BUREAU OF FORESTRY FOREST HEALTH PROGRAM ANNUAL REPORT, FISCAL YEAR 2007 CHARLES M. BURNHAM, PROGRAM SUPERVISOR

The annual **AERIAL SURVEY** was conducted as part of our cooperative agreement with the USDA Forest Service. A complete list of disturbances found during this survey can be found elsewhere in this report.

SUMMARY OF INSECT/ DISEASE ACTIVITY

WINTER MOTH continues to cause major areas of defoliation in both the north and south shore communities. Field observations indicate the infestation is moving away from the coastal communities as defoliation has been noted in Natick, Framingham, and Sherborn. The University of Massachusetts continued to release the predatory fly *Cyzenis albicans* in hopes of establishing a biological control for this defoliator.

HEMLOCK WOOLLY ADELGID appears to be building up after several mild winters. Infestations have been noted for the first time in Mt. Washington State Forest where some hemlock mortality was observed. Infestations were also confirmed in Chester State Forest at Sanderson Brook Falls and in Huntington at Gardner State Park. Working with the US Forest Service we have again received the predatory beetle *Laricobius nigrinus* which was released on Trustees of the Reservation property in the town of Sherborn.

FOREST TENT CATERPILLAR populations have reduced significantly however there are still some pockets of activity in Berkshire County. Several sugar producers are reporting tree mortality in their sugarbushes from repeated defoliation. The presence of an insect pathogen *Entomophaga* and predatory flies are most likely responsible for this population decline.

MISCELLANEOUS INSECTS/DISEASES

EASTERN TENT CATERPILLAR remains at a low level in the eastern part of the state.

GYPSY MOTH populations appear to have collapsed from the presence of the two diseases as well as several predators.

FALL WEBWORM appears to be building up in the Northeast corner of the state, most noticeable areas are along the New Hampshire border.

ELONGAATE HEMLOCK SCALE continues to cause decline in eastern hemlock stands in the Connecticut Valley and southern Berkshire County. This decline is more severe when the scale is accompanied by an infestation of hemlock woolly adelgid.

SYCAMORE ANTHRACNOSE continues to infect American sycamore; the damage was most noticeable this species of tree is growing in flood plains.

MAPLE WEBWORM was observed in the communities of Cummington, Plainfield, and Hawley. This is a late season defoliator and therefore caused little damage to the trees.

BEECH BARK/NECTRIA COMPLEX continues to spread and kill large a large number of American Beech in Berkshire County. Previous drought conditions have increased the effects of this complex by weakening susceptible trees.

SPECIAL PROJECTS

STORM DAMAGE: Severe weather in April and June caused major tree damage in Wendell State Forest, Harold Parker State Forest, Lowell/Dracut State Forest and in Bradley Palmer State Park. This cleanup required the removal of over 200 trees from roadways and trails to make these recreation areas safe for the public and required approximately 20 days to complete.

ASSISTANCE OF FEDERAL AGENCIES: We continue to work with the USDA APHIS installation on Cape Cod by providing weekly supplies of striped maple and other species as requested for their use as food for the various research colonies there.

SUDDEN OAK DEATH: We continue to survey for this pathogen around businesses that have received shipments of possibly infected plant material from California. Additionally a new system of survey called stream baiting as tried. This involved the placing of rhododendron leaves in containers suspended in streams near business that have received nursery stock from California. The leaves were changed every two weeks and samples were sent to a USDA lab for analysis.

EXOTIC BARK BEETLE surveys continue on 14 sites as part of the US Forest Service Early Detection program. No new species were located in Massachusetts this year.

SIREX WOODWASP surveys were intensified this season at the request of both the US Forest Service and the USDA APHIS. A total of 97 funnel traps were deployed in western Massachusetts. No suspect insects were found.

EMERALD ASH BORER surveys also continue by monitoring sites where ash trees have been planted recently. No signs of this insect were observed during these surveys. A new trap developed by the USDA was placed in 15 campgrounds throughout Berkshire County. No Emerald Ash Borer were captured in these traps. We again supplied personnel to USDA APHIS in Detroit to aid in the research of this insect.

NATIONAL PARK SERVICE ASSISTANCE Once again we provide tree climbing instruction and assistance to the Delaware Water Gap for their research in trying to slow the spread of hemlock woolly adelgid.

PERSONNEL

Alan Snow left the Forest Health Program to accept a similar position with the Urban Forestry Program

STATISTICAL SUMMARY OF ACTIVITIES

District Supervisor

Training Workshops Attended	4	
Training Workshops Conducted	13	
Number of Attendees	810	
Municipal Contacts	58	
Grant Inspections	1	
Landowner Assistance	48	
Requests for Information Answered	2914	

Tree Crew Activities

Assistance to Other State Agencies	1 Man Days
Assistance to Other DEM Programs	10 Man Days
Number of Trees Removed	1,686
Number of Trees Pruned	392

AERIAL SURVEY RESULTS

Fall Cankerworm	7,386 Acres
Oak Leaf Skeletonizer	173 Acres
Maple Trumpet Skeletonizer	12,745 Acres
Gypsy Moth	27,029 Acres
Forest Tent Caterpillar	21,841 Acres
Maple Leafcutter	178 Acres
Winter Moth	42,980 Acres
Hemlock Woolly Adelgid	123 Acres
Red Pine Scale	530 Acres
Armillaria Root Disease	940 Acres
Beech Bark / Nectria Canker	1,901 Acres
Anthracnose	5,707 Acres
Diplodia Blight	347 Acres
Drought	1,053 Acres
Flooding	376 Acres
Human Activity	1,002 Acres
Unknown	1,985 Acres

Year	DCA	Name	Damage	Acres
2007	12014	Fall Cankerworm	Discoloration	5725.600
2007		Fall Cankerworm	Mortality	1660.400
			Total	7386.000
2007	12029	Oak Skeletonizer	Discoloration	172.900
			Total	172.900
2007	12065	Maple Trumpet Skeletoniz	Defoliation	12744.600
			Total	12744.600
	4000			
2007		Gypsy Moth	Defoliation	25360.5
2007		Gypsy Moth	Discoloration	52.5
2007	12009	Gypsy Moth	Mortality	1616.1
			Total	27029.1
2007	12006	Forest Tent	Defoliation	21688.8
2007		Forest Tent	Discoloration	152.2
2-001	12000		Total	21841
2007	12127	Mapple Leafcutter	Defoliation	178
			Total	178
2007	12197	Winter Moth	Defoliation	37805.8
2007	12197	Winter Moth	Discoloration	150
2007	12197	Winter Moth	Mortality	5024.3
			Total	42980.1
2007	14004	Hemlock Woolly Adelgid	Defoliation	123.4
			Total	123.4
2007	11022	Red Pine Scale		400
2007	14000	Red Fille Scale	Defoliation	516.7
			Mortality Total	516.7 529.6
			i Otai	323.0
2007	21001	Armillaria Root Disease	Mortality	939.8
			Total	939.8
2007	22042	Beech Bark Disease	Defoliation	1520.1
2007	22042	Beech Bark Disease	Mortality	380.7
			Total	1900.8
2007	25025	Anthracnose	Defoliation	5706.5
			Total	5706.5
2007	ク にの	Diplodia Blight		~ ~ ~
2007		Diplodia Blight Diplodia Blight	Defoliation	31.5
2001	2000	Pipiua Diigiil	Mortality Total	315.9
	•		ı v laı	341.4
2007	3000	Drought	Defoliation	1050.3
			Total	1050.3
2007	50004	Flooding/High Water	Defoliation	156.6
2007		Flooding/High Water	Mortality	201.3
			Total	375.9
2007	70000	Human Activities	Total	1001.8
2007	90000	Unknown	Total	1985.3

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