Deer Don't Just Eat Plants; They Precipitate Wildlife Loss

New Jersey Conservation Foundation has embarked on a 300-acre forest restoration fencing project to exclude deer at the Apshawa Preserve in West Milford, Passaic County. Restoration ecologist Leslie Sauer explains in "The Once and Future Forest," when a forest like Apshawa has dwindling plant populations that are not yet gone, a large-scale restoration investment can result in measurable benefits to animals.

New Jersey citizens want rich, diverse forests. But few realize that on preserved lands, overabundant deer are the current primary threat to hundreds of plant and animal species.

One mascot for the plight of our forests is the cryptic Whip-poor-will, a nocturnal insect-chasing bird, whose loud song graces summer evenings. Once abundant, now almost gone, this ground-nesting bird suffers as deer consume the forest-floor herbs, shrubs, and seedling trees. Here's why:

- Whip-poor-wills are less likely to evade predators, like owls and coyotes, when vegetative cover becomes sparse;

- As safe, well-hidden nesting sites become rare, Whip-poor-will eggs and nestlings are more likely to be eaten by blue jays, chipmunks, crows, and foxes;

- Thousands of caterpillar species decline as forest floor plants disappear. With fewer moths emerging from metamorphosis, the food chain is disrupted.
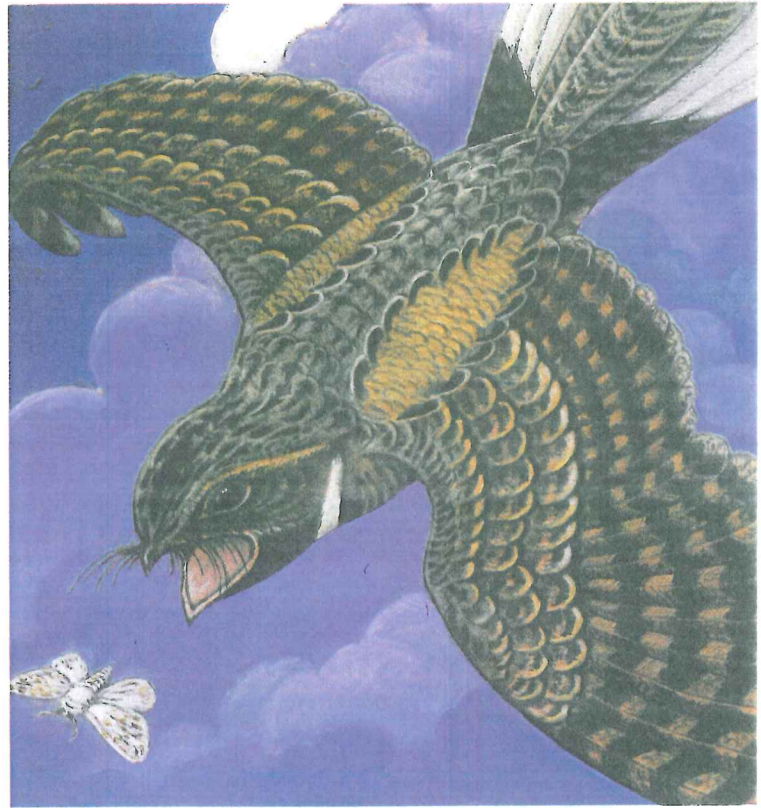
New Jersey Conservation Foundation's goal is to demonstrate that deer are "priming the pump" for ecological collapse in the state's most important, heavily forested ecosystem. Overabundant deer are browsing on native plants, fueling the spread of non-native invasive plants, and causing sensitive animal species to dwindle.

Policy makers are not listening to the ecological warning sirens blaring through the forest. Wildlife officials nibble at the problem, by expanding recreational hunting in highly fragmented and degraded suburban areas. But in our heavily forested areas, new and comprehensive strategies must be employed to reduce deer density.

Although sensitive animal populations have been severely diminished by deer, they can rebound if deer density is significantly reduced. Currently, the New Jersey Division of Fish and Wildlife is not attempting to reduce deer density in the Pequannock River (Newark Watershed) region of the New Jersey Highlands. Current state policy established for this region does not recognize high deer density as an adverse impact to hundreds of species of plants and animals.

New Jersey Conservation Foundation conducted a census of deer within the 300-acre Apshawa fence in December. Based on the number of individual deer observed, we established baseline density at a minimum of 40 deer per square mile. A healthy deciduous forest in the northeastern U.S. suffers when deer density is greater than 20 deer per square mile; the Apshawa forest has twice that density and it is already partially degraded!

A degraded forest cannot recover until deer density is reduced and held at low levels. Without action, the lack of native plant regeneration and the loss of forest-interior animals will accelerate. The New Jersey Conservation Foundation does not believe that building and managing numerous deer exclosure fences can be a solution to restoring the 100-square-mile Highlands landscape within the Pequannock Watershed. However, our forest restoration fence, at half of one square mile, is large enough to reveal that animal populations will rebound when the forest understory is healed.

New Jersey Conservation Foundation hopes to convince citizens and policy makers to take action. Reduce overabundant deer, and make forests resilient to the threats posed by never-ending suburbanization, non-native plants, pathogens, insect invaders, and eventually climate change.