MAJOR INSECT PROBLEMS - 1971

HEMLOCK LOOPER, - Lambdina athasaria athasaria

There are two species of hemlock looper. The above is the less common. The damage is the same. The difference is in the life history. The above overwinters as pupa rather than egg.

The first noticeable defoliation was in the Watuppa Pond area of the Fall River watershed in 1970. The suggestion was made to the manager of the area that those trees severely defoliated be immediately salvaged. Most hemlock cannot stand even one complete defoliation without dying.

The recommendation was made to apply an ultra low volume application of Malathion in 1971. Permission was received from the Pesticide Board and the Water Division of Public Health. The application to 1200 acres was successful.

Damage by the same insect was noted in the Cedar Swamp area of Lakeville and Freetown. The area was examined by the District Supervisor and Forester. Recommendation was made to owners and others concerned that salvage operations should be undertaken. It is the investigators belief that the loss of hemlock will not seriously hurt the total forested area.

PINE LOOPER - Lambdina athasaria pellucidaria

A periodical pest of Southeastern Massachusetts particularly the Cape. The present outbreak was first noted in the Wellfleet - Eastham area in 1970. One of the problems is that by the time the feeding is noticeable it is too late to do anything about the current damage. Recommendation was made to those concerned, including the Department of Public Works, that spraying with Sevin would alleviate the situation in 1971. Public Works sprayed twelve miles of Route #6 in Eastham and Wellfleet.

In 1971 little further damage was sustained in the Wellfleet-Eastham area. Typically the infestation was knocked down by a virus disease. In June large numbers of moths were noted flying in Plymouth. As was predicted, severe defoliation followed. Much of the resulting 10,000 acres was in the Myles Standish State Forest. The recommendation is that anyone extremely concerned should plan to spray with Sevin in August of 1972. Although it is easy to be wrong in trying to out guess an insect it is felt that the outbreak in the Plymouth area will collapse in 1972.

SADDLED PROMINENT - Heterocampa guttivitta

Another of the native forest insects that periodically goes on a rampage. The current outbreak has been going on since 1967. In that year 5,500 acres were lightly defoliated. In 1968 it severely defoliated 32,000 acres. In 1969 defoliation was noted on 92,000 acres. In 1970 this increased to 105,000 acres. Last year 1971, saw the beginning of the collapse of the outbreak as the infested area dropped to about 24,000 acres. Except for pockets, 1972 should see much less.

The most notable damage to date has been the death of understory and suppressed sugar maple and some birch and beech which has been under stress from other causes. The total impact can not be assessed until the foresters have had a chance to survey the areas in question.

That group most concerned by the outbreak is the maple sugar producers. It has been estimated by some that a forty percent loss in sap production follows a severe defoliation of a sugar orchard. It has been recommended that a producer who is concerned have his trees sprayed with Sevin. The major problem has been our inability to predict what will happen next year.

GYPSY MOTH - Porthetria dispar

The most notable thing about this insect in the past two or three years is the national coverage it has been receiving due to the extension of its boundaries in the United States. Here in Massachusetts, except for its presence in areas where it is most noticeable such as Nickerson State Park, it is presently not too great a problem.

We have been fortunate in entering a formal, cooperative research study on certain phases of the gypsy moth with the U.S. Forest Service. The study is to cover two important lines. One is to collect data which can be put in a computer to eventually make gypsy moth predictions more accurate. The other is to study the efficacy of Bacillus thuringiensis as applied by aircraft. It has been fairly well determined that this bacteria applied to foliage by ground equipment will control gypsy moth. The mechanical problems of getting the material down on the foliage from the air have yet to be ironed out.

In 1971 approximately 19,000 acres were defoliated by this insect. One would logically expect this acreage to increase four fold in, 1972. I am not sure that this will happen. Some of the areas appear to be on the verge of collapse. As a matter of fact we are having a difficult time finding suitable areas for the research work.