

PINE BARK BEETLES

Since arriving in Thomas County in November, I have received many calls about pine bark beetles. The southern pine beetle actually causes more damage to southern forests than any other pest. In this article, I'm going to discuss what types of beetles attack trees, what the damage looks like, and what landowners can do.

Pine trees in the eastern United States are attacked by different species of bark beetles. Three of these are native in our southern pines: The Southern pine beetle, Ips engraver beetle, and Black turpentine beetle.

Bark beetles mostly attack stressed and damaged trees, but the southern pine beetle can attack healthy trees under the right conditions. Southern pine beetles attack the upper portion of the trunk area whereas the black turpentine beetles attack the lower. Ips beetles will attack any portion of the tree.

The southern pine beetle and Ips beetle carry a blue stain fungus on their body which clog conductive tissue and kills the tree. If either of these two beetles attack, the tree is doomed. Black turpentine beetles do not carry the blue stain fungus and can be controlled with insecticides.

There are a few symptoms used to identify the presence bark beetles. The tree crowns fade from green to yellow to red. Then, pitch tubes form on the trunks, and galleries form underneath the bark.

When beetles attack, the tree responds by bleeding pitch from the attack holes. Beetles then make holes in the center of the pitch mass, called pitch tubes. Also referred to as gumming, their shape resembles the looks of chewing gum. Pitch tubes maybe white to red in color and number in the hundreds. The largest pitch tubes are from black turpentine beetles and can be 1 inch or more in diameter.

Another characteristic in bark beetle attacks are galleries beneath the bark. The southern pine beetle galleries are in an 'S' shape with boring dust inside. The Ips beetle creates galleries in the shape of a 'Y' or 'H' that are free from dust. According to Johnson and Lyon, once the southern pine beetles overcome the trees defenses, the female is capable of laying 160 eggs in her lifetime (64). The lifecycle can be as little as 26 days and have three to nine generations a year.

Once the attack is over, secondary beetles move in. Some are predators of the attack beetles and are responding to pheromones (chemical signals) produced by the primary beetles. Occasionally, I hear people talk about standing next to a dead tree and listening to the beetles chew. These are the larvae of the secondary beetles finishing off the tree once it has been attacked.

In a forestry location, treatment is not very practical because of tree numbers. In a residential situation, it is advised to have the attacked or dead trees removed and burned or taken away. Once this is done, treatment of other trees is recommended. Treatments, however, can be costly because it must be performed by a licensed, usually commercial applicator. Ideally, the entire tree needs to be treated even though this is difficult to achieve. Nonetheless, have as much of the trees as possible sprayed.

Information from this article was taken from "Insects That Feed On Trees And Shrubs" 2nd edition by Warren Johnson and Howard Lyon. Additional information can be found in the publication, "Pine Bark Beetles In Georgia: Identification, Prevention, and Control " (<http://www.barkbeetles.org/PineBarkBeetle.pdf>). For additional questions, call Thomas County Extension Office at 225-4130.