

Biodiversity: The Private Landowner's Legacy

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From bacteria to bears, fungi to frogs, painted ladies to painted turtles, wildflowers to waterfowl, biodiversity is the variety of life. The survival of every species, including our own, depends on the continued interactions of many different species and the “ecosystem services” that result. These important services include maintaining the atmosphere, developing new soils, breaking down wastes, storing and filtering water, pollinating our crops, providing us with food, and protecting us from disease. Without these ecosystem services, we cannot have abundant food, natural fibers for our clothes, lumber for our homes and furniture, a clean environment, and good health.

Worldwide and within New York state, biodiversity is declining. Although environmental changes and loss of species is a natural occurrence through time, changes currently are occurring at an unprecedented rate and are thought to be caused mostly by human activities. The primary threat to biodiversity is the loss, fragmentation, and degradation of habitat. Other threats include invasive species, pollution, over-consumption, and global climate change. In New York, 35% of the state's 3,290 native plants, animals, and ecosystems are in jeopardy, and 10% may have been lost already.

We need to take steps now if we want to maintain biodiversity and quality of life for our generation and for future generations. These steps include measures to protect our rare and vulnerable species and communities, as well as to keep our common species from becoming rare. Private landowners hold the key to protecting and maintaining biodiversity in Western New York. Although there are spectacular parks and preserves throughout the area, most land is privately owned. What happens on these private lands can make or break the future of many species of wildlife, beautiful natural communities, and the continuation of “free” ecosystem services that all residents depend upon.

Western New York is rich in natural beauty, unique natural communities, and species diversity, which gives landowners in the region an important role in protecting New York's biodiversity. For example, the gorge and upland ecosystems of Zoar Valley and Cattaraugus Creek are home to an abundance of endangered, threatened and rare species of plants and animals thriving in ideal habitats. Zoar Valley has been recognized as one of the largest remaining eastern old growth forests in the United States.

Western New York also boasts French Creek watershed, the northeast's most diverse river system. With 85 native fish and 27 native mussel species (including 3 species that are federal species of special concern and many state-listed species of special concern), French Creek has the highest fish and mussel diversity in the state. The watershed even contributes to worldwide biodiversity, as it is home to 12 globally rare species.

In addition to old growth forests and diverse aquatic systems, Western New York has a large acreage of wetlands as compared to the rest of the state, with 942,000 acres, and important grassland habitats.

Landowners interested in protecting the natural diversity of the region need not look any further than their own lands. There are many things individuals can do to make a difference for the many species that call western New York home. For instance, landowners can help protect water quality by maintaining buffers of vegetation along streambanks and wetlands. On agricultural lands, pushing back mowing dates whenever possible can increase the likelihood that

grassland birds will be able to successfully raise young. Practicing sustainable forestry (www.forestconnect.info) and controlling deer populations can help maintain forest biodiversity. Learning how to recognize invasive species and taking steps to control them on private lands can help slow their spread and reduce their impact on native species. Private landowners can make a difference!

To learn more about biodiversity and what you can do to help, visit <http://www.nysm.nysed.gov/bri/publications/legacy.html> to request a free copy of “Legacy: Conserving New York State’s Biodiversity”.