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#### SUMMARY OF CONDITIONS

Southern pine beetle activity continues in Texas, Alabama and Mississippi, but generally at a lower level than at this time last year. Similar conditions have been reported in North Carolina and within the National Forest in north Georgia and South Carolina. The Georgia Forestry Commission reported that the southern pine beetle had been reduced to endemic levels in 34 counties and that the control program will be completed by the last of June. Severe weather conditions last winter contributed to beetle mortality in north Georgia, South Carolina and portions of North Carolina. Some increase in the number of parasites and predators has also been observed. Detection and evaluation surveys now in progress will be completed in early July and will provide valuable information on the trend of the 1963 southern pine beetle population in the Region. In the meantime, landowners are urged to make periodic checks and clean up infestations on their land to avoid future buildup.

Ips beetles continue to threaten pine forests in the naval stores belt of Florida, south Georgia and portions of Texas and Louisiana. Black turpentine beetle infestations have increased in Texas, Louisiana and Arkansas. Existing drought conditions in south Georgia and Florida favor increased activity of the insect in the two states. Pales weevils have caused heavy mortality in several thousand acres of pine plantations ranging from one to three or four years in age. The forest tent caterpillar has again defoliated several thousand acres of bottomland hardwood in Louisiana and Texas. Spanworm defoliation was below the predicted level this spring in north Georgia and southwestern North Carolina.

Forest tree diseases continue to pose management problems throughout the Region. Fomes annosus and Cronartium fusiforme have received the most emphasis.

#### STATUS OF FOREST INSECTS

## SOUTHERN PINE BEETLE, Dendroctonus frontalis Zimm.

ALABAMA Southern pine beetle activity in Alabama continues to be centered in the eastern part of the state. Beetle activity appears to be at a relatively low level at the present time.

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In March of this year, an aerial survey was made in eastern Alabama along the Georgia line. Active southern pine beetle infestations were found in only two of the spots ground checked. No new infestations were located on a recent aerial detection flight on the Talladega National Forest.

GEORGIA The Georgia Forestry Commission reported in mid-June that southern pine beetle control activities had been completed in 34 counties, with some work continuing in Hall. They expect to have the control program completed by the end of June. Over 800,000 infested trees have been removed and treated by Georgia State Forestry Commission crews since March, 1962. These trees contained 5,546,000 board feet of sawtimber and 14,634 cords of pulpwood. Control operations were conducted on the property of 6,236 landowners. The average cost of direct control that involved removal and treating the trees was \$1.25 per tree.

> An additional large amount of infested timber not included in the above was removed by industry through commercial sales and salvage operations.

State-wide aerial operation recorder type surveys are scheduled for the summer and will be continued on an annual basis. All state forestry personnel are on the alert for evidence of reoccurrence of southern pine beetle outbreaks.

During the winter, a majority of overwintering southern pine beetle spots on the Chattooga and Tallulah Districts of the Chattahoochee National Forest were treated. Operational flights this spring have shown that new activity has not yet become visible, although emergence from some of the

## SOUTHERN PINE BEETLE (Cont'd)

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overwintering trees has taken place. Presently infested trees should begin to show fading by mid-June. To date, an estimated 70,000 infested trees have been treated on the two districts.

MISSISSIPPI Twenty-seven single-tree spots were located on the Homochitto National Forest during an aerial survey in April. Active southern pine beetle infestations were found in 4 trees on the Homochitto District. Broods were not vigorous and were confined to lightning-struck trees and trees infested with other bark beetles.

NORTH Organized control efforts by the North Carolina Division CAROLINA of Forestry have continued against the southern pine beetle in the upper Piedmont. The control program has emphasized the cutting and removal of infested trees through commercial sales and salvage accompanied by direct chemical control as needed. In a coordinated effort with industry and landowners, nearly a quarter million trees had been cut through May. The combined control costs in coordinating the removal of infested trees by salvage operations and in the application of chemical treatment where necessary have been low, favored by large number of trees removed by salvage.

> Control work has been completed in some counties and in all other counties excellent progress has been made. A few brood trees are being found in Davidson, Forsyth, Randolph, Union, Mecklenburg, Gaston, Cleveland, Rutherford and Guilford Counties. Surveys indicate that control efforts in salvage accompanied by chemical control, together with the winter mortality has effectively reduced beetle populations. The season of the year when buildup occurs is in the immediate future and the potential of the low level remaining beetle population will not be known until later.

SOUTHThe South Carolina National Forests reported that operationalCAROLINAaerial surveys for southern pine beetle were continued during<br/>the months of May and June. Approximately 55,000 infested<br/>trees have been treated during the current year. Surveys on

#### SOUTHERN PINE BEETLE (Cont'd)

May 31 revealed that there remained 112 spots to be treated with an additional 200 spots still to be evaluated in the South Carolina National Forests. Spot infestations, however, did not appear to involve large numbers of trees. Observations generally indicated that beetle populations were at low levels. However, a potential for an uptrend still is in evidence.

TEXAS Southern pine beetle activity continues in east Texas, but at a lower level than at this time last year. There are many single-tree infestations scattered over last year's epidemic area, with average spots consisting of somewhat less than 20 trees. Slightly more than one-half of trees groundchecked contained southern pine beetle broods. Heavy infestations in green trees were reported in some areas.

> An aerial survey of the Texas National Forests was made in April of this year. Active southern pine beetle infestations were found only on the Big Thicket District of the Sam Houston National Forest. These infestations were mostly confined to single, lightning-struck trees. Few trees are presently infested, but broods are vigorous and numerous. These brood trees could cause an uptrend in beetle populations.

## BLACK TURPENTINE BEETLE, Dendroctonus terebrans (Oliv.)

- GEORGIA & Black turpentine beetle attacks in logging areas of north and FLORIDA Black turpentine beetle attacks in logging areas of north and central Georgia are spotty with beetle populations generally at a low level. In the naval stores areas of Georgia and north Florida, the population increases that occurred last summer and fall have become less apparent because of adequate winter rains.
- LOUISIANA Black turpentine beetle activity continues on the Kisatchie National Forest. Control efforts have prevented the loss of high value residual trees in logging areas.
- MISSISSIPPI An increase in black turpentine beetle infestations has been reported from the Biloxi Ranger District, Mississippi National Forests, following logging operations and in naval stores areas.

# BLACK TURPENTINE BEETLE (Cont'd)

TEXAS Black turpentine beetle infestations have increased due to logging, lightning and pipeline constructions in east Texas. Scattered mortality has been reported. Control action is being taken on the Texas National Forests.

# IPS ENGRAVER BEETLES

- ARKANSAS <u>Ips avulsus</u> (Eichh.) are attacking the tops of residual trees following logging on the Piney Ranger District, Ozark National Forest. <u>Ips</u> beetles were found attacking trees weakened and killed by <u>Fomes annosus</u> at Lake Wedington on the Boston Mountain Ranger District, Ozark National Forest in Washington County.
- GEORGIA In Georgia, <u>Ips</u> beetle activity is scattered and localized. Significant tree mortality is occurring on the Oconee National Forest as a result of the combined efforts of <u>I</u>. <u>avulsus</u> and <u>D</u>. <u>frontalis</u>. Elsewhere in the state, activity is restricted to small spots initiated by lightning strikes.
- TEXAS Increased Ips beetle activity has been reported on the Big Thicket District, Sam Houston National Forest. An unusually dry spring is probably responsible for this increase. Outbreaks of <u>Ips</u> beetle populations in other areas are currently being surveyed and evaluated.

### PINE WEEVILS

NORTH & Pales weevils, <u>Hylobius pales</u> (Hbst.) have been responsible
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that have been established for 3 or 4 years in the coastal
areas of North Carolina. One slash pine plantation area on
the Croatan National Forest was heavily damaged by this
weevil. The Riegel Paper Corporation reports serious
losses on several thousand acres of loblolly pine plantations
near Bolton, North Carolina.

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## PINE WEEVILS (Cont'd)

On the Francis Marion National Forest and adjacent private lands in South Carolina, <u>Pissodes nemorensis</u> have killed the terminals on one area of pine.

PINE SAWFLIES, Neodiprion spp.

- ARKANSAS Light defoliation by the loblolly pine sawfly, <u>Neodiprion taedae</u> <u>linearis</u> (Ross), was observed between El Forado and Fordyce. Heavy defoliation is reported in and around Hampton.
- FLORIDA A 4,000 acre infestation of N. excitans in the Gainesville, Florida area has been kept under close surveillance. Scattered colonies fed throughout the winter months, but caused no appreciable damage. Surveillance to detect and evaluate a possible fall buildup will be continued.

Scattered colonies of the red-headed pine sawfly, <u>N. lecontei</u> (Fitch), have been reported throughout the state. There is no immediate indication of a severe buildup.

BALSAM WOOLLY APHID, Chermes piceae (Ratz)

NORTH As of May 31, the balsam woolly aphid has been found in four CAROLINA new spots on Roan Mountain and is known to infest about 1,000 trees. A new infestation was also found in a nursery about four miles south of Pineola, North Carolina. Three trees in the nursery had been killed and the fourth had yellow foliage. A very high population of living aphids was found on this tree and the remains of aphids were found on the dead trees. A survey to determine the extent and severity of the aphid infestation on all fraser fir type is currently underway.

ELM SPANWORM, Ennomos subsignarius (Hbn.)

GEORGIA A total of 1,800 acres on National Forest recreation and selected State Parks areas was effectively sprayed by helicopter for

## ELM SPANWORM (Cont'd)

the control of elm spanworm in May. There was evidence last fall that the infestation in north Georgia was beginning to break up.

NORTH Populations of elm spanworm larvae and the extent of their CAROLINA feeding was on a reduced basis this year. Relatively few of such favored hosts as hickory and black walnut have more than light to moderate defoliation. A large number of egg parasites have emerged from collected egg masses. This egg parasite is believed to be <u>Telenomus alsophilae</u> which is the same species that emerged in smaller numbers from elm spanworm egg masses in 1961. The impact of this parasite on elm spanworm populations is being evaluated. It appears that this egg parasite may be a critical factor in reducing elm spanworm populations to an endemic level.

> In western North Carolina, 8,650 acres of high value recreational and research areas infested with elm spanworm were sprayed by helicopter. A formulation of one-half pound of DDT in one gallon of fuel oil per acre was used.

#### FOREST TENT CATERPILLAR, Malacosoma disstria (Hbn.)

- ALABAMA An aerial survey of the Mobile River bottomlands north of Mobile was made in May. Defoliation by the forest tent caterpillar was observed again this year, but it appears to be generally light.
- LOUISIANA A forest tent caterpillar aerial survey was made in south Louisiana in May. The heaviest defoliation was found south of Baton Rouge and west of New Orleans. Defoliation appears to be heavier this year than last. Scattered light defoliation was observed north of Baton Rouge. The tent caterpillar was reported defoliating tupelo in Rapides and Evangeline Parishes.

## FALL WEBWORM, Hyphantria cunea (Drury)

TEXAS & The fall webworm has been observed feeding on willow and LOUISIANA sweetgum in east Texas and west Louisiana. Distribution was general and more prevalent than usual.

## STATUS OF FOREST DISEASES

# FOMES ANNOSUS ROOT ROT, Fomes annosus (Fr.) Cke.

REGION - Fomes annosus continues to be one of the principle diseases WIDE in the Region with frequent new infection centers being reported. Recent infections have been reported in Washington County, Arkansas; and Red River, Bienville and Washington Parishes, Louisiana.

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#### BROWN SPOT NEEDLE BLIGHT, Scirrhia acicola (Dearn.) Siggers

REGION- Brown spot needle blight remains the most important disease WIDE of longleaf pine reproduction. Brown spot can be observed over the entire Region wherever longleaf pine reproduction is found.

NEEDLE CAST, Hypoderma spp.

REGION - Needle cast diseases are considered as minor but are wide-WIDE spread throughout the Region. Severe infections have been observed in eastern Texas and western Louisiana.

## NEEDLE BLIGHT, Pestalotia spp.

LOUISIANA A needle blight caused by an extremely heavy infection of a <u>Pestalotia</u> spp. has been noted on loblolly pine near Glenmora, Louisiana. This fungus occurs over large areas on pine needles, but usually does not cause as much needle blight as on the area noted.

#### MISCELLANEOUS INSECTS AND DISEASES

The willow sawfly, <u>Nematus ventralis</u> Say., and the cottonwood leaf beetle, <u>Chrysomela scripta</u> F., have been found defoliating willow in Rapides Parish, Louisiana.

# MISCELLANEOUS INSECT AND DISEASES (Cont'd)

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A heavy infestation of the Nantucket pine tip moth, <u>Rhyacionia frustrana</u> (Comst.), was observed in a plantation near Glenmora, Louisiana.

A gall weevil, tentatively identified as <u>Podapion gallicola</u> Riley, is very numerous on pines in north Louisiana and south Arkansas. It is causing concern to foresters because of attacks on superior trees.

The pine needle miner, <u>Exoteleia</u> spp. has been observed throughout the longleaf pine area in west Louisiana and east Texas. Open-growth trees are the most heavily attacked.

Several areas of shorleaf pine in Roane County, Tennessee show defoliation and needle cast accompaned by mortality. Indications are that the condition is the result of air pollutants. Further observations will be made during the summer.

A decline of live oak was reported in south central Texas in 1933. Since that time the disease has spread throughout the live oak areas of Texas and is currently bordering Louisiana. The symptoms are manifest by a slow decline first evidenced by a general thinning of the leaves and die back of isolated branches. This condition progresses until defoliation is complete and death is imminent. Dark streaks are often observed in severely affected limbs and are generally a prelude to necrosis. Preliminary investigations indicate the condition is pathological and most likely a virus disease. (Report submitted by Dr. R. S. Halliwell, College Station, Texas)



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