



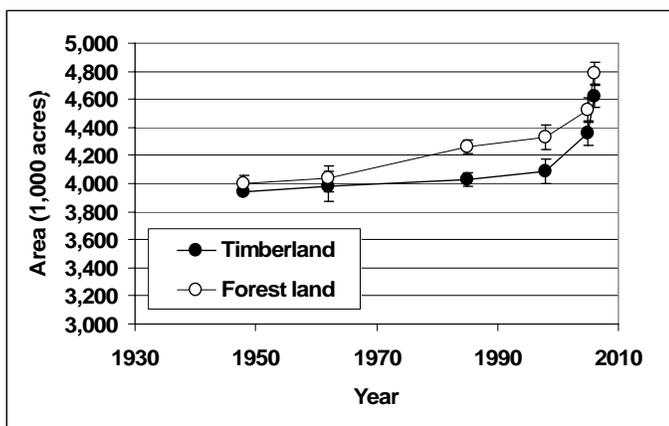
# Illinois' Forest Resources, 2006

Research Note NRS-3

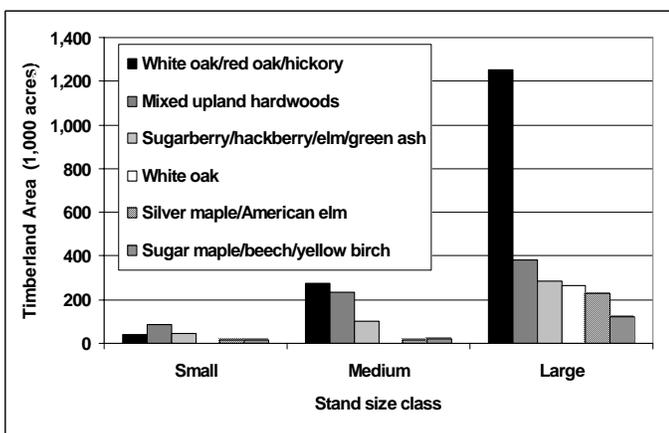
This publication provides an overview of forest resource attributes for Illinois based on an annual inventory conducted by the Forest Inventory and Analysis program at the Northern Research Station of the U.S. Forest Service. These estimates, along with web-posted core tables, will be updated annually. For more information regarding past inventory reports for Illinois, inventory program information, and sampling/estimation procedures, please refer to the citations at the end of this report.

**Table 1.—Annual estimates, uncertainty, and change, Illinois, 2006**

	Estimate	Sampling Error (%)	Change Since 2005 (%)
<b>Forest Land Estimates</b>			
Area (1,000 acres)	4,789.6	1.6	5.8
Number of live trees 1-inch diameter or larger (million trees)	2,154.5	2.7	6.3
Dry biomass of live trees 1-inch diameter or larger (1,000 tons)	234,607.6	2.3	7.0
Net volume in live trees (1,000,000 ft <sup>3</sup> )	8,505.8	2.5	6.9
Net volume of growing-stock trees (1,000,000 ft <sup>3</sup> )	7,615.0	2.5	6.3
Annual net growth of live trees (1,000 ft <sup>3</sup> /year)	278,110.9	14.2	N/A
Annual mortality of live trees (1,000 ft <sup>3</sup> /year)	124,677.8	16.5	N/A
Annual removals of live trees (1,000 ft <sup>3</sup> /year)	45,481.8	36.8	N/A
<b>Timberland Estimates</b>			
Area (1,000 acres)	4,621.1	1.7	5.9
Number of live trees 1-inch diameter or larger (million trees)	2,079.6	2.8	6.5
Biomass of live trees 1-inch diameter or larger (1,000 tons)	225,184.6	2.4	6.9
Net volume in live trees (1,000,000 ft <sup>3</sup> )	8,162.2	2.6	6.8
Net volume of growing-stock trees (1,000,000 ft <sup>3</sup> )	7,309.7	2.7	6.3
Annual net growth of growing-stock trees (1,000 ft <sup>3</sup> /year)	214,626.5	11.4	-34.4
Annual mortality of growing-stock trees (1,000 ft <sup>3</sup> /year)	99,418.6	18.3	14.7
Annual removals of growing-stock trees (1,000 ft <sup>3</sup> /year)	43,287.8	37.0	-28.7



**Figure 1.—Area of timberland and forest land by year, Illinois, 2006**



**Figure 2.—Area of timberland for the top six forest types by stand-size class, Illinois, 2006**



Table 2.—Top 10 species by statewide volume estimates, Illinois, 2006

Rank	Species	Volume of live trees on timberland (1,000,000 ft <sup>3</sup> )	Sampling Error (%)	Change since 2005 (%)	Volume of sawtimber trees on timberland (1,000,000 bdf)	Sampling Error (%)	Change since 2005 (%)
1	White oak	974.9	7.2	6.70	3,801.5	7.7	7.40
2	Silver maple	696.6	13.6	10.90	2,315.9	15.2	11.70
3	Black oak	513.0	8.4	1.30	2,108.0	9.0	2.80
4	Northern red oak	440.5	10.5	7.00	1,875.4	11.1	6.00
5	Eastern cottonwood	329.7	18.7	6.10	1,323.1	17.7	4.10
6	Shagbark hickory	312.7	9.0	6.70	1,050.5	11.7	4.70
7	American sycamore	300.7	18.2	9.90	1,162.8	18.5	9.80
8	Sugar maple	279.8	11.4	7.70	899.8	14.2	9.40
9	Green ash	270.8	10.6	10.20	799.2	12.8	11.70
10	American elm	248.6	7.4	0.20	435.4	14.1	-3.80
	Other softwoods	247.1	20.3	2.10	910.2	23.3	2.20
	Other hardwoods	3,547.6	3.5	7.30	10,321.4	4.4	6.00
	<b>All Species</b>	<b>8,162.2</b>	<b>2.6</b>	<b>6.80</b>	<b>27,003.2</b>	<b>3.1</b>	<b>6.40</b>

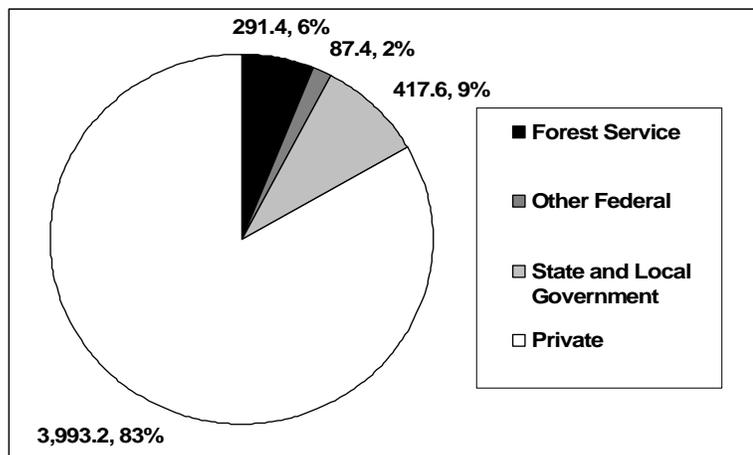


Figure 3.—Area of forest land (1,000 acres and percent) by ownership group, Illinois, 2006

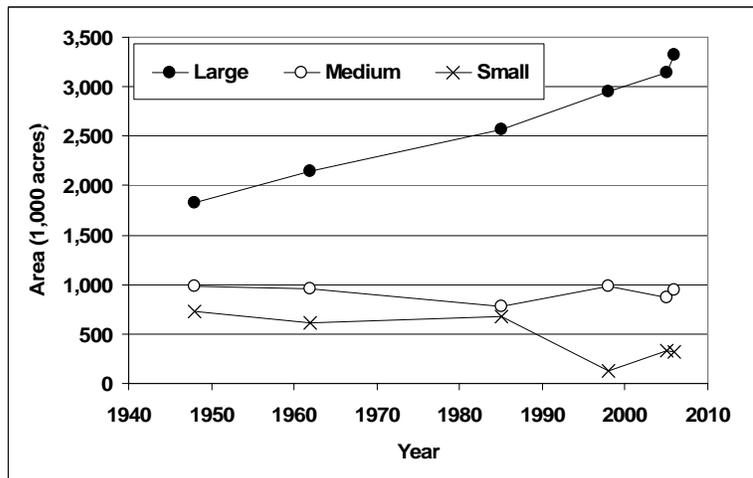
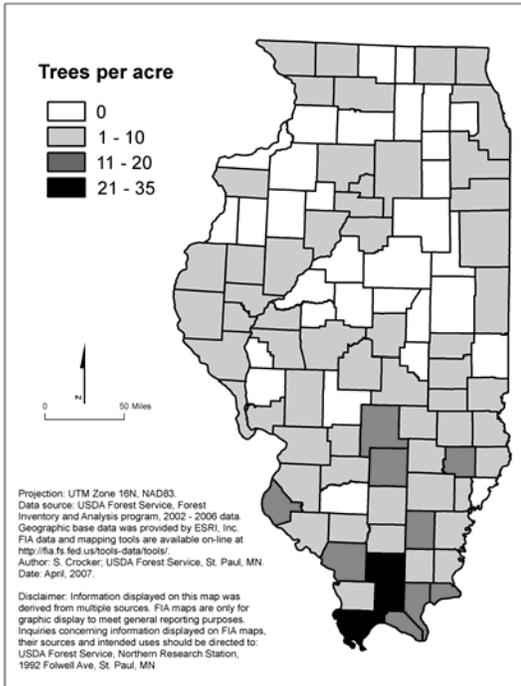


Figure 4.—Area of timberland by stand-size class and year, Illinois, 2006



## Illinois Issue Update – The threat of emerald ash borer



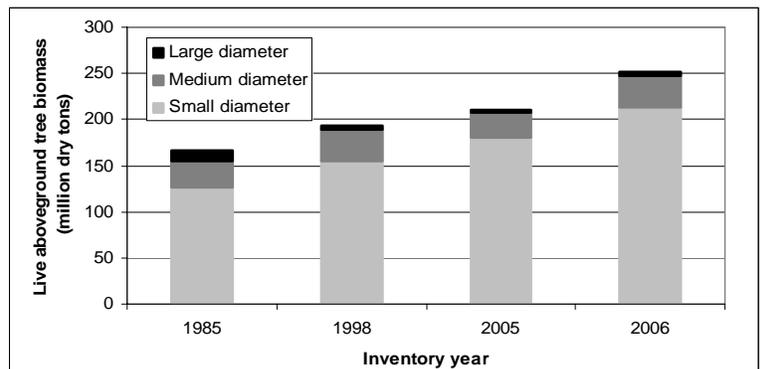
The emerald ash borer (EAB) is an exotic bark-boring beetle that was discovered in south-central Michigan in 2002. Since that time, EAB has killed millions of ash trees. Found in Illinois in 2006, EAB represents a major threat to the state's ash resource. All species of ash greater than 1 inch in diameter, regardless of tree vigor, are at risk. Illinois' forest land contains an estimated 135 million ash that account for 494 million ft<sup>3</sup> of live-tree volume. Though ash density is concentrated in the southern tier of Illinois, ash trees are common on forest land throughout much of the state (Fig. 5). Ash trees are also widely planted and can be found in urban areas in every county.

**Figure 5.—Ash density by county, Illinois, 2006**

## Illinois Issue Update – The rising trend in biomass

Trees naturally sequester carbon from the atmosphere and store it as biomass, which is distributed among tree boles, stumps, tops, and limbs, and trees less than 5 inches in diameter. Seventy percent of Illinois' biomass is stored in tree boles. Since 1985, biomass in Illinois has steadily increased (Fig. 6). Aging trees have contributed to a decline in the amount of biomass in small-diameter stands and a rise in biomass in large-diameter stands. The increase in total biomass is related to state involvement in the Conservation Reserve Program, the Illinois Forestry Development Act, and reversion of agricultural lands to forest. Quantifying biomass provides an estimate of the amount of carbon being sequestered by Illinois' forests; this aids in Illinois' participation in meeting emissions reduction targets and emissions trading.

**Figure 6.—Live aboveground tree biomass by stand-size class and inventory year, Illinois, 2006**





### Citation for this Publication

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### FIA Program Information

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### Additional Illinois Inventory Information

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