



# The State of Illinois' Forests

A recent forest resource assessment identifies the condition of Illinois' forests, and recommends strategies for improvement.

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Illinois, well-known as the Prairie State, also spans two additional ecological provinces—the eastern broadleaf forest and the lower Mississippi riverine forest.

Spilt by the band of prairie parkland spanning central Illinois, the eastern broadleaf forest contains two habitat types: the drought-resistant oak-

hickory forest and the maple-beech-basswood forest. At the extreme southern tip of Illinois lies the lower Mississippi riverine forest province. Oak-gum-cypress and oak-hickory forest types occur on the broad floodplains and low terraces found within this province.

In the early 1800s, 40 percent of Illinois was forested. Today trees are the dominant vegetation on 4.5 million acres, or roughly 13 percent of the state. But, probably more important today are the changing dynamics within the woodland community. The 2010 “Illinois Statewide Forest Resource Assessments and Strategies” report identified five threats to our forest lands and resources: decline of oak dominance, changing forest

landscape, decreased forest health, decline of state forestry professionals and decline of the forest industry.

## Decline of oak dominance

Historically, woodlands weren't static ecosystems, but were subject to periodic disturbances, such as harvest and fire. Lacking these regular intrusions, the face of today's forests have changed, allowing for shade-tolerant species, such as sugar maple and elm, to shade out oak seedlings struggling to gain a foothold in the understory.

Compounding the issue is the fact that gaps in the woodland canopy left by



**Five threats to Illinois' forest resources were identified in the 2010 assessment and strategies report.**

dying mature oaks provide shade-tolerant species with the sunlight necessary to shoot skyward and fill the opening.

Maintaining a healthy oak resource depends on the regeneration of sufficient oak seedlings and saplings, which may be accomplished by intensifying canopy disturbances, re-introducing fire to the ecosystem and strengthening landowner forest-management incentive programs.

“The Illinois forest has changed because disturbance factors have been minimized,” confirmed Eric Holzmueller, assistant professor in the Department of Forestry at Southern Illinois University at Carbondale and one of the parties involved with development of the strategic plan for Illinois forest resources. “However, research undertaken at SIU-C shows that through education, private landowners and the public are embracing the idea that prescribed woodland fires and thinning treatments are essential to maintaining the oak-hickory ecosystem.”



### Changing forest landscape

Illinois’ forest landscape is being fragmented, or broken into smaller units.

Fragmentation may be natural, as occurs when wildfire, wind or flooding alter the composition of the forest. It also may occur as a result of human activity, such as conversion of the land to other purposes.

Fragmenting large blocks of forest decreases the amount of interior forest habitat and critical breeding areas for veerys, ovenbirds and other migratory songbirds. Smaller parcels also result in increased edge habitat—prime travel routes for predators—and an overall decrease in the biodiversity of plant and animal populations.

**One way the decline of oaks can be countered is to reintroduce fire to the oak-hickory ecosystem.**

An answer to counter this trend is to encourage voluntary, coordinated management across ownerships, increasing the impact of forest management on the landscape.

### Decreased forest health

They’ve become household words—Dutch elm disease, autumn olive, multiflora rose, Japanese honeysuckle, gypsy moth, Asian longhorned beetle, oak wilt and emerald ash borer. These plants, insects and pathogens have been transported from their native ranges, sometimes purposefully, sometimes accidentally, and introduced to the Illinois landscape. North America still hasn’t recovered from the devastating 1928 introduction of Dutch elm disease that has killed upwards of 50 million trees to date. The potential for these—and future invasives—to significantly alter the Illinois landscape is frightening.

Prevention of further invasions requires early detection and intervention, research and educating landowners and the public about threats posed by invasive species.

“One of the most important actions a landowner should take is to look to the future and consider what their for-



(Photos courtesy Eric Holzmueller, SIU)





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**Some of the most financially valuable wood in the United States is found in Illinois forests.**

est could be like should one of these invasive species gain a foothold on their property,” Holzmueller said. “Active forest management definitely plays a role toward mitigating any potential impacts.”

**Decline of state forestry professionals**

The fate of the majority of Illinois’ forested lands lies in the hands of private landowners who own 82 percent of such property. Proper management of these lands requires access to trained professional and technical staff, and educational materials. The number of such qualified state personnel has declined significantly in the last decade; however, an increase in the number of private consultants appears to be a recent trend.

**Decline of forest industry**

According to Holzmueller: “Illinois forests contain some of the most financially valuable wood in the United States and people come from throughout the Midwest to purchase Illinois logs. Forest products are a small, but important, part of Illinois’ economy, particularly in rural areas.”

And, yet, while forestry-related businesses had total annual earnings of \$2.1 billion in 2002, there has been a 72 per-

**E**stablished in 1983, the Illinois Forestry Development Council, through its charge to study and evaluate the forest resources and forest industry of Illinois, determines: the magnitude, nature, extent and ownership of Illinois’ forest resources; the uses, benefits and services this resource provides; the economic development, increasing employment, and management opportunities relating to the forest industry; the staffing and funding needs for forestry programs; forest education programs; and the soil, water and wildlife habitat benefits of forestry practices.

For additional information on the council, visit <http://ifdc.nres.uiuc.edu>.

cent decline in the number of Illinois sawmills over the past 50 years.

Enhancement of the business climate and investigating new technologies, such as biomass energy, will allow Illinois to capture additional revenue from this under-utilized, renewable natural resource.

**There is good news**

On the positive front, since 1962 the annual net growth of commercial tree species is increasing, with hardwoods accounting for 98 percent of that growth, and 23 percent being the

**Despite a decline in the number of sawmills, forestry-related businesses in Illinois continue to generate billions of dollars annually.**

major oak species. With increased growth, Illinois’ forests have been accumulating volume, particularly in large diameter, high-quality tree species.

And, according to Mike Mason, head of the Department of Natural Resources Division of Forest Resources, Illinois’ forest resources future is turning a corner.

“The Illinois Forestry Development Council (see sidebar) was reauthorized in 2009, which will provide for a continued examination of the state’s forest resources and industry,” Mason explained. “In the fall of 2010 DNR hired a forest stewardship program coordinator who not only coordinates the state forest stewardship program but also serves as our liaison for the federal forest legacy and federal forest stewardship programs. The combination of these initiatives means that effective avenues are now in place to address the issues facing our forest resources, and to develop or reaffirm strong working relationships between various partners.”



(Photos courtesy Joe McFarland)



**F**or additional information on Illinois’ forest legacy and stewardship programs, contact Paul Deizman, DNR Forest Stewardship Program coordinator, at [paul.deizman@illinois.gov](mailto:paul.deizman@illinois.gov) or call (217) 782-3376.