



Location: [MS Teams Meeting](#)



Date: Monday, January 24, 2022



Time: 1300-1600 Pacific

Revelstoke Complex and Central Selkirks Caribou Technical Working Group

Members (grey indicates not in attendance)

Genevieve Lachance (moderator)	Christine Friedrichsmeier (notes)	Guests: Rob Serrouya		
Tim Eugene	Deb McKillop	Adam Neil	Cory Legebokow	
Rieva McCuaig	Rob Steenweg	Robyn Laubman		
Aaron Reid	Celia Nord	Leo DeGroot	Deb Mackillop	
Gwen Bridge	Brier Cadden	Laura Machial	Robin Laubman	
Corey Bird	Allison Pagett	Darcy Peel	Brennan Lund	
Tina Donald	Colleen Marchand	Mark Thomas	Leo DeGroot	
Greg Johnson	John Krebs	Bevan Ernst		

AGENDA

1:00-1:15	Welcome and review of Action Items from last meeting (Genevieve Lachance)
<ul style="list-style-type: none"> All- review maps provided and provide comments on additional habitat protection or other comments. Aaron to send Corey the COS reports 	

1:15-1:45	Habitat Protection, Population results and restoration follow-up (Rob Serrouya)
	<ul style="list-style-type: none"> • Update from Rob Serrouya on pertinent data relating to habitat, population, and restoration • See Rob's presentation for details – on https://www.for.gov.bc.ca/ftp/RSI/external/!publish/Revy_complex_Central_Selkirks_TWG/ • And here for the map: http://tarn-env.ca/maps/all_levels/ • • Expanding to Central Group by the end of March • Rob went through a series of slides depicting increasing levels of protection <ul style="list-style-type: none"> ◦ 95% protection would protect all old growth in the whole ecosystem • What are priority areas for differing levels of protections? <ul style="list-style-type: none"> ◦ Focus on 10000ha in Columbia North, don't be concerned about Columbia South – though don't lose sight of them • Heatmap of caribou use, by collar data, is what the prioritization is based on (app) • Builds out from the GAR, gaps are “non-forest” polygons • Old growth deferral map was done for different objectives, but should be coordinated with caribou • What degree of overlap is there between old growth & deferrals, and caribou? Big + old + productive queried out of VRI. But different than caribou “old growth”. THLB definition is currently in flux. • IPM updated – integrated population model – more than just population counts, it also includes recruitment, treatments, survival • Lambda is population trend. 1.1 is 10% increase per year; 0.9 is decreasing 10% per year • Herds without an action are declining • Wolf reduction = increase 5%/y • Wolf reduction + maternal pen = 15%/y (Klinse-Za) • Wolf reduction + feeding = significant increase (Kennedy Siding) • Delta lambda = change in/improvement in lambda over time • Doing these treatments is not sustainable, habitat loss cannot continue or accelerate, otherwise it's untenable • Habitat gain must be significantly more than habitat loss • Spread in graph (feeding treatment) – what is different about this? Spread means more uncertainty. Slightly above zero, but it was only applied to one herd for one year, then wolf reduction was added. • Partner with communities to reduce uncertainty. Just one treatment on its own, so we can study the results of just one treatment on its own. • Are these conditions being considered with increased habitat protections or not? Many herds in national parks have gone extinct. Wells Grey South has increased, GAR is growing less moose food due to habitat protections. Just in the midst of determining that now and will be part of the paper they are currently working on. But habitat protection, and the subsequent forest aging, take a long time to see the effects of. • Adam commented he'd like to have these materials for help in discussion/engagement – ACTION: Rob to create a folder of graphs, materials and send link to Genevieve to send to the group, and Adam/anyone in group can send Rob an email to get specific info, media.
1:45-2:15	Protection for the Revelstoke Complex and Central Selkirks herds (All)
<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Gathering input from the table on areas of importance/interest for additional caribou protection <ul style="list-style-type: none"> • Genevieve has already sent out all the maps and materials, group was to have reviewed and come back to this group for comment and discussion

- Q: How does the information provided get treated? Could have sensitive aspects, especially Indigenous knowledge. A: All information is only for the group, can be included in TOR. Part of the signed agreements. Regional feedback groups, but everything from this group will be known and acceptable by the group. Genevieve is drafting a document to make this clear.
- Q: Adam – what is the scope of our recommendations to the decision-makers? A: TOR – will include all recommended recovery actions, including habitat protections
- Old growth won't be enough for caribou – caribou need more contiguous habitat
- Many different types of protections can be done – no details yet
- Bevan talked about his protections/disturbance Shiny app; undisturbed areas are high priority
 - Quantifies benefit to herd if another protection (for other values that can help caribou)
 - Input from this working group comes into play here too – the more values stacked on a particular tract of land should support decision makers' ruling to protect that tract
- Q: Adam - What policy tools do we have? What is people's appetited to use them? What is the ability to create new policy? How do we ensure the success of this group? This could be a good discussion for another meeting.
 - GAR, Parks/Protected Areas are the best shot, won't need to wait on new policy
 - Keep eyes open for new tools as well, but don't wait on them
 - How much additional impact to industry is acceptable, in keeping with the Species at Risk Act? That will be the secondary challenge.
 - Robin (ECCC) - openness to exploring different options – like ELUC orders that can be wide-reaching. Federal and Provincial policies both. Partnership agreements are also available.
 - Once this group has identified the scenario(s), then we would move to how we do it
- Q: Robyn - climate change and economic impacts – how is this feedback being carried forward?
 - Socio-economic assessment will be done on the scenarios put forward; forestry modeling can be done with Tyler Muhly before then
 - Leo - Climate change is difficult to quantify. It's having an impact, but there is so much variability on snow depth and other things that it's hard to predict the effect on caribou
 - Rob Serrouya - What is the mechanism? Milder winters means easier over-winter survival of white-tailed deer. Indigenous knowledge is critical!
 - Fire = early seral food
 - Industrial impact
 - Lichen
 - Where do we keep up the fight? Which herds? Where do we draw the line?
- Conversation is parked for now, will pick it up again.

2:15-2:45	Update on the Nakusp Maternity Pen (Cory Legebokow)
<p>Cory is the CRP representative in charge of supporting the Nakusp pen. He has update and information to share regarding some concerns expressed.</p> <ul style="list-style-type: none"> • See Cory's presentation for details https://www.for.gov.bc.ca/ftp/RSI/external/!publish/Revy_complexes_Central_Selkirks_TWG/ • South Selkirks population has declined precipitously since the late 1990's, now 28 animals, including 2 calves. It will be functionally extirpated in less than 5 years • 79% of core habitat protected (no harvest) • Predator reduction – wolves, cougars for the last couple of years • Extensive snowmobile closures (permanent, or rotating) • Suitable to maternal penning • Multiple treatments are more effective than single ones (referring to Klinse-Za) • Risks when you capture animals – injury or death. Have an ethics protocol, have minimized all other risks based on learnings from other pens • Will be significantly cooler than Revelstoke pen (one of the challenges raised with the Revelstoke pen was the temperature was too hot for the animals, especially for calving) – snow reserves, misters, etc • First calves born May long weekend • If the animals are at any risk, they could have early release, other measures (by the end of June) <p>Q&A</p> <ul style="list-style-type: none"> • Rob Serrouya - Penning is suitable for <100 animals – total or females? Total population, but Klinse-Za is >100 <ul style="list-style-type: none"> ○ 100 females makes sense • Rob Serrouya - Mitigation measures seem thorough, but a free-ranging animal in the alpine has more options than one in a pen (given a summer like 2021). What are the number of days above the discomfort threshold expected, e.g., 10 days over 25C? – would be great to have the data analysis (not done yet, good student project), correlated to weather stations and Revelstoke pen, to get a correlation to Nakusp. ACTION: Cory Legebokow and Rob Serrouya to continue the temperature data analysis discussion offline, bring back to group • Tim - Any Indigenous decision-making, consultation on this project? ALCS did consultation themselves in spring 2020; BC through permit. It has been sent out again to make sure it has been comprehensively consulted – Splatshin has replied already. This project can only move forward with FN partnership, although it hasn't happened yet – would like to see it move forward. ACTION: Allison send the consultation package to Tim and speak to Bonnie about the follow-up. Cc to Genevieve. <ul style="list-style-type: none"> ○ One of the problems with this project is funding – which is needed for the FN partnerships ○ Pen sites were determined by modeling (temperature, access, topography, etc.), looked at sites by vet – that is the one that was chosen. We need to move forward quickly – predator control has been going on for 2 years, pen has been built. If we debate the site, then the herd will be extirpated &/or social license on predator reduction will lapse – this debate comes up every time the pen is brought up. • Robyn – the animals' welfare is the highest concern. Bigger relationship pieces, how long does this project go for, other mitigation questions are still outlying. Could be at cross-purposes – more visibility for funding, or privacy for the animals' welfare. Need to consider the lessons of the other pens with respect to people (access, recreation – helicopters, trucks on FSR, hot springs . <ul style="list-style-type: none"> ○ Cory can help facilitate relationships – with the community, recreationalists, etc. ○ Sound impacts measured and mitigated – everything that can be done has been done • ACTION: Genevieve to make the Nakusp pen is a standing agenda item. • ACTION: Genevieve to plan a field visit for the group to the Nakusp pen site. 	
2:45-2:55	Break
2:55-3:05	Update Caribou Recovery Program (Aaron and Leo)

	<ul style="list-style-type: none"> The herds, predator control and other topics <ul style="list-style-type: none"> Predator control – 2 month consultation (Sept 15-Nov 15, 2021) for 5 years for existing herds plus North Cariboo. Every region has signed off. Work underway in NE. Mid-December to mid-March is when the work is done, in dry snow for easier tracking. Aaron – region just approved wolf reduction permits today, should start soon. Cougar already in progress. Lost Columbia South collared cow to wolverine predation. Will try to locate the other 2 caribou with it. No other mortalities since last meeting. Predator track census in Central Selkirks over the last weekend. 6 wolves detected. Helicopter go where snowmobiles can't go. Splatsin was involved.
3:05-3:15	Framework/Timetable (Genevieve Lachance)- tabled
	<ul style="list-style-type: none"> Looking at the workplan
3:15- 3:30	Decision making process update (Darcy Peel) - tabled
	<ul style="list-style-type: none"> The caribou program has had some direction from senior government and can share some insight of the developing process
3:30-3:50	Round Table All
	<ul style="list-style-type: none"> All to bring caribou updates to the table <ul style="list-style-type: none"> Adam – N/A Brennan – N/A, will be representative of Adam Lake from now on Brier – caribou restrictions will have a significant impact on town's economy, especially after old growth. Needs to have discussions between old growth and caribou teams. Need spatial/maps to see options. Bevan – sharing of information, password protected, can have something up in the next week Deb – old growth – deferrals – raster analysis converted to VRI polygons (eliminated "pepperflake" look) – will help with your own analyses. Should be on FTP, if you can't find it, send Deb an email. Field verification update will come next meeting. Agreed that old growth and caribou need to work together. BEC not updated for Revelstoke and Golden – will happen in spring. Tina – N/A Robyn Laubman – keeping up on everything we've covered Robin Steenweg – Shiny app looks useful, looking forward to seeing that and 2 of Rob's maps. New VRI of old growth – could we link on Sharepoint for the group? ACTION: Deb to send VRI polygon links to Genevieve when available. https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/old-growth-forests/old-growth-maps Tim – habitat needs to be expanded. Maternal penning – would like to see a longer term goal, perhaps raising them longer. IPCA – long ways away from that. Internal discussion with Indigenous groups would be helpful, esp to see how to work with govt together. A site visit is important. This meeting is ending late for mountain time, can we end earlier? Genevieve – Heard the request for more info from govt – framework, process outside of the group, etc. ACTION: Genevieve to send out the framework and process (outside of the group) before next meeting
3:50-3:55	Funding, ToR, facilitator? Funding sent out last week. ToR will have to be signed as part of the contribution agreement to receive funding. Facilitator – do we need one?
3:55-4:00	Next Steps Next meeting topics (Genevieve Lachance) Next meeting is Feb 28

ACTIONS SUMMARY

- **Rob Serrouya** to create a folder of graphs, materials and send link to Genevieve to send to the group, and Adam/anyone in group can send Rob an email to get specific info, media.
- **Cory Legebokow and Rob Serrouya** to continue the temperature data analysis discussion offline, bring back to group
- **Allison** send the consultation package to Tim and speak to Bonnie about the follow-up. Cc to Genevieve.
- **Genevieve** to make the Nakusp pen is a standing agenda item.
- **Genevieve** to plan a field visit for the group to the Nakusp pen site.
- **Deb** to send VRI polygon links to Genevieve when available.
- **Genevieve** to send out the framework and process (outside of the group) before next meeting