adequate habitat and do not become listed as endangered species.

Decline in shrubland habitat

Over the past 100 years, there has been a dramatic decrease in the amount of shrubland in New York. Land-use change, human development, fewer large beaver impoundments, and fire suppression have all led to a decline in shrublands and the many wildlife species that depend on them. In New York, there are 33 wildlife Species of Greatest Conservation Need that rely on shrublands or young forest for survival. Species of Greatest Conservation Need are those identified for a focus of conservation efforts in the state, making them eligible for special Congressional conservation funds.

Threats from development

Human development poses a severe risk to shrublands. Development fragments shrubland communities, limiting the types of wildlife that can use these smaller habitat patches. Some species, such as the New England cottontail, cannot survive in shrublands near development or along powerlines because of the increased predation from hawks, owls, foxes, and coyotes. Additionally, development can result in permanent loss of habitat, increased exposure to invasive species, and new predators brought in by people, including free-ranging dogs and cats and predators attracted to human settlement, such as raccoons and crows.

Need for landowner stewardship activities

In today's landscape, small areas of shrublands may be created naturally—by beaver dam abandonment or small fires. However, to sustain wildlife species that depend on shrublands, additional management to create and maintain shrubland habitat is needed. Incentive programs exist to aid landowners in these activities. Early successional habitat can be created as part of planned timber management, creating temporary openings paid for by timber revenue. For technical and financial assistance in creating shrubland habitat, contact the Natural Resource Conservation Service (<http://www.ny.nrcs.usda.gov>) or the New York State Department of Environmental Conservation (<http://www.dec.ny.gov>).



Stewardship Guidelines for Shrublands

If creating or maintaining shrubland habitat for wildlife sounds like something you would like to do, you can take steps to help conserve these habitats on your lands. Here's how:

Creating or maintaining habitat

- **Make a plan with a wildlife biologist or forester** who has experience in wildlife habitat to maintain and create areas of dense shrub habitat (of at least 2-5 acres) through periodic cutting of patches over time.
- **Mow or brush-hog** different sections of your forest every 3-5 years, cut sections every 5-10 years (may require use of heavy equipment), and/or use prescribed fire.
- **Focus conservation on large patches of shrublands** as opposed to smaller or isolated patches. Shrublands over 5 acres provide a better buffer against predation than smaller ones.
- **Protect shrublands with wetter soil**; they are highly valuable. Vegetation is denser here, providing the thickest cover for such species as New England cottontail rabbits and black racer snakes. American woodcock also use wet shrublands, searching the moist soil for earthworms.
- **Control invasive shrubs, such as multiflora rose and common buckthorn.** Though they may provide suitable cover for wildlife, these aggressive plants can cause other ecological problems.
- **Keep fallen logs in your forest** as wildlife species, like ruffed grouse, use them for drumming displays in mating.
- **Allow for natural processes to return** on their own. Where possible, the use of prescribed fire to mimic natural fire will help maintain some shrubland habitats. Old trees falling in the forest can also create openings for wildlife.

Locating the habitat

- **Locate new openings for shrubland habitat near existing thickets**, such as on the edges of powerline corridors or near shrub wetlands.
- **Avoid damage to sensitive species, waterbodies, or unique habitats** (such as old growth forest or grasslands) that could be affected by mowing or cutting trees.
- **Take a look at the landscape around you.** Many biologists recommend that 10-15% of the landscape should be in shrublands at a given time.
- **Allow the edges of fields to become shrubby.** "Softening" the edge between field and forest is an easy way to create early successional habitat around open fields. Shrub borders at least 20 feet wide will provide habitat for a variety of wildlife species. Although larger patches are more valuable to wildlife, even small patches of early successional habitat can help.
- **Not all land is best as shrubland.** Consider the conservation value an old field may have as grassland habitat (instead of shrubland), especially if the old field is over 25 acres, or in mature forest.