

How do bushfires affect biodiversity and ecosystem functioning?

220503 Bushfire and Biodiversity

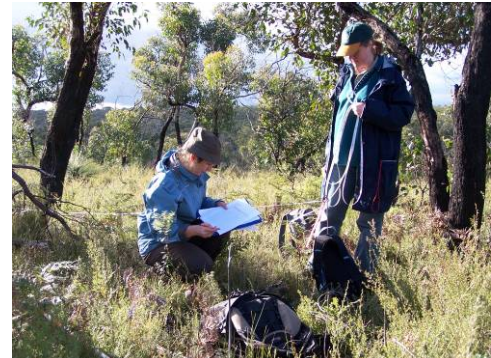
This subject covers the basic effects of fire on biodiversity and ecosystem processes. As land managers are committed to developing burning strategies which achieve both biodiversity and asset protection objectives, they must rely on scientists to provide the information they require to make this practice ecologically sustainable. Increased knowledge of the impacts of fire on plants, animals and micro-organisms facilitates a better understanding of how more effective fire management can be achieved. This subject will explore the range of scientific information available that can best inform land managers.

Topics covered

- Responses of plants to fire, particularly with regard to seeding and resprouting strategies, seed storage and dispersal mechanisms and the consequences of single and repeated fires
- Responses of animals, including invertebrates, to fire at the level of individuals, populations and communities
- The role of fungi in ecosystems including breakdown of organic matter, nutrient uptake and maintenance of plant populations
- The interaction between fire, plants, organic matter inputs, animals and micro-organisms in the context of nutrient cycling
- The impacts of bushfire and prescribed burning at the ecosystem level, particularly attributes of species and landscape factors such as connectivity and habitat condition
- Scientific inputs to landscape-scale adaptive management including planning, monitoring and legislation

Course co-ordinators

- Dr Alan York (alan.york@unimelb.edu.au)
- Dr Tina Bell (tibell@unimelb.edu.au)





2009 Study Dates and Locations

Intensive teaching from 1st – 12th June at the Creswick Campus of the Department of Forest and Ecosystem Science including field trips using Creswick as a base

Study materials will be available in early-May via the Learning Management System. Assessment will continue up to six weeks from the end of the teaching period.

Teaching plan

This subject will be taught using a combination of lectures, practical demonstrations and data collection. Contact time will be equivalent to 24 hours of lectures and 36 hours of practical work

Where possible, research and land management specialists will contribute by providing guest lectures and demonstrations

Assessment will be based on a field-based project and development of a Fire Management Plan

Student costs, travel and accommodation

Estimated accommodation costs are \$105 at Creswick for 6 nights. There will be no accommodation cost for the field trip (although students will need to pay for food and incidentals).

Enrolment options

- This subject is normally offered through the Master of Forest Ecosystem Science but is available to students from other courses subject to their Course Coordinator's approval.
- The subject may also be taken as an individual subject through the University's Community Access Program (CAP). This may be in assessed or non-assessed mode. For further information see:

<http://www.unimelb.edu.au/community/access/>

Further information

Information about this subject and the Master of Forest Ecosystem Science is available at:

<http://www.forests.unimelb.edu.au>

