

Colorado Aerial Forest Health Survey - 2014
Weekly Status Report -1
30 June – 4 July 2014

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This is the first of five weekly status reports on the 2014 Colorado Aerial Forest Health Survey.

This week we were based in Alamosa and flew portions of the Sangre de Cristo and Culebra Ranges, the Spanish Peaks, forested areas from Poncha Pass to North Pass and from the Spanish Peaks east to I-25. A total of 23 hours of flying time were expended.

Spruce beetle infestations intensified significantly in high elevation forests from the Cochetopa Hills east to Poncha Pass and over much of the Sangre de Cristo Range. Most high elevation Engelmann spruce forests in the Sangre de Cristo Range now have moderate to severe levels of infestation.

Bark beetle infestations in ponderosa and limber pine were detected on the eastern slopes of the Sangre de Cristo Range from Bear Creek south to North Taylor Creek. The causal agent is presumed to be **mountain pine beetle**. Limber pine mortality continued to occur in the Hayden and Cottonwood Creek Basins.

Douglas-fir beetle infestations continued to occur on the western slopes of the Sangre de Cristo Range, especially in stands in close proximity to the Medano fire.

Infestations of **fir engraver beetle** continued to occur at light levels in low elevation mixed conifer forests along the eastern slopes of the Culebra Range. Moderate to severe infestations were detected in white fir stands on the eastern slopes of the Sangre de Cristo Range north of the Taylor Creek Basin. In a number of areas, white fir mortality due to fir engraver was accompanied by defoliation by **western spruce budworm**.

Extensive damage by a complex of insects on pinyon pine, including **pinyon ips** and **pinyon twig beetles** declined significantly along the west side of the I-25 corridor between Walsenburg and Trinidad. In 2014, damage was confined pinyon stands at the mouth of Chicosa Canyon, south of Ludlow.

Western spruce budworm continued to cause aerially visible defoliation of Douglas-fir, white fir and spruce in the Culebra/Sangre de Cristo Ranges, the Spanish Peaks and forested areas from Poncha Pass south to Bonanza. Most extensive defoliation occurred on the south facing slopes of the Spanish Peaks, the north facing slopes of Mt. Maestas, Big and Little Sheep Mountains, Silver Mountain and the eastern slope of the Culebra Range from Cucharas Pass south to the New Mexico Border. Several areas of western spruce budworm defoliation were detected in Douglas-fir stands in the Wet Valley. An area of defoliation was also mapped on Horseshoe Mountain and South Webster Park, south of the Royal Gorge.

Discoloration of ponderosa pine detected between I-25 and the eastern slope of the Culebra Range in 2013 was not seen in 2014. Symptoms resembled those caused by a needle fungus but affected needles lacked fungal fruiting bodies. Cause of the condition was classified as “unknown” in 2013.

Aspen defoliation was detected in a number of areas. The extensive defoliation of aspen forests in the upper North Fork Purgatoire River Basin, caused by **western tent caterpillar**, which has occurred since at least 2006, continued in 2014 but at slightly lower levels of intensity. An area of aspen defoliation on the eastern slope of East Spanish Peak, first detected in 2013, expanded in 2014. Localized areas of aspen defoliation continued to occur in aspen stands in the Sangre de Cristo Range but at lower levels than in previous years. Extensive areas of heavy defoliation of aspen forests were detected from Poncha Pass south to Bonanza and west into the Cochetopa Hills. During the past two years, ground checks in the vicinity of Bonanza indicated that defoliation was caused by **western tent caterpillar**.

Ground checks on 29 June indicated that **western tent caterpillar** colonies were common on three-leafed sumac north and west of La Veta causing localized defoliation.

Leaf rolling and discoloration of foliage of New Mexico locust by a **concealer moth**, *Agromyrex* sp., continued near La Veta in 2014 but was not aerially visible over extensive areas as it was in 2013. A single area of foliage discoloration was seen at the mouth of Chapparal Creek on the north slope of West Spanish Peak.

Plans for next week are to fly out of Gunnison and survey portions of the San Juan/La Garita Range and the West Elk Mountains.

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