

# Climate Change



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Climates Change.



That's What Climates Do.

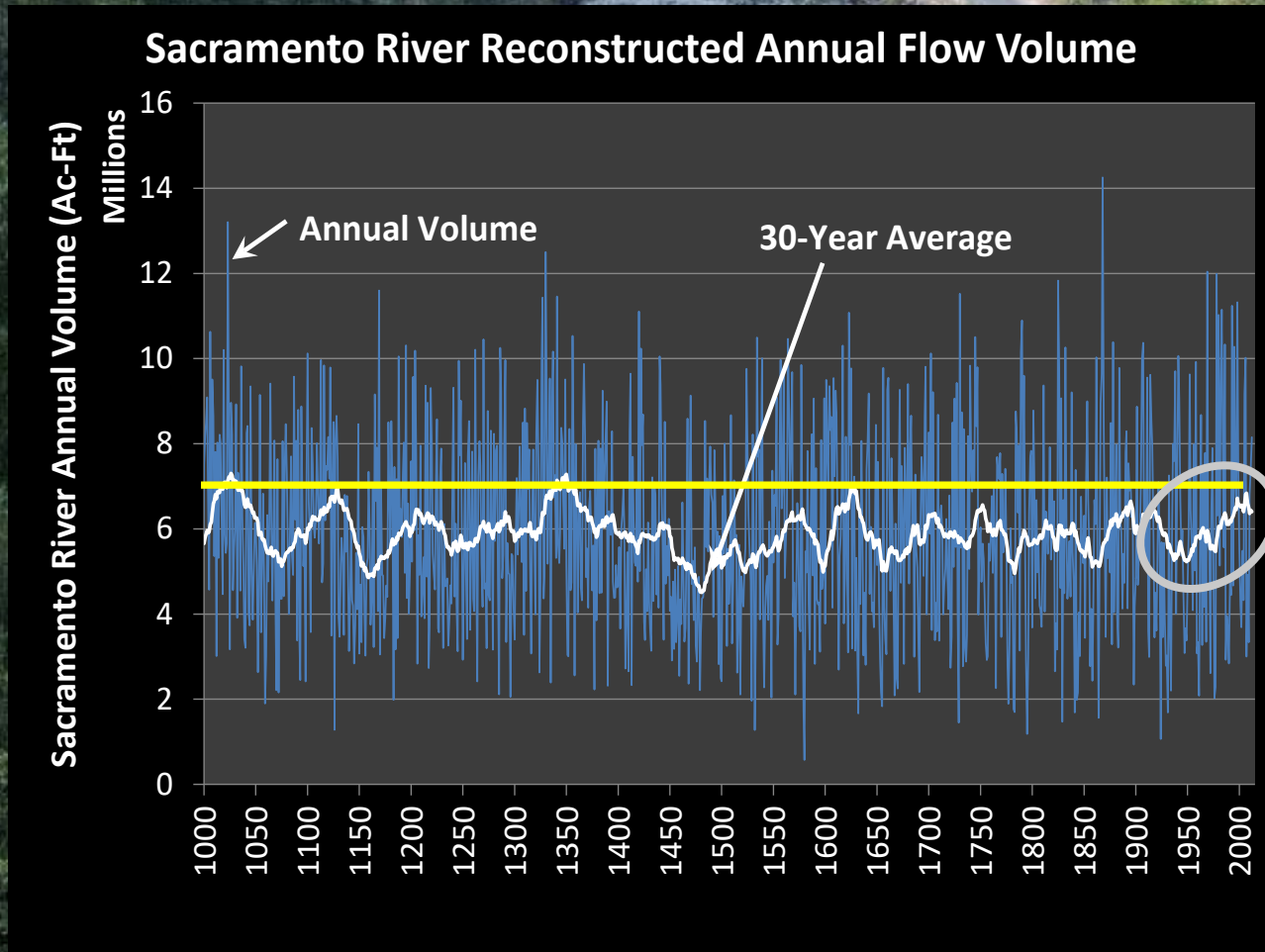
# Ice Age

WALLPAPER BY  
*ronnie*

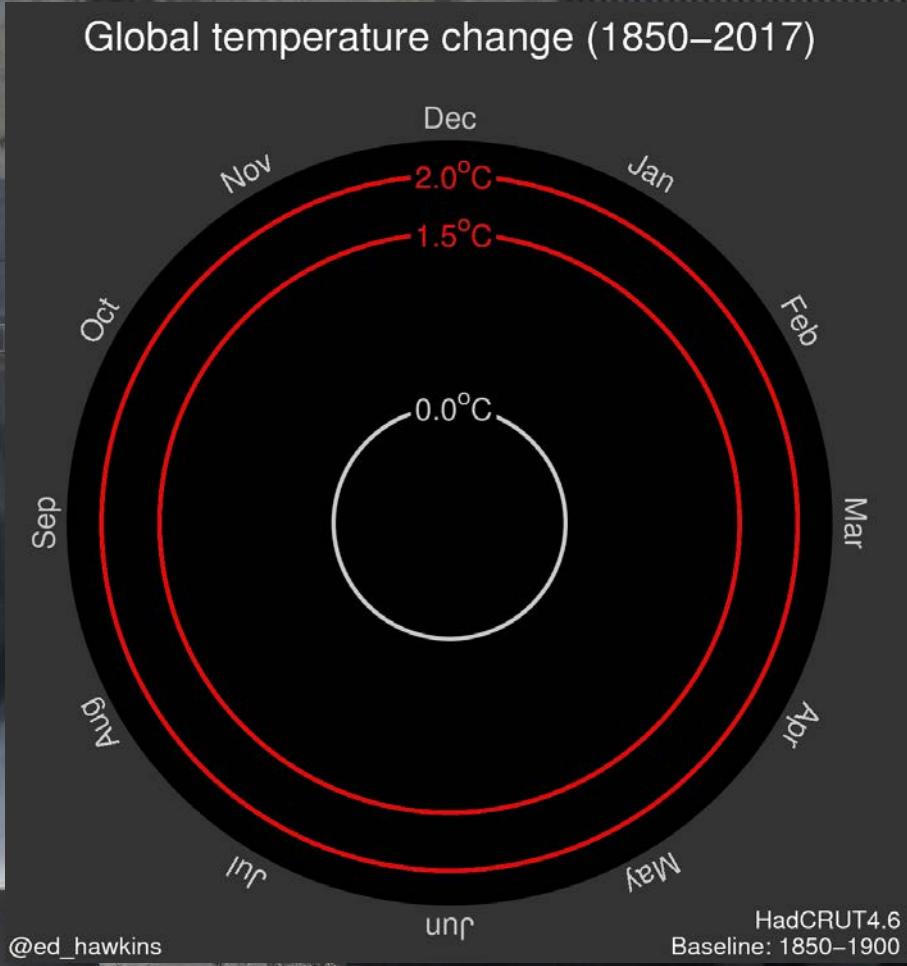


**ICE  
AGE**  
THE MELTDOWN

# Looking Back 1100 Years...

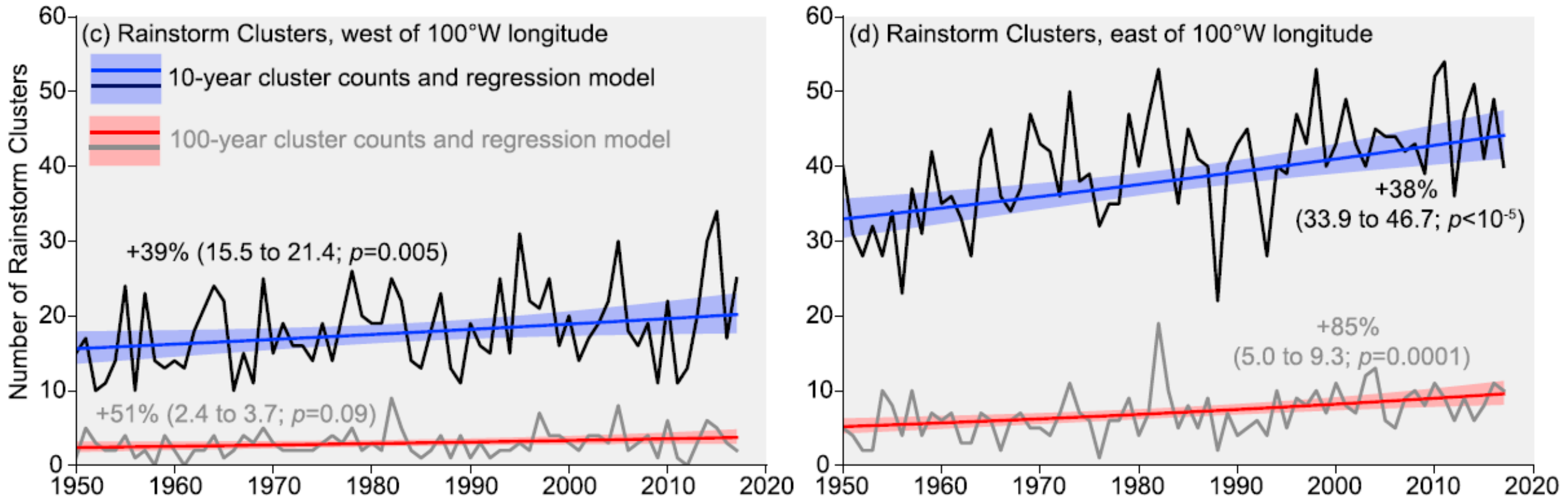


# Messing with Mother Nature!



Lower Granite Dam

# Increasing Frequency of Rainfall Extremes





Old

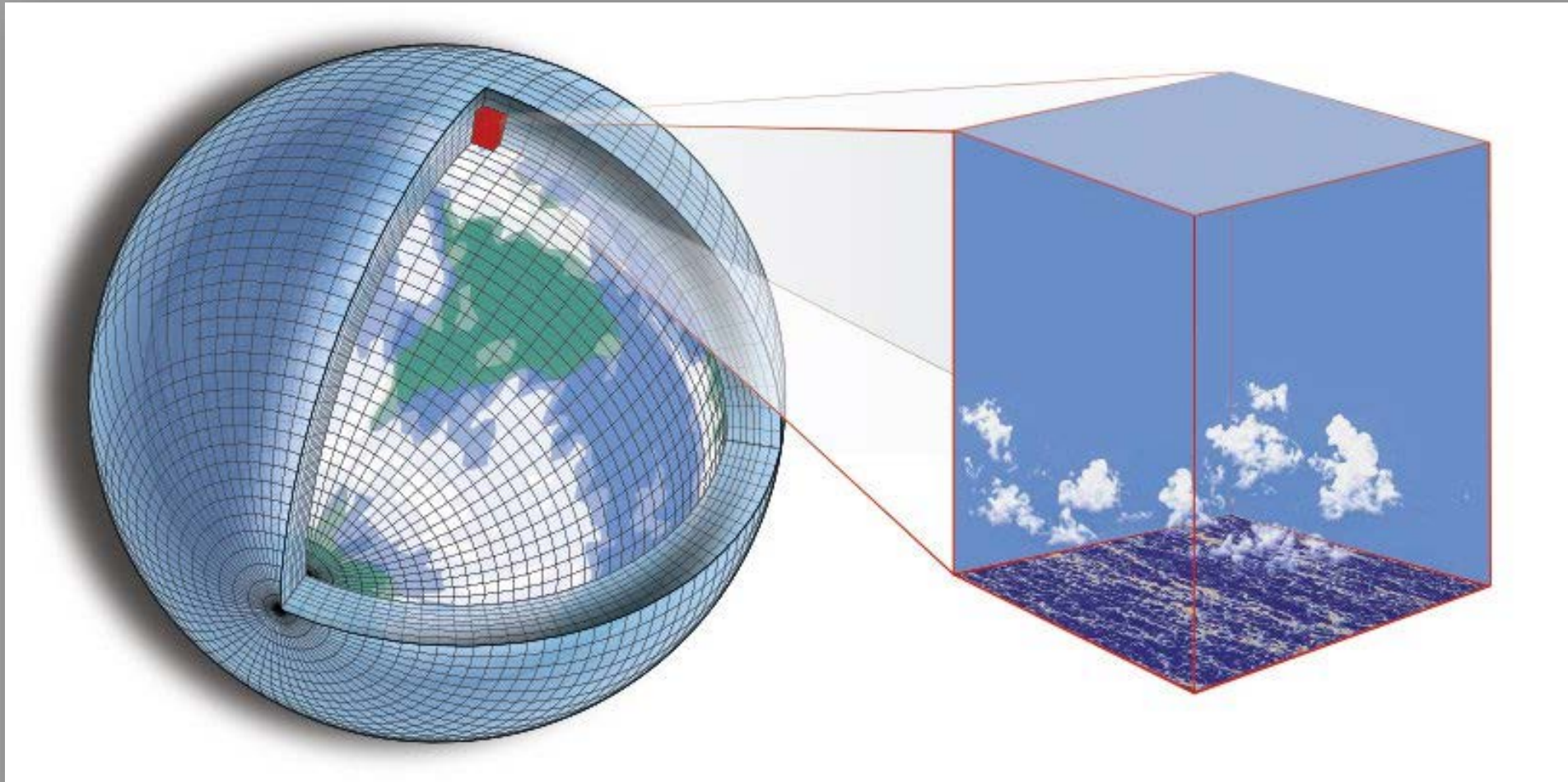
New

Evidence for changing rainfall patterns has not translated into “actionable” information needed by decision-makers.

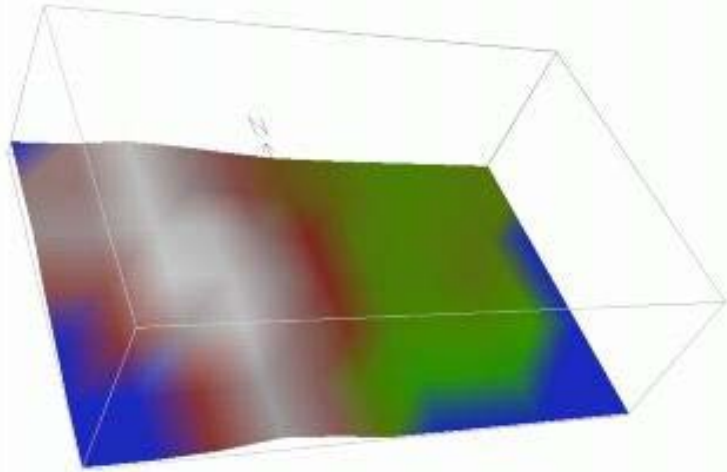




# Global Climate Models

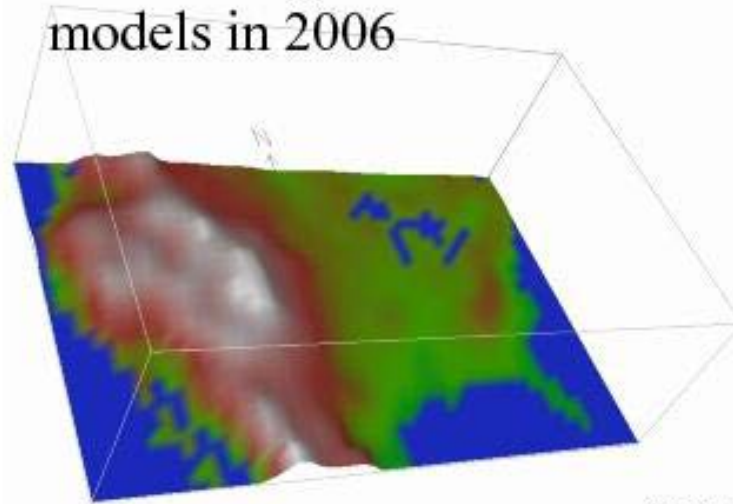


Climate Models circa early 1990s



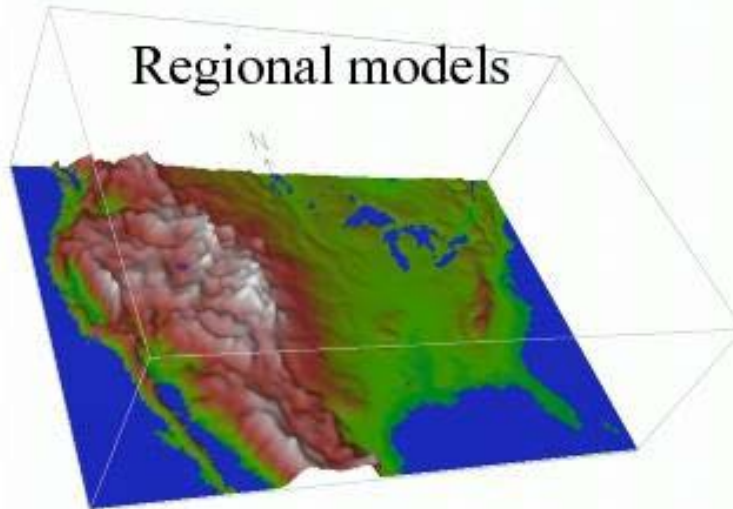
400 km

Global coupled climate models in 2006



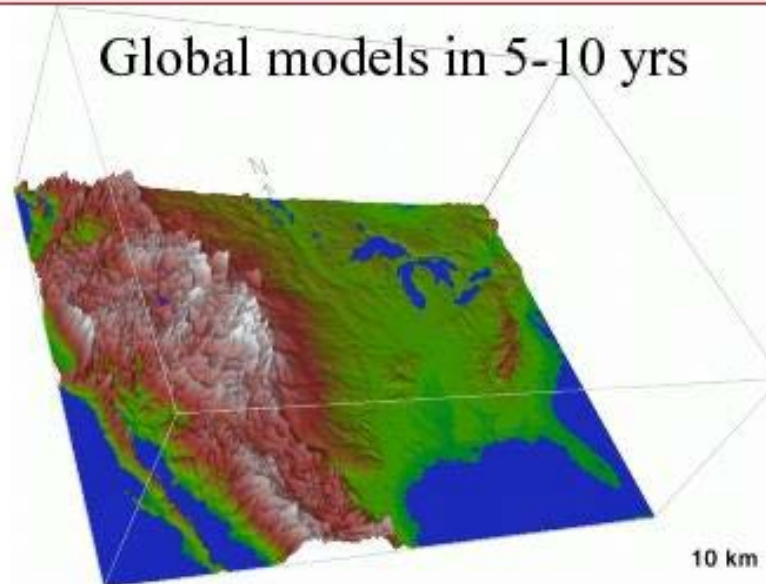
100 km

Regional models



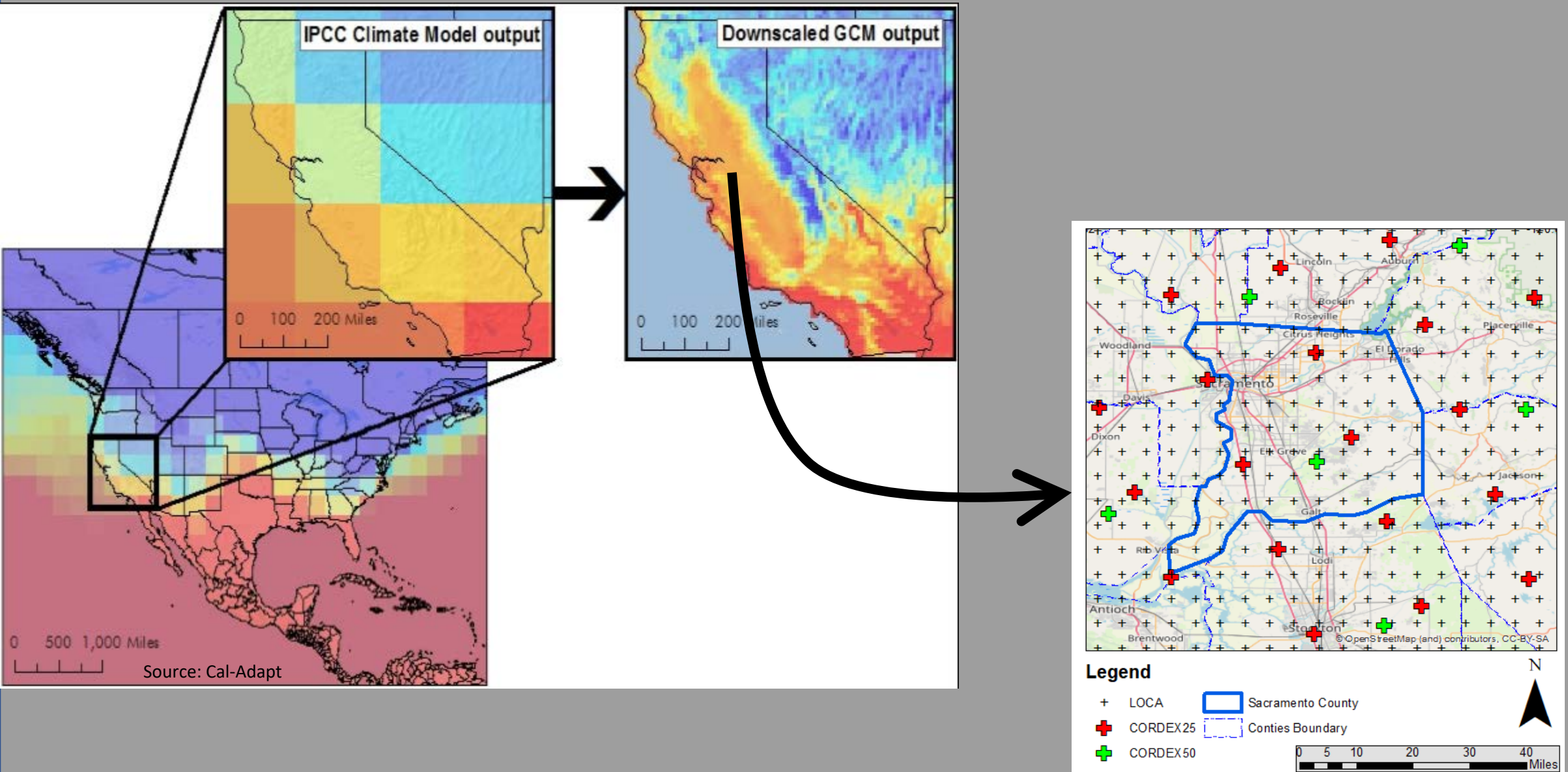
25 km

Global models in 5-10 yrs



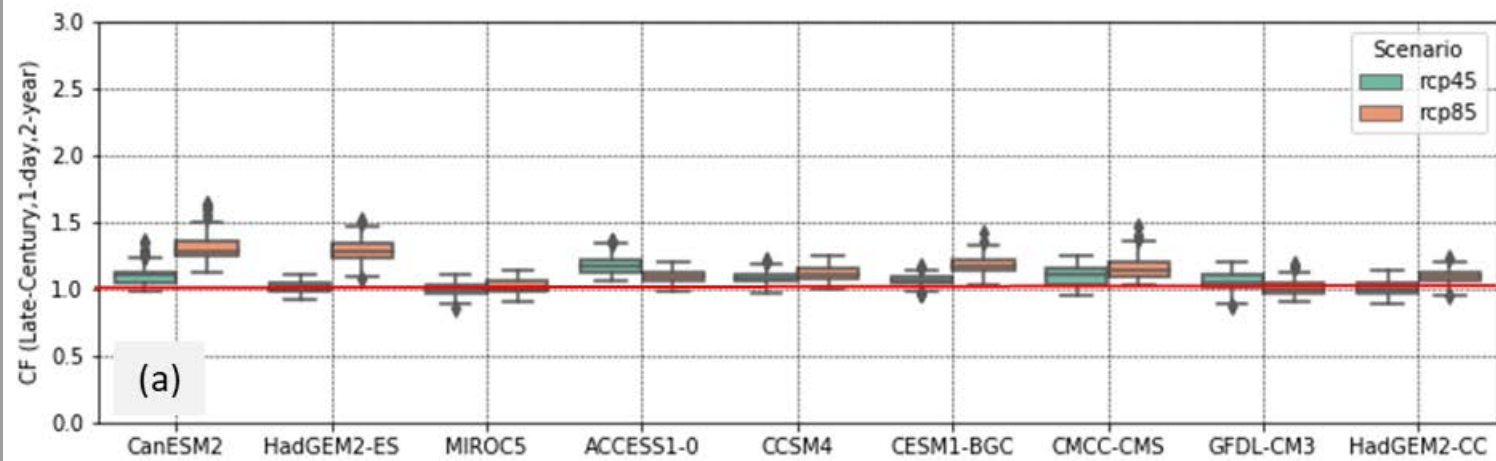
10 km

# Downscaled Global Climate Model Data

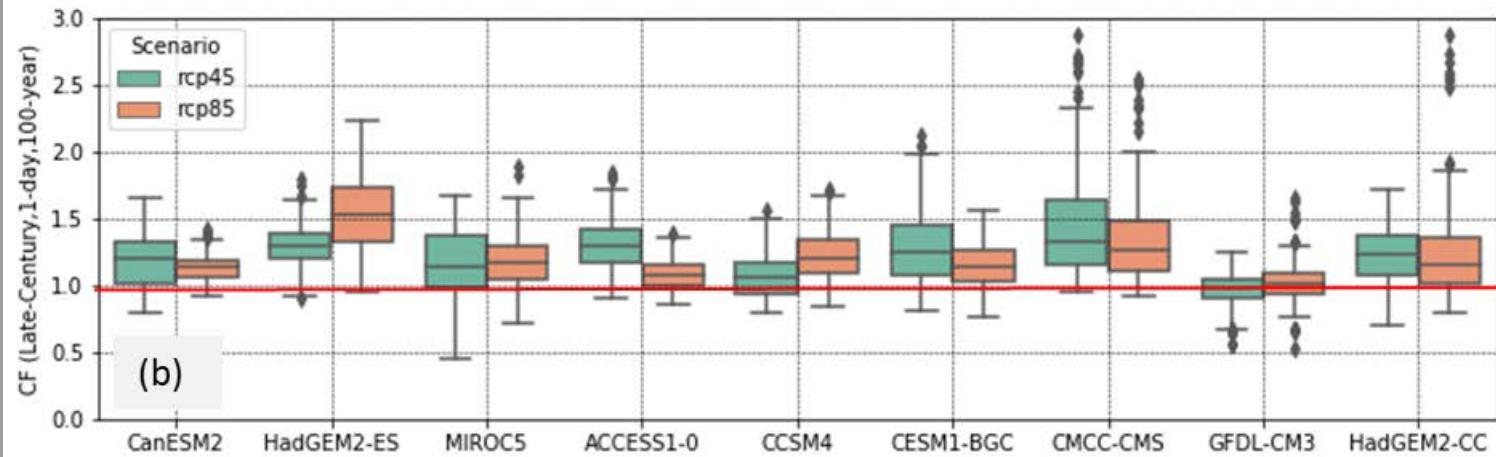


# Downscaled Data

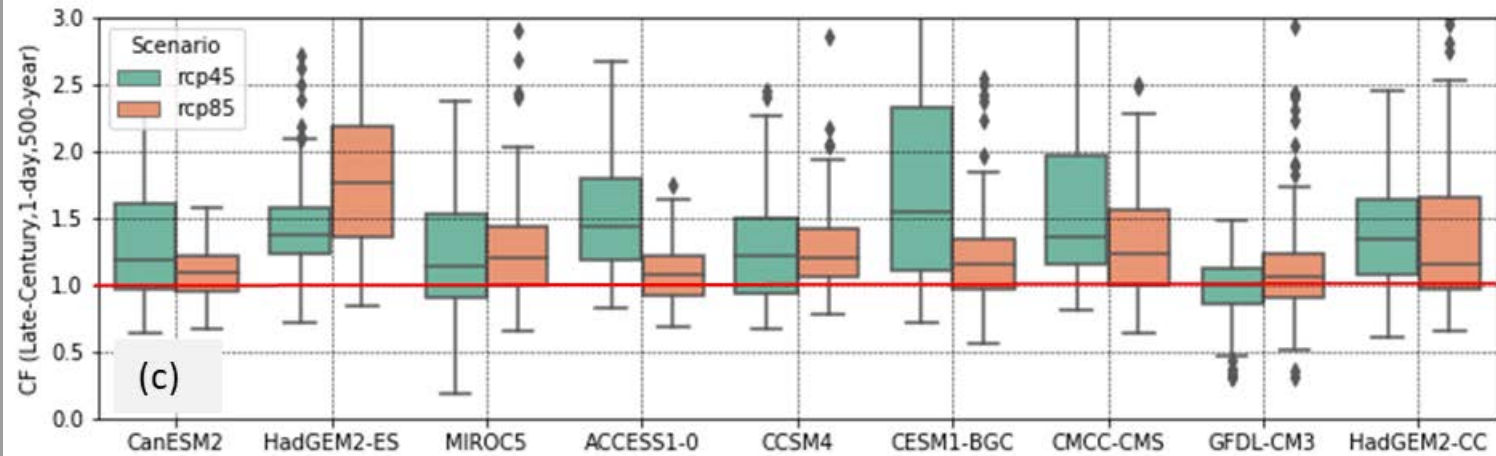
1-Day/2-Year



1-Day/100-Year

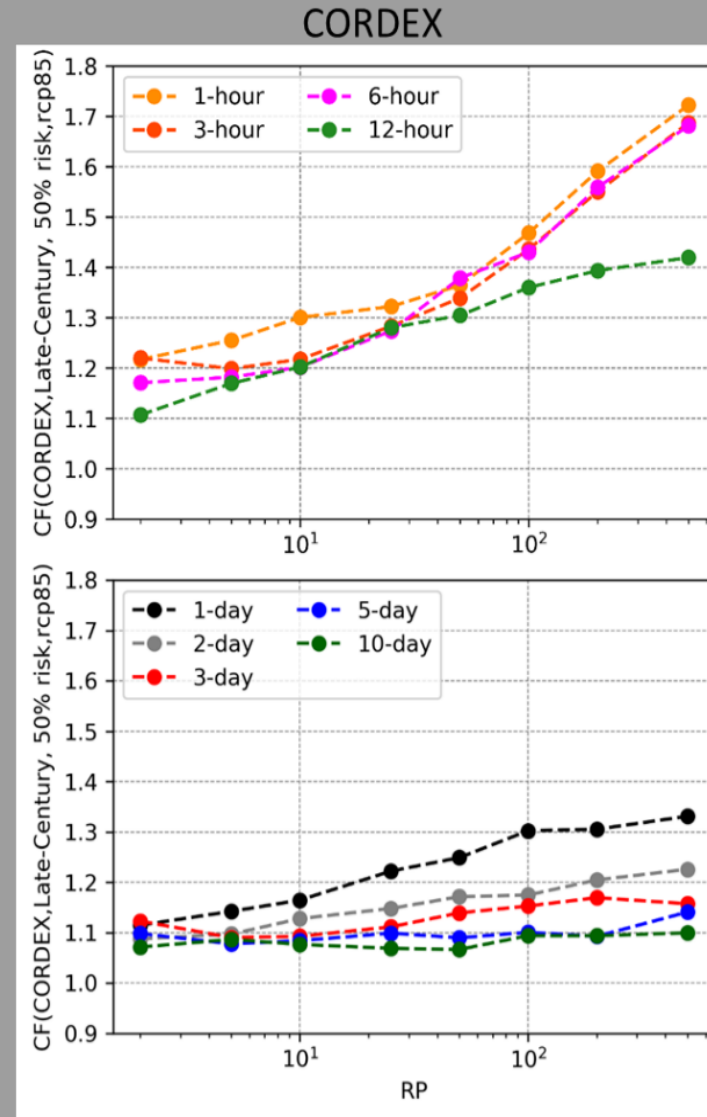


1-Day/500-Year



# Proposed Climate Change Correction Factor

- Spatially Constant
- Late Century Results, RCP85
- Multi-Model Ensemble
- Risk of Exceedance



Evidence for changing rainfall patterns has not translated into “actionable” information needed by decision-makers.

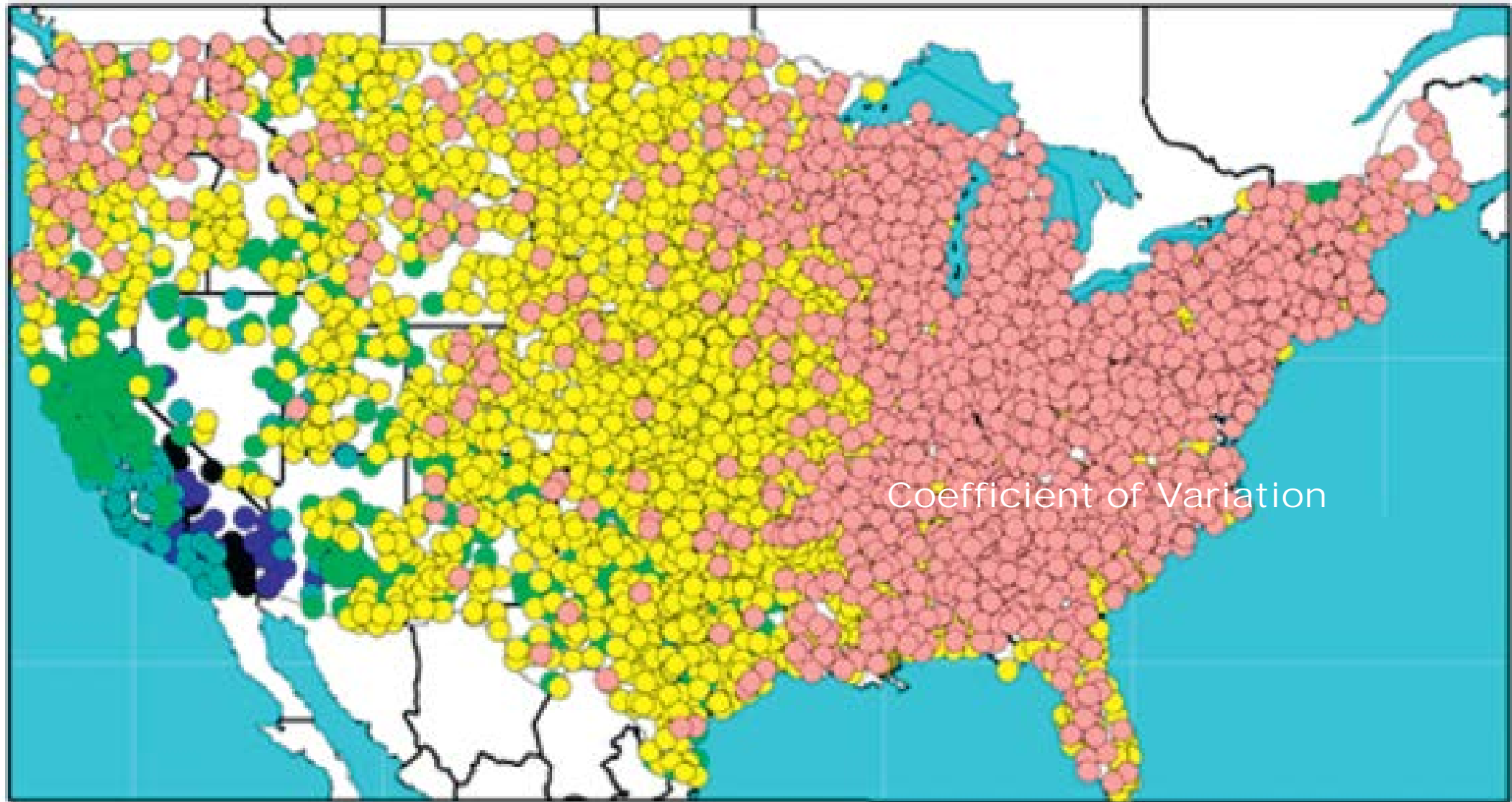
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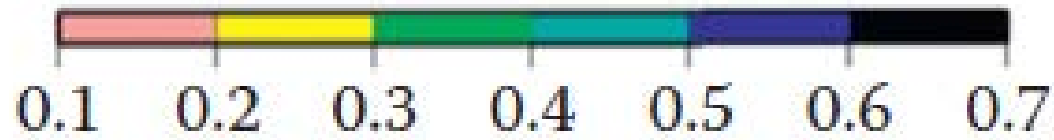


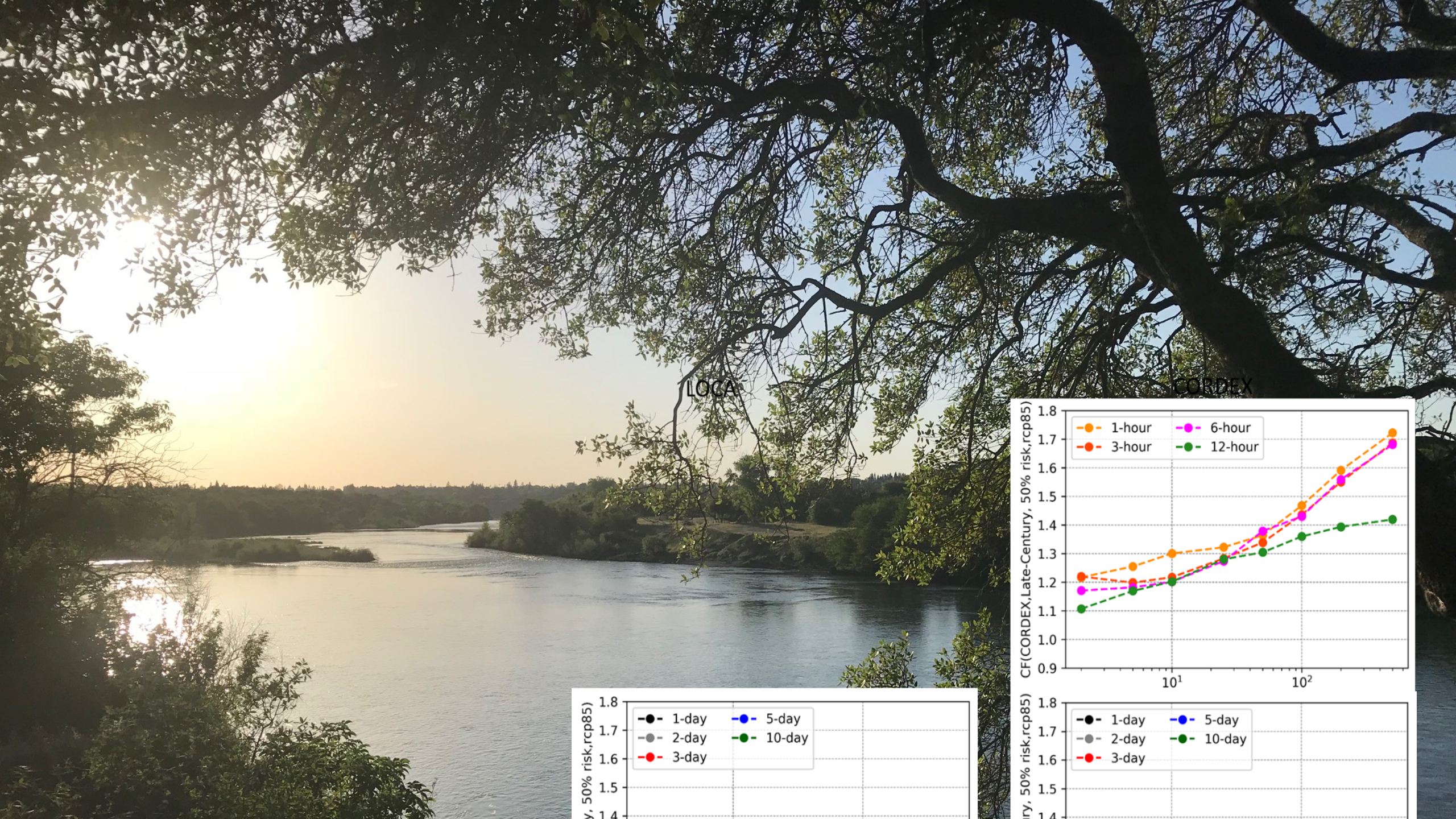
	LOCA	CORDEX
Source	<a href="http://loca.ucsd.edu/what-is-loca/">http://loca.ucsd.edu/what-is-loca/</a>	<a href="https://portal.enes.org/data/enes-model-data/cordex/datastructure">https://portal.enes.org/data/enes-model-data/cordex/datastructure</a>
Downscaling method	Statistical	Dynamic
Temporal Resolution	1-day	1-hour
Spatial resolution	6-km	25-km or 50-km
Models	32 models, including 10 models recommended for California	4 models, including 2 recommended for California (CanESM2 and HadGEM2-ES)





Fraction





LOCA

CORDEX

