# BUREAU OF FORESTRY FOREST HEALTH PROGRAM ANNUAL REPORT, FISCAL YEAR 2004 CHARLES M. BURNHAM, PROGRAM SUPERVISOR

#### SUMMARY OF INSECT/ DISEASE ACTIVITY

As part of our cooperative agreement with the US Forest Service, an annual **Aerial Survey** was conducted to document forest stands suffering from various stresses. A complete list of stress factors identified during this survey can be found elsewhere in this report.

Winter Moth continues to cause major defoliation in coastal Massachusetts. Continued defoliation from this pest has resulted in an increased rate of tree mortality especially those growing along roadways.

Hemlock Woolly Adelgid was identified in 6 new communities this year. These communities are Hyannis, Eastham, Scituate, Orleans, Falmouth (Cutuit) and Norfolk. We continued to monitor the seedlings planted in Amherst in our effort to determine is certain trees would be resistant to infestations of this insect. We also continue our cooperation with the University of Vermont it their attempt to determine the cold hardiness of the Hemlock Woolly Adelgid. Finally we assisted the Connecticut Agricultural Experiment station by providing infested hemlock branches for their use as food in rearing the predatory lady bird Beetle *Pseudoscymnus tsugae*.

**GYPSY MOTH** populations remain high in southeastern section of the Commonwealth. The population appears to be increasing in Berkshire County with little NPV virus or the fungal pathogen *Entomophaga maimaiga* present.

FOREST TENT CATERPILLAR has caused noticeable defoliation in northwest Berkshire County. The population of this insect appears to be increasing.

ANTHRACNOSE once again was prevalent. Many species of trees are affected but the most common species are oak, maple and sycamore. This is a recurring problem when we have cold, wet springs.

# MISCELLANEOUS INSECT/DISEASES

Eastern Tent Caterpillar appearance is very limited in eastern Massachusetts. In Berkshire County this insect has caused entire stands of black cherry to be defoliated. .

Fall Webworm populations remain at a low level.

Red and White Pine decline has been noted in several locations. It is believed this is the result of several year of drought which have set the trees up for an invasion of bark beetles and various wood borers.

Dutch elm disease has caused an increase in mortality in the American elms of Berkshire County. A large number of European bark Beetles, the vector of this disease has been observed.

## SPECIAL PROJECTS

The hazard tree removal at Wompatuck State Park continued this past winter. Approximated 50 more trees were removed and stockpiled for sale as was done in the previous year.

We continued our efforts to improve the tree health at Pilgrim Memorial State Park. Safety pruning and fertilization continued, additionally a GIS map with hardscape data layers was developed to help in tracking the progress of this project.

Cooperative research continued with the University of Vermont, (cold hardiness studies) USDA APHIS Methods Development Center (provide branch samples for insect food for Asian Longhorned Beetle) and the University of Massachusetts (structural failure of street trees). We also assisted USDA APHIS in projects relating to the eradication of emerald ash borer and the Asian Longhorned beetle. This assistance involved providing tree climbers and aerial lift trucks to collect samples from insecticide treated trees and the dissection of trees to determine the extent of decay as the result of wounding caused by the insecticide injection.

We provided assistance in marking timber to the management forester in Region 4 during the winter. This assistance involved 32 man days of time.

Urban Forest Health Monitoring continued with the collection of data on a sub-set of the plots established at the onset of this program.

Sudden Oak Death is a new disease of concern. This disease has been detected in the State of California and because nursery stock has been shipped from there to several locations in Massachusetts we were requested to conduct surveys around the businesses that received this nursery stock. No signs or symptoms of this disease were detected.

We (Supervisor Ken Gooch, a USDA Forest Service certified tree climbing instructor) provide 5 days of tree climbing training to the National Park Service, Delaware Water Gap. The National Park Service will use their trained employees to evaluate and monitor hemlock woolly adelgid infestations and insecticide trials.

#### STATISTICAL SUMMARY OF ACTIVITIES

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Training Workshops Attended	20
Training Workshops Conducted	19
Number of Attendees	835
Municipal Contacts	63
Grant Inspections	26
Landowner Assistance	49
Requests for Information Answered	376

### Tree Crew Activities

Poison Ivy Control and Hemlock Woolly Adelgid	
Control	42 Man Days

Assistance to Other State Agencies

4 Man Days
Assistance to Other DEM Programs

20 Man Days

Recreation Areas Assisted with Tree Work

Number of Trees Removed

Number of Trees Pruned

Stumps Ground

20

43

1,162

1,687

## AERIAL SURVEY RESULTS

Pine Needleminer	11,650 Acres
Oak Leaf Skeletonizer	36 Acres
Browntail Moth	77 Acres
Gypsy Moth	34,760 Acres
Eastern Tent Caterpillar	121 Acres
Forest Tent Caterpillar	44,787 Acres
Winter Moth	34,125 Acres
Hemlock Woolly Adelgid	148 Acres
Red Pine Scale	21 Acres

Nantucket Pine Tip Moth	458 Acres
Armillaria Root Disease	117 Acres
Beech Bark/Nectria Canker	2,405 Acres
Ash Decline	6 Acres
Drought	391 Acres
Flooding	183 Acres
Unknown	24,166 Acres
Fire	90 Acres