

## Research Unit Forest Dynamics - colloquium

**Date:** 23.10.2019

**Time:** 13:00

**Room:** Engler

**Duration:** 25 minutes

**Author:** Alberto Vilagrosa, CEAM & University of Alicante, Spain

**Title:** Impact of climate change disturbances affecting Mediterranean plant communities.  
Implications for restoration

### Abstract:

Under the ongoing climate change the future for the forests ecosystems in the Mediterranean area are unpredictable, with more frequent and prolonged droughts and heat waves.

Specifically, the higher drought frequency under warmer temperatures (“hotter-droughts” or “global change-type droughts”) are related to irreversible changes in the ecosystems composition, including massive tree mortality in forests. These effects could be exacerbated under dry and semi-arid climates as the Mediterranean, which is already subjected to drought limiting conditions.

Tree mortality and declining phenomena is increasing in relevance and in number of affected species. Therefore, plant declining and mortality relate extreme droughts or hot waves with other organisms, e.g., insects or microorganisms acting as pests.

The CEAM research center (Valencia, Spain) in collaboration to Dept. of Ecology (University of Alicante, Spain) have studied different scenarios of forest die-off and plant mortality with implications in ecosystem resilience subjected to water limitations and wildfires. We tried to understand which are the mechanisms underlying these processes and try to improve ecological restoration techniques for the recovery of these degraded ecosystems.