

**CARTWRIGHT JUNCTION TO HAPPY VALLEY-GOOSE BAY  
TRANS LABRADOR HIGHWAY  
CARIBOU COMPONENT STUDY DEFICIENCY STATEMENT**  
**Issued April 2003**

### **Executive Summary**

The proponent should include the conclusion from the Component Study's author that the population increase described in the Executive Summary is biologically improbable.

The proponent must add the results of its investigations of caribou habitat use, and specifically caribou calving areas.

### **Background**

The Mealy Mountain Caribou Herd is described as exhibiting an inherent population cycle. Provide the rationale for that conclusion as opposed to the possibility that past census fluctuation may have resulted from sampling error and/or inadequate methodology in the census surveys.

### **Density Distribution Survey Methods**

Figure 1: provide mapping at an appropriate scale. Include in the mapping the viable alternative routes superimposed on the study area. At a minimum the routes identified by the Innu Nation and the Newfoundland and Labrador Outfitters Association must be depicted in relation to the study area.

Provide the source of historic knowledge used to identify high and low density strata and describe how those strata identifications may be affected by caribou density distribution changes.

Compare the survey crew utilized for the Component Study with a standard survey crew and, if not the same, discuss the influence on the difference which could be expected from the survey crew utilized and a standard survey crew.

Figure 2: provide mapping at an appropriate scale. Include in the mapping the viable alternative routes superimposed on the survey area. At a minimum the routes identified by the Innu Nation and the Newfoundland and Labrador Outfitters Association must be depicted in relation to the survey area.

Provide the lengths of transects flown and the duration of each of the flights.

## **Results and Discussion**

Figure 3: provide mapping at an appropriate scale. Include in the mapping the viable alternative routes superimposed on the survey area. At a minimum the routes identified by the Innu Nation and the Newfoundland and Labrador Outfitters Association must be depicted in relation to the survey area.

Provide the number or relative densities of caribou associated with each sighting and discuss the implications of the number or relative density for habitat use characterization.

Provide a summary table for animals that were collared giving estimates of home range size based on 95% MCP and harmonic means estimators. Discuss the implications of application of home range estimates.

Provide the results of the analysis of blood and fecal samples collected and explain their contribution to a preliminary understanding of the general health of the Mealy Mountain Caribou Herd.

Provide information on group sizes, locations and dates for classified caribou. Compare sex ratios and recruitment data to historical data for the Mealy Mountain Caribou Herd and data available from other Northern caribou herds with particular reference to the Red Wine and Lac Joe Herds. Provide an explanation for the conclusion that the observed sex ratio contributes to extremely high survival rates.

## **Recommendations**

Provide the rationale for the two recommendations provided and the contribution of each recommendation to knowledge of effects assessment or mitigation which may apply to the Mealy Mountain Caribou Herd.

Compare the recommended program employing the mark-recapture method with other programs that may achieve the same ends. Comment on the programs strengths and weaknesses and discuss the justification for its use in providing accurate estimates compared to other survey methods.

## **NEW - CARIBOU HABITAT**

Conduct a literature review and access local and traditional knowledge to provide an approximation of caribou habitat for calving, rutting, overwintering and summer use and to approximate other areas of current and historical importance to the caribou. Describe how snow conditions known to occur from local and traditional knowledge in the study area are likely to affect caribou habitat use and range distribution in the overwintering period.

Conduct a literature review and access local and traditional knowledge to identify the known intrusion of the Red Wine Caribou Herd into Mealy Mountain Caribou Herd habitat in the vicinity of Happy Valley-Goose Bay.

Conduct a Caribou Calving Survey in spring 2003 (likely first week of June for Mealy Mountain Caribou Herd), in consultation with the Inland Fish and Wildlife Division of the Department of Tourism, Culture and Recreation. Provide mapping, at an appropriate scale, identifying the location of approximated caribou habitat and observed caribou calving areas in relation to the viable route alternatives. At a minimum the routes identified by the Innu Nation and the Newfoundland and Labrador Outfitters Association must be depicted in relation to the caribou habitat and caribou calving areas.