

## GINGER R. H. ALLINGTON

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gingerallington.weebly.com

### EDUCATION

- 2012 Saint Louis University- St. Louis, MO
- Ph.D., Biology (Ecology, Evolution & Systematics; Advised by T.J. Valone)
  - Certificate in Advanced Remote Sensing & GIS
- 2001 Sarah Lawrence College- Bronxville, NY
- B.A., Biology & Environmental Studies
- 2000 Center for Wildlife Management Studies- Nairobi, Kenya
- Certificate in Wildlife Management
- 2014-  
Fellow University of Michigan, School of Natural Resources and Environment: *Postdoctoral Research Fellow*
- Implemented synthesis project linking data from a large group of collaborators in a comprehensive system dynamics model to predict grassland resilience under a series of future scenarios. Developed independent research directions including creating new land cover mapping strategies for arid grasslands.
- 2012-2014 Missouri Botanical Garden: *Seed Bank Director*
- Initiated long-term germplasm conservation facility targeting regional native flora and international collections of species of conservation concern. Established lab facilities, developed seed collection and processing protocols and conducted extensive fieldwork in the Ozarks of Missouri.
- 2011-2012 Saint Louis University: *Dissertation Fellow*
- Recipient of competitively awarded fellowship to support completion of dissertation.
- 2009 National Science Foundation: *East Asia Summer Institute Fellow*, Inner Mongolia, P.R. China
- Developed collaborative research on restoration of desertified grasslands with colleagues from the Chinese Academy of Sciences at the Naiman Desertification Research Station.
- 2007-2011 The Portal Project / Saint Louis University: *Research Assistant*
- Collected and synthesized vegetation and insect data from the Portal Project, a long-term ecological experiment site in southeastern Arizona. [portal.weecology.org]
  - Maintained database of 30-years of plant and insect abundance data. Analyzed data and prepared manuscripts for publication.
- 2004-2007 Dutchess Land Conservancy, NY: *Stewardship & Educational Programs Manager*
- Managed stewardship of 250 conservation easement protected properties, including baseline documentation, monitoring and landowner communications,
  - Performed natural resource inventories, reviewed management plans.
  - Planned and implemented workshops and educational programs for adults and children.
- 2003-2004 The Nature Conservancy- ME Field Office: *Prescribed Fire Technician and Stewardship Crew Member*
- Participated in planning, implementation and evaluation of prescribed fire.
  - Implemented stewardship and restoration projects; organized stakeholder meetings.
- 2003-2004 Portland Water District, ME: *Environmental Educator*
- Provided hands-on learning environment for middle school students in over twenty classrooms.

- 2001-2003      New York City Department of Parks & Recreation, NY: *Stewardship Coordinator*
- Managed citywide green space adoption program of over 1,000 volunteers.
  - Conducted extensive outreach and taught afterschool programs in diverse neighborhoods.

## **PUBLICATIONS**

### **Refereed Journal Articles:**

**Allington, G.R.H.**, W. Li, and D.G. Brown. (2016) Urbanization and environmental policy effect on the future availability of grazing resources on the Mongolian Plateau: modeling socio-environmental system dynamics. *In press at Environmental Science and Policy*.

Gonzalez, A., B.J. Cardinale, **G.R.H. Allington**, J. Byrnes, F. Isbell, D.G. Brown, K. A. Endsley, M. Loreau, M.I. O'Connor, D.U. Hooper. (2016) Estimating local biodiversity change: a critique of recent papers finding no net loss of local diversity. *Ecology* 97: 1949-1960.

Ernest, S.K.M., G.M. Yenni, **G. Allington**, E.M. Christensen, K. Geluso, J.R. Goheen, M.R. Schutzenhofer, S.R. Supp, K.M. Thibault, J.H. Brown, T.J. Valone. (2016) Long-term monitoring and experimental manipulation of a Chihuahuan Desert ecosystem near Portal, Arizona, USA (2003-2013). *Ecology* 97: 1082.

**Allington, G.R.H.** and T.J. Valone. (2014) Islands of fertility: a byproduct of grazing? *Ecosystems* 17: 127-141.

**Allington, G.R.H.**, D. Koons, S.K.M. Ernest, M. Schutzenhofer, and T.J. Valone, (2013) Biotic resistance, niche opportunities and the reorganization of an annual plant community by an exotic invader. *Ecology Letters* 16: 158-166.

- **Featured in Science Magazine Editor's Choice**
- **Reviewed in Faculty of 1000, Biology**

Shao-Kun, W., W. Mao, **G. Allington**, T-H. Zhang, X-Y. Zhao. (2012) Life history strategy influences biomass allocation in response to limiting nutrients and water in an arid system. *Polish Journal of Ecology* 60: 545-557.

**Allington, G.R.H.** and T.J. Valone (2011) Long-term livestock exclusion is associated with changes in physical properties of soil in an arid grassland. *Rangeland Ecology and Management* 64: 424-428.

**Allington, G.R.H.** and T.J. Valone. (2010) Reversal of desertification is associated with a loss of islands of fertility. *Journal of Arid Environments* 74:973-977.

### **In Preparation:**

**Allington, G.R.H.**, and D.G. Brown. Mapping dynamic processes in arid rangelands: a new ontology for land cover classification. *Under consideration at Ecosphere*.

Fernandez-Gimenez, M., **G.R.H. Allington**, D.G. Brown. Adapting the "Story and Simulation" approach to a complex trans-boundary social-ecological system. *In prep. for Ecology & Society*.

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Magliocco, N., **G.R.H. Allington**, A. deBremond, J. Dell'Angelo, P. Messerli, P. Meyfroidt, O. Mertz, P. Verburg, E. Ellis. Guidelines for producing and assessing global knowledge claims based on local knowledge. *In prep.*

Butt, B. and **G.R.H. Allington**. Degrees of freedom and the politics of arid rangelands: exclosures and inference in the Geographies of Science. *In prep for Ambio.*

### **Conference Proceedings:** \*peer reviewed

\***Allington, G.R.H.**, W. Li and D.G. Brown. (2015) Modeling system dynamics in rangelands of the Mongolian Plateau. In: M.E.Fernandez-Gimenez, B. Baival, S.R. Fassnacht and D. Wilson (Eds.), *Proceedings of the Building Resilience of Mongolian Rangelands: A Trans-disciplinary Research Conference*, Ulaanbaatar, Mongolia, June 9-10, 2015.

Chen, J., R. John, D.G. Brown, C. Shao, **G.R.H. Allington**, Q. Zhuang, J. Xiao, Y. Xie, G. Sun, P. Fan, J. Qi. (2015) LCLUC Synthesis: Ecosystem-society interactions on a changing Mongolian Plateau. 2015 NASA Carbon Cycle & Ecosystems Joint Science Workshop, Washington, D.C.

### **GRANTS & FELLOWSHIPS**

2016	NSF National Socio-Environmental Synthesis Center / LTER Postdoc Fellowship. \$
2015	ESA-Early Career Ecologist Mentoring Awardee. \$300
2011	Dr. Mary Louise Adams Endowed Dissertation Fellowship, SLU. \$23,500
2011	Saint Louis Univ. President's Research Fund Grant (with Dr. T. Valone, P.I.). \$25,000
2010	Saint Louis University Dean's Grant \$500
2010	Saint Louis Univ. Brennan Fellowship for Overseas Conference Travel \$350
2010	G.A. Harris Research Instrument Fellowship, Decagon Devices. \$600
2009	National Science Foundation East Asia & Pacific Summer Institute. \$5,000 + travel costs
2009	American Philosophical Society Lewis & Clark Grant \$2,500
2009	Appleton Whittel Research Ranch Apacheria Fellowship. \$500
2008	Ariel Appleton Research Fellowship, Research Ranch Foundation. \$2,000
2008	Sigma Xi Grants in Aid of Research. \$500

### **COLLABORATIONS**

Symposium. "So, how *do* we link landscape pattern with socio-environmental systems?" for the US-IALE Meeting, Baltimore, MD, April 2017. (Sole organizer). To be convened as a Working Group at SESYNC following the meeting.

Workshop. LCLUC Synthesis: Ecosystem-Society Interactions on a Changing Mongolian Plateau. University of Michigan, Ann Arbor. May 12-13, 2016. (Co-organizer.)

Symposium. "Mapping spatiotemporal pattern & process: re-imagining arid grassland mapping from local to global scales," for the US-IALE Meeting, Asheville, NC. April 2016. (Sole organizer).

Working group. Assessing Global Knowledge Gaps in Local Land Change Studies. SESYNC, Annapolis, MD. Jan 2016.

Workshop. NEESPI Synthesis Workshop: Celebrating ten years of Northern Eurasia Earth Science Partnership Initiative Research: Synthesis and Future Plans. Charles University, Prague. April, 2015.

## INVITED PRESENTATIONS

- Allington, G.R.H.** 2016. Mapping and modelling dynamic processes in arid rangelands. National Socio-Environmental Synthesis Center. Annapolis, MD.
- Cardinale, B. J., **G. Allington**, D.G. Brown, J. Byrnes, J. E. Duffy, L. Gamfeldt, A. Gonzalez, D. U. Hooper, F. Isbell, J. S. Lefcheck, M. Loreau, M. I. O'Connor. 2015. Is biodiversity declining at local scales or not ... and how can we know? FUTURE EARTH: A Symposium on Global Biodiversity Monitoring. Yale University, New Haven, CT. (presented by B. Cardinale)
- Allington, G.R.H.**, W. Li, D.G. Brown. 2015. Modeling system dynamics in rangelands of the Mongolian Plateau. Northern Eurasia Earth Science Partnership Initiative Meeting, Charles University. Prague, Czech Republic. (Poster)
- Allington, G.R.H.** Beyond the degradation paradigm: restoration, resilience and recovery in an era of global change. 2014. School of Natural Resources and Environment, University of Michigan. Ann Arbor, MI.

## CONFERENCE PRESENTATIONS

- Allington, G.R.H.**, L. Wei, D.G. Brown. 2016. Rural land cover change in an era of urbanization: implications for grassland resilience on the Mongolian Plateau. Global Land Project Open Science Meeting, Beijing, China.
- Allington, G.R.H.** 2016. Integrating spatiotemporal pattern & process to create a new ontology for land cover-land use change in rangelands. International Association of Landscape Ecology, US Chapter Mtg. Asheville, NC.
- Allington, G.R.H.** and D.G. Brown. 2015. Leveraging a timeseries of remotely sensed data to better characterize the dynamics of grassland degradation and restoration on the Mongolian plateau. Ecological Society of America annual meeting. Baltimore, MD.
- Cardinale, B. J., **G. Allington**, D. G. Brown, J. Byrnes, J. E. Duffy, L. Gamfeldt, A. Gonzalez, D. U. Hooper, F. Isbell, J. S. Lefcheck, M. Loreau, M. I. O'Connor. 2015. Is biodiversity declining at local scales or not? A critique of recent high-profile claims of no net loss of local biodiversity. Ecological Society of America annual conference. Baltimore, MD. (presented by B. Cardinale)
- Allington, G.R.H.**, W. Li, R. John, J. Chen, D.G. Brown. 2015. Shared and divergent histories drive future dynamics of the Mongolian Plateau. International Association of Landscape Ecology World Congress. Portland, OR.
- Allington, G.R.H.**, W. Li, R. John, J. Chen, D.G. Brown. 2015. Shared and divergent histories drive future dynamics of the Mongolian Plateau. Building Resilience of Mongolian Rangelands Conference. Ulaanbaatar, Mongolia.
- Butt, B. and **G.R.H. Allington**. 2015. Degrees of freedom and the politics of arid rangelands: Enclosures and inference in the geographies of science. Assoc. of American Geographers annual meeting. Chicago, IL. (presented by B. Butt)
- Allington, G.R.H.** 2013. Germplasm conservation of the Missouri flora...and beyond! 23<sup>rd</sup> Annual Systematics Symposium, Missouri Botanical Garden. St. Louis, MO. (poster)
- Allington, G.R.H.** 2013. Germplasm conservation of the Missouri flora...and beyond! 3<sup>rd</sup> Annual Saint Louis Ecology, Evolution and Conservation Retreat. Saint Louis Zoo. St. Louis, MO. (poster)
- Allington, G.R.H.** and T.J. Valone. 2012. Islands of fertility: an artifact of grazing? Ecological Society of America Annual Meeting, Portland OR. (poster)
- Allington, G.R.H.**, M.R. Schutzenhofer and T.J. Valone. 2011. Biotic resistance and the reorganization of an annual plant community by an exotic invader. 1<sup>st</sup> Annual Saint Louis Ecology, Evolution and Conservation Retreat. Principia College, IL. (poster)

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- Allington, G.R.H.**, M.R. Schutzenhofer and T.J. Valone. 2011. Decline in biotic resistance and the reorganization of an annual plant community by an exotic invader. Saint Louis University Graduate Research Symposium. Awarded Third Place Oral Presentation (\$300)
- Allington, G.R.H.** and T.J. Valone. 2011. Islands of fertility: an artifact of grazing? Science on the Sonoita Plain, Annual Symposium of the Sonoita Valley Planning Partnership. Elgin, AZ (poster)
- Allington, G.R.H.** and T.J. Valone. 2010. *Long-term livestock exclusion is associated with changes in perennial grass composition and the physical properties of soil in an arid grassland.* Ecological Society of America Annual Meeting. Pittsburgh, PA. (poster)
- Allington, G.R.H.** and T.J. Valone. 2010. Long-term livestock exclusion is associated with changes in perennial grass composition and the physical properties of soil in an arid grassland. Science on the Sonoita Plain, Annual Symposium of the Sonoita Valley Planning Partnership. Elgin, AZ (poster)
- Allington, G.R.H.** and T.J. Valone. 2010. Long-term livestock exclusion is associated with changes in perennial grass composition and the physical properties of soil in an arid grassland. Saint Louis University Graduate Research Symposium. St. Louis, MO.
- Allington, G.R.H.** and T.J. Valone. 2010. Reversal of desertification is associated with a loss of islands of fertility. International Congress on Conservation Biology. Beijing, China. Awarded First Place Poster Presentation (\$500)
- Allington, G.R.H.** and T.J. Valone. 2008. Investigation of potential mechanisms for the reversal of desertification. Saint Louis University Graduate Research Symposium. Awarded First Place Paper Presentation in Social & Natural Sciences (\$250).
- Allington, G.R.H.** and T.J. Valone. 2008. Reversal of desertification: an empirical unification of existing models. Midwest Ecology and Evolution Conference. Athens, OH
- Allington, G.R.H.** and T.J. Valone. 2008. Reversal of desertification: an empirical unification of existing models. Sigma Xi Research Symposium, Saint Louis University. Awarded Best Graduate Student Research Poster (\$50)

## PROFESSIONAL DEVELOPMENT

### Pedagogy:

- |           |  |
|-----------|--|
| 2016      | Software Carpentry Instructor Training   |
| 2015      | Training for Diversity and Inclusive Teaching (4 sessions), UM CRLT  |
| 2015      | Digital Scholarship Tools to Inspire Teaching, UM CRLT   |
| 2011      | Learning Technologies Workshop, Saint Louis University Center for Teaching Excellence  |
| 2010-2011 | Participated in "Effective Teaching Seminars", SLU Center for Teaching Excellence <ul style="list-style-type: none"><li>• Course Design; Learning Styles; Promoting Discussion in the Classroom; Implementing Teaching Philosophies.</li></ul> |

### Quantitative & Analytical Techniques:

- |      |   |
|------|---|
| 2015 | Software Carpentry: Scientific Computing Bootcamp, University of Michigan                       |
| 2011 | Advanced Data Analysis Techniques in R, University of Missouri St. Louis                        |
| 2011 | InSAR: Interferometric Synthetic Aperture Radar Image Processing, Saint Louis University        |
| 2010 | Integral Projection Modeling Workshop, Washington University in St. Louis                       |
| 2008 | ITT Technologies Workshop at SLU: Feature Extraction with ENVI: from remote sensing data to GIS |
| 2008 | GIS in Biology: Semester course in Species Distribution and Ecological Niche Modeling, SLU      |

## GUEST LECTURES

- |      |  |
|------|--|
| 2011 | Conservation Biology, Saint Louis University. Lectures on Preserve Design and Grazing.             |
| 2010 | Ecology for Non-Majors, Saint Louis University. Lectures on Invasive Species and Conservation Bio. |

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### **PROFESSIONAL SERVICE**

2016- Handling Editor for *Ecosphere*  
2015-2016 Co-organizer for several workshops sponsored by the Early Career Ecologist Section for the 2016 Meeting of the Ecology Society of America  
2012 Organized workshop: “*Halting Attrition: Mentoring and retention of women & minorities in ecology,*” for the Annual Meeting of the Ecological Society of America in Portland, OR  
2011-2012 Representative to the Student Section of the Ecological Society of America  
2009-2011 Saint Louis University Graduate Student Association Representative (Bio Dept.)  
2008- Reviewer for *Journal of Arid Environments; Plant Ecology; Axios; Ecological Indicators; Acta Oecologica; Environmental Research; Remote Sensing*

### **VOLUNTEER SERVICE**

2016 Instructor, Software Carpentry Bootcamp, University of Michigan  
2014 Panelist, Careers in Science Presentation for High School Girls, Saint Louis University  
2013- Board Member, Ozark Regional Land Trust  
2009-2010 Presenter at Careers in Science program by the Academy of Science – St. Louis  
2007-2008 Missouri Botanical Garden - Saint Louis, MO  
2006-2007 Conservation Advisory Committee Member- Town of Red Hook, NY, Chair of the Tree Planting Committee  
2001-2002 NYS ReLeaf- Region 2 Urban and Community Forestry Council, Conference planning committee

### **PROFESSIONAL ASSOCIATIONS**

Ecological Society of America (former Member of Student Section Committee on Women & Minorities);  
International Association of Landscape Ecology  
American Geophysical Union