

Caribou Field Assessment Addendum #2

**TFL 23
Cape Horn
CP 478**

March 2006

Addendum to TFL 23 Caribou Assessment Reports: Cape Horn (Seaton and Hamilton 2004, 2005)

Submitted to:

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BACKGROUND

Previous mountain caribou field assessments in the Cape Horn planning unit were reported by Seaton and Hamilton (January 2004 and March 2005). This addendum reports on additional reconnaissance level surveys conducted in summer and fall 2005.

Field sampling procedures followed those reported previously by Hamilton and Leitch (2004). Arboreal lichen for *Bryoria* and *Alectoria* species was estimated according to Armleder et al (1992). Field surveys included recording evidence of caribou use, rating habitat value and recording of other wildlife observations. Results were recorded on standardized Wildlife Habitat Assessment (WHA) field forms (RIC 1998).

RESULTS AND DISCUSSION

An aerial reconnaissance of the Cape Horn planning unit was completed in August 2005. Additional ground-level reconnaissance and stand-level surveys were completed during the summer/fall of 2005. A total of 10 WHA plots were completed. Plot locations are depicted in Figure 1 and the WHA field forms are found in Appendices 1 through 10.



Reconnaissance-level Survey

A reconnaissance survey down the ridgeline between the upper reaches of Cape Horn creek in the northeast portion of this planning unit was completed on July 7, 2005. The purpose was to field-verify evidence of caribou use and to rate seasonal habitat values for caribou. The field information is recorded on WHA field forms found in Appendices 1-10.

Plot 1:

Evidence of Use:

A well established game trail running along the ridgeline was confirmed having evidence of both caribou tracks and juvenile and adult caribou scat (<1yr old).

Habitat Evaluation:

Current caribou habitat suitability was field-rated as having moderate value for early winter, high for late winter, and low value for the spring and summer/fall seasons (Appendix 1). Arboreal lichen abundance was estimated as high (Class 4: 99% *Bryoria*). Most of the lichen on the trees is available for feeding at two meters from ground level. This dry ridgeline offers little lush forage for caribou in the spring and summer fall seasons (Figure 2).



Figure 2: WHA Plot 1

Other Species:

Fresh mule deer tracks and antler scrapes were observed along the ridgeline.

Plot 2

Evidence of Use:

A game trail (Figure 3) contained both caribou tracks and caribou scat (<1yr old).

Habitat Evaluation:

Current caribou habitat suitability was field-rated as high for early winter, moderate for late winter and low for the spring and summer fall seasons (Appendix 2). Arboreal lichen abundance was estimated as medium (Class 3 consisting of 70% *Bryoria* and 30% *Alectoria*). Lichen was found to be plentiful on the trees at one meter from the ground. *Paxistima myrsinites*, a caribou early winter forage species, was also present. (Figure 3)



Figure 3: WHA Plot 2

Other Species:

No other wildlife sign was observed.

Plot 3

Evidence of Use:

No evidence of caribou use was observed.

Habitat Evaluation:

Current caribou habitat suitability was field-rated as having low value for early winter and very low value for the late winter, spring and summer/fall seasons. Arboreal lichen abundance was estimated as Low (Class 1). A small amount of lichen, mostly *Alectoria*, was present in some trees but there was scarce if any lichen below 3 meters in the forest canopy that would be available to caribou for feeding (Figure 4). The habitat generally lacked the necessary structural conditions and lichen productivity needed to be of value to caribou during any season.



Figure 4: WHA Plot 3

Other Species:

One deer track (<1 yr old) was observed.

Plot 4

Evidence of Use:

Caribou track and caribou scat (<1yr old) was observed along an established game trail adjacent to Plot 4. A number of established 'game trails' were observed throughout this area.

Habitat Evaluation:

Current caribou habitat suitability was field-rated as having high value for early winter, moderate for late winter and summer fall, and low spring habitat value. Arboreal lichen abundance was estimated as high (Class 4 consisting of 80% *Bryoria* and 20% *Alectoria*; (Figure 5).



Figure 5: WHA Plot 4

Other Species:

Deer and moose track tracks (< 1yr old) were observed along a trail below plot 4.

Aerial Reconnaissance

An aerial reconnaissance flight of the Cape Horn planning unit was conducted on August 25, 2005¹. The purpose was to assess seasonal habitat values and to provide an overview assessment of caribou habitat in relation to potential seasonal migration corridors and other important habitat features within the Cape Horn planning unit.

Plot 5

Evidence of Use:

Caribou tracks (<1yr old) were observed within Plot 5. Antler scrapes (species unknown) were evident in conifers/high shrubs along a well-defined game trail which passes by the small lake at Plot 5.

Habitat Evaluation:

Current caribou habitat suitability for Plot 5 was field-rated as having very poor early winter habitat value due, due mostly to elevation, and moderate value for the spring season; whereas, a habitat rating of very high habitat value was assigned for the late winter and summer/fall seasons. Arboreal lichen abundance was estimated as High (Class 5 consisting of 95% *Bryoria* and 5% *Alectoria*). This lichen is available on the trees at one meter from ground level.

Other Species:

Mule deer tracks (<1yr old) and evidence of browsing on *Vaccinium spp.* was observed along a 'game' trail that contoured the hillside.

Reconnaissance-level Surveys

Following the aerial overview flight, a ground-level reconnaissance survey was completed. The purpose was to field-verify flight observations and assess evidence of caribou use and seasonal habitat values for caribou on-the-ground. The field survey area and sampling locations are illustrated in Figure 1.

¹ Doug Seaton (Cape Horn), Dennis Hamilton (Nanuq) and Ron Palmer (P&T)

Plot 6

Evidence of Use:

Caribou scat (>1yr old) was observed.

Habitat Evaluation:

Current caribou habitat suitability was field-rated as having moderate value for the early winter and late winter seasons, low value for the summer/fall seasons and very low value for the spring season (Appendix 6). Arboreal lichen abundance was estimated as Low (Class 2 comprised of 35% *Bryoria* and 65% *Alectoria*), and present >2m above ground level (Figure 6). The wet seep areas provide some herbaceous vegetation for feeding.



Figure 6: WHA Plot 6

Other Species:

Mule deer tracks (<1yr old) were observed.

Plot 7

Evidence of Use:

Caribou scat (<1yr old) was found. A well-defined game trail was also identified.

Habitat Evaluation:

Current caribou habitat suitability for Plot 7 was field-rated as high value for early winter, moderate for the late winter, and low value for the spring and summer/fall seasons. Arboreal lichen abundance was rated high (Class 4 comprised of 75% *Bryoria* and 25% *Alectoria*). This lichen was available on the trees < 1m from ground level and was also abundant on the branch litterfall and blowdown. (Figure 7).



Figure 7: WHA Plot 7

Other Species:

Deer tracks (<1yr old) were observed.

Plot 8

Evidence of Use:

Adult caribou scat (<1yr) was observed.

Habitat Evaluation:

Current caribou habitat suitability for Plot 8 was field-rated as high value for early winter, low for the late winter and spring and moderate value for the summer/fall seasons (Appendix 8). Arboreal lichen abundance on the trees was estimated as Moderate (Class 3 comprised of 40% *Bryoria* and 60% *Alectoria*). Lichen was available on tree branches low to the ground (< 1m), and also on the branch litterfall and blowdown. (Figure 9)



Figure 8: WHA Plot 8

Other Species:

No evidence of use by other species was observed.

Stand-level Surveys

A stand-level field assessment (i.e., cutblock-level) specific to the timbered hillside on the south side of the Cape Horn drainage was completed on October 4, 2005. The purpose of this survey was to assess specific caribou habitat values in an area potentially proposed for harvest.

Plot 9

Evidence of Use:

Caribou tracks (<1yr old) and well-travelled game trail were observed (Figure 9).

Habitat Evaluation:

Current caribou habitat suitability for Plot 9 was field-rated as having low caribou habitat value for the early winter and summer fall season, very low for the late winter and spring seasons (Appendix 9). Arboreal lichen abundance was rated low (Class 1: 70% *Alectoria spp.*) and was found only in the upper canopy, well out of the reach of caribou. Despite the overall low value of the habitat, the area supports migration and movement, as confirmed by evidence caribou tracks and scat along the trail.



Figure 9: Caribou trail through Plot 9

Other Species:

Deer tracks were also observed along the trail.

Plot 10

Evidence of Use:

No evidence of caribou use was observed.

Habitat Evaluation:

Current caribou habitat suitability was field-rated as having low summer/fall and early winter values and very low late winter and spring values (Appendix 10).

Arboreal lichens were almost absent from the stand, although a sparse amount of lichen was observed on branch litterfall. (Figure 10)



Figure 10: WHA plot 10

Other Species:

No evidence of other wildlife was observed.

References Cited

- Armleder, H.M., S. Stevenson, and S.D. Walker. 1992. Estimating the Abundance of Arboreal Forage Lichens. Land Management Handbook Field Guide Insert 7. Ministry of Forests, Research Program, Victoria, BC.
- Hamilton, D., and S.F. Wilson. 2002. Central Selkirk Mountain Caribou Habitat Use and Species-habitat Model for TFL23. Prepared for Pope & Talbot, Nakusp, BC.
- Hamilton, D., D. Seaton and C. Leitch. 2004. TFL23 Mountain Caribou Landscape Unit Planning and Reporting Procedures, Version 3.0. Arrow Forest District.
- LUP (Landscape Unit Planning) Working Group. 2002. Caribou Management in TFL#23: Agreement for District-Level Implementation Issues. Prepared for Arrow Forest District, Castlegar, BC.
- Resource Inventory Committee. 1998. Field manual for describing terrestrial ecosystems, Land Management Handbook No. 25. BC Ministry of Forests and BC Ministry of Environment, Lands and Parks, Victoria, BC.

Appendix 1: WHA Field Card – Plot 1

Project ID: CAPE HORN		Date: 10.5.20.7.21	Habitat: forest	Type: ...	Page: 1 of 1																			
Plot no. 1	Surveyor: D.S. A.S.	Plot-in-context																						
Species	Habitat/Ser.	Plot type	Substrate	Sp. LR	Sen.	FD	SH	TH	E	Habitat feature	Dist.	Distance (km)	FD LR	FD	Habitat feature	Dist.	Distance (km)	FD LR	FD	SH	TH	Suit	E	
MIRATA	WE	3																						
	LD	2																						
	SP	4																						
		7																						
Comments/Notes																								

FR 882 (5/11/04) 9B-5

Project ID: CAPE HORN		Plot no. 1																					
Evidence of Use												Outside plot and inside ecosystem unit											
Species	Sex	Life Stage	Activity	Des.	No.	Com.	Sex	Life Stage	Activity	Des.	No.	Com.	Sex	Life Stage	Activity	Des.	No.	Com.					
MIRATA	U	J	EX	Y	M		U	A	T	W	Y	L	U	A	G	R	M						
MIRATA	U	A	EX	Y	M		U	A	T	W	Y	L	U	A	G	R	M						
MIRATA	U	A	EX	Y	M		U	A	T	W	Y	L	U	A	G	R	M						
Comments/Notes: 1 IRAL DOWN RIDGE LINE																							
Abbreviated Tree Attributes for Wildlife												Simple Coarse Woody Debris											
B.A.F.	Area	No. of trees	No. dead	Avg DBH (cm)	Avg length (m)	Avg load (kg)	Comments	Decay class	Decay class	Decay class	Decay class	Decay class	Decay class	Decay class	Decay class	Decay class	Decay class	Decay class					
Management												Management											
Species (Sp. group)	Use	Sen.	FD LR(s)	Cap	Mgmt. Tool	M. Feet./In	Comments/Notes																

FS 882 (2/11/04) 9B-5

Appendix 3: WHA Field Card – Plot 3

[illegible]

FN 862 1511 RE 3A.5

[illegible]

FS 302 (b) HRE 98/5

750025: HPT 985

75002 120112 985

Appendix 7: WHA Field Card – Plot 7

PHOTO 56
HABER 5
5577027

BRITISH COLUMBIA

WILDLIFE HABITAT ASSESSMENT

Project Id.	CAPE HORN										Date	10 SEP 2006										NHAB	type		page	1
Plot no.	7										Surveyor	D. S. R. C.										NHAB	type			
Species	Habitat Use / Sen		Plot type		Plot-in-context																					
5-letter code	Sp. L/R	Sen.	FD	SH	TH	Dist. (km)	FAC L/R	Dist. (km)	FAC L/R	Dist. (km)	FAC L/R	Dist. (km)	FAC L/R	Dist. (km)	FAC L/R	Dist. (km)	FAC L/R	Dist. (km)	FAC L/R	Dist. (km)						
MURDIA	HA	WE	2																							
		HA	3																							
		HA	4																							
		HA	5																							
Comments/Notes																										
WELL DEFINED TRAIL RUNS @ 020																										

FS 892 (5) HHL EBS

STN 9 CORNER #2 6440493 5577-76

BRITISH COLUMBIA

WILDLIFE HABITAT ASSESSMENT

Project Id.	CAPE HORN										Plot no.	7									
Evidence of Use		Inside plot										Outside plot and inside ecosystem unit									
Species	Sex	Life Stage	Activity	Des.	No.	Com.	Sex	Life Stage	Activity	Des.	No.	Com.	Sex	Life Stage	Activity	Des.	No.	Com.			
MURDIA	HA	WE	2																		
MURDIA	HA	WE	3																		
Comments/Notes																					
SCAT @ 0440172																					
5577585																					
Abbreviated Tree Attributes for Wildlife										Simple Coarse Woody Debris											
B.A.F.	Area	Min DBH	No. dead	No. live	Decay class	Diam. class	Decay class	Diam. class	Decay class	Diam. class	Decay class	Diam. class	Decay class	Diam. class	Decay class	Diam. class	Decay class	Diam. class			
Avg. DBH (cm)	Avg. length (m)	Comments																			
Avg. lch. (cm)	Comments																				
Management																					
Species (Sp. group)	Use	Sen.	FAC L/R(s)	Cap	Mgmt. Tech.	M Test/In	Comments/Notes														

FS 892 (5) HHL EBS

Appendix 8: WHA Field Card – Plot 8

[illegible]

Γ⁵, 002 [5] -10F 56.5

Project no. <u>1</u>		Pilot no. <u>2</u>								
Evidence of Life		Inside plot		Outside plot and inside ecosystem unit						
Species	Sex	Life Stage	Activity	Dist. No.	Com. No.	Sex	Life Stage	Activity	Dist. No.	Com. No.
MURRAY AUP		FX	YM							
Comments / Notes										
Abbreviated Tree Attributes for Wildlife						Simple Coarse Woody Debris				
B.A.F.	Area	Min DBH		Sampled		m of 30 m transect				
No. of trees	No. dead	No. live		Decay class						
Avg DBH (cm)	Avg length (m)		Decay class							
Avg. lch. bed class	Comments		Decay class							
15m x 2m @ 1m						Comments				
Management										
Species (Sp. group)	Use	Sex	F/C LR(s)	Cap	Mgmt. Tech.	M Fec'd/Yr	Comments / Notes			

F5 002 15: HPE 985

Appendix 10: WHA Field Card – Plot 10

Project ID: CAPP HORN		Date: 10/10/04	N-Hab. features	Type	Page of																
Plot no. 10	Surveyor DS	Plot-In-context																			
Species	Habitat use/ Ean	Plot type																			
3-letter code	Sp. LR	Sen	FD	SH	TH	Com	Habitat feature	Cost	Distance (km)	FAC LFL	Imp.	Habitat feature	Cost	Distance (km)	FAC LFL	Imp.	PD	SH	TH	Suit	Score
MAA	4																				
	4																				
	4																				
	4																				
Comments/Notes: P 10/10/04																					

FS 882 (5); HFE 38/5

Project ID: CAPP HORN		Plot no. 10															
Evidence of Use		Outside plot and inside ecosystem unit															
Species	Sex	Life Stage	Activity	Des.	No.	Com.	Sex	Life Stage	Activity	Des.	No.	Sex	Life Stage	Activity	Des.	No.	Com.
Comments/Notes:																	
Abbreviated Tree Attributes for Wildlife										Simple Coarse Woody Debris							
B.A.F.	Area	Min DBH	No. of trees	No. dead	No. live	Avg. DBH (cm)	Avg. length (m)	Avg. fork class	Comments	Decay class	Diam. class	Decay class	Diam. class	Comments	m of 30 m transect		
Management																	
Species (Sci. group)	Use	Sen.	FAC LR(s)	Cap.	Mgmt. Tech.	M. Feet / m	Comments/Notes										

FS 882 (5); HFE 38/5