# Exotics Management Goes to New Heights

## In southwest Illinois, a helicopter becomes a tool in the war on bush honeysuckle.

Story and Photos By
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Normally, calculating the cost for eradicating an exotic species includes herbicides, equipment and labor. But what if we can work smarter, instead of harder, saving tens of thousands of future dollars by spending a fraction of that now? One activity can do just that, though this tool requires a good stomach and no acrophobia.

In November 2009, when the native trees and shrubs had lost their leaves but the exotic bush honeysuckle remained green, a state-owned helicopter proved to be one of the best tools I've employed in the fight against this plant. The Mississippi River bluff corridor south of St. Louis contains thousands of acres of largely contiguous upland forest—an increasingly rare sight in Illinois. Even more exceptional about this corridor is the relative lack of bush honeysuckle. However, the plant is beginning to make inroads, and early location and removal of those occasional bushes or colonies deep in a large forest is far cheaper than waiting until a mass invasion.

The question is: How does one find all these invasives? With the need to quickly survey a large area for honeysuckle, I decided to take to the air.

**From the air, the green leaves clinging to bush honeysuckle shrubs stand out in sharp contrast to the dormant woodland vegetation.**

Departing from the Sparta airport with Illinois Department of Transportation pilot Steve Young, we travelled to Prairie du Rocher in Randolph County. Within two minutes of lifting off, it was apparent that the trip would be immensely useful as the majority of Randolph County's remnant forest patches were choked with green, easily identifiable bush honeysuckle. Arriving at the bluff corridor, however, a different sight unfolded. Much of the autumn-brown woods were interrupted by only the occasional spot of lime.

Surveying the 35-mile corridor involved dividing it into six sections and utilizing aerial photographs and four colored highlighters to create a

(Photo By Chris Evans.)

**Aerial inventories for the invasive bush honeysuckle rapidly locate areas where management activities are required.**

map based on the concentration of honeysuckle: 0-15 percent, 15-30 percent, 30-50 percent and >50 percent. This method worked well (and has proven accurate in ground-truthing); however, the addition of a 0 percent category would be worthwhile.

The superiority of a helicopter over a small plane was the ability to conduct the survey from approximately 200-300 feet, sometimes descending to 100 feet for closer inspection, as well as the slower speed allowing for more accurate viewing. Each section was flown at least twice, circling where there might be a more complex mosaic of concentrations. It took approximately four hours to complete the survey.

**Especially troublesome to land managers are mature, seed-bearing bushes, identifiable during low-level flights.**

Along this bluff corridor are 15 sites enrolled in Illinois Nature Preserve Commission programs, with another seven sites actively managed by individuals or corporations working with the commission. These 22 sites equal roughly 3,000 acres spread along the corridor. Many of the aerial survey maps were largely yellow, or 0-15 percent, and often hundreds of acres had virtually no honeysuckle. However, disturbing was the occasional seed-bearing size bush nestled in a deep ravine of otherwise clean woods, sometimes in or near sites currently under stewardship.

This is where part two of the strategy comes in. The ability to find outliers on the ground and to work with landowners who might be unaware of or unconcerned about honeysuckle in their forest is critical to making this a successful project. While in the air, GPS points of some populations also were taken. The IDOT helicopter can also be equipped with geo-referenced live video, allowing for a refined survey that pinpoints single or remote groves of honeysuckle.

Both strategies will be tested next year as the war on bush honeysuckle continues.

(Photo By Adele Hodde.)

The corridor surveyed is a Conservation Opportunity Area known as the Southwest Illinois Wildlife Action Plan group. The helicopter survey is one component of an overall campaign to combat invasives in the COA. Partners are working tirelessly on invasives outreach, volunteer stewardship efforts and securing funding, and recently received cost-share monies for the corridor through a new federal Conservation Cooperative Partnership Initiative. The aerial early detection and mapping exercise will continue to assist partners prioritize honeysuckle control activities.

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