

# Corinna Riginos

## Curriculum Vitae

Berry Biodiversity Conservation Center  
University of Wyoming  
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### EDUCATION

- PhD 2008 **University of California, Davis: Ecology.**  
Dissertation: Tree-grass interactions in an East African savanna: the role of wild and domestic herbivores  
Graduate advisor: Truman P. Young
- BS 2000 **Brown University: Environmental Science (*Magna Cum Laude*)**

### POSITIONS

- 2012- Berry Biodiversity Conservation Postdoctoral Fellow, University of Wyoming  
2008-2012 Council on Science and Technology Postdoctoral Fellow and Lecturer, Princeton University  
2000-2002 Fulbright U.S. Student Scholar, University of Stellenbosch, South Africa

### RESEARCH EXPERIENCE

- 2008-2012 Postdoctoral research: Led design and execution of studies on (a) using livestock to engineer rangelands for wildlife conservation, (b) spatial dynamics of ecosystem functioning, breakdown, and restoration in an African savanna. Additionally, developed methods and manual for pastoralist-based rangeland monitoring under contract from USAID / CARE International. Currently being used on 35,000 km<sup>2</sup> in sub-Saharan Africa.  
Collaborators: Jayne Belnap, Jeff Herrick, Daniel Rubenstein, Kelly Caylor
- 2003-2005 Doctoral dissertation research: Led design and execution of a series of studies to test causes and consequences of increases in woody vegetation in an African savanna. Statistical modeling and field experimentation.  
Advisor: Truman Young
- 2000-2002 Fulbright fellowship: Effects of livestock grazing and disturbance on population and community ecology of succulent shrubs, Succulent Karoo, South Africa.  
Advisors: Suzanne J. Milton, M. Timm Hoffman
- 1999-2000 Honors thesis research: Maternal effects of drought stress and inbreeding on a New England forest herb. Advisors: Johanna Schmitt, M. Shane Heschel

## FELLOWSHIPS & AWARDS

2012	Berry Conservation Postdoctoral Fellowship, University of Wyoming
2008-2011	Council on Science and Technology Postdoctoral Fellowship, Princeton University
2009	Shapiro Award for Academic Excellence, given annually to the best graduating Ph.D. student in the Ecology Graduate Group, UC Davis
2003-2007	National Science Foundation Graduate Research Fellowship
2003-2004	Graduate Scholars Fellowship, University of California, Davis
2000-2002	Fulbright Fellowship
2000	Phi Beta Kappa, Brown University

## RESEARCH GRANTS

Pending	NSF Long-term Research in Environmental Biology: KLEE: Scaling up and scaling out at the Kenya Long-term Exclosure Experiment in Laikipia rangelands (decadal renewal). (\$449,900). <i>Lead author and Co-PI.</i>
2010-2012	Livestock-Climate Change CRSP: A cost-effectiveness framework for landscape rehabilitation and carbon sequestration in northern Kenya. (\$80,000). <i>Lead author and Co-PI.</i>
2008-2011	Princeton University Water, Savannas, and Society Initiative: Can simulated cattle migrations facilitate wild herbivores? (\$150,000) <i>Lead author and Co-PI.</i>
2008-2013	NSF Long-term Research in Environmental Biology: KLEE: Scaling up and scaling out at the Kenya Long-term Exclosure Experiment in Laikipia rangelands (\$499,800) <i>Co-author and Co-PI.</i>
2008-2010	NSF International Research Fellowship Program: Can simulated cattle migrations facilitate wild herbivores? (\$25,000) <i>Author and PI.</i>
2006	Phi Beta Kappa, Northern California Association (\$5,000)
2005-2007	NSF Doctoral Dissertation Improvement Grant: Tree-grass interactions in an East African savanna: the role of wild and domestic herbivores. (\$12,000)
2005	Ben Madson Research Fellowship, Department of Plant Sciences, UC Davis (\$2,000)
2004, 2005, 2007	Jastro-Shields Research Fellowship, Ecology Graduate Group, UC Davis (\$2,500 each)

## CONTRACTS

2009-2012	USAID and Laikipia Wildlife Forum, Kenya: Sub-contract to provide training and support for rangeland monitoring and to develop a database for archiving monitoring data in Laikipia, Kenya (\$36,000) <i>Project Leader.</i>
2009-2010	USAID and CARE International: Sub-contract to produce a monitoring manual for the Horn of Africa region (\$50,000) <i>Project Leader.</i>

## PEER REVIEWED PUBLICATIONS

### In Review

**Riginos, C.** Climate alters the landscape of fear in an African savanna. *Ecology Letters*.  
Porensky, L.M., S.E. Wittman, C. **Riginos**, and T.P. Young. Herbivory and drought interact to enhance diversity and spatial patterning in a savanna understory. *Oecologia*.

### In Press

**Riginos, C.**, L.M. Porensky, K.E. Veblen, W.O. Odadi, R.L. Sensenig, D. Kimuyu, F. Keesing, M.L. Wilkerson, and T.P. Young. Lessons on the relationship between pastoralism and biodiversity from the Kenya Long-term Exclosure Experiment (KLEE). *Pastoralism*.

Donihue, C.M., L.M. Porensky, J. Foufopoulos, C. **Riginos**, and R.M. Pringle. Glade cascades: indirect legacy effects of pastoralism enhance the abundance and spatial structuring of arboreal fauna. *Ecology*.

Herrick, J.E., S. Andrews, G. Baldi, B.T. Bestelmeyer, J. Brown, J. Davies, M. Duniway, K.M. Havstad, D. Peters, J. Quinton, C. **Riginos**, P. Shaver, D. Steinaker, and S. Twomlow. Revolutionary land use change in the 21<sup>st</sup> century: is rangeland science relevant to ‘marginal lands’? *Rangeland Ecology and Management*.

### 2011

**Riginos, C.**, J.E. Herrick, S.R. Sundaresan, C. Farley, and J. Belnap. 2011. A simple graphical approach to quantitative monitoring of rangelands. *Rangelands* 133: 6-13.

Sundaresan, S.R., C. **Riginos**, and E.S. Abelson. 2011. Management and analysis of camera trap data: alternative approaches (response to Harris et al., 2010). *Bulletin of the Ecological Society of America*. April 2011.

Augustine, D.J., K.E. Veblen, J.R. Goheen, C. **Riginos** & T.P. Young. 2011. Pathways for positive cattle-wildlife interactions in semi-arid rangelands. In *Conserving Wildlife in African Landscapes: Kenya's Ewaso Ecosystem* (N.J. Georgiadis, ed.). Smithsonian Contributions to Zoology Number 632: 55-72.

### 2010

**Riginos, C.** and J.H. Herrick. 2010. *Monitoring Rangeland Health: A Guide for Pastoralist Communities and Other Land Managers in Eastern Africa, Version II*. Nairobi, Kenya: ELMT-USAID/East Africa. <http://jornada.nmsu.edu/monit-assess/manuals/StickMethod>

Treydte, A.C., C. **Riginos**, and F. Jeltsch. 2010. Enhanced use of beneath-canopy vegetation by grazing ungulates in African savannahs. *Journal of Arid Environments* 74: 1597-1603.

Sundaresan, S., and C. **Riginos**. 2010. Lessons learned from biodiversity conservation in the private lands of Laikipia, Kenya. *Great Plains Research* 20: 2-10.

Goheen, J.R., T. M. Palmer, F. Keesing, C. **Riginos**, and T.P. Young. 2010. Large herbivores facilitate savanna tree establishment via diverse and indirect pathways. *Journal of Animal Ecology* 79: 372-382.

### 2009

**Riginos, C.,** J.H. Herrick, J. Belnap, S.R. Sundaresan, J.S. Worden, and M.F. Kinnaird. 2009. *Monitoring Rangeland Health: A Guide for Facilitators and Pastoralist Communities, Version I.* Nairobi, Kenya: ELMT-USAID/East Africa.

**Riginos, C.,** J.B. Grace, D.J. Augustine, and T.P. Young. 2009. Local versus landscape-scale effects of savanna trees on grasses. *Journal of Ecology*, 97: 1337-1345.

**Riginos, C.** 2009. Grass competition suppresses savanna tree growth across multiple demographic stages. *Ecology* 90: 335-340.

## 2008

**Riginos, C.,** and J.B. Grace. 2008. Tree density, wild ungulate habitat use and the herbaceous community in a Kenyan savanna: Top-down versus bottom-up effects. *Ecology* 89: 2228-2238.

Okello, B.D., T.P. Young, **C. Riginos,** D. Kelly and T. O'Connor. 2008. Short-term survival and long-term mortality of *Acacia drepanolobium* after a controlled burn. *African Journal of Ecology* 46:395-401.

## 2007

**Riginos, C.,** M.S. Heschel, and J. Schmitt. 2007. Maternal effects of drought stress and inbreeding in *Impatiens capensis* (Balsaminaceae). *American Journal of Botany* 94: 1984-1991.

**Riginos, C.** and T.P. Young. 2007. Positive and negative effects of grasses and wild and domestic herbivores on *Acacia* saplings in an East African savanna. *Oecologia* 153: 985-995.

## 2005

**Riginos, C.,** S.J. Milton, and T. Wiegand. 2005. Context-dependent interactions between adult shrubs and seedlings in a semi-arid shrubland. *Journal of Vegetation Science* 16: 331-340.

Heschel, M.S. and **C. Riginos.** 2005. Mechanisms of selection for drought stress tolerance and avoidance in *Impatiens capensis* (Balsaminaceae). *American Journal of Botany* 92: 37-44.

## 2003

**Riginos, C.** and M.T. Hoffman. 2003. Changes in population biology of two succulent shrubs along a grazing gradient. *Journal of Applied Ecology* 40: 615-625.

## TEACHING & MENTORING

### Teaching

Fall 2012	Instructor, ECOL 5620: Conservation and Management of Grazing Systems, University of Wyoming
Spring 2009, 2010, 2011, 2012	Instructor, EEB 320: Ecology and Conservation of African Landscapes, Princeton University
Spring 1999, 2000	Teaching Assistant, ES 12: Science in Environmental Issues, Brown University
Summer and fall 1999	Course development, ES 12: Science in Environmental Issues, Brown University (Re-designed laboratory section of course)

### **Student and Internship Supervision**

- Megan Karande (senior thesis project, Princeton University) 6/12-present.
- David Kimiti (M.Sc. program, University of Nairobi), 11/10-7/12
- Elizabeth Wakoli (M.Sc. program, Moi University), David Melly (B.Sc. program, University of Nairobi), 04/12-07/12
- Irene Njoki and Moses Kioko (B.Sc. program, University of Nairobi) 07/11-08/11
- Ashwin Kampambathi (B.A. program, Oberlin College), 07/10 and 01/11
- Jennifer Balachowski (Ph.D. program, University of California, Davis), 07/10-09/10
- Christa Anderson (M.Sc. program, Yale University School of Forestry and Environmental Studies) 02/08 – 05/09.
- Alyce Johnson (B.Sc. program, University of Missouri) 06/08 – 08/08

### **SERVICE, LEADERSHIP & OUTREACH**

- Led a team of scientists and worked with local stakeholders, NGOs, and international agencies to design user-friendly rangeland monitoring protocols for eastern Africa. Wrote and produced an illustrated monitoring manual (100 pages). More than 1000 copies of the manual have been distributed to managers, pastoralist communities, government agents, and NGOs in various parts of Africa. Monitoring methods are being used over large parts of Kenya and Namibia.
- Regularly hold workshops and one-on-one training in rangeland monitoring in Kenya and Ethiopia.
- Founder and Editor-in-Chief (2008-2011) of *Mpala Memos*, quarterly newsletter of the Mpala Research Centre.
- Project Manager, Kenya Long-term Exclusion Experiment, Mpala Research Centre, Kenya, 2005-2008. Supervised and managed activities of staff and vehicle fleet for major field research project.
- Reviewer for *Ecology*, *Journal of Ecology*, *Journal of Arid Environments*, *Journal of East African Natural History*, *Ecography*, and *Forest Ecology and Management* as well as National Science Foundation proposals and book chapters.

### **Outreach Publications**

- Riginos, C. 2006. Cattle, wildlife, and grasses affect bush encroachment. (“KLEE Corner” #7). Laikipia Wildlife Forum Newsletter. July Issue.
- Riginos, C. Tree density affects wild herbivore habitat preferences. Laikipia Wildlife Forum Newsletter July 2007.
- Riginos, C. Kenya Long-Term Exclusion Experiment comes of age. Mpala News August 2007.
- Young, T.P. and C. Riginos. 2008. (KLEE Corner #9) Cattle do compete with wildlife even if they are "compatible". Laikipia Wildlife Forum Newsletter January 2008.
- Riginos, C. 2008. Pictorial Guide to the Common Grasses of the Black Cotton Ecosystem of Laikipia.
- Riginos, C. and M. Kinnaird. 2008. What role should Mpala Research Centre and Ranch play in Laikipia? Laikipia Wildlife Forum Newsletter July 2008.
- Riginos, C. 2009. Can cattle grazing create good habitat for wildlife? Mpala Memos July 2009.
- Riginos, C. 2010. Monitoring made easy. Mpala Memos January 2010.

Riginos C. 2010. Simple tools for monitoring rangelands. LWF Newsletter January 2010.  
Porensky, L.M., C. Riginos, J. Balachowski, and Jayne Belnap. 2011. Guide to Monitoring  
Boma Sites, Version 3. Available Online: [http://www.mpala.org/Monitoring\\_Guide.php](http://www.mpala.org/Monitoring_Guide.php)  
Riginos C. 2011. Monitoring the land: why it's important -- and easy. LWF E-news. November  
2011.

## **PROFESSIONAL AFFILIATIONS**

- Society for Conservation Biology
- Ecological Society of America

## **LANGUAGES**

- Modern Greek: reading, writing, and speaking fluency
- Afrikaans: intermediate reading, writing, and speaking
- Swahili: intermediate reading, writing, and speaking