



# Forest Health *Notes*



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## Increasing Southern Pine Beetle Activity Predicted for Three Areas on Public and Private Forestlands in North Carolina in 2017

**BACKGROUND.** Considered the most destructive forest pest in the South, the southern pine beetle (SPB) surpasses all other forest pests for damage it causes to pine forests. Periodic outbreaks regularly occur across our state, although the last outbreak occurred in the early 2000s. The N.C. Forest Service (NCFS) attempts to predict SPB population levels each spring through pheromone-baited insect traps. Trap data is compared to a model developed by the Texas A&M Forest Service to provide early SPB population predictions with 75-85% accuracy. The model is based on the ratio of SPB to their primary predator, the clerid beetle, as well as other factors.

**2016 SPB Activity.** In 2016, SPB activity was low over most of the state, but several spots were detected in both the west and east. Active SPB spots were detected in Swain, Tyrell, and Graham Counties and an inactive spot was documented in Graham County. These spots are the first reports of active SPB in N.C. for several years. Prior to 2016, the last report of SPB spots in N.C. was in 2010 when five spots were recorded in Alamance and Richmond Counties. While they do not necessarily indicate an outbreak is on the horizon, they show that SPB activity should continue to be vigilantly monitored.

**2017 Predictions.** This year, 2017 trapping data predicts a static/low year for SPB populations in most of North Carolina. There are three exceptions, where increasing SPB populations are expected.

- **Croatan National Forest: Increasing/high** SPB predicted
- **Macon County: Increasing/moderate** SPB predicted
- **Appalachian Ranger District, Pisgah NF: Increasing/low** SPB predicted

**THANK  
YOU!**

*We are grateful to  
the NCFS Districts  
and Alligator River  
NWR that  
participated in  
trapping this year!*

Given the predictions for increased SPB populations at three different sites in the state, it is increasingly imperative we remain vigilant for SPB spots statewide this year. To speak to the power of these predictions, last year, increasing SPB populations were predicted for Graham County and subsequent observations confirmed those predictions, as the majority of SPB activity last year was recorded in Graham County.

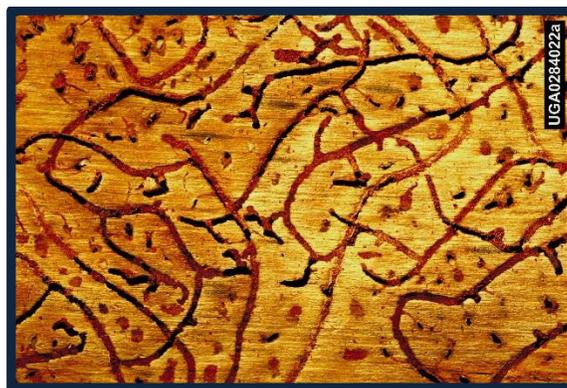
## BY THE NUMBERS: SPB Prevention Program

- The cost-share program covers **50%** of a pre-commercial thinning operation, to reduce its susceptibility to SPB.
- Since its inception, over **73,300** acres have been managed through this program.
- Can be used in:
  - Young pine stands (up to 12 years old) with **700+** trees per acre
  - White pine stands (up to 30 years old) with **120+** ft<sup>2</sup> basal area per acre
- As of June 2017, approximately **\$180,000** remains available.

It is also important to remember that this only captures predictions for a small amount of N.C.'s forestland. In addition to the correctly predicted SPB populations in Graham County in 2016, there were also spots detected in a few other counties where trapping was not done. Don't let your guard down simply because you're not near one of the three sites with predicted increased SPB populations!

SPB activity is most likely to occur in pine stands that are overstocked, overmature or stagnant, or have poor soil drainage. Forests affected by littleleaf disease, annosus root rot, and other causes of tree stress may also be susceptible to SPB infestation.

The NCFS recommends the use of sound silvicultural practices to prevent SPB damage and encourages landowners to thin overcrowded pine stands. Proper stocking levels promote healthy stands that can better withstand attacks from SPB. The NCFS continues to provide Southern Pine Beetle Prevention Program (SPBPP) cost-share funds (funded through a grant from the USDA Forest Service) for pre-commercial thinning of pine stands. More information on the SPBPP cost-share is available on our website at [http://www.ncforestservation.gov/forest\\_health/fh\\_spbpp.htm](http://www.ncforestservation.gov/forest_health/fh_spbpp.htm).



*Southern pine beetle creates characteristically “S-shaped” galleries under the bark.  
Photo: Ron Billings, Texas A&M Forest Service, Bugwood.org.*



This publication was published in Portable Document Format (PDF) to inform and educate NCFS personnel and other forestry interests about health issues affecting North Carolina forest resources.

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