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# TALL POPPY CAMPAIGN

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*Investing in Australia's Future*

## Young Tall Poppy Profile: Dr Angela Moles

**Name:** Angela Moles

**Title** (ie. Dr, Assoc Prof, etc): Dr

**Research Field:** Evolutionary Ecology

**More Specifically:** Global scale ecology

**In other words:** Quantifying global patterns in how plants and animals make a living

**Abbreviated Qualifications:** BSc (hons); PhD

**Current position:** Senior Lecturer

**University/Institution:** Evolution & Ecology Research Centre, University of New South Wales

**What do you do?** I quantify the ecological strategies that plant species use in different environments, and try to improve our understanding of the selective processes underlying global patterns in ecological strategy. I am working on two main projects at the moment: 1) quantifying the latitudinal gradient in plant height, and 2) the World Herbivory Project, in which I am measuring how much plants get their leaves eaten by animals in 75 ecosystems all around the world.

### **Why is this research important? How is it relevant to society at large?**

You might be surprised just how little we know about global patterns in how our ecosystems work. We know that there are more species in the tropics, but we haven't quantified even basic things like how much taller plants are in the tropics, or whether interactions between plants and animals are more intense in tropical ecosystems. This stuff really matters: if we don't know how plant and animal species change along present day gradients in temperature or rainfall, it's going to be rather difficult to predict what might happen to our planet as a result of global climate change.

### **What's difficult about it?**

During my World Herbivory project studies, I personally travelled to all 75 study sites over the course of 2 years. While this might sound like fun, the logistics of setting up 50 collaborations, employing and training a field assistant in each place, getting permits to study the plants and animals and export samples, and communicating with people in many different languages did make things fairly interesting!

### **Why are you passionate about it?**

I've always been a bit like one of those 4 year olds who asks "WHY?" every few minutes. Being a plant ecologist lets me satisfy this curiosity – AND I get to work in the most beautiful environments in the world. Finally, I think that it's really important for people to understand as much as possible about the natural world we live in – especially when we are making such dramatic changes to that environment.

### **Why share your research with high school students?**

Because high school students are the future of science. It's not usually crusty old professors who make the big leaps forward in science – most of the real advances come from new people with a fresh approach. It's also very clear that future generations are going to be facing some pretty serious environmental challenges, so it's very important to me that we recruit and train a new generation of ecologists.

### **Why study sciences?**

Because you get to answer really important questions about how our world works. We're really going to need good scientists in the future – and the work is really interesting.

### **Is it what you've always wanted to do?**

I wanted to be a vet when I was young, and when I went to university I thought I wanted to be a zoologist. As I progressed through my studies, I realised that it was plants that really grabbed my interest.

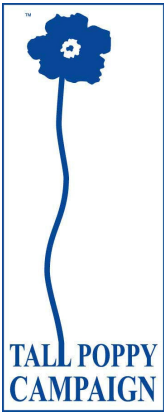
**What else are you into?** I love bushwalking, reading, painting, cross country skiing and sharing good food and wine with friends. I used to go mountaineering in New Zealand, but ice is a bit hard to come by in Australia.

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ABN 71 000 025 507



**Public profile** I have appeared on Catalyst (23 October, 2008), and I have spoken on ABC radio in Melbourne, Adelaide, Newcastle, Brisbane and Canberra, and on the radio national science show. Articles about my work have appeared in the Sydney Morning Herald, the Age and the Australian, and in many regional newspapers. I am also part of the scientists in schools program.

### **Your achievements - How did you get where you are today?**

**Your HSC subjects:** I went to high school in New Zealand. In my last year at high school, I took Maths with Statistics, English, Chemistry, Biology and Physics.

**Degrees:**

BSc(hons; 1<sup>st</sup> class) Victoria University of Wellington, New Zealand (1997)

PhD (Ecology) Macquarie University, Sydney (2004)

Postgraduate Diploma in Higher Education (learning and teaching), Macquarie University (2006)

**Some of your previous position/s:**

Lecturer at Victoria University of Wellington, New Zealand

Australian Research Council Postdoc, based at Macquarie University and ANU.

Postdoctoral fellow at the National Center for Ecological Analysis and Synthesis, Santa Barbara, California

**Current position:** Senior Lecturer at UNSW

**Relevant awards and prizes you have received as part of your studies/research/work:**

Award for best student presentation at the New Zealand Ecological Society conference (2001)

New Zealand Ecological Society award for best publication by a new researcher (2002)

Macquarie University Vice-Chancellor's Commendation for Doctoral thesis (2004)

L'Oreal for Women in Science Fellowship (2008)

**Summary of published works:** I have published 30 papers in scientific journals, and 3 book chapters. My papers have been cited over 600 times.

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