

Kirk L. Barnett, Ph.D.

barnett.kirk@gmail.com

https://www.researchgate.net/profile/Kirk_Barnett

+01 636 219 7153

Education

Jan 2013 – Dec 2017	Western Sydney University-Hawkesbury Institute for the Environment - 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

Interests

Community ecology through the lens of climate change

Skills/Areas of Specialization

- High level of experimental design, data analysis, and data presentation
- Field specimen identification in both the field and laboratory (master's and PhD programs)
- Experience in plant ecology, plant demographics, and community ecology
- Taught several undergraduate classes as well as designed field/lab experiments for students
- Over 10 years of field work in harsh conditions
- History of publication, grant and report writing, and presentation

Appointments

Mar 2017 - Present	Field Technician I , SCI Engineering: Saint Charles, Missouri United States
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, Missouri United States
Apr 2007 – Sep 2011	Field Assistant for various projects (incl. MOFEP) at sites around Missouri (Cuivre River State Park, Tyson Research Station, August A. Bush Conservation Area, and Mark Twain National Forest)

Memberships

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

Publications

Relevant publications:

- Hasegawa, S., Piñeiro-Nevado, J., Ochoa-Hueso, R., Haigh, A.M., Rymer, P.D., **Barnett, K.L.**, Power, S.A. (2018) Elevated CO₂ concentrations reduce C₄ cover and decrease diversity of understorey plant community in a Eucalyptus woodland. *Journal of Ecology*, early view. DOI: 10.1111/1365-2745.12943.
- Johnson, S.N., Lopaticki, G., Aslam, T.J., **Barnett, K.L.**, Frew, A., Hartley, S.E., Hiltbold, I., Nielsen, U.N., Ryalls, J.M.W. (2018) Dryland management regimes alter forest habitats and understory arthropod communities. *Annals of Applied Biology*, early view. DOI: 10.1111/aab.12419.
- 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
- 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

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

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

A/Prof 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
rochoahueso@gmail.com

Dr. Jason R. Reinhardt
Research Associate -
University of
Minnesota Twin Cities
reinh215@umn.edu

Additional Information

GitHub:
<https://github.com/BarnettKirk>
ORCID: 0000-0002-3370-8676

Researchgate:
https://www.researchgate.net/profile/Kirk_Barnett
Website: <http://barnettkirk.github.io>