

**Colorado Aerial Forest Health Survey - 2015**  
**Weekly Status Report - 4**  
**27-30 July 2015**

**William M. Ciesla**  
**Forest Health Management International**  
**Fort Collins, CO**

This is my fourth and final of a series of weekly status reports covering my participation in the 2015 Colorado Aerial Forest Health Survey.

Areas covered this week included:

- The Front Range from the Wyoming border south to the slopes of Mt. Evans.
- The Rampart Range and South Platte River Basin
- Forested areas east of I-25 in Elbert and El Paso Counties
- The eastern slopes of Cheyenne Mountain

All areas surveyed were done using the grid technique with east-west flight lines spaced at three mile intervals. Ben Pfohl, Assistant District Forestry, Boulder District was my survey partner.

Small pockets of **spruce beetle** activity continued to occur in high elevation spruce forests the Buckhorn Creek Basin west of Fort Collins, the upper Big Thompson Basin west of Loveland and some areas west of Red Feather Lakes.

**Mountain pine beetle** outbreaks have totally collapsed along the Front Range and only a few single ponderosa pine faders were mapped. Many of the pine stands with previous heavy bark beetle activity now have a gray cast due to the large numbers of dead standing trees.

Single tree mortality cause by **ips engraver beetles** is continuing in ponderosa pine stands in and around the Black Forest Fire of 2013.

Localized mortality of Douglas-fir, believed to be caused by a complex of **Douglas-fir engraver beetles**, was detected in Douglas-fir stands on the north facing slopes of the Cache La Poudre River that survived the High Park Fire of 2012 and in the Big Thompson Basin.

Small areas of aerially visible defoliation by **western spruce budworm** occurred in the vicinity of Sand Creek Pass in the Laramie River Basin. Presence of this insect in the area was confirmed via ground checks made in 2014 and has been known to occur in this area for several years.

Scattered defoliation, attributed to **western spruce budworm**, was also detected in portions of the southern Rampart Range but was not as severe as was seen in 2014.

**Douglas-fir tussock moth** reached epidemic levels in Colorado in 2014. This insect has a cyclic pattern with outbreaks occurring at 7-10 year intervals. Historically, most recent outbreaks in Colorado have occurred in or near the Rampart Range. The most recent previous outbreak occurred between 2004 and 2008 north of Aspen Park and in the northern Rampart Range.

Defoliation on the slopes of Cheyenne Mountain, first detected in 2014 increased in 2015. Areas defoliated in 2014 appeared gray as if they had sustained heavy tree mortality whereas areas defoliated in 2015 appeared red-brown in color.

A major outbreak is underway along the eastern edge of the Rampart Range from Dry Gulch, north of Perry Park south to Butler Canyon, north of Palmer Lake. Local residents are deeply concerned about the health of the affected forests.

Two areas of moderate to severe defoliation were detected in the South Platte River Basin. They are separated by areas damaged by the 12,000 acre Buffalo Creek Fire of 1996. The southernmost area is centered on Long Scraggy Peak and extends east to the Noddles and CO Highway 67 (near milepost 110) and west to the lower slopes of Little Scraggy. Areas affected north of the Buffalo Creek Fire include Raleigh Peak and portions of the North Fork of the South Platte River Basin. Communities affected by the defoliation include Buffalo Creek, Ferndale and Foxton. **Western spruce budworm** was also present in significant numbers in this outbreak and contributed to the defoliation.

Several relatively small areas of moderate to heavy defoliation were mapped in an urban-wildland interface area west of Boulder. This area had large numbers of Douglas-fir tussock moth life stages present in 2014 but suffered only minimal defoliation in 2014.

Defoliation by the **pine sawfly, *Neodiprion autumnalis***, in ponderosa pine forests in portions of Elbert and northern El Paso Counties was much reduced in 2015 in comparison to 2014. Only a few pockets of aerially visible defoliation were detected, the largest in an area of ponderosa pine forest northeast of Kiowa. One of the key factors responsible for the decline is believed to be extensive application of aerial and ground sprays by private landowners affected by the outbreak.

Several stands of quaking aspen were noted on the slopes of Bull Mountain and in other parts of the Laramie River Basin with thin crowns and an orange cast to the foliage. These are believed to be caused by **Marssonina leaf disease**, possibly favored by the extremely wet spring. Time permitting, these will be ground checked.

A small area of **blowdown**, believed to have been caused by a tornado, was mapped on the north slope of the Devil's Head in the Rampart Range). The tornado occurred during the afternoon of 21 July. Affected area was less than five acres. However, this incident received a lot of publicity because it occurred at a heavily used trail in the Pike National Forest

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