UC Center Sacramento

California's Vegetation in an Era of Drought and Deluge

Wednesday, July 1st

12:00 - 1:00pm

In light of the community concerns regarding COVID-19, this talk will be given as a webinar. The link will be provided on Tuesday, June 30th to those that have registered by 5:00 pm on Monday, June 29th at uccs.ucdavis.edu.

California's weather seems to be more unpredictable than ever. The past ten years have seen a 1-in-1200 year drought, the deluge of 2017, extended mid-winter dry periods, and multiple years with late onset of rainfall. Longer droughts in California may be a particularly disruptive outcome of global climate change. The record drought of 2012-2016 left California with economic losses, the Sustainable Groundwater Management Act, and dried-out forests and shrublands filled with dead fuel. The responses of California's vegetation to extended droughts punctuated by extreme wet years will affect how we manage wildlands, particularly for fire risk. In this presentation, I will briefly describe California's recent precipitation patterns in relation to historic data. Then, I will show examples from three different studies about the impact of precipitation on California's vegetation. First, I will briefly show how eastern Sierra Nevada vegetation responds to variable snowfall and the historic drought of 2012-2016. Then, I will present one surprising impact of experimental drought on coastal grasslands. Last, I will show how soil water increases when our team removed invasive shrubs from a chaparral community. I will close with some recommendations of how knowledge about responses to drought and deluge could play into future vegetation management.

Michael E. Loik is a professor of environmental studies at University of California, Santa Cruz. Loik has a BSc and MSc from the University of Toronto and a PhD from the University of California, Los Angeles. Much of Loik's research has focused on the impacts of climate change (especially altered precipitation) on plant and ecosystem processes in arid and semi-arid regions. More recently, he has been using a biophysical approach to improve adaptation through climate-smart agriculture and forestry, and is developing new clean energy technologies to mitigate greenhouse gas emissions.

For questions contact Brooke Miller-Jacobs at (916) 445-5161 or bmmillerjacobs@ucdavis.edu

The views and opinions expressed during this lecture are those of the speaker and do not necessarily represent the views of UCCS.