USDA
United States Department of Agriculture

Florida, 2011

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Forest Inventory & Analysis Factsheet

Issue—July 2013

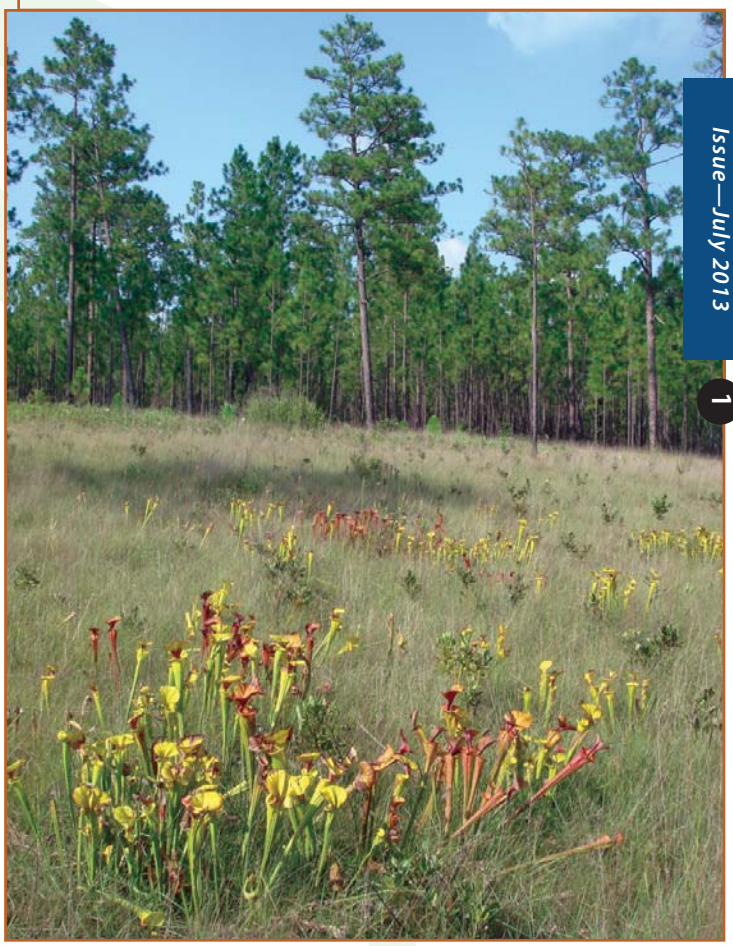
Introduction

Forest Inventory and Analysis (FIA) factsheets are produced periodically to keep the public up to date on the extent and condition of the forest lands in each State. The forest-related estimates in the factsheets are based upon data collected from thousands of sample plots distributed across the landscape in a systematic manner. The total number of these plots is divided into 5 panels, or layers, equaling 20 percent of the plots with the goal of sampling one panel per year until the entire complement of plots has been measured. At that time, the entire process renews, and as each panel is remeasured, it replaces or updates the 20 percent of plots it represents. This factsheet is an annualized update of the full 5-year cycle of panel data completed in 2007 and updated by combining and reprocessing with new 2009, 2010, and 2011 panel data. It represents 5 years of data, 60 percent of which are new since the last analytical report produced for 2007. The new data result in a "moving" average, and keep the inventory more up to date than if reported every 5 years at the end of the next full cycle of panels. Because these data represent a sample rather than a complete inventory of conditions, the most reliable trend information is obtained by comparing data from two full cycles (5 years of data) of completed panels (estimated to be available after the 2012 and 2013 data are processed). The data herein were extracted from the FIA database and Evalidator interface on the Southern Research Station (SRS) FIA Web site on January 24, 2013 at http://fia.fs.fed.us/tools-data/.

Forest Land Area

Based on the 60 percent new data (2009, 2010, and 2011 panels), forest area in Florida was 17,461,000 acres (table 1) in 2011 compared to 16,897,200 in 2007. Forests continue to cover about 50 percent of the State's land area. The apparent increased forest acreage is attributable to gains from other land uses such as former agricultural lands under citrus production. Ninety-one percent of the forested area (15,916,300 acres) is classified as timberland (considered available for timber production). The other 1,544,700 acres of forests are classified either as reserved or unproductive (table 1). Reserved forest land includes national parks, preserves, national forest wilderness areas and most State parks. Unproductive forests are those incapable of producing 20 cubic feet of wood per acre per year due to poor site quality or adverse conditions.

The 15,916,300 acres of Florida timberland are the basis for data presented and evaluated in this factsheet.



Pitcher plants. (photo by Michael Jenkins, Florida Forest Service)

Table 1—Area by land class and year, Florida

Land class	2007	2009	2010	2011
			acres	
Timberland	15,840,900	15,827,500	15,896,500	15,916,300
Other/reserved	1,056,300	1,347,500	1,445,700	1,544,700
Total forest land	16,897,200	17,175,000	17,342,200	17,461,000
Nonforest land	17,479,200	17,391,700	17,291,900	17,210,500
Total land area	34,376,400	34,566,700	34,634,100	34,671,500
Census water	7,706,500	7,516,100	7,448,600	7,411,300
Total area	42,082,900	42,082,800	42,082,700	42,082,800
Percent land area forested	49.15	49.69	50.07	50.36

Florida, 2011

Forest Distribution

In 2011, thirty-five of Florida's 67 counties were ≥50 percent forested. Eighteen of these were ≥75 percent forested (fig. 1). All of these most heavily forested counties were located in the northern half of the State. There were 14 counties <25 percent forested, all in the southern half of the State. Table 2 shows the distribution of Florida's timberland by survey unit. Seventy-six percent of Florida's timberland is found in the Northwest and Northeast units combined. The Northeast unit appears to be very slightly trending down, while the Northwest, Central, and South survey units of the State appear to be slightly gaining in area of timberland. The largest percentage gain occurred in the Central unit where reductions in area under citrus production have taken place. This change in land use potentially contributed to increased timberland there.

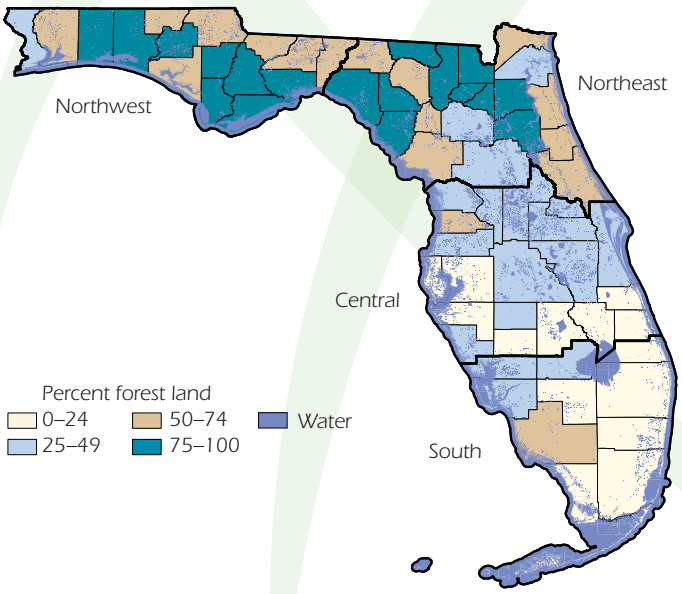


Figure 1—Survey units and percentage of land in forest by county, Florida, 2011.

Table 2—Area of timberland by survey unit and year, Florida

Survey unit	2007	2009	2010	2011	Change since 2007
		acres			*percent*
Northeast	6,579,100	6,560,600	6,555,700	6,552,100	-0.417
Northwest	5,516,400	5,511,600	5,514,400	5,526,300	0.179
Central	2,617,800	2,656,100	2,696,200	2,699,500	3.120
South	1,127,600	1,099,200	1,130,300	1,138,400	0.958
All survey units	15,840,900	15,827,500	15,896,600	15,916,300	0.476

Forest Ownership

Nonindustrial private forest (NIPF) owners hold 65 percent of the State's timberland. NIPF owners include individuals and corporate owners. This area increased slightly to 10,347,400 acres from 10,052,700 acres in 2007. However, within the NIPF group, area under individual ownership continued to trend rapidly downward, from 4,841,200 in 2007 to 4,304,700 acres in 2011 (fig. 2). In contrast, timberland under nonindustrial corporate ownership continued to trend rapidly upward from 5,211,500 to 6,042,700 acres. Public ownerships cumulatively own 29 percent, or 4,676,600 acres, up from 4,387,400 acres in 2007. State land acquisitions have driven the overall increase in public land; however the rate of increase appears to have slowed. Forest industry ownership accounted for 5.6 percent of the State's timberland, down from 1,400,800 acres in 2007 to 892,300 acres in 2011, a decline of 36 percent.

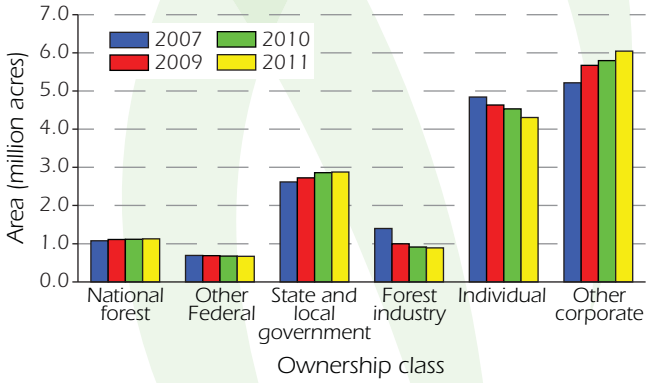
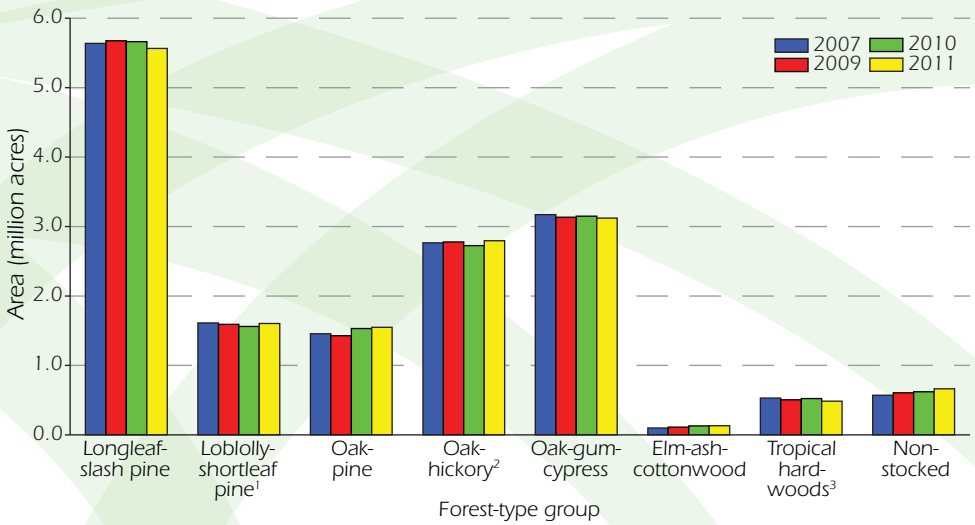


Figure 2—Area of timberland by ownership class and year, Florida.

Forest-Type Composition

Altogether, hardwood forest-type groups comprise 51 percent of Florida's timberland, or 8,083,800 acres. Softwood forest types occupy 45 percent, or 7,169,600 acres of timberland, and nonstocked areas make up the remaining 4 percent, or 662,900 acres. The longleaf-slash pine forest-type group predominates with 5,566,100 acres of the timberland (fig. 3). The oak-gum-cypress type group is second with 3,121,100 acres, and oak-hickory type group is third with 2,796,800 acres. Next is loblolly-shortleaf pine type group with 1,603,500 acres of the timberland, closely followed by area of oak-pine mix.

Between 2007 and 2011, the order of forest-type prevalence was unchanged and changes in area of type groups were minimal. However, the area of the longleaf-slash pine forest-type group has begun to decline, driven especially by declines in the slash pine component. Over the same period, there was an increase in nonstocked area, which could reflect fewer acres being replanted following slash pine harvest.

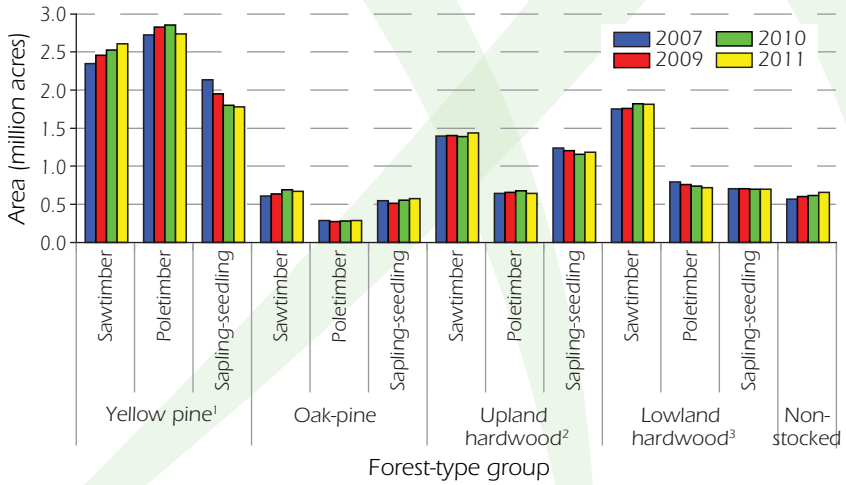


[1] Includes other eastern softwoods.
[2] Includes maple-beech-birch and other hardwoods.
[3] Includes exotic hardwoods.

Figure 3—Area of timberland by forest-type group and year, Florida.

Stand-Size Distribution

Sawtimber size (diameter ≥9.0 inches for softwoods, ≥11.0 inches for hardwoods) stands dominated with 6,566,900 acres, about 41 percent of timberland acres. Sawtimber size stands dominated all of the major forest-type groupings except for the grouping of all yellow pine forest types. While the yellow pine type group was the most prevalent for each stand-size category (fig. 4), poletimber size (diameter 5.0–8.9 inches for softwoods, 5.0–10.9 inches for hardwoods) stands were the predominant size class for the yellow pines. Poletimber size stands were the smallest component of upland hardwoods and oak-pine groups. In the lowland hardwoods, area of sawtimber size stands exceeded that of poletimber and sapling-seedling size (diameter 1.0–4.9 inches) stands combined.



[1] Includes othern eastern softwoods, primarily cedars.
[2] Includes tropical hardwood groups, other hardwood groups, and maple-beech-birch.
[3] Includes oak-gum-cypress and elm-ash-cottonwood groups.

Figure 4—Area of timberland by stand-size class, major forest-type group, and year, Florida.

Area of yellow pine sawtimber increased, while the area of yellow pine sapling-seedlings decreased between 2007 and 2011. However, yellow pine poletimer has only recently declined since 2010. This reduction in poletimber acreage, may be related to the continuing decline in area of yellow pine sapling-seedling size stands, the most pronounced change among the stand sizes and forest-type groups (fig. 4). Area of lowland hardwood sawtimber size stands recently decreased slightly, as did the area of its poletimber size stands, while the area of lowland hardwood sapling-seedling size stands remained relatively unchanged. Upland hardwood poletimber size stands decreased slightly, whereas area of upland hardwood sapling-seedlings has increased for the first time this survey cycle. Area of upland hardwood sawtimber size stands increased slightly.

Floodplain. (photo by Larry Korhnak, University of Florida)

Stand Origin

An estimated 4,996,800 acres of the State's timberland in 2011 were classified as artificially regenerated (evidence of having been planted or seeded) (fig. 5). This represents a decline from 33 percent to 31 percent of the State's total timberland between 2007 and 2011. The vast majority, 4,235,000 acres or 85 percent, were yellow pine types. Artificially regenerated hardwood types totaled 590,600 acres, or 12 percent of the total. About one-half of these stands were classified as oak-pine types and the other half as oak-hickory types, based upon the degree of successful artificial regeneration and the resultant species composition stocking. The remaining 3 percent, or 141,200 acres, of the area with evidence of artificial regeneration were classified as nonstocked, with no discernible forest type.

Area of natural softwood stands in the State increased slightly to 2,934,700 acres in 2011 from 2,702,300 acres in 2007. Artificially regenerated softwood stands decreased slightly from 4,546,500 acres in 2007 to 4,235,000 in 2011. The drop in area of planted softwoods correlates positively with the decline in area of yellow pine poletimber and sapling-seedling size stands shown in figure 4.

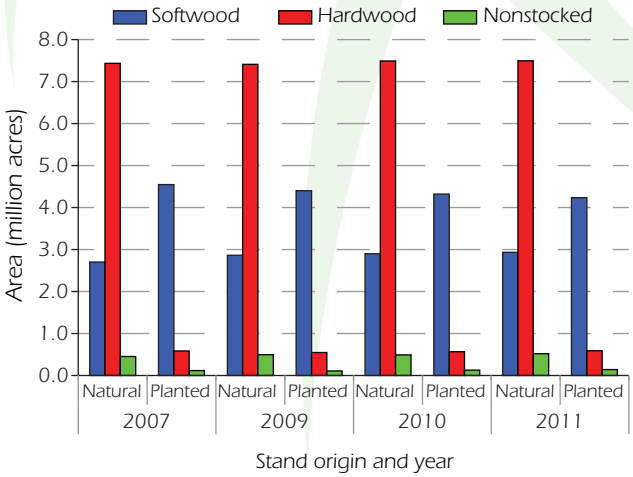


Figure 5—Timberland area by major forest-type group, stand origin, and survey, Florida.

Tree Volume

For all species combined, merchantable (≥5.0 inches d.b.h. to a 4.0 inch top) all-live tree volume on timberland in Florida rose from 19.332 billion cubic feet in 2007 to 20.316 billion cubic feet in 2011. Softwood volume rose from 10.959 to 11.460 billion cubic and continued to be greatest in the 8-inch diameter size class (fig. 6). Volume increased in softwood diameter classes ≥12 inches, but declined in the 6- and 8-inch diameter classes, with the 10-inch class incurring a very slight drop in volume as well. Like the decline in artificially regenerated pine acres, this correlates positively with the reduced area of yellow pine poletimber and sapling-seedling classes (fig. 4). The merchantable hardwood volume rose from 8.373 to 8.856 billion cubic feet, and continued to be greatest in the 10- and 12-inch diameter classes. All hardwood diameter classes increased in volume (fig. 7). Due to the declining sample size in the diameter classes above 20 inches, they were collapsed into one ≥20-inch class to account for remaining volume.

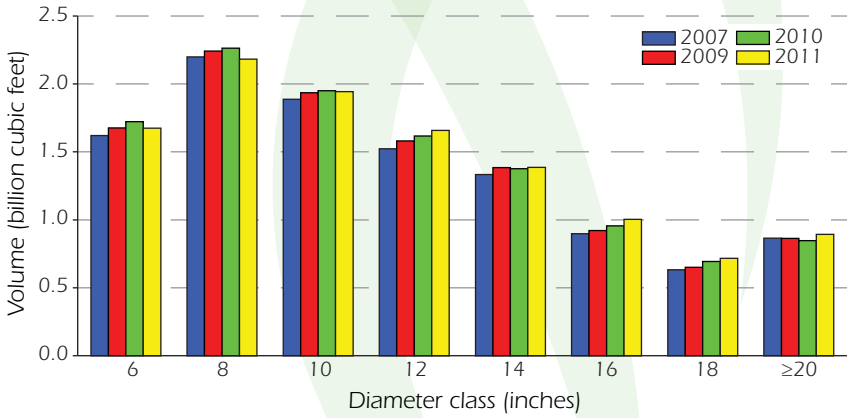


Figure 6—Softwood all-live volume on timberland by diameter class and year, Florida.

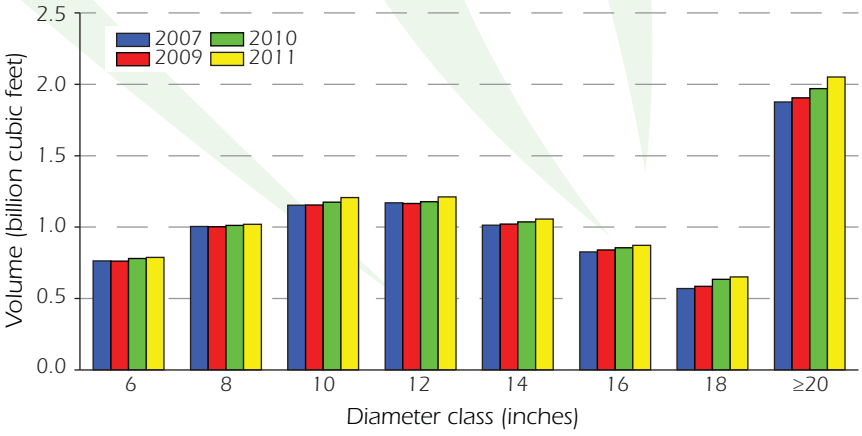
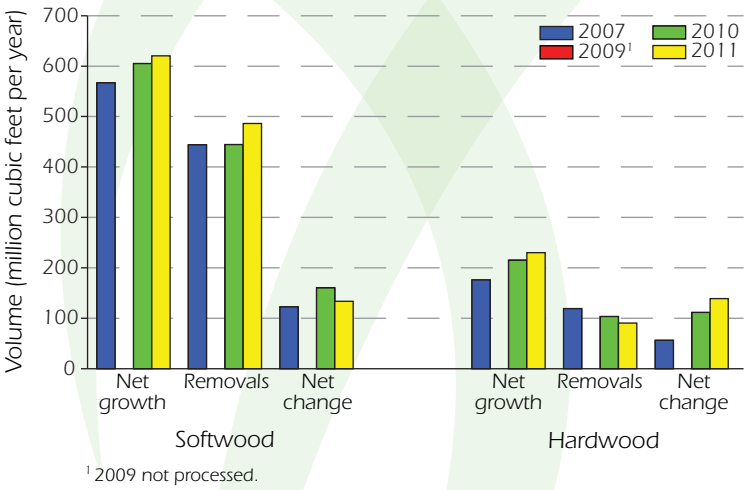


Figure 7—Hardwood all-live volume on timberland by diameter class and year, Florida.

Growth, Removals, and Mortality

The components utilized to determine total timber resource change are net growth and removals. Net growth is reduced by the volume of removals measured. This represents net change in volume for the timber resource.

Net growth of softwoods increased to 620.242 million cubic feet in 2011 from 567.224 million cubic feet in 2007 (fig. 8). Softwood removals increased as well, to 486.852 million cubic feet from 444.146 million cubic feet in 2007. The softwood growth to removals relationship for 2011 yielded a positive annual net increase of 133.869 million cubic feet in the softwood resource statewide, similar to that reported in 2007.



[1] 2009 not processed.

Figure 8—All-live volume of net growth and removals on timberland by broad species group and year, Florida.

Net growth of all-live hardwoods on Florida's timberland continued to increase as well. Hardwood net growth increased substantially from 2007 to 2011, averaging 230.060 million cubic feet annually in 2011 compared to 176.245 million cubic feet in 2007 (fig. 8). Simultaneously, hardwood removals continued to decrease, to 90.874 million cubic feet from 119.458 in 2007. The combination of increasing net growth and decreasing removals for hardwoods in 2011 has resulted in a large positive net rate of change of approximately 139.186 million cubic feet, more than double that recorded for 2007.

Note: Growth and removals estimates for 2009 were not processed because of previously existing procedures requiring a minimum of three panels of data.

How to Cite this Publication

Brown, Mark J.; Nowak, Jarek. 2013. Florida, 2011—forest inventory and analysis factsheet. e-Science Update SRS–071. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 5 p.

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Tate's Hell State Forest. (photo by Michael Jenkins, Florida Forest Service)

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