Indigenous methods and cultural approaches for wildlife and habitat stewardship: A case study with Xeni Gwet'in First Nation

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Question 1. What activities have been completed on this project to date?

The project team (Xeni Gwet'in – UBC) have collaboratively achieved several project milestones. We have established the Xeni Gwet'in wildlife management strategy advisory team; defined the vision, goals, and priorities for wildlife management within the Xeni Gwet'in Caretaker Area. The vision for the wildlife management strategy is to "Enhance ecological integrity, resilience of wildlife and habitat, abundance of keystone species to support traditional use, and the capacity for self-governance". Three overarching goals have been set for wildlife stewardship, habitat stewardship, and wildlife and habitat governance. We have set objectives as measurable outcomes that will contribute to the attainment of each goal. The next phase of the project will focus on setting actions, which are the specific steps that will be implemented to achieving the goals within a specific timeline.

In setting the vision, goals, and objectives for the Xeni Gwet'in wildlife management strategy, several meaningful engagement activities- with leadership, community members, and staff- have also been completed through regular Title, Territory, and Tenure meetings. A short survey questionnaire has been designed for community members willing to share their knowledge on wildlife abundance and population dynamics; wildlife population threats and pressures; and the priority species and areas that Xeni Gwet'in would like to start actively managing to cultivate an abundance of wildlife. The survey will be administered by Xeni Gwet'in, with data analysis provided by the research team from UBC.

A wildlife research workshop was also hosted at UBC with the Tsilhqot'in National Government (TNG) biologist. At this workshop we created a wildlife research plan and identified key projects and collaboration opportunities between UBC researchers and TNG.

The situational analysis of the Xeni Gwet'in Caretaker Area is currently underway. The situational analysis will identify relevant impacts and describe the management environment in which pertinent impacts occur. As a part of the situational analysis, existing information (data sources, etc.) has been collected to outline what is known about relevant impacts. For example, population data (provincial surveys), harvest statistics (voluntary surveys and compulsory inspection records), regulation changes (historic-current synopsis review), and habitat data (road density, wildfire history, vegetation resource inventories, etc.) has been assessed. To provide the situational analysis in a format accessible for Xeni Gwet'in community members, leadership, and staff, communications materials are currently in design. A

forthcoming threat assessment will be a key component of concluding the situational analysis. The threat assessment will support Xeni Gwet'in in wildlife management prioritization based on the magnitude, geographic context, and reversibility of identified impacts.

Question 2. Is the project progressing as planned? If not, why not and what are you doing to mitigate or adjust?

Yes. Project milestones are being met.

It should be noted that I am currently in my comprehensive examination preparation period. This was forecasted in my timelines and requires me to step back from my research with Xeni Gwet'in for a couple of months. This has been communicated to my project partners, and we will get back to research in May (after the examination).

Question 3. How have you been working with your research partners, including Indigenous communities, to ensure meaningful collaboration and participation?

Each project activity, research methodology, and project output are responsive to and guided by Xeni Gwet'in priorities. Collaboration and participation guide every aspect of this project. As this research supports Xeni Gwet'in in development and implementation of their wildlife management strategy, each research output is provided directly to Xeni Gwet'in for their comment, approval, and use within the wildlife management strategy (or related community engagement materials).

We (Xeni Gwet'in project partners and I) have followed a regular meeting schedule to discuss, update, and get feedback on the development on the Xeni Gwet'in wildlife management strategy. Xeni Gwet'in has given me a monthly timeslot during their Title, Territory, and Tenure (TTT) meeting, which includes leadership (chief and council), staff members, and the Declared Title Area manager. The TTT meeting is a key collaboration point for this project and has been the source for guiding the research objectives, methods, and project activities.

I have also had the opportunity to spend a few weeks (3 trips total) of time on the land with Xeni Gwet'in project collaborators (Leadership and Title Rangers). Time on the land has helped facilitate good working relationships between the wildlife team from the Xeni Gwet'in community and me. Likewise, it has been a great learning/research experience for better understanding both the threats/impacts to wildlife and goals/vision for wildlife.

Question 4. Tell us about one success, one challenge or difficulty and one thing you would do differently if you could go back?

One success of this research has been aligning the Xeni Gwet'in vision, goals, priorities, and actions for wildlife management with other active community plans. For example, the Xeni Gwet'in forest management strategy; comprehensive community plan; sustainable agriculture strategy; climate change adaptation plan; Nen (land and water) planning activities; vision for sustainable development; and Tsilhqot'in impact assessment framework. While supporting the wildlife management strategy design, we have been working to break down the silos between the multiple Xeni Gwet'in planning activities (many of which have separate project managers). This is helping to reduce duplication among the plans, provides a more interconnected and holistic planning environment, and aligns the plans so that they are

complimentary to one another. Key to this success has been the scheduled meetings between other Xeni Gwet'in staff members involved in planning activities and me.

One of the challenges is data gaps regarding wildlife numbers, in-depth assessments of factors which may be contributing to population declines, and habitat suitability. We are dealing with this challenge by weaving the place-based knowledge of community members with the data and information currently available, which will be used to help guide future research priorities. The other challenge is deciding on the geographic scope of the Strategy because the Caretaker Area is not necessarily a biological barrier or boundary for the priority wildlife species within the study. We are dealing with this challenge by expanding the analysis to the larger Tsilhqot'in land base to consider the current state of habitat, species interactions, threats, and increase the availability of resources and information for priority species.

If I could go back, I would test out using planning software from the beginning of the project. For example, conservation planning software packages are available such as Miradi, that outline planning steps such as project scoping; setting conservation targets; social, economic, and cultural model creation; threat prioritization; action development; etc. Miradi offers cloud storage and data management support which would have helped with the organization of this project by assigning different data sources and project outputs to each step of wildlife management strategy design. Likewise, the software has built-in accessibility features so that both UBC and Xeni Gwet'in project partners can access the project planning page and related materials. After completing my comprehensive exams, I plan to learn how to use the software and then proposing to the project team that we use it.