

Wisconsin's Forest Resources, 2008

Research Note NRS-42

This publication provides an overview of forest resource attributes for Wisconsin based on an annual inventory conducted by the Forest Inventory and Analysis (FIA) program of the U.S. Forest Service, Northern Research Station. These estimates, along with web-posted core tables, are updated annually. For more information please refer to page 4 of this report.

Table 1.—Annual estimates, uncertainty, and change for Wisconsin, 2008

	2008 estimate	Sampling error (%)	Change since 2003 (%)
Forest land estimates			
Area (1,000 acres)	16,697	0.5	5.1
Number of live trees 1-inch diameter or larger (million trees)	10,919	1.1	2.5
Biomass of live trees 1-inch diameter or larger (1,000 tons)	603,803	0.9	4.9
Net volume of live trees (million cubic feet)	23,242	1.0	5.7
Annual net growth of live trees (1,000 cubic feet per year)	607,983	2.3	NA
Annual mortality of live trees (1,000 cubic feet per year)	279,211	2.7	NA
Annual harvest removals of live trees (1,000 cubic feet per year)	342,334	5.4	NA
Annual other removals of live trees (1,000 cubic feet per year)	17,507	17.2	NA
Timberland estimates			
Area (1,000 acres)	16,440	0.5	5.2
Number of live trees 1-inch diameter or larger (million trees)	10,755	1.1	2.5
Biomass of live trees 1-inch diameter or larger (1,000 tons)	595,214	0.9	5
Net volume of live trees (million cubic feet)	22,911	1.0	5.8
Net volume of growing-stock trees (million cubic feet)	20,944	1.0	7.8
Annual net growth of growing-stock trees (1,000 cubic feet per year)	586,150	2.4	-10.9
Annual mortality of growing-stock trees (1,000 cubic feet per year)	204,072	3.0	7
Annual harvest removals of growing-stock trees (1,000 cubic feet per year)	294,766	5.5	34.5
Annual other removals of growing-stock trees (1,000 cubic feet per year)	32,299	18.6	-76.8

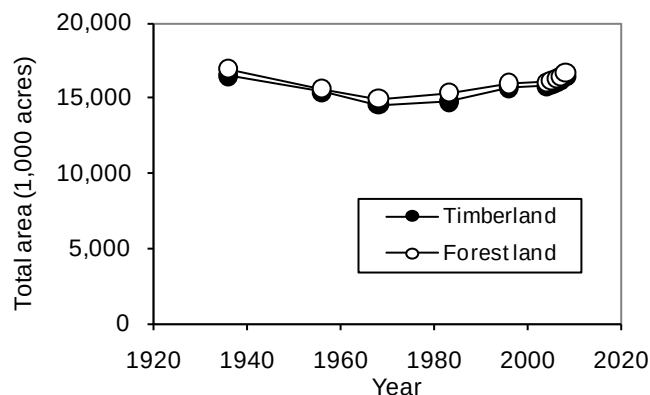


Figure 1.—Area of timberland and forest land in Wisconsin by year.

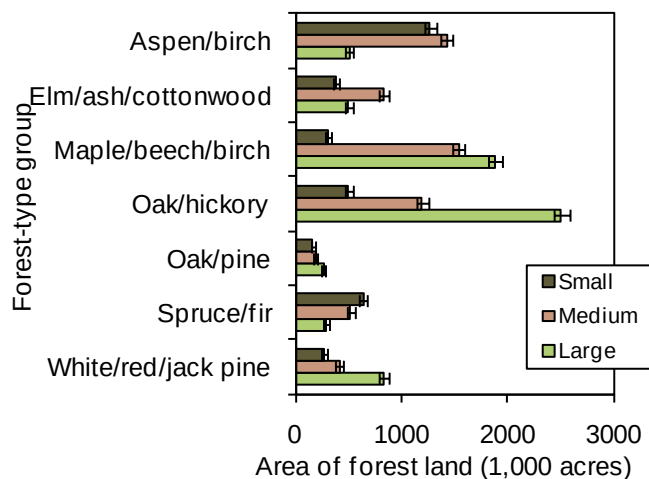


Figure 2.—Area of forest land by top seven forest-type groups and stand-size class, Wisconsin, 2008.

Note: Large diameter trees are at least 11.0 inches diameter for hardwoods and at least 9.0 inches diameter for softwoods. Medium diameter trees are at least 5.0 inches diameter but not as large as large diameter trees. Small diameter trees are less than 5.0 inches diameter. Additional details are available in USDA Forest Service (2005).

Note: When available, sampling errors/bars provided in figures and tables represent 68 percent confidence intervals.

Table 2.—Top 10 tree species by statewide volume estimates, Wisconsin, 2008.

Rank	Species	Volume of live trees on forest land (million cubic feet)	Sampling error (%)	Change since 2003 (%)	Volume of sawtimber on timberland (million board feet)	Sampling error (%)	Change since 2003 (%)
1	Sugar maple	2,511.6	3.2	2.5	5,646.3	4.6	11.7
2	Red maple	2,414.5	2.7	8.0	4,217.2	4.4	24.8
3	Northern red oak	1,873.8	4.0	2.6	6,819.5	4.6	12.0
4	Quaking aspen	1,783.7	3.1	-4.4	3,344.1	4.7	9.0
5	Red pine	1,507.6	5.5	8.1	5,967.3	6.2	10.3
6	Eastern white pine	1,471.1	5.9	14.8	6,848.5	6.5	19.5
7	American basswood	1,192.3	4.0	5.2	3,423.5	4.9	16.0
8	White oak	844.9	4.7	2.5	2,680.8	5.8	11.0
9	Northern white-cedar	818.2	6.4	11.7	2,225.9	7.7	18.8
10	Bigtooth aspen	719.5	6.0	-2.4	2,080.9	7.4	5.5
	Other softwood species	2,028.7	2.9	4.9	5,370.8	4.2	4.1
	Other hardwood species	6,075.9	1.8	9.1	12,617.8	2.8	17.7
	All species	23,241.8	1.0	5.7	61,242.7	1.5	13.8

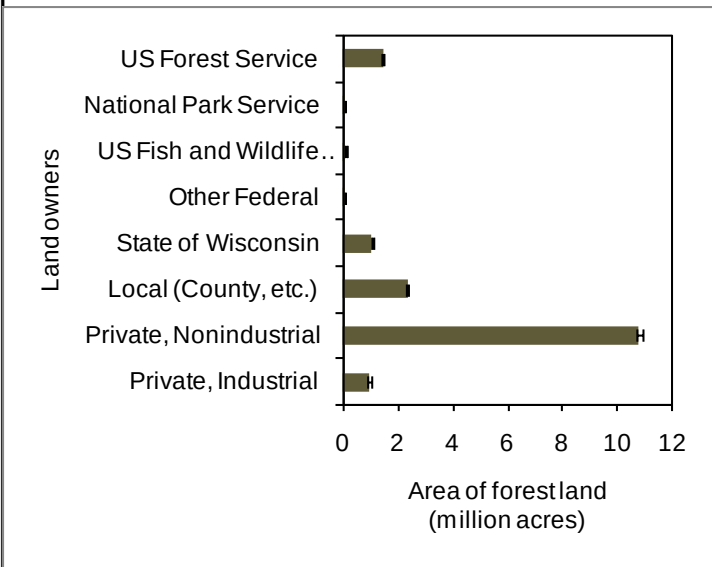
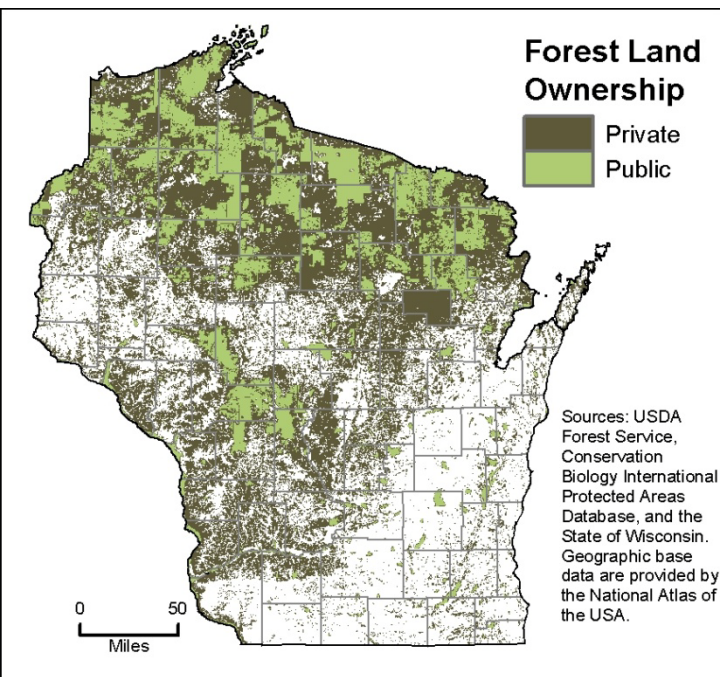


Figure 3.—Distribution of forest land by major owner group and size forest landholdings by owner, Wisconsin.

Issue Update: Carbon Estimates Are Now Available in FIADB

A recent upgrade to FIADB version 4.0 means that estimates of forest carbon are now available.

Carbon storage is broken into several different stocks: trees and saplings (above and belowground), understory (above and belowground), standing dead wood, down dead wood, litter, and soil to 1 meter.

With this new implementation, carbon estimates are available both by stock (Fig. 4) and by county (Fig. 5). In fact, all of the traditional filters may be used to customize the estimate.

The estimates may be calculated in EVALIDator, and the data are stored in tables at the DataMart. FIDO is currently being upgraded to offer these estimates.

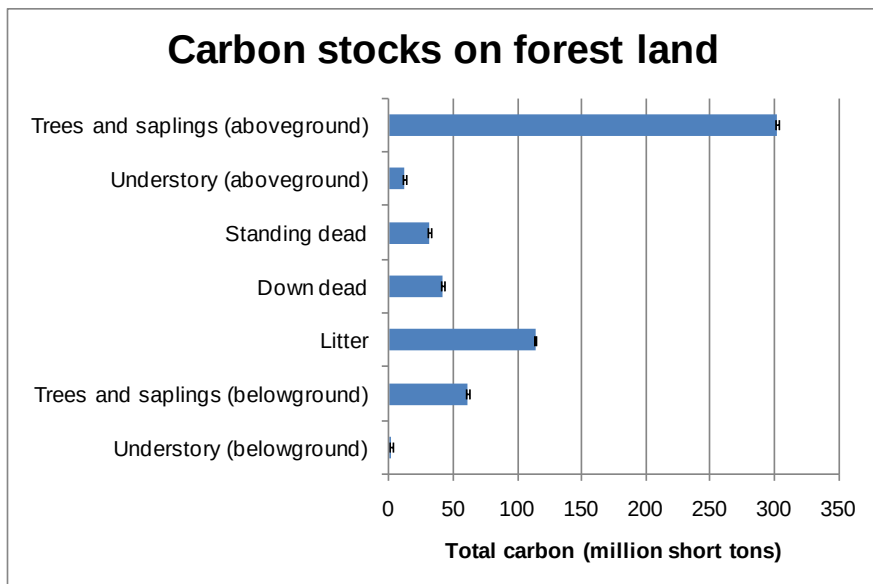


Figure 4.—Amount of carbon stored on forest land, by stock, Wisconsin, 2008. The soil carbon stock (to 1 m) is approximately 1 billion short tons and was not included on this graphic. Note: 1 short ton = 2000 pounds.

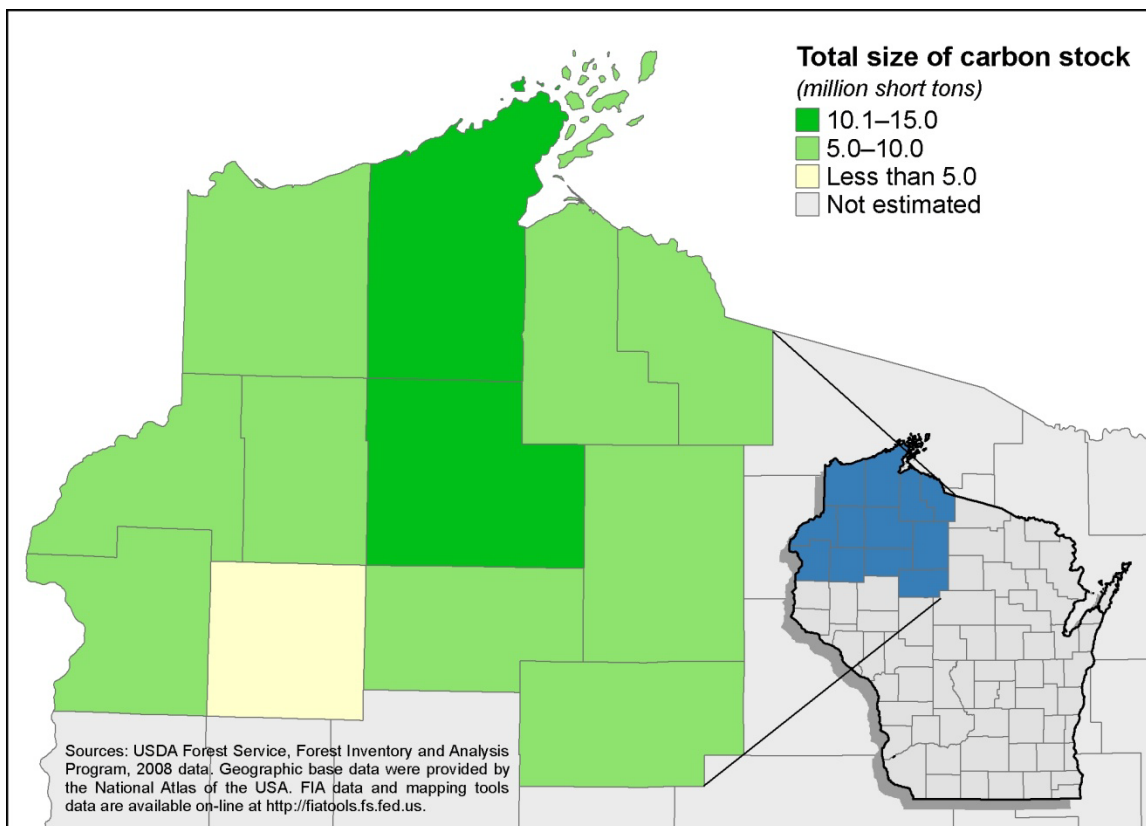


Figure 5.—Relative amounts of carbon in live trees and saplings (aboveground) on forest land by county in northwestern Wisconsin, 2008.

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FIA Program Information

Bechtold, W.A.; Patterson, P.L. 2005. The enhanced Forest Inventory and Analysis program: national sampling design and estimation procedures. Gen. Tech. Rep. SRS-80. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 85 p.

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Additional Wisconsin Inventory Information

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Stone, R.N.; Thorne, H.W. 1961. Wisconsin's forest resources. Stn. Pap. 90. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Lake States Forest Experiment Station. 52 p.

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Estimates, tabular data, and maps from this report may be generated at <http://fiatools.fs.fed.us>
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Information published in this report and in related tables is based on Forest Inventory and Analysis Database (FIABD), processed using National Information Management System (NIMS) version 4.0, 24 November 2009. Due to periodic changes to FIADB and NIMS, trend analyses should be made using FIA's online estimation tools, not by comparing published reports or tables. FIA estimates, tabular data, and maps may be generated at <http://fiatools.fs.fed.us>

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