

## Briefing Note: Woodland Caribou Conservation in Alberta

**Prepared for:** Members of the Alberta Chapter of The Wildlife Society (hereafter ACTWS), Government Representatives, and The Public

**Prepared by:** The Conservation Affairs Committee of the ACTWS.

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**Preamble.** This briefing note synthesizes information that was shared in an invited presentation to the inaugural *Species Reporting Panel* at the annual meeting of the ACTWS on March 1, 2026.

**Status of populations.** Woodland caribou were once widespread in Canada but occurred at low population densities in habitats with low forage productivity, few other ungulates and, consequently, few predators. Today, 15 woodland caribou populations continue to inhabit lands administered by Alberta; 12 of the boreal ecotype and 3 of the mountain ecotype. Over the past several decades, most herds have exhibited declining population trends in the absence of wolf control. Caribou were designated as threatened in Alberta in 1996 and the first recovery plan was drafted in 2004. Since then, trend information is gathered by tracking the survival of 10 – 61 radio collared adult females and comparing it to female calf recruitment to calculate the annual rate of population increase ( $\lambda$ ).

**Causes of decline.** Caribou population declines are strongly associated with the loss and fragmentation of mature coniferous forests where caribou forage on lichens. Loss occurs primarily through fragmentation of habitat most frequently associated with oil and gas development and commercial forest harvest. Among 26 areas being monitored for caribou recovery, only two currently meet the target of 65% undisturbed habitat in 2021 (Figure 1). Forest loss and fragmentation increase the prevalence of clearings, edges, and young forest that favour other ungulates, especially moose and white-tailed deer, and their predators, primarily wolves.

**Conservation efforts.** In 2012, the federal recovery strategy recommended a target of 65% undisturbed forest. In October 2020, the Government of Alberta (GOA) and the Government of Canada (GOC) signed the Agreement for the Conservation and Recovery of the Woodland Caribou in Alberta to facilitate woodland caribou recovery in Alberta (“Section 11” Agreement under the Federal Species at Risk Act). The Agreement stipulated that the GOA would develop 11 Sub-Regional Plans which would address habitat needs for all 15 woodland caribou populations inhabiting provincial lands by 2025. Each plan was to demonstrate how the GOA would manage land use activities to enable achievement of a minimum of 65% undisturbed habitat for each of the 15 woodland caribou ranges within 50 to 100 years.

Additional approaches to caribou conservation address populations of other species. A prominent but controversial method since 2005 has been the culling of wolves, which now occurs in 9 of the 15 ranges to maintain woodland caribou populations. To date, an estimated

400 wolves have been removed, via a combination of helicopter aerial-gunning, snares, and strychnine poisoning. A complementary method of preventing a prey base capable of supporting increasing wolf populations following lethal wolf control was the liberal harvest of antlerless moose; however, that method was recently suspended out of concern for diminishing moose hunting opportunities (commercial, recreational, constitutional).

**Progress on Sub-Regional Plans.** To date, the GOA has completed three of the 11 plans and revised two of them in late December, 2025, by amalgamating those plans with adjacent planning areas and caribou populations. The Cold Lake Sub-regional Plan (now amalgamated with Wandering River) and the Bistcho Sub-regional Plans (now amalgamated with Chinchaga) describe recovery actions for woodland caribou recovery within the next 100 years. The third plan, the Upper Smoky Sub-regional Plan, applies to two of the last three herds of southern mountain caribou in Alberta – occupying the Redrock-Prairie Creek and Narraway ranges. The Upper Smoky Sub-regional Plan includes extensive timber harvest of winter ranges for these herds as a combination of forestry operations and firebreaks under the pretense of protecting other parts of the range. In the same area, resident tags for antlerless moose harvest were reduced in 2024 by 75%.

**Conservation concerns.** The Alberta Chapter of the Wildlife Society is concerned for the future of caribou populations throughout their remaining ranges because the rate of forest loss and fragmentation is very likely to contribute to further population declines. These concerns are particularly acute in west-central Alberta for southern mountain caribou. A recent study for the Berland Sub-regional Planning Area (encompassing the Little Smoky and A La Peche woodland caribou ranges) concluded that a 63% reduction in coniferous harvest would be required to achieve the Woodland Caribou Recovery Plan goal of 65% undisturbed habitat in 100 years.<sup>1</sup> An extensive review of the literature provided little support for the efficacy of firebreaks in these landscapes because of the wind-driven, long-distance spotting of embers from severe fires.<sup>2</sup>

Southern mountain caribou face additional threats. The reduction in moose harvest in the Upper Smoky Sub-region is likely to increase populations of both moose and wolves, further driving the decline of caribou. Wolf predation is enhanced by seismic lines, but the rate of their restoration is far too slow to support caribou conservation, while provincial ambitions to increase oil and production and export are expected to increase the pace and extent of associated disturbance in these caribou ranges over the next decade(s). The documented avoidance by the Redrock-Prairie Creek and Narraway southern mountain populations of portions of their ranges more affected by industrial disturbance has resulted in the remaining animals wintering in alpine habitats where avalanche rates are increasing. In 2019, 26 caribou from the Redrock-Prairie Creek population died in a single avalanche event.

**Recommendations.** Four core actions are needed to stem population declines in all caribou ranges, but particularly for the remaining herds of southern mountain caribou:

1. Reduce habitat loss and fragmentation by forestry and the oil and gas industry;
2. Restore seismic lines to address increased travel by wolves and recreationalists; and

3. Restore economically unproductive footprint (e.g. pipeline rights of way, orphaned and abandoned wells) to address habitat needs of caribou over the long term; and
4. Manage populations of wolves, moose, and white-tailed deer to reduce apparent competition via predation on caribou.

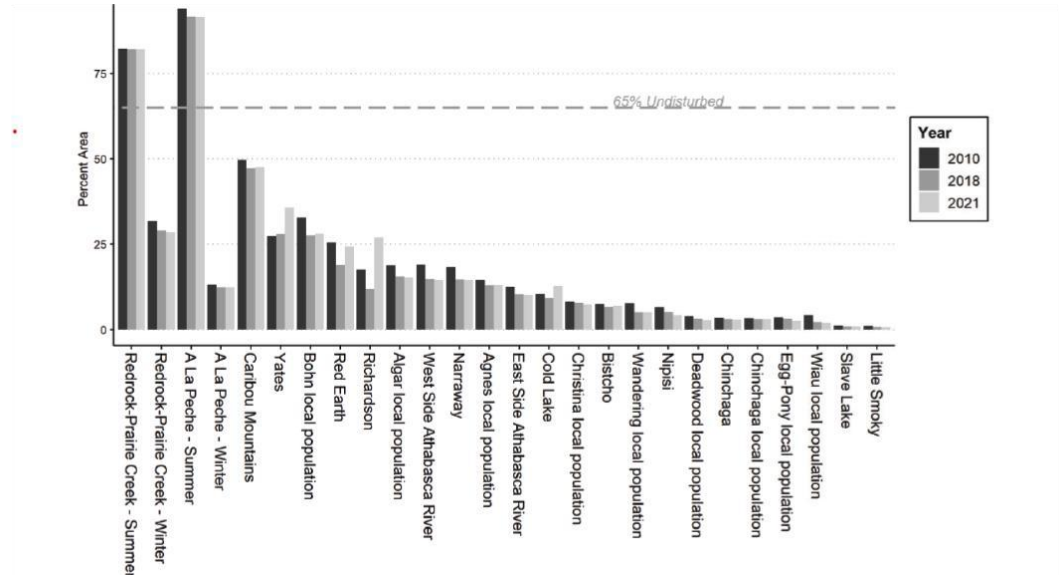


Figure 1. Percent of undisturbed habitat in 2010, 2018, and 2021 in each caribou range (including local populations and seasonal ranges).<sup>3</sup>

<sup>1</sup> Purdy, L, Bouchie, C, and B. Christian. 2022. Exploring the Implementation of Aggregated Harvest in Woodland Caribou Ranges. Report prepared for the Alberta Regional Caribou Knowledge Partnership by FORCORP Solutions. 231 pp. Edmonton, AB.

<sup>2</sup> Zong, X., X. Wang, S.C.P. Coogan and M. Flannigan. 2026. Effectiveness of firebreaks: a review. *Fire Ecology* 22:17 <https://doi.org/10.1186/s42408-026-00451-1>.

<sup>3</sup> Alberta Environment and Parks. 2024. First report of the implementation of the Section 11 Agreement for the conservation and recovery of the woodland caribou in Alberta. 52 pp. Edmonton, AB. ISBN 978-1-4601-5925-5