# BUREAU OF FORESTRY FOREST HEALTH PROGRAM ANNUAL REPORT, FISCAL YEAR 2000 CHARLES M. BURNHAM, PROGRAM SUPERVISOR

### AERIAL SURVEY

Each year in early July trained personnel of the Forest Health Program conduct an aerial survey to document the various stresses caused by insects, diseases, environmental factors and humans. This survey is flown on a six mile grid pattern and all stress factors are documented on USGS 7.5 minute topographic maps. These maps are supplied to field personnel who visit each identified area to verify the cause of the stress. This year approximately 22 hours were required to complete this survey. A full list of the stresses identified can be found elsewhere in this report.

## INSECTS/DISEASES

Gypsy moth defoliated 43,805 acres mostly in the towns of Hingham, Norwell, Plymouth, Marshfield, Dennis, Brewster, Ashland, Hopkinton, Brimfield and a section of the Quabbin Reservoir. A more intense ground survey will be conducted once the foliage has fallen. The results of these intense surveys will be presented to the municipal officials in the involved communities for use in planning possible suppression program.

**Hemlock woolly Adelgid** continues to spread with infestations being confirmed in 20 (Great Barrington, Northbridge, Duxbury, Ware, Belchertown, Canton, Clinton, Melrose, Quincy, Granville, Holland, Greenfield, Grafton, Hadley, South Hadley, Petersham, Hopedale, Northboro, Rochester, and Mattapoisett) new communities. We continued our efforts to control this insect by the using natural enemies. This year 7,500 predatory lady bird beetles *Pseudoscymnus tsugae* were released on conservation land in the town of Manchester.

Red Pine Scale has been identified for the first time in the State. First detected during the annual aerial survey in Southampton, additional surveys have identified infestations in Granville, Westfield, Chicopee and Agawam.

Anthracnose was particularly noticeable throughout the range of American Sycamore. Also oaks, especially white oak experienced severe defoliation. The consistent rainfall and favorable temperatures experienced this spring are responsible for the increase of this pathogen.

**Cankerworm** population increased drastically in Weymouth and Hingham over previous years. Other areas experiencing defoliation include the northeast section of Plymouth County and southeastern portion of Norfolk County.

#### Miscellaneous

Eastern Tent Caterpillar populations appear to be stable throughout the State.

Fall Webworm populations appear to be declining.

Locust leafminer does not appear to be as severe as in past years.

Winter Injury on Eastern Hemlock was noted in various spotty locations throughout the state. It is believed that this is the result of frozen soils preventing the uptake of moisture during warm sunny winter days.

Maple Leaf Cutter infestations in sugar maple stands do not appear to be as severe as in past years.

Pear Thrips damage is not as wide spread or as severe as reported in previous years.

**Drought**, the symptoms of last summer's drought appear to becoming more visible as the growing season progresses.

Beech Scale/Nectria complex is causing increased mortality. This mortality could be more noticeable because of the past growing seasons lack of precipitation.

Pine Needleminer has been found to be causing light to moderate defoliation on the Pitch Pine throughout Cape Cod

#### STATISTICAL SUMMARY OF ACTIVITIES

# District Supervisor

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Training Workshops Attended	15
Training Workshops Conducted	16
Number of Attendees	960
Municipal Contacts	144
Grant Inspections	29
Landowner Assistance	83
Requests for Information Answered	282
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
Articles for Professional Newsletters	2

#### Tree Crew Activities

Asian Longhorned Beetle Research	22 Man Days
Hemlock Woolly Adelgid Research	5 Man Days
Poison Ivy Control	8 Man Days
Assistance to Other DEM Programs	34 Man Days
Recreation Areas Assisted with Tree Work	40
Number of Trees Removed	2,354
Number of Trees Pruned	992
Number of Stumps Removed	115

# PERSONNEL

District Supervisor Guy LaChance accepted a Service Forester position within the Service Forestry Program.

District Supervisor Russell Larson retired in March.

# SUMMARY OF AERIAL SURVEY

Human Caused Fire	109 Acres
Anthracnose	950 Acres
Drought	625 Acres
Fire (Unknown Cause)	237 Acres
Pear Thrips	42 Acres
Gypsy Moth	43,805 Acres
Hardwood Anthracnose	5,353 Acres
Browntail Moth	61 Acres
Hemlock Woolly Adelgid	261 Acres
Pine Needleminer	251 Acres
Unknown	241 Acres
Oak Leaf Blister	1,139 Acres
Flooding	12 Acres
Seed/Cone/Flower/Fruit Insects	162 Acres
Ash Decline	33 Acres
Cankerworm	26,265 Acres
Human Activity	109 Acres
Armillaria	5 Acres
Beech Bark/Nectria Complex	9 Acres
Balsam Woolly Adelgid	1 Acre
Red Pine Scale	58 Acres
Beaver	15 Acres
Lophodermum Needle Cast	1,525 Acres
Abiotic Damage	12 Acres
Winter Injury	38 Acres
Root/Butt Disease	13 Acres