FOREST HEALTH
PROGRAM
GEORGIA FORESTRY
COMMISSION

2025 Georgia Southern Pine Beetle Prediction Survey Report

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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 endo-brevicomin, flexlure (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 50 traps across the state in 50 counties and six weekly samples were collected from each trap (Figure 2). The number of SPB and clerid beetles (a natural predator of SPB) were counted each week. For 2025, the average number of SPB per-trap per-day was **33.5** (Figure 3). This number is considered in the moderate range. Eight counties, Carroll, Dawson, Greene, Heard, Morgan, Paulding, Pike, and Polk, had SPB per-trap per-day counts greater than 81. These counties are in the high range for SPB per-trap per day. Four counties, Clarke, Meriwether, Oconee and Oglethorpe had SPB per-trap per-day counts greater than 50 but fewer than 80. Nine counties, Coweta, Floyd, Gordon, Hart, Monroe, Rabun, Stephens, Twiggs and Wilkes had SPB per-trap per-day counts greater than 20 but fewer than 50. All these counties are in the moderate range for SPB per-trap per-day. Carroll, Dawson, Paulding and Polk Counties had the highest overall SPB per-trap per-day catches ranging between **144.7- 177.6**, placing them in the high category. The remaining 29 traps had an average of fewer than 20 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 the previous year. This year is the seventh year GFC is using this model. The results from the 2025 survey predict that overall SPB activity will be low in the southern region, moderate in the piedmont region and high in the west-west central region of Georgia. The west central region has two areas having a high probability (>50%) of any SPB

spots. Carroll and Paulding Counties have high probability of having SPB spots with Carroll County having the greatest probability.

Perhaps a more informative prediction, because it accounts for more variability within the historical data, is the probability of greater than 50 spots in a county (Figures 4&5). Carroll County has the highest probability of having greater than 50 SPB spots, with a 58.1% chance. Coweta, Heard, Meriwether, Paulding and Polk Counties have a 42.5-56.9% chance of having greater than 50 spots. Dawson, Floyd, Greene, Monroe, Morgan, Oglethorpe and Pike have a 21.1-38.5% chance of having greater than 50 spots. Clarke, Franklin, Gordon, Jones, Oconee, Stephens, Twiggs and Wilkes have a 10.0-19.0% chance of having greater than 50 spots. The remaining 29 counties that were trapped in 2025 have 8.0% or less chance of having greater than 50 spots. To put this in perspective, over the last 14 years, we have only seen the total number of spots statewide rise above 50 five out of 14 years.

Overall, Southern Pine Beetle prediction for Georgia in 2025 is very similar to the prediction model in 2024 in regard to both counties and geographic regions of the state. The west-central region has the greatest risk of SPB outbreak.

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.. Southern pine beetle favors pine stands that are over-crowded and stressed. The Georgia Forestry Commission will continue to monitor locations of beetle spots throughout the year. All reported beetle activity will be surveyed and monitored to mitigate damage for landowners.

Routine annual aerial surveys in summer 2025 will be conducted to document and monitor pine beetle activity. Scheduled flights will be conducted across the state following predetermined flight lines. Aerial surveys can also be conducted by the GFC Air Operations Division during normal flights and any new possible infestations found from these flights will be investigated using ground surveys. All infestations will be reported to landowners, and GFC foresters will work with landowners to limit damage and control infestations.

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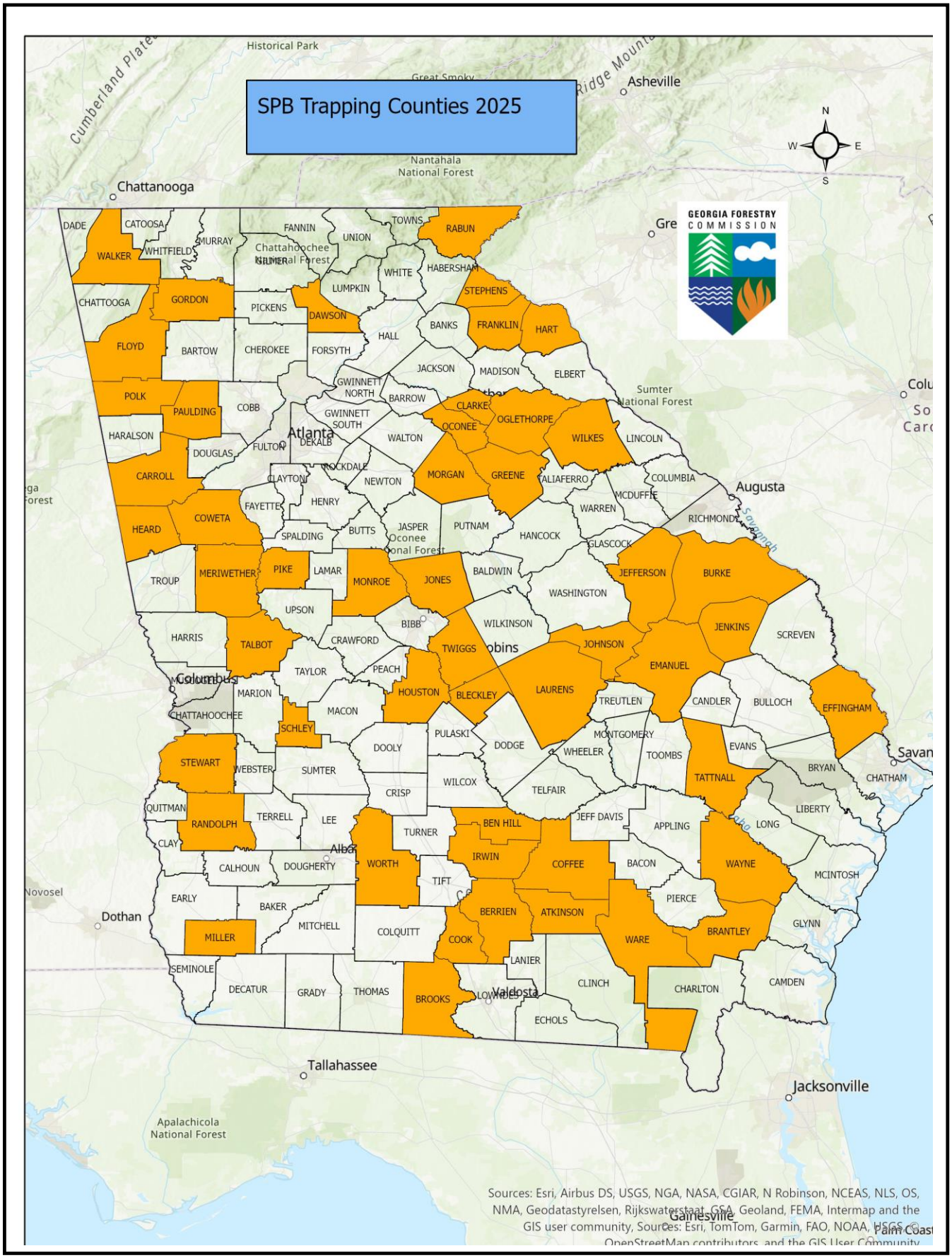

Figure 2: SPB trapping counties 2025.

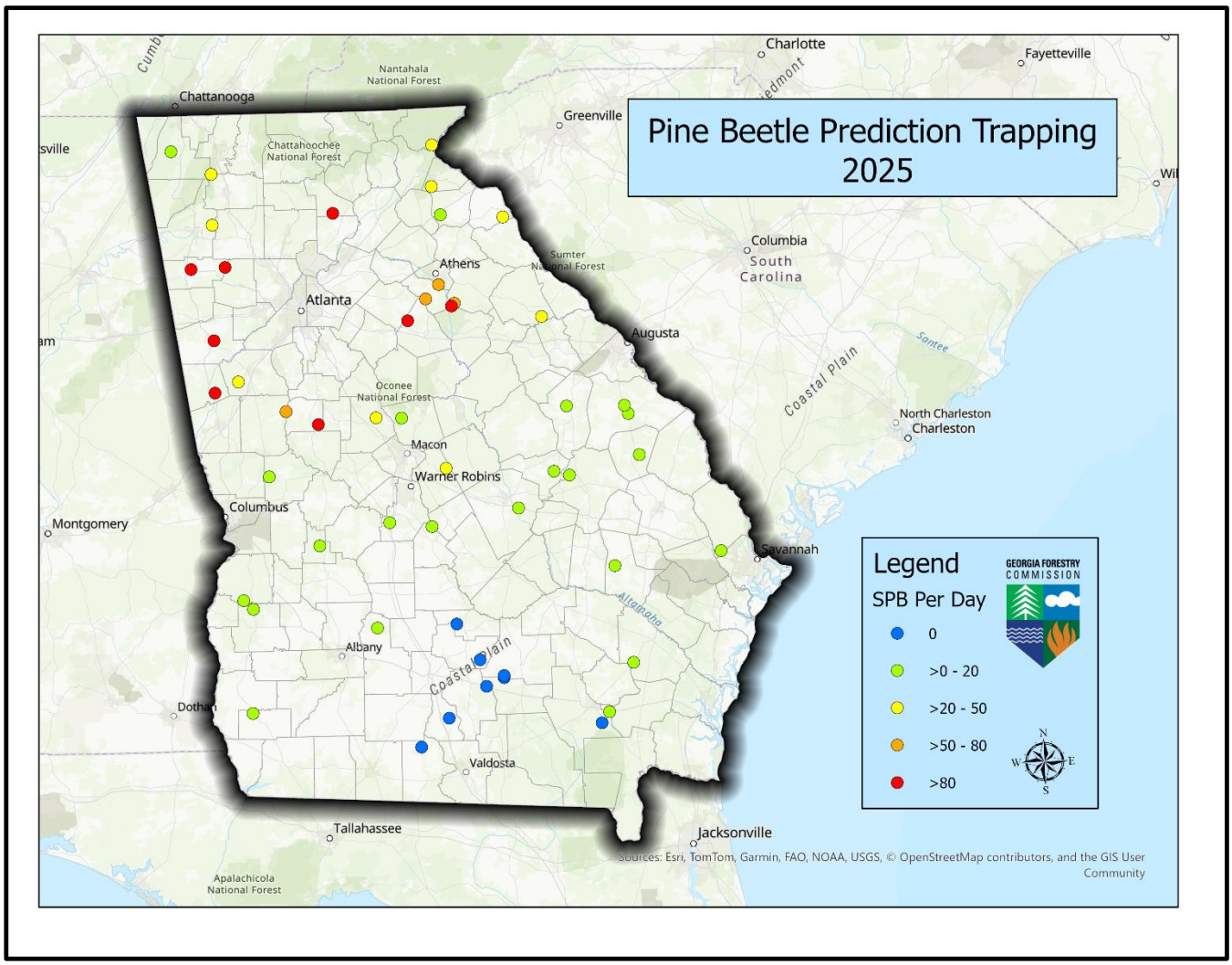

Figure 3: Southern Pine Beetle trap locations and the number of SPB caught per day over the six-week period.

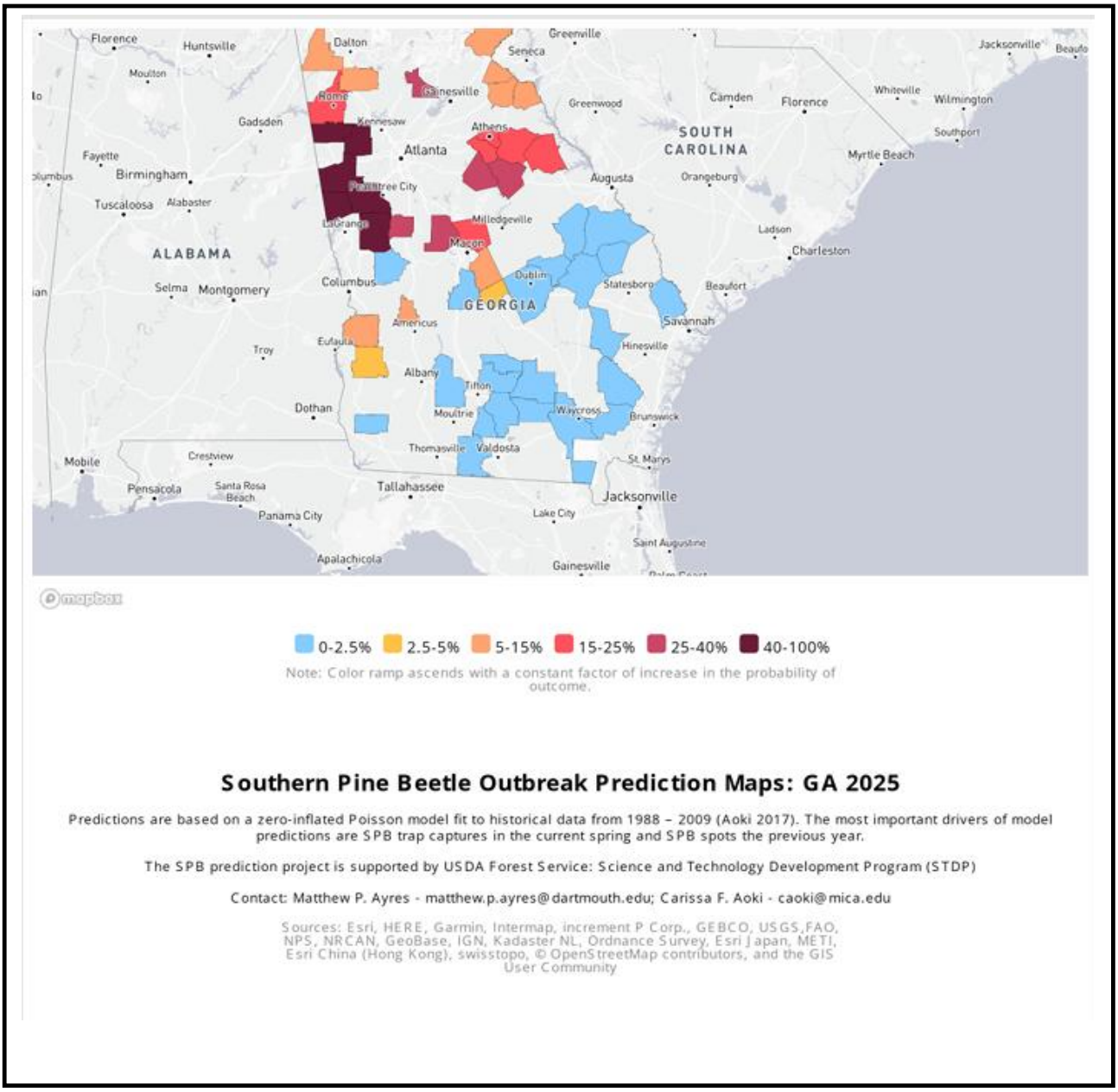

Figure 4: Probability of 50 or more spots

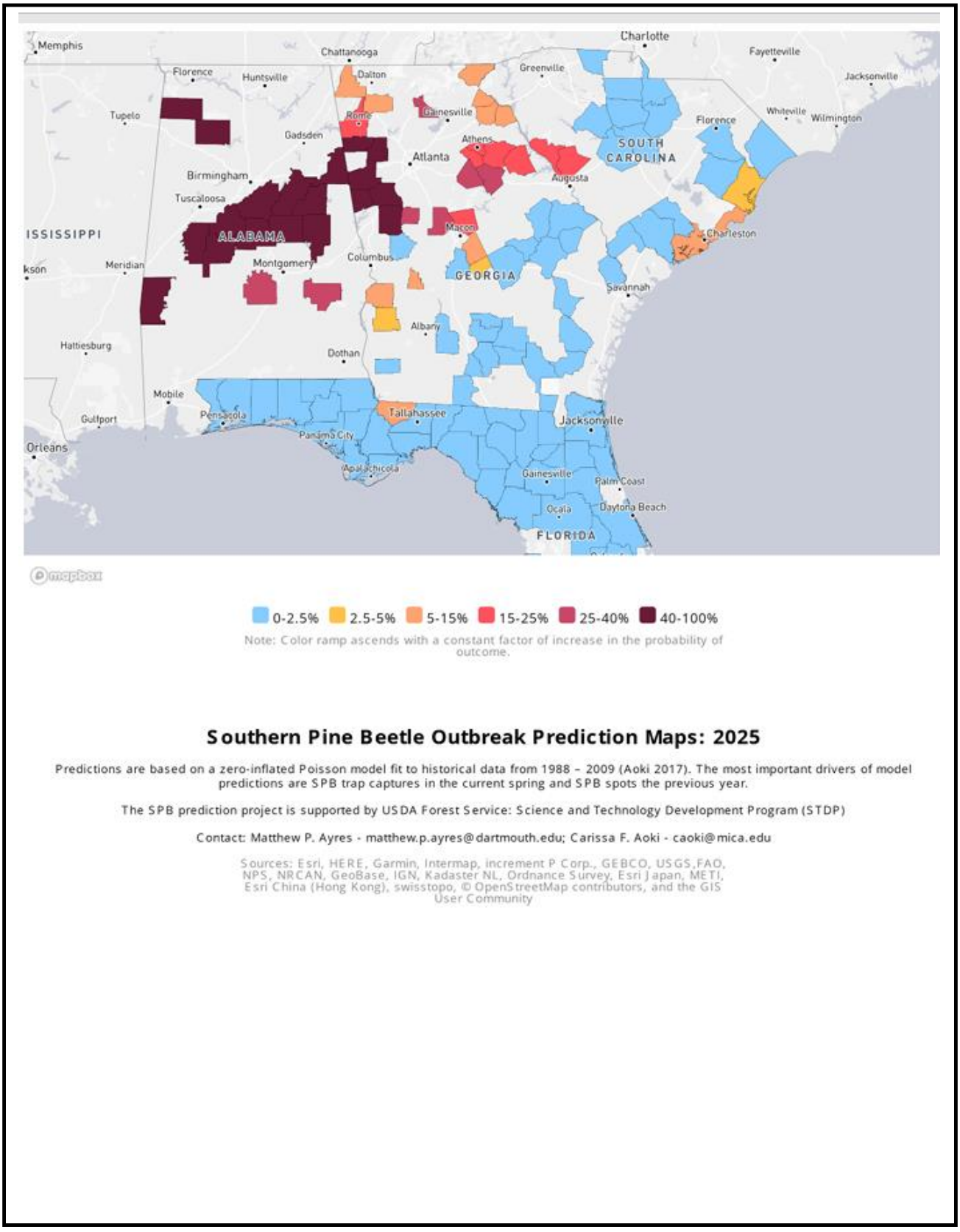

Figure 5: Probability of 50 or more spots on a regional scale