

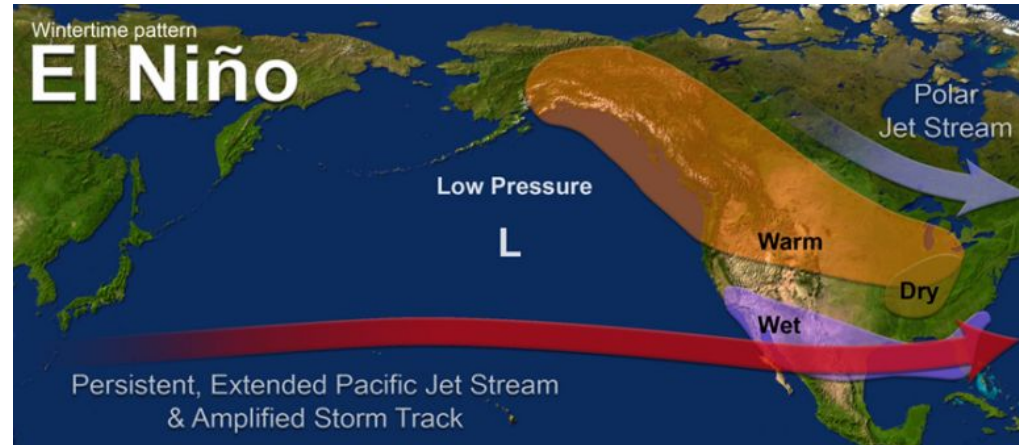
Project Group 02: El Niño



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El Niño

- El Niño Southern Oscillation (ENSO)
- Pacific sea-surface temperature cycle
- Strong influence on global weather
 - Climatologists / meteorologists seeking to better understand connections with other regions



Partner

- Dr. Samuel Muñoz, COS
- Earth Surface Systems Lab
- Focus on Mississippi River Basin

Article | [Open Access](#) | Published: 11 May 2017

El Niño increases the risk of lower Mississippi River flooding

Samuel E. Munoz  & Sylvia G. Dee

Scientific Reports **7**, Article number: 1772 (2017) | [Cite this article](#)

988 Accesses | **22** Citations | **13** Altmetric | [Metrics](#)



Goal

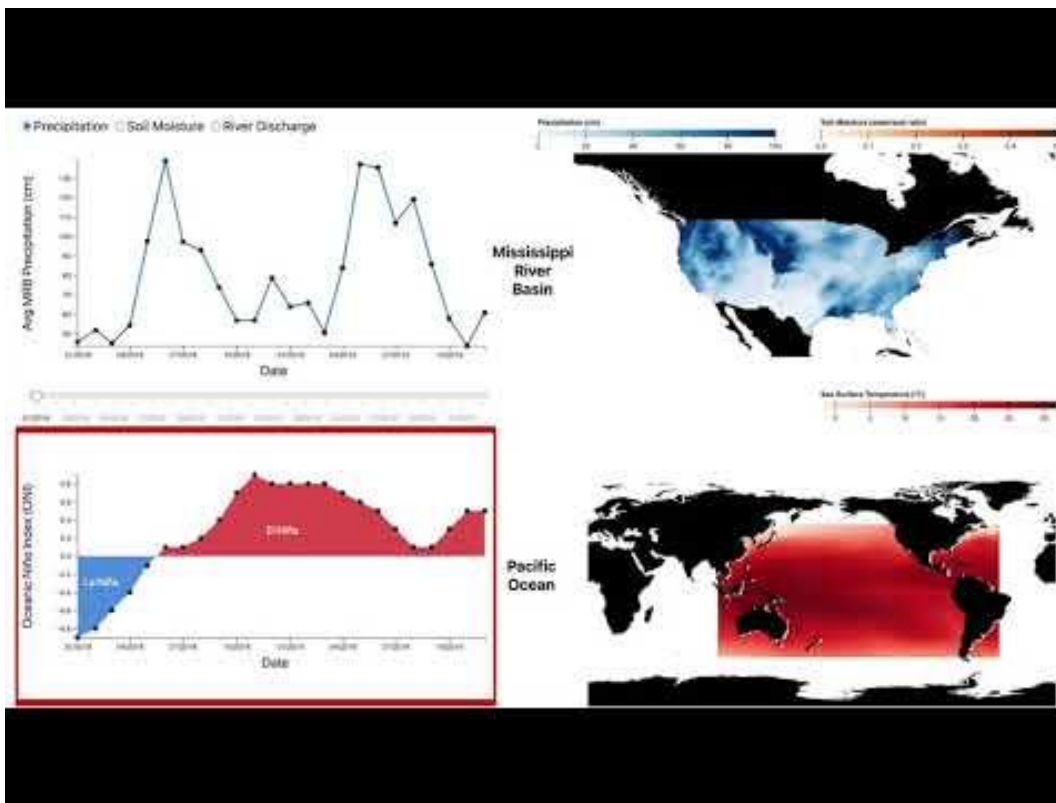
- Explore connection between ENSO and MRB conditions
- View Pacific SST during ENSO cycle
- Compare MRB precipitation levels across ENSO spectrum
 - MRB soil moisture levels across ENSO spectrum
 - MRB river levels across ENSO spectrum
- Examine environmental conditions over the ENSO time cycle
 - ONI index across ENSO time cycle

Data

- Monthly averages for the 2018-2019 ENSO cycle of:
 - Pacific Ocean sea-surface temperature ($^{\circ}\text{C}$)
 - MRB soil moisture (water / soil ratio)
 - MRB precipitation (cm)
 - MRB river discharge (ft^3 / s)

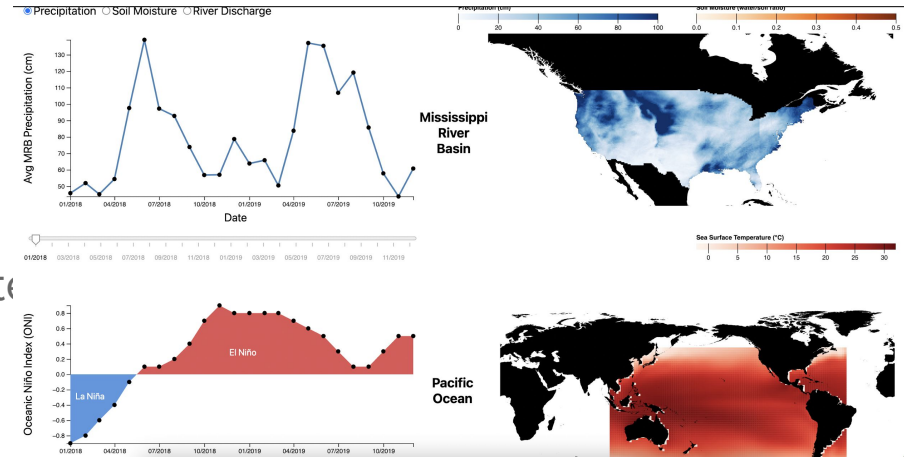


Demo



Conclusion

- Our visualizations show the relationship between the ENSO conditions in the Pacific Ocean and its effect on the Mississippi River Basin
- Interactive visualizations that communicate Dr. Muñoz's findings
- We hope we are able to aid Dr. Muñoz's research



Thanks!

Questions?