
Innovative Forest Management Practices in Alberta to Address Caribou Habitat Needs

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Extended Abstract: Over the last 20 years, Weyerhaeuser has been a leader in woodland caribou (*Rangifer tarandus caribou*) conservation in Alberta, and was among the first companies to recognize that a change from traditional forest management practices was needed to ensure that forestry activities did not have a negative impact on the long-term supply of caribou habitat.

In 1999, Weyerhaeuser Company, in cooperation with Alberta Fish and Wildlife, developed an overall strategy to integrate caribou habitat needs into forest management practices. A key component of this strategy was to ensure that old-growth conditions required by caribou would always be present on their ranges. While this reduces the amount of timber available for Weyerhaeuser to harvest, the strategy will result in the maintenance of, or increase in old-growth conditions on each range.

Weyerhaeuser's changed practices were recognized in the Alberta government's report *Status of the Woodland Caribou (Rangifer tarandus caribou) in Alberta*. The company was also awarded the Alberta Emerald Award and the Wildlife Habitat Canada Award for its work to protect caribou habitat.

Quick Caribou Facts

- Woodland caribou are currently listed as a threatened species under the Alberta *Wildlife Act* and the federal *Species at Risk Act*.
- Woodland caribou (the mountain ecotype) winter in large contiguous patches of coniferous forests in the subalpine and foothills of Alberta. Woodland caribou winter range extends over approximately 310,000 ha of Weyerhaeuser's 1,117,780 ha Grande Prairie Forest Management Agreement.
- In summer, caribou migrate to subalpine and alpine ranges.
- The caribou's diet consists mostly of ground and arboreal lichens.



Photo: Kent Brown

Weyerhaeuser Research and Monitoring

Long-term monitoring and research is a key component of the adaptive management approach that Weyerhaeuser is taking to integrate caribou habitat needs into timber planning. Weyerhaeuser has been a leader in the work to assist caribou recovery in Alberta. To date, the company has funded more than CDN\$1 million worth of caribou habitat research conducted by the University of Alberta and has worked with government agencies and other stakeholders. Part of the research involves outfitting 69 caribou with GPS (global positioning system) collars and tracking their preferred habitat use. This program is aimed at assessing the effectiveness of new forest management practices and furthering our understanding of caribou ecology. This work will continue in the future.

The Challenge

It is recognized that traditional forest management strategies may not meet the habitat needs of caribou because the animals require older stands, which are usually harvested first using a two- or three-pass harvest pattern. This practice is also contrary to the caribou's need for relatively large contiguous tracts of older stands for food and predator avoidance. Weyerhaeuser recognizes that a change from the traditional forest management approach in Alberta is needed to minimize the negative impact of forestry activities on the long-term supply of caribou habitat.

Weyerhaeuser's Approach

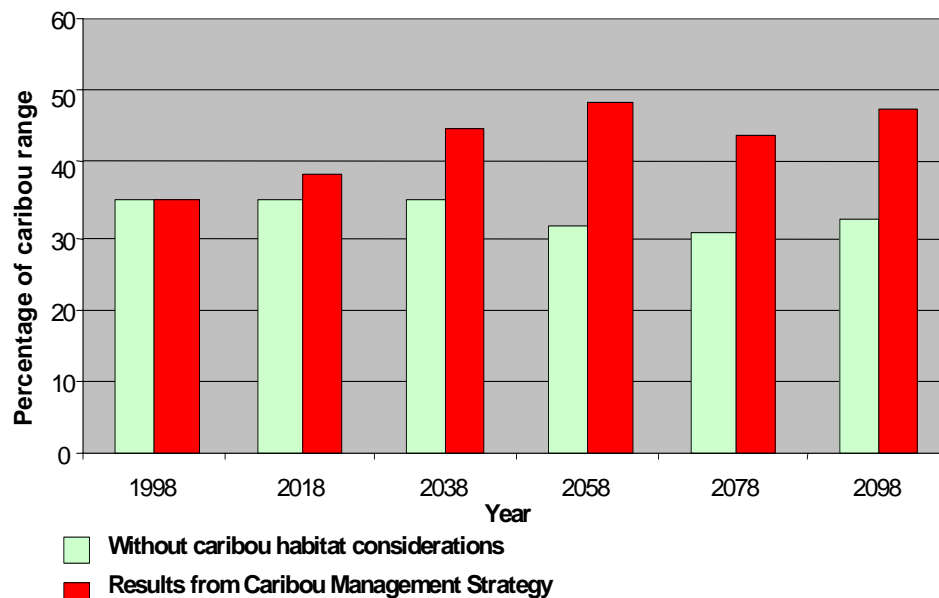
Weyerhaeuser Company, in cooperation with Alberta Fish and Wildlife, has developed an overall strategy to integrate caribou habitat needs into forest management practices. To accommodate caribou habitat needs, the Weyerhaeuser strategy focuses on two key long-term

habitat management principles. These are a part of the Detailed Forest Management Plan approved by the Alberta Government in 1999. Specifically, the objectives are to

- maintain large contiguous patches of habitat for caribou; and
- maintain an adequate amount of good habitat across each caribou range.

Harvesting is concentrated in one contiguous area at a time and is conducted in large blocks (up to 1000 ha), rather than across the entire caribou range, using a traditional two- or three-pass harvest pattern. This avoids causing fragmentation of the entire range. In addition, harvesting sites will maintain significant amount of structure to provide habitat for other wildlife species. These new contiguous areas will regenerate as an even-aged stand and will be spatially arranged so the remaining parts of the range are not isolated. This will help ensure the availability of quality caribou habitat in perpetuity. This strategy will ensure that

- the caribou's predator avoidance strategy of dispersing across large areas is not compromised; and
- caribou have the opportunity for unobstructed travel across their range.



Amount of old-growth forest (> 120 years) in the Prairie Creek Caribou Range (57,369 ha).

Delaying Logging for Caribou

In 2003, the Alberta government created a team to develop a recovery plan for woodland caribou. Weyerhaeuser decided to delay harvesting while the plan was being finalized. “Weyerhaeuser wants time for the recovery plan to be implemented and time for the company to work with government and other stakeholders to assess and implement best practices.” On 25

February 2004, Weyerhaeuser announced that it would delay harvesting on 82,000 ha in Alberta in order to aid protection efforts for the mountain ecotype of the woodland caribou.



Photo: Kent Brown