

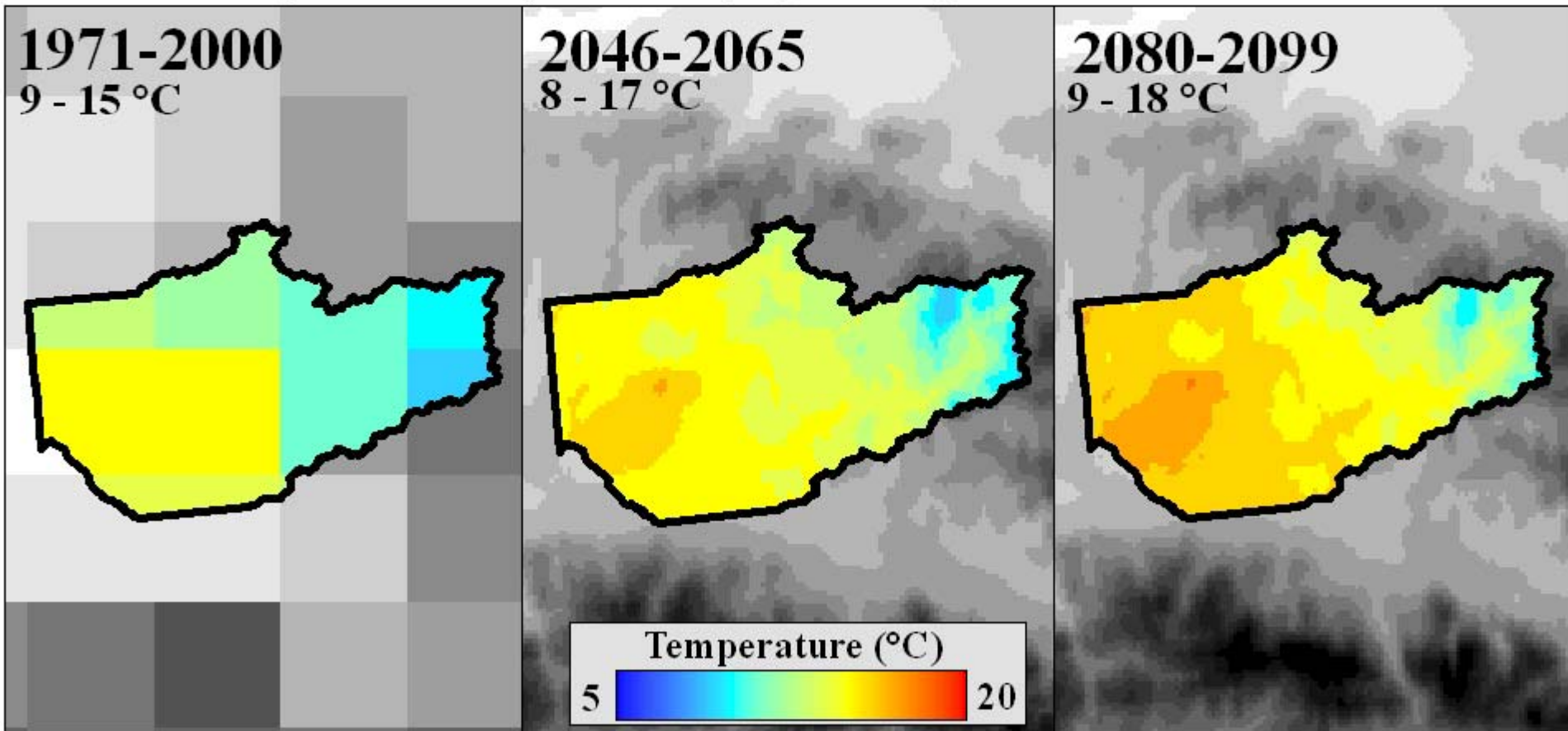
Climate Projections for Fairbanks Alaska

The Scenarios Network for Alaska Planning



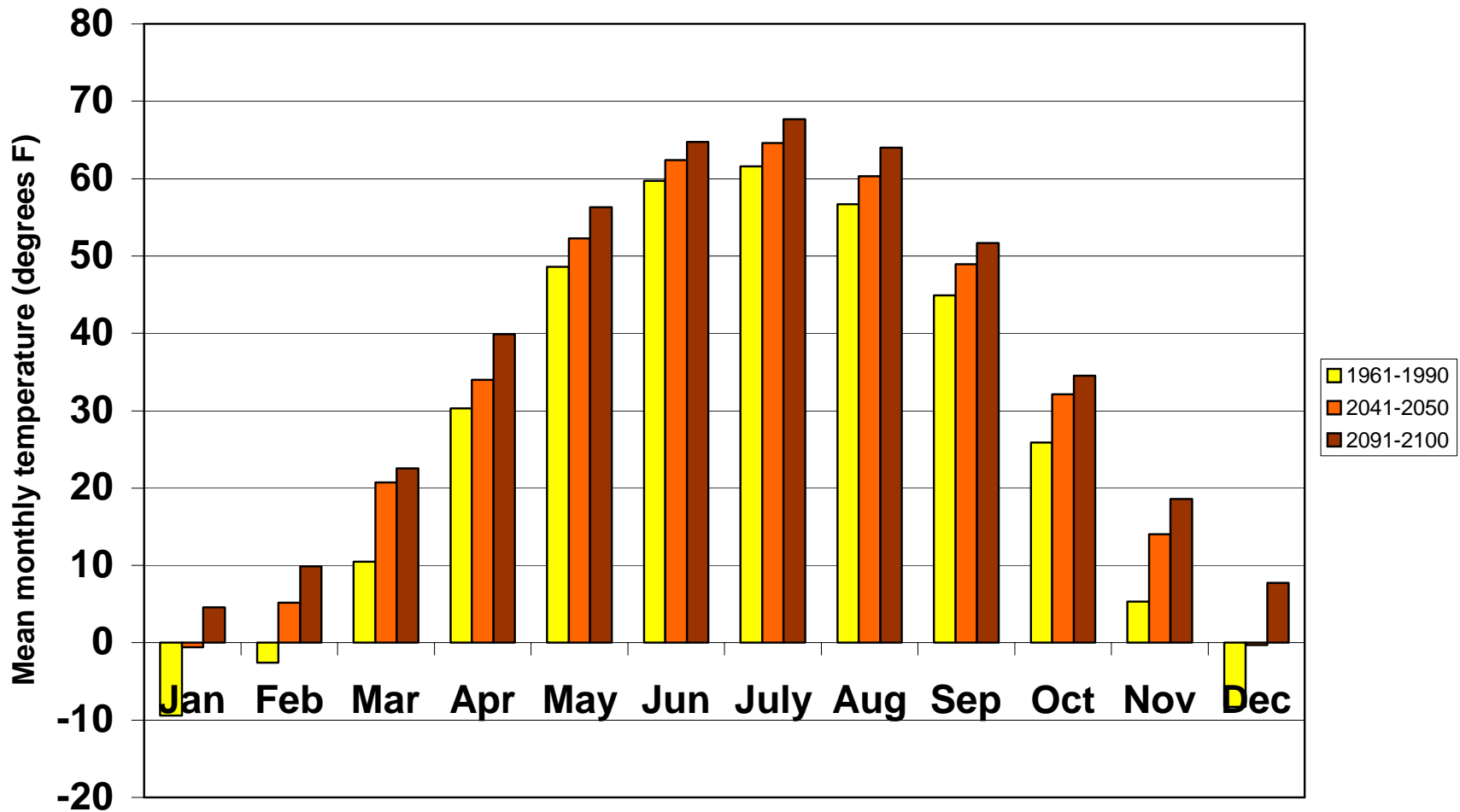
Fairbanks is expected to get warmer

Mean Monthly June Temperature (°C) Averaged over the Years Shown.



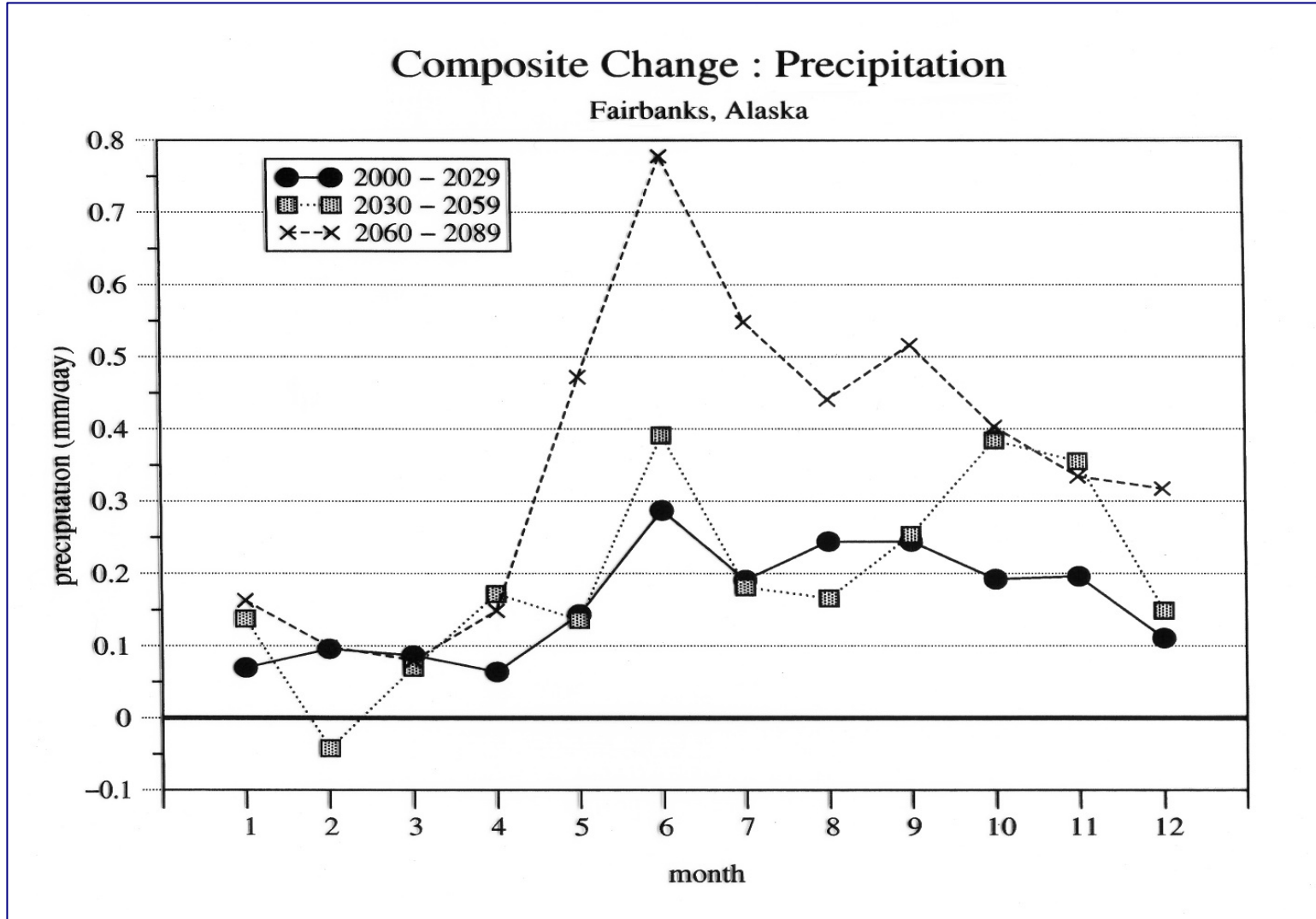
Historical and projected mean monthly temperature for Fairbanks

John Walsh's et al. -- mean of five selected GCMs downscaled using PRISM



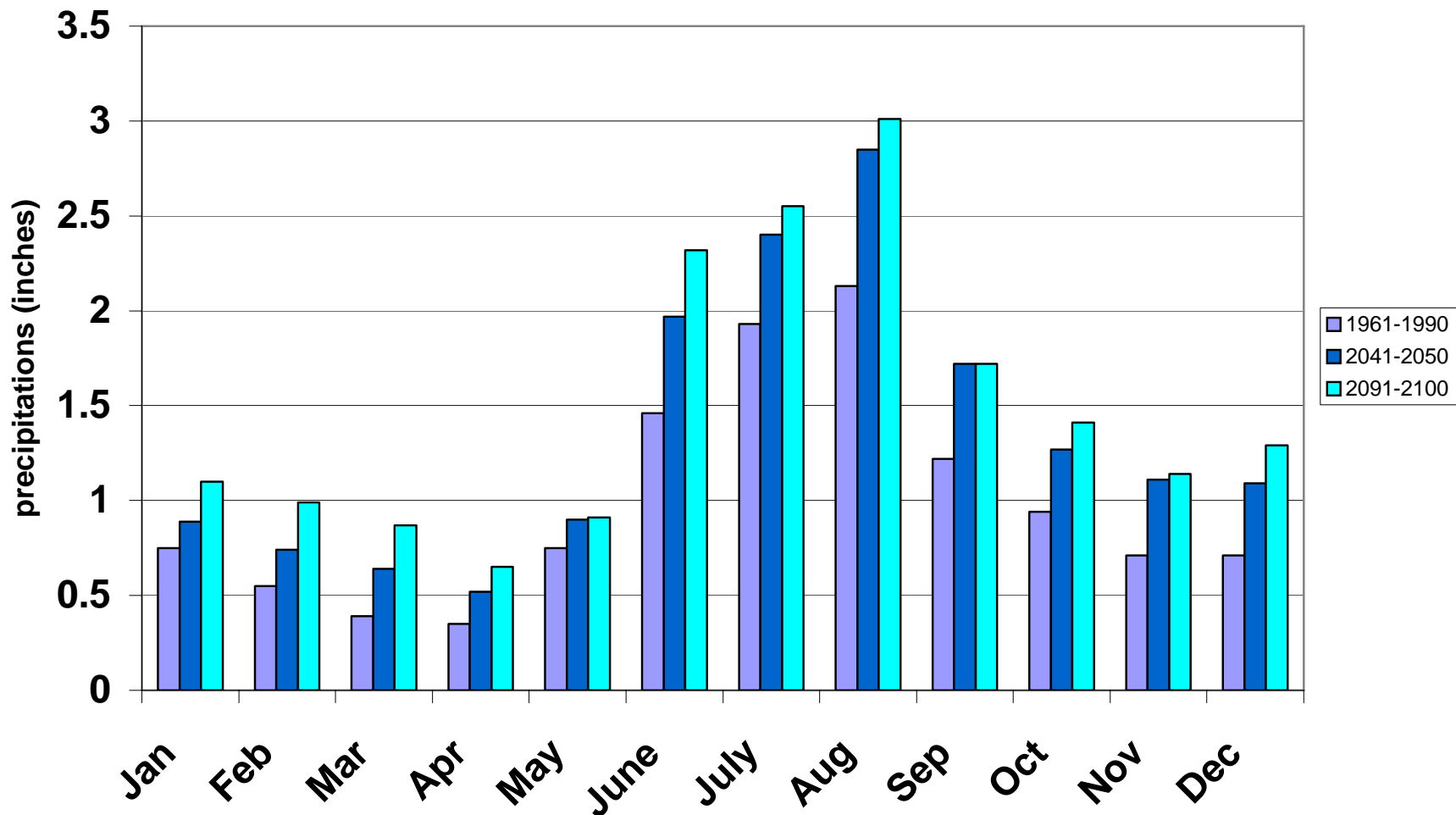
Increased precipitation is also expected

Composite precipitation change : Fairbanks, Alaska



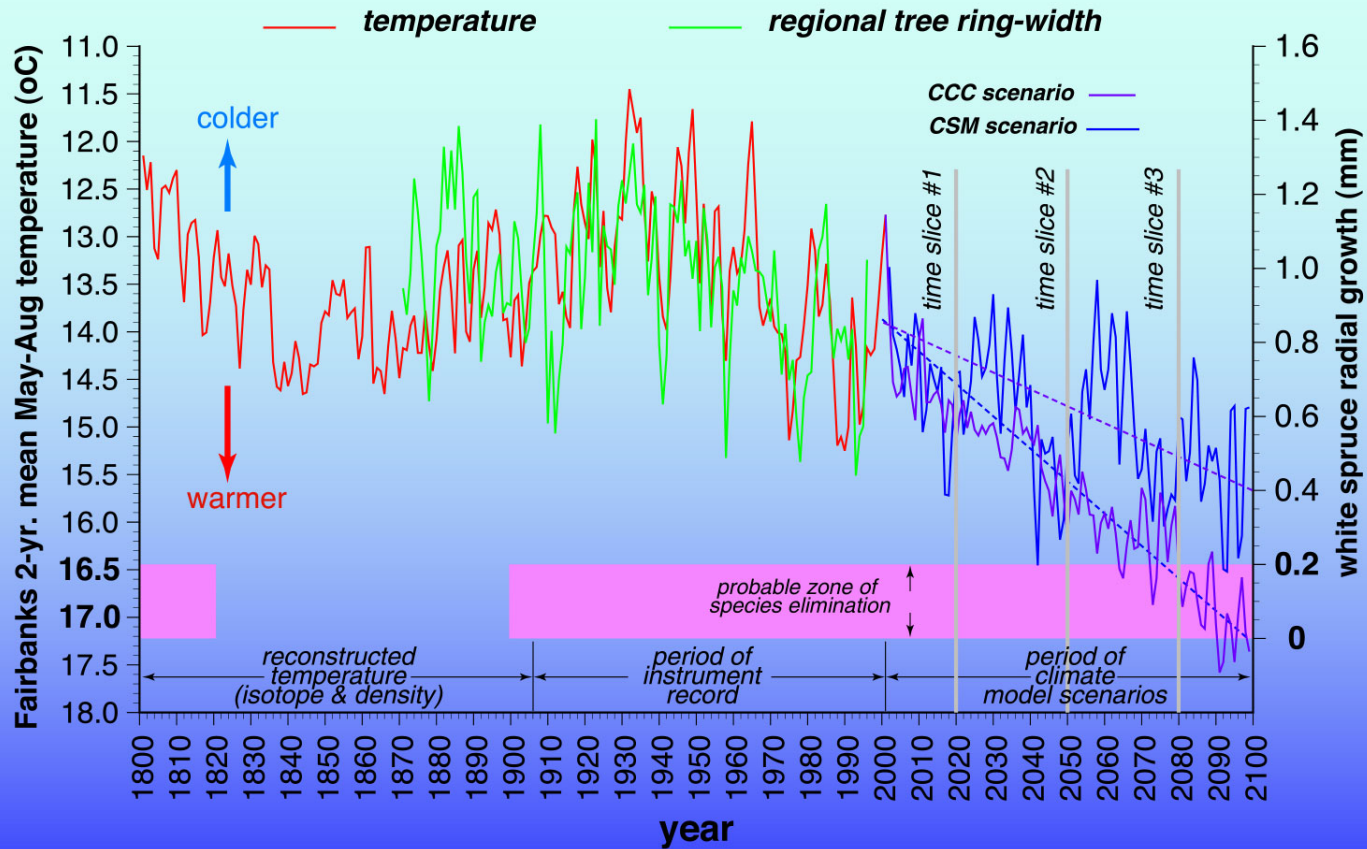
Historical and projected mean monthly precipitation for Fairbanks

John Walsh et al. -- mean of five selected GCMs downscaled using PRISM



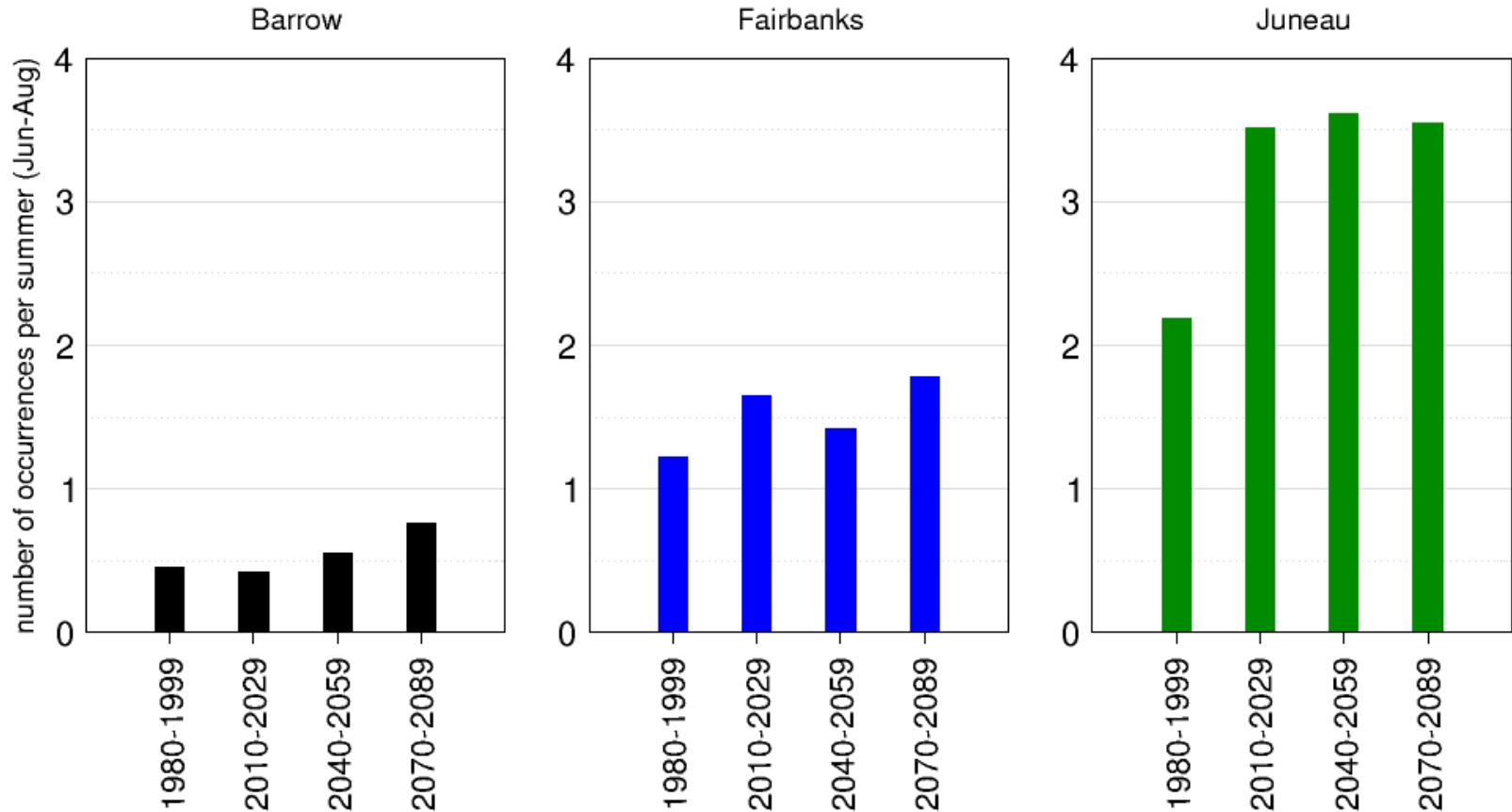
Some ecosystems may experience drought stress despite increased precipitation

Historic and reconstructed relationship between white spruce growth and summer temperature and climate scenarios in central Alaska



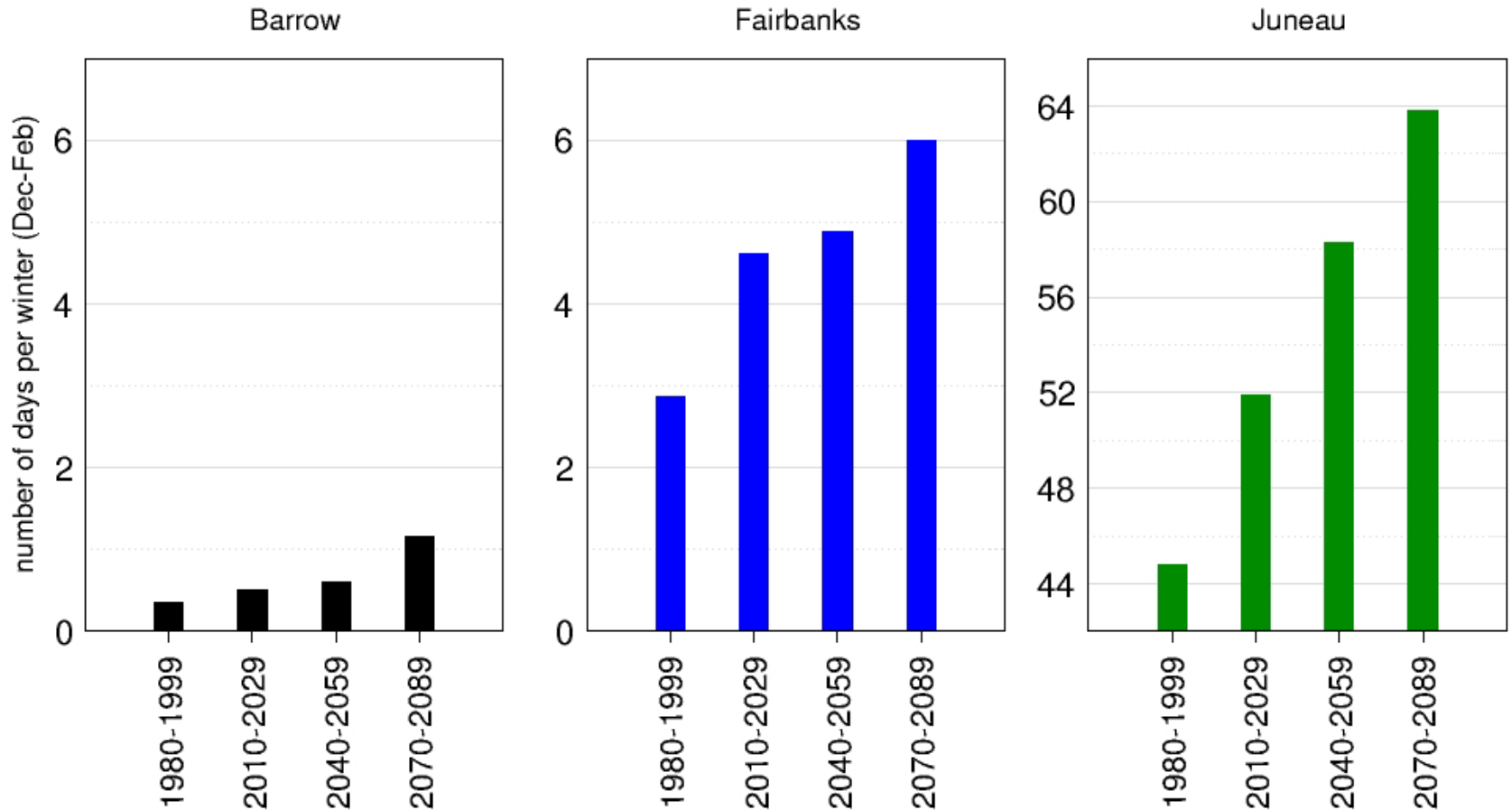
Flooding will be slightly more likely

3-day total precipitation exceeding 2 inches
number of occurrences per summer (Jun-Aug)

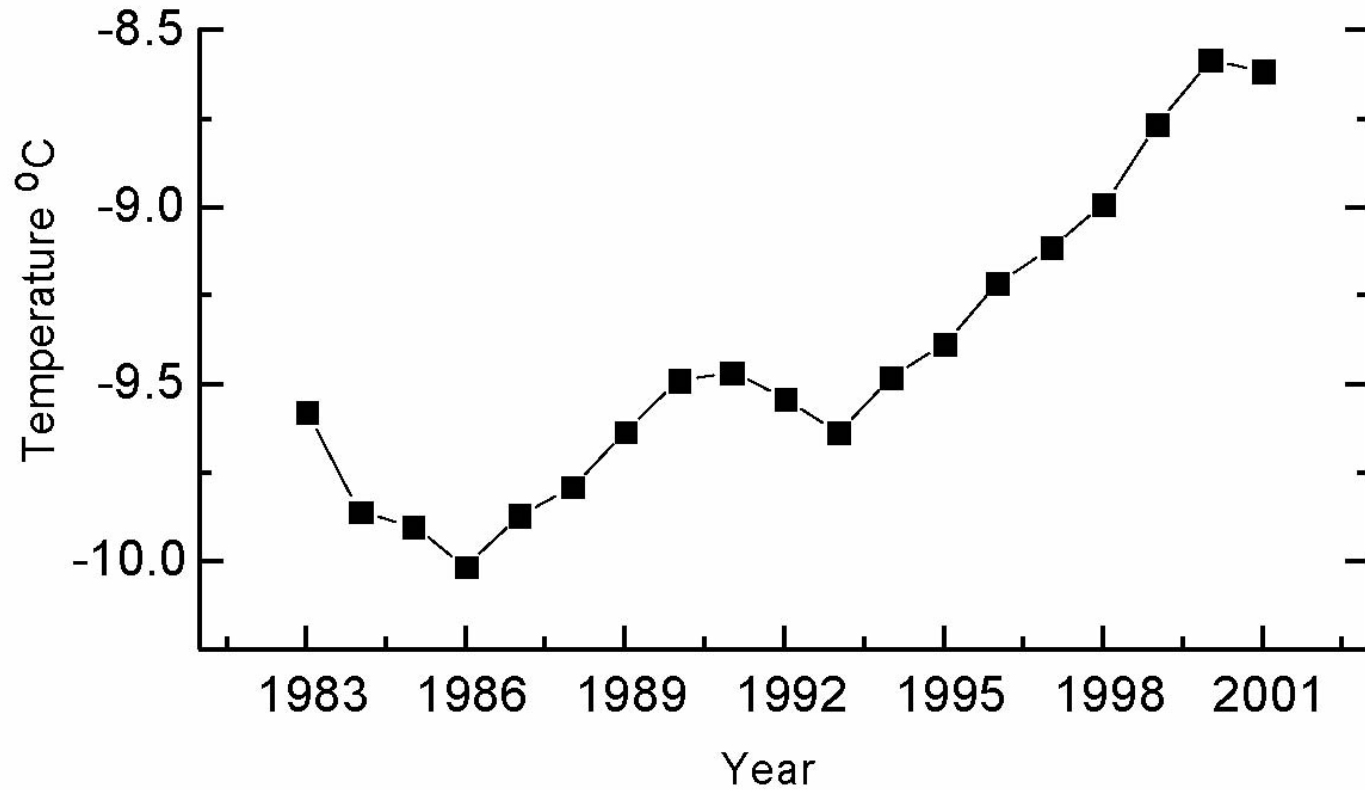


Winter thaw days expected to increase

Winter high temperature exceeding 32°F (0°C)
number of days per winter (Dec-Feb)



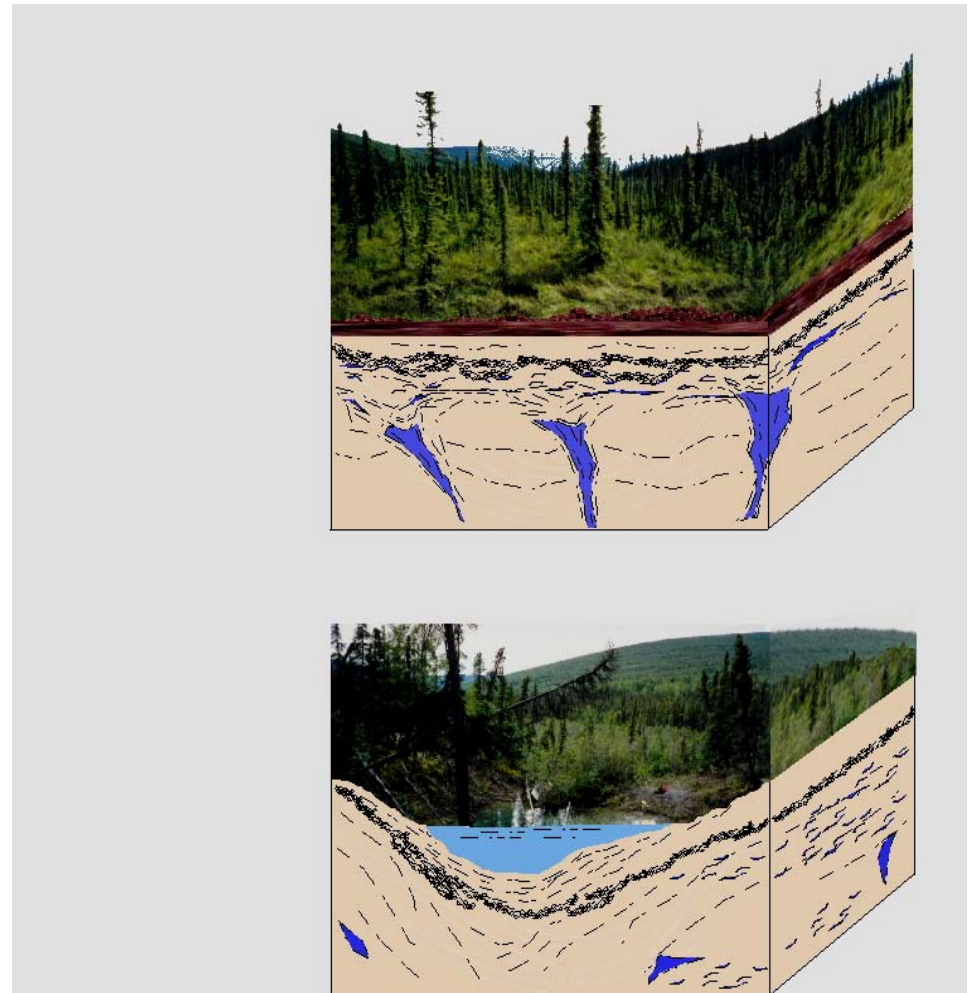
Warming permafrost



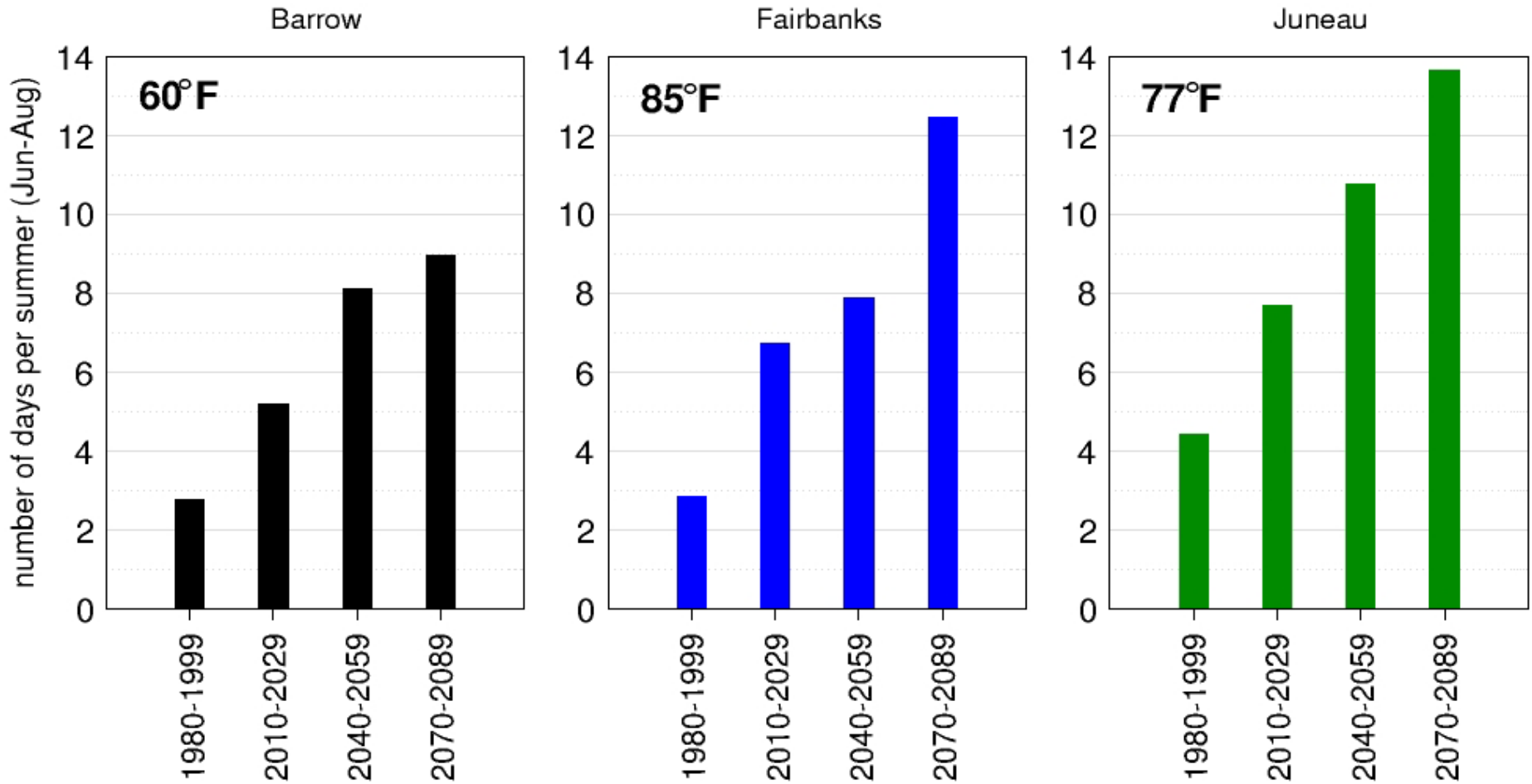
Increasing permafrost thaw

**Melting of
permafrost**

**Subsidence
of ground**



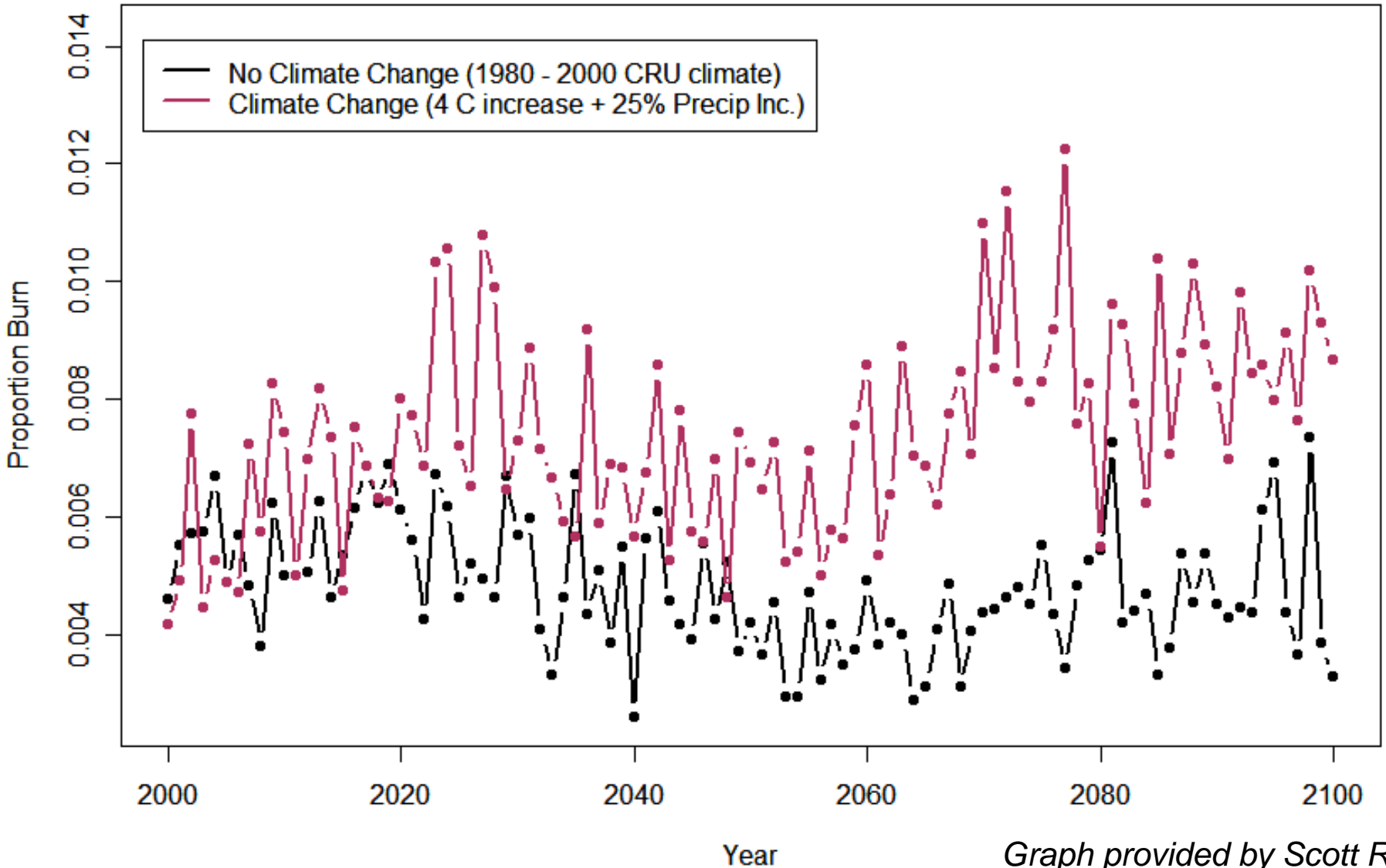
Number of hot summer days in the future



Walsh

Fire frequency and severity expected to increase

Proportion of Landscape Burn -- Average across 100 Reps



Graph provided by Scott Rupp

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