

SAVE-THE-CEDAR LEAGUE

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A Registered Charity, Incorporated in 1992, Concerned With: Conservation, Education, & Ecotourism of the Wildlife, Fish, Waters, Wilderness, Biodiversity, & Ecosystems of Old-Growth Cedar Rainforests

"Over 9 ha from our proposals have been protected by law for every dollar we ever received"

29 November 2005

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RE: Request for Input on Recovery Options for Mountain Caribou

Mr. Mark Zacharias
Species at Risk Coordination Office
Integrated Land Management Bureau
Ministry of Agriculture and Lands
Second Floor, 780 Blanshard St.
PO Box 9353, Stn. Prov. Govt.
Victoria, BC V8W 9M1

Dear Mr. Zacharias:

We are writing in response to your 18 October 2005 request for Input on "Recovery Options for Mountain Caribou," sent to our President and Consulting Interdisciplinary Ecologist, Dr. Rick Zammuto. We can support only Recovery Option 1, and we find it hard to believe the other 4 unsustainable Options have been put forward. We find the other 4 Recovery Options are contradictory to the whole purpose of recovery, by abandoning herds.

We find the Management Options too heavily in favour of reducing predation. We cannot spend the time citing all the scientific references that exist pertaining to the historical removal of predators in attempts to recover caribou that we feel must be re-read by authors and contributors to your Recovery Report. **As far as we know, all attempts of removing predators to recover woodland caribou in the lower 48 states failed to recover a single woodland caribou population 100% of the time over 200 years!** Almost all the woodland caribou herds in the lower 48 states are now extirpated (except one boundary herd), and almost all predators of those once-existent herds are also extirpated, many times in a failed attempt to recover woodland caribou.

The suggestion to exterminate predator species that themselves are "at risk" of extirpation throughout large sections of BC, and are already extirpated elsewhere, cannot possibly help caribou survive this time around! **Every time we know of that used predator "management" as a recovery tool failed and zero caribou are left. Thus we have 0% faith in the approach discussed, and in our opinions it has 0% probability to succeed in BC.**

Removing predators has been shown by the very best conservation biologists to be an archaic technique that should have been a long-ago-abandoned management technique. A recent well-known example was published in 1999 in the world's foremost scientific journal *Nature* 400:563-566 ("Mesopredator release and avifaunal extinctions in a fragmented system"). Crook and the father of Conservation Biology, Soule, documented that trophic cascades, generated by the decline of dominant predators, combined with other fragmentation effects influenced species diversity throughout an entire terrestrial ecosystem. The removal of coyotes caused skunk mesopredator release which in turn caused avifaunal extinctions of some 50 species, many of them endangered species. The endangered species in the Crook/Soule ecosystem disappeared simply because coyotes no longer chased skunks away from bird nests, an effect completely unexpected. Similarly, the BC Caribou Recovery Options presented, if executed, could easily lead to similar or completely unexpected more damaging effects on biodiversity.

We find that “Maintaining and Improving Habitat,” and “Reducing Disturbance” are the only scientifically correct management options that should be implemented, and yet too little focus is along these lines. These critical caveats for recovery are being completely ignored in caribou habitat in our backyards as we write. For example, Dale Seip, a major contributor to the Recovery Options Report, claims habitat change caused by logging is a major cause of caribou disappearance by causing the movement of prey and their predators into Caribou Habitat. Conversely, Seip also authorized several large clearcuts at the edge of designated Caribou High Habitat during 2002–2006 near the communities of Dome Creek and Crescent Spur. These clearcuts will lead to the same problems Seip and the others discussed throughout all the documents related to Mountain Caribou Recovery. **How can an author of the Options Report consider predator and prey management to recover caribou, while simultaneously authorizing forest management that creates the very conditions that will result in the further decline of caribou into the future?**

Other Scientific Contradictions Refuting The Recovery Options for Mountain Caribou Report

There are several other compelling scientific reasons why we cannot accept several aspects of your Options Report. One important reason is that your Options Report was encouraged and written by some of the same people whose work has been falsified by available scientific data. For example, Dale Seip and Mark Boyce published: “A quantitative approach to conservation planning: using resource selection functions to map the distribution of mountain caribou at multiple spatial scales” (*Journal of Applied Ecology* 41:238–251), claiming that there is 0% probability of finding mountain caribou in our backyard. To the contrary, our observations below prove wide-spread caribou distribution for the last 20 years in the same area.

The two Seip/Boyce (2004) maps below (labelled Fig. 2) claim 0% probability of caribou as white coloration. We magnified an inset between red arrows labelled **Our Inset** in the Crescent Spur area on this Seip/Boyce (2004) map:

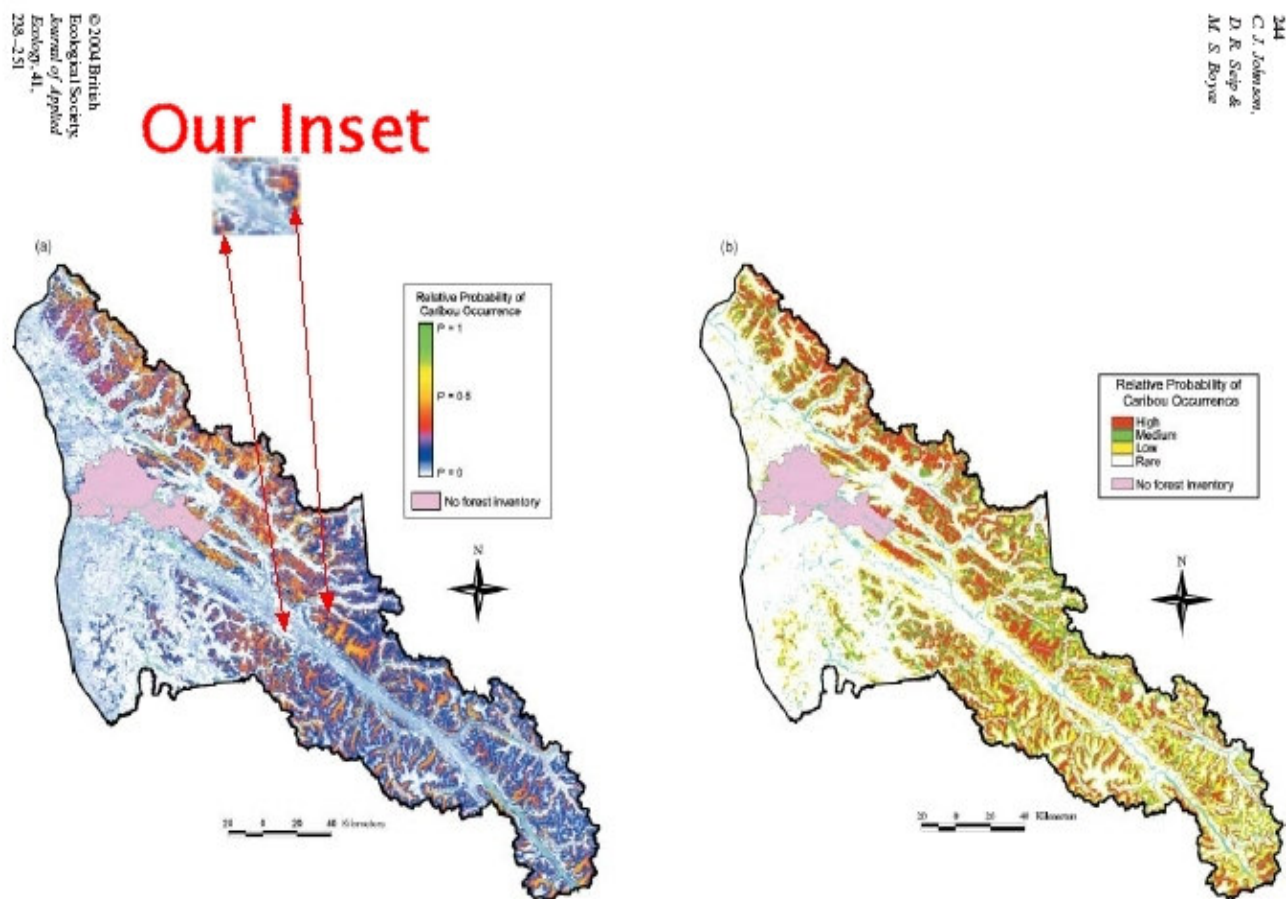
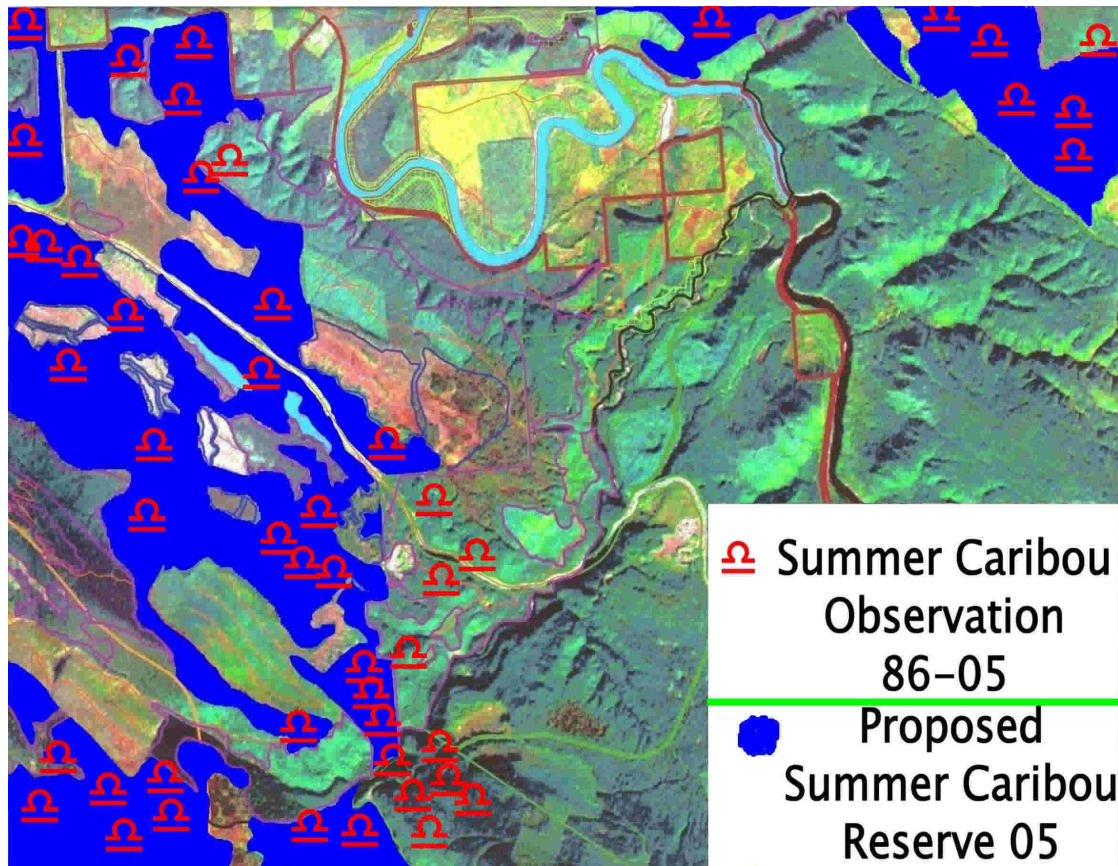
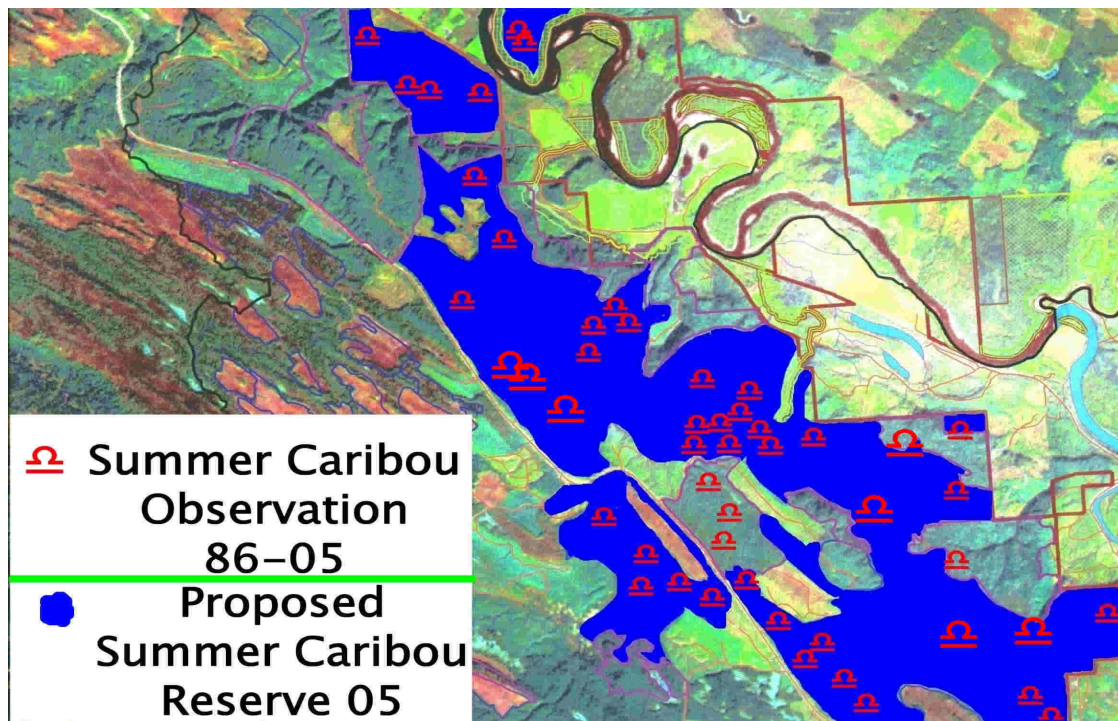
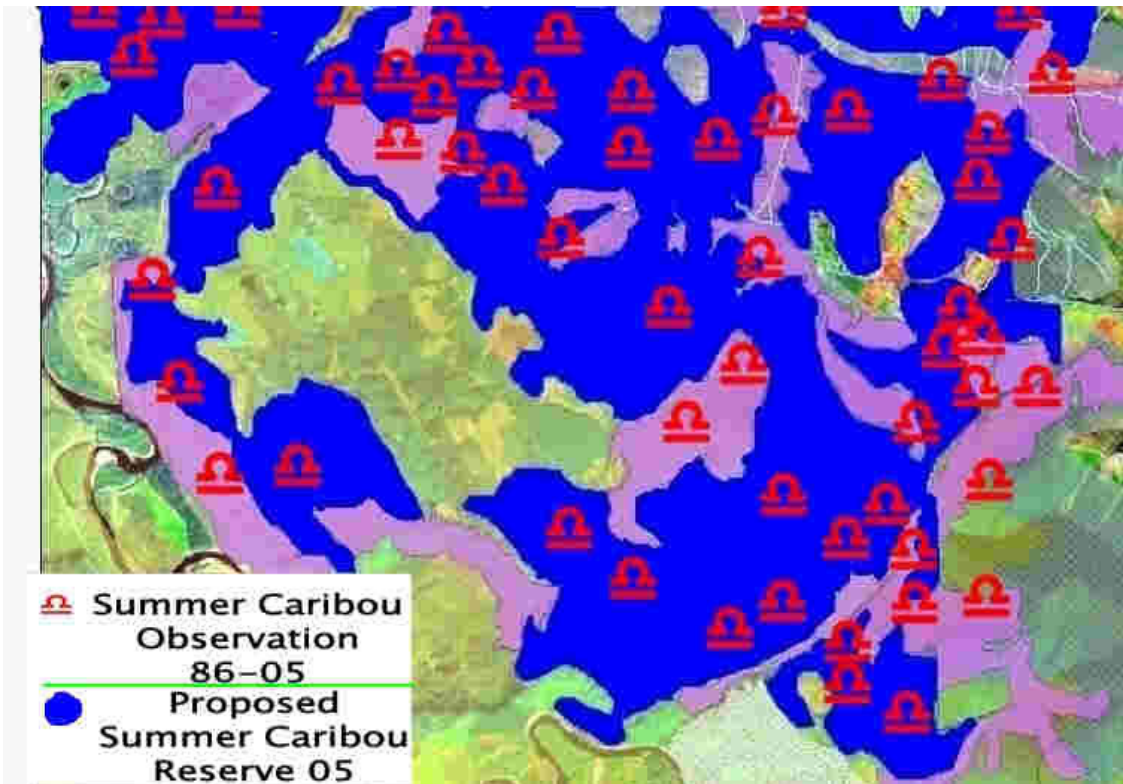
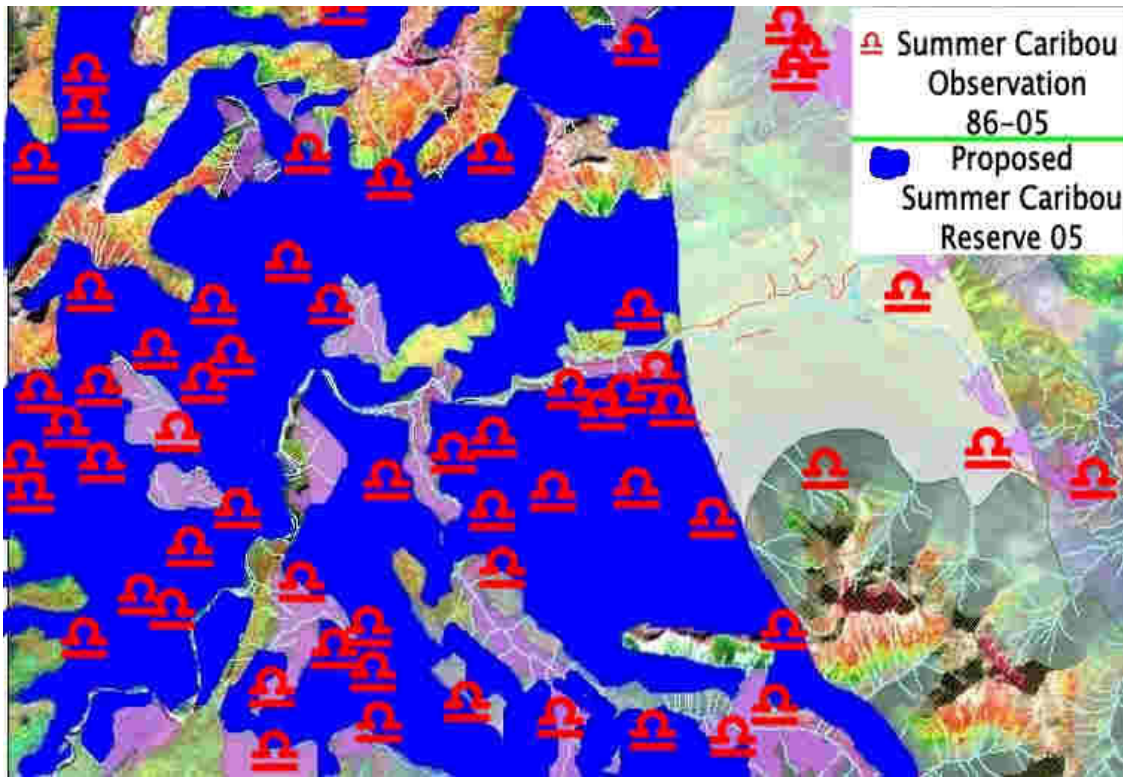


Fig. 2. Predicted (a) and categorized (b) probability of occurrence of mountain caribou across central British Columbia during winter. Maps represent the product of patch- (c) and landscape-scale resource selection functions (d).

Contrary to the Seip/Boyce (2004) computer simulations, we have documented caribou use in all seasons over **Our Inset** for 20 years as shown on the following 4 caribou track-sign-sightings maps (our 4 maps of winter sightings are nearly identical to the summer maps shown but we have not yet drawn the winter maps). The red Omegas on our four (2005) maps below from **Our Inset** are caribou sightings during other research over 20 years, with surrounding old-growth areas colored blue that we conclude should be reserved to maintain caribou:

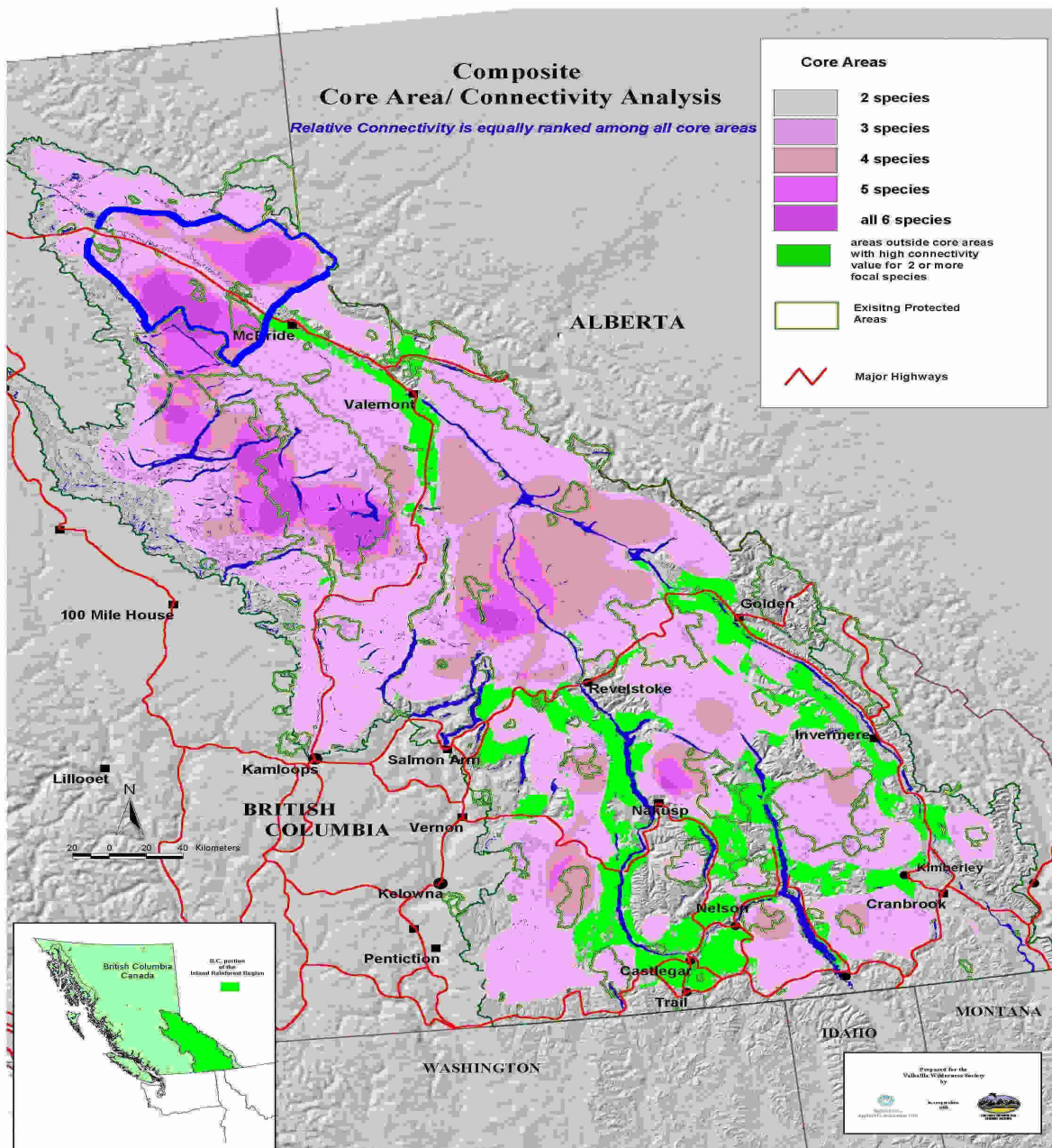




The 4 maps above show the 0% “predicted probability of occurrence of mountain caribou” of Seip/Boyce’s (2004) white coloration (their Fig 2, above) instead displayed more than 200 incidental observations of caribou! Thus our empirical data of real caribou observations falsify the computer simulations of Seip/Boyce (2004), simulations that are used in your Options Report to claim there are no caribou here, yet we know the area is used throughout the year by endangered Mountain Caribou.

This is not the first time we know of that these authors have ignored real data to force conclusions that they believed. The 1993 published article: "Time-specific and cohort life tables for Belding's ground squirrels," in Ecology 74(7):2168-2169, by Sherman and Zammuto, documents the deliberate manipulation of data to force a desired conclusion by Boyce. Thus our 4 caribou-use maps and our published scientific document throw into question several conclusions of your Recovery Options report.

All the maps above are part of the largest contiguous area remaining in the entire Inland Rainforest of southeastern BC outside of Parks that displays viable populations of 6 premier focal species (caribou, grizzly bear, wolf, cougar, wolverine, lynx), as highlighted in Craighead and Cross (2004): "A conservation area design (CAD) for the Inland Temperate Rainforest of Canada. This area is outlined in blue on the Craighead and Cross (2004) map below:



With all the facts above, Seip still authorized several large clearcuts at the edge of designated Caribou High Habitat during 2002-2006 near Dome Creek and Crescent Spur in his capacity with MOF. He and the Options Report urge the killing of 4 of the 6 premier focal species of Craighead and Cross (2004) within the largest core-area remaining for this species-complex in SE BC outside of Parks. The 2 breeding bull caribou below

were photographed at the same time Dale Seip claimed in public “there are no breeding caribou in the Crescent Spur area,” and as he authorized widespread clearcutting of their adjacent habitat:



LAST BREEDING ENDANGERED WOODLAND CARIBOU FOR CRESCENT SPUR, BC

In our opinions, a 1971 published quote by Bergerud from “The population dynamics of Newfoundland caribou,” (Wildl Monogr. No. 25) sums up the future of BC’s Mountain Caribou if your Options Report is carried out instead of being entirely rewritten: “Caribou were abundant in Newfoundland in the early 1900’s...Then, from 1915 to 1930 the herds rapidly declined and nearly became extinct...Since 1930 there has been a small increase in numbers; however, the population has never approached its former abundance even though the natural predator of caribou, the Newfoundland wolf...became extinct in 1911.” You must be able to qualify exactly why caribou nearly became extinct and never rebounded starting 4 years **AFTER** wolves were gone from Newfoundland or your “Reducing Predation Management Option” section is falsified by this Bergerud (1971) quote.

Other Issues That Must be Addressed on The Recovery Options for Mountain Caribou Report

- There seems to be several problems with Table 1, Column 7, “Prob of QE.” It shows a QE of only 13.6% for the South Selkirks Planning Unit with only 35–42 caribou, yet a QE of 39.5%, a 300% higher chance for QE for the Central Selkirks Planning Unit with 80–130 caribou. How can there be a 300% higher chance for QE in a population with 2–4 times the number of caribou? Similarly, the Robson Valley herd shows a 90.6% chance for QE, a 700% higher chance for QE than the South Selkirks, yet the Robson may have more animals (max 50 vs. 42) than the South Selkirks.
- You must prove that the marking of caribou by GPS collars used in Wittmer et al. 2005, a main article for the Options Report, did not cause increased predation. For example, can you prove that the collars did not produce any audible sounds heard by predators, or collars were not seen by predators?

- It is generally believed that "Top-down" carnivores may exert a controlling influence on their prey, but both top-down and bottom-up regulation can operate concurrently in the same ecosystem (Soule and Terborgh 1999 "Continental Conservation"). Humans have eliminated top predators from many ecosystems, drastically reducing the geographical ranges of many species, including wolves, cougars and bears. Herbivores have generally not overrun predator-free ecosystems, as we would expect if herbivore populations were only under top-down control.

Our conclusions for Caribou Recovery are:

- There should be no more logging, development, or recreation near Caribou High, Medium, Corridor, or Matrix Habitats, and the clearing of roads of snow should be banned for at least 10 years adjacent to caribou habitat to stop predator and prey encroachment of caribou habitat.

Government's extermination policies for old growth and now perhaps top carnivores are made to serve only industry. Top predators are now restricted to tiny fractions of their former ranges so that the integrity of biological communities over large portions of the terrestrial realm is distorted. Even where they are present, population densities of top predators tend to be low. The top academics conclude, top predators are essential to the integrity of ecological communities, it is imperative to retain top predators or restore them to as many parts of the North American continent as practical. Failure to do so will result in distorted ecological interactions that, in the long run, will jeopardize biodiversity.

Sincerely,

Julie Zammuto
Secretary-Treasurer