

The Arctic sea ice cover

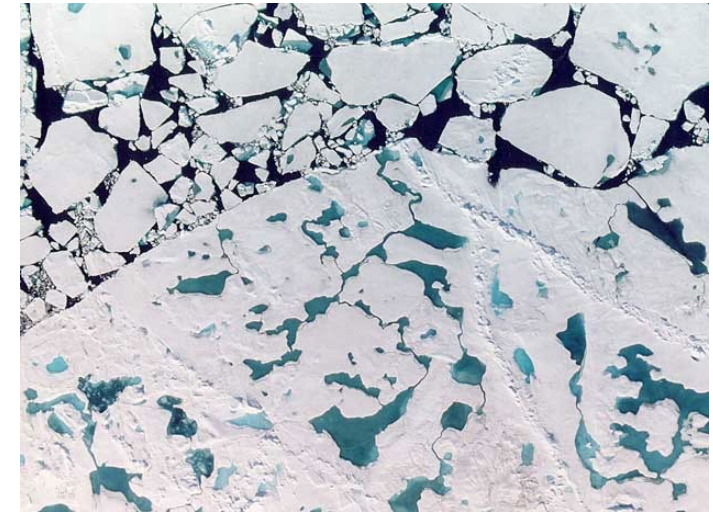
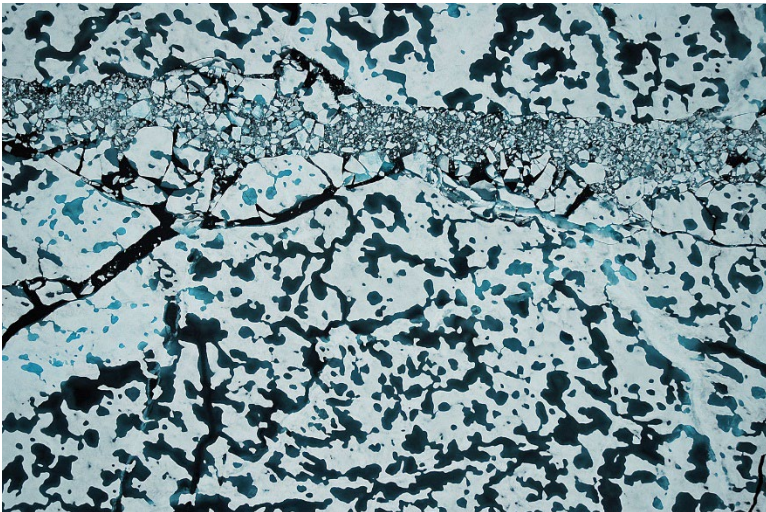
The frozen ocean at the top of the world

- Vast areal extent
- Thin veneer of sea ice only a few meters thick
- Only a few months to a few years old
- Floating, moving ice
- Driven by winds and currents
- Excellent reflector



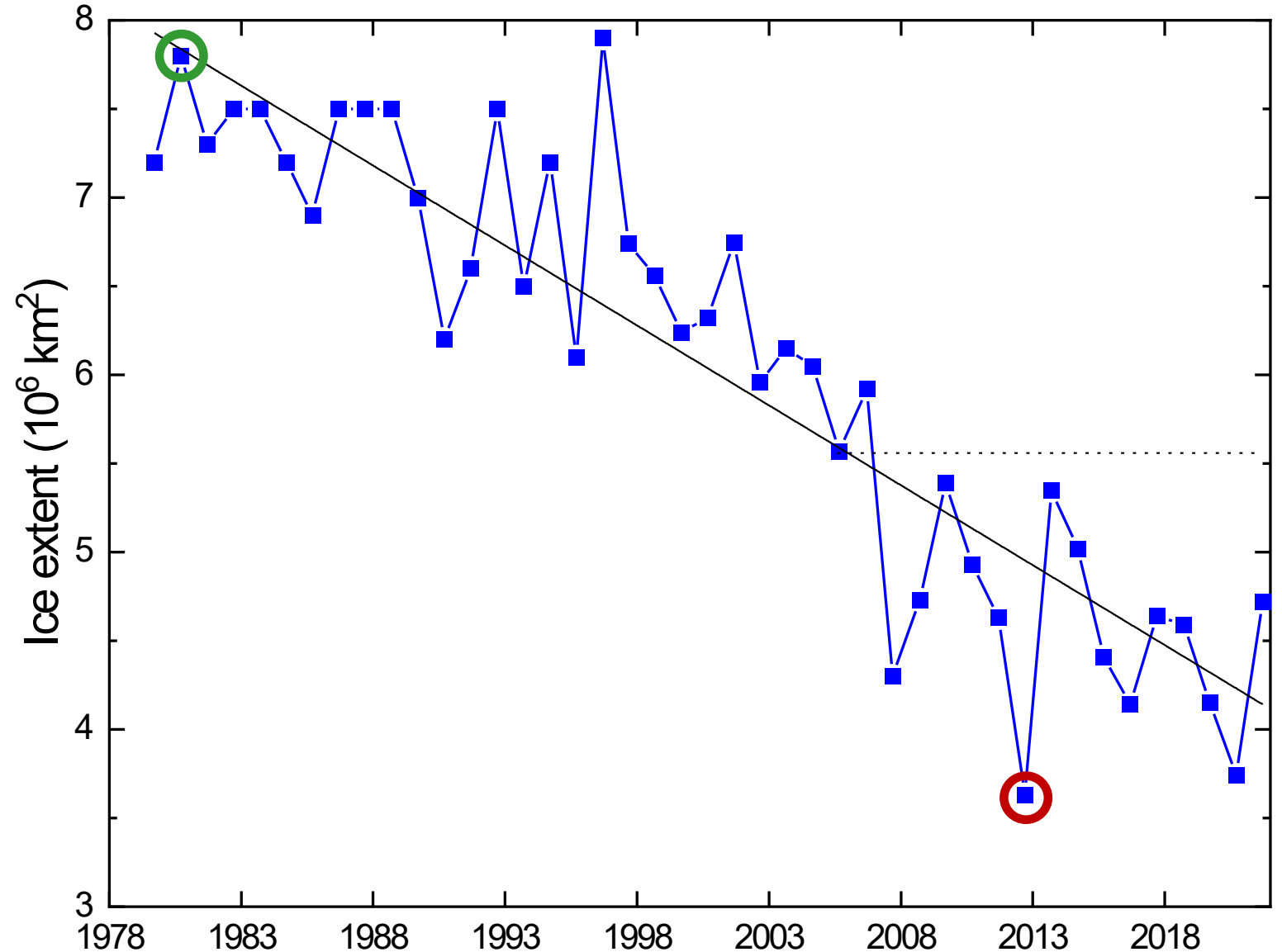
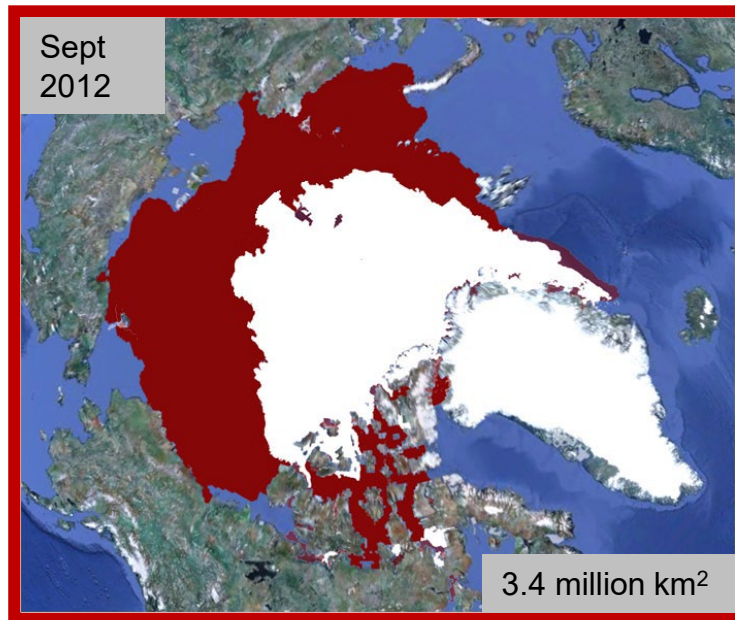
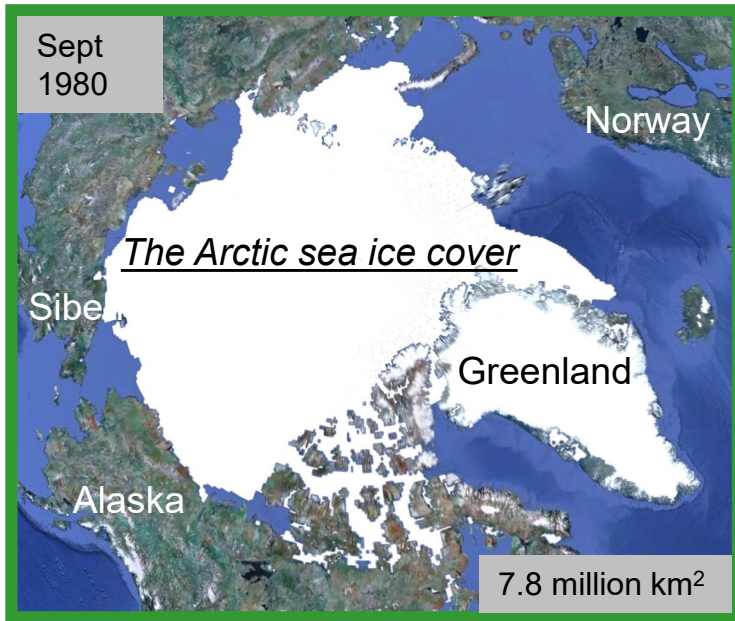
An indicator and amplifier of climate change

Arctic sea ice: A material near its melting point



An indicator of climate change

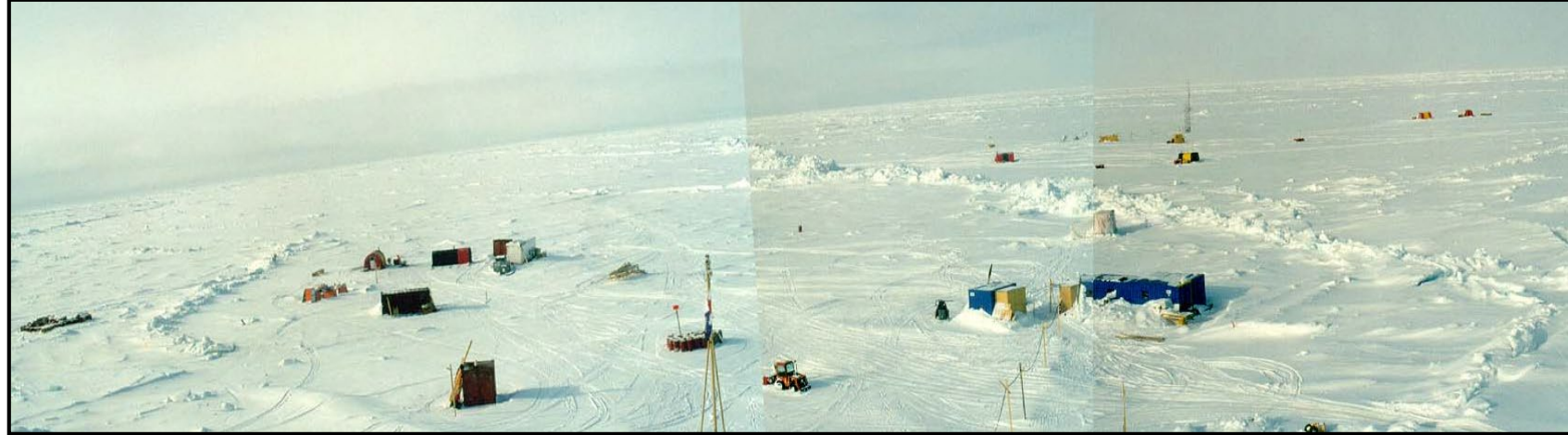
Sea ice extent – September



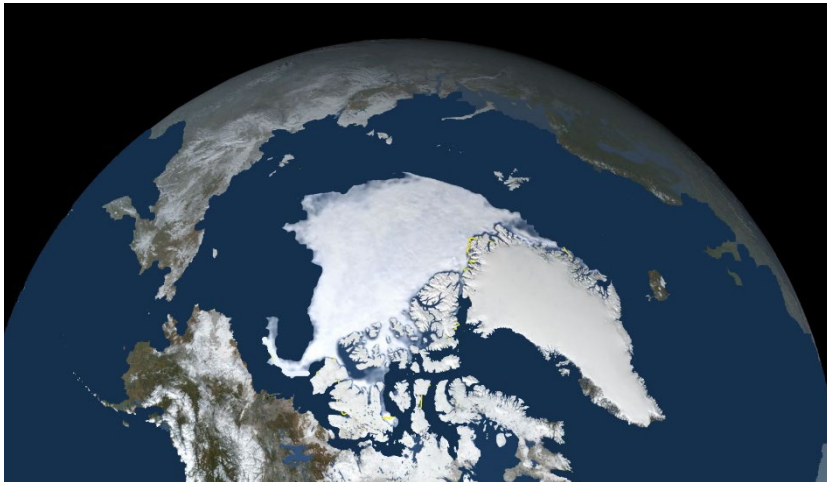
Ice loss about 13% per decade

Ice Albedo Feedback: An amplifier of climate change

Spring



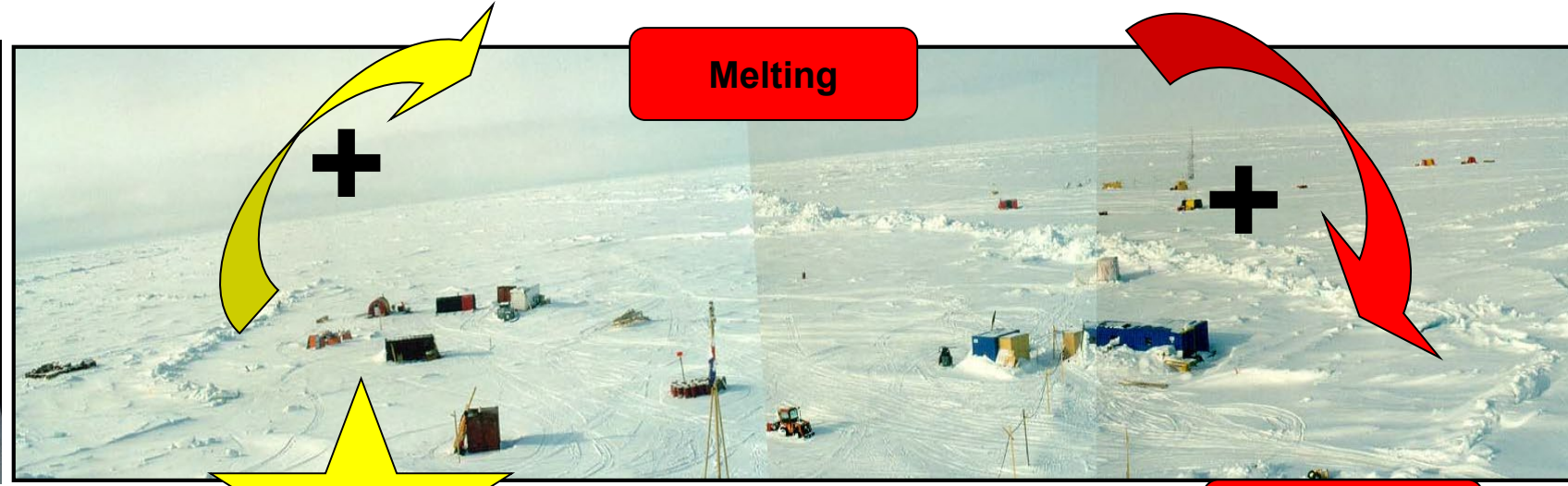
Summer



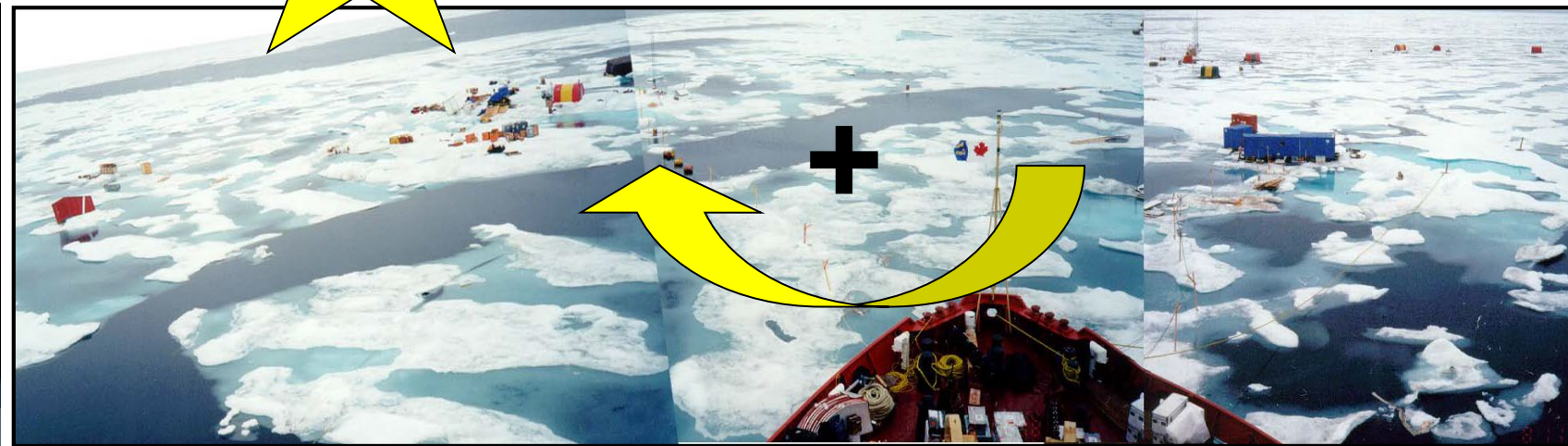
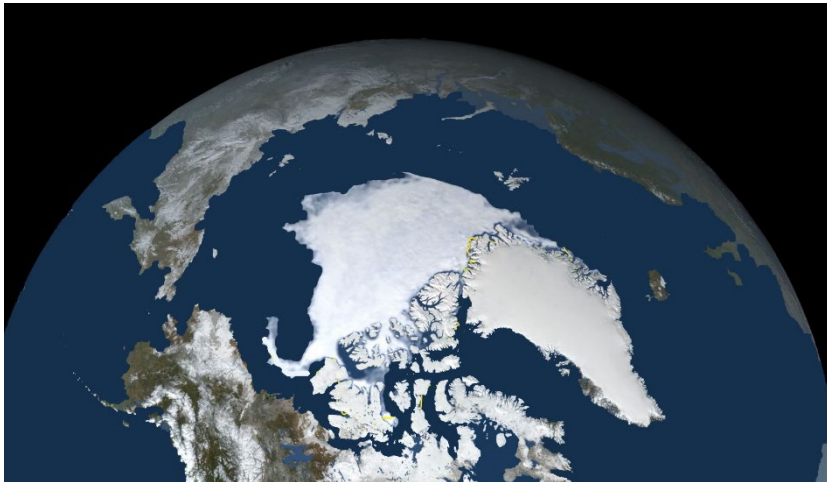
Melting decreases the albedo

Ice Albedo Feedback: An amplifier of climate change

Spring



Summer



A feedback that accelerates melting

There are consequences today

Communities



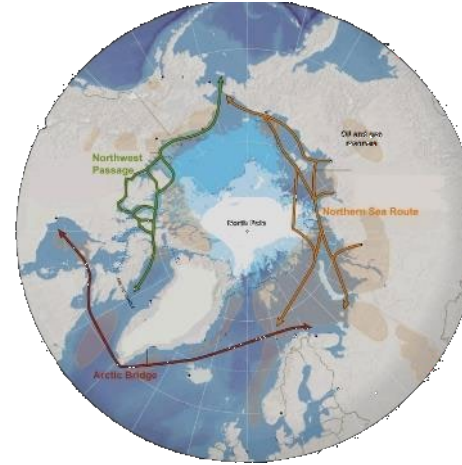
Tourism



Geopolitical



Shipping



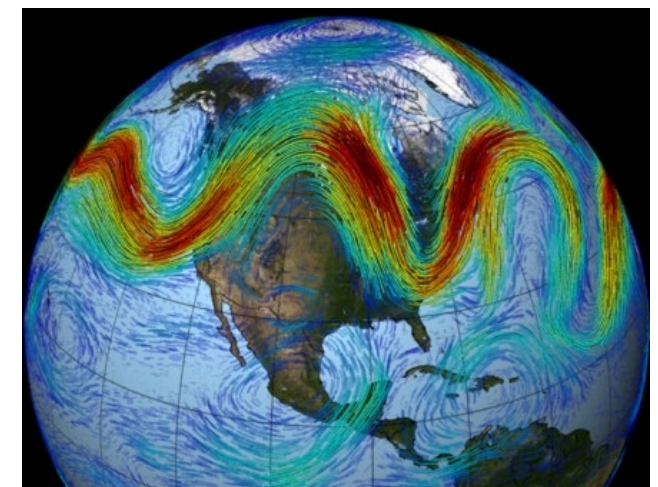
Natural resources



Ecosystems



Mid-latitude weather



Loss of sea ice is impacting systems and people – now!