



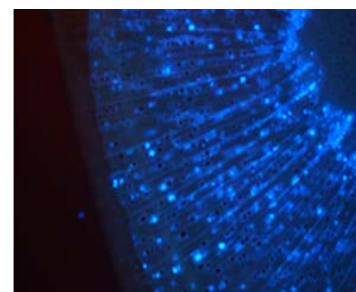
WEIZMANN  
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## HORIZON-CL6-2022-CLIMATE-01-05: Forestry - European observatory of climate change impacts and demonstration network of climate smart restoration pilots

I am Tamir Klein, a tree physiologist and forest ecologist. My group at the Weizmann Institute of Science (The Weizmann Tree Lab; <http://www.weizmann.ac.il/plants/klein/>) studies multiple aspects of climate change impacts on forests:



- Drought-induced tree mortality: Evidence, Drivers, and Mechanisms, at local, regional, and global scales
- In-depth study of drought effects on tree physiology, and specifically on xylem embolism dynamics and feedbacks with tree carbon storage.
- A study on the potential of afforestation and reforestation at the dry and hot edge of the Mediterranean region as part of a climate change mitigation strategy.
- A long-term ecological research (LTER) project on the effects of thinning and grazing, as climate change adaptation strategies, on tree and plot productivity, water-use, and resilience.
- Provenance trials on key Mediterranean tree species (*Pinus halepensis*) and arid land species (*Acacia tortilis*) to study their climate change adaptation.



The Weizmann Tree Lab offers the following opportunities for research directed at the **CLIMATE-01-05** call topics:

- Our own network of forest research plots along the rainfall gradient in Israel (50 to 1500 mm year<sup>-1</sup>), with continuous monitoring and instrumentation at each plot.
- A rain exclusion experiment in a mixed Mediterranean forest.
- An LTER thinning and grazing experiment in a semi-arid pine afforestation.
- An eco-physiological lab with three postdocs, six PhD students, and six MSc students, to study forest genetic resources.
- A fully equipped tree eco-physiology lab, including our own carbon isotope analyzer, tree micro C.T., CO<sub>2</sub>-controlled growth rooms, and multiple greenhouse facilities.

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