

Forest Inventory & Analysis

Increasing Our Understanding of the North's Forests

Rhode Island's Forest Resources, 2005 A USDA Forest Inventory & Analysis Update

Introduction

Rhode Island's forested landscape is integral to the State's ecological and social character. Forests cover an estimated 53 percent of the land (Figure 1 and Table 1). The trees and other biotic and abiotic components provide the State's citizens clean water and air, places to recreate and seek serenity, backdrops for their homes and everyday lives, and raw materials for forest products and firewood.

The FIA Program

To make informed decisions about forest resources, it is imperative to have accurate and timely forest resource information. The USDA Forest Service's Forest Inventory and Analysis (FIA) program was created to provide broad-scale forest resource information to Federal, State, and local policy makers, public and private forest managers, and everyone interested in the current and future state of the forest. FIA is the Nation's forest census.

On a recurring basis, specially trained foresters visit a set of randomly selected plots—roughly, one per 3,000 ac. For the forested plots, information is recorded on tree species, size, and quality, in addition to other biophysical attributes. Previous FIA forest inventories were conducted in

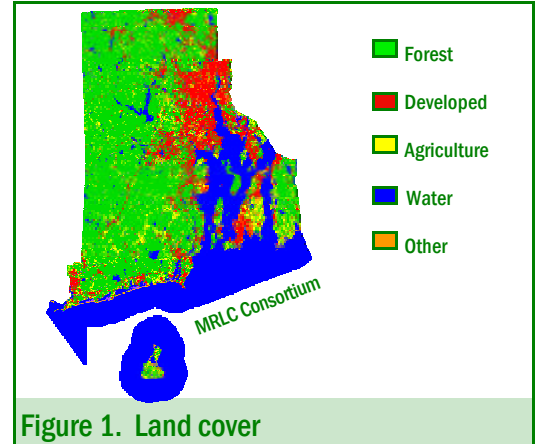


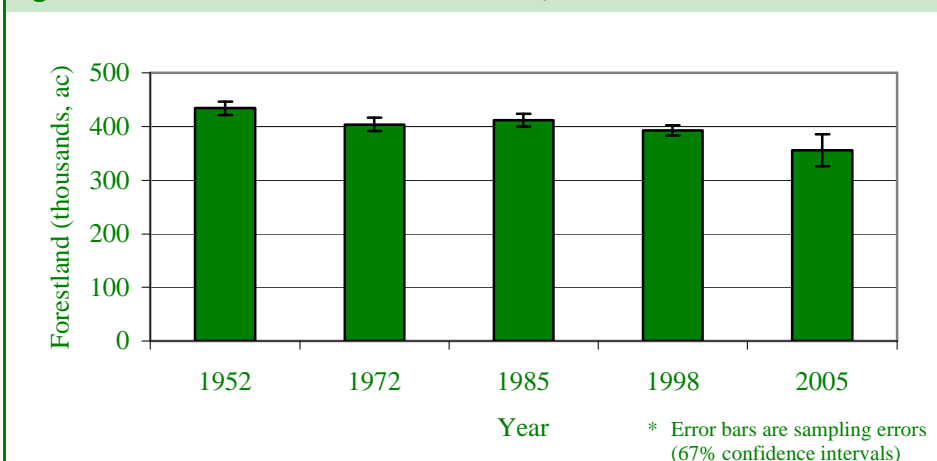
Figure 1. Land cover

Rhode Island in 1952, 1972, 1985, and 1998.

The current inventory, initiated in 2003, is being implemented on an annual basis. Every year, 15 percent of the plots, equally dispersed across the State, are inventoried. This update includes information from 69 plots—the first 40 percent of the plots inventoried. As the sample size increases, so too will the precision of the estimates. We strongly encourage all FIA data users to examine the sampling errors accompanying the estimates to assess data reliability.

After the full set of plots is inventoried, FIA will immediately begin to remeasure plots and provide trend data that are detailed, accurate, and timely.

Figure 2. Trends in Rhode Island's forest area, 1952 to 2005*



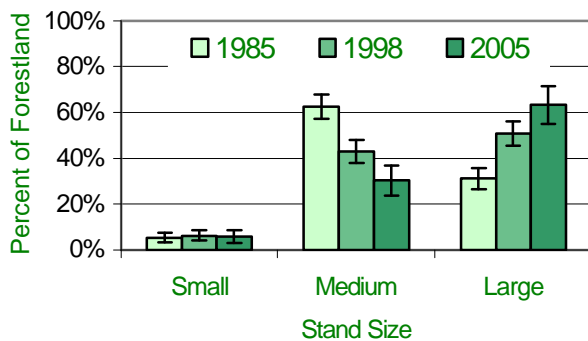
Forest Area

There are between 326,000 and 386,000 acres of forestland in Rhode Island (Table 1). This represents a loss of forestland since 1998, but statistically, the difference is marginal and more samples are needed to fully quantify this trend. Forestland is not evenly distributed across the State (Figure 1). Private owners control 85 percent of the forestland (Table 1).

Stand Size and Volume Per Acre

Forest stands were classified as large (sawtimber), medium (poletimber), small (seedlings and saplings), or non-stocked based on the diameter of the plurality of trees sampled. Most of Rhode Island's forests are composed of large or mature stands, and there are relatively few small or young stands (Figure 3).

Figure 3. Stand size distribution in Rhode Island, 1985, 1998, and 2005*



* Error bars are sampling errors (67% confidence intervals)

The average stand volume is 1,895 ft³ per acre of forestland in Rhode Island (Tables 1 and 4).

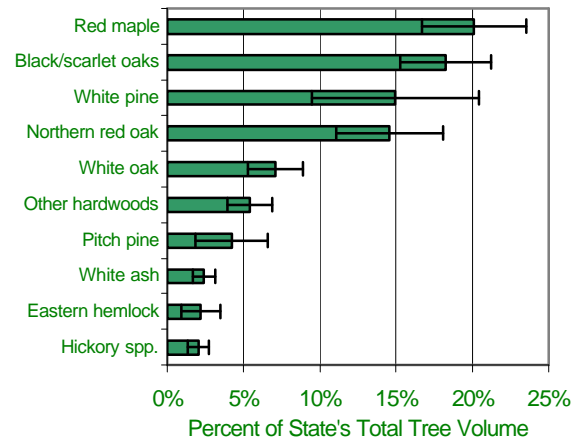
Species Composition

Forty-five species of trees were encountered on the 67 forested plots inventoried. Red maple is the most common tree species in Rhode Island—accounting for 20 percent of the State's total tree volume (Figure 4 and Table 4). The 10 most common species/species groups account for 91 percent of the volume of trees in the State.

Rhode Island forest facts

- Forest area: 358,800 acres
- Number of live trees: 182,611,000
- Volume of trees: 664,400 million ft³

Figure 4. Most common tree species and species groups in Rhode Island, 2005*



* Error bars are sampling errors (67% confidence intervals)

The Future

The fate of Rhode Island's forests lies largely in the hands of the 24,000 families and individuals who own 57 percent of the forestland in the State. Land use and population pressures, landowners' ownership objectives, the value of ecosystem services, timber markets, and social norms and values will influence much of the future forest's characteristics. Continued monitoring of the State's forest resources will help policy makers and others formulate more informed opinions and help foster sound forest and environmental stewardship.



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