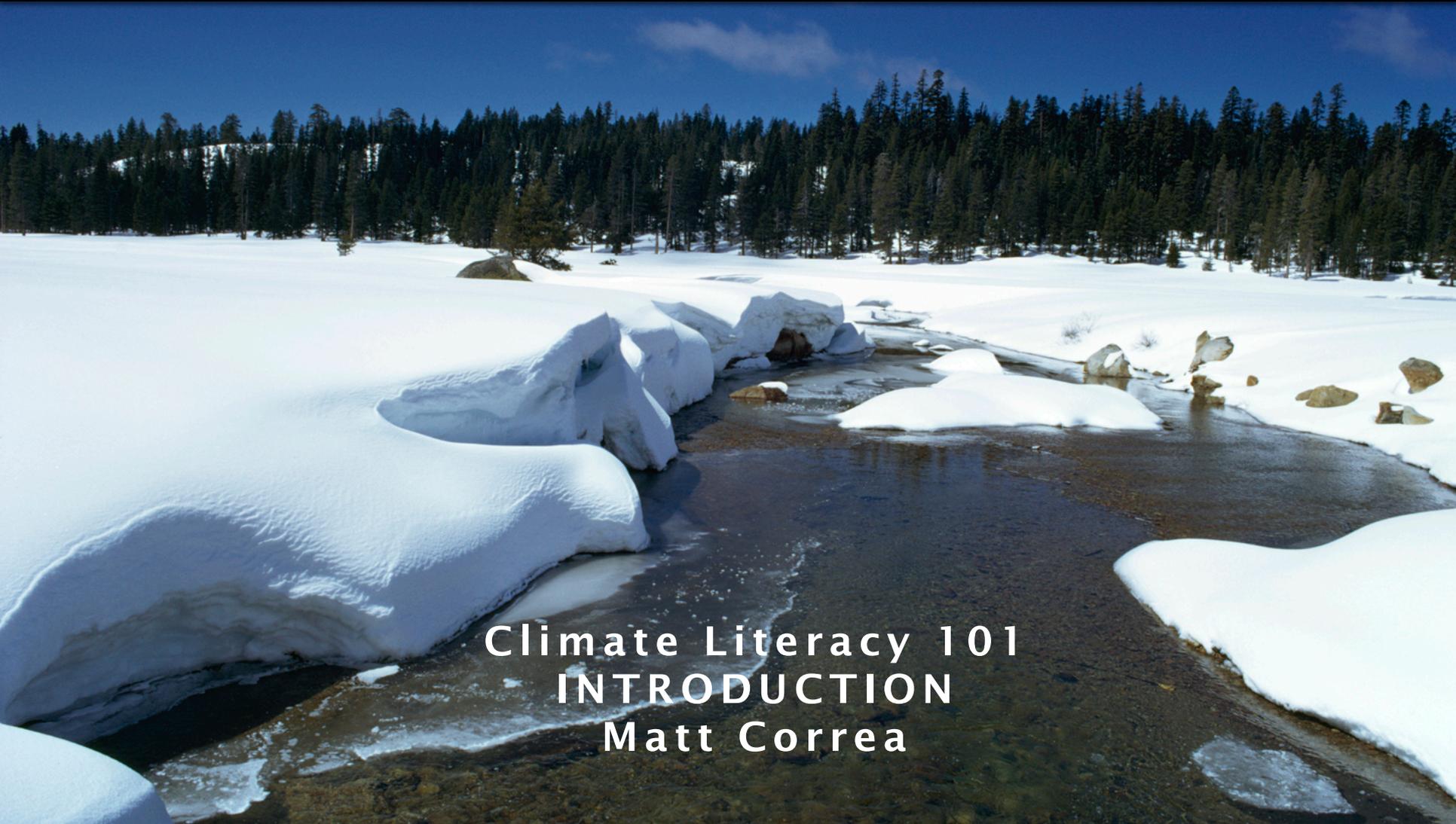




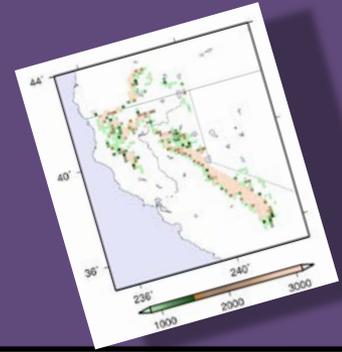
Climate Change



Climate Literacy 101
INTRODUCTION
Matt Correa



Climate Change in the News



- **National Climate Assessment (2014)**
 - observed and projected changes in climate, impacts of the changes on U.S. regions and sectors, and options for responding
- **Intergovernmental Panel on Climate Change (2014)**
 - 3 reports on: Physical Science Basis; Impacts, Adaptation and Vulnerability; Mitigation
- **National Academy of Sciences Sea Level Rise study (2012)**
 - covers the coasts of California, Oregon, and Washington
 - **17" – 66" Sea Level Rise by 2100**

Climate or Weather?

Definitions

WEATHER – short-term (minutes to months) changes in the atmosphere; includes sunshine, rain, snow, thunderstorms, etc.

CLIMATE – long-term averages of weather over time

Climate or Weather?

Which are these?

- It's really ***HOT*** outside right now!

Climate or Weather?

Which are these?

- It's really hot outside right now!
- **For the past 50 years the average nighttime temperature has been 42 degrees F.**

Climate or Weather?

Which are these?

- It's really hot outside right now!
- For the past 50 years the average nighttime temperature has been 42 degrees F.
- **Summer, 2011 was the hottest and driest on record in Texas.**

Climate or Weather?

Which are these?

- It's really hot outside right now!
- For the past 50 years the average nighttime temperature has been 42 degrees F.
- Summer, 2011 was the hottest and driest on record in Texas.

Explaining Extreme Events of 2011 from a Climate Perspective [Bulletin of the American Meteorological Society, 93:1041-1067]

<http://journals.ametsoc.org/doi/abs/10.1175/BAMS-D-12-00021.1>

Recent Observations



Less snow/more rain; changing snow thresholds

Warming Trend



Less Snowpack



Earlier greenup dates; more tree mortalities; enhanced wildfires

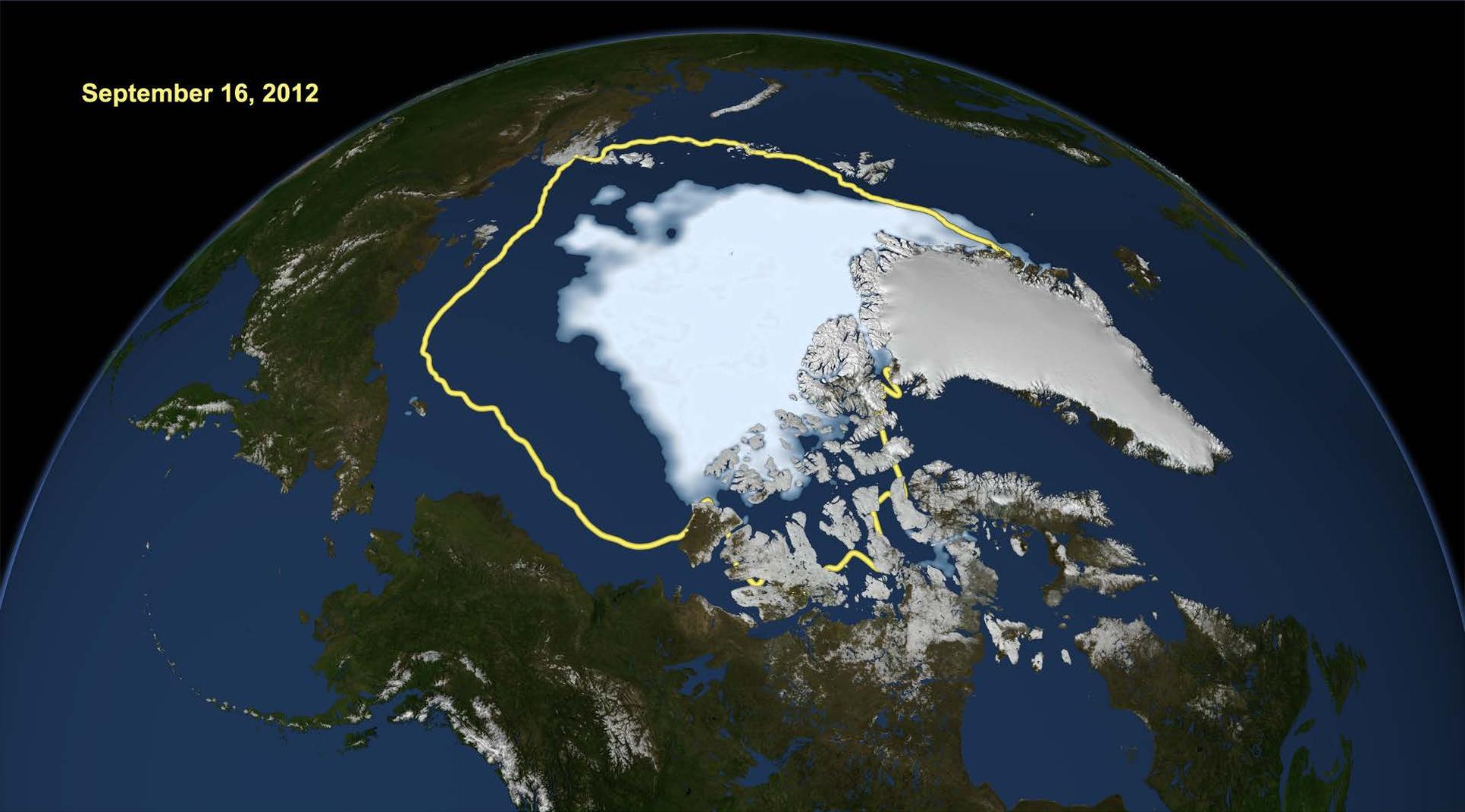


Animals moving north

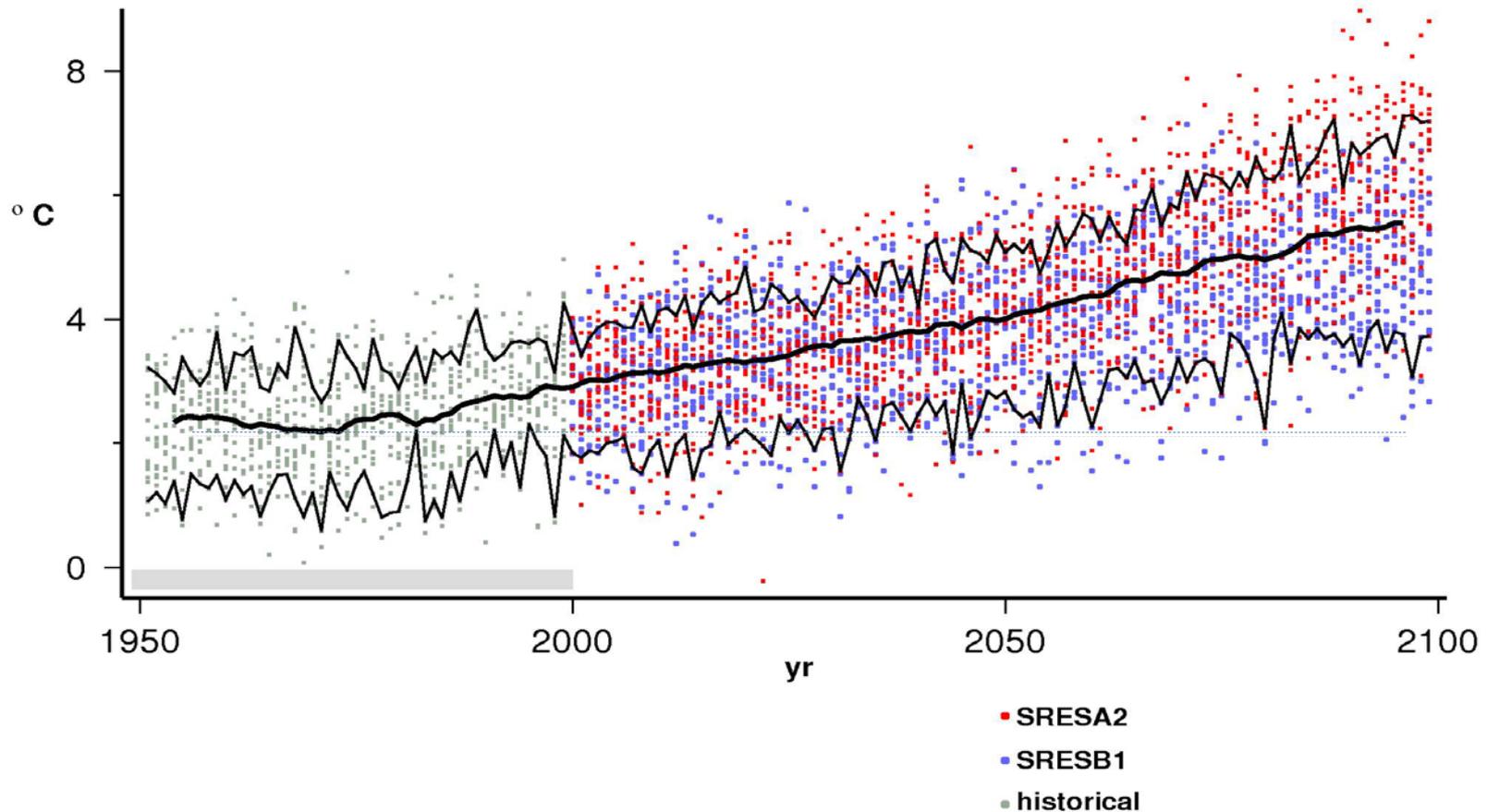


Earlier snowfed streamflow

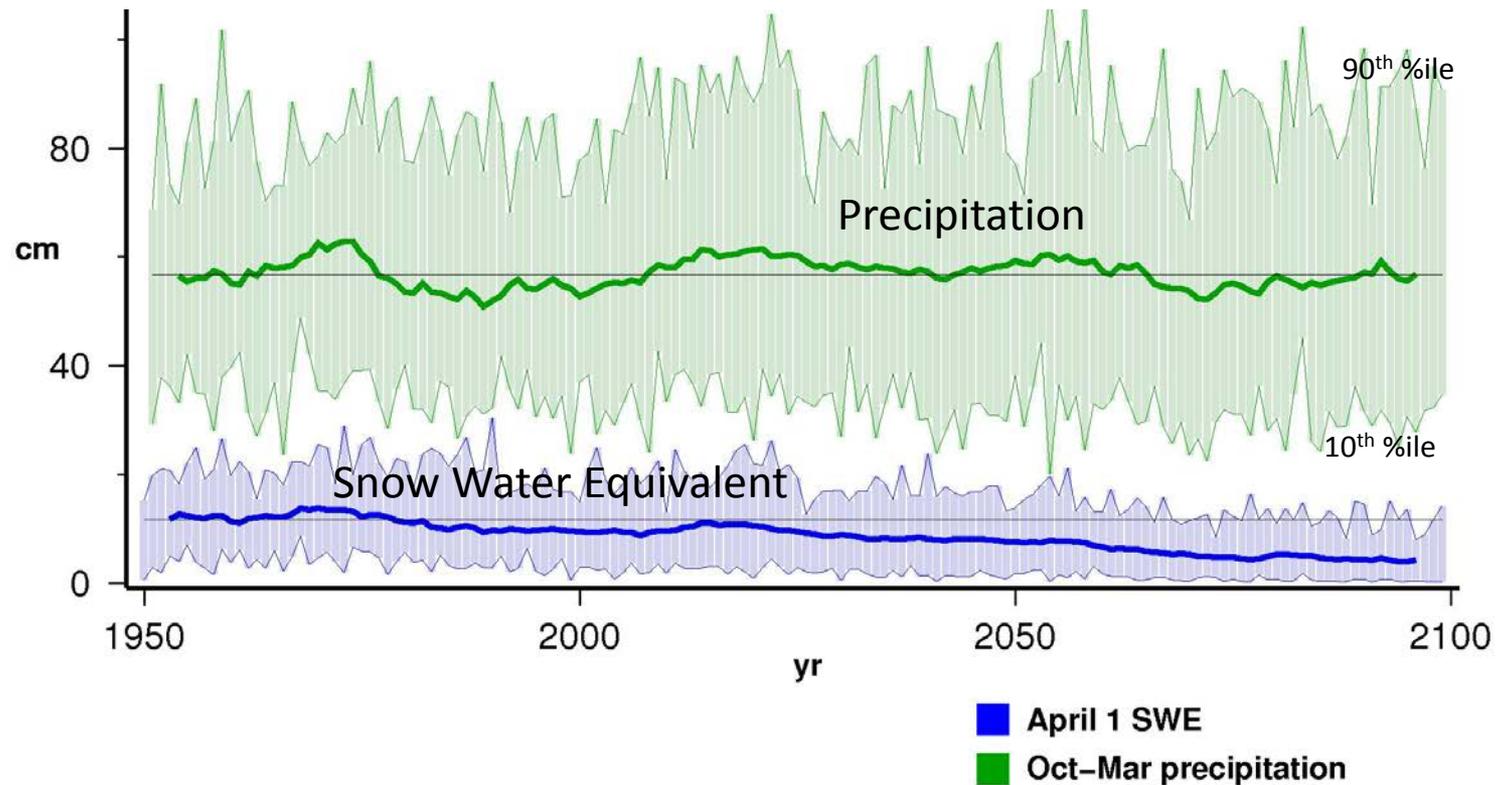
September 16, 2012



October - March Sierra Temperature Projections



October - March Sierra Precipitation Projections



DWR Climate Hawks

- *DWR Climate Team* currently has 12 full-time staff members
- Staff includes:
 - Assistant Deputy Director
 - Program Manager
 - 4 *Regional* Climate Change Specialists
 - 2 Engineers
 - 2 Water Use Mitigation Specialists
 - Data Analysis Specialist
 - Executive Administrative Officer

