



## MANAGING FOR WOODLAND CARIBOU

*This is a non-normative document that is part of a series of info-sheets designed to assist the public and stakeholders in their review of the draft FSC Canada National Forest Management Standard. It provides background on the development of certain indicators and insight into key concepts and proposed approaches.*

### Introduction

The Standard contains an indicator devoted entirely to boreal woodland caribou. While such a degree of attention to a single species is unprecedented in Canada's previous FSC forest management standards, the significance attached to the continued existing of woodland caribou and their vulnerability to forest disturbance provides the rationale for this level of consideration.

All of Canada's caribou, from woodland caribou in the boreal forest to the vast migratory herds of the tundra, belong to a single species – *Rangifer tarandus*. There is taxonomic and scientific distinction made between mountain and boreal caribou. Mountain caribou are found in mountainous parts of western Canada, and boreal caribou can be found throughout northern boreal forests. Forest management occurs in the areas occupied by both of these ecotypes and so it is appropriate that both enter into discussions related to the FSC Canada's Standard. However, because empirical relationships between habitat and caribou productivity have only been developed at broad scales for boreal woodland caribou, and not for mountain caribou, the caribou indicator only applies to boreal woodland caribou. However, as noted below, concerns regarding mountain caribou habitat are dealt with through other means in the Standard.

### Background

In 2010, FSC Canada convened a science panel to carry out a review of the adequacy of the National Boreal Standard in addressing boreal woodland caribou conservation issues. The report, produced by the panel (Dzus et al., 2010), provided a framework for the integration of risk, and made a number of recommendations for strengthening the Standard which have been incorporated into the caribou indicator.

A Technical Expert Panel (TEP) was assembled by FSC Canada in 2013 to focus on species at risk and to lead the development of indicators related to species at risk and caribou. The development of the caribou indicator (Indicator 6.4.3 in the Standard) was a long, thoughtful process that saw a lengthy list of potential components narrowed down to those that focused on forest habitat structure, had an empirical basis, and fit well into a risk-management structure. The relationship between extent of forest disturbance and caribou productivity, which is at the core of Canada's Federal Recovery Strategy for Woodland Caribou (Environment Canada, 2012), forms the basis of the indicator. In fact, a key component of the indicator is that management of forest habitat that adheres to a caribou range plan that is consistent with the requirements of the Federal Recovery Strategy (and therefore the Species at Risk Act) is sufficient to satisfy the indicators' requirements. Where such a range plan does not yet exist, the indicator provides some flexibility regarding the manner in which its requirements can be met.

## Proposed Approach

Development of SARA-compliant<sup>1</sup> Range Plans is an on-going process being led by government resource management agencies. Implementation of such Range Plans will follow the approach of the Federal Recovery Strategy, which FSC's TEP endorses, and is obviously a preferred route to satisfying the Standard's caribou indicator. However in recognition that Range Plans may not be in place during the period in which the requirements of the Standard will need to be addressed, the caribou indicator has identified three options for achieving conformance.

- A. Implementation of a SARA-compliant range plan, where one exists. Where only a SARA-compliant range plan does not exist, Approach B or C below may be implemented.
- B. Management of caribou habitat consistent with alternate elements provided in the indicator that identify detailed requirements related to disturbance thresholds based on the science presented in the Federal Recovery Strategy; or
- C. Management of caribou habitat using alternative methods provided they are supported by independent expert input and are comparable to, or better than, the methods that form the basis of option B.

Option B above is based on a rather detailed array of requirements that address

- 1. The status of the caribou population in the range in which the forest management unit exists;
- 2. The extent of cumulative disturbance within the range; and
- 3. The extent of cumulative disturbance within the management unit.

<sup>1</sup> A SARA (Species at Risk Act)-compliant range plan is a caribou habitat management plan that has been confirmed by Environment and Climate Change Canada (ECCC) as meeting the requirements of section 7.4 of the Federal Recovery Strategy for the Woodland Caribou, Boreal population, in Canada.

Depending on the state of the above conditions, combinations of the following management actions may be permitted/required in forest management units, including:

- Carefully planned implementation of forest management;
- Measures to address forest connectivity, access management, distribution of forest types and age classes, and forest landscapes;
- Planning and implementation to limit disturbance levels;
- Habitat recovery and restoration efforts; and
- Cooperation with other land managers.

In recognition of the fact that the science regarding the relationship between caribou health and productivity and their habitat continues to evolve, Option C opens the door to use of alternative methods, providing that they are based on sound empirical evidence.

### **Mountain Caribou**

Across the two types of mountain caribou (northern and southern), there are more than 70 ranges or herds which include 3 population groups of southern mountain caribou. There are substantial differences between the population's groups/herds, including: their patterns of altitudinal migration, use of high-altitude alpine habitats and low-altitude forest habitat. Matrix habitat, which provides refuge from predation, is a key component of their ecology, particularly for southern mountain caribou and is recognized as critical habitat in its Federal Recovery Strategy (Environment Canada 2014). Given this complexity, it was impractical to provide a relatively precise direction for managing mountain caribou in a single indicator or to add it to the direction for boreal caribou. However, this does not mean that protection for mountain caribou is absent from the Standard. There are several indicators that address ecological values and management actions which are important in the stewardship of mountain caribou (and other species at risk) including those related to:

- Plans for species at risk (Indicator 6.4.2) ;
- Isolated and disjunct populations (Indicator 6.6.6);
- Forest patch size distribution (Indicator 6.8.2);
- Maintenance of connectivity (Indicator 6.8.3);
- Access management (Indicator 6.8.4); and
- Intact forest landscapes (under development).

## **References**

Dzus, E, J. Ray, I. Thompson and C. Wedeles. 2010. Caribou and the National Boreal Standard: Report of the FSC Canada Science Panel. Prepared for FSC Canada. 71 p.

Environment Canada. 2012. Recovery Strategy for the Woodland Caribou (*Rangifer tarandus* caribou), Boreal population, in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. xi+138 p

Environment Canada. 2014. Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus* caribou) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 103 pp.