Catherine Sun

New York Cooperative Fish and Wildlife Research Unit
Department and Field of Natural Resources, Cornell University
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Education

2014 – Present	**PhD student**, Cornell University, Ithaca, NY 14853 Department of Natural Resources, Advisors: Angela K. Fuller, Matthew P. Hare
2010 – 2014	**Masters of Science**, Cornell University, Ithaca, NY 14853 Thesis: *Estimating black bear (Ursus americanus) population density in the Southern Black Bear Range of New York with a non-invasive, genetic, spatial capture-recapture study* Advisors: Angela K. Fuller, Matthew P. Hare
2006 – 2010	**Bachelors of Science** in Biological Sciences Thesis: *Quantifying the impact of non-native plants on spider abundance and species richness* GPA: 3.863

Research Experience

2010 – Present	Cornell University – Masters and PhD research
2010	Delaware State University – Research assistant, Dr. Chris Heckscher
2008 – 2010	University of Delaware – Honors Senior Thesis
2008	Smithsonian National Museum of Natural History – Research Intern, Dr. Jon Norenburg

Publications & Select Presentations

Sun, C., A.K. Fuller, and J. A. Royle. 2014. Trap Configuration and Spacing Influences Parameter Estimates in Spatial Capture Recapture Models. PLoS ONE 9(2): e88025. doi:10.1371/journal.pone.0088025

Heckscher, C.M., S. M. Taylor, and **C.C. Sun**. 2014. Veery (*Catharus fuscescens*) Nest Architecture and the Use of Alien Plant Parts. The American Midland Naturalist, 171(1):157-164. doi:http://dx.doi.org/10.1674/0003-0031-171.1.157

Royle, J.A., R. B. Chandler, **C.C. Sun**, and A. K. Fuller. 2013. Integrating resource selection information with spatial capture-recapture. Methods in Ecology and Evolution, 4:520-530. doi:10.1111/2041/-210X. 12039

Sun, C. C., A. K. Fuller, J. A. Royle, and M. Hare. Joint estimation of black bear resource selection and population density. The Wildlife Society Annual Conference, Milwaukee, WI. October 7, 2013.

Sun, C. C., A. K. Fuller, J. A. Royle, and M. Hare. Joint estimation of black bear resource selection and population density. International Bear Association Conference, September 19, 2013.

Sun, C.C., A. K. Fuller, J.A. Royle, and M. Hare. Comparing recently developed spatial and traditional non-spatial methods of estimating population size. Department of Natural Resources, Cornell University. Graduate Student Symposium, January 18, 2013.

Sun, C.C., A, K. Fuller, J. A. Royle, and M. P. Hare. 2012. Use of a spatially-explicit capture recapture model for estimating population size of black bears in south-western New York. Invited presentation, The Wildlife Society Annual Conference, Portland, OR. October 14, 2012.

Sun, C.C., A. K. Fuller, J. A. Royle, and M. P. Hare. 2012. Exploring sampling schemes in spatial capture-recapture studies using simulations. 68 Annual Northeast Fish and Wildlife Conference, Charleston, WV. April 15, 2012.

Sun, C. C., A. K. Fuller, J. A. Royle, and M. P. Hare. 2012. Using simulations to explore sampling schemes in mark-recapture studies. Department of Natural Resources, Cornell University, Graduate Student Association Symposium. January 19, 2012.

Teaching Experience

Principles of Modeling Workshop – Teaching Assistant, TWS Annual Conference (2013)
NTRES 4200 – Lecture, Lab Teaching Assistant, Dept. of Natural Resources, Cornell University (2010)
BISC 207 – Lab Teaching Assistant, Dept. of Biological Sciences, University of Delaware (2010)

Professional Service and Outreach

President, Graduate Student Assembly (2013-2014)
Treasurer, Graduate Student Assembly (2011-2012)
Organizational Committee, GSA Annual Research Symposium (2012, 2014)
Grant Review Panelist, Andrew W. Mellon, Kieckhefer Adirondack Fellowship Grants (2013, 2014)

Awards, Fellowships & Training

Cornell University Conference Grant (2013)
Doris Duke Charitable Foundation Conservation Fellowship (2011)
University of Delaware Eugene S. DuPont Scholarship (2006-2010)
National Science Foundation EPSCoR Scholarship EPS-0447610 (2009)
University of Delaware Women of Promise Award (2008)

Hierarchical models for abundance, distribution and species richness in spatially structure populations using unmarked/R and WinBUGS, Patuxent Wildlife Research Center (2012)
Smithsonian Molecular Evolution Workshop: Special Session on Phylogenetics (2009)
Delaware Division of Fish and Wildlife, Horseshoe Crab Green Eggs and Sand Workshop (2009)