

Laws and Landscape Planning:

Canadian Examples for Woodland Caribou Management

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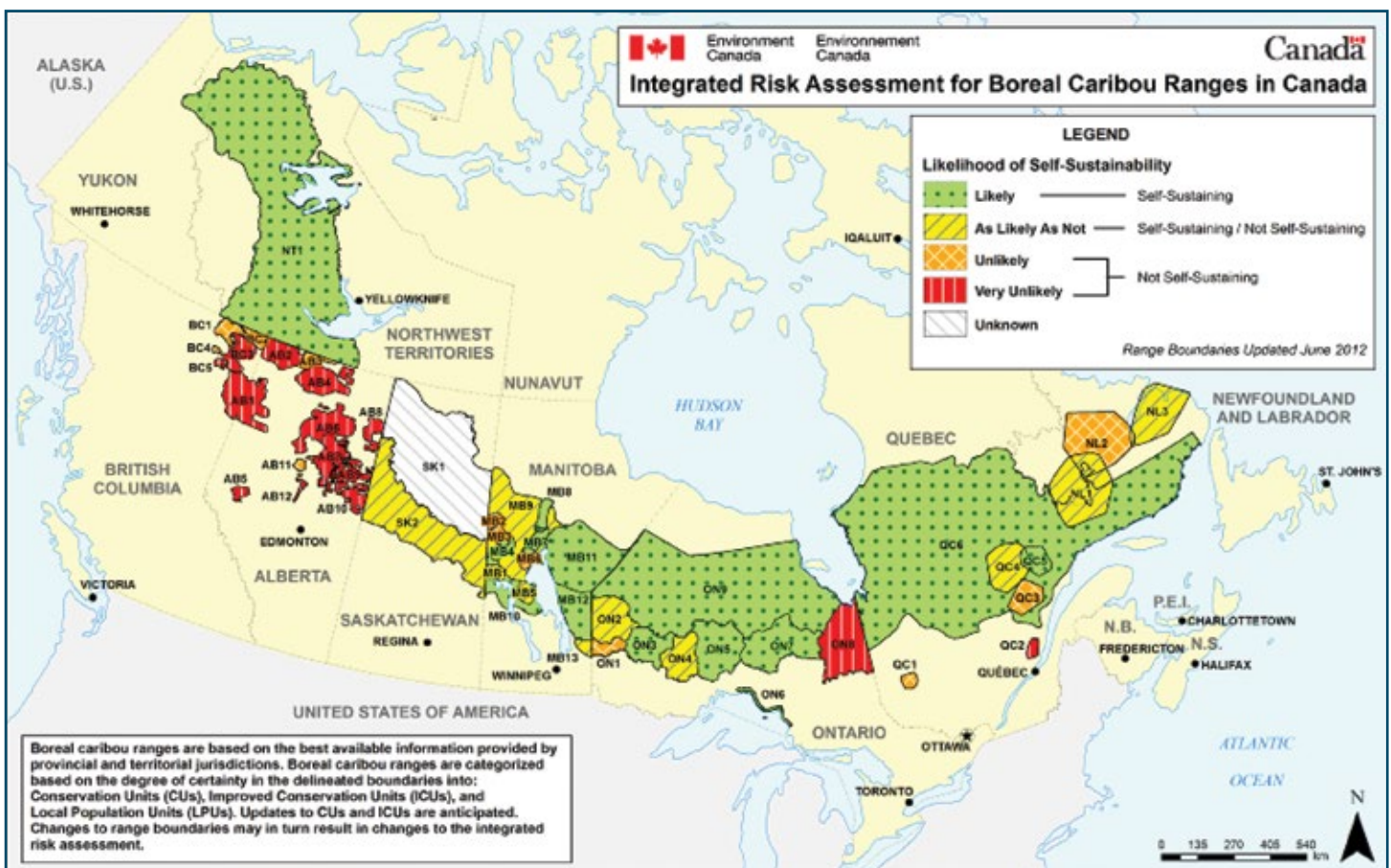
Woodland caribou are fascinating animals that are marvelously adapted to their wintry forest surroundings. It is our generation's responsibility to ensure that our children and grandchildren are able to appreciate them too, yet they are in grave danger of disappearing from Alberta within a few decades. In 2010, Alberta's *Wildlife Act* scientist advisors recommended that woodland caribou be designated as 'Endangered;' officially, they remain listed as 'Threatened.' These two

conditions are, strangely, not defined in Alberta law, but 'Endangered' generally means at imminent risk of local or general extinction, while 'Threatened' means a species is on the path to becoming endangered unless threats to its health are removed.

Woodland caribou status, unlike that of some other species, tells us a great deal about the health of the larger landscapes they traverse. They require intact old growth forests and peat wetlands. Caribou need large, relatively roadless areas within older forests so

that they can minimize the overlap of their range with those of deer, moose, elk, and predators such as wolves and bears. They are therefore a valuable indicator of ecosystem health in the boreal and foothills regions they inhabit.

The map below, from the 2012 federal boreal caribou recovery strategy, underlines that the sweeping band of boreal woodland caribou ranges across Canada is notably fragmented in Alberta. This is due both to historical and contemporary factors. Agricul-



The risk assessment map from Environment Canada's 2012 recovery strategy for Canada's boreal woodland caribou. Alberta's caribou ranges are the most fragmented and least likely to support self-sustaining caribou populations in Canada.

tural settlement in the Peace River corridor belongs to the first category while the growing footprint of forestry, oil, gas and oilsands looms very large in the second category. The map also reveals that Alberta populations are the least likely to be self-sustaining.

When it comes to increasing caribou survival prospects can we learn from what's happening on the ground elsewhere in Canada? Let's examine some of the caribou management approaches in place in other Canadian jurisdictions.

Provincial Species at Risk laws

Over half the provinces and territories with woodland caribou populations have their own 'species at risk' laws: Manitoba, Ontario, Quebec, Newfoundland & Labrador and the Northwest Territories. Each of these jurisdictions has listed the boreal woodland caribou as a species at risk under their law. Ontario also has an independent Environmental Commissioner office that reports directly to the legislature on the government's compliance with its own environmental laws.

Alberta has no species at risk law of its own, and needs one. University of Calgary environmental law professor Shaun Fluker wrote in March 2010: "In my opinion, anyone who seeks effective legislative protection for endangered species in Alberta must advocate for provincial legislation. This is because wildlife and its habitat are by and large property of the provincial Crown, and it is a general principle of constitutional law in Canada that the federal government cannot in substance legislate over provincial property under the guise of a regulatory scheme.... any meaningful attempt to protect an endangered species will impact provincial property and necessarily requires effective provincial legislation."

Fluker went on to write that Alberta's *Wildlife Act* doesn't create any legal obligations to implement the most common approaches to protecting endangered species such as critical habitat protection and recovery strategies. "[T]he absence of legal rules governing endangered species under the *Wildlife Act* means little transparency, no predictability,

and no accountability in government decisions pertaining to protecting endangered species in Alberta," he added.

Federal direction

In the absence of an effective Alberta law for species at risk, the federal *Species at Risk Act* (SARA) is the strongest legal support for Alberta's caribou. Unlike Alberta's *Wildlife Act*, SARA defines 'Endangered' and 'Threatened.' Under SARA, the *boreal* woodland caribou populations of northern and central Alberta, as part of a broader cross-Canada boreal population, are designated as 'Threatened.' In May 2014, the *mountain* woodland caribou that live in the foothills and mountains of west central Alberta and central interior BC were assessed by SARA scientist advisors as 'Endangered,' though officially they still are listed as 'Threatened.'

SARA demands a federal recovery strategy using the best available science to manage endangered and threatened species with a goal to recovery, where technically and biologically feasible. The recovery strategy should identify threats, critical habitat, and establish a timeline for range and action plans.

Scientists have determined woodland caribou populations in Canada to be technically and biologically feasible to recover. Politicians haven't shown the will to follow expeditiously this scientific advice. The federal boreal woodland caribou recovery strategy was released five years *after* mandated deadlines within the Act. It was released only after AWA and other groups took concerted legal action. We finally secured its release in October 2012. Now that it is out, it provides important direction for both federal and provincial authorities using best available science on the habitat disturbance thresholds we need to implement in caribou ranges.

The recovery strategy directs provinces to develop range plans on provincial lands within three to five years. The range plans will outline how the given range will be managed to maintain or attain a minimum percentage of undisturbed habitat over time. Habitat disturbance includes natural fire disturbance, as well as human disturbance buffered by 500 metres. The buffering of human

disturbance accounts for two circumstances: the increased likelihood of predation, as the disturbed habitat stimulates alternate prey species and creates predator access, and observed caribou stress and avoidance behaviour near human activity and linear features such as roads.

The recovery strategy management target set by Environment Canada is a minimum of 65 percent of total range disturbance. Some conservation groups, including AWA, saw this target as regrettably risky: according to the best available science, this habitat disturbance level only gives caribou a 60 percent chance of being self-sustaining. An 80 percent threshold for undisturbed range would have been preferable, giving caribou an 80 percent chance of being self-sustaining. Nonetheless, by setting maximum range habitat disturbance levels, the federal recovery strategy is a valuable step forward in a cumulative effects-based caribou management approach. It should guide all the provinces and territories in their next management steps.

Manitoba's approach – best potential?

Manitoba's caribou approach likely has the best potential now, though it is not without concerns. Boreal woodland caribou still inhabit most of their historic range in Manitoba. The only significant exception is a section of their southern range lost due to human disturbance. Boreal caribou were listed as threatened in Manitoba in 2006 under their *Endangered Species Act*.

A draft Manitoba boreal woodland caribou recovery strategy was released for public comment in April 2014; public consultation wrapped up in early August and the final plan has not yet been released. The draft plan includes a declaration to protect and manage for 65 to 80 percent intact suitable boreal caribou habitat in each caribou management unit. This is a strong and positive commitment.

How well Manitoba will fulfill that pledge is less certain. Manitoba proposes to introduce landscape zones. It will be crucial to see how large the more protective zones are and



Mountain caribou, Jasper National Park PHOTO: © P. SUTHERLAND

how all the zones are actually managed. The key statement on zones in Manitoba's draft policy is: "Manitoba will ensure that protection and forest management planning supports conservation of large suitable areas of caribou habitat through the development of dynamic caribou habitat plans within management units along with large core areas where forestry does not occur. Forest management planning must provide for a sufficient amount and arrangement of currently suitable habitat and future habitat." It's worth considering these phrases carefully, because they may soon appear in Alberta.

The commitment to 'core areas without forestry' is crucial. In these areas, caribou habitat recovery should be the undisputed management priority. Before human settlement and industrial activities, woodland caribou moved within large overlapping home ranges based on the changing mosaic of a largely roadless boreal forest. Fire, insects, and flood disturbances drove their move-

ments. AWA's view, noting Alberta's situation of highly disturbed caribou ranges, is that the whole range should be designated as a 'core area without forestry.' As well, minimum 20 kilometre-wide buffer zones should be established around the smaller ranges. Why do we take this position? Because Alberta caribou have nowhere but these remnant range areas to move within: potentially suitable areas outside their range are far more disturbed and fragmented. These core areas should be managed primarily towards maintaining relatively roadless older forests and wetlands. These areas would benefit many other old-growth-forest-reliant and wetland-reliant species. In the foothills and the boreal this would benefit threatened native fish such as bull trout.

It will also be crucial to see what other industrial activities Manitoba permits within these core protected areas: the goal should be to steadily reduce the footprint to achieve a maximum 20 percent total

disturbance level. In Alberta, oil and gas leases are regrettably grandparented into provincial parks and wildland parks. Even with this major compromise in protection, a path forward is possible. Alberta's landmark Hay-Zama Wildland Park agreement demonstrates that the petroleum industry's footprint in a highly sensitive wetland complex can be aggregated and reduced, then phased out, in an orderly way.

The 'dynamic caribou habitat plans' zone designation in the Manitoba draft plan may be a slippery term. It suggests zones where industrial-scale logging moves around and where caribou occupy the older habitat pieces within those zones. For this to work, it's crucial to have large areas where logged forests are left for well over 50 years. They must not be logged as soon as they become usable by caribou. Also, if the core protected zones are small, then young logged forests adjacent to them will stimulate alternate prey and predator populations and dynamics. This

will nullify the effect of the core area.

It is unknown how successfully caribou will recover in previously logged and roaded areas; it's risky to rely too heavily on these 'dynamic habitat' areas for caribou recovery. To soundly conclude that caribou habitat is recovered, caribou populations should be demonstrated to be actually recovering towards or maintaining self-sustaining levels. At its worst, this approach would facilitate moving logging too quickly throughout the range, all the while increasing cumulative habitat disturbance. Unfortunately, ENGO colleagues have told us that this latter outcome seems to be the intent of a similarly phrased policy being adopted in Ontario. We urge Manitoba (and Alberta in its turn) to do better.

Ontario – Badly Backsliding

Speaking of Ontario, before last summer it would probably have been considered the Canadian leader in caribou conservation. It passed a widely praised *Endangered Species Act* (ESA) in 2007. In 2009 its caribou conservation plan pledged to manage cumulative disturbance on caribou ranges using a precautionary approach to land use and resource development decisions.

But in July 2013 a major retreat occurred. Ontario approved companion regulations to its ESA that offered significant permanent and extended transition exemptions for industries and activities. In September 2013, several environmental organizations launched a lawsuit against the Ontario government on the grounds that the regulatory exemptions unlawfully undermine the ESA's very purposes

and do not adequately consider the regulations' impact on the ESA's listed species. In November 2013, Ontario's Environmental Commissioner issued a report called *Laying Siege to the Last Line of Defence: A Review of Ontario's Weakened Protections for Species at Risk*. The report outlined many concerns with these regulations. For the sake of Canada's woodland caribou and other at-risk species, we hope this backlash against Ontario's recent rollback of protection will encourage the new Liberal majority government to help restore Ontario as a more exemplary environmental manager.

British Columbia's Muskwa-Kechika still sets the standard

The landscape-level cumulative effects management approach of B.C.'s Muskwa-Kechika



Alberta's woodland caribou urgently need a genuine cumulative effects management approach such as that enacted in law for BC's Muskwa-Kechika Management Area. PHOTO: © D. CRAIG

chika region remains a model for managing caribou ranges and other ecologically significant regions. The Muskwa-Kechika Management Area was established by law in 1997, arising out of two regional land and resource management plans in northeastern BC. After extensive modelling and multi-sector consensus-based work, the Management Area established 11,700 square kilometres of protected areas free from industrial disturbance. It also established 32,400 square kilometres of special management areas which allow energy and other development to occur within a sustainable footprint. Several special management areas adopted legal land use thresholds before extensive tenures for industry were leased.

There are significant gas resources in the Muskwa-Kechika. In some of these management areas, the B.C. government placed a hold on granting new mineral license tenures for several years while it developed “pre-tenure planning” to manage and minimize the impact of energy development. Pre-tenure plans contain thresholds for allowable levels of impact to specific categories of wildlife habitat. They also require coordinated access planning (such as building roads) between operators on the landbase. Targets were developed for the following indicators: disturbance to specific vegetation communities; amount of habitat disturbed by quality class; areas of special biological significance; abundance and distribution of non-native species; proportion and amount of disturbed area restored; spills and releases; traditional resource use and heritage sites; consultation with First Nations; volume of oil and gas produced; royalties generated; and number of unresolved conflicts. This would be a good path to follow for the unfinished pieces of Alberta’s land use planning.

Next steps in Alberta: Biodiversity framework?

The cumulative effects management in the Muskwa-Kechika sounds like what Alberta’s regional plans under the Land-use Framework could accomplish if the Framework’s initial vision is honoured. The Land-use Framework affirmed: “We have reached a

tipping point, where sticking with the old rules will not produce the quality of life we have come to expect. If we want our children to enjoy the same quality of life that current generations have, we need a new land-use system.” Alberta has pledged to maintain and conserve species diversity province-wide as well as in the oilsands region, yet the first two regional plans, the Lower Athabasca and the South Saskatchewan, have not delivered crucial land management pieces.

To its credit, in August 2014 the Alberta government released its first proposed biodiversity management framework for stakeholder consultation. The framework will apply to the Lower Athabasca region of northeast Alberta. There are proposed indicators for terrestrial and aquatic habitats and species. For example, indicators include “amount of old forest land cover,” “amount of core habitat [undisturbed, connected],” “amount of fen,” and an as-yet-undefined woodland caribou status indicator. The idea is to establish several cautionary ‘trigger’ levels for an indicator that activate escalating measures to ensure a threshold level is not crossed. An accompanying landscape management plan is also being developed. Within the LARP policy document approved in 2012 there was a commitment to identify and set triggers and threshold values for land disturbance.

The biodiversity management framework and landscape plan have the potential to greatly advance cumulative effects management in caribou ranges and beyond. It has the potential to moderate today’s laissez-faire approach to industrial tenure leasing, and embed clear regulatory actions within licenses and other development approvals. Critical questions remain: will the thresholds and triggers be science-based? Will real on-the-ground management actions take effect once trigger levels are crossed? At this point, the future of Alberta’s caribou, forests and wetlands are depending upon it. 🐾

Too Much Fiddling, Not Enough Action

August 2014 marks the one year anniversary of the Alberta government forming a multi-sector advisory group to advise on the first caribou range plans it is required to develop under the 2012 federal caribou recovery strategy. Alberta chose two west central populations for its first planning process: the Little Smoky boreal woodland caribou population, and the adjacent A La Pêche, a mountain woodland caribou population. The Little Smoky caribou have the highest human-caused range disturbance level in Canada. That disturbance level (forest cutblocks, seismic lines, pipelines, and roads all buffered by 500 metres) is now estimated at 100 percent of the Little Smoky range, where caribou populations have been stabilized by massive wolf culls since 2005. The A La Pêche is a mountain woodland caribou population recently assessed as ‘endangered’ whose winter ranges are highly fragmented.

AWA is an ENGO delegate to this advisory group. Despite the dire situation of woodland caribou, AWA still believes solutions are within reach. The energy industry could aggregate and reduce its footprint through directional drilling and pooled leases. Forest harvest could end in the ranges and surrounding buffer zones if forestry jobs could be reconfigured through intensive restoration efforts and regional wood fibre sharing. It’s too early to tell what the results will be, but we are there to advance a science-based habitat-centred plan to recover west central caribou to self-sustaining populations. For the time being, Alberta supports this goal only on paper while it continues to approve high rates of new habitat disturbance on the ground within these ranges by forestry and energy.