Plant Functional Biology and Climate Change Cluster
2013 PhD Project List

Research Group

- **Terrestrial Ecohydrology**

Contact:

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Terrestrial Ecohydrology Research Group

Title: Examination of causes of drought-induced mortality: C starvation or hydraulic failure?

Supervisor: Professor Derek Eamus

Project Description: Over the past 30 years there has been increasing awareness that large-scale (regional) and long-term (one to several years duration) droughts were occuring more frequently and that this was associated with large rates of mortality (forest die-back). Large-scale mortality of forests changes the albedo of terrestrial land surfaces and alters the feedbacks amongst landscapes, vegetation function, climate and vegetation-atmosphere interactions. This project will investigate the relative importance of hydraulic failure and C starvation as causes of mortality in trees using a combination of glasshouse experiments, field manipulations and modelling.

Desirable Skills and Qualifications:

Applicants should have interests in plant physiology, plant ecophysiology or experimental ecohydrology at Honours degree level (1st class or upper second).

Funding:

There is some extra funding available to support this project.

An estimated 75% of River Red Gums have been affected by drought (Photo: Ann Wilson)