

# Study: Wind main cause of California droughts

By Science Daily

Droughts in California are mainly controlled by wind, not by the amount of evaporated moisture in the air, research has found.

The findings were published in *Geophysical Research Letters*, a journal of the American Geophysical Union, on June 30. The research increases the understanding of how the water cycle is related to extreme events and could eventually help in predicting droughts and floods, said lead author Jiangfeng Wei, a research scientist at the University of Texas at Austin's Jackson School of Geosciences.

"Ocean evaporation provides moisture for California precipitation but is not the reason for droughts there, although the ocean evaporation is slightly lower during droughts," Wei said.

The researchers analyzed 30-year data sets that recorded precipitation, ocean evaporation, surface wind speed and atmospheric pressure on and near the west coast of the United States. These are all factors that influence the water cycle in California. One of the difficulties of studying the water cycle, Wei said, is that the water sources for precipitation cannot be directly observed, so the team also used a mathematical moisture-tracking method and high-resolution model simulations.

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