

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 often mirrors plant biodiversity, both species and structural diversity. In the absence of natural disturbances, active management that mimics natural disturbances must be substituted to maintain the region's unique 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 is 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.



Canada 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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For a free on-site visit from a MFO volunteer, visit www.cornellmfo.info, or call your county Cornell Coop. Extension Office.



For a wide variety of forestry and wildlife information visit 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 of NYSDEC in 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.



Susquehanna Watershed Region*

www.dec.ny.gov/docs/wildlife_pdf/susquehannatxt.pdf

Over 70% of the Susquehanna watershed region is covered in forest of which at least 85% 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 many are not. These species of greatest conservation need (SGCN) have been identified in the NY Comprehensive Wildlife Conservation Strategy (CWCS). Ninety of these species are found in the Susquehanna basin.

A major goal of the CWCS is to inform forest owners of the need for management practices that enhance forest biodiversity and 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 sawtimber production, when implemented in accordance with NYS best management practices (BMPs).

***Counties:** Broome, Chemung, Chenango, Cortland, Delaware, Madison, Otsego, Steuben and Tioga and portions of Alleghany, Herkimer, Livingston, Oneida, Onondaga, Ontario, Schoharie, Schuyler, Tompkins and Yates

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

Public reluctance to practice appropriate forestry, coupled with the absence of natural disturbances, may result in a homogenous 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:

- habitat loss and fragmentation
 - degraded water quality
 - inappropriate forestry/agricultural practices
 - flood plain/hydrology alteration
 - invasive species
 - pesticide use
 - human disturbance
 - poor regeneration of diverse hardwood forests due to deer browsing, competing understory plants and inappropriate forest practices
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- The human population of the watershed remains relatively stable while housing density has increased by over 35% in some areas and urbanization increased by upwards of 20% in the past 30 years.
 - There are 90 SGCN species that currently occur in the basin and 19 species that occurred in the basin but are now believed to be extirpated. Of those 90 SGCN currently occurring in the basin, populations of 30 species are decreasing, 6 are increasing, 7 are stable, and 47 are of unknown status.

Management Suggestions for Woodland and Forested Habitats:

Northern Hardwoods (beech, birch, maple)

- Clear-cutting creates dense shrub, herbaceous ground cover layers, soft mast, slash and low exposed perches that support more wildlife than untreated stands. Leave some wildlife trees (high exposed perches, cavity trees, coniferous overstory inclusion, snag trees).
 - A shelterwood system creates a partial overstory and promotes regeneration of an even-aged early successional forest.
 - Both clear-cutting and shelterwood techniques lead to an increase in raptor (birds of prey) hunting areas.
 - Silvicultural and selection and thinning techniques have little impact on wildlife if done correctly.
 - Profuse root and stump sprouting of beech can impede regeneration of desired species.
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- **Swamp Hardwoods** (red and silver maple, elm, ash)
 - 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.

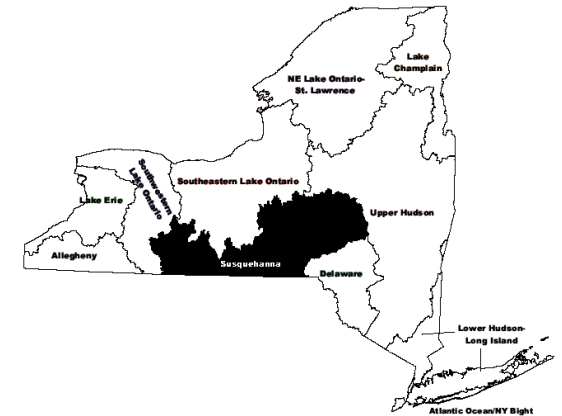
Allegheny Hardwoods

- (red and sugar maple, black cherry, white ash)
- Associated tree species vary by geographic region but often include hemlock, oaks, birch, and hickories. Such diversity contributes to overall wildlife diversity.
 - Regeneration can be problematic due to deer browsing and interfering understory plants.
 - Appropriate silvicultural techniques for regeneration must take into consideration the shade tolerance of desired tree species.

Eastern Hemlock

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

Susquehanna Watershed Region



Ecoregions:

- Appalachian Highlands
- High Alleghany Plateau

Sub Watersheds:

- **Upper Susquehanna:** steeply forested hills, rivers and valleys – 70% forest, 26% agriculture
- **Chemung:** glaciated landscape, rolling to flat topped uplands with steep, alluvial river valleys – 66% forest, 31% agriculture

Priority issues in the basin

- Stream protection including sedimentation and nutrient reduction
- Protection and management of large forest blocks for SGCN
- Protection of contiguous forest stands
- Management, restoration, and protection of stream buffers to protect SGCN
- Improved local land-use planning
- Limit spread of exotic insects