

# Climate Change in Nunatsiavut

From coping to adaptation and action

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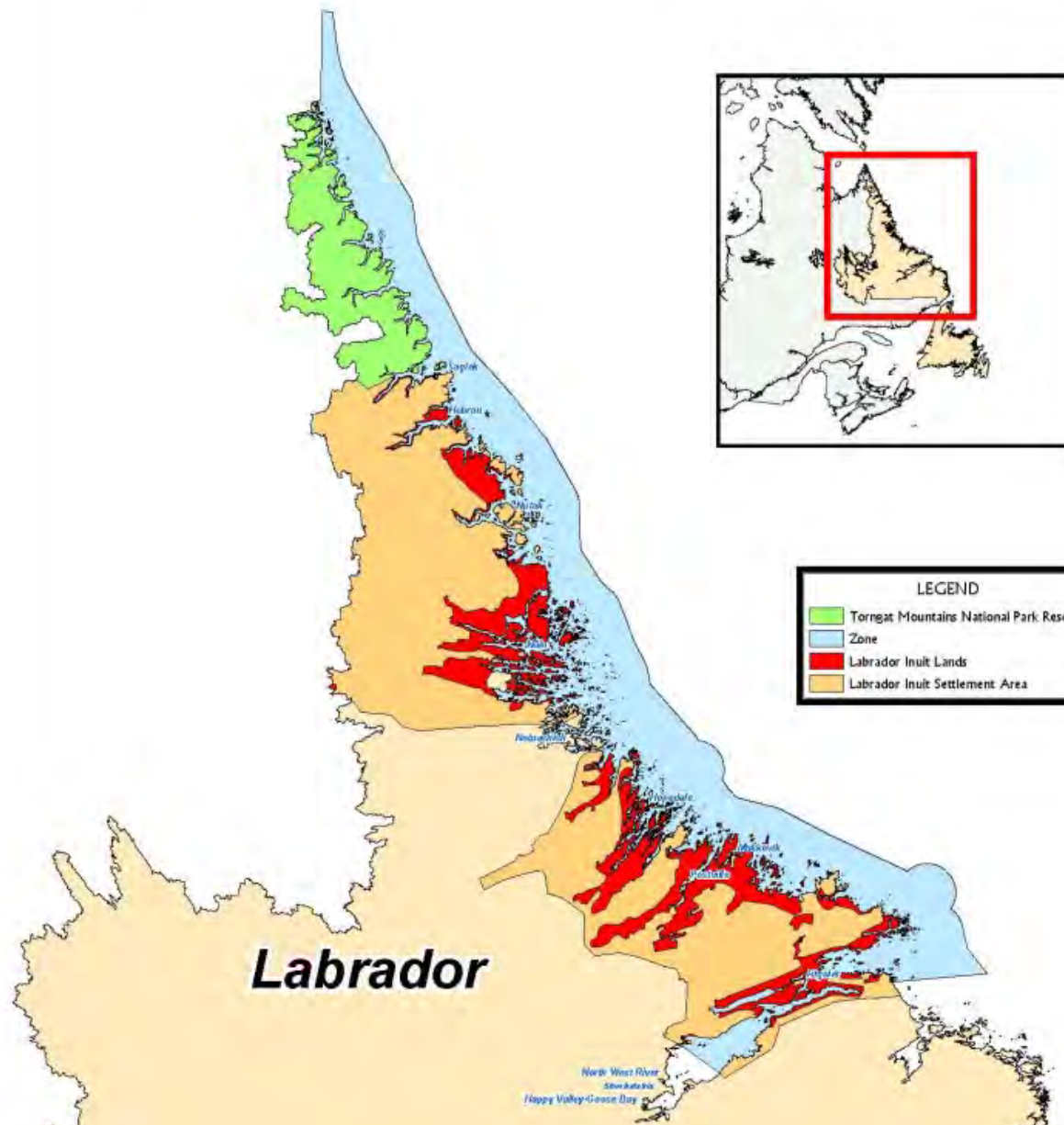
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Chris Furgal

Trent University

# LABRADOR INUIT LAND CLAIMS AGREEMENT



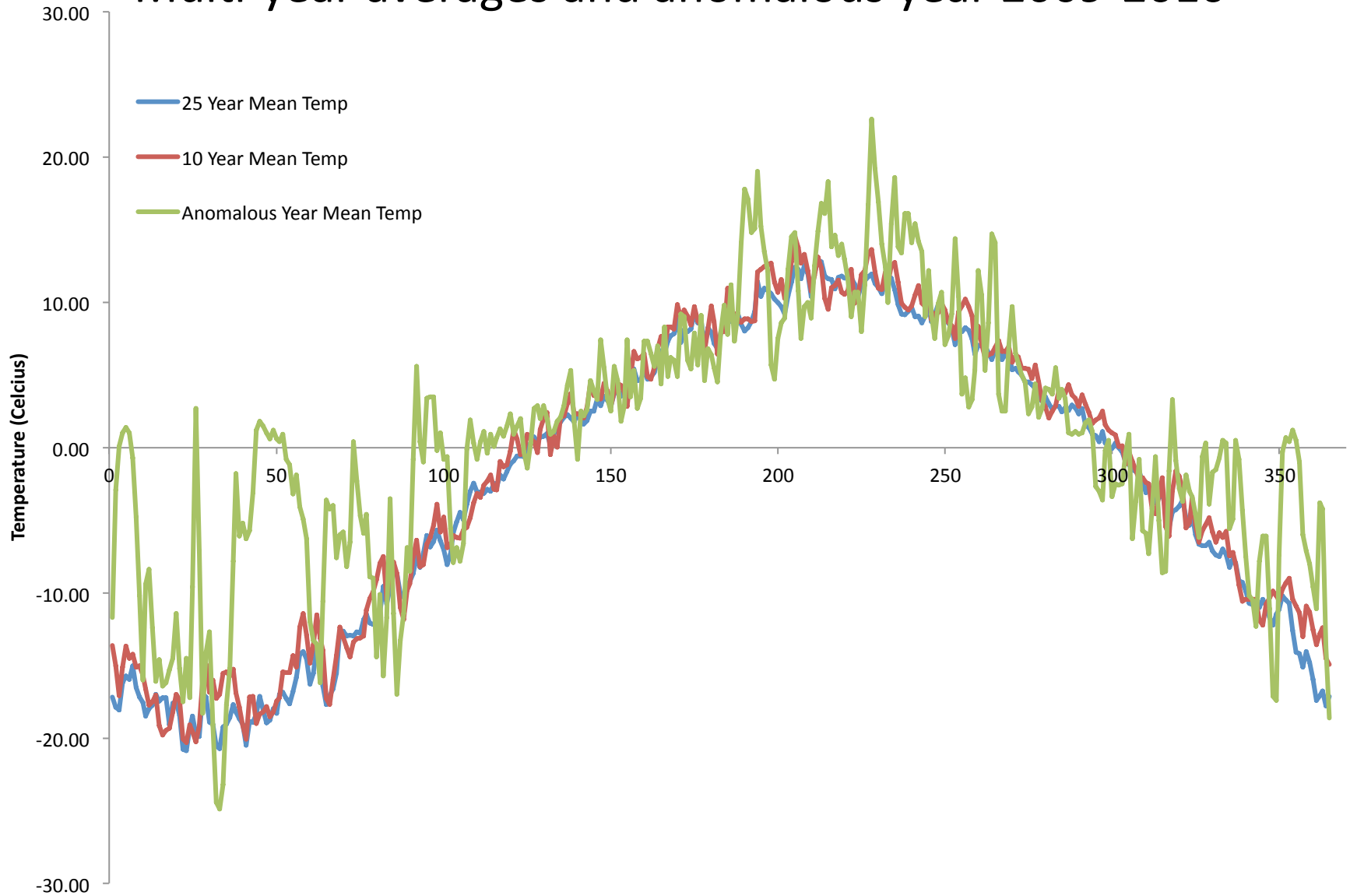


# Relationship between Inuit, environment and health



# Nain temperature

## Multi-year averages and anomalous year 2009-2010

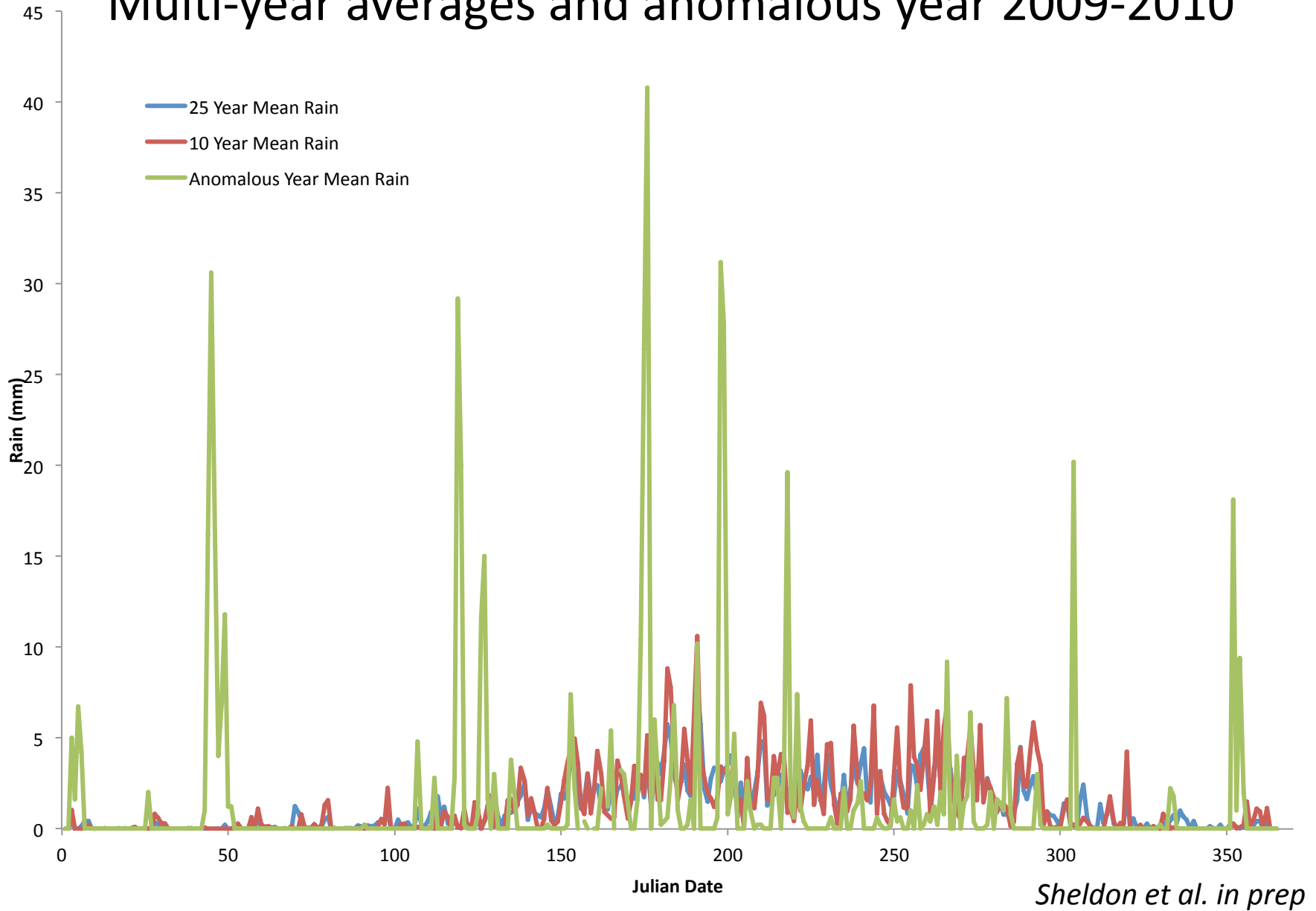


Julian Date

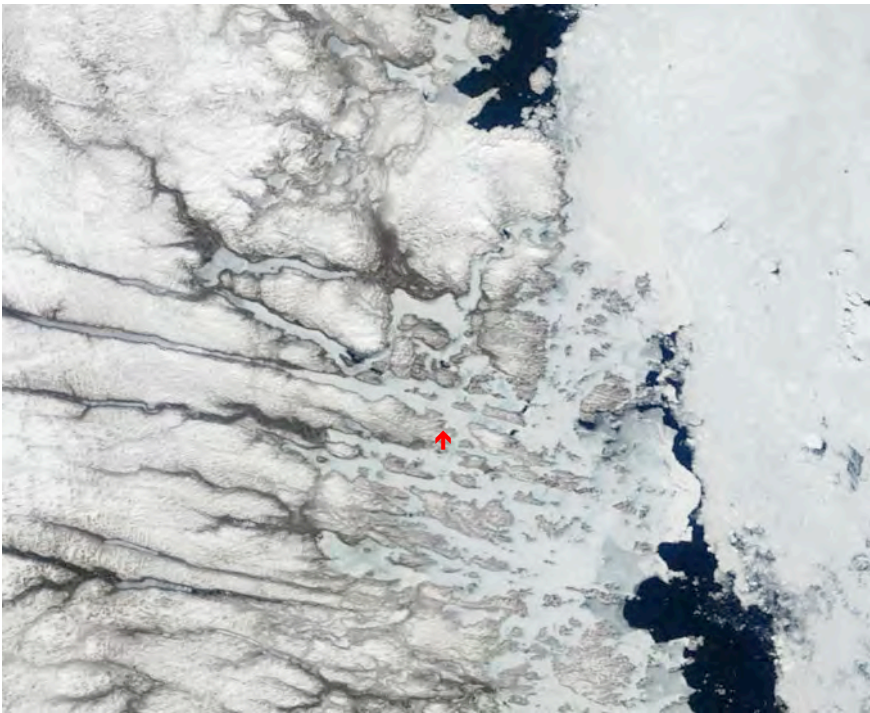
*Sheldon et al. in prep*

# Nain rainfall

## Multi-year averages and anomalous year 2009-2010



# Ice Concentration



June 17, 2002



June 10, 2010

# Impacts



February: Drainage ditches for water pumped from peoples basements



February: Conditions typical of May



February: Deep water on roadsides



February: Ice fissure looking like it would in May



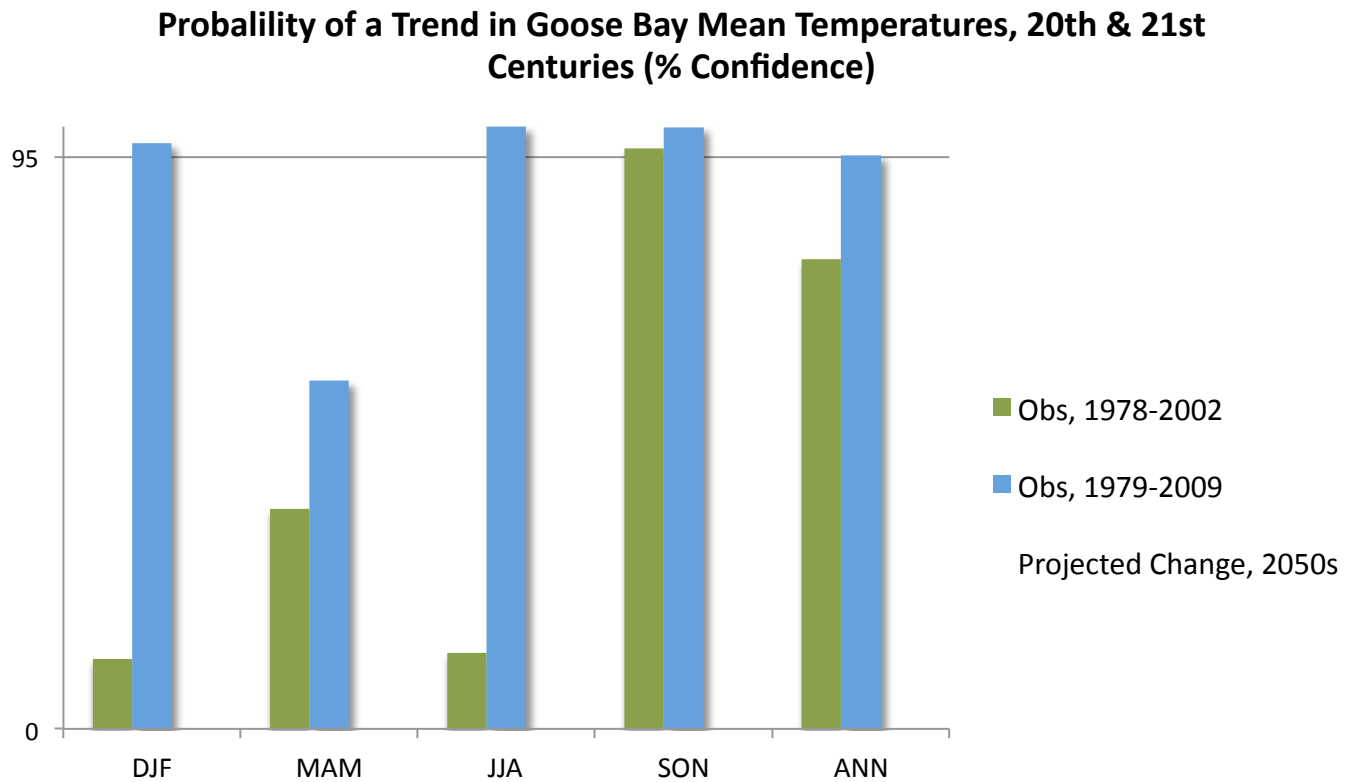
March: Kangeklualuk rattle is 5 times bigger than usual



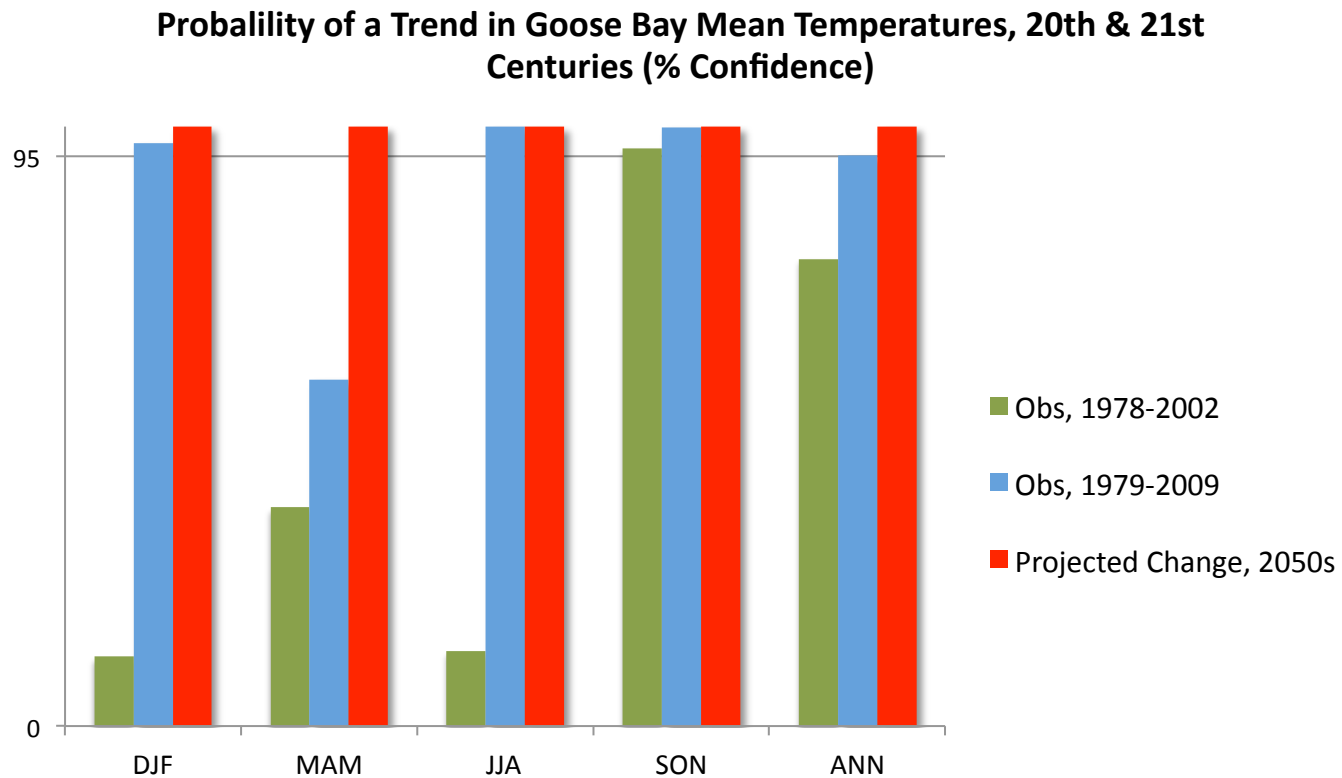
April: Tabor Island rattle completely open

*Sheldon et al. in prep*

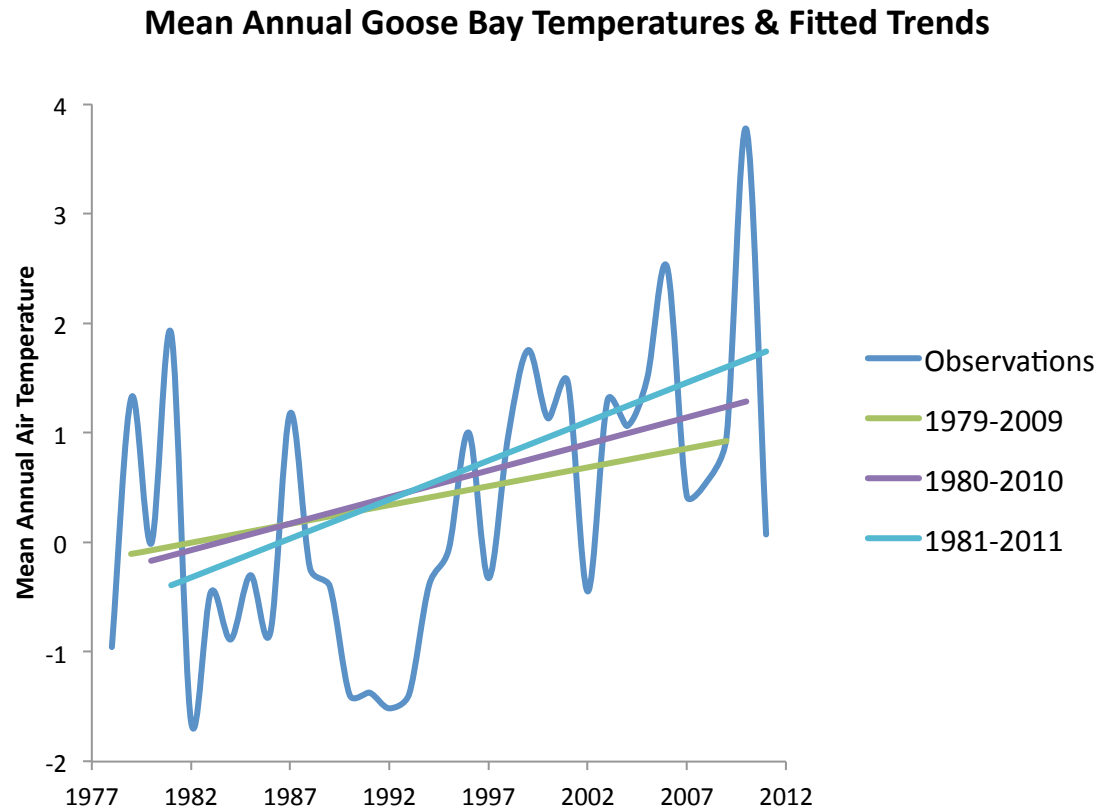
# What to expect with future climate?



# Bigger changes are yet to come...



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# Coping vs. Adaptation

- **Coping**
  - short term solutions in response to changing systems that may not be perceived to hold long term consequences
- **Adaptation**
  - measures put in place to provide long term solutions to ongoing and anticipated changes

# Adaptation – Food security



- a) Local
- b) Government



*Sheldon et al. in prep*

# Critical infrastructure – buildings



*Bell et al. in prep*

# Building on unstable ground



*Bell et al. in prep*

# Building on unstable ground



*Bell et al. in prep*

# Sustainable Subarctic Communities



*Bell et al. in prep*

# Sustainable Subarctic Communities



# Critical infrastructure – sea ice



# Critical infrastructure – sea ice



# *SmartICE*

## Sea-ice Monitoring And Real-Time Information for Coastal Environments





*Sheldon et al. in prep*