deer-management program will likely be a long-term necessity to ensure the health of DuPage County's natural areas.

### To Learn More

For questions regarding the IDNR's urban deer project, call 847-798-7620. For further information on the Forest Preserve District of DuPage County's deer-management program, contact the District's Office of Communications and Marketing at 630-871-6406.

Forest Preserve District of DuPage County P.O. Box 5000, Wheaton, Illinois 60189 630-933-7200 TTY 800-526-0857 dupageforest.org

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11/17

# White-Tailed Deer and Ecosystem Management





### White-Tailed Deer

Perhaps the most recognizable animal in DuPage County, the white-tailed deer needs little introduction. White-tailed deer are herbivores that eat both woody vegetation, like trees and shrubs, and herbaceous vegetation, like wildflowers and grasses. They can breed at a young age, and many produce more than one offspring a year, every year. Adult females will usually have twins, but when nutritious food is plentiful, triplets or even quadruplets are possible.

# Deer in DuPage County

For thousands of years, humans had little effect on the region's population of white-tailed deer. In the 1800s, though, an influx of settlers from the eastern United States began to replace forests with lumber yards and prairies and wetlands with farms. By the second half of the 20th century DuPage County farms were offering a convenient, abundant source of nutritious food, and white-tailed deer populations multiplied annually; without natural predators, they did so unchecked. As accelerated development converted open land into subdivisions, strip malls, and roads, only a few thousand protected acres remained for DuPage County wildlife.

Because of this complex chain of events, parts of DuPage County are now experiencing unnaturally high concentrations of deer — far more individuals per square mile than the land can support while maintaining significant biodiversity. This has led to increases in deer-vehicle collisions, damage to private landscaping, foraging of sensitive forest preserve plant communities, and animal-to-animal contact, which dramatically increases susceptibility to disease.

# Formulating a Deer-Management Program

After much consideration, Forest Preserve District ecologists came to the conclusion that the county needed a deer-management program to protect the area's biodiversity. They evaluated several removal methods on the basis of effectiveness, practicality and humane treatment and came to the difficult conclusion that lethal removal was the best option. Numerous agencies throughout the United States and Canada have reached the same conclusion, and the District's program has received endorsements from 27 environmental and conservation organizations, including a local animal-welfare group.

# **Problems With Relocation** and **Sterilization**

Studies have shown that the stress-related effects of capturing, handling and transporting deer increase mortality, even with precautions to minimize stressors. More importantly, other areas of the state and country have their own deer dilemmas: If the Forest Preserve District did capture deer for relocation, there would be nowhere to take them. And while researchers have tried to develop chemical means to prevent deer from reproducing, to date, there have not been any practical successes in free-ranging populations.

# Elements of the Deer-Management Program

Each winter, Forest Preserve District ecologists conduct aerial surveys to estimate the number of deer in the forest preserves. During the spring and summer, they study plant communities and document the extent of deer browse, especially on rare or protected plants and plant communities. If they can attribute a loss of diversity to high deer densities, they may determine deer-removal efforts are necessary at a given forest preserve.

The District's deer-management program operates in late fall and winter under stringent safety guidelines. The District posts warning signs at major forest preserve access points and sends letters to nearby residents.

All activity takes place at night, when the forest preserves are closed, in designated safe zones that the Forest Preserve District and the Illinois Department of Natural Resources carefully select and preview. Only District and U.S. Department of Agriculture employees participate. All shots are taken by IDNR-certified sharpshooters from elevated positions, which multiple team members approve in order to ensure ballistics remain within the safe zone. The program avoids areas closest to roads and residences, but neighbors may still hear isolated gunfire originating from within the preserve or see District vehicles, lights or related activities.

The meat is inspected and processed at a licensed facility and donated to area food pantries. On average, the District donates over 15,000 pounds of ground venison each year.

## The Program's Status

When the deer-management program started in 1993, deer had consumed much of the vegetation within their reach in several forest preserves. Ecologists established small, experimental plots at these preserves and installed fences to prevent deer from reaching the vegetation inside each plot. Inside the fenced areas, vegetation grew thick; outside, the deer grazed plants down to the ground. Today, plant growth inside and outside fenced areas are similar, several species have started to recover, and forest preserves are once more becoming diverse ecosystems.

The Forest Preserve District's deer-management program has had successes, but work remains. At some forest preserves, populations are still too dense to promote biodiversity. At others, populations have stabilized but require maintenance to keep ecosystems in balance. Without natural predators to keep populations in check, the