Mount Rainier National Park



OLD GROWTH FOREST



When Mount Rainier was established as America's fifth national park on March 2, 1899, the boundaries as formalized by congressional proclamation framed the mountain in an encircling band of forest. This land was included in large measure to provide watershed protection.

Though these forests were already ancient in 1899, little thought was given to their biological significance. In fact, the entire eastern section of the park, called the Cascade Crest, was not included within the park boundaries until an addition was legislated during the administration of Franklin D. Roosevelt.

An old growth forest of western hemlock and Douglas-fir is far more structurally heterogeneous than a typical tree plantation. Consequently, associated life forms are far different than those found in a young, second growth forest. Individual trees, standing dead trees (snags), and dead-and-down logs are unique to these stands. Defects in the aging trees, along with snags and fallen logs, are the most important components in creating wildlife habitat.

Though there is some disagreement as to when a mature forest becomes an old growth forest, 250 to 350 years is often cited. Many factors including soil conditions and site qualities determine the age at which a forest will take on the structural qualities of true old growth. In Mount Rainier National Park, the vast majority of the forest easily falls in this old growth category with some stands estimated to be 1,000 years old.

Scattered through the old growth forest are a host of smaller trees that grow well in the cool dense shade. Pacific silver fir, western red cedar, and western hemlock create a multi-layered forest which in turn creates a cool, highly stable climate where the temperature remains moderate, even during the hottest days of summer. During winter, this deep canopy traps & supports much snow, allowing forest animals to browse for food all year. This combination of cool microclimate, dominant trees, snags and dead-and-down logs creates a unique habitat for a variety of associated life forms. Examples of these are the northern flying squirrel (<u>Glaucomys sabrinus</u>), and hoary bat (<u>Lasiurus cinereus</u>).

The best known species dependent on old growth is the northern spotted owl (<u>Strix occidentalis</u>). As a predator high on the food web, spotted owls are highly sensitive to disruptions within their habitat. Mount Rainier National Park is a significant location for spotted owl habitat. The U.S. Forest Service spotted owl management areas average 2200 acres per breeding pair, a firgure conservation groups contend is too small and industry interests maintain is too large. Approximately 60,000 acres of suitable habitat is preserved in Mount Rainier National Park. The latest data indicates that a small population of spotted owls inhabit Mount Rainier National Park.

Management for the maintenance of species diversity can no longer be viewed as superfluous. In fact, former National Park Service Director, William Penn Mott, issued a directive regarding the maintenance of biological diversity. He stated, "Our national parks are natural reservoirs of biological diversity. Our role must be to maintain this natural biological heritage - from microbe to sequoia."

Until a short while ago, many of the ecological functions of old growth forests were not known. If we are to avoid the total simplification of our forest ecosystem through reductionist management practices, such as has occurred throughout Europe, we must be prudent in our current forest practices. Certainly, the maintenance of ancient forests in our national parks is one part of the solution. However, it cannot be considered to be the sole answer.