

FOREST HEALTH MONITORING WORKING GROUP

Sedona, Arizona

February 10, 2004

PM General Sessions

Notes by: Mike Schomaker

Tuesday February 10, 2004

Monitoring Bark Beetle Population Trends

Barbara Bentz

PowerPoint presentation.

There's been a dramatic increase in bark beetle activity in the entire U.S. in recent years. This activity is related to increased temperatures and decreasing precipitation. These changes are beneficial to bark beetle development and leads to increases in populations.

Timing and numbers of beetles in traps don't necessarily relate to the actual situation in the environment being sampled.

Pheromone baited funnel traps and a variety sampling designs were used to determine trapping efficiencies in determining bark beetle emergence peaks. MPB and spruce beetle tests were conducted. Traps are disproportionately sampling populations and it isn't clear what type of beetle is being caught – breeding adults or their offspring.

How does the trap count relate to surrounding tree mortality? It's only significant at a certain scale – say 10 hectares versus 1 hectare.

One and two years after fires in Doug-fir, mortality percentages were very similar when comparing numbers due directly to severe fire damage or due to beetle infestation. Beetles attacked trees with higher % scorch.

There is a need for much more information before we'll be able to adequately assess recent environmental impacts on our forest resources.

They're also doing some genetic analysis on beetles collected from the traps so they're collecting live beetles.