



# Body condition of Dolphin and Union caribou

## COMMUNITY-BASED MUSKOX AND CARIBOU HEALTH SURVEILLANCE PROGRAM

ACTIVITY UPDATE – MARCH 2025



### PARTNERS



Kugluktuk Angoniatit Association



Olokhtomiut Hunters and Trappers Committee



Ekaluktutiak Hunters and Trappers Organization



Government of Nunavut

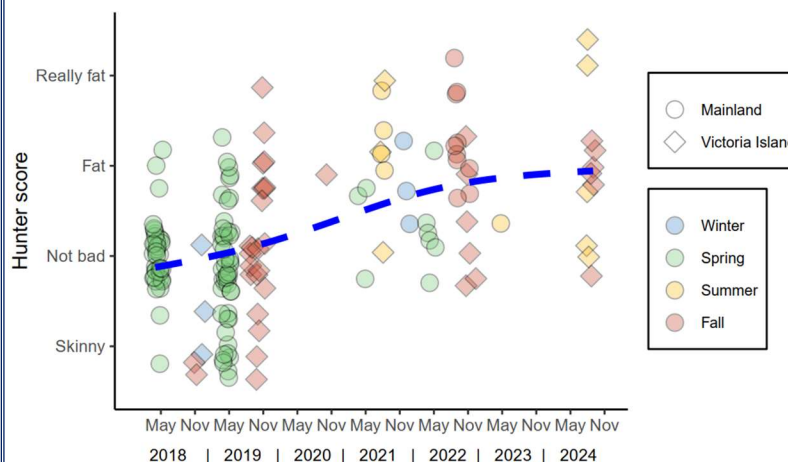


### WHAT IS THE ISSUE?

Body condition is an important indicator of health in caribou. It tells us how well the caribou are doing and influences survival and reproduction. We monitor Dolphin and Union (DU) caribou body condition through the Community-Based Wildlife Health Surveillance program.

### WHAT ARE WE FINDING?

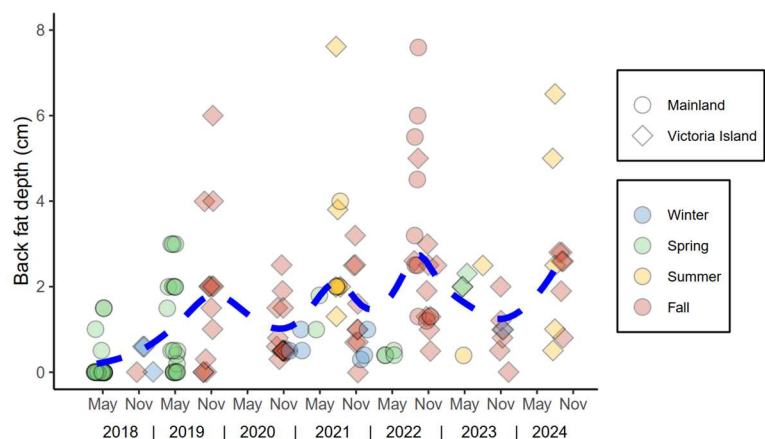
From the hunter-based sampling we record the hunters' assessment of condition, back fat depth, kidney fat and bone marrow fat. These measures tell us different things about how fat the caribou are. For example, back fat is the first fat store to be used when caribou don't have enough food and is different in different seasons, whereas bone marrow fat is the last fat store to be used and is only low in very skinny animals.



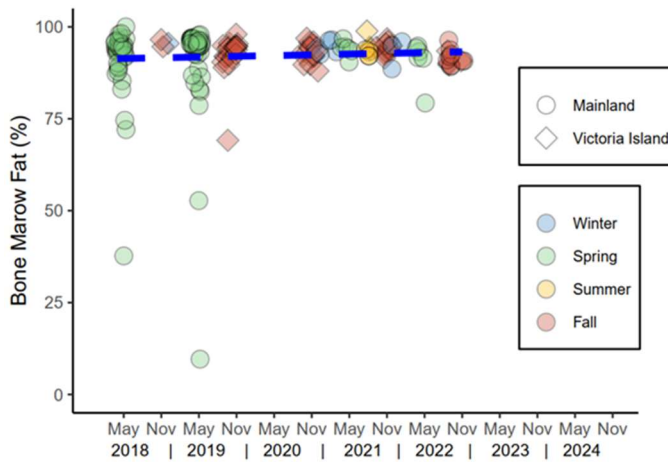
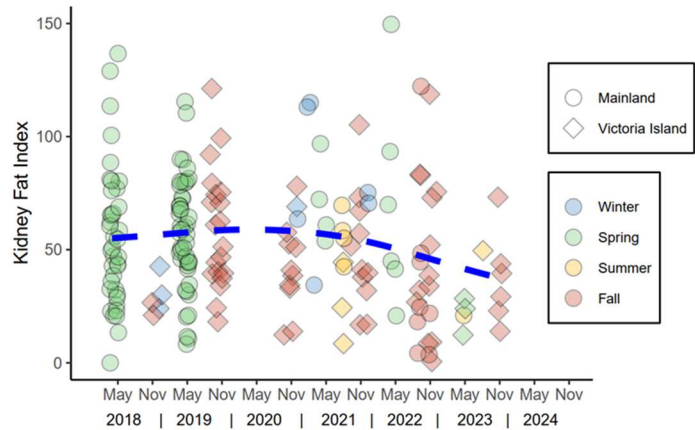
#### Hunter assessment:

DU caribou were most likely to be "Not bad" in 2018 and 2019. In 2022 and 2024 they were more likely to be "Fat" as shown by the blue trendline. This observation may be biased because most caribou in 2018 and 2019 were recorded in spring when caribou are less likely to be fat.

**Back fat depth:** This measure has big seasonal changes, it is highest in the fall and lowest in the spring as shown by the blue trendline. Overall, it has been increasing in DU caribou since 2018, except for 2023 where we saw lower back fat depth.



**Kidney fat:** It is measured using Kidney Fat Index and although it declined slightly from early winter to summer, it did not change much between seasons. Kidney fat in DU caribou was slightly lower between 2022 and 2023 compared to previous years as shown by the blue trendline.



**Bone marrow fat:** Average bone marrow fat has not changed in DU caribou since 2018 as shown by the blue trendline. However, since 2020, we are seeing fewer caribou with very low bone marrow fat.

These different measurements indicate that DU caribou currently have good body condition, which means that they are likely to have good rates of survival and reproduction. This supports the recent survey results, that DU caribou are no longer declining.

## WHY DOES THIS WORK MATTER?

Body condition provides important information about how healthy caribou are. For example, if caribou are fat in the fall, this indicates that it was a good summer and there is a higher likelihood of high pregnancy rates. With these results we are working to develop an adaptive co-management framework for DU caribou which can support co-management decision making regarding the status of the population. This will support timely and effective health monitoring and conservation status assessments to aid proactive wildlife co-management.



# THANK YOU TO ALL THOSE WHO MAKE OUR RESEARCH IN THE ARCTIC POSSIBLE

The Kutz Research Group works closely with arctic communities, territorial governments, and industry partners to investigate and monitor wildlife health in the North. The information and results presented here are a direct result of these collaborations. We thank all our collaborators and funders who have made this broader program successful. Please contact Susan Kutz [skutz@ucalgary.ca](mailto:skutz@ucalgary.ca) if you have any questions about this program.

