

# Shrub Data Synthesis Workshop

Davos Laret, Switzerland  
13 – 19 September 2011



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# Research Questions

1. Are early summer temperatures the key factor explaining shrub growth at sites around the circumpolar Arctic? Does this vary by site or between species?
2. Is variation in growth response to climate greater in sites with higher mean annual temperatures?
3. Is there a temperature threshold for shrub growth responsiveness to climate?
4. Where have we observed the greatest change in both shrub growth and climate warming?



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# Methods

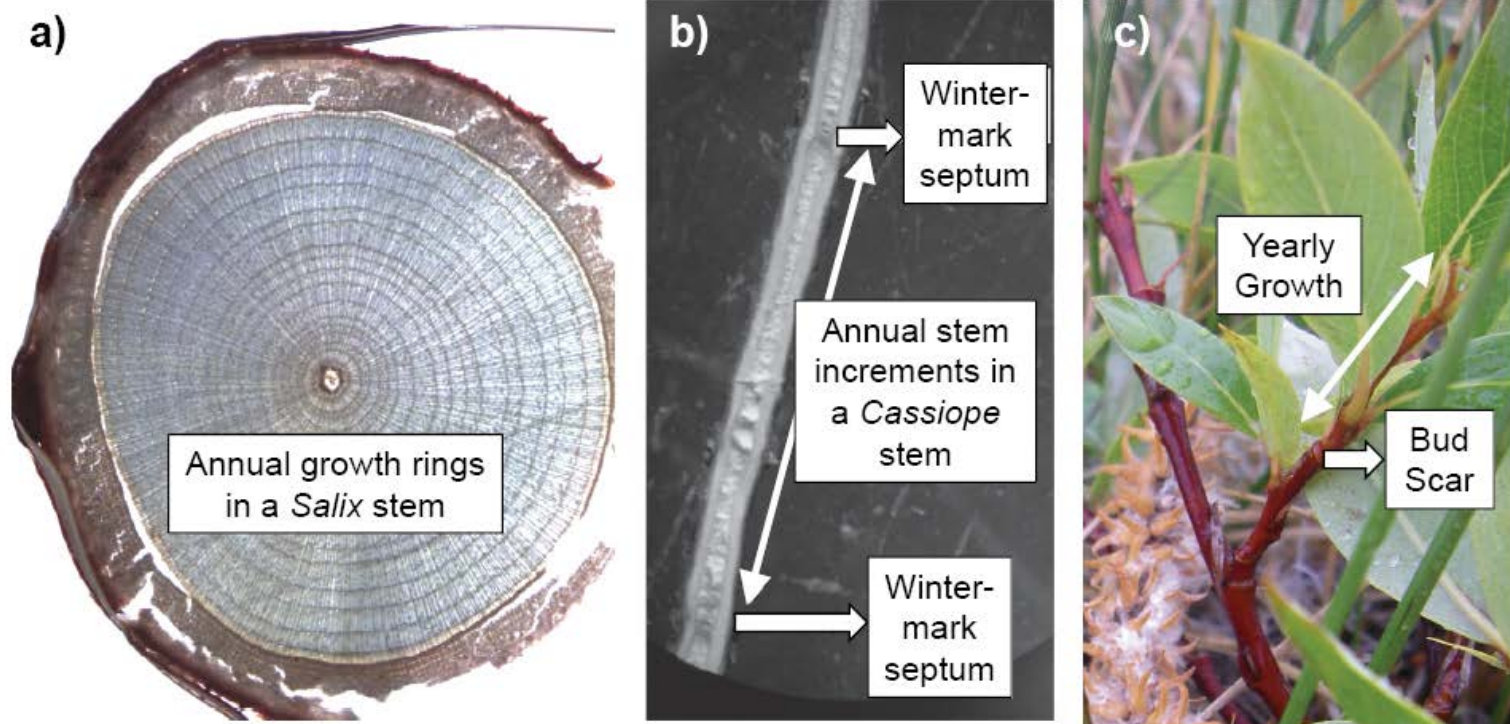


Figure 1. Growth measurements including annual rings, winter mark septa and stem increments will be used in the data synthesis.



# Data Contributions

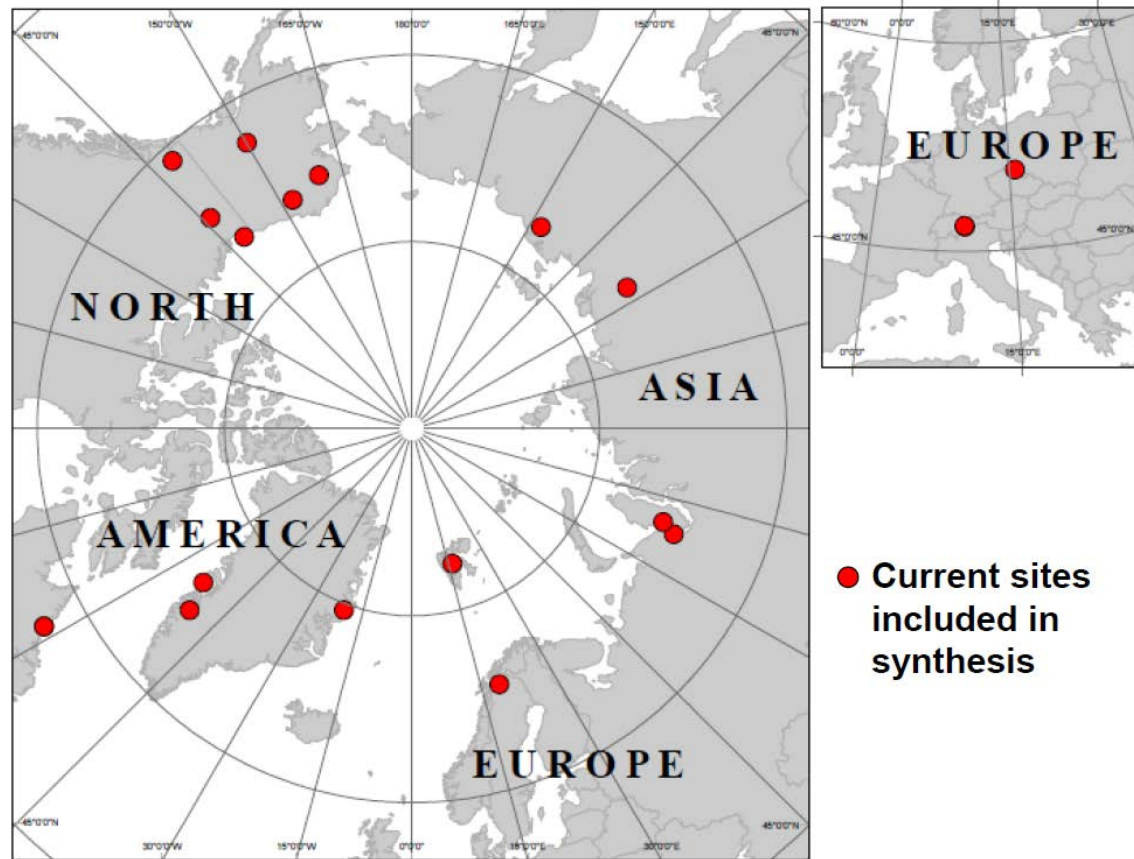


Figure 2. Map of sites with data contributions to synthesis.



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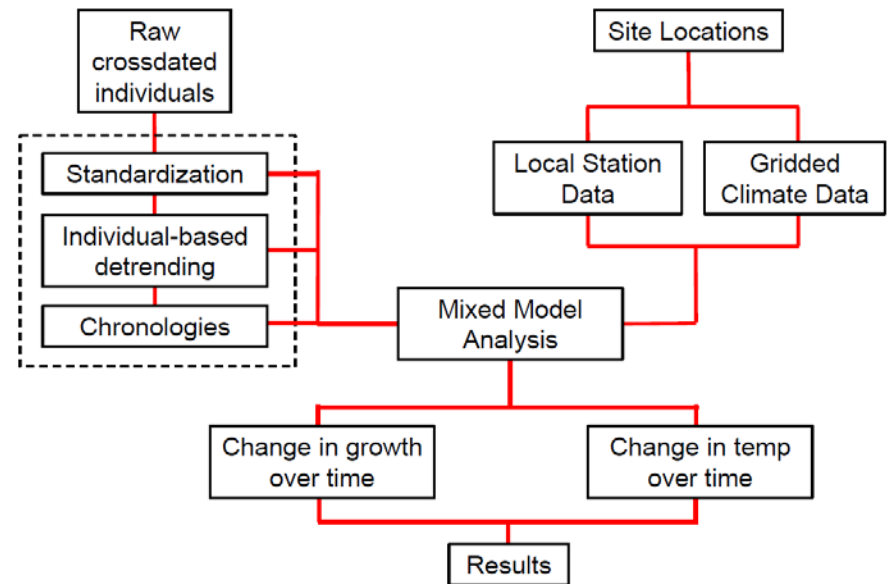
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# Future Goals

## Workshop Products:

1. Database of shrub growth measurements from sites
2. Synthesis Manuscript: Early summer warming promotes shrub expansion in tundra ecosystems
3. Methods Paper: Growth in tundra shrub species: Dendroecological methods beyond forests

Synthesis Paper Data Processing and Analysis Flowchart







The shrub synthesis group at the top of a mountain about to visit some Alpine tundra research sites



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