

## Kirk L. Barnett, Ph.D.

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### Education

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- Jan 2013 – Aug 2017* **Western Sydney University** - Sydney, Australia  
PhD, Community Ecology, plant-insect interactions under climate change
- Aug 2009 – Dec 2012* **University of Missouri - Saint Louis**, United States  
Master of Science, Community Ecology, plant-insect interactions in forest ecosystems
- Aug 2006 – Dec 2008* **University of Missouri - Saint Louis**, United States  
Bachelor of Science (Magna Cum Laude), Biology

### Appointments

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- Jan 2013 – Jan 2017* Student Researcher  
Western Sydney University, Hawkesbury Institute for the Environment  
Sydney, Australia
- Aug 2008 – Dec 2012* Research and Teaching Assistant  
University of Missouri - St. Louis, Department of Biology  
Saint Louis, United States
- Jun 2007 – Aug 2010* Field Assistant for the Missouri Ozark Forest Ecosystem Project (MOFEP), collecting data on species diversity in relation to logging method
- Apr 2007 – Sep 2011* Field Assistant for various projects at sites around Missouri (Cuivre River State Park, Tyson Research Station, August A. Bush Conservation Area, and Mark Twain National Forest)

### Interests & Skills

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- Interests* Multidisciplinary research through the lens of climate change; solving ecological problems through statistical programming
- Skills/Areas of Specialization* **Climate change, R & python, project planning**, plant physiology, experimental design, agricultural entomology, community ecology, plant defence, grassland ecology
- Memberships* American Association for the Advancement of Science, Coleopterist's Society, Ecological Society of Australia
- Journal Reviewer* Ecological Research, Austral Ecology, Ecological Entomology, Current Opinion in Insect Science, Agricultural and Forest Entomology

## Awards & Grants

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- Mar 2011 Award: Arnold Grobman Graduate Field Ecologist Award  
 Sep 2009 Grant: Whitney R. Harris World Ecology Center Graduate Scholarship  
 Dec 2008 Award: Arnold Grobman Undergraduate Field Ecologist Award  
 Oct 2007 Grant: Whitney Harris World Ecology Center Undergraduate Scholarship

## Publications

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### Recent publications:

- Torode, M., **Barnett, K.L.**, Facey, S.L., Nielsen, U.N., Power, S.A., Johnson, S.N. (2016) Altered precipitation impacts on above- and belowground grassland invertebrates: summer drought leads to outbreaks in spring. *Frontiers in Plant Science*, 10: 01468. DOI: 10.3389/fpls.2016.01468.
- Power, S.A., **Barnett, K.L.**, Ochoa-Hueso, R., Facey, S.L., Gibson-Forty, E.V.J., Hartley, S.E., Nielsen, U.N., Tissue, D.T., Johnson, S.N. (2016) DRI-Grass: A New Experimental Platform for Addressing Grassland Ecosystem Responses to Future Precipitation Scenarios in South-East Australia. *Frontiers in Plant Science*, 09: 01373. DOI:10.3389/fpls.2016.01373
- Barnett, K.L.**, Facey, S.L. (2016) Grasslands, Invertebrates, and Precipitation: A Review of the Effects of Climate Change. *Frontiers in Plant Science*, 7 :1196. DOI:10.3389/fpls.2016.01196
- Marquis, R.J., Salazar, D., Baer, C., Reinhardt, J.R., Priest, G.V., **Barnett, K.L.** (2016) Ode to Ehrlich and Raven or How Herbivorous Insects Might Drive Plant Speciation. *Ecology*, 97: 2939-2951. DOI:10.1002/ecy.1534
- Frew, A., **Barnett, K.L.**, Riegler, M., Nielsen, U.N., Johnson, S.N. (2016) Belowground Ecology of Scarabs Feeding on Grass Roots: Current Knowledge and Future Directions for Management in Australasia. *Frontiers in Plant Science*, 7: 321. DOI:10.3389/fpls.2016.00321
- Gibson-Forty, E.V.J., **Barnett, K.L.**, Tissue, D.T., Power, S.A. (2016) Reducing rainfall amount has a greater negative effect on the productivity of grassland plant species than reducing rainfall frequency. *Functional Plant Biology*, 43: 380-391. DOI:10.1071/FP15174

## Book Chapters

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**Barnett, K.L.**, Johnson, S.N. (2013) Chapter One. Living in the Soil Matrix. *Advances in insect physiology*, 45:1-52; DOI:10.1016/B978-0-12-417165-7.00001-5

## Recent Presentations

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Kirk Barnett, Sally A. Power, Scott N. Johnson: *Altered magnitude and frequency of water input interacts with grass species and root damage*. Ninth Australasian Conference on Grassland Invertebrate Ecology, Richmond, NSW Australia: Talk **2016**

Kirk Barnett, Sally A. Power, Scott N. Johnson: *How do root feeders affect grassland responses to changing rainfall?* Science Day at the Hawkesbury Institute for the Environment, Australia: Talk **2015**

Kirk Barnett, Scott N. Johnson, Sally A. Power: *Do hidden root grazers change plant dynamics in grasslands under altered rainfall patterns?* European Congress on Entomology, York, UK: Poster/Talk **2014**

Kirk Barnett & Sarah L. Facey: *The Hawkesbury Institute for the Environment*. CEH Wallingford, UK: Talk **2014**

Kirk Barnett, Scott N. Johnson, Sally A. Power: *Australian grassland responses to root herbivory and extreme rainfall*. Symposium on Insect-Plant interactions 15, Neuchâtel, Switzerland: Poster **2014**

Kirk Barnett, Scott N. Johnson, Sally A. Power: *Drought, Deluge and "Downunder" Grazing: Grassland ecosystem responses to rainfall and belowground herbivory*. EcoTas, Auckland, New Zealand: Poster **2013**

## Professional References

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### Dr. Sally A. Power

Associate Professor -  
Hawkesbury Institute for the  
Environment  
Western Sydney University  
s.power@westernsydney.edu.au

### Dr. Raul Ochoa-Hueso

Juan de la Cierva-Incorporación  
Research Fellow  
Department of Ecology,  
Autonomous University of Madrid  
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### Dr. Jason R.

**Reinhardt**  
Research Associate -  
University of  
Minnesota Twin Cities  
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## Additional Information

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Github:

<https://github.com/BarnettKirk>

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Researchgate:

[https://www.researchgate.net/profile/Kirk\\_Barnett](https://www.researchgate.net/profile/Kirk_Barnett)

Website: <http://barnettkirk.github.io>