



2020 Georgia Southern Pine Beetle Prediction Survey Update

Forest Health Staff

The Georgia Forestry Commission (GFC) participates annually in the southern pine beetle (SPB) prediction trapping program. The southern pine beetle is the most destructive forest pest in the southeastern states. Survey results are documented in an annual report so that activity and damage levels can be anticipated and mitigated.

The Georgia Forestry Commission follows the SPB Prediction Trapping protocol set up by Texas A&M. A 12-funnel Lindgren trap is baited with a three lure system: Frontalin, Sirex and the endobrevicomin flexure (Figure 1). Traps are placed in the field to coincide with redbud bloom (around the first of March in the southern part of the state and mid-March in the northern part of the state). The Georgia Forestry Commission placed 47 traps across the state in 40 counties and six weekly samples were collected from each trap. The number of SPB and clerid beetles (a natural predator of SPB) were counted each week. For 2020, the average number of SPB per trap per day was 3.7 (see map below). This number is considered very low. Four counties, Clay, Haralson, Randolph and Oglethorpe, had SPB per trap per day counts higher than 10 but less than 20. These counties are in the low range for SPB per trap per day. Quitman County had the highest overall SPB per trap per day at 45.5, placing it in the medium category. The remaining 42 traps had an average of fewer than 10 SPB per trap per day.

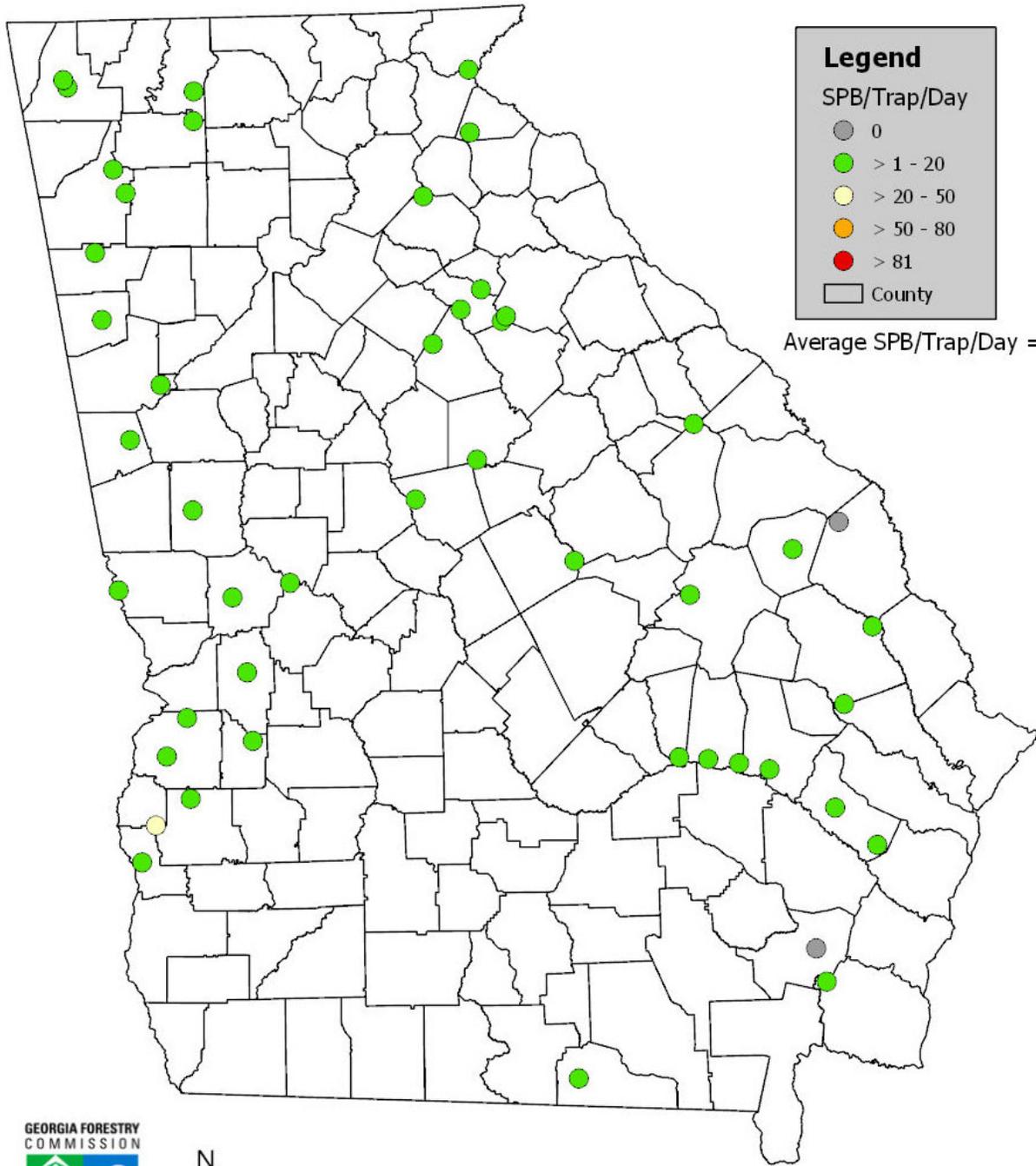


Figure 1: Lindgren funnel trap used to monitor southern pine beetle populations.

In 2018, the USDA Forest Service (USFS) and all southeastern state cooperators collaborated with Dartmouth College and Bates College, through the Science and Technology Development Program, (STDP) to develop a new prediction model. They found the two greatest factors in predicting the probability of the area having SPB spots are the number of SPB collected per two-week period in the current year, and the number of SPB spots in that county last year. This year is the second year GFC is using this model. While we wait for these results from the Science and Technology Development Program later in the summer, the GFC Forest Health program predicts with the low number from trapping this year, the probability of SPB outbreaks across the state should remain low.

These prediction models help guide landowners in management decisions. They do not guarantee that outbreaks will or will not occur on their property. The best advice is for landowners to manage for healthy forests with techniques such as thinning, prescribed burning and invasive species control. In the past decade, SPB outbreaks have been limited to infestations in stands that are either over-stocked or over-mature. Southern pine beetle favors pine stands that are over-crowded and stressed.

Southern Pine Beetle Trap Locations 2020



0 10 20 40 60 80 Miles

Map created by: lwomack
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