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- 1. SOUTHERN PINE BEETLE AGAIN ON RAMPAGE IN EAST TEXAS, with 252 spot infestations detected this year.
- 2. BLACK TURPENTINE BEETLE HITS PINE STANDS IN TEXAS, requiring chemical control.
- 3. FOREST TENT CATERPILLAR DEFOLIATES 1½ MILLION ACRES IN LOUISIANA, while partially defoliating another million acres.
- 4. FOREST TENT CATERPILLAR ALSO SERIOUS IN BOTTOM LANDS OF THE MOBILE RIVER BASIN, with hardwoods on 200,000 acres now stripped, and scattered defoliation on an additional 445,000 acres.

Southern Pine Beetle

The southern pine beetle, <u>Dendroctonus frontalis</u>, is again in outbreak status in southeast Texas. Populations equaled those of last year at the same time.

Ground inspections during the winter and spring, and reconnaissance flights by the Texas Forest Service and industry revealed a gradual increase in the number of new infestations during April. In May populations exploded; some untreated spots more than doubled in size within a week.

Renewed beetle activity was first discovered during December, between Saratoga and Votaw, adjacent to Texas Highway 787. A utility company had heavily pruned pines of pulpwood and sawtimber size three months before. The workers used climbing spikes, and left the pruned branches at the base of the trees. Pruning and spike scars apparently attracted the beetles. Most of the larger pines became infested; brood development suggested that initial attacks were made about mid-November. Landowners and the utility company immediately undertook a salvage program.

In February, only single trees and small groups of trees were infested. Many of these crowns were still green, and so could not be spotted from the air. Landowners were advised to ground-check their stands, particularly in known trouble areas, and to quickly suppress infestations. However, rains and poor roads made much of the area inaccessible.

In mid-April, when foliage of infested trees began to fade and redden, reconnaissance flights were resumed. Twelve spot-kills were found, 10 in Hardin County and 2 in Liberty County. Follow-up ground inspections showed high beetle survival, and little evidence of natural controls. Many broods were in advanced stages of development; some had matured and started to spread into green timber. Controls were again delayed by wet ground.

Flights on May 9 and 23 revealed 62 and 114 new infestations, respectively. Although much of the area had become dry by this time, and control crews were active, beetle populations continued to expand rapidly.

From January 1 to May 23, 252 infestations were located. Ninety-two of these had been suppressed or were being worked on, but control was lacking on 160.

Southern pine beetle activity is near normal in the rest of the Midsouth. As a precaution, however, the U.S. Forest Service will make aerial detection surveys in June and July over stands adjacent to the Texas outbreak area and over former epidemic areas in Louisiana, Mississippi, and Alabama. Foresters and landowners in these States are particularly urged to report unusual bark beetle activity to the Southern Forest Experiment Station or the Regional Forester, U.S. Forest Service, Atlanta, Georgia.

Black Turpentine Beetle

The black turpentine beetle, <u>Dendroctonus</u> terebrans, recently killed residual pines in logging areas in Houston, Montgomery, Sabine, Shelby, and Walker Counties, Texas. Controls are being applied.

In other southern States beetles are attacking mainly fresh-cut stumps, but are beginning to include adjacent standing trees. The situation is likely to worsen, especially on low, wet sites where logging equipment has damaged roots or skinned trunks of the remaining trees.

Ips Bark Beetles

Ips beetle activity has been about normal this year. Most attacks are localized in scattered lightning-struck trees, small groups of trees in overdense stands, and in timber damaged by wildfire and tornadoes.

Pine Sawflies

The red-headed pine sawfly, <u>Neodiprion lecontei</u>, has caused light, scattered defoliation in young pine plantations in various parts of the South.

Light populations of N. excitans are still present in loblolly stands in southeast Texas, but will probably not be serious this year. They were damaging in 1958 and 1959.

A sawfly of an undetermined species severely defoliated slash pine plantations in southern Mississippi last fall, but have not appeared yet this year. Plantations are being watched for a recurrence of the insect during the summer or fall.

A pine sawfly which defoliated shortleaf pine stands in Arkansas in 1958 (Southern Forest Pest Reporter No. 22, June 25, 1958) has been identified as N. warreni Ross. There have been no recent reports of damage by this species, nor by N. taedae linearis, a spring defoliator of loblolly pine in northern Louisiana and southern Arkansas.

Miscellaneous Pine Insects

Larval feeding by a moth, Dioryctria amatella, has been a cause for concern in an experimental planting of loblolly pine in northern Louisiana. The trees, which occupy 22 acres in a fertilizer study, were beginning their second growing season when injury first became apparent last year. Damage was largely from mining in the cambium of the bole, with some in scattered terminal shoots. Bole damage was generally restricted to the lower three feet of the stem, primarily around the first whorl of branches, but some trees were girdled and died. Activity was noted again this January and has been accelerating since. Chemical control is being attempted.

A pine needle miner has been a persistent pest of longleaf pine in central Louisiana for many years. There is apparently but one generation annually. Larvae cause conspicuous browning by mining needles in April and early May as they approach full size. This year, damage was particularly noticeable in merchantable timber from Oberlin eastward to Alexandria.

Forest Tent Caterpillar

In late April and early May, flights over bottom lands in southern Louisiana and in the Mobile River Basin, Alabama, assessed hardwood defoliation by the forest tent caterpillar, Malacosoma disstria.

In Louisiana: Three areas of complete defoliation totaled roughly 1-1/2 million acres. One, east of Alexandria and outside the area surveyed last year, covered at least 300,000 acres. It extended north and east of Marksville from Saline Lake across the Mississippi River.

The other two areas were severely defoliated last year and included: (1) Much of the Atchafalaya Basin south of Highway 190 in Iberville, St. Martin, St. James, and Assumption Parishes west and south of the Mississippi River. Here, last year's estimated 250,000 acres increased to almost 1,000,000. The additional acreage extends southwest of New Orleans almost to Houma and westward to Morgan City, New Iberia, and north nearly to Highway 190. (2) Parts of St. John, St. James, Ascension, and Livingston Parishes west of New Orleans and Lake Pontchartrain and north of the River (some 250,000 acres) are involved—about the same as last year.

The three areas are swampy, and the stands contain high proportions of water tupelo, blackgum, sweetgum, and willow.

In addition to the three areas of complete defoliation, an estimated 1,000,000 acres showed light to moderate defoliation though with some spots of heavy defoliation. This acreage of partial defoliation was in bottom lands surrounding areas of severe defoliation and in the Calcasieu, Sabine, and smaller river drainages where hardwoods other than gums make up a major part of the stands. In addition, light or medium defoliation was observed along the east side of the Sabine from Highway 90 to Beauregard Parish, where it gradually diminished northward to Merryville. Scattered infestations occurred near Monroe, and eastward to the Mississippi River and north to Arkansas. Soft maple, sycamore, hickory, cypress, and cottonwood in these areas were not noticeably affected, nor were continuous stands of willow in swamps toward the Gulf.

In Alabama: Along the Alabama River from Camden south to Gainestown, small groups of sweetgum and tupelo were almost completely stripped. This type of activity extended one to two miles on each side of the River and included an estimated 225,000 acres.

From Chrysler south to Fort Mims and from the Alabama River east to the Tombigbee bottom lands--a region of about 120,000 acres--feeding was spotty yet severe in localized areas of several hundred acres.

The most widespread area of complete defoliation, approximately 125,000 acres, extended from Fort Mims to Mifkin Lake and between Highways 59 and 43. Below this epidemic area feeding moderated and, finally, became negligible near Mobile.

Along the Tombigbee northward, defoliation was heavy and scattered near Carlton, gradually moderating to become negligible at Coffeeville. A narrow strip of about 100,000 acres was infested in this manner.

The Louisiana survey showed that areas of complete defoliation had increased over last year by about 1,000,000 acres; in Alabama the increase was about 144,000 acres. Although natural agencies may control the current epidemic in the two States, defoliation will probably be severe again in 1962.

The forest tent caterpillar has been suppressed in Alabama by experimental aerial application of DDT at 1/2 pound or less per acre. Large-scale spraying may be attempted next spring.

Area-wide control measures cannot be recommended at this time for Louisiana because there is not enough information on the effects of insecticides on aquatic life in the ponds and bayous.

Other Hardwood Defoliators

The fall webworm, Hyphantria cunea, is a common pest of pecan, hickory, and other hardwoods throughout the South. Larvae spin their silken tents from spring to fall, and often defoliate all trees in localized areas. Usually, natural enemies--insect parasites, predators, and disease organisms--suppress outbreaks before they can seriously affect many trees.

In late May, large numbers of the snowy-white moths of the webworm were plentiful in and around New Orleans, Louisiana. The fuzzy caterpillars will probably be plentiful this summer and become a nuisance by stripping trees and crawling about buildings and grounds in residential areas. Control can be had by spraying the foliage with DDT when the caterpillars are small.

Larvae of the buck moth, Hemileuca maia, were unusually wide-spread, feeding on oaks throughout Louisiana in April and May. The stout, 2-1/2 inch caterpillars are brownish-black with a yellow stripe along each side of the body. Each segment is armed with large branching spines which are venomous and highly irritating to human skin. The insects partially defoliated scattered oaks in forests, and were prevalent on shadetrees around Baton Rouge and Lafitte.

