Spruce Beetle Epidemic Continues to Expand, Kill Trees in Colorado

FORT COLLINS, Colo. – January 25, 2017 – Spruce beetle was the most damaging forest insect pest in Colorado for the fifth consecutive year, based on a 2016 forest health aerial survey conducted by the Colorado State Forest Service (CSFS) and U.S. Forest Service (USFS), Rocky Mountain Region. Douglas-fir beetle populations also continued to expand, while mountain pine beetle, western spruce budworm and Douglas-fir tussock moth populations continue to decline. Every year the CSFS and USFS work together to aerially monitor forest health conditions on millions of forested acres across the state.

Spruce beetle populations continued to cause widespread tree mortality, impacting 350,000 acres of higher-elevation stands of Engelmann spruce statewide. The largest infestations were detected primarily in southern and central Colorado, with more than one-third of those acres “new” or not previously impacted. Blowdown events in Engelmann spruce stands, combined with long-term drought stress, warmer temperatures and extensive amounts of older, densely growing trees, have contributed to this ongoing epidemic.

Since 1996, spruce beetle outbreaks have caused tree mortality on more than 1.7 million acres in Colorado.

The aerial survey also indicated that activity of Douglas-fir beetle, a close relative of spruce beetle that attacks and kills mature Douglas-fir trees, significantly increased on the Western Slope, with 19,000 acres impacted in 2016. Unlike spruce beetle, populations of this pest tend to erupt in numerous smaller pockets, rather than spreading outwardly from a few main population centers. Eagle, Garfield and Pitkin counties, along with most of the Gunnison Basin, were all heavily impacted with pocket activity in 2016.

Conversely, declines in impacted acreage were observed for western spruce budworm, Douglas-fir tussock moth and fungal leaf diseases of aspen trees.

Mountain pine beetle, which impacted nearly 3.4 million cumulative acres statewide over the past two decades, also has declined for years and remains at background levels, with fewer than a thousand acres affected statewide in 2016. But the Beaver Creek Fire that burned more than 38,000 acres in Jackson County last year, much of it in areas previously impacted by mountain pine beetle, provides an example of how beetle-kill can help fuel large, intense wildland fires.

“Our partnership with the U.S. Forest Service on the aerial survey provides another great example of how working together, we can most effectively address forest health concerns that span property lines, including bark beetle outbreaks,” said Mike Lester, state forester and director of the Colorado State Forest Service. “Information we obtain from the survey helps stimulate real work on the ground and allows us to focus our efforts on priority areas.”
Lester says the CSFS is dedicated to providing timely, relevant forestry information to the citizens of Colorado to achieve resilient forests. CSFS publications about spruce beetle, Douglas-fir beetle and many other pests, as well as how private landowners can manage them, are available online at www.csfs.colostate.edu/csfspublications.

The CSFS and USFS are using tools such as the Good Neighbor Authority to together perform watershed restoration and forest management services on National Forest System lands. A Master Good Neighbor Agreement, signed by both agencies in 2015, fosters a collaborative approach and leverages state resources to accomplish work across land ownership boundaries onto National Forest lands.

Good Neighbor projects currently being implemented in Colorado to address spruce beetle-killed trees include an 86-acre timber salvage harvest operation in the CSFS Montrose District, to help address spruce beetle mortality on the Uncompahgre National Forest, and public permit-oriented wood-removal projects in the Rio Grande National Forest west of Alamosa. Both projects are supplying forest products to businesses and for local use. The USFS and CSFS are working to identify future Good Neighbor projects to protect water supplies, manage insect infestations, reduce wildfire risk and meet other forest management objectives.

To obtain local 2016 Aerial Detection Survey information, contact the nearest CSFS office.

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The Colorado State Forest Service (CSFS) provides technical forestry assistance, wildfire mitigation expertise and outreach and education to help landowners and communities achieve their forest management goals. The CSFS is a service and outreach agency of the Warner College of Natural Resources at Colorado State University and provides staffing for the Division of Forestry within the Colorado Department of Natural Resources. For more information, visit www.csfs.colostate.edu.