

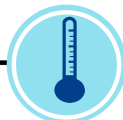
SEA ICE

The Climate Change Breakdown

What is sea ice, how is it responding to climate change, and who is being affected?

WHAT

Sea ice forms entirely in the ocean.^[5]



Temperature

Ocean water freezes at -1.8°C
[4]



Salinity

Each layer has a different salt concentration
[4]



Currents

Water and air movement influence shape and structure
[3]

FY: First-year ice is formed from younger ice and only lasts a year. It is 0.3 to 2 m thick.^[1]

MY: Multi-year ice is formed from older ice and lasts for more than two years. It is 3 to 4 m thick.^[11]

Fall



Freezing Season
[4]

Summer



Melting Season
[3]

Influence on the Environment



Maintaining climate and weather patterns
[2]

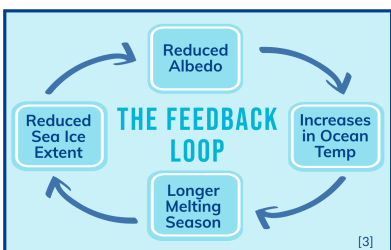


Ocean circulation
[3]



Supports arctic ecosystems and habitats
[3]

HOW



Temperature

1-3°C increase in air temperature
[4]



Thickness

Significant reduction in sea ice thickness
[4]

Trends

Unpredictable sea ice formation cycles
[2]

Multi-year ice is declining
[3]

A reduced freezing season
[3]

Heading towards an ice free Arctic Ocean^[9]

WHO

Changes in the conditions and availability of sea ice has the greatest impact on Indigenous communities living in the Canadian Arctic.

Sea ice is an extension of ...



Health



Tradition



Land



THE POLAR BEARS

Losing the ability to hunt on the ice has increased their presence on the main land.^[10]



34% increase in reported sea ice related injuries
[6]



The loss of freedom has affected the mental health of Inuit communities
[5]



Increased food insecurity
[7]

Difficulty teaching traditional Inuit hunting practices
[8]

Losing the ability to predict the timing of fall ice
[2]

Difficulty accessing other communities, like those in Rigolet
[8]

Melting

Increased moisture

Stronger storms

Increased coastal erosion
[1]

REFERENCES:

