

# Worst drought ever to hit California could rival the historic 2011 Texas drought

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(Phys.org) —The worst drought ever to hit California could rival the

historic 2011 drought that devastated Texas, says a Texas A&M University professor.

John Nielsen-Gammon, professor of atmospheric sciences who also serves as Texas' State Climatologist, says the current [drought](#) in California is so far comparable in many ways to the 2011 Texas drought, the worst one-year drought in the state's history that caused more than \$10 billion in damages and led to numerous wildfires and lake closings.

"This is the third year of California's drought and it is on pace to be as [dry](#) as Texas was in 2011," Nielsen-Gammon, a California native who grew up in the San Francisco area, explains.

"However, because our severe drought year came at the beginning of the drought, reservoirs across much of the state were full. In California, reservoir levels were low to begin with.

"In addition, they are dealing with environmental flows through the Sacramento Delta that weren't explicitly laid out until a few years ago."

Weather patterns for both states appear similar, he adds.

"The same ridge that has kept California dry has also been keeping Texas dry," he notes. "As the pattern changes, California is finally getting some rain and snow and the chances for precipitation in Texas are increasing as well."

California's drought is especially worrisome because the state produces about one-half of the country's fruits, vegetables and nuts. It is the No.1 agricultural state in the U.S.

The 2011 drought devastated Texas farmers and ranchers, and lake levels were down as much as 50 feet in some lakes while several West

Texas lakes completely dried up.

Numerous Texas cities set heat records in 2011, such as Wichita Falls, which recorded 100 days of 100-degree heat, the most ever for that city. Dallas also set a record with 70 days of 100-degree heat.

Texas' drought is now in its fourth year, Nielsen-Gammon says, and about 52 percent of Texas is still in some form of drought status, ranging from moderate to exceptionally dry.

"January was unusually dry with an average of only about one-half an inch of precipitation statewide," he adds.

"Reservoir levels have actually declined at a time when they should be rising. So the drought is still here. In fact, the prevalence of drought in Texas has not dropped below 40 percent since 2010 when this drought first started."

The Texas Panhandle area has been especially hard hit.

"The past three calendar years have been among the driest three on record for the Panhandle," he notes. "Dalhart shattered its record with just 20.54 inches total in 2011-2013.

"This current drought started with more intensity than the drought of 1950-56, the driest on record. We again have a generally warm Atlantic Ocean, and that tends to mean dry conditions. An El Nino (warmer water in the tropical Pacific Ocean) might develop later this year, but it's still a little too early to say."

Provided by Texas A&M University

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