# BUREAU OF FORESTRY FOREST HEALTH PROGRAM ANNUAL REPORT, FISCAL YEAR 2001 CHARLES M. BURNHAM, PROGRAM SUPERVISOR

The annual **AERIAL SURVEY** was conducted by two trained sketchmappers. This survey is a requirement of the cooperative agreement between the Massachusetts Department of Environmental Management and the USDA Forest Service. A summary of the disturbances documented by this survey can be found elsewhere in this report.

## SUMMARY OF INSECT AND DISEASE CONDITIONS

HEMLOCK WOOLLY ADELGID continues to spread with nine new communities becoming infested. We continued to monitor the previous release sites of the predatory ladybird beetle *Pseudoscymnus tsugae*. Additionally two new releases were conducted, one in Newton at the Hemlock Gorge Reservation and a second in Milton at the Blue Hills Reservation. We also assisted the University of Vermont in a study to determine the effectiveness of an entomopathenogenic solution for the control of the invasive insect. We continue to monitor the seedlings planted in a forested area of the Holyoke Range State Forest in an effort to determine if various strains of hemlock from other parts of the northeast will be resistant to this insects feeding. Finally Supv. Alliston Wright was requested to draft a silvicultural management guide for landowners whose stands have or could become infested with this pest. This publication is being developed by the Hemlock Woolly Adelgid Working Group composed of state and federal forest health professionals.

**HEMLOCK LOOPER** defoliation continued for the second year in Berkshire County, and the western sections of Hampden, Hampshire, and Franklin Counties. Extensive sampling conducted in the fall of 2000 indicated the problem would continue and as a result the campground at Tolland State Forest was aerial sprayed with *Bacillus thuringiensis*.

**GYPSY MOTH** continues to cause defoliation, predominantly in southeastern Massachusetts and spotty locations in Hampden County and within the Quabbin Reservoir watershed.

MAPLE LEAF CUTTER has caused noticeable defoliation in northern Franklin County. Some sugar producers have reported complete defoliation within their sugarbush.

#### MISCELLANEOUS INSECTS/DISEASES

EASTERN TENT CATERPILLAR populations remain about the same as previous years.

**FALL WEBWORM** appears to be on the decline in the eastern part of the state and increasing in Berkshire County...

LOCUST LEAFMINER damage does not appear to be as severe last year.

TAR SPOT damage on Norway maple has been observed on street trees and in ornamental plantings throughout Berkshire County.

**DROUGHT** damage and mortality from previous year's lack of rainfall are being observed in Berkshire County. This damage is most noticeable on street trees and trees growing at higher elevations.

**BEECH BARK/NECTRIA COMPLEX** continues to cause spotty mortality at higher elevations in Berkshire County. This mortality could be hastened by the previous year's drought.

ARBORVITAE LEAFMINER is somewhat more noticeable in Berkshire County this year than in the past. This slight increase has prompted an increase in phone inquiries requesting information on control materials.

EASTERN WHITE PINE DECLINE is causing concerns in the Warwick area. Reports from neighboring state indicate this condition is region wide. The cause of this decline is unknown and is being investigated by the USDA Forest Service.

RED PINE SCALE is causing mortality in selected stands in southern Hampden County.

SYCAMORE ANTHRACNOSE is an annual problem throughout the sycamore range. This is predominantly an aesthic problem and causes little long-term damage to the trees.

**FIRE BLIGHT** damage has become evident in the Connecticut Valley. This bacterial disease has most likely become a problem because of moisture being available at the time when trees are susceptible to inoculation.

INTRODUCED PINE SAWFLY became most noticeable in the Granville area.

#### SPECIAL PROJECTS

CLOSING OF STOW HEADQUARTERS: On the first of November instructions were given to begin the closing of the Stow Field Headquarters to make room for the expansion of the Massachusetts Fire Training Facility. Program staff from throughout the state assisted the Stow staff in packing all supplies and equipment. The labor force and supervisor were to be relocated to the Carlisle Regional Headquarters with Supervisor Hubley being given an office in what is known as the School House and the tree crew was assigned to the Great Brook Farm maintenance building.

ASIAN LONGHORNED BEETLE (ALB) RESEARCH We continue to assist the USDA APHIS Methods Development Lab in their research involving host species determination of this invasive insect. Weekly collections of red and striped maple were made and provided to this USDA facility to be used as food their ALB research colony held in quarantine. Additionally various species of ornamental plants are collected to be used in feeding studies. Further assistance was provided to this federal agency by providing tree climbers to collect branch samples from trees treated with the pesticide imacloperid.

MT. GREYLOCK TREE NURSRY is in its sixth year of growing trees from seedlings received from the National Tree Trust. This year 55 sugar maples were dug and delivered to the USDA for research on the Asian Longhorned Beetle. In addition 16 trees were dug and delivered to various communities for planting as street trees.

EAGLE EYE INSTITUTE hosted groups from Youthbuild USA and the Worcester Ecotarium for a week of tree climbing instruction. Supv. Ken Gooch from the Forest Health Program, a US Forest Service certified tree climbing instructor provided instruction to these young people in hopes that they will enter the green industry as tree climbers.

# STATISTICAL SUMMARY OF ACTIVITIES

## District Supervisor

Training Workshops Attended	21
Training Workshops Conducted	19
Number of Attendees	455
Municipal Contacts	81
Grant Inspections	24
Landowner Assistance	260
Requests for Information Answered	158
Various Research Projects	20 Man days
Emergency Storm response	5 Man days
Memorial Tree Planting	2 Man days
Shade Tree Nursery	8 Man days
Shade Tree Inventories	7 Man days
Media Interviews	1

### Tree Crew Activities

Out of State Fire Control	14 Man Days
Poison Ivy Control	24 Man Days
Assistance to Other DEM Programs	14 Man Days
Assistance of Other State Agencies	10 Man Days
Assistance of Municipalities	2 Man Days
Assistance to Asian Longhorned Beetle Research	16 Man Days
Recreation Areas Assisted with Tree Work	66
Number of Trees Removed	1,572
Number of Trees Pruned	1,187
Number of Stumps Removed	54

## AERIAL SURVEY RESULTS

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Oak Skeletonizer	239 Acres
Fall Cankerworm	422 Acres
Gypsy Moth	47,949 Acres
Hemlock Woolly Adelgid	19 Acres
Red Pine Scale	151 Acres
Nantucket Pine Tip Moth	125 Acres
Armillaria Rot Disease	369 Acres
Beech Bark Diseasse/Nectria Complex	1,292 Acres
Diplodia Tip Blight	45 Acres
Fire (Human Caused)	2,735 Acres
Abiotic Damage	17 Acres
Drought	561 Acres
Frost	612 Acres
Wildfire	418 Acres
Wind	179 Acres
Land Clearing	165 Acres
Logging Damage	200 Acres
Five Needle Pine Decline	5 Acres