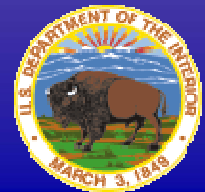


Potential effects of climate change on arctic ungulates

Patricia E, Reynolds US Fish and Wildlife Service, Arctic NWR

Presentation for the Arctic Climate Impact Assessment Commission
Anchorage, Alaska 13 April 2007



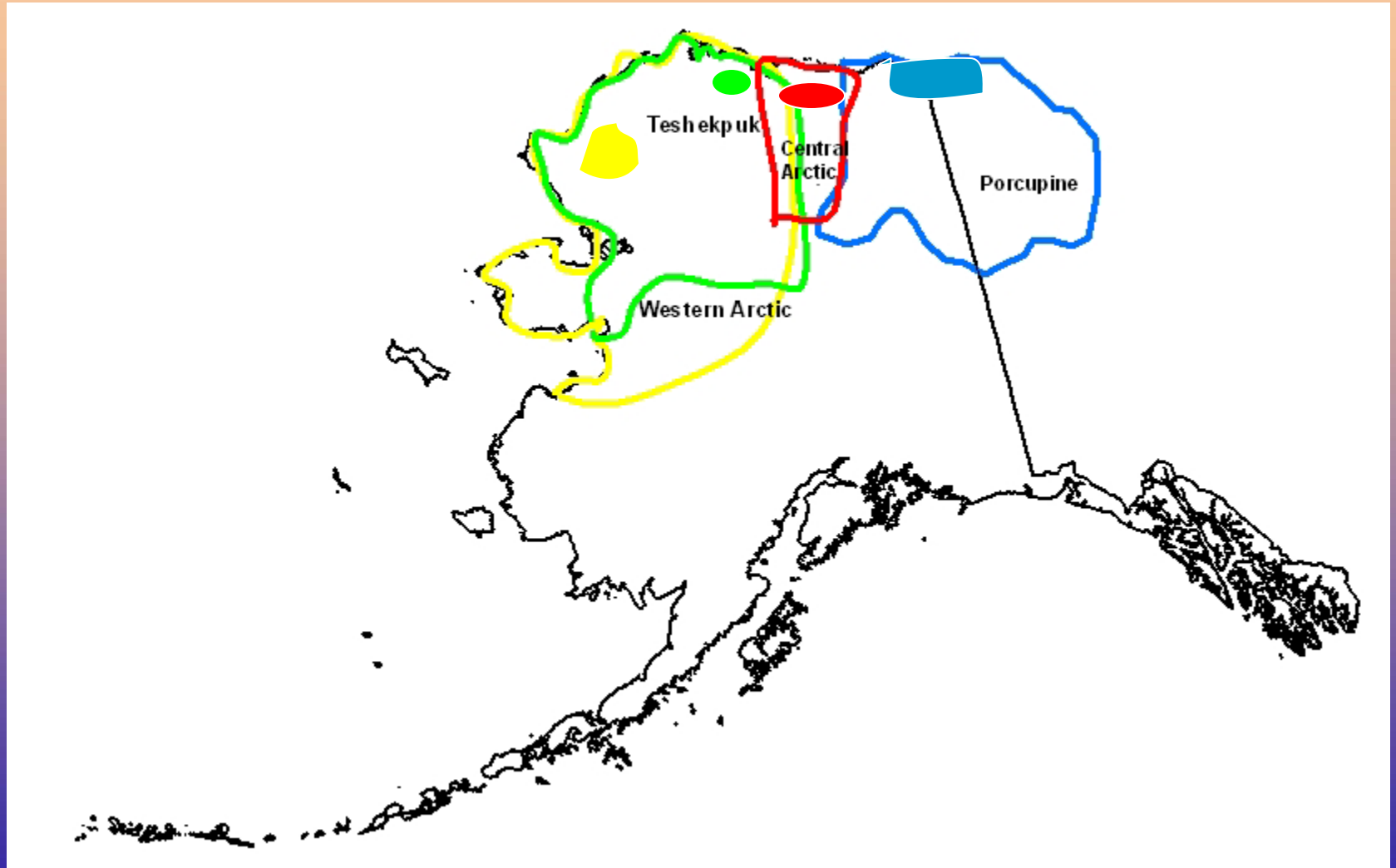
Arctic Ungulates in Alaska



Caribou

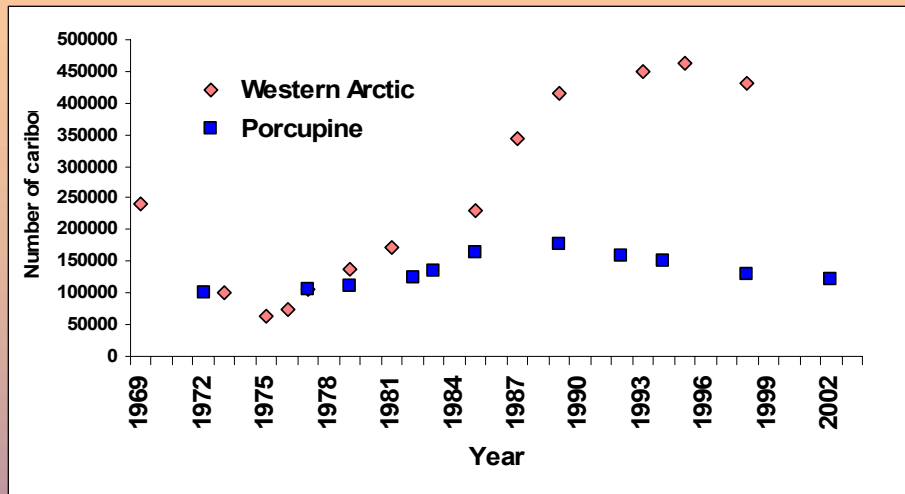


Distribution of caribou in arctic Alaska

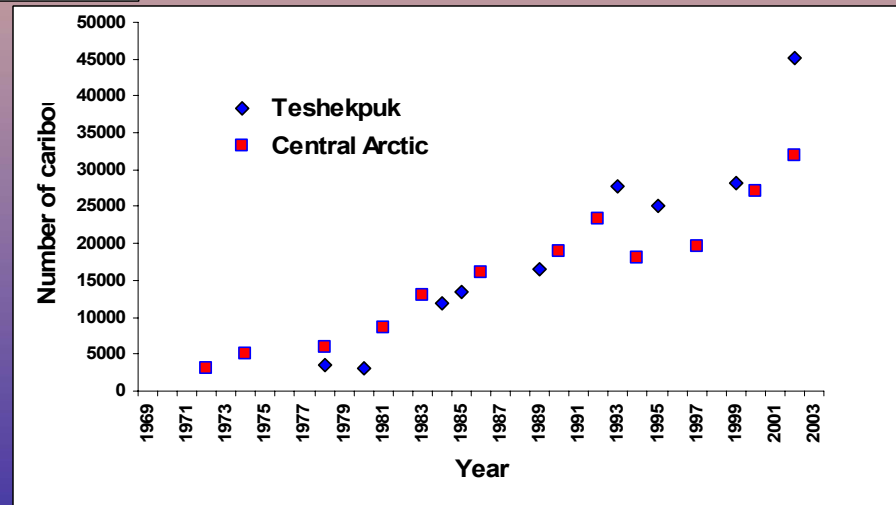


Data source: Alaska Department of Fish and Game

Population trends of arctic caribou herds



Herd size 100,000-500,000



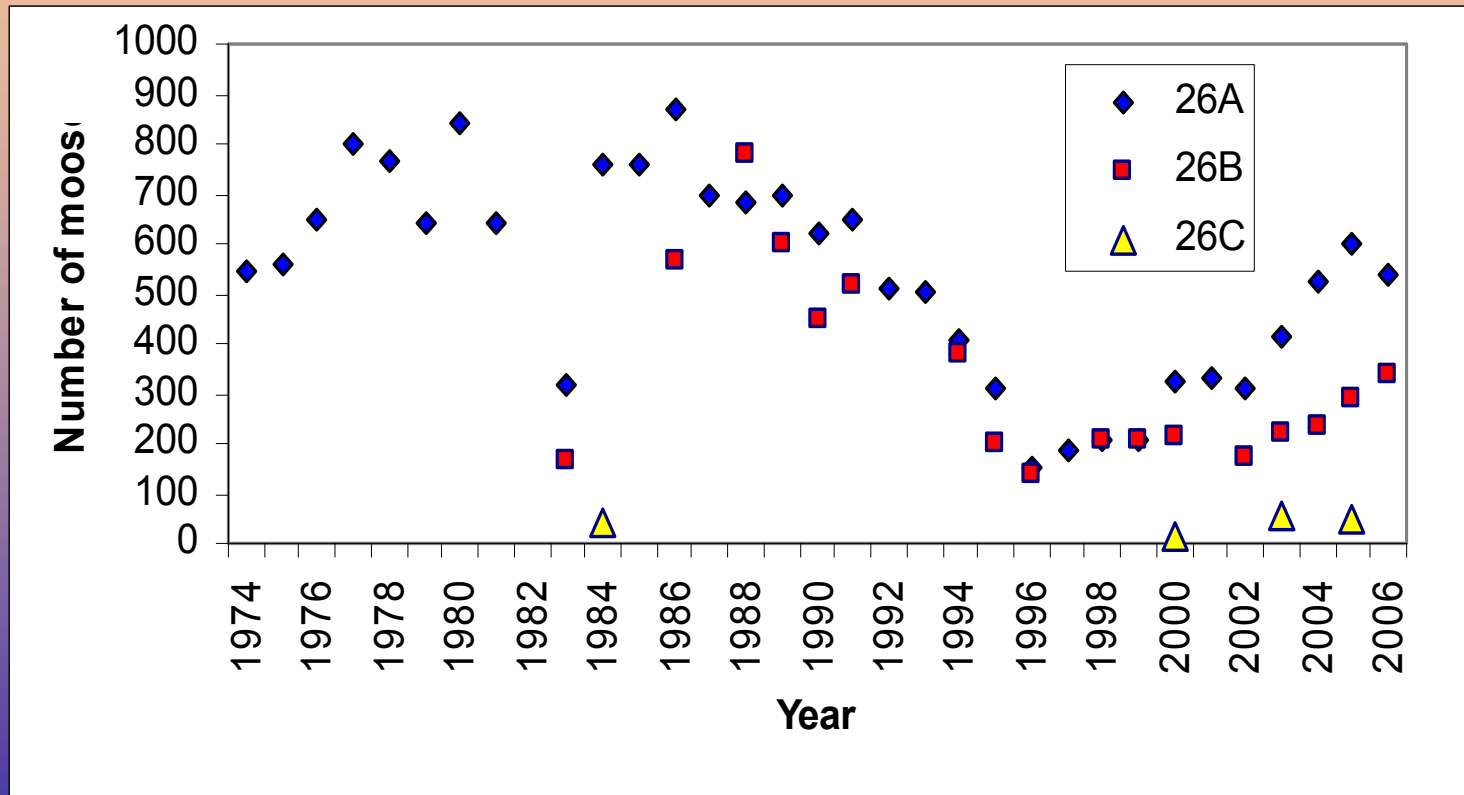
Herd size 30,000-50,000



Moose



Trends in north slope moose populations



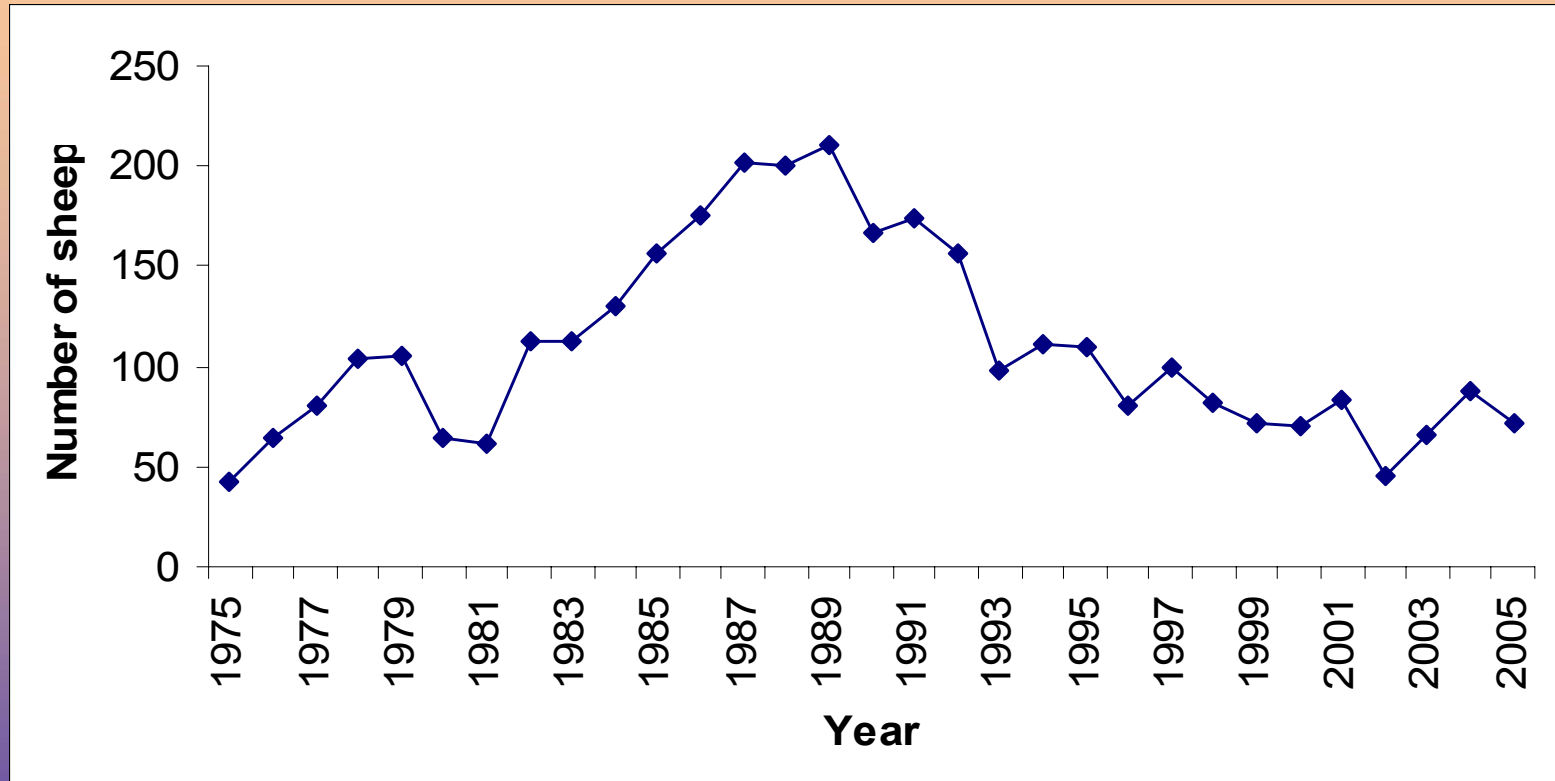
Data source: Alaska Department of Fish and Game and Arctic NWR



Sheep



Sport harvest of sheep in Arctic NWR, Alaska



Data source: Tara Wertz, USFWS Arctic NWR

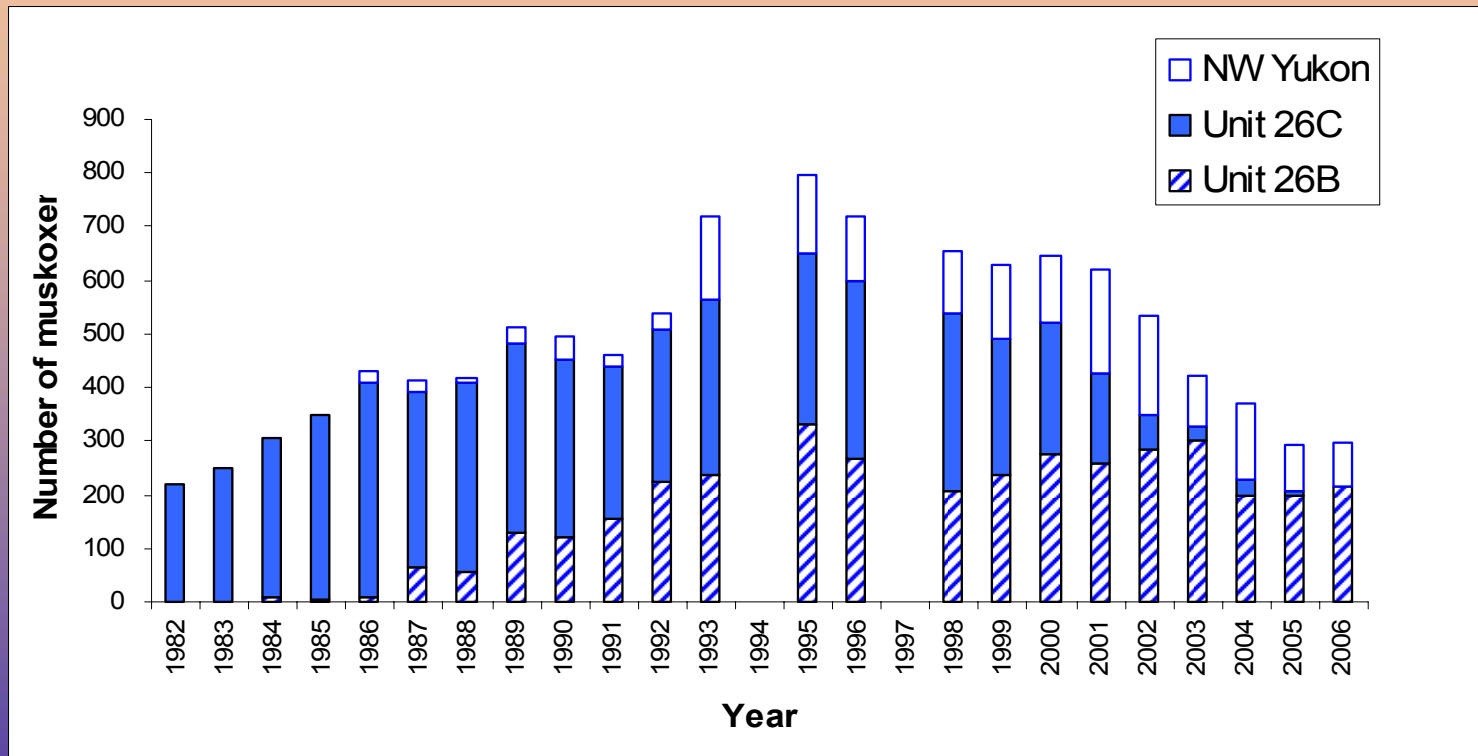


Muskoxen

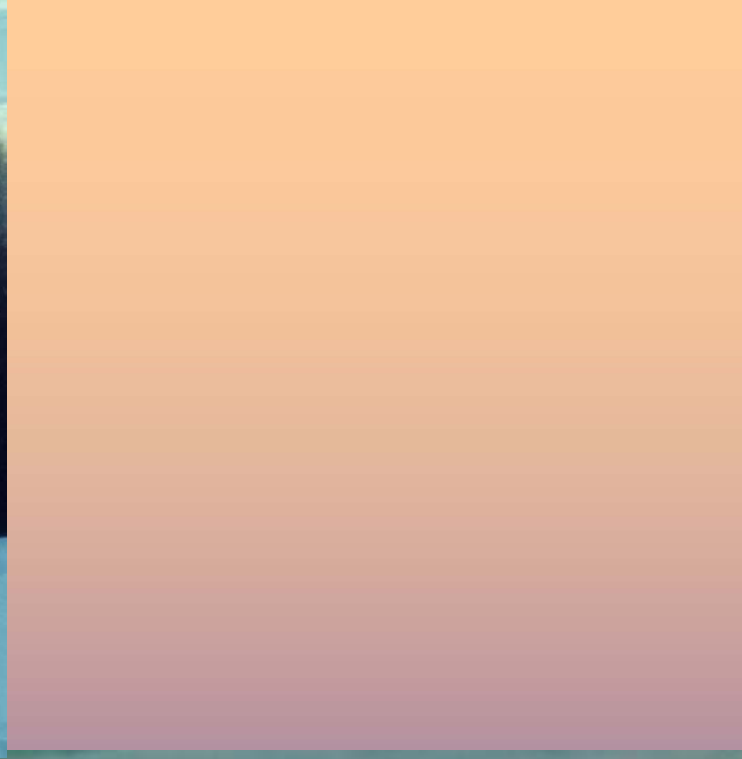


Trend of muskox population

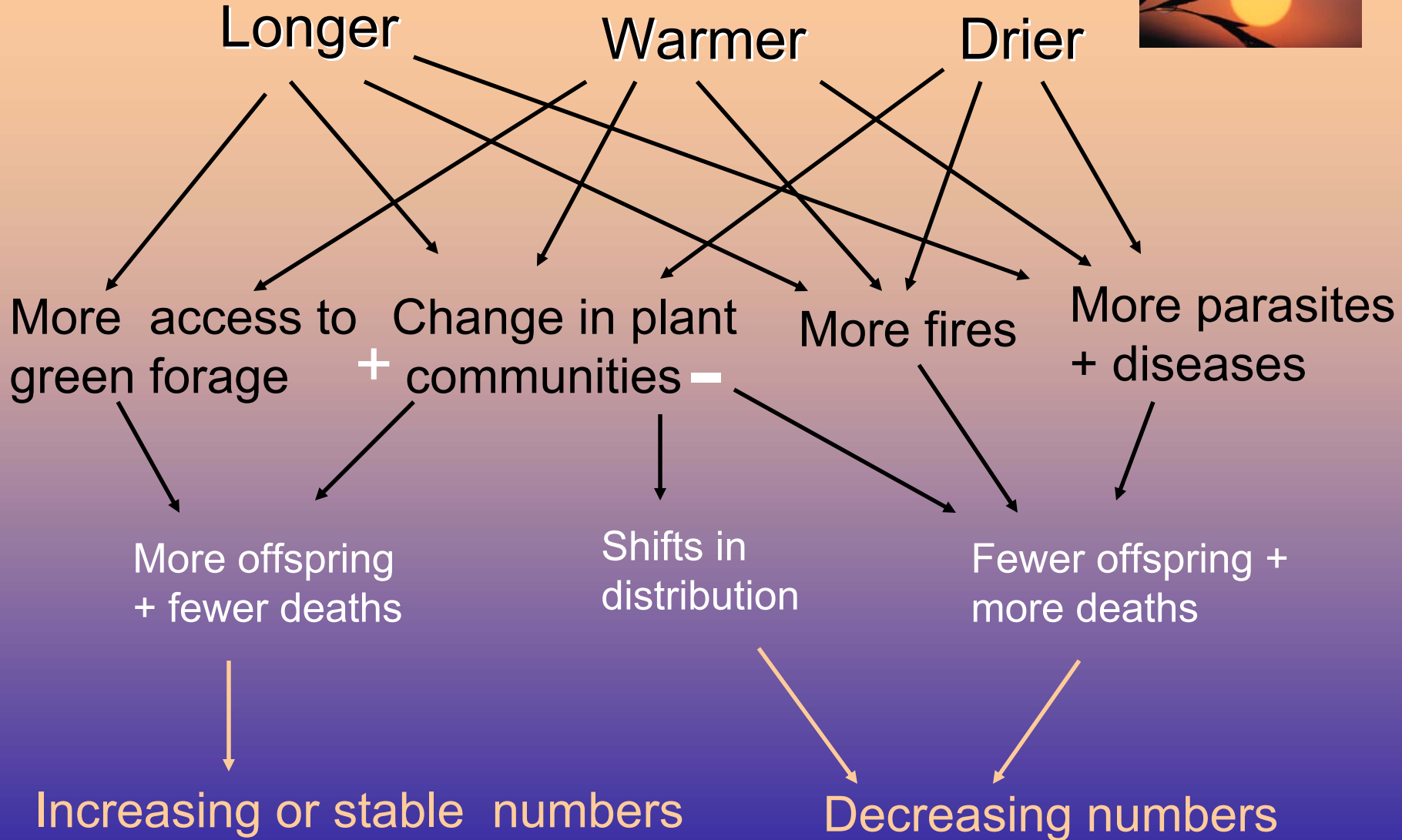
Unit 26B and 26C, Alaska and northwestern Canada



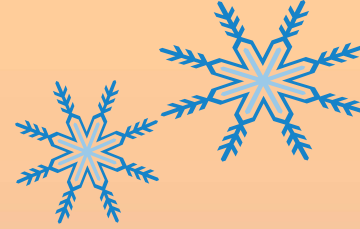
Data source: USFWS Arctic NWR, Alaska Department of Fish and Game, Yukon Department of Environment



Growing season



Winter



Shorter

Warmer

Wetter

lower energetic costs

more icing events

more snow

higher energetic costs

less access to food

More predation

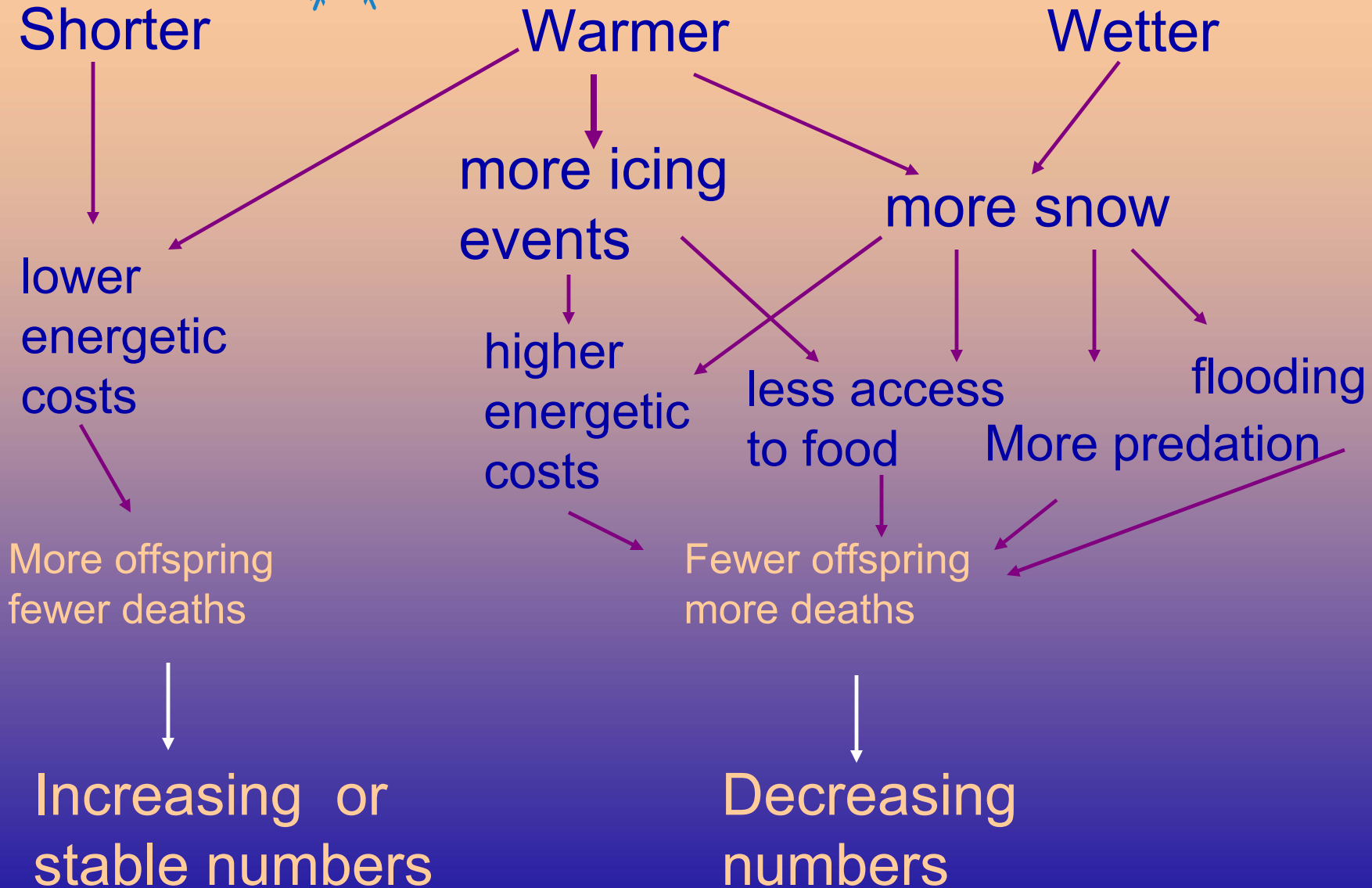
flooding

More offspring fewer deaths

Fewer offspring more deaths

Increasing or stable numbers

Decreasing numbers



Summary

