

Charlotte H. Mills

Centre for Ecosystem Science, UNSW Sydney, 2052, Australia

EDUCATION

PhD Candidate **2015 - Present**
UNSW Sydney, Australia
Supervisor: Associate Professor Michael Letnic
Thesis title: *Is vegetation change a legacy of native mammal decline?*

Bachelor of Environmental Science & Bachelor of Arts **2009-2013**
UNSW Sydney, Australia
Majors in Biological Science and Chinese Studies
Honours Class I **2013**
Honours thesis: *Does dingo control intensify macropod impacts on vegetation?*

PEER-REVIEWED PUBLICATIONS

Lyons, M., Brandis, K., Callaghan, C., McCann, J., **Mills, C.**, Ryall, S. & Kingsford, R. (2018) Bird interactions with drones, from individuals to large colonies. *Australian Field Ornithology*. **35**:51-56.

Mills, C.H. & Letnic, M. (2018) Reversing functional extinction of mammals prompts a rethink of paradigms about seed fate in arid Australia. *Royal Society Open Science*. **5**:171977.

Mills, C.H., Gordon, C.E. & Letnic, M. (2018) Rewilded mammal assemblages reveal the missing ecological functions of granivores. *Functional Ecology*. **32**:475-485.

Letnic, M., Feit, A., **Mills, C.** & Feit, B. (2016) The crest-tailed mulgara (*Dasyercus cristicauda*) in the south-eastern Strzelecki Desert. *Australian Mammalogy* **38**:241-245.

NON PEER-REVIEWED ARTICLES

Mills, C. (2018) Reconsidering seed predation paradigms in arid Australia. *Australasian Plant Conservation: Journal of the Australian Network for Plant Conservation* **26**:20-22.

Mills, C. (2018) Volunteers: Are they worth it? Absolutely! *The ESA Bulletin*. **48**:8.

Mills, C. (2017) Is woody shrub encroachment a legacy of native mammal decline? *Consulting Ecology* **38**:22-28.

Mills, C. (2016) Reconsidering seed predation with pop-up seed cafes. *Arid Recovery Newsletter*. **4**:4.

RESEARCH EXPERIENCE

PhD Candidate UNSW Sydney

2015 - Present

- Using foraging tray and fenced enclosure experiments to determine the effects of rewilded mammals on vegetation and seedbanks in arid Australia.
- Shown that paradigms around seed fate in Australia have neglected the role of mammals and that rewilding has restored ecological function of granivores.
- I have demonstrated that omnivores can have a strong effect on prey species and that the loss of these mammals may have facilitated vegetation change.
- I have published two papers and working on another four from my PhD thesis.
- During my candidature I have secured >\$20 000 in research funding.

Research Assistant UNSW Sydney

2016 - Present

- Responsible for all project logistics including animal ethics and scientific licence applications, survey methodology, volunteers, field trips and data management.
- Participate in field studies in remote arid areas where I carry out biodiversity surveys and assist in data collection for other research students.
- Currently research projects include nutrient cycling facilitation by large herbivores and the effects of herbivore exclusion on vegetation structure.

TEACHING EXPERIENCE

Demonstrator, UNSW Sydney BIOS3671 Biodiversity & Conservation BIOS1301 Ecology, Sustainability and Environmental Science

2015 - 2017

- I teach biological concepts such as species identification, population modelling and basic statistics to undergraduate and Masters students.

Demonstrator, UNSW Sydney BIOS3161 Life in Arid Lands

2017 - Present

- Designed and led a free-form tutorial component of a third-year undergraduate field course, with students indicating it is a favourite part of the field trip.
- Developed a rapport with students, with some students contacting me since to volunteer on my projects.
- Assisted undergraduate students with experimental design of field projects.

Field Trip Leader, UNSW Sydney

2013 – 2018

- Regularly take between 1 and 4 volunteers and/or students on field trips to remote locations.
- Teach volunteers and students about sampling methods for small mammals, reptiles, vegetation and soils.
- Teach volunteers and students about data collection and management, remote area fieldwork, 4WD skills and experimental design.
- Advise students on adjustments to their methods in the field.

- Volunteers are from diverse backgrounds and age groups, and often come back for repeat trips indicating that they have found it to be a valuable experience.

OTHER EMPLOYMENT

Technical Officer

August 2014 - Present

AMBS Ecology & Heritage

- Engaged in floristics data collection for long term monitoring projects
- Discuss site access with landholders
- Assist in data management for floristics data using MS Access database

Sales Assistant

June 2017 - Present

Paddy Pallin Outdoor

- Work in a team to provide best advice to customers on technical products for outdoor leisure activities.
- Skilled at identifying a customer's need, identifying appropriate products for them and building a rapport with them during a sale.
- Often personally thanked for service provided.

PRESENTATIONS

Mills, C.H., Ooi, M., Tuft, K. & Letnic, M. (2018, upcoming) Revisiting the role of Australian mammals as seed predators. Ecological Society of America, New Orleans, USA. (Oral Presentation)

Letnic, M., Fisher, A., **Mills, C.H.**, Cornwell, W., Lyons, M. (2017) Trophic cascades from space! Ecological Society of Australia, Pokolbin, Australia. (Oral Presentation)

Mills, C.H., Gordon, C. E. & Letnic, M. (2017) Australian mammals eat seeds. International Mammalogical Congress, Perth, Australia. (Poster Presentation)

Mills, C.H., & Letnic, M. (2016) Mammals – the missing seed predators in arid Australia? Society for Conservation Biology Oceania Congress, Brisbane, Australia. (Oral Presentation)

Mills, C.H., & Letnic, M. (2015) Mammals – the missing seed predators in arid Australia? Ecological Society of Australia, Adelaide (Speed Talk)

Mills, C.H., & Letnic, M. (2015) Is Shrub Encroachment a Legacy of Native Mammal Declines? Scotia Research Symposium, Scotia, Australia. (Oral Presentation)

Mills, C.H. & Letnic, M. (2013) Macropod Herbivory Influences on Vegetation Regrowth After Fire: Trophic Cascades in the the Great Lakes Area. EcoTAS, Auckland, New Zealand. (Oral Presentation)

Mills, C.H. & Letnic, M. (2013) Macropod Herbivory Influences on Vegetation Regrowth After Fire: Trophic Cascades in the the Great Lakes Area. Australian Mammal Society, Sydney, Australia. (Poster Presentation)

AWARDS AND GRANTS (amounts in AUD)

Australian Postgraduate Award (\$25 000/annum)	2015 – 2018
UNSW PRSS Conference Travel Funds (\$2600)	2018
Highly Commended ESA Wiley Fundamental Ecology Award	2017
Holsworth Wildlife Research Endowment (total \$18 075)	2015 – 2017
Student Travel Grant Australian Mammal Society (\$356)	2017
School of BEES Conference Funding (\$800)	2017
Student Community and Development Grant (\$600)	2016
SCBO Registration, Lodging and Travel Award (\$500)	2016
Ecological Consultants Association Research Grant (\$2500)	2015

PROFESSIONAL AFFILIATIONS

Ecological Society of America	2018 - Present
Australian Mammal Society	2016 - Present
Ecological Consultants Association	2015 - Present
Ecological Society of Australia	2015 - Present
Society for Conservation Biology	2015 - Present

LEADERSHIP

Executive Member and Arc Delegate Society for Conservation Biology Sydney Chapter	2015 - 2017
Event Manager Pint of Science Sydney	May 2016

I have supervised:

- Two research internship students from the Netherlands.
- A high school student completing an International Baccalaureate research project.
- Many undergraduate student volunteers working on independent research projects and assisting with my research projects in the laboratory and the field.
- I am and have been an informal mentor for many honours students.

OUTREACH

Presenter – Boiling Point Science Eastside FM Community Radio	2017 - Present
Invited Speaker Australian Plants Society, Sutherland Group	February 2017

OTHER SKILLS AND QUALIFICATIONS

Software

- Proficient in MS Office Suite
- Proficient in ESRI ArcGIS
- Intermediate R Statistical Software Skills

Field Skills

- Extensive experience in animal and plant biodiversity monitoring
- Trained in use of drones, mark-recapture wildlife surveying, motion-sensing remote cameras, GPS, and radio telemetry.
- Remote Area First Aid **2017 - present**
- UNSW Animal Care and Ethics Course **2015**
- Off-Road 4WD Certificate **March 2014**
- Advanced Plant Identification Skills Course **July 2013**

Other

- Active member of AYP Toastmasters Club **2015 - Present**
- DELF A2 French Language Proficiency Qualification **2008**
- Duke of Edinburgh's Gold Award **2008**