

# HOOKS & BULLETS

Essential Information and Industry News



Extensive and long-term literature supports the effectiveness of wolf control in sustaining caribou populations.

## Standing United On Primary Prey Theory

FINDING A MANAGEMENT STRATEGY THAT BEST SUITS BC'S CARIBOU POPULATIONS

Submitted By The Guide Outfitters Association Of BC

**THE MISSION** of the Guide Outfitters Association of BC (GOABC) is to promote the conservation, stewardship and sustainable use of wildlife. One way we accomplish this is by partnering with other organizations, provincially, nationally and internationally, thereby combining our efforts for greatest impact.

Two such valuable international partnerships we maintain are with Safari Club In-



**Guide Outfitters**  
Association of British Columbia  
*Wildlife First™*

ternational (SCI) and the Safari Club International Foundation (SCIF). Together we address issues facing wildlife and/or hunters, many of which include social perception and social licence. One such initiative that the GOABC recently collaborated with SCI and SCIF on is the development of an official position on primary prey reduction to benefit caribou populations in BC.

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# SOLAR/LUNAR 2021 TIMES FOR VANCOUVER

(122.3° W. 49.1°N)

Tables indicate peak fish & game activity times

Major ..... 2 hours      F ..... Full moon  
 Minor ..... 1 hour      N ..... New moon  
 Q ..... Quarter      > ..... Peak activity

	AM		PM	
	Minor	Major	Minor	Major
<b>SEPTEMBER</b>				
01	1:11	7:24	1:37	7:50
02 Q	1:58	8:11	2:24	8:37
03	2:45	8:58	3:11	9:24
04	3:32	9:45	3:58	10:11
05 >	4:19	10:32	4:45	10:57
06 N	5:07	11:20	5:32	11:44
07 >	5:56	11:40	6:20	12:08
08 >	6:47	12:35	7:11	12:59
09 >	7:40	1:28	8:04	1:52
10	8:35	2:23	9:01	2:48
11	9:34	3:20	10:01	3:47
12	10:34	4:20	11:02	4:48
13	11:35	5:20	-----	5:50
14 Q	12:11	6:19	12:35	6:50
15	1:02	7:17	1:32	7:47
16	1:57	8:11	2:26	8:40
17	2:48	9:02	3:16	9:29
18	3:37	9:49	4:02	10:15
19	4:23	10:34	4:46	10:58
20 >	5:07	11:18	5:29	11:40
21 F	5:51	-----	6:12	12:02
22 F	6:36	12:25	6:57	12:46
23 >	7:22	1:11	7:43	1:33
24 >	8:10	1:59	8:31	2:21
25	8:59	2:48	9:22	3:10
26	9:50	3:38	10:13	4:01
27	10:41	4:29	11:05	4:53
28 Q	11:32	5:20	11:57	5:45
29	-----	6:10	12:23	6:36
30	12:47	6:59	1:12	7:25

	AM		PM	
	Minor	Major	Minor	Major
<b>OCTOBER</b>				
01	1:34	7:47	2:00	8:13
02	2:21	8:34	2:46	8:59
03	3:06	9:18	3:31	9:43
04 >	3:50	10:02	4:14	10:27
05 >	4:35	10:47	4:59	11:11
06 N	5:22	11:34	5:47	11:59
07 >	6:13	12:00	6:39	12:26
08 >	7:10	12:56	7:37	1:23
09	8:11	1:57	8:40	2:26
10	9:17	3:02	9:47	3:32
11	10:24	4:08	10:54	4:39
12	11:28	5:13	11:59	5:44
13 Q	12:05	6:14	12:29	6:44
14	12:56	7:10	1:24	7:38
15 Q	1:47	8:00	2:13	8:25
16	2:32	8:44	2:56	9:08
17	3:14	9:25	3:36	9:47
18	3:53	10:03	4:14	10:25
19 >	4:32	10:42	4:52	11:03
20 >	5:12	11:22	5:33	11:43
21 F	5:55	-----	6:16	12:06
22 >	6:41	12:30	7:03	12:52
23 >	7:30	1:19	7:54	1:42
24	8:22	2:10	8:47	2:35
25	9:16	3:04	9:41	3:29
26	10:11	3:58	10:36	4:23
27	11:04	4:52	11:30	5:17
28 Q	11:57	5:44	-----	6:09
29	12:21	6:34	12:46	6:59
30	1:09	7:21	1:33	7:45
31	1:53	8:05	2:17	8:29

Times will change 1 minute for each 12 miles east (-) or west (+) of longitude 123°W.

*Caribou are listed under the Species at Risk Act and long-term conservation and eventual restoration of stable caribou populations are national and provincial priorities shared by hunters and other conservationists.*

One of the main threats to most caribou populations is a high rate of predation by wolves, bears (black and grizzly), wolverine and cougars that is out of balance from the natural cycle. This can happen when natural events (such as forest fires) and human activity (such as logging) convert large areas of mature forests to young forest landscapes. These young, open forests provide ideal foods for deer, elk and moose – which are the primary prey of wolves and cougar. As these primary prey species move into caribou habitat, they are followed by wolves, which then hunt the caribou as a secondary prey.

Primary prey theory suggests that impacts to secondary prey, in this case caribou, can be mitigated by limiting populations of the primary prey species of moose through more liberal hunting seasons. The theory contends that wolves will lose interest in an area when the populations of primary prey drop, and then either die off or disperse to a new area, thus sparing the remaining population of caribou. The theory ignores the fact that even if moose decline, there are a host of other secondary prey species that can sustain predator populations.

However, the efficacy of primary prey reduction to increase survivability is, as of yet, unproven and, therefore, reliance on this strategy could be a risk to caribou sustainability, especially in the absence of an aggressive predator control program. In particular, the large-scale study by Serrouya et al. (2017) in BC showed promising but not conclusive impacts on caribou population growth. Moose reduction appeared to benefit adult caribou survival, but not recruitment, and impacts on growth were variable. Small populations, which may be at the greatest risk of extirpation, continued to decline after implementation of primary prey reduction and even the best-case population only achieved stability.

Furthermore, extensive and long-term literature supports the effectiveness of wolf control in sustaining caribou populations. We feel that it is premature to end these programs and rely on primary prey reduction to sustain caribou. There are many factors, including multiple potential primary prey species (for example, white-tailed deer and elk) that can sustain wolf density and alternative predators (for example, bears and

cougars) that affect caribou populations and mitigate the potential benefits of a single-species primary prey reduction. The risks of continued decline and local extirpation are high.

Additionally, caribou are listed under the *Species at Risk Act* and long-term conservation and eventual restoration of stable caribou populations are national and provincial priorities shared by hunters and other conservationists. However, long-term reductions in moose density can have significant impacts on the region, including loss of recreational opportunities for resident hunters, loss of income for the guiding and outfitting industries, and loss of subsistence hunting opportunities for First Nations that rely on moose as an important food source.

As a result, we believe that reliance on primary prey reduction in the form of increased moose harvest as the sole or primary management option for woodland caribou is unwise and places the remaining caribou herds at unacceptable risk. If primary prey reduction is implemented, it should be done judiciously and in combination with other management practices, including active wolf control as applied by provincial wildlife authorities in recent years. These management activities will likely need to be maintained for an extended period, as recovery of mature boreal forest conditions that are most suitable for caribou will take several decades.

Overall, the non-trivial impacts of moose reduction on important stakeholders in BC, including First Nations, resident hunters and guides and outfitters, should be acknowledged and these stakeholders should be included in decision-making about caribou management in BC. ✖