USDA Forest Service, US Department of Agriculture
Northern Research Station

Maine's Forest Resources, 2012

Research Note NRS-179

This publication provides an overview of forest resource attributes for Maine based on an annual inventory conducted by the Forest Inventory and Analysis (FIA) 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 please refer to page 4 of this report.

Table 1. – Annual estimates, uncertainty, and change

	Estimate (2012)	Sampling error (%)	Change (%) since 2007
Forest Land Estimates			
Area (1,000 acres)	17,638	0.4	0.1
Number of live trees > 1-inch diameter (million trees)	24,294	1.5	6.3
Dry biomass of live trees > 1-inch diameter (1,000 tons)	684,641	1.0	3.7
Net volume in live trees > 5-inch diameter (1,000,000 ft^3)	26,030	1.2	2.2
Annual net growth of live trees > 5-inch diameter (1,000 ft^3/year)	726,696	2.2	26.2
Annual mortality of live trees > 5-inch diameter (1,000 ft^3/year)	303,647	3.1	-15.6
Annual harvest removals of live trees > 5-inch diameter (1,000 ft^3/year)	613,369	5.1	-0.7
Annual other removals of live trees > 5-inch diameter (1,000 ft^3/year)	9,469	38.4	374.0
Timberland Estimates			
Area (1,000 acres)	17,176	0.5	0.5
Number of live trees > 1-inch diameter (million trees)	23,716	1.6	6.7
Biomass of live trees > 1-inch diameter (1,000 tons)	669,796	1.0	4.4
Net volume of live trees > 5-inch diameter (1,000,000 ft^3)	25,455	1.2	2.9
Net volume of growing-stock trees (1,000,000 ft^3)	23,811	1.3	3.0
Annual net growth of growing-stock trees (1,000 ft^3/year)	725,585	2.6	30.6
Annual mortality of growing-stock trees (1,000 ft^3/year)	231,215	3.4	-16.1
Annual harvest removals of growing-stock trees (1,000 ft^3/year)	540,378	5.2	-0.8
Annual other removals of growing-stock trees (1,000 ft^3/year)	13,173	37.5	-49.6

Note: When available, sampling errors/bars provided in figures and tables represent 68 percent confidence interval. Change in growth estimates are compared to 2004-2006 cycle.

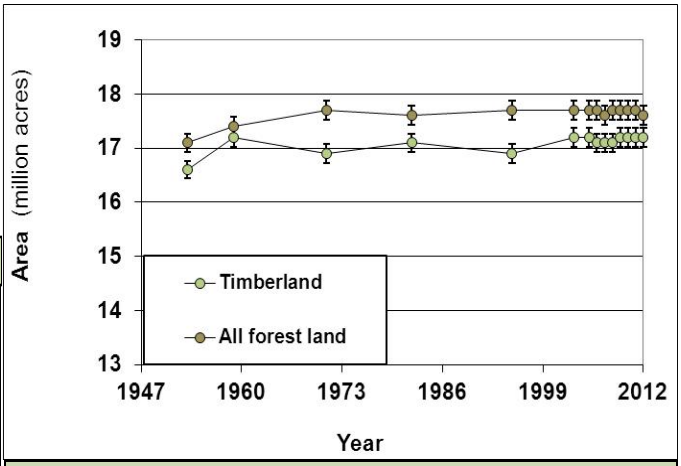

Figure 1. – Area of timberland and forest land by year.

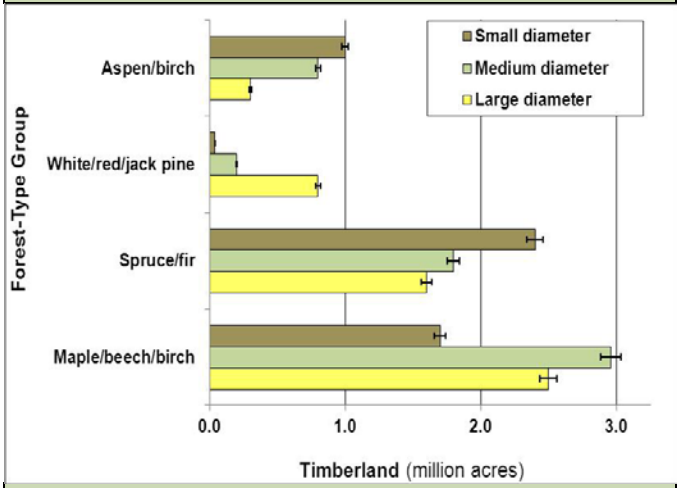

Figure 2. – Area of forest land area by top four forest-type groups and stand size class, 2008-2012.

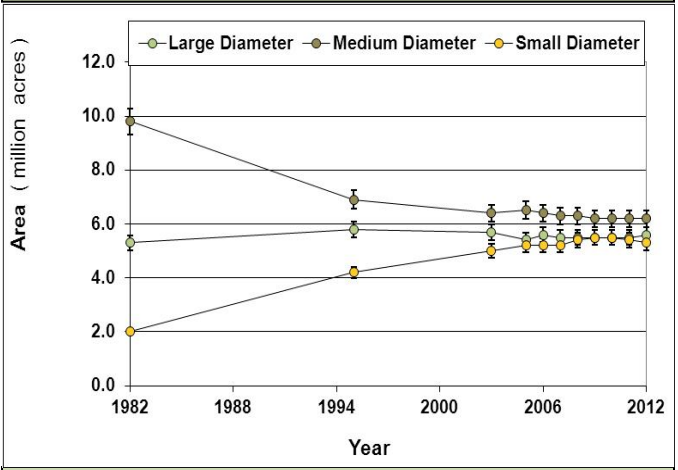

Figure 3. – Area of timberland by stand size class and year.

Table 2. – Top 10 tree species by statewide volume estimates, Maine 2008-2012

Rank	Species	Volume of live trees on forest land (1,000,000 ft^3)	Sampling error (%)	Change since 2007 (%)	Volume of sawtimber trees on timberland (1,000,000 bdft)	Sampling error (%)	Change since 2007 (%)
1	Red maple	3,247	2.8	3.3	4,960	4.9	4.4
2	Red spruce	3,078	3.7	-4.1	7,991	4.7	-1.2
3	Eastern white pine	2,864	5.2	6.9	10,827	5.9	8.8
4	Balsam fir	2,385	2.9	9.8	2,736	5.1	3.9
5	Northern white-cedar	2,238	4.8	2.4	4,869	5.7	8.4
6	Sugar maple	2,021	5.5	-4.7	5,590	7	-2.7
7	Eastern hemlock	2,009	5.1	7.9	5,792	5.8	11.2
8	Yellow birch	1,627	3.8	1.3	3,655	6.2	-3.5
9	Paper birch	1,143	4.2	-4.4	1,163	7.8	-8.6
10	Northern Red Oak	900	6.6	13.4	2,456	8.5	18.8
	Other softwoods	**1,476**	**5.6**	**1.8**	**3,394**	**7.1**	**5.8**
	Other hardwoods	**3,043**	**3.3**	**-0.2**	**5,347**	**5.6**	**0.2**
	All species	**26,030**	**1.2**	**2.2**	**58,779**	**1.9**	**4.0**

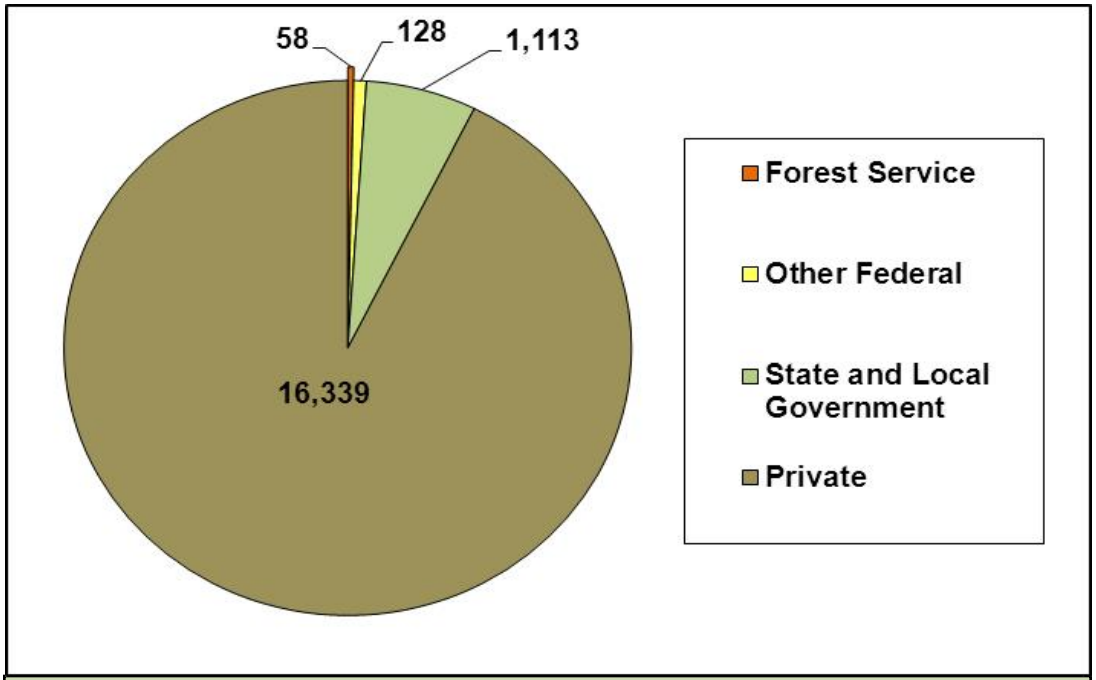

Figure 4. – Major ownership groups, in thousands of acres, Maine 2012.

Maine Forest Service Update – 2012 Current Issues Statement

The current Forest Inventory & Analysis (FIA) Program provides current, timely, and in-depth data on Maine's forest resources. The FIA database and its assorted tools (FIDO, EVALIDator) are efficient for providing either a historic or current assessment at various scales and sampling intensities, but both of these tools and their assessments are static.

The Northern Research Station has provided direct assistance and funding for past modeling efforts, including a timber supply outlook in the1972 publication NE-26 "The Timber Resources of Maine," the 1998 publication "Timber Supply Outlook for Maine: 1995–2045," and the 2001 publication of "A Forest Resource Model of the States of New York, Vermont, New Hampshire, and Maine," but the Maine Forest Service (MFS) has determined it needs to develop its own capability to take the current data and use it to forecast a variety of stochastic events that have a potential to negatively impact Maine's forest resources, associated industries, and recreational opportunities. Identified areas in a need of short-term modeling at a strategic level include:

- A vulnerability assessment of the spruce-fir resource to an impending re-infestation by the spruce budworm (*Choristoneura fumiferana*), and whether proactive silvicultural and management practices can be implemented to reduce this vulnerability.

- The aspen ssp. resource is declining due to long-term fire suppression efforts and changes in silvicultural practices after the passage of the 1990 Forest Practices Act. Aspen is a preferred and desired species in several primary processing facilities within the state, serving as a feedstock for both pulp and oriented strand board (OSB).

- The MFS has begun a multi-year effort with a variety of stakeholders to examine forest management in southern Maine. Currently titled "Maine's Healthy Forest Initiative," this study is seeking ways to improve and increase active forest management in order to adjust the growth/harvest ratio to a more viable long term setting. Currently net growth is 2½ times the harvest in the 10 counties that comprise southern Maine; this ratio is unbalanced. Family forests comprise the primary land ownership and encouraging more active forest management will need to address both social and resource issues and concerns.

- Future wood supply information for existing and potential manufacturing facilities and fuel wood interests.

The Maine Forest Service has specifically identified as a high priority: having access to an internal stand-alone capability through the use of a predictive model that incorporates various modules for regeneration, ingrowth to merchantable size, growth and yield, mortality, and the timing of various silvicultural practices for both pre-commercial and commercial thinnings. All of this activity will be supported by the FIA data. These predictive processes will help Maine's policy makers formulate informed decisions and responses to a variety of pending what-if scenarios.

Citation for this Publication

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FIA Program Information

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Additional Information

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