Research and monitoring activities and needs related to ABoVE and POLAR activities

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Ongoing research and monitoring Related to ABoVe and POLAR activities

- Major partner in population, seasonal distribution, and health monitoring for Porcupine (see annual report at PCMB.ca) and Fortymile caribou herds
- Currently assessing recovery of historic seismic lines with respect to large mammals and specifically Porcupine caribou
- Assessment and monitoring in:
 - Dawson/Tombstone: Moose abundance; Dall's sheep productivity;
 sharp-tailed grouse range and habitat use; Fortymile lichen, fire risk;
 Hart River caribou abundance, trend, seasonal distribution
 - Old Crow/Eagle Plains: Mostly caribou related work, sheep abundance
 - Yukon North Slope and adjacent areas: muskox abundance, habitat, and interaction with caribou; moose abundance; sheep abundance; North Slope Conservation Planning and associated activities

<u>Planned</u> research and monitoring Related to ABoVe and POLAR activities

- Fortymile caribou habitat carrying capacity (Dr. Hebblewhite in partnership with BLM and ADF&G – currently outside Boelman et al.)
- Lichen mapping for Porcupine caribou (Matt Macander, ABR Inc.)
- Lichen ground truth project in the Hart River caribou range
- Porcupine and Fortymile caribou movement and habitat selection (Boelman et al.)

Management related research & monitoring <u>needs</u> Related to ABoVe and POLAR activities

- Land use impacts and thresholds for activities in the seasonal ranges of barren ground caribou (specifically Porcupine herd)
- Determine causes of shifts in Porcupine caribou range use, predictions of future shifts and what this will mean on the availability of the herd to communities
- Examination of Richardson Mountains Dall's sheep declines since 1997 to determine drivers
- Habitat use by the Hart River caribou herd to assist Park planning in Tombstone Territorial Park
- Trophic cascades from encroaching willow in the Richardson Mountains
- Mining mitigation and reclamation for sharp-tailed grouse

Opportunities for ABoVE/POLAR for engagement, education, outreach

- Wildlife Management Advisory Council (WMAC) North Slope (Inuvialuit Settlement Region) meets 3-4 times each year
- Porcupine Caribou Management Board also meets ~3 times
- The next opportunity with each would be in September and then December
- Porcupine Caribou Technical Committee has 1-2 meetings, generally on the phone each year but is due to have an in person over the next winter

Recommendations for ABoVE/POLAR for engagement, education, outreach

- Engagement needs to occur multiple times and on reasonable time lines with key Boards, Councils, Committees, and First Nations and Inuvialuit to be meaningful
- More invasive projects should plan on at least 1 year of lead in work with communities unless it is a specific need identified by that community
- Working towards community wildlife workshops in region led by Renewable Resource Council's and/or First Nations — NWT RRC's currently have one each February