

2014

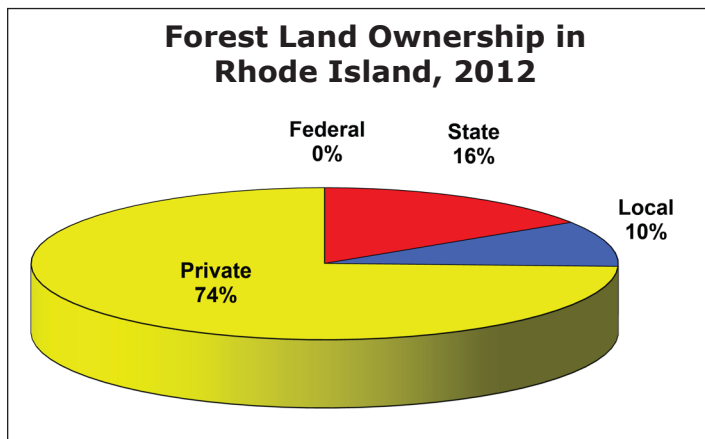
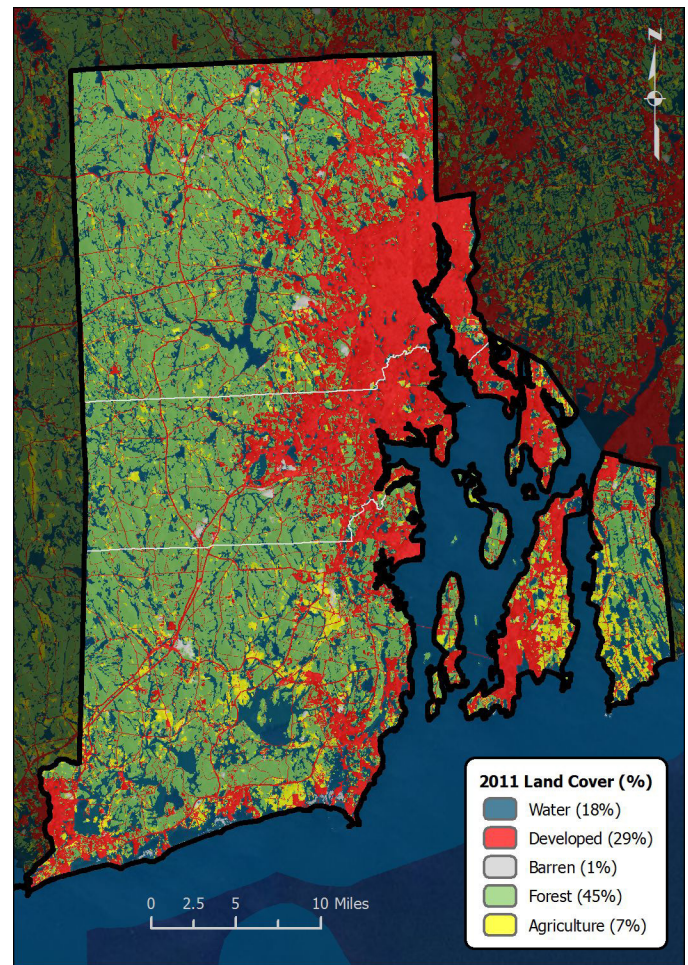
# Forest Health

RHODE ISLAND *highlights*



## Forest Resource Summary

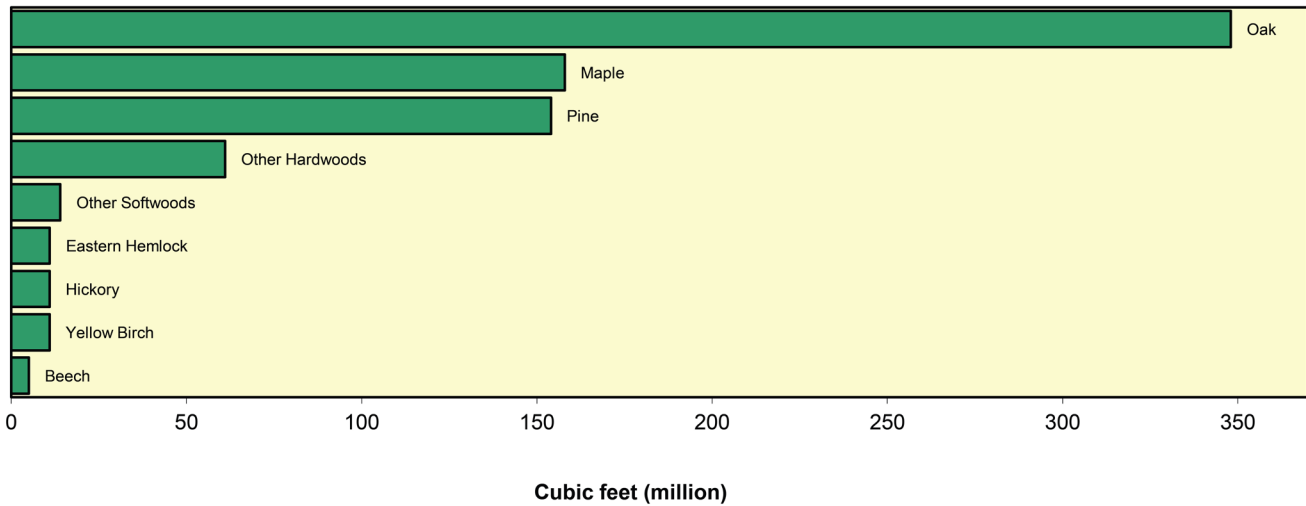
Rhode Island's forests are 74 percent privately owned, largely by families and individuals who view their land as a source of enjoyment and a resource to be protected. Other private owners include corporations, tribes, conservation groups, and clubs. The State or local towns own the remainder of the forest land. These forests are valued for clean air, protection of ground and surface water, wildlife habitat, wood fiber, and recreational opportunities. The 2013 Rhode Island forest inventory estimated that there were approximately 367,000 forested acres in the State, an area that has decreased from the estimated 434,000 acres in the first forest inventory in 1952. The forest resource is made up of many species—primarily oaks, but also maples, pine, hemlock, birch, and other hardwoods. The predominant forest type group is oak-hickory.



## Forest Health Programs in the Northeast

State forestry agencies work in partnership with the U.S. Forest Service to monitor forest conditions and trends in their State and respond to pest outbreaks to protect the forest resource.

### Net Volume of Growing Stock on Timberland by Species in Rhode Island, 2012

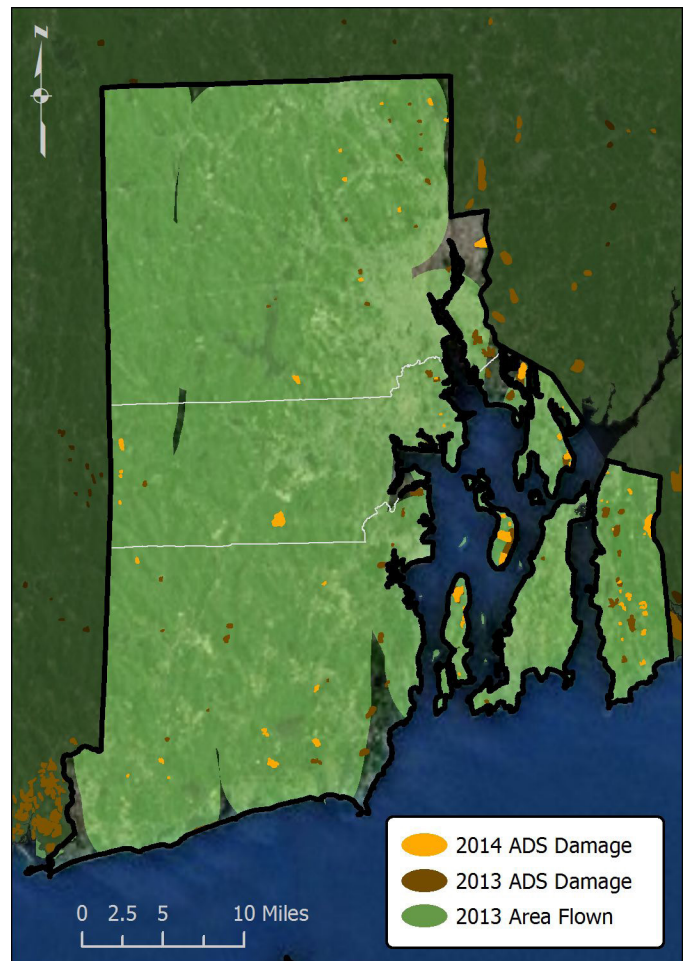


## Aerial Surveys

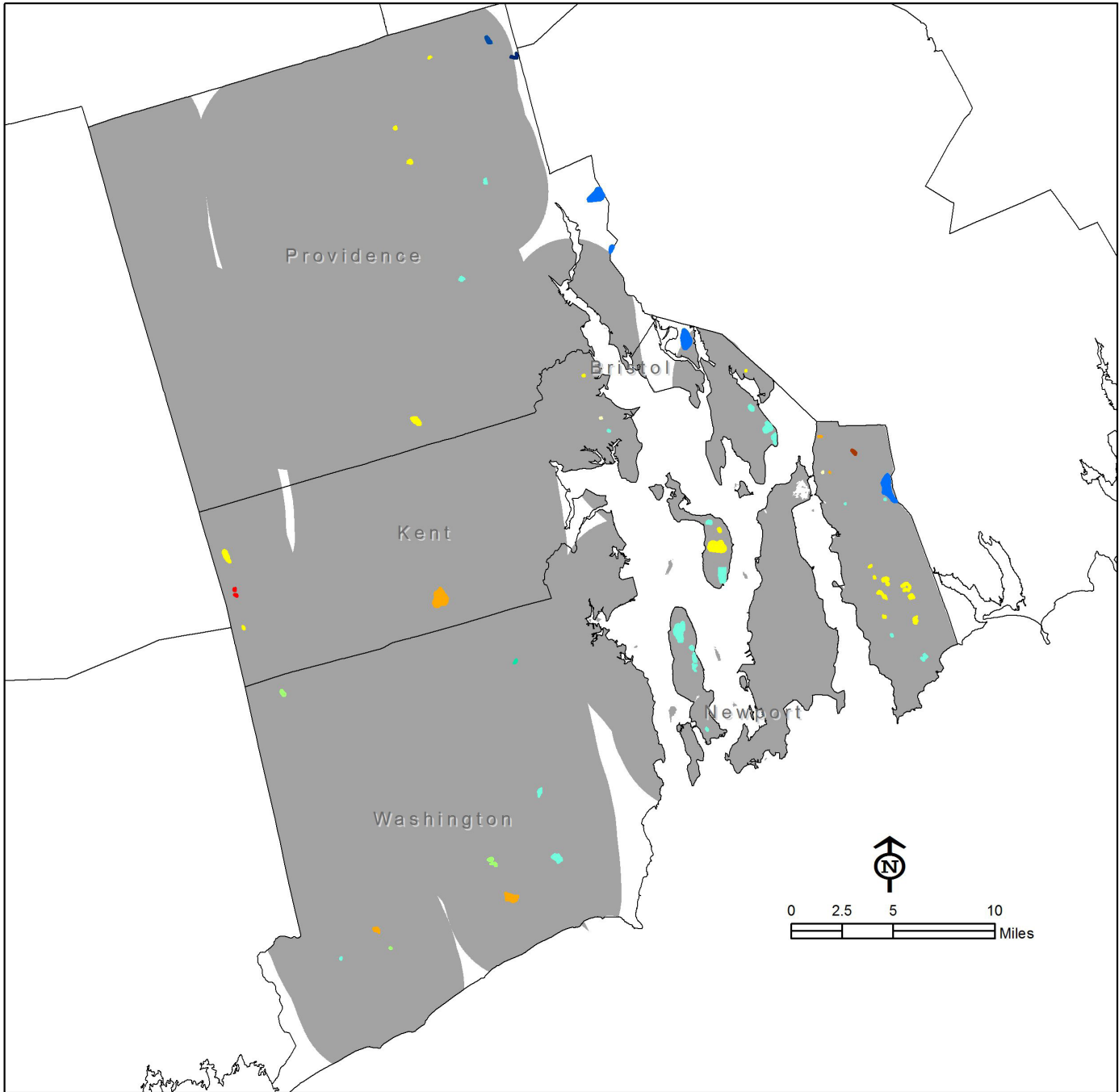
Aerial surveys for damage from defoliating insects were flown over Rhode Island in June. The digital aerial sketchmapping system (DASM) was used to cover 670,660 acres. Survey data was submitted to the U.S. Forest Service Field Office in Durham, NH, that showed acres of defoliation by agent that caused the damage. Field personnel ground checked all areas of defoliation.

There were 3,062 acres of damage mapped, most of which was defoliation from winter moth (2,933 acres) statewide and about 50 acres of mortality from winter moth in Kent and Newport Counties. There were also 79 acres of damage mapped from red pine scale in Providence County on the Massachusetts border.

*Aerial Detection Survey (ADS) observations in Rhode Island in 2013 and 2014.*



# 2014 Rhode Island ADS Data



## Key

### Mapped by RI

- Defoliation from winter moth on Chestnut oak
- Defoliation from winter moth on ELM/ASH/RED MAPLE GROUP
- Defoliation from winter moth on Other oak/pine
- Defoliation from winter moth on Scarlet oak
- Defoliation from winter moth on White oak/red oak/hickory
- Defoliation from winter moth on White pine/northern red oak/white ash
- Mortality from winter moth on ELM/ASH/RED MAPLE GROUP
- Mortality from winter moth on Scarlet oak

### Mapped by MA

- Defoliation from winter moth on oak(deciduous)
- Discoloration from red pine scale on red pine
- Mortality from red pine scale on red pine
- Counties
- Flown



USDA Forest Service  
 Northeastern Area, State and Private Forestry  
 Forest Health Protection, Durham, NH.  
<http://www.na.fs.fed.us/fhp/index.shtm>

The USDA is an equal opportunity provider and employer.

October 2014 (RL)



Aerial surveys for damage from defoliating insects were flown over Rhode Island in June. The digital aerial sketchmapping system (DASM) was used to cover 670,660 acres. Survey data was submitted to the U.S. Forest Service Field Office in Durham, NH, that showed acres of defoliation by agent that caused the damage. Field personnel ground checked all areas of defoliation.

There were 3,062 acres of damage mapped, most of which was defoliation from winter moth (2,933 acres) statewide and about 50 acres of mortality from winter moth in Kent and Newport Counties. There were also 79 acres of damage mapped from red pine scale in Providence County on the Massachusetts border.

## Forest Health Special Projects

### Emerald Ash Borer Trap Tree Project

Through special funding from the U.S. Forest Service, a critical forest health project was again carried out in Rhode Island in 2014—the **Emerald Ash Borer Ash Trap Tree Project**. This method of detecting emerald ash borer involves girdling ash trees, which then may attract any insects that may be in the area. Five locations for girdled trap trees were systematically determined and five total trees were processed, one at each location. No evidence of emerald ash borer was detected in Rhode Island.



*Peeled ash logs from the Emerald Ash Borer Ash Trap Tree Project in Rhode Island. (Photo: Bruce Payton, Rhode Island Department of Environmental Management, Division of Forest Environment)*

### Cerceris fumipennis Biosurveillance Survey for Emerald Ash Borer

The **Emerald Ash Borer Biosurveillance Project** continued to provide a multipronged approach to detecting emerald ash borer in Rhode Island. Surveys for active colonies of *Cerceris fumipennis* and beetle collection were conducted in cooperation with the Rhode Island Department of Environmental Management (RIDEM), University of Rhode Island, and the USDA Animal and Plant Health Inspection Service. One hundred nine sites were visited; samples were taken at 22 sites and 305 beetles were collected for identification. No emerald ash borer was found.

### Purple Prism Trap for Emerald Ash Borer

The purple prism trap is another way to monitor the presence of emerald ash borer. It is a sticky trap with pheromone designed to target any emerald ash borer in the area. RIDEM Division of Agriculture personnel set traps in 57 high-risk areas throughout the State and collected 10 Buprestids. No emerald ash borer was found.

## Firewood Vector Analysis

As part of the invasive insect survey work in Rhode Island for emerald ash borer and Asian longhorned beetle, the RIDEM Division of Forest Environment inspects trees in campgrounds annually and delivers information packets in the spring and throughout the camping season for distribution to campers.

Twelve campgrounds were visited and given posters and information about invasive pests and the "Don't Move Firewood" program.

## Forest Service Assistance

Durham Field Office Remote Sensing Specialist Bill Frament provided a day of DASM training for the Rhode Island Forest Health Coordinator and helped convert collected data into a reportable format.

Entomologist Nate Siegert provided training on identifying ash trees infested with emerald ash borer and peeling/surveying techniques. He also rendered personal assistance regarding survey protocols to the Rhode Island Forest Health Coordinator.

## References

### Land Cover Map:

Jin, S.; Yang, L.; Danielson, P.; Homer, C.; Fry, J.; Xian, G. 2013. A comprehensive change detection method for updating the National Land Cover Database to circa 2011. *Remote Sensing of Environment*. 132: 159–175.

### Forest Land Area by Ownership:

Oswalt, Sonja N.; Smith, W. Brad; Miles, Patrick D.; Pugh, Scott A. 2014. Forest resources of the United States, 2012: a technical document supporting the Forest Service 2015 update of the RPA Assessment. Gen. Tech. Rep. WO-91. Washington, DC: U.S. Department of Agriculture, Forest Service, Washington Office. Table 2.

### Net Volume of Growing Stock on Timberland by Species:

Oswalt, Sonja N.; Smith, W. Brad; Miles, Patrick D.; Pugh, Scott A. 2014. Forest resources of the United States, 2012: a technical document supporting the Forest Service 2015 update of the RPA Assessment. Gen. Tech. Rep. WO-91. Washington, DC: U.S. Department of Agriculture, Forest Service, Washington Office. Table 23 & 24.

### Rhode Island Forest Inventory:

Butler, Brett J. 2014. Forests of Rhode Island, 2013. Resource Update FS-18. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 4 p.



U.S. Department of  
Agriculture  
Forest Service  
Northeastern Area  
State and Private Forestry  
11 Campus Blvd., Suite 200  
Newtown Square, PA 19073  
<http://www.na.fs.fed.us>

Forest Health Protection  
Northeastern Area  
State and Private Forestry  
271 Mast Rd.  
Durham, NH 03824  
603-868-7708



Rhode Island Department of  
Environmental Management  
Division of Forest Environment  
2185 Putnam Pike  
Chepachet, RI 02814  
401-568-2013  
<http://www.dem.ri.gov/>

February 2015