



Indiana's Forest Resources, 2006

Research Note NRS-1

This publication provides an overview of forest resource attributes for this state based on an annual inventory conducted by the Forest Inventory and Analysis program at the Northern Research Station of the USDA Forest Service. These annual estimates, along with web-posted core tables, will be updated annually. For more information regarding past inventory reports for this state, 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

	Estimate	Sampling error (%)	Change since 2005 (%)
Forest Land Estimates			
Area (1,000 acres)	4,655.5	1.4	-1.5
Number of live trees 1 inch diameter or larger (million trees)	2,248.6	2.6	-4.1
Dry biomass of live trees 1 inch diameter or larger (1,000 tons)	251,538.5	2.1	-0.8
Net volume in live trees (1,000,000 ft ³)	9,376.1	2.2	-0.2
Net volume of growing stock trees (1,000,000 ft ³)	8,544.4	2.3	0.6
Annual net growth of live trees (1,000 ft ³ /year)	393,611.0	6.4	-11.0
Annual mortality of live trees (1,000 ft ³ /year)	89,033.4	11.2	25.0
Annual removals of live trees (1,000 ft ³ /year)	80,455.8	18.4	-8.4
Timberland Estimates			
Area (1,000 acres)	4,532.7	1.5	-1.4
Number of live trees 1 inch diameter or larger (million trees)	2,195.1	2.7	-3.9
Biomass of live trees 1 inch diameter or larger (1,000 tons)	243,945.1	2.2	-0.7
Net volume in live trees (1,000,000 ft ³)	9,090.8	2.3	-0.1
Net volume of growing stock trees (1,000,000 ft ³)	8,281.6	2.4	0.8
Annual net growth of growing stock trees (1,000 ft ³ /year)	356,181.3	6.3	-6.6
Annual mortality of growing stock trees (1,000 ft ³ /year)	66,406.5	12.8	23.5
Annual removals of growing stock trees (1,000 ft ³ /year)	65,595.1	19.5	-5.3

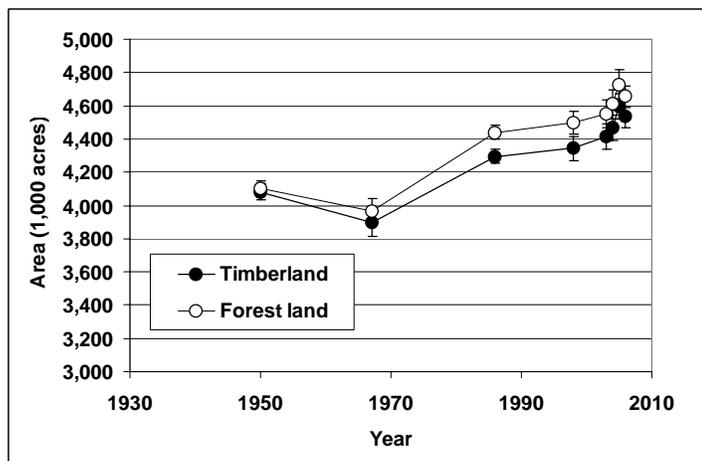


Figure 1 - Area of timberland and forest land by year

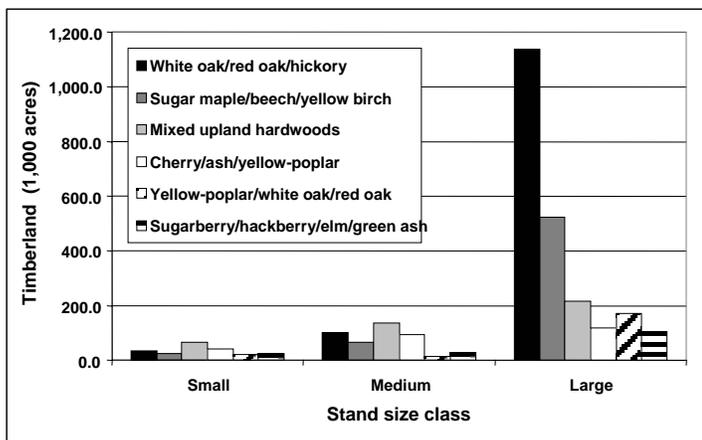


Figure 2 - Timberland area of top six forest types by stand size class



Table 2 - Top 10 species by statewide volume estimates

Rank	Species	Volume of live trees on timberland (1,000,000 ft ³)	Sampling Error (%)	Change since 2005 (%)	Volume of sawtimber trees on timberland (1,000,000 bdf)	Sampling error (%)	Change since 2005 (%)
1	Yellow-poplar	1,018.3	8.6	1.30	4,584.3	9.4	2.90
2	Sugar maple	906.3	6.4	0.50	2,740.9	7.9	4.10
3	White oak	723.7	8.1	-1.40	2,864.2	8.3	-1.50
4	Black oak	548.7	9.6	-0.40	2,242.8	9.6	1.30
5	White ash	503.7	8.0	-1.60	1,646.3	10.1	-1.10
6	American sycamore	399.8	11.6	6.70	1,699.0	12.3	7.00
7	Northern red oak	387.9	10.1	-8.00	1,661.0	10.7	-8.10
8	Pignut hickory	304.5	9.5	-1.60	1,186.5	10.8	-2.00
9	Shagbark hickory	299.1	9.5	-0.50	1,095.2	11.1	1.90
10	Red maple	294.9	11.9	-5.50	749.2	15.4	-8.60
	Other softwoods	284.5	14.0	-3.10	1,028.2	16.6	-2.60
	Other hardwoods	3,419.4	3.9	1.10	10,302.2	5.1	3.70
	All Species	9,090.8	2.3	-0.10	31,799.8	2.9	1.40

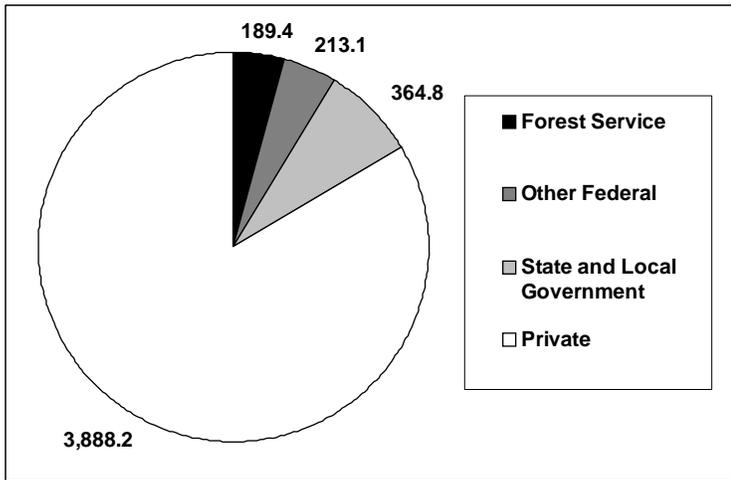


Figure 3 - Forest land area (1,000 acres) by ownership group

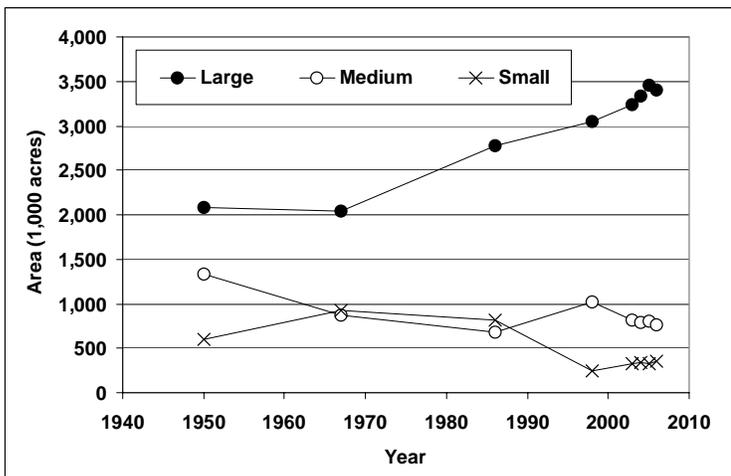


Figure 4 - Area of timberland by stand size class and year



Indiana Issue Update – Changes in Land Use and Oak Forest Types

There has been increasing concern with regard to the effects of land-use change on Indiana's total forest land. Although Indiana's total forest land has remained relatively stable over the past decades, there are still fluctuations in the land base with nonforests becoming forest. In contrast, currently forested areas may become nonforest. This situation occurred on more than 100,000 acres between 1999-2001 and 2004-2006. This only represents 2 percent of the total forest land in Indiana.

Between 1999-2001 and 2004-2006 more than 300,000 acres of oak forest types changed types representing the largest shift in forest types in the state. While the majority of these forest types merely changed from one oak forest type to another, there are notable exceptions. More than 50,000 acres of oak forests became sugar maple/beech/birch. Nearly 20,000 acres of oak forest became yellow-poplar. These estimates can only be considered indicative of potential forest type and land use shifts in Indiana due to a 60 percent remeasurement of the annual inventory over a short period of time.

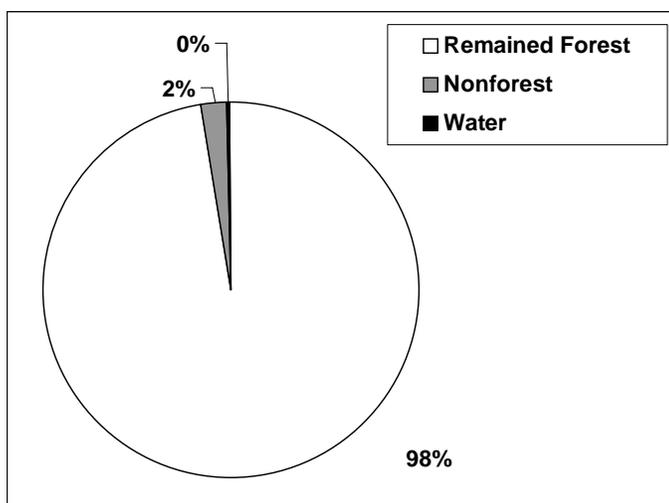


Figure 5 - Changes in forest land status from 1999-2001 to 2004-2006, either remained forest or became nonforest or water

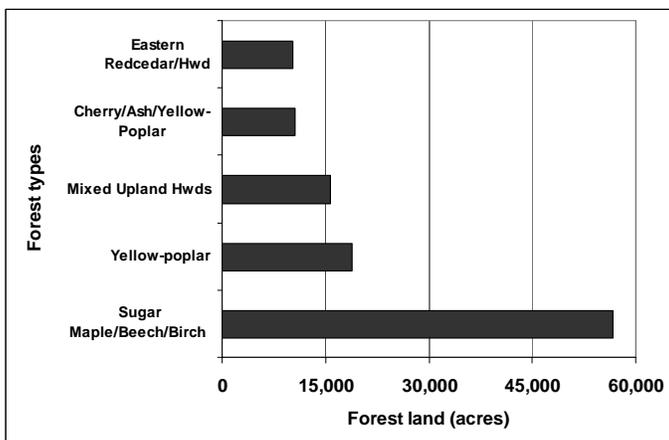


Figure 6 - Forest type changes in forests that were oak forests in 1999-2001 and non-oak forests in 2004-2006



Citation for this Publication

Woodall, C.W.; Gallion, J. 2007. Indiana's forest resources, 2006. Res. Note. NRS-1. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 4 p.

FIA Program Information

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Additional Indiana Inventory Information

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