

## EXECUTIVE SUMMARY

- We used biopsy mark recapture data to assess the movement of bears between Western Hudson Bay (WH) and Southern Hudson Bay (SH) polar bear subpopulations
- 727 DNA samples were obtained over 6 years, from which 458 unique individuals were identified
- In 2021 and 2022, 25-36% of sampled bears were found to move between the two subpopulations demonstrating extensive movements across the WH and SH subpopulation boundaries.
- Interannual variation in the spatial distribution of sea ice influenced bear distribution
- Bear movement between the adjacent subpopulations were higher than previously reported but primarily occurred at the southern boundary of WH (Cape Tatnam) and the SH subpopulation. Analysis of bear movement and harvest vulnerabilities across Hudson Bay may be necessary to ensure harvest management objectives can be achieved.

## TECHNICAL SUMMARY