

Barkbeetles threaten spruce on Kenai Peninsula

by Steve Kakaruk

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For the past ten years, barkbeetles have been flaring up in areas around the Kenai Peninsula, destroying white spruce stands. Last year the barkbeetle reached its peak. Biologists with the Chugach National Forest Service are aware of just how much damage they can do.

The forest service has decided to allow harvesting of spruce stands susceptible to barkbeetle attacks, hoping to control a widespread breakout. The harvest would benefit both nature and man.

Barkbeetles burrow under the bark of spruce trees, and there they lay their eggs. When the eggs hatch, the larvae feed on the cambial tissue of the tree, which interferes in the transfer of water from the roots to the rest of the tree. Unseasonably dry weather also contributes to the rapid reproduction of the pest.

The adult barkbeetle is one-quarter inch in size, red and black in color.

The barkbeetle's life span is about two years and it can lay thousands of eggs at a time. "Once the eggs reach the larval stage, it's overwhelming," said Holsten. Spruce stands usually can defend against barkbeetle attacks by normal numbers of them, but large populations quickly overcome the tree's natural defense system.

Not all the spruce stands are affected, however. Those under eight inches in diameter are practically immune, producing enough natural resin to guard against barkbeetle attacks.

On the other hand, those over eight inches become target hosts for the barkbeetle. These do not produce resin as quickly as the younger trees. Infestation of some stands of spruce may reach a level of three to five barkbeetle pairs per square foot.

Harvesting the stands affected will give the U.S. Forest Service an opportunity to clean up the forest before hazards associated with barkbeetle infestation arise. Spruce-stands that die as a result of barkbeetles become dry

and are natural fire hazards. Also, due to succession, nature's way of restoring the area, the shrub which moves in where the spruce were slows the process of forest regeneration.

The money earned from harvesting the spruce-stands will go directly into restoration of the forest.

Ed Holsten, a Forest Entomologist said, "we're taking a preventive approach rather than crisis management." Infestation is widespread, says Holsten, covering the valley corridors along the highway system south to Kenai, Seward and evident along the west side of the Cook Inlet.

"We can do nothing, allowing the stands to stack up on the ground, rotting, creating a danger to all (through forest fire), or (we can) salvage the timber, which is much safer ecologically," said Holsten.

George Hudak, a Forester in the Seward Ranger District of the Chugach National Forest said, "we started the management of the Chugach in 1978 and local industry

finally got interested by 1984." The forest service holds an annual sale of about 2 million board feet, double its return of eight years ago.

Although the wood is low quality, it has the potential to give 100-150 board feet "after the trimming of the non-useable stuff." The whole purpose, said Hudak, is to "salvage and clean up the affected areas caused by the beetles."

Summit Lake, along the Seward and Sterling highway corridor and into Kenai, Resurrection Trail, "are all infested." Areas later to be harvested are Snug Harbor, Cooper Landing, and other areas where the barkbeetle has killed at least 80 to 90 percent of the stands.

There are some foreseeable negative affects from the harvesting, cautions Hudak. "Long term, as the salvaging process continues, we'll be losing; and we'll have to cut back after a few years." Quality, demand and the need to bring the forest into the regrowing is necessary.