

# UNBC Wildlife Research Update

Muskwa-Kechika Advisory Board Meeting

November 28, 2023

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## Current Research Projects

- Prescribed fire & Stone's sheep health
- eDNA biodiversity monitoring (Josh Green)
- Coarse woody debris & small mammals (Alice Tew)



# Prescribed burn research

- How do prescribed burns influence recruitment, physiology, and health in stone sheep and elk?
- Collaboration with Alicia Woods, Ridgeline Wildlife Enhancement, and Josh Hamilton, Wild Sheep Society of BC
- Examine effects of prescribed burns on sheep and elk health (stress and reproductive hormones in pellets and urine), diet (pellets), and recruitment
- 7 burn permits approved in 2022 for implementation over next 5 years (none allowed in 2023)



# Three burns completed in May 2022



Prescribed fire in Stone's sheep habitat in the M-KMA, May, 2022. Photo by Alicia Woods.



Prescribed fire crew at Sikanni River Lodge.



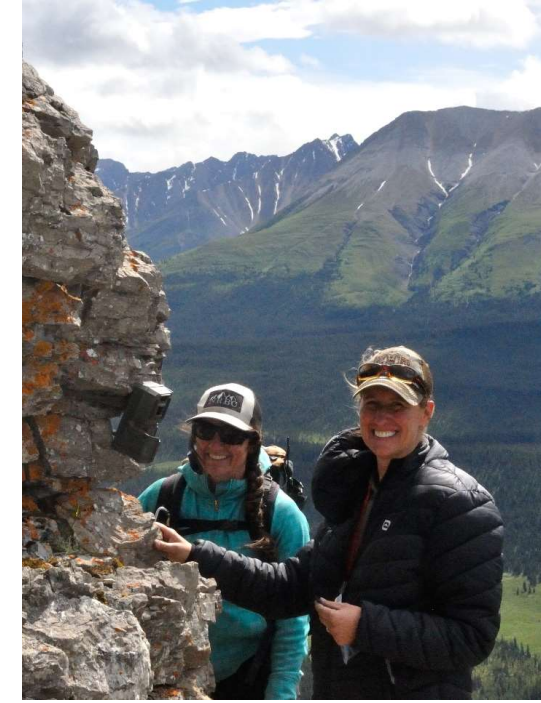
# Post-burn monitoring in July, 2022



Crew doing post-burn monitoring and pellet collections in July, 2022



Vegetation surveys 6 weeks post-burn. Photo by Alicia Woods.



Remote cameras to monitor wildlife activity

# Pellet collection and recruitment surveys



Pellet sampling in early spring, summer, fall for diet & health studies



Recruitment surveys in spring to monitor population responses to fire

## Prescribed burn update for 2023-2024

- No burns allowed in 2023
- Recruitment surveys in March 2023
- Pre-burn vegetation surveys in July 2023
- Sample preparation in the lab (will send off soon!)
- More burns planned for spring of 2024
- Graduate student to start in May of 2024





## Endowment Fund

- Process for allocating monies for M-K-related wildlife research
  - William Chew, UNBC Treasury Services Manager, recommends an annual spending rate based on 3-year moving average of market value. Goal to maintain balance >\$1,000,000 + inflation
  - Heather submits a report to VP Research with a summary of annual activities related to research in the M-KMA and upcoming projects, including a budget with past and upcoming research expenses
  - Once approved, funds are moved from the endowment fund into an operating fund to be used for the approved expenses



# Endowment Fund

## 2022-2023 Fiscal Year

- Endowment fund market value on March 31, 2022: **\$1,284,229.78**
- Spending policy rate (3.5%) for 2022-2023: **\$42,197.00**
- Spent: **\$21,615** (\$5523 for research technician support, \$16,092 for lab equipment and supplies for wildlife health research)
- Operating account balance as of March 31, 2023: **\$80,335**

# Endowment Fund

## 2023-2024 Fiscal Year

- Endowment fund market value March 31, 2023: **\$1,337,213.48**
- Spending policy rate (3.5%) for 2023-2024 fiscal year: **\$44,642.00**
- Spent between April 1 and November 7, 2023: **\$87,749**
  - \$10,481 for research technician support
  - \$1363 for research supplies (safety, sample processing)
  - \$19,055 for 30 remote cameras and batteries
  - \$56,850 for research vehicle and insurance
- Operating account balance as of November 2023: **\$37,228**

## Additional Funding & In-Kind Support

- Wage subsidy for research technicians (~\$25,000/year)
- Undergraduate Student Research Award (\$6000 to Alice Tew)
- Mitacs and Chu Cho Environmental (\$60,000 over 2 years for Josh Green)
- Together for Wildlife Strategy (\$90,000 in 2020)
- Wild Sheep Society, Habitat Conservation Trust Foundation, Wild Sheep Foundation (Prescribed Fire Project)
- In-kind support from the Halfway River First Nation

