

HAWKESBURY INSTITUTE FOR THE ENVIRONMENT



Hawkesbury Institute Research Scholarship

AUSTRALIAN FORESTS AND WOODLANDS: WHAT DOES THE FUTURE HOLD?

The mission of the Hawkesbury Institute for the Environment (HIE) at the University of Western Sydney (UWS) is to generate insights into the impacts of a rapidly changing environment on Australia's agricultural, natural and managed ecosystems. Our academic staff are dedicated to excellence in research and have national and international reputations in plant genetics, plant ecophysiology, and terrestrial ecology.

We are seeking a highly motivated and dynamic PhD candidate to contribute to our synthesis and modelling program for native Australian forests and woodlands.

Led by Professor Belinda Medlyn and Dr Remko Duursma, this research program draws on emerging experimental evidence to answer big-picture questions such as:

What determines the distribution of Australian woody species, and how are these distributions likely to change in future?

What strategies allow these species to survive the challenging Australian environment? In what ways do Australian woody species differ from those found elsewhere, and what are the consequences for the Australian landscape?

The PhD candidate will develop a project that uses synthesis and modelling methods to contribute to these overarching questions. Possible projects could include:

- Quantifying impacts of rising temperature on Australian woody species;
- Investigating how rising atmospheric CO₂ could change species distributions;
- Quantifying impacts of soil moisture stress on forest functioning;
- Characterising the traits and functioning of Australian woody species. There is also scope for the student to develop and address their own research questions in this broad area.

The student is anticipated to commence in 2015 and will be advised by Professor Belinda Medlyn and Dr Remko Duursma.

WHAT DOES THE SCHOLARSHIP PROVIDE?

- » Domestic students will receive a tax free stipend of \$30,392 per annum and a funded place in the doctoral degree.
- » International students will receive a tax free stipend of \$30,392 per annum. Those with a strong track record may receive a fee waiver.
- » Funding is available for project costs and conference travel.

CRITERIA

The successful applicant should:

- » demonstrate excellent academic performance in one or more of the following areas: plant physiology, ecology, mathematics, physics or statistics
- » hold qualifications and experience equal to an Australian First Class Bachelor Honours degree or equivalent overseas qualifications and be enthusiastic and highly motivated to undertake further study at an advanced level
- » possess a strong aptitude for mathematics or computer programming
- » International applicants must also demonstrate a high level of proficiency in the English language. Please refer to the English language requirements at www.uws.edu.au/international/admissions/english_language_requirement

HOW TO APPLY

- » Applicants should discuss their eligibility and interests with Prof Belinda Medlyn on (02) 4570 1125 or via email at b.medlyn@gmail.com.
- » Contact the Office of Research Services to discuss enrolment and scholarships at [hdrscholarships@uws.edu.au](mailto:hdrs@uws.edu.au)
- » Please submit an application form, CV, names and contact information of two referees, and a one-page research proposal that aligns with this project's aims.

Closing date 21 November 2014.

- » The application form can be downloaded from the web: [Download application: www.uws.edu.au/research/scholarships](http://www.uws.edu.au/research/scholarships)