

# Stephanie Eby

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## EDUCATION

**Syracuse University**, College of Arts and Sciences, Syracuse, NY

Ph.D. in Biology, May 2010

Dissertation: Fire and the reasons for its influence on mammalian herbivore distributions in an African savanna ecosystem

Advisor: Dr. Mark Ritchie

**Bates College**, Lewiston, ME

B.S. in Biology, May 2002

Honors Thesis: Does mating display locomotion provide information about fitness in guppies (*Poecilia reticulata*)?

Advisor: Dr. Shyril O'Steen

**School for Field Studies**, Center for Wildlife Management, Kenya, East Africa, Study abroad, Spring 2001

Directed Research: Grazing capacity and rangeland assessment of the grasslands in Nairobi National Park, Kenya

Advisor: Dr. Wayne Vos

## TEACHING EXPERIENCE

*Full-time Lecturer*, Department of Marine & Environmental Sciences, Northeastern University, Boston, MA

Present

*Visiting Assistant Professor*, Department of Biology, College of the Holy Cross, Worcester, MA

Fall 2014-Spring 2015

*Visiting Lecturer*, Department of Marine & Environmental Sciences, Northeastern University, Boston, MA

Fall 2013-Summer 2014

*Visiting Lecturer*, Department of Natural Sciences, Assumption College, Worcester, MA

Fall 2013-Spring 2014

*Visiting Lecturer*, Department of Biology, Framingham State University, Framingham, MA

Fall 2011, Fall 2012-Spring 2014

*Visiting Lecturer*, Department of Biology, Simmons College, Boston, MA

Fall 2013

*Graduate Teaching Assistant*, Department of Biology, Syracuse University, Syracuse, NY

2005-2009

## COURSES TAUGHT

Introductory Biology – Laboratory and Recitation Sections

Animal Behavior – Lecture and Laboratory Sections

Geographic Information Systems – Lecture and Laboratory Sections

Conservation Science – Lecture Sections

Introductory Biology 2: Mechanisms of Multicellular Life – Lecture Sections

Ecology – Lecture Sections

## POSTDOCTORAL RESEARCH EXPERIENCE

*Postdoctoral Associate*, Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT/Department of Biology, Colorado State University, Fort Collins, CO, December 2011-August 2013

*Postdoctoral Research Associate*, Department of Ecology and Evolutionary Biology, Princeton University, Princeton, NJ, August 2010-July 2011

## **INVITED PRESENTATIONS** (since 2009)

- Eby, S. The effects of herbivore loss and fire on plant communities in a North American and South African savanna grassland. Marine Biological Laboratory Ecosystems Center Seminar Series, April, 21 2015.
- Eby, S. Does the Serengeti National Park's fire management plan help improve tourists' experiences? Babson Science Seminar, Babson College, February, 20 2014.
- Eby, S. Do ferocious predators or yummy food influence herbivore preference for burned areas? Biology Department Seminar, Stonehill College, December 6, 2013.
- Eby, S. Fire and the reasons for its influence on mammalian herbivore distributions in an African savanna ecosystem. Natural Science Seminar Series, Assumption College, October 21, 2013.
- Eby, S. Fire as a management tool: Impacts on African herbivores and carnivores. Wildlife Conservation Society, May 26, 2011.
- Eby, S. Ferocious predators and yummy food influence herbivore preference for burned areas. Woods Hole Research Center, April 29, 2011.
- Eby, S. Herbivore attraction to burned areas in Serengeti National Park, Tanzania: Increased nutrition or decreased predation? Biology Department Seminar, Union College, April 23, 2009.
- Eby, S. Does predation or nutrition determine herbivore distribution? Tufts Ecology Reading Group, Tufts University, March 13, 2009.

## **PROFESSIONAL PRESENTATIONS** (since 2009)

- Eby, S., M.D. Smith, A.K. Knapp, S.L. Collins, N. Govender, K. Kirkman, R.W.S. Fynn, D.E. Burkepile, N. Hagenah, K. Matchett, D. Thomson, S.E. Koerner, K. Wilcox and C.E. Burns. Grazing and fire have differing impacts on plant communities in North American and South African savanna grasslands. Ecological Society of America Annual Meeting, August 2012, Portland, Oregon.
- Eby, S. The impact of burning on herbivore distributions: Examining the roles of bottom-up and top-down processes. Ecological Society of America Annual Meeting, August 2011, Austin, Texas.
- Eby, S. Fire as a management tool: Impacts on mammalian herbivores. Student Conference on Conservation Science, November 2010, New York, New York.
- Eby, S.L. and M.E. Ritchie. The impact of burning on lion (*Panthera leo*) habitat choice in an African savanna. Ecological Society of America Annual Meeting, August 2010, Pittsburgh, Pennsylvania.
- Eby, S., M.E. Ritchie and E.P. Mayemba. Fire and its impacts on herbivore distributions in Serengeti National Park, Tanzania. 7<sup>th</sup> TAWIRI Scientific Conference, December 2009, Arusha, Tanzania.
- Eby, S.L. and M.E. Ritchie. The role of predators and plant nutrients in herbivore preference for burned areas in Serengeti National Park, Tanzania. Ecological Society of America Annual Meeting, August 2009, Albuquerque, New Mexico.
- Eby, S. Is increased nutrition or decreased predation the reason for herbivore attraction to burned areas in Serengeti National Park, Tanzania? Ontario Ecology and Ethology Colloquium, April 2009, Queen's University, Kingston, Ontario.
- Eby, S. Does predation or nutrition determine herbivore distribution? 33<sup>rd</sup> Annual Ecology and Evolutionary Biology Graduate Student Symposium, January 2009, Cornell University, Ithaca, New York.

## **PUBLICATIONS**

- Eby, S., J. Dempewolf, R.M. Holdo, and K.L. Metzger. 2015. Fire in the Serengeti Ecosystem: history, drivers, and consequences. In *Serengeti IV: Sustaining biodiversity in a coupled human-natural system*. A.R.E. Sinclair, K.L. Metzger, S.A.R. Mduma, and J.M. Fryxell (eds), pp. 73-104. The University of Chicago Press: Chicago.

- Eby, S.L., T.M. Anderson, E.P. Mayemba, and M.E. Ritchie. 2014. The effect of fire on habitat selection of mammalian herbivores: the role of body size and vegetation characteristics. *Journal of Animal Ecology* 83: 1196-1205.
- Eby, S., D.E. Burkepile, R.W.S. Fynn, C.E. Burns, N. Govender, N. Hagenah, S.E. Koerner, K.J. Matchett, D.I. Thompson, K.R. Wilcox, S.L. Collins, K.P. Kirkman, A.K. Knapp, and M.D. Smith. 2014. Loss of a large grazer impacts savanna grassland plant communities similarly in North America and South Africa. *Oecologia* 175(1):293-303.
- Koerner, S.E., D.E. Burkepile, R.W.S. Fynn, C.E. Burns, **S. Eby**, N. Govender, N. Hagenah, K.J. Matchett, D.I. Thompson, K.R. Wilcox, S.L. Collins, K.P. Kirkman, A.K. Knapp, and M.D. Smith. 2014. Plant community response to loss of large herbivores differs between North American and South African savanna grasslands. *Ecology* 95:808-816.
- Eby, S., A. Mosser, A. Swanson, C. Packer, and M. Ritchie. 2013. The impact of burning on lion (*Panthera leo*) habitat choice in an African savanna. *Current Zoology* 59(3):335-339.
- Eby, S.L. and M.E. Ritchie. 2013. The impacts of burning on Thomson's gazelles', *Gazella thomsonii*, vigilance in Serengeti National Park, Tanzania. *African Journal of Ecology* 51(2):337-342.
- Strauch, A.M. and **S. Eby**. 2012. The influence of fire history on the abundance of *Maerua subcordata* in the Serengeti National Park, Tanzania. *Journal of Plant Ecology* 5(4):400-406.
- O'Steen, S., **S. Eby**, and J.A. Bunce. 2010. Dynamically honest displays: courtship locomotor performance indicates survival in guppies. *Functional Ecology* 24(5):1045-1053.
- Anderson, T.M., J.G.C. Hopcraft, **S. Eby**, M.E. Ritchie, J.B. Grace, and H. Olf. 2010. Landscape scale analyses suggest both nutrient and anti-predator advantages to Serengeti herbivore hotspots. *Ecology* 91(5):1519-1529.
- Anderson, T.M., M.E. Ritchie, E. Mayemba, **S. Eby**, J.B. Grace, and S.J. McNaughton. 2007. Forage nutritive quality in the Serengeti ecosystem: the roles of fire and herbivory. *American Naturalist* 170(3):343-357.
- Dempewolf, J., S. Trigg, R.S. DeFries, and **S. Eby**. 2007. MODIS derived burned area mapping of the Serengeti-Mara region. *IEEE Geoscience and Remote Sensing Letters*. 4(2): 312-316.