

Research Suggests New Options For Old-Growth

By Jean Matthews

The idea of "setting aside" areas of old-growth Douglas-fir forests was joined by another option – the preservation of "many of the elements" of old-growth. when almost one thousand scientists and interested lay people met in Portland, Oregon, in March to attend a landmark symposium on old-growth forests in the Pacific Northwest.

The gathering, sponsored by the U.S. Forest Service and the University of Washington, heard results of nearly five years of research, conducted by the Old-Growth Douglas-fir Forests: Wildlife Communities and Habitat Relationships project. Jerry Franklin, recognized "dean of old-growth research" and chief plant ecologist at the USFS Olympia, Washington research lab, strongly challenged the notion that late-growth forests were biological deserts.

"Far from being the 'cellulose cemeteries' they have been called," Franklin said. "old-growth forests of the Pacific Northwest contain more organic material per acre than even the densest tropical rain forest –

material that recycles nutrients back into the soil if they are left to decay naturally."

The key word is "naturally."

Most Douglas-fir forests begin with fires that clear the land and open it to sunlight where new seedlings can germinate. Research on wildlife populations in never-logged forests suggests that so-called "natural" forests have more in common with each other, regardless of their age, than these "natural" forests have in common with logged and replanted "managed" forests. The latter show much lower biological diversity.

The northern spotted owl is the most-studied creature of the old-growth forest ecosystem but it is only one actor in the huge cast of characters that play out their drama under the forest canopy. This small brown bird with a white mottled breast nests only in naturally occurring cavities in deformed, living old-growth conifers with broken tops. Its preferred prey in Oregon is the northern flying squirrel (a canopy dweller) and the red tree vole (a burrower beneath rotting logs).

The spotted owl is the surrogate, or shorthand battle star, that stands for every environmental task being performed free of charge by natural old-growth forests. Years of focused research have shown that old-growth forests comb pollution out of the air with their long, needle-fingered crowns; their intricate web of life includes galleries of wood-eating insects that help

reduce downed wood to the basic constituents of new growth, and below ground fungi that feed the towering trees and are fed in return; their logs and snags provide dwelling places for insects, salamanders, small mammals and birds, and anchor soil on downhill slopes; their uneven canopies let in sunlight but keep out snow, providing winter forage for deer and elk; their fallen logs are vital to the health of forest streams and when the logs drift down to the estuaries they become resting and foraging perches for egrets, bald eagles, and great blue herons.

The enormous amount of research generated by the \$2 million study is appearing in digest form in a variety of popular publications, slanted to a wide range of reader interests. One piece, that sets a general scientific findings in the political and economic framework (Sample: a truck bumper strip that reads "Save a logger - kill a spotted owl") appears in the April 1989 issue of *Research News*. The author, William Booth, points out that the owl is largely the symbol of the greater fight to save the old-growth forests. At stake is 374,000 acres of national forest proposed for set-aside. A federal judge in Seattle will decide in June. This set-aside would reduce available timber supply by 5 percent, would result in a calculated loss of about 3000 jobs, and would support about 1300 pairs of owls.

As Booth adds, "For how long, no one is certain."