



## Rhode Island Chapter—Society of American Foresters

RI Chapter  
Society of American  
Foresters

Representing the  
Forestry Profession  
in Rhode Island  
&  
110 Years of Forestry  
in the United States

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We're on the Web!  
[www.nesaf.org](http://www.nesaf.org)

## What Profession Affects Your Life Every Day?

**Chances are, your answer wasn't forestry.**

But can you imagine life with no clean water, no homes for people or wildlife, no places to enjoy the outdoors? For 100 years, professional foresters have been working to ensure that neither you nor future generations have to imagine such a life.

Our mission as foresters is to be responsible stewards of the earth's forests while meeting society's vital needs. The challenge of our mission lies in keeping forest ecosystems healthy and intact while concurrently drawing on their resources. We will meet this challenge by carefully monitoring and managing the effects of natural and human forces on the forest. Our decisions will be guided by our professional knowledge, our compassion for all living things, our desire to improve citizens' lives, and our respect and concern for the entire forest ecosystem. By advancing forestry science, education, technology and the practice of forestry, the New England Society of American Foresters will provide the leadership to achieve its mission.

With increasing concerns about global climate change and energy conservation, America's forests and foresters are uniquely positioned to offer sustainable solutions to these issues.

### About Us

The Society of American Foresters (SAF) is a national scientific and educational association representing the forestry profession in the United States. Founded in 1900 by Gifford Pinchot, it is the largest professional society for foresters in the world. The mission of the Society of American Foresters is to advance the science, education, technology, and practice of forestry; to enhance the competency of its members; to establish professional excellence; and, to use the knowledge, skills, and conservation ethic of the profession to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society. SAF is a nonprofit organization meeting the requirements of 501 (c) (3). SAF members include natural resource professionals in public and private settings, researchers, CEOs, administrators, educators, and students.

Since 1900, the Society of American Foresters has provided access to information and networking opportunities to prepare members for the challenges and changes that face natural resource professionals.

The RI Chapter ,formed in 1989, is part of the multi-state of the New England Society of American Foresters. Nationally, SAF members include nearly 18,000 professionals who are dedicated to improving the health and productivity of forests.

## Understanding Forestry



**Gifford Pinchot formed SAF and as the first Chief of the U.S. Forest Service helped establish our National Forest system**

Forests affect nearly every aspect of our lives. Forest resources provide raw materials for our homes, our workplaces, the books and newspapers we read, and the packaging that contains our food and other products of our labor. Forest ecosystems supply our water, maintain our climate, help purify our air, protect soils, and provide for wilderness experiences. Forests provide habitat for wildlife, and serve as preserves of biological diversity and as sources of food, fuel, and medicine for people throughout the world. They shape the recreational landscape, help stabilize our farms, and enhance our cities.

The actions of humans affect the benefits forest can provide. If forest resources are to be sustained and enhanced, these actions must be directed at achieving desired outcomes in diverse ecosystems, environmental conditions, and social regimes; they must anticipate the effects of population growth and social change on future human needs. The present and future benefits from the forests of the world depend on careful use of the knowledge that guides the actions we take.

Forestry is the science and the art of attaining desired forest conditions and benefits. As professionals, foresters develop, use, and communicate their knowledge for one purpose: to sustain and enhance forest resources for diverse benefits in perpetuity. To fulfill this purpose, foresters need to understand the many demands that forests must satisfy and the potential for forest ecosystems to satisfy these demands now and in the future.

## Trees are the answer

But what is the question? Everyday, trees give us the answers to some of our most challenging questions:

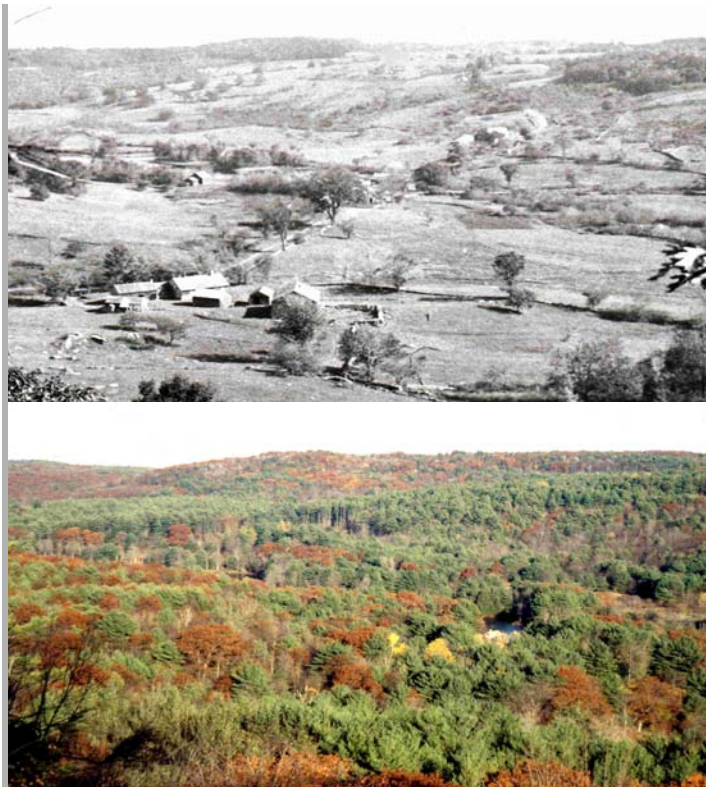
- What protects our rivers and streams and provides us with clean water?
- What provides us with the goods that we depend on every day?
- What helps you save on your heating and cooling?
- What helps us address climate change?
- What helps us clean the air?
- What do we have as much of now as we did 100 years ago?
- What sparks our imagination, and lifts our spirits?
- What do we, and a wide variety of other species, depend on for our well-being?
- What, along with the wind, sun, and waves, provides us with clean, sustainable energy?
- What renewable resource plays a vital part in our nation's economy?



The forestry profession is about conserving our natural treasures, utilizing our resources, and improving our world through careful, scientifically-sound management practices. This approach means that trees will be the answer for generations to come.

## Rhode Island Forest History

Early records indicate that upon the arrival of the first European settlers in the early 1600's the area that became known as Rhode Island was probably more than 95 percent forested. In upland areas, the Native American inhabitants periodically burned the undergrowth, maintaining forests in an open condition, with large, widely-spaced trees. The burning tended to dry out the soil, encouraging the growth of oaks, hickories, chestnuts, and pines over the more moisture-dependent northern hardwoods that dominated much of northern New England. In wet, lowland areas red maple, swamp oak, alders, and willows grew and the undergrowth remained thick. In addition, the Native Americans kept large areas cleared for agriculture and hunting, particularly around Narragansett Bay. Overall the landscape was a patchwork of forests in many different stages of ecological succession, providing much "edge" habitat for deer, grouse, other game species.



**The Southern New England Landscape, Then (1850) and Now**

Early European settlers cleared about two-thirds of the state's forests for agriculture. By the time of the first state forest survey of 1767 only 31 percent of the state's land area was forested. At the beginning of the nineteenth century a few thoughtful people began to become concerned about the loss of valuable forest. In 1820, the prominent Rhode Island textile manufacturer, Zachariah Allen began what is believed to be the first scientific and carefully recorded silvicultural experiment in the United States. He demonstrated his theory that "vacant land may profitably be improved by planting to trees," by planting oaks and chestnuts on 40 acres of barren land in

Smithfield Rhode Island and maintaining extensive records of his expenses and profits for the next 57 years. The site is now part of Lincoln Woods State Park.

Such private ventures did little to change the practices of the general public, however, and by the end of the nineteenth century Rhode Island forests had reached their lowest point in both area and quality. While much of the land that had been cleared for agriculture was later abandoned and reverted to forest, often what grew back were tree species that grew slowly and were of little value. In the meantime, the introduction of portable

steam-powered sawmills in the early 1870's allowed for unprecedented levels of timber harvesting. In 1887, Bernard Fernow Chief of the USDA Forestry Bureau advised: "Forests in the strict sense of the word can hardly be said to exist in this state. Although 24 percent is reported covered with wood, it is mostly coppice and white pine or pitch pine, which here and there may be said to rise to the dignity of forests, especially on the western borders."

By the beginning of the twentieth century public awareness of the need for forest management had begun to take hold both nationally and locally. In 1906 the Rhode Island legislature established the Rhode Island Forest Commission, and the following year appointed Jesse B. Mowry as the state's first Forest Commissioner. Mowry's staunch advocacy helped initiate improvements in forest laws, forest fire suppression, forest conservation and management. In the early 1930's Archie W. Hurford, the state's first trained forester, further galvanized public support and understanding of the value of woodlands in Rhode Island. Hurford's efforts convinced the legislature to allow for the establishment of state forest reserves. In 1932, the George Washington Memorial Forest in Glocester became the first state forest. The mid-1930's brought the Civilian Conservation Corps to Rhode Island,

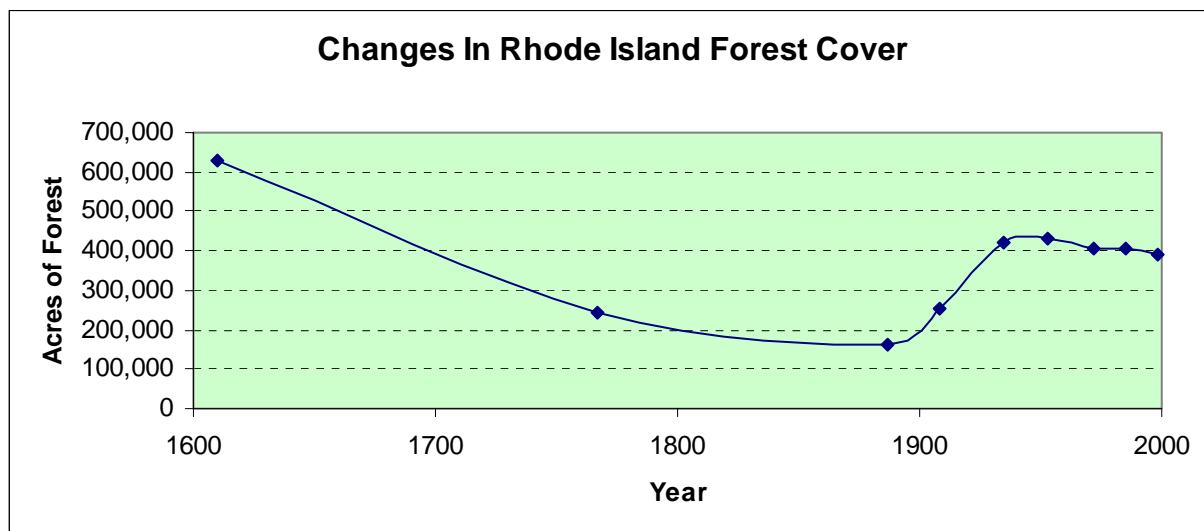
## Rhode Island Forest History (continued)

with tree planting, erecting fire towers, building woods roads, cutting trails, and engaging in other forest management activities.

With improved management, continuing farmland abandonment, the maturation of the regenerated forest, and tree planting programs, Rhode Island's forests greatly recovered. Of the tree species that have grown back various oak species are the most common trees, followed by red maple, then white pine. The recovering forest has been subject to a number of disturbances, both large and small. The American Chestnut, once one of the state's fastest growing timber trees, was completely wiped out by blight in the years from 1910 to 1930. Dutch elm disease, which began around the same time, eliminated all but a few of the state's elm trees. In 1930 and again in 1942 and 1951, major forest fires swept through western Rhode Island, burning tens of thousands of acres of timber. The hurricanes of 1938 and 1954 caused large timber blow downs. Once every few years major ice storms have damaged timber throughout the state. Periodic infestations of gypsy moth caterpillars have caused epidemics of defoliation. Since the mid 1980's the hemlock woolly adelgid has been killing off large areas of hemlock trees. More recently Asian longhorned beetle and Emerald ash borer have the ability to seriously impact our forests.

The greatest threat to today's forest, however, is from conversion to non-forest uses. Having peaked at 64 % in the early 1950's, Rhode Island's forest cover has been slowly decreasing due to development pressures. At the same time, however, average tree size has increased, such that the total volume of sawtimber on the state's timberlands has risen from 281 million board feet in 1953 to 1,316 million board feet in 1998. Harvest of mature sawtimber is well below the rate of annual growth. Much of the state's tree removals are due to changes in land use rather than the result of forest management practices.

Continuing loss of forests to alternative, more intensive land uses is the most critical problem across the region. Development pressure on southern New England's natural resources and woodlands is strong. We are losing the distinctive diversity of rural southern New England's working landscapes. "Sprawl" is fragmenting large tracts of forestland into smaller, isolated parcels. Most recent U.S. Forest Service estimates indicate that since 1985 Rhode Island has lost 18,900 acres of forest to development. Healthy forestlands are being reduced to small woodlots and suburban backyards. Fragmentation threatens to reduce the many benefits the forests provide. Though largely unrecognized, private (forest) land is the key to the future conservation of Rhode Island's remaining forestland.



## Forest Ecosystems & Forest Management

There are ways to manage our woodlands to assure that they remain ecologically sound but also meet the needs of our society. We do this through the application of the science of forestry, Forestry that incorporates the full complement of environmental benefits is known as “ecosystem management”. This means managing woodlands to meet human needs while maintaining healthy, diverse ecological conditions. This approach reflects an understanding of how forests function, and the recognition of the growing importance landowners and society place on non-timber values. The goal of ecosystem management is to maintain complexity, mimic natural disturbance, and work at a landscape level.



So, by now it's pretty clear that a forest is a lot more than just a bunch of trees in a field – it is a complex network of natural relationships, one where people often play an important role. Let's look at some of the stages and activities that go on in the life of a forest.

**Natural growth**—Sometimes called “old growth”, this is a forest that has never been substantially altered by humans. Foresters take a keen interest in the life cycles of these forests, as they follow a pattern very similar to human-managed forests. Fire, insects, disease, competition between trees, and changes in climate alter their composition, often to the extent that the tree cover is completely destroyed and must rejuvenate itself.



*Native Brook Trout live in forest habitats*

**Habitat**—Wildlife, plants, animals, and insects, are all important to the health of our forests, and dependent on good forest management for their continued livelihood. Understanding how forestry practices impact all

inhabitants of forests is a crucial role of everyone involved with forestry, and ensuring that no species is negatively affected is always the goal.

**Recreation**—Forests, of course, are a favorite destination for many people, used for camping, hiking, bird watching, fishing, hunting and much more. Foresters help keep these areas in good health, and ensure that any human impacts (such as trails) don't hurt the overall forest.



*Fire can be a tool or a threat*



**Harvesting**—Human beings receive a range of benefits from forests, of which a primary economic one is wood from trees. Forests are not simply a group of trees in an area, but rather a complex system of relationships between various natural organisms and their environment. When forestry professionals plan tree harvesting in a forest area, they must take into account the complexity of forests and choose the best possible interventions to minimize environmental impacts. Some of the factors that must be considered when planning a harvest are: the development stage of the forest, the kinds of trees found there, soil type, topography, water resources, wildlife, habitat, biodiversity, and threatened and endangered species. Forestry professionals use a range of harvesting options to maintain the ecological integrity of forests.

Increasingly, the economic value of components found in forests other than trees is being recognized and developed. These non-timber forest products include a diverse range such as wild blueberries, medicinal plants, mushrooms, vegetation used for Christmas wreaths, among many others. Professional foresters seek opportunities to enhance the value of these uses, and research is presently being carried out to develop sustainable methods of harvesting non-timber forest products.

## Rhode Island Forest Facts

### Forest Area

- RI has 364,600 acres of forestland or is 55% forested. a 10% decrease from 404,000 acres in 1985.
- RI has lost 46,800 acres (11%) of its total forestland since 1985
- 83% of RI's timberland is privately owned
- ***There are approx. 38,336 private forestland owners in the state!***

### Timber Volume

- Total growing stock of trees in the state has increased by 57% since 1985
- Sawtimber volume has increased 81 % since 1985 and stands at 1,839 million board feet
- Dry biomass in the state's forest is estimated at 24.2 million tons

### Forest and Paper Industry at a Glance

- Total employment 2,240
- Annual Payroll Income \$112 million
- Value of Industry Shipments \$265,508,000
- Number of manufacturing facilities 154

### Clean Water is a Forest Product

- Forests protect watersheds, aquifers, and groundwater supplies that provide the bulk of our clean drinking water—75% of Rhode Islanders get their drinking water from reservoirs protected by forests.

### Recreation

Forests provide countless recreation opportunities and income in the form of camping, fishing, hiking, enjoying nature, etc.

### Clean Air

For every ton of wood a forest grows, about 1.5 tons of carbon dioxide are removed from the air and replaced with 1.1 tons of oxygen.

### Hunting

More than 14 million people hunted in the US in 2004 contributing \$22.1 billion to the US economy and creating over 700,000 jobs. More than 60% of this hunting takes place on private lands, most of which is forested.

### Farms, Forests and Open Space Save Tax Dollars

Cost of community services studies conducted in more than 70 communities over the past decade show that owners of farm, forest and open lands pay more in local taxes than it costs local government to provide services to their properties. Residential land uses, in contrast, are a net drain on municipal coffers: it costs local governments more to provide services to homeowners than residential landowners pay in property taxes.

### Ecological Services performed by forests

Forests provide a number of ecosystem services that we often do not notice. Some of these include: Biodiversity, Climate Regulation, Waste Treatment; Food Production, Raw Materials, Soil Formation, Biological Control, Cultural Values, Water Treatment, Water Regulation, Water Supply, Erosion Control, Nutrient Cycling, among others.

### Other

- Forests are vital in assuring the continued quality of Narragansett bay, our rivers and watersheds;
- Forests provide habitat for all varieties of wildlife
- They contribute to our quality of life

## Sprawl in Rhode Island

In the past several decades, Rhode Island has been losing forestland, farmland, and open space to development at an unprecedented rate. The trend will continue unless the state's government and citizens push to implement adequate policies, planning, and land use practices. According to Grow Smart Rhode Island's "The Costs of Suburban Sprawl and Urban Decay in Rhode Island,"

- “. . . while Rhode Island's total population increased by only 16% during [the thirty-four year period from 1961 to 1995] the state's land consumption for residential, commercial, and industrial uses increased by 147%, nine times faster than the population growth rate.
- Even more striking is that between 1961 and 1995, Rhode Island developed far more land (96,000 acres) for residential, commercial, and industrial purposes than in the previous 325 years of the state's existence (65,000 acres).
  - Between 1988 and 2006 Rhode Island lost 46,800 acres of farm and forest land.
  - The Rhode Island Department of Administration and Statewide Planning estimated that by 1995 roughly 30% of the acreage in Rhode Island had already been developed. The land consumption rate has been particularly high in rural towns and in suburban areas.

Nevertheless, while Rhode Island is the second most densely populated state in the nation, it is still among the more forested states, with roughly 55% forest cover. In addition there remain many ecologically significant wetlands and coastal ecosystems. Increasingly, Rhode Islanders are working to preserve these undeveloped lands. State, federal, and municipal governments, water companies, wildlife organizations, and more than fifty Rhode Island land trusts have so far preserved well over 100,000 acres, or about 15%, of the land in Rhode Island.

## RI Forestry Links

Rhode Island Department of Environmental Management—Division of Forest Environment  
1037 Hartford Pike  
North Scituate, RI 02857  
(401) 647-3367  
[www.dem.ri.gov](http://www.dem.ri.gov)

Rhode Island Forest Conservators Organization  
P.O. Box 53  
North Scituate, RI 02857  
(401) 568-3421  
[www.rifco.org](http://www.rifco.org)

RI Tree Farm Committee  
P.O. Box 53  
North Scituate, RI 02857  
(401)n 568-3421  
[www.RITreeFarm.org](http://www.RITreeFarm.org)

Rhode Island Tree Council  
P.O. Box 6144  
Providence, RI 02940  
(401) 764-5885  
[www.ritree.org](http://www.ritree.org)

Providence Water Supply Board  
552 Academy Avenue  
Providence, RI 02908  
401-521-6300 ext.7316  
[www.provwater.com](http://www.provwater.com)

USDA-Natural Resources Conservation Service  
Quaker Lane, Suite 46  
Warwick, RI 02886  
401-828-1300  
[www.ri.nrcs.usda.gov](http://www.ri.nrcs.usda.gov)



**Rhode Island Chapter**  
**Society of American Foresters**  
*Growing better all the time*

Paul Dolan

Phone: 401-647-3367

Email: [paul.dolan@dem.ri.gov](mailto:paul.dolan@dem.ri.gov)

Chris Modisette

Phone: 401.556-3957

Email: [cmodisette@aol.com](mailto:cmodisette@aol.com)



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## How Can You Support Forest Conservation

**Support "current use" land taxation policies.**

-

**Ask your town officials to support Rhode Island's Farm, Forest & Open Space Act allowing eligible land to be taxed on its existing use, not its potential use;**

-

**Support legislation (State and local) that provides funds for rural land conservation;**

-

**Support adequate funding for state forestry agencies;**

-

**Encourage innovative, new development strategies that protect open space;**

-

**Support local people who make a living from their land by buying locally grown products;**

-

**Visit a Tree Farm;**

-

**Update your community's comprehensive plan to include a clear forest conservation component;**

-

**Establish a Town Forest**

-

**Plant a Tree**