

Fortymile Caribou Herd Management 2020  
Division of Wildlife Conservation  
Alaska Department of Fish and Game  
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The Fortymile caribou herd is a highly valued international wildlife resource. Dedicated Canadian and Alaskan hunters and other citizens have contributed, compromised, and sacrificed to allow this herd to grow while still allowing some level of harvest. Since 1995, the herd grew from approximately 20,000 caribou to a minimum of 73,009 caribou in 2017.

The herd started to show signs of declining nutrition as it approached and exceeded 50,000 caribou in the early 2000s, and now, based on current nutritional indices and population models, Alaska Department of Fish and Game (ADF&G) has concluded that the Fortymile caribou herd is potentially at the beginning of a precipitous decline due to overgrazing of its range.

The herd has been managed for growth since 1995. However, recent data in a multi-year vital rate data set (especially October calf weights and the calving rate by 3-year-old females) collected by ADF&G, in cooperation with the Yukon Department of Environment, shows a striking resemblance to data from herds in other parts of the state that have experienced precipitous declines. These data clearly indicate the Fortymile Herd is at great risk of a precipitous decline to much lower numbers and that managing for slow growth or a stable population could further exacerbate the level of decline.

These multi-year data collected by ADF&G are the signal for recognizing when nutrition is compromised enough to require reducing the population by increasing harvest. The best management strategy to mitigate the potential for long-term impacts to the herd's forage from continued overgrazing is to use harvest to reduce the herd size to allow the nutritional condition of the herd to improve enough to help slow or arrest the decline.

### **Regulatory Year 2020 Harvest and Herd Monitoring Strategy**

Our goal for Regulatory Year 2020 is to reduce the herd size by approximately 10,000 animals through harvest and to continue to monitor key nutritional indices. In subsequent years, we hope to be able to slow harvest once these nutritional indices begin to rebound to levels that indicate the available forage can support the caribou herd. Improving the Fortymile herd's nutritional status would increase productivity of this important caribou herd. Given recent studies, maximum sustained yield (in absolute numbers of caribou harvested) may well be attained at a herd size smaller than when nutritional stress occurs.

For the fall 2020 hunt (RC860), we held an either sex fall hunt (August 10–September 30), with a bag limit of 2 caribou and a harvest objective of 5,000 caribou to begin reduction of the herd. Total reported harvest was 5,385 caribou. This number was within the  $\pm 15\%$  range (4,250–5,750 for RC860) that the department uses to assess whether harvest objectives are met for the Fortymile caribou herd.

Before the RC867 winter hunt begins in late October, we will monitor survival of adults and calves; conduct a composition survey; capture, collar and weigh 20 female calves; and collect and necropsy an additional 20 female calves to assess fall calf weights, body condition and disease prevalence to better inform our understanding of the Fortymile herd's nutritional status. The winter hunt (RC867) harvest objective will be based on results of these assessments.

### **RC867 Winter Hunt Strategy**

Pending analyses of herd monitoring efforts occurring as of the time of this writing, the general structure of RC867 Fortymile caribou winter hunt is as follows:

Season Dates: The winter season is scheduled to occur October 27–March 31. The bag limit will be 1 or 2 caribou and the harvest objective will be up to 5,000 caribou.

Hunt Quota: Our current estimate of the RC867 winter harvest quota is as follows:

- Harvest in Zones 2 & 4 will be applied to the overall winter quota and may remain open until the end of the season.
  - Zone 4 may be closed at the same time as or soon after Zone 1, if the Zone 1 quota is reached and harvest in Zone 4 is also progressing rapidly. When caribou are easily accessible in Zone 1 they are often also easily accessible in Zone 4. Closing Zone 4 under these circumstances will preserve hunting opportunity for Zone 2 and 3 hunters.
  - Zone 2 is likely to remain open until the end of the season because access is difficult.
- Sixty percent of the winter quota will be allocated to the road accessible Zones 1 or 3 (wherever the majority of the herd is located immediately prior to the opening of the winter season).
- The remaining 40% of the quota will be assigned to the remaining road accessible zone.
- If the quota will not be met in one zone, 75% of remaining quota may be reassigned to the other zone.

Based on these assumptions, the preseason Zone 1 quota could be up to 3,000 and the Zone 3 quota could be up to 2,000. However, up to 1,500 of the quota from Zone 3 may be shifted to Zone 1 to allow for additional harvest if harvest in Zone 1 reaches and exceeds the Zone 1 quota. This strategy will still allow unused quota for Zone 3 for the remainder of the season. The main driver of the Zone quotas will be the location of caribou at the opening of the winter season on October 27.

Herd monitoring, data collection, and analyses will be completed by 16 October, and final determinations for harvest objective, bag limit, and Zone quotas will be in place by 23 October.