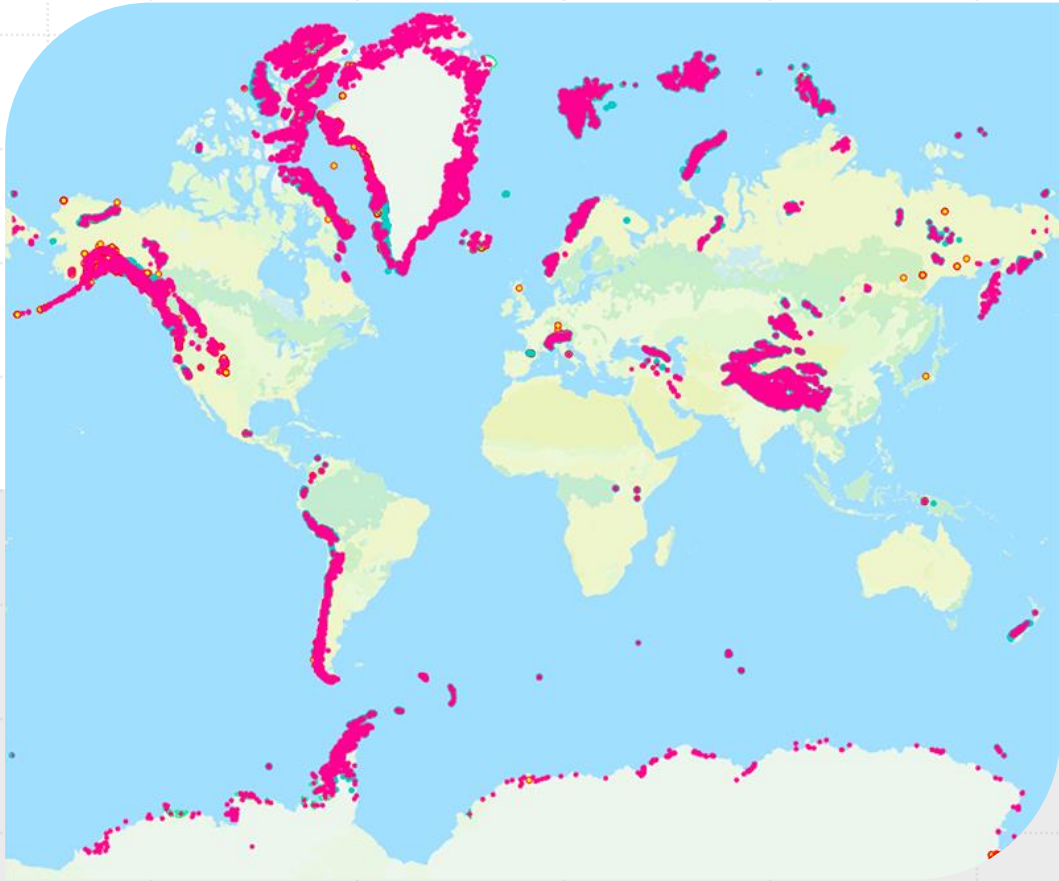




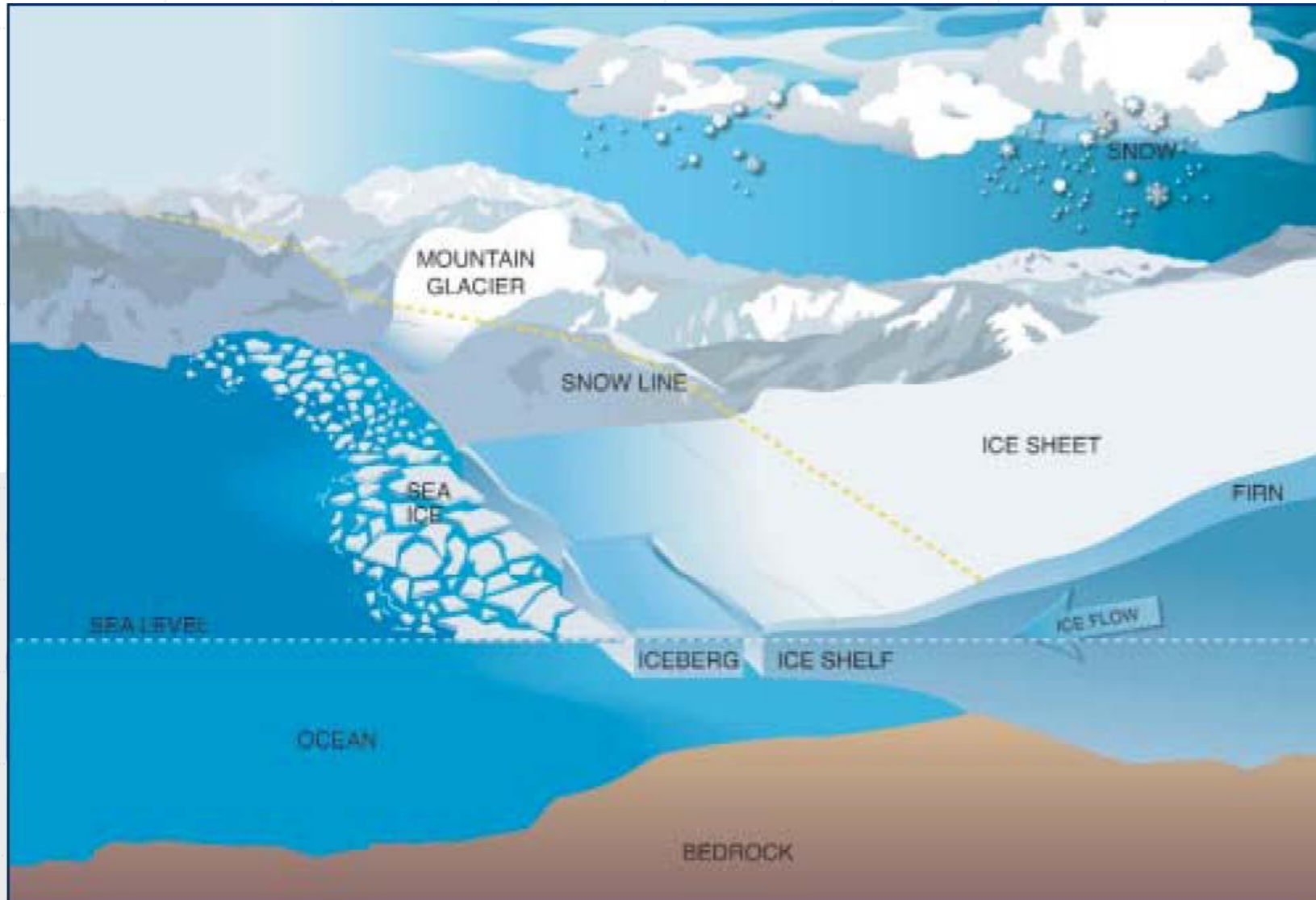
Cracking the Code on Melting Glaciers

By: Deanna Conklin

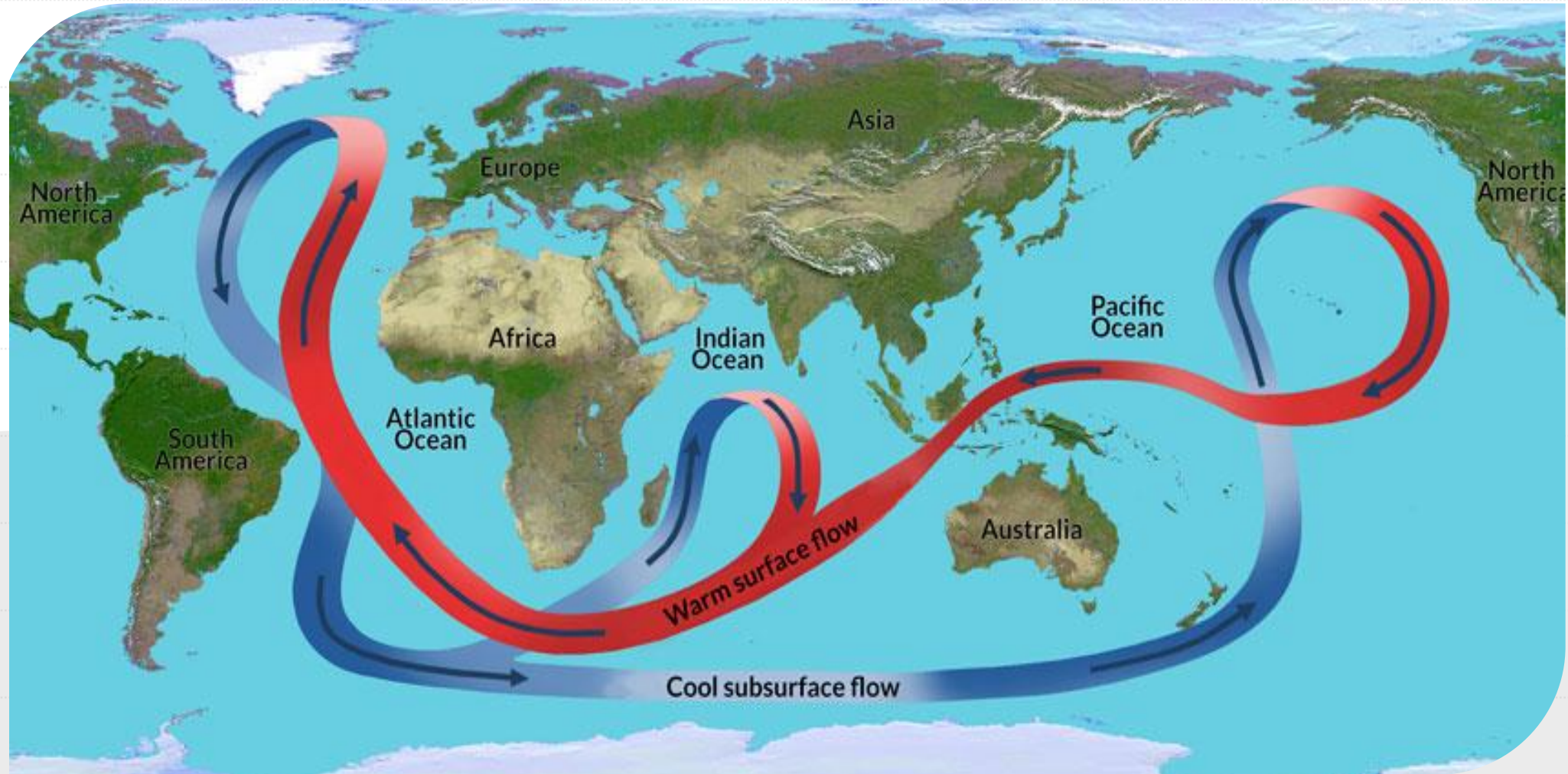
What is a glacier?



Climatic Conditions



Purpose of Glaciers





Land Animals VS. Ocean Animals

Polar Bears

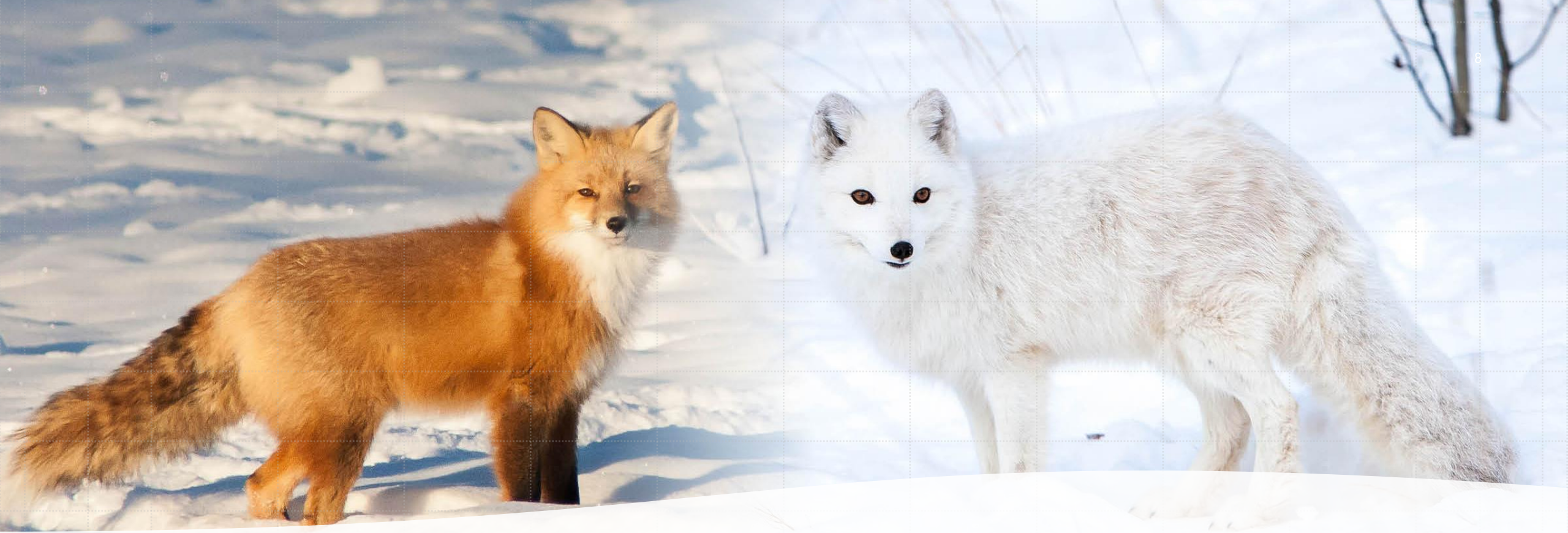
- **Location:** Arctic Region
- **Prey:** ringed seals, bearded seals, and other pinnipeds
- Dependent on glacial ice as platform for hunting, seasonal movements, summer refuge, finding mates and breeding
- Easily adapt to constantly changing environment, **yet** habitat loss remains a concern





Penguins

- **Location:** Southern Hemisphere
- Highly vulnerable to changes in climate and ocean temperature
- Without glacial ice present it becomes difficult for penguins to avoid predators



Arctic Fox

- **Location:** Arctic region on tundra or mountains
- Increased contact with dwelling relatives: The Red Fox
- Melting glacial ice creates double-edged sword effect

Orcas

- **Location:** Northern Pacific Ocean & Southern Hemisphere
- Steer clear of glaciers to avoid entrapment and suffocating
- Difficult to navigate through ice-covered sea due to damaging of their dorsal fin



Beluga Whales

- **Location:** Coastal waters of Arctic Ocean
- Loss of glacial ice and increased ocean temperatures affect distribution, composition, and productivity of prey communities
- As warmer temperatures affect oceanic patterns of circulation, Belugas travel to parts of the ocean where they shouldn't be





Saimaa Ringed Seal

- **Location:** lives near “pack ice”
- Very similar to Polar Bear’s habitat situation

Solution to Arctic Animal Habitats



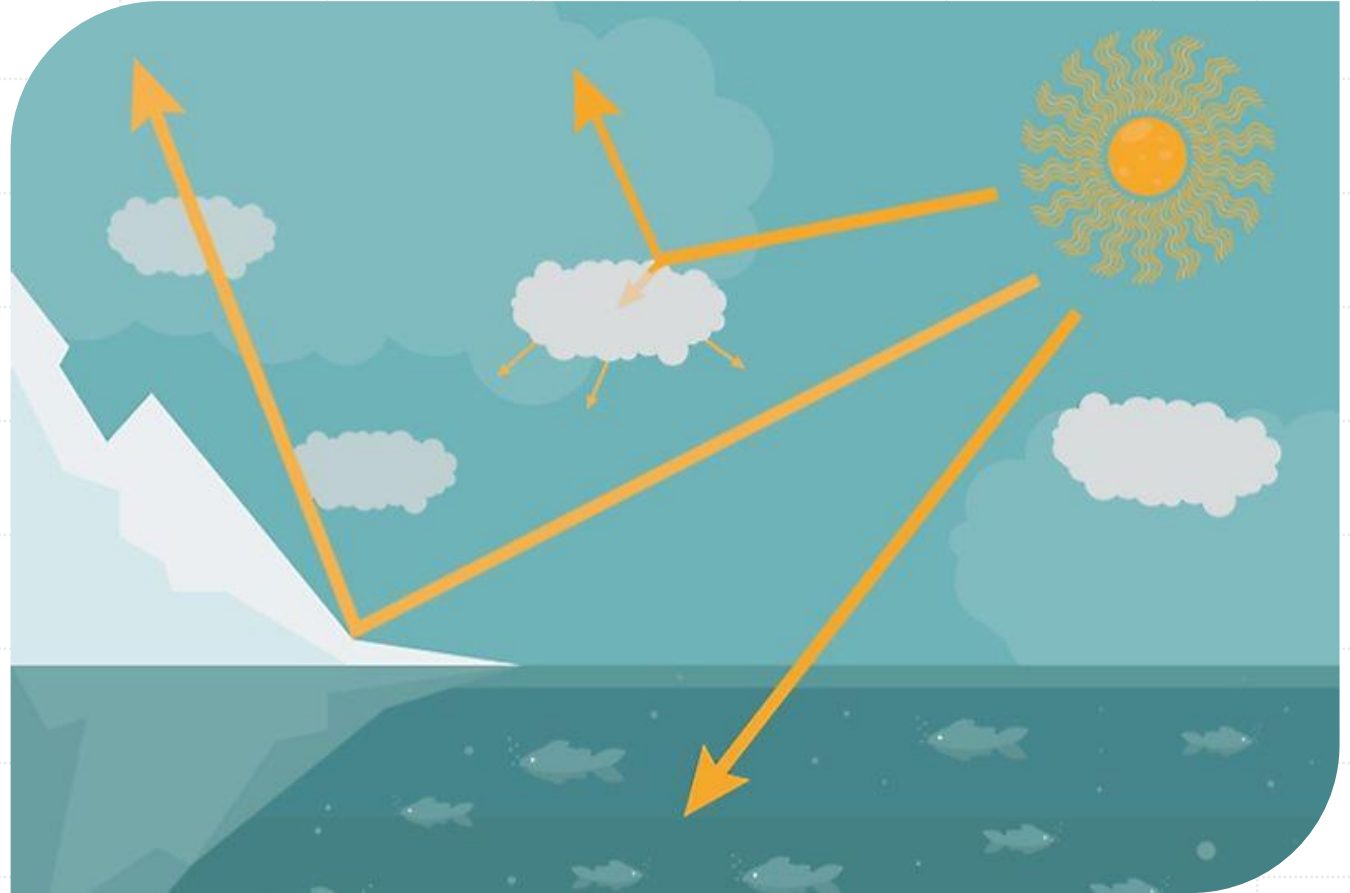


Causes of Glaciers Melting

- Driving our own cars accounts for 29% of greenhouse gas emissions in the U.S.
- vs.**
- Utilizing other modes of transportation: subways, metros, train, bus → produce 76% fewer emissions per mile than average vehicle

Causes of Glaciers Melting (Cont.)

- Large bodies of water absorb 90% of Earth's total warmth
- *Calving*– another term for glacial melt
- Continuous freshwater input from melting glaciers → ocean freshening and sea-level rise





Causes of Glaciers Melting (Cont.)

- Both burning of fossil fuels & oil and gas drilling contribute to sea level rising every 4 meters over a few centuries
- Extraction process: methane is released into air while producing an atmosphere more detrimental than CO₂

Causes of Glaciers Melting (Cont.)

- Glaciers release toxic pollutants found in basins where water is used for drinking & fishing purposes
 - Toxins are tasteless & odorless
- Release of lead and mercury concern areas including Arctic Region, Antarctica, Himalayas, Rocky, and Sierra Nevada mountain ranges

How can we prevent glaciers from melting?

- 1) Reducing carbon footprint per individual
- 2) Drive less and utilize public transportation
- 3) Replace combustion engines with hybrid engines
- 4) Practice Ecotourism



Earthly Disasters



- Prevent constant changes in weather patterns & slow the rise of sea level
- Darker patches of ocean create warmer temperatures disrupting ocean circulation

How long exactly do we have until our
glaciers melt?

2050



Different World- Alan Walker

<https://www.youtube.com/watch?v=m-PJmmvyP10>

