



PhD opportunity- Deakin University

Determining the resilience of Australian alpine plants in a future climate



The [eXtreme Plant Ecology Research Team](#) in the [Centre for Integrative Ecology](#) and [School of Life and Environmental Sciences](#) is seeking a PhD candidate to contribute to an Australian Research Council funded research program aimed at enhancing the resilience of Australian alpine plant communities through strategic restoration practices.

The Australian Alps are recognized as one of the world's major biodiversity hotspots and critically vulnerable to climate change. Alpine plant communities are already showing signs of climate stress, are under threat from exotic pest plants and animals, and are recovering from a legacy of stock grazing. As a result, large areas of alpine environments require ongoing restoration works across National Parks and Alpine Resorts. There is urgent need for progressive management strategies to maximise restoration success through consideration of future soil water availability, plant thermal tolerances, and the adaptability of functionally important plant species. To bolster the resilience of alpine landscapes under climate change; we must understand the interactions between the physical and biological processes underpinning the health of alpine environments and adaptability of alpine plant communities

An excellent PhD candidate with a background in ecological science, botany or plant ecology is sought to join an exciting project, co-funded by the Centre for Integrative Ecology and the Australian Research Council and our industry partners Parks Victoria, Royal Botanic Gardens Victoria, Mount Hotham Alpine Resort and Southern Alpine Resort Management Board, and will make use of the [Australian Mountain Research Facility](#). Depending of the project scope, the candidate will have a unique opportunity to focus on aspects of:

- **Plant thermal tolerance**
- **Plant water relations and ecophysiology**
- **Plant regeneration and recruitment**
- **Snow ecology**

The results of the project will assist alpine land managers choose the right species for restoration projects, thereby building resilience into these vulnerable environments

The candidate will join the eXtreme Plant Ecology Research Team at Deakin Burwood and be supervised by Susanna Venn with potential co-supervisors Adam Miller, John Morgan (La Trobe University) and/or Adrienne Nicotra (Australian National University) depending on the project. The application process is competitive; applicants are expected to have an excellent grade (e.g., H1 or HD) in a related Honours or a MSc research program, and proven skills in scientific writing (previous publications in the relevant area will be highly ranked). The successful candidate will be awarded a 3-year PhD scholarship (~AU\$28,000 p.a. tax free) through the Centre of Integrative Ecology and the [School of Life and Environmental Sciences](#). An anticipated commencement date is spring 2022.

Please get in touch for more information and/or send your CV with a brief introduction about yourself and your interest in this project to Associate Professor Susanna Venn (Susanna.venn@deakin.edu.au) <https://www.deakin.edu.au/about-deakin/people/susanna-venn>