

Report: Young forests provide crucial habitats

By The Associated Press

CORVALLIS — Young forests need as much protection as old growth timber to maintain the diversity of plant and animal life in the Pacific Northwest, according to a study by Oregon researchers.

The report, published last week in the journal *BioScience*, says young natural forests between 20 and 70 years old may contain more species than old growth stands.

But conservation of younger trees would add to the economic problems the region already is facing from trying to save old growth forests to protect the northern spotted owl, said Andrew Hansen, assistant professor of forest science at Oregon State University and the study's lead investigator.

"That may be the cost of conserving biodiversity," said Hansen, who works with the Coastal Oregon Productivity Enhancement program in Newport.

Other authors of the *BioScience* paper included Fred Swanson, Thomas Spies and Janet Ohmann, researchers with the U.S. Forest Service laboratory in Corvallis.

The report is one of the first to compare natural and managed forests at all age levels. It found that:

- Fifty percent to 90 percent of the same plants and animals are found in any age or type of natural forest.
- Some species thrive only in young forests that have downed logs, snags and other features characteristic of a recently disturbed forest.
- The western bluebird, the American kestrel and various woodpeckers are dependent on this type of forest.
- There is a need to develop young managed forests that emulate the features of a young natural forest.
- Biodiversity is limited in forests

managed for timber production by traditional techniques such as clear-cutting, debris removal and replanting with a single tree species.

The study also indicated that the number of bird, small mammal and amphibian species was slightly higher in a natural forest than in a managed Douglas fir plantation.

The report said the abundance of mammals was about the same in the two habitats, but the "total abundance of birds was 50 percent higher, and amphibians 130 percent higher in natural forests than in plantations."

Hansen said there are three other natural stages in forest growth before the old growth period, with each stage offering important habitat for plant and animal species.

The first stage lasts 20 to 30 years after a devastating natural disturbance, such as fire, insect attack or plant disease. It is characterized by an abundance of shrubs and annual plants before the conifers become dense enough to shade out the other plants.

The second stage, young forests, occurs when the forest canopy closes, and it lasts as long as 70 years.

"That's typically a time when the diversity of plants on the forest floor drops substantially from that initial stage," Hansen said.

The third stage, maturity, lasts from about 70 to 200 years. "That's the point in which structural diversity is starting to build up again and reaches a higher level in the old growth stage," Hansen said.

He said natural disturbances are important to the forest life cycle. The common practice of modern foresters to "to suppress every type of natural disturbance, especially fire," may have to be changed, Hansen said.

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