

**March 2010 Mountain Caribou Census in the Prince George Forest District  
Doug Heard, Dale Seip, Glen Watts and Doug Wilson**

**April 2010**

We counted mountain caribou within the Prince George Forest District between 22 and 31 March 2010. The census followed the standard mountain caribou survey protocol of flying in a helicopter along treeline within each watershed searching for caribou tracks. When fresh tracks were located, the area was intensively searched to locate and count the caribou. Caribou were classified as adults or calves. Where the caribou could not be located, the number of animals was estimated based on the amount of tracks. The flight route and caribou locations were recorded on a GPS receiver.

Flight routes are shown on Figure 1.

Survey conditions were good to excellent throughout the survey period and in all areas.

We used a sightability correction factor of 83% to produce a population estimate that accounted for caribou that were not seen during the survey (Seip 1990, Young and Roorda 1999) and that was comparable to past surveys. We also calculated a sightability correction factor based on the proportion of the radio-collared caribou seen during this year's and previous year's Parsnip survey (see below).

March date	crew	location
22	RA GW GK DS	Sugarbowl Raven
24	RA GW DW	Haggen
24	GA DS DH	Haggen Bearpaw
25	RA GW DW	Narrow Lake Haggen
25	GA DH GK	Torpy Sande Severeid Hedrick
27	RA GW DS	Otter
27	GA DH DW	Parsnip
30	RA GW DS	Parsnip
30	GA DH TZ CR	Parsnip
31	RA GW DS	Arctic-Pacific Hedrick Walker
31	GA DH DW	Parsnip/Otter follow-up

RA Rob Altoft, GA Greg Altoft, DH Doug Heard, GW Glen Watts, DS Dale Seip, DW Doug Wilson, GK Gerry Kuzyk, TZ Ted Zimmerman, CR Chris Ritchie

**George Mountain:**

The absence of any tracks during a flight over part of George Mountain, supported the previous conclusion (Seip et al. 2006) that this caribou herd has been extirpated.

**Narrow Lake:**

We saw only 8 caribou in the Narrow Lake Herd and estimated 18. The Narrow Lake Herd has been steadily declining since the earliest counts were made in 1999 (prior year's data from Heard et al. 2009).

**Narrow Lake Results:**


---

Census block	Adults	Calves	Estimated from tracks	Total	Sightability Corrected
Narrow Lake	8	0	7-10	15	18

---

**Narrow Lake Population Trend:**


---

Year	Total Count	Population Estimate
2010	8	18
2009	21	25
2008	40	48
2007	48	58
2006	33	40
2005	34	41
2004	23	28
2002	61	73
1999	67	81

---

**North Cariboo Mountains:**

We estimated 92 caribou within the Sugarbowl and Haggan blocks which was only about half the number estimated in those blocks in the recent past (218 in 2006 and 204 in 2005). Percentage of calves was 14%. The Bowron census block of the North Cariboo Mountains was not surveyed in 2010.

### **North Cariboo Mountain Results:**

---

Census block	Adults	Calves	Total	Sightability Corrected
Sugarbowl	7	0	7	8
Haggen	59	11	70	84

---

### **Hart Ranges:**

We counted 447 caribou in the Hart Ranges, 149 in the Parsnip block and 298 in the southern Hart Ranges census blocks, the “Hart South” (Figure 1). We extrapolated the Hart South count to 359 using the standard 83% sightability estimate. Radioed cows in the Parsnip block provided additional information on sightability during our survey of that area. We expected there would be 21 radioed caribou in the Parsnip survey area but we found only 10 during the survey. Of the remaining 11 only 7 were in the herd range during the survey because 3 were outside of the survey area and one had died. It appeared then, that we saw 10 of 17 radioed caribou for a sightability estimate of 59%. However, it is possible that 4 of the collars apparently missed, were in groups that were detected and counted. When we went back the next day to find all the missed caribou, 4 of them were very near where a group of caribou had already been detected and counted during the survey. It was odd that we did not hear those 4 missed collars on the initial count. Presumably the radio was nearby but could not be heard because of the steep terrain or frequency drift. If so, then sightability was 82%, i.e., 14 of 17 collars found. In past Parsnip surveys, the percent of radioed caribou seen was 77%, 78% and 80% in 2007, 2008 and 2009 respectively. We suggest that we saw more than 59% of the caribou during the survey and that the best estimate for the Parsnip herd in 2010 should be 201 based on the unweighted mean of all 4 years of sightability estimates (74%).

The minimum count when incorporating the caribou associated with the 7 missed collars was 190.

Of the 3 collared caribou outside of the Parsnip herd’s range, 2 were in the Otter Lake block; 1 was seen during the survey at Otter Lake and 1 was missed, and the other was on about 30km northwest of the Parsnip survey above the Murray River.

Two radioed caribou were seen but not heard indicating immigration from another herd, possibly Kennedy Siding or Quintette.

The percentage of calves in the Hart Ranges population was 11%, 13% in the Parsnip and 10% in Hart South.

The number of caribou in the Parsnip and the Hart Ranges overall has increased slightly since 2002 but the 2010 estimate in the Hart South was considerably lower than in 2006 (Table: Hart Ranges Population Trend and Figure 2).

**Hart Ranges Results:**


---

Census block	Adults	Calves	Total	Sightability Corrected
Captain-Otter	38	7	45	54
Hedrick	27	4	31	37
Severeid	33	3	36	43
Sande	37	6	43	52
Torpy	18	4	22	27
Walker	30	0	30	36
Arctic-Pacific	13	0	13	16
Bearpaw	72	6	78	94
Parsnip	129	20	149	201
Hart South sub-total	268	30	298	359
Total	397	50	447	560

---

**Hart Ranges Population Trend:**


---

Year	Total Count	Population Estimate
2010	447	560
2006	596	718
2005	463	558
2002	374	450

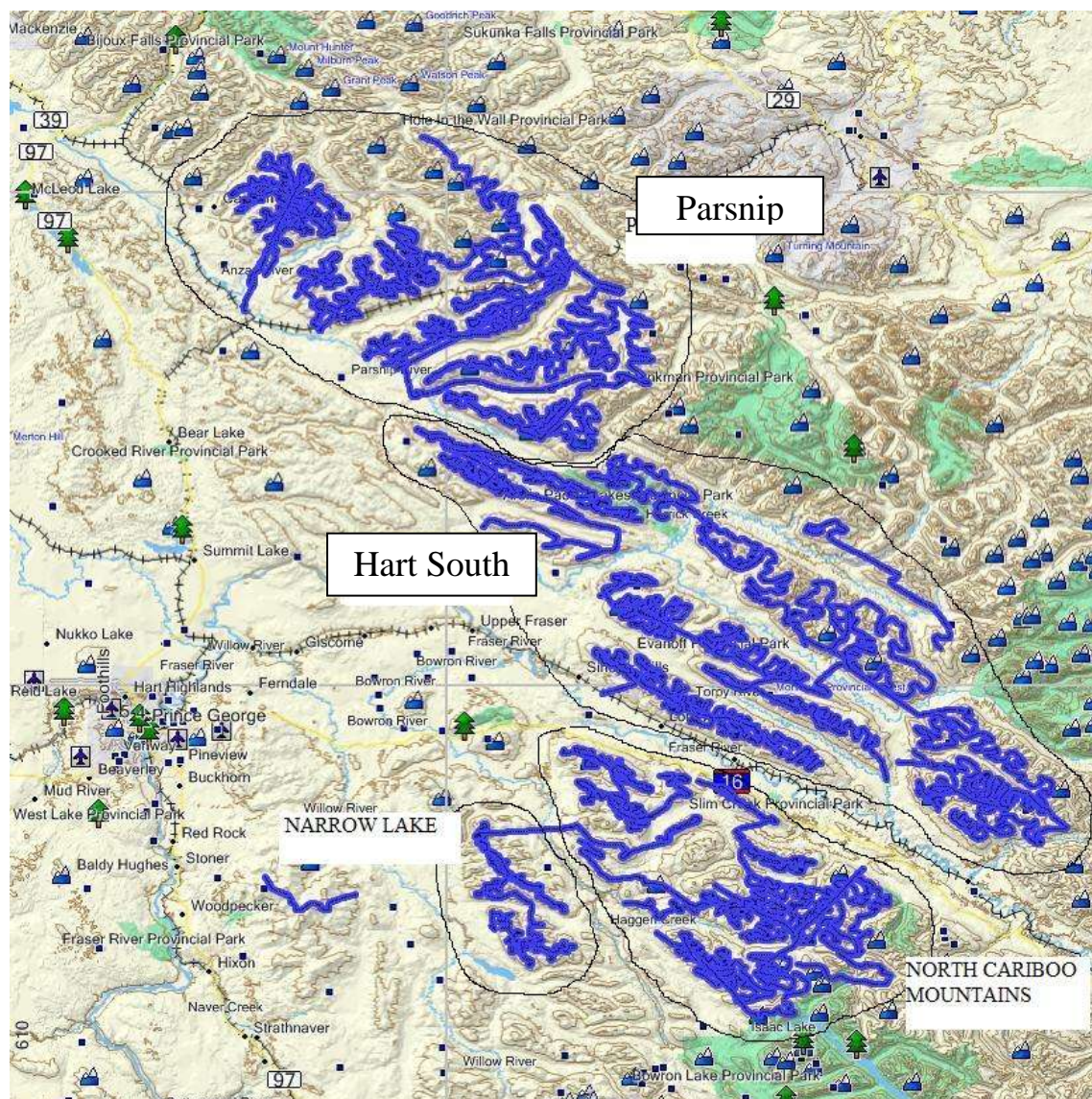
---

## **Acknowledgements**

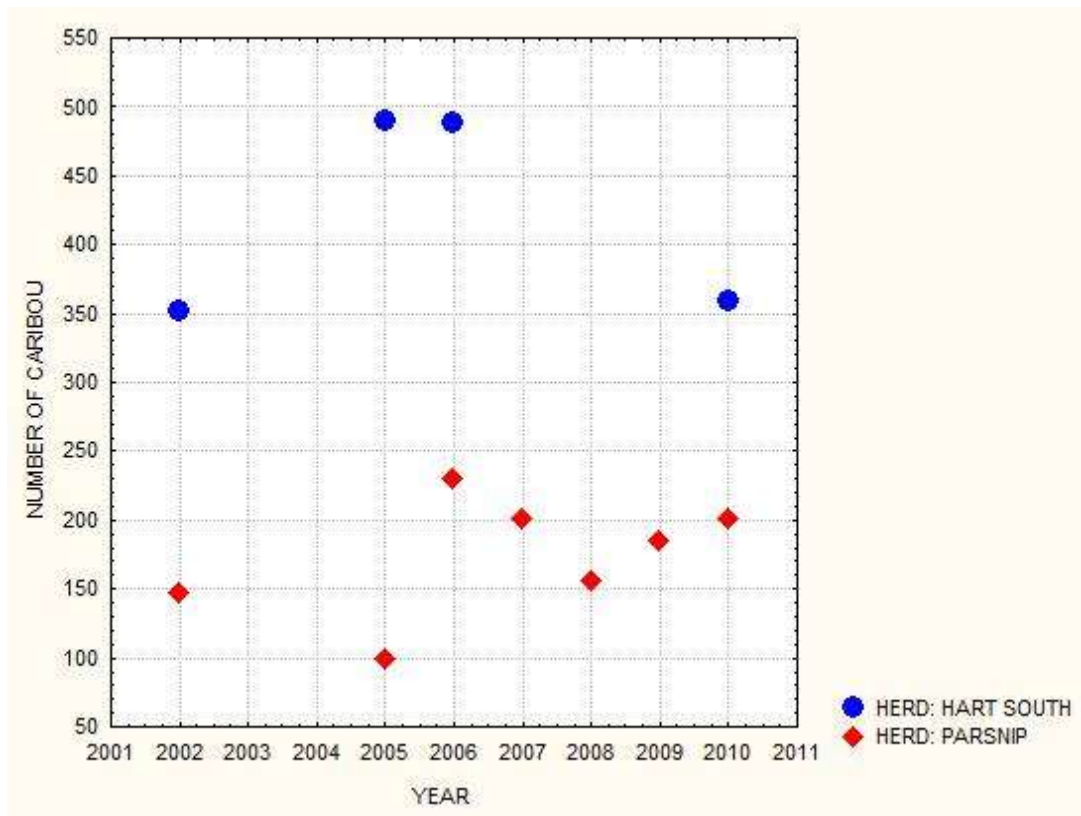
Funding for this project was provided by Peace-Williston Fish and Wildlife Compensation Program, the BC Ministry of Environment and Resources North. Field assistance was provided by Chris Ritchie, Gerry Kuzyk, Kathi Zimmerman, Ted Zimmerman and Robin Steenweg, and our pilots Greg and Rob Altoft provided safe and skilful flying and assistance counting caribou.

## **Literature Cited**

- Heard, D., G. Watts, and D. Wilson. 2009. Narrow Lake Caribou Census 2009. Unpublished report.
- Seip, D.R. 1990. Ecology of woodland caribou in Wells Gray Provincial Park. Wildlife Bulletin # B-68. B.C. Wildlife Branch. Victoria.
- Seip, D., G. Watts, D. Heard and D. Wilson. 2006. March 2006 Mountain Caribou Census in the Prince George Forest District. Unpublished report
- Young, J.A. and L.M. Roorda. 1999. Summary of the 1993-1999 mountain caribou census within the Quesnel Highland and Cariboo Mountains, Cariboo Region. Unpublished report.



**Figure 1.** Flight lines representing the area covered during the mountain caribou census 22 to 31 March 2010 showing the locations of the Narrow Lake, North Cariboo Mountains, Hart Ranges (Parsnip plus Hart South) caribou herds.



**Figure 2.** Number of caribou estimated in the Parsnip and Hart South caribou herds between 2002 and 2010