

**Q: Why can't we just let nature take its course to enhance wildlife?**

**A:** As long as humans make an effort to suppress natural disturbances such as fire, floods, disease and pest outbreaks, we are no longer dealing with a natural forest system. These disturbances are needed to create grasslands, shrublands and young forest habitats across the landscape. Many wildlife "species of greatest conservation need" rely on these disappearing habitats. The number of wildlife species present in a given area most always mirrors plant biodiversity, both species and structural diversity. In the absence of natural disturbances, active management must be substituted to maintain the region's biodiversity.

**Q: Does clear-cutting destroy the environment?**

**A:** Although feared and often misunderstood, clear-cutting is a legitimate silvicultural tool for hardwood forests. It is an efficient way to create even-aged forest regeneration and the most practical way to generate early successional forest habitat in the absence of natural disturbances. Many wildlife species depend on these young forest habitats and others need a variety of young, intermediate and mature forests to meet their requirements.



***Golden-winged Warbler***

**Many Sources of Assistance are Available.**

For specific information and advice regarding the CWCS, contact your regional NYS DEC wildlife biologist

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All email addresses above end with: gw.dec.state.ny.us

For a free on-site visit from a MFO volunteer, visit [www.cornellmfo.info](http://www.cornellmfo.info) or call your Cornell Cooperative Extension Office.



For a wide variety of forestry and wildlife information visit [www.ForestConnect.info](http://www.ForestConnect.info).

For woodland owners, please consider joining the New York Forest Owners Association at: <http://www.nyfoa.org>.



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**The Comprehensive Wildlife Conservation Strategy (CWCS)** was completed by the Division of Fish, Wildlife and Marine Resources (DFWMR) of NYSDEC in September of 2005 to address the wildlife species in greatest need of conservation in the state. The CWCS utilizes the best available data on the status of fish and wildlife species to define a vision and establish a strategy for state wildlife conservation and funding. The CWCS is a collaborative effort among agencies, organizations and individuals with an interest in New York's wildlife.

<http://www.dec.ny.gov/animals/30483.html>



**Upper Hudson Watershed Region\***

**Over 70% of the Upper Hudson watershed region is covered in forest of which at least 80% is privately owned.** Consequently, the health and prosperity of the watershed's wildlife populations depend on how well these owners protect and enhance the habitat on which the hundreds of species of insects, amphibians, reptiles, fish, birds and mammals depend. The good news is that most forest wildlife species are thriving, but unfortunately many are not. These species of greatest conservation need (SGCN) have been identified in the NY Comprehensive Wildlife Conservation Strategy (CWCS). 158 of these species call the Upper Hudson basin their home.

A major goal of the CWCS is to inform forest owners of the need for management practices that will enhance forest biodiversity and thereby keep these SGCN from becoming rare or endangered. **So much of the critical habitats for these species exists on private lands that landowner cooperation will be the ultimate deciding factor on whether species declines can be halted.** The plan further lists the threats to these species and management strategies that will improve their habitat. Fortunately, for forest owners and wildlife alike, many species will benefit from sustainable forest practices, including timber production, when implemented in accordance with NYS best management practices (BMPs).

**\*Counties:** Albany, Columbia, Dutchess, Essex, Fulton, Greene, Hamilton, Herkimer, Montgomery, Oneida, Orange, Rensselaer, Saratoga, Schenectady, Schoharie, Ulster, Warren, and Washington

## New York's forests are now predominantly even-aged northern hardwoods.

Public reluctance to practice forestry, coupled with the absence of natural disturbances, may result in a forested landscape with relatively little structural and vegetative species diversity. It is important that forest owners and managers consider the wildlife benefits that both early and late successional forest management and restoration provides. These habitat attributes include the development of coarse woody debris, standing dead wood, structural variability, and multiple successional stages across the forested landscape. Contact a forester to develop a plan that meets your ownership objectives and incorporates habitat for SGCN.

### Threats to the SGCN in the watershed:

- degraded water quality
- invasive species
- loss of young forest
- climate change
- habitat loss and fragmentation
- inappropriate forestry/agricultural practices
- human-wildlife interactions (collection, poaching, recreation, vehicular collisions, public misconception of predators)
- atmospheric deposition (acid rain and mercury)

- The region is home to over 2000 different species of plants, mammals, birds, amphibians, and reptiles and has a higher biodiversity than can be expected by chance alone for a land area of similar size within New York State.
- Of the 158 SGCN in the basin, 34% are declining, 53% of which are birds.
- Land area converted to suburban development is growing three times faster than the overall population leading to habitat fragmentation.

## Management Suggestions for Woodland and Forested Habitats:

### Northern Hardwoods

- Clear-cutting creates dense shrub, herbaceous ground cover layers, soft mast, slash and low exposed perches that support more wildlife than untreated forest stands. Leave some wildlife trees (high exposed perches, cavity trees, coniferous overstory inclusion, snag trees).
- A shelterwood system leads to a partial overstory, an early successional forest and promotes regeneration.
- Both clear-cutting and shelterwood techniques lead to an increase in raptor hunting areas
- Silvicultural selection and thinning techniques have little impact on wildlife if done correctly.

### Swamp Hardwoods

- Home to salamanders, frogs, turtles and snakes.
- Swamp hardwoods are usually of low economic value so wildlife management is often the primary reason for timber harvest.
- Clear-cutting with reserved patches and wildlife, den, nest and cavity trees is the most common and effective silvicultural technique.

### Spruce-Fir

- High biodiversity exists during early successional stages due to the shrub layer.
- Lowest biodiversity occurs during the pole timber stage because the early shrub layer is shaded out.
- Highest biodiversity exists in mature and over-mature stands because of the increase in tree bole users.
- The shelterwood system is the most effective method at regeneration.
- Clear-cutting results in conversion to hardwood forests, in the absence of herbicide use and planting.

### Eastern Hemlock

- Occurs with a broad array of associate tree species and provides conifer component
- Valuable for den and cavity using wildlife
- The shelterwood method most is the most effective for regeneration

### Oak-Pine (including Pine Barrens)

- The number of wildlife species is high because species associated with both coniferous and deciduous forest types are brought together.
- Species diversity follows the same pattern as spruce-fir forests (high during regeneration, low during pole stage, high in mature forest).
- High trees provide perching and nesting sites for hawks, great blue herons, osprey and bald eagles.
- Prescribed fire may be needed for forest types such as pitch pine-scrub oak barrens.

## Upper Hudson Watershed Region



### -Adirondack and Catskill Mountains:

Beech/maple, hemlock-northern hardwood, spruce-fir

### -Catskill/Shawangunk Mountains:

Chestnut-oak, hemlock-northern hardwood, pitch pine-oak heath rocky summit, vernal pools

-Albany Pine Bush: Pitch pine-scrub oak barrens, pine barrens, grass and sedge communities.

-Hudson River Valley: Red maple-black gum swamp, chestnut-oak, Appalachian oak-hickory, pitch pine oak heath rocky summit, oak-tulip tree forest.

-Taconic Mountains: Northern hardwood, spruce-fir swamp, hemlock-northern hardwood, spruce flats, Appalachian oak-hickory.