



Rebecca L. Cain

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Scan for website

PRIMARY RESEARCH INTERESTS

Wildlife Ecology and Management, Landscape Ecology, Ecological Modeling, Spatial Ecology

CURRENT POSITION

Graduate Research Assistant, Ph.D. Student **July 2014 – present**
Department of Fisheries and Wildlife, Michigan State University, East Lansing, MI

Boone and Crockett Fellow **July 2014 – present**
Boone and Crockett Quantitative Wildlife Center at Michigan State University, East Lansing, MI

EDUCATION

Doctor of Philosophy in Fisheries and Wildlife **2018**

Michigan State University, East Lansing, MI
Research Advisors: Dr. William F. Porter, Dr. David M. Williams
Dissertation: *Evaluating the impacts of landscape-level changes on the abundance and distribution of record book white-tailed deer across a large geographic region*

Master of Earth & Environmental Resources Management **2014**

The University of South Carolina, Columbia, SC
Research Advisor: Dr. Jill T. Anderson
Thesis: *A Quantitative Analysis of White-Tailed Deer Harvests across States and Counties*

Career Diploma in Wildlife/Forestry Conservation **2014**

Penn Foster Career School, Scranton, PA (online)

Bachelor of Science in Biological Sciences **2011**

Clemson University, Clemson, SC
Major Advisor: Dr. Michael Childress
Senior Thesis: *Hunting as a Population Management Technique for White-Tailed Deer*

CERTIFICATIONS

Official Measurer, Boone and Crockett Club, June 2015

Deer Steward II, Quality Deer Management Association, June 2014

Deer Steward I, Quality Deer Management Association, January 2014

PUBLICATIONS

Technical Publications (Peer-reviewed)

Cain, R. L. 2015. Evaluating the Spatial and Temporal Distributions of Trophy White-Tailed Deer in the Midwestern United States. Proceedings of the 10th Annual Graduate Student Organization Research Symposium.

Cain, R. L. 2014. How can we manage white-tailed deer effectively? A multistate model approach. Proceedings of the 37th Annual Meeting of the Southeast Deer Study Group. Available: http://www.sedsg.com/docs/2014_proceedings.pdf

Cain, R. L. 2014. A Quantitative Analysis of White-Tailed Deer Harvest across States and Counties. Scholar Commons, Theses and Dissertations. Available: <http://scholarcommons.sc.edu/etd/2645/>

Popular Articles

Cain, R. L., and D. M. Williams. "B&C Records: Why they began, how far they have come, and where they can go." *Fair Chase – the Official Publication of the Boone and Crockett Club*. Fall 2016. pp. 74-76.

Cain, R. L. 2016. "Cracking the Monster Buck Mystery." *Wisconsin's Whitetail Classic – Published Annually by the Wisconsin Buck & Bear Club*. 2016. pp. 30.

Cain, R. L. 2016. "Thank You Michigan Chapter of SCI." *The Tracker- Publication of Michigan Chapter of Safari Club International*. Summer 2016. pp. 8-9.

Manuscripts in Review or Preparation

Cain, R. L., and J. T. Anderson. Effects of White-tailed Deer Hunting Regulations on Hunter Effort and Harvest. *Wildlife Society Bulletin (In prep)*

Snow, N. P., D. M. Williams, **R. L. Cain**, and W. F. Porter. Large-Scale Factors Associated with Trophy White-Tailed Deer Harvest in the Midwest United States. *(In prep)*

TEACHING EXPERIENCE

Teaching Assistant, Introduction to the Environment (ENVR 101L)

August 2012 to May 2014

University of South Carolina, Columbia, SC

- * Responsible for overseeing two sections of the Lab (8 total, 2 each semester); Communicated science to non-science majors (25 to 30 students in each section); Graded course work and proctored exams
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LEADERSHIP TRAINING

Graduate Student Leadership Academy, Michigan State University Office of Student Life and Wellness, East Lansing, MI, **2015 to April 2015**.

I was one out of the 25 graduate students accepted to the academy, and accepted based on my past leadership experiences.

AWARDS & FELLOWSHIPS

2015

Graduate Research Assistantship, “Landscape ecology of trophy white-tailed deer in the upper Mississippi Valley and Great Lakes Region”, Division of Wildlife, Michigan Department of Natural Resources, 2015 to 2018. **\$148,400**

Joseph G. Schotthoefer Memorial Student Award, Michigan Involvement Committee, Safari Club International, October 2015. **\$1,100**

Graduate Student Recognition Fellowship Award, Department of Fisheries and Wildlife, Michigan State University, June 2015. **\$250**

Department of Fisheries and Wildlife Graduate Student Organization Travel Award, Michigan State University, May 2015. **\$110**

2014

Deer Steward II Course Student Scholarship, Quality Deer Management Association, June 2014. **\$750**

South Carolina Wildlife Federation Scholarship, D. L. Scurry Foundation and the Riverbanks Conservation Support Fund, South Carolina Wildlife Federation, February 2014. **\$500**

2012

Instructional Assistant Fellowship, School of the Earth, Ocean and Environment, University of South Carolina, 2012-2014. **\$30,500**

2010

South Carolina Enhanced LIFE Scholarship, South Carolina Education Lottery, The State of South Carolina, August 2010 to December 2011. **\$11,250**

2008

South Carolina LIFE Scholarship, South Carolina Education Lottery, The State of South Carolina, August 2008 to July 2009. **\$5,000**

Lexington Elementary School PTA Scholarship, Parent-Teacher Association, Lexington Elementary School, 2008. **\$500**

HONORS

Academic Honors

Outstanding M.E.E.R.M. Student in Research, University of South Carolina School of the Earth, Ocean, & Environment, 2014

Golden Key International Honour Society Member, University of South Carolina, 2012

Cum Laude Honor Graduate, Clemson University, December 2011

National Leadership & Honors Organization Sigma Alpha Lambda Member, Clemson University, 2010

Dean’s List, Department of Biological Sciences, Clemson University, Fall 2010, Spring 2011, Fall 2011

President’s List, Clemson University, Spring 2010, Summer 2010, Summer 2011

Other Honors

Executive Committee Member, Fisheries and Wildlife Graduate Student Organization, 2015-present

Employee of the Month, Dick’s Sporting Goods, June 2012

President's Award, Clemson University Chapter of the Block & Bridle Club, 2011

Executive Committee Member, Clemson University Chapter of the Block & Bridle Club, 2009-2011

PRESENTATIONS

2016

- (9) **Cain, R. L.** Deer Vulnerability. Presented at the 40th Annual Midwest Deer and Wild Turkey Study Group Meeting. August 2016. Carrollton, KY.
- (8) **Cain, R. L.**, D. M. Williams, and W. F. Porter. Record Book Bucks: Assessing Spatially Explicit Trends in Antler Size and Landscape Characteristics that Influence Variation. Presented at *the 2016 Annual Meeting of the Michigan Chapter of The Wildlife Society*. April 2016. Gaylord, Michigan.
- (7) **Cain, R. L.**, D. M. Williams, and W. F. Porter. Spatially explicit assessment of landscape characteristics influencing trophy white-tailed deer harvests through time. Presented at *the 76th Midwest Fish and Wildlife Conference*. January 2016. Grand Rapids, Michigan.

2015

- (6) **Cain, R. L.**, D. M. Williams, W. F. Porter. The Big Buck Dilemma: Assessing the Influence of Landscape Characteristics on Boone and Crockett Record White-Tailed Deer Antler Scores. Poster Presentation at *The Wildlife Society 22nd Annual Conference*. October 2015. Winnipeg, Manitoba, Canada.
- (5) **Cain, R. L.** Landscape Ecology of Trophy White-tailed Deer. Presented at *the QDMA Branch/Cooperative Leaders Training Workshop*. August 2015. Roscommon, Michigan.
- (4) **Cain, R. L.** The Ecology of Trophy Whitetails. Presented at the *Michigan Chapter of Safari Club International Members Meeting*. May 2015. Hudsonville, Michigan.
- (3) **Cain, R. L.**, Williams, David M., Porter, William F., Rudolph, Brent. Evaluating the Spatial and Temporal Distributions of Record White-Tailed Deer in the Midwestern United States. Presented at the *10th Annual Fisheries and Wildlife GSO Research Symposium*. February 2015. East Lansing, Michigan.

2014

- (2) **Cain, R. L.** A Quantitative Analysis of White-Tailed Deer Harvest across States and Counties. Presented at the *University of South Carolina Masters Thesis Defense for Rebecca Cain*. March 2014. Columbia, South Carolina.
- (1) **Cain, R. L.** How can we manage white-tailed deer effectively? A multistate model approach. Poster Presentation at *The 37th Annual Meeting of the Southeast Deer Study Group*. February 2014. Athens, Georgia.

CONFERENCES & SYMPOSIA

40th Annual Midwest Deer & Wild Turkey Study Group Meeting – Carrollton, KY – August 2016

2016 Annual Meeting of the Michigan Chapter of The Wildlife Society – Gaylord, MI – April 2016

76th Midwest Fish and Wildlife Conference – Grand Rapids, MI – January 2016

The Wildlife Society 22nd Annual Conference – Winnipeg, Manitoba, Canada – October 2015

39th Annual Midwest Deer & Wild Turkey Study Group Meeting – Lake Delton, WI – September 2015

QDMA Branch/Cooperative Leader Training Workshop – Roscommon, MI – August 2015

Michigan Chapter of Safari Club International Members Meeting – Hudsonville, MI – May 2015

Michigan Chapter of The Wildlife Society Annual Meeting – Clare, MI – March 2015

The 10th Annual Fisheries and Wildlife GSO Research Symposium – East Lansing, MI – February 2015

The Wildlife Society 21st Annual Conference – Pittsburgh, PA – October 2014

Michigan Department of Natural Resources Annual Meeting – Roscommon, MI – August 2014

The 37th Annual Meeting of the Southeast Deer Study Group – Athens, GA – February 2014

OUTREACH & PROFESSIONAL ENGAGEMENT

International and National Activity

Boone and Crockett Club – Official Measurer

Boone and Crockett Club – Sponsor Associate

Quality Deer Management Association – Deer Steward II Course Graduate

Quality Deer Management Association – Member

The Wildlife Society – Member

The Hunting, Trapping, and Conservation Working Group of the Wildlife Society – Member

Global Wildlife Resources Inc., Wildlife Handling and Chemical Immobilization for Wildlife

Professionals Training Course – Local Coordinator for Michigan Course, 2015

National Wildlife Federation – Member

Safari Club International – Member

Pope and Young Club – Member

National Deer Alliance – Member

State and Regional Activity

Michigan Chapter of the Wildlife Society- Member

Safari Club International Michigan Chapter- Member

Michigan State University Activity

Fisheries and Wildlife Graduate Student Organization (FW GSO) – Vice President, 2015 to 2016

FW GSO, 2016 Graduate Student Research Symposium – Coordinator, 2015 to 2016

FW GSO, Faculty Liaison – Alternative Representative, 2015 to 2016

FW GSO, Undergraduate Liaison – Chair, 2014 to 2016

FW GSO, Travel Grant Committee – Member, 2015 to 2016

FW GSO, Undergraduate Week – Event Organizer and Volunteer, 2015 & 2016

Graduate Women in Science (GWIS) Michigan State Chapter – Webmaster, 2014 to 2016

GWIS, Girls' Math and Science Day – Volunteer, 2015 & 2016

GWIS, Girls' Math and Science Day – Planning Committee Member 2014 to 2015

GWIS, Social and Professional Development – Committee Member, 2014

University Undergraduate Research and Arts Forum – Graduate Student Evaluator, April 2015

Fisheries and Wildlife Undergraduate Seminar Mixer – Volunteer, March 2015

Clemson University Activity

Block & Bridle Club Clemson University Chapter (Clemson B&B) – Social Chair, 2010 to 2011

Clemson B&B – Publicity Chair, 2009 to 2010

Clemson B&B – Activities Chair, 2009 to 2010

Clemson B&B – Facebook Chair, 2009 to 2010

Clemson B&B – Scrapbook Chair, 2009 to 2010

EMPLOYMENT HISTORY

Teaching Assistant, University of South Carolina, Columbia, SC	August 2012 to May 2014
Customer Engagement Specialist, Dick's Sporting Goods, Anderson, SC	January 2012 to July 2012
Cashier, Clemson University Barnes and Noble Bookstore- Clemson, SC	July 2010 to January 2012

PROFESSIONAL DEVELOPMENT

Research & Leadership

Crediting the Works of Others and Avoiding Plagiarism. Presented by Stephanie W. Watts and Karen L. Klomprens. Responsible Conduct of Research (RCR) Series, Michigan State University. East Lansing, MI. October 2015.

Developing Your Written Credentials and Preparing Application Materials with Integrity: CVs, Cover Letters, and More. Presented by Various Speakers. The Graduate School, Michigan State University. East Lansing, MI. October 2015.

Science Networking Prep Session. Presented by Various Speakers. The Graduate School, Michigan State University. East Lansing, MI. September 2015.

Scientific Communication, Rights to Data, and Authorship. Presented by Stephanie W. Watts & Karen Klomprens. Responsible Conduct of Research (RCR) Series, Michigan State University. East Lansing, MI. October 2014.

Being an Early Career Scholar. Presented by Stephanie W. Watts and Karen L. Klomprens. Responsible Conduct of Research (RCR) Series, Michigan State University. East Lansing, MI. September 2014.

Technical Skills

Spatial Regression in R. Presented by Sarah L. Hession. Statistical Training & Consulting (CSTAT), Michigan State University. East Lansing, MI. 05 February 2016.

An Introduction to Bayesian Statistics Workshop. Presented by William Link (USGS, Patuxent Wildlife Research Center) and Richard Barker (University of Otago). Biometrics Working Group, The Wildlife Society. Winnipeg, Manitoba, Canada. October 2015.

Records of North American Big Game Official Measurer Workshop. Presented by Jack Reneau and Justin Spring. Records Committee, Boone and Crockett Club. Missoula, MT. June 2015.

Wildlife Handling & Chemical Immobilization for Wildlife Professionals. Presented by Mark R. Johnson, DVM. Global Wildlife Resources Inc. Lansing, MI. May 2015.

Introduction to Generalized Linear Models Workshop. Presented by Brian Maurer. Center for Statistical Training & Consulting (CSTAT), Michigan State University. East Lansing, MI. April 2015.

Determining the Right Standard Errors and Statistical Tests using Mixed Models Workshop. Presented by Robert J. Tempelman. CSTAT, Michigan State University. East Lansing, MI. March 2015.

Introduction to Bayesian Statistics Workshop. Presented by Andrew O. Finley. Center for Statistical Training and Consulting, Michigan State University. East Lansing, MI. February 2015.

Introduction to Spatial Regression Workshop. Presented by Sarah L. Hession. Center for Statistical Training and Consulting (CSTAT), Michigan State University. East Lansing, MI. October 2014.

Model Selection and Model Averaging Workshop. Presented by Brian Maurer. Center for Statistical Training and Consulting (CSTAT), Michigan State University. East Lansing, MI. October 2014.

EndNote X6 and EndNote Web Workshop. Presented by Eric Tans. Michigan State University Libraries. East Lansing, MI. October 2014.

R Essentials for Natural Resource Professionals Non-Credit Course. Quantitative Fisheries Center, Michigan State University. Online. May 2014

3-Minute Thesis/Dissertation Workshop. The Graduate School at The University of South Carolina. Columbia, SC. February 2013.

Other

Deer Steward Level II. Presented by Kip Adams, Joe Hamilton, Craig Harper, and Matt Ross. Quality Deer Management Association. Quincy, FL. June 2014.

Deer Steward Level I. Presented by Various Speakers. Quality Deer Management Association. Online. January 2014.

UNIVERSITY COURSEWORK

*Technical Skills, **Communication Skills, ^ANon-Credit Course

Michigan State University (Doctor of Philosophy in Fisheries and Wildlife)

Spatial Data Analysis*	Strategies for Becoming a Better Writer**
Landscape Ecology*	Preparing for Your Professional Journey
Spatial Ecology*	Leadership in Natural Resources
Population & Community Modeling Theory Lab*	Philosophy of Environmental Science

University of South Carolina (Master of Earth and Environmental Resources Management)

Biostatistics*	Earth Resource Management
Applied Statistics II*	Environmental Health Science
Advanced Geographic Information Systems*	Environmental Studies
Experimental Design*	Organization Behavior
Environmental Economics	Teaching Assistant Development ^A
Conservation Biology	

Penn Foster Career School (Wildlife/Forestry Conservation Career Diploma)

Upland Game Birds Management	Forest Management
Waterfowl Management	Cold Water Fish Management
Small Mammals Management	Warm Water Game Fish Management
Large Mammals Management	Aquaculture
Predators Management	Conservation: People, Animals, and Habitats
Rangelands Management	International Conservation Issues

Clemson University (Bachelor of Science in Biological Sciences)

Biology I	Cell Biology Practicum*
Biology II	Biochemistry
Conservation Biology	Organic Chemistry
Biological Anthropology	General Chemistry I
Evolutionary Biology	General Chemistry II
Genetics	Calculus I
Animal Behavioral Ecology	Calculus II
Animal Behavioral Ecology Practicum*	Physics I (with Lab)
Vertebrate Biology	Physics II (with Lab)
Vertebrate Biology Practicum*	Kinesiology
Biogeography	Exercise Physiology
Natural History of Costa Rica	Human Physiology
Marine Biology	Functional Human Anatomy
Plant Biology	Human Sexual Behavior
Plant Biology Practicum*	Psychology
Cell Biology	Sociology

Introduction to Human Communication**
Accelerated Composition**
Scientific Writing & Communication**

Science and Values Philosophy
20th-21st Century Literature
World Religions