

CURRICULUM VITAE  
**CRAIG D. REDDELL**

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## EDUCATION

New Mexico State University  
Master of Science, Wildlife Science December 2018  
Minor: Applied Statistics  
GPA - 3.746

Sonoma State University  
Bachelor of Arts, Environmental Studies, Emphasis - Restoration & Conservation May 2007  
Minor: Biology  
GPA - 3.17

## RESEARCH INTERESTS

Resource selection, spatial ecology, social behavior influences on disease transmission, dispersal patterns and costs in fragmented environments.

## PROFESSIONAL EXPERIENCE

### ***New Mexico State University/New Mexico Livestock Board***

**GIS Analyst** – Land Stewardship of New Mexico in regard to the Wild Horse Act

Supervisor: Dr. Ken Boykin Feb. 2019 – Dec. 2019

Developed a series of maps in ArcGIS for the state of New Mexico detailing land tenure status and unit conflicts with the introduction of wild horses. Worked with data sets from multiple federal and state agencies and developed rangeland production estimates using the SSURGO database.

### ***New Mexico State University/Department of Defense***

**M.Sc. Candidate** – Occupancy and Resource Use of a Diseased Urban Coyote Population

Supervisors: Dr. Gary Roemer & Dr. James Cain Jan. 2015 – Dec. 2018

Graduate research examining a sarcoptic mange epizootic in an urban coyote population. Developed experimental design for radio tracking, remote camera surveys, vegetation sampling, and spotlight surveys. Analyses included: 1) calculating home range sizes using ArcGIS and R to develop minimum convex polygons and Brownian Bridge Movement Models, 2) calculating utilization distribution overlap indices using program R, 3) developing resource selection functions using mixed-effects logistic regression in R, 4) estimating lagomorph abundance using distance sampling and density surface models, 5) determining coyote use and mange prevalence utilizing multistate occupancy models, 6) estimating survivorship using known-fate models in program MARK.

### ***North Carolina State University/North Carolina Wildlife Resources Commission***

**Project Biologist** – Movements and Population Ecology of Urban/Suburban Black Bears

Supervisor: Dr. Nicholas Gould Apr. 2014 – Sep. 2014

Assisted in implementing long-term research project on movements, population ecology, and harvest vulnerability of black bears in urban/suburban habitats in western North Carolina. Responsible for

capturing, handling, and GPS-collaring 40+ black bears. Responsible for identifying trap sites, contacting, meeting with, and maintaining working relationships with landowners. Assisted in database design, social media development, and conducted outreach programs for the general public about project objectives and intended outcomes. Collaborated with and participated in the training of state agency personnel to implement project-related field objectives.

***Ohio State University/Max McGraw Wildlife Foundation***

**Project Technician – Movements and Survivorship of Urban Coyotes and Feral Cats**

Supervisor: Dr. Stanley Gehrt

Jul. 2011 – Mar. 2014

Participated in long-term research examining spatial movements and population ecology of coyotes in the Chicago Metropolitan Area. Duties included trapping, handling, and radio tracking coyotes, deer, and other mesocarnivores. Responsible for locating potential trap sites, coyote den sites, and coordinating with county biologists. Responsible for running mark-recapture trap lines for small mammals, conducting herpetological surveys, and performing necropsies on deceased study animals. Assisted with educational presentations for the public, managing multiple databases, and coordinating with other research personnel affiliated with the project.

***Purdue University/United States Department of Agriculture***

**Project Technician/Crew Lead – Mesopredator Mark-Recapture Study**

Supervisor: Dr. James Beasley

Mar. 2010 – Jun. 2010 & Mar. 2011 – Jun. 2011

Assessment of the efficacy of USDA vaccination practices, genetic paternity, and recolonization of mesopredators in fragmented landscapes. Duties included running 200+ trapping grids and handling 300+ raccoons and opossums. Responsible for independently running second field site, overseeing technicians, and managing field data. Assisted in contacting landowners, preparing field sites, tracking animals via radio telemetry, and maintaining field supplies.

***Garcia and Associates/United States Navy***

**Channel Island Fox Technician**

Supervisor: Mr. Graham Neale

Jul. 2008 – 2010 & Feb. 2011

Mark-recapture study monitoring populations of island foxes exposed to naval and military operations. Responsible for the capturing, handling, and vaccination of 100+ island foxes. Assisted in the training of new technicians, managing field samples, and coordinating with naval and other research officials.

***University of California Los Angeles/National Park Service***

**Carnivore Research Technician**

Supervisor: Dr. Laurel Klein Serieys

Aug. 2009 – Feb. 2010

Ph.D. research of anticoagulant toxicants in bobcat and gray fox populations. Responsible for capturing and handling of 30+ bobcats and gray foxes. Responsible for identifying potential trap sites, care-taking of biological lures, and building/modifying new traps. Assisted in training of volunteers, coordinating between academic and federal officials, and managing field data.

***California State Parks***

**Environmental Services Intern**

Supervisor: Mr. Jim Dice

Oct. 2007 – Jun. 2008 & Oct. 2008 – Jun. 2009

Conducted habitat restoration for riparian and post wildfire woodlands. Duties included invasive plant removal, prescribed burning, trail maintenance, and wildlife conservation.

## ***University of Washington***

### **California Tiger Salamander Surveyor**

Supervisor: Dr. David Stokes

Mar. 2007 – Jun. 2007

Monitored and captured endemic California tiger salamanders in Northern California. Duties included dip netting and monitoring of vernal pools.

### **MANUSCRIPTS IN PREPARATION FOR PEER-REVIEWED JOURNALS**

**Reddell, C. D.**, F. Abadi, D. K. Delaney, J. W. Cain, and G. W. Roemer. Urbanization's influence on the distribution of mange in a carnivore revealed with multistate occupancy models. Prepared for *Oecologia*.

**Reddell, C. D.**, G. W. Roemer, J. W. Cain and D. K. Delaney. Space Use and Resource Selection of an Urban Coyote Population Infected with Sarcoptic Mange. Prepared for *Oecologia*.

### **SCIENTIFIC REPORTS**

Smallidge, S. T., **C. R. Reddell**, K. G. Boykin. Spatial examination of New Mexico public lands as applied to the New Mexico Wild Horse Act (NMSA 77-18-5) Final Report.

Roemer, G. W., D. J. W. Cain, **C. D. Reddell**, T. Karish, and J. Gedir. Investigation into the Control of Invasive Feral Burro and Coyote Populations on the National Training Center Fort Irwin, California. Construction Engineering Research Laboratory and National Training Center, Final Report.

Cain, J. W., G. W. Roemer, D. Delaney, **C. D. Reddell**, and T. Karish. Investigation into the Control of Invasive Feral Burro and Coyote Populations on the National Training Center Fort Irwin, California. New Mexico Cooperative Fish and Wildlife Research Unit 2017-2018 Annual Report.

Cain, J. W., G. W. Roemer, D. Delaney, **C. D. Reddell**, and T. Karish. Investigation into the Control of Invasive Feral Burro and Coyote Populations on the National Training Center Fort Irwin, California. New Mexico Cooperative Fish and Wildlife Research Unit 2016-2017 Annual Report.

Roemer, G. W., D. J. W. Cain, **C. D. Reddell**, and T. Karish. Investigation into the Control of Invasive Feral Burro and Coyote Populations on the National Training Center Fort Irwin, California. Construction Engineering Research Laboratory and National Training Center, 2015-2016 Annual Report.

### **PRESENTATIONS & POSTERS**

Reddell, C. D., G. W. Roemer, J. W. Cain. February 2019. Estimating the prevalence of sarcoptic mange in a desert coyote population using multi-state occupancy models. Joint Annual Meeting of the AZ and NM Chapters of TWS & AFS, Albuquerque, New Mexico. (Awarded: Best Wildlife Presentation – Overall).

Reddell, C. D., G. W. Roemer, J. W. Cain. February 2018. Resource Use and Disease Patterns of an Urban Coyote Population in the Mojave Desert. Joint Annual Meeting of the AZ and NM Chapters of TWS & AFS, Flagstaff, Arizona.

Reddell, C. D., G. W. Roemer, J. W. Cain. December 2017. Resource Use and Disease Patterns of an Urban Coyote Population in the Mojave Desert. New Mexico Cooperative Fish and Wildlife Research Unit Annual Cooperator's Meeting, New Mexico State University, Las Cruces, New Mexico.

Reddell, C. D., G. W. Roemer, J. W. Cain. October 2017. The Adaptability and Disease Patterns of an Urban Coyote Population in the Mojave Desert. Brown Bag Seminar, New Mexico State University, Las Cruces, New Mexico.

Reddell, C. D., G. W. Roemer, J. W. Cain. September 2017. The Adaptability and Disease Patterns of an Urban Coyote Population in the Mojave Desert. The Wildlife Society 24<sup>th</sup> Annual Conference, Albuquerque, New Mexico (Poster).

Gould, N. P., J. Strules, C. D. Reddell. June 2014. Urban Black Bear Biology and Research. Haw Creek Elementary, Asheville, North Carolina.

Garbe, H. M., S. McKenzie, C. D. Reddell. August 2013. Urban Coyote Research. Max McGraw Wildlife Members Picnic, Dundee Township, Illinois.

Garbe, H. M., S. McKenzie, C. D. Reddell. June 2013. Urban Coyote Research and Telemetry Training. McHenry County Conservation District Elementary Summer Camp, Cary, Illinois.

Reddell, C. D., S. D. Gehrt, H. M. Garbe. December 2012. Examining the Urban Ecology of the Virginia Opossum. Midwest Fish and Wildlife Conference, Wichita, Kansas (Poster).

### **PROFESSIONAL INVOLVEMENT AND MEETINGS ATTENDED**

Joint Annual Meeting of the AZ and NM Chapters of TWS & AFS, 2019, Albuquerque, New Mexico (Presentation).

Joint Annual Meeting of the AZ and NM Chapters of TWS & AFS, 2018, Flagstaff, Arizona (Presentation).

The Wildlife Society 24<sup>th</sup> Annual Conference, 2017, Albuquerque, New Mexico (Moderator and Poster Presentation).

Joint Annual Meeting of the AZ and NM Chapters of TWS & AFS, 2015, Las Cruces, New Mexico (Moderator).

The Wildlife Society 20<sup>th</sup> Annual Conference, 2013, Milwaukee, Wisconsin (Attendant).

Cook County Wildlife Conference, 2012, Chicago, Illinois (Attendant).

Midwest Fish and Wildlife Conference, 2012, Wichita, Kansas (Poster Presentation).

Midwest Fish and Wildlife Conference, 2011, Des Moines, Iowa (Attendant).

### **TEACHING EXPERIENCE**

Teaching Assistantship for FWCE 109 – Contemporary Issues in Wildlife/Natural Resources Management.

Teaching Assistantship for FWCE 471/571 – GIS for Natural Resource Scientists.

### **RELEVANT SKILLS**

#### Computer Skills

- ArcGIS
- Program R
- Program MARK
- Program Presence
- Program Distance
- Microsoft Access
- Microsoft Excel
- Map Source

## REFERENCES

Dr. Gary W. Roemer (Professor)

New Mexico State University  
Department of Fish, Wildlife & Conservation Ecology  
Las Cruces, NM 88003  
Phone: (575) 646-3394; E-mail: [groemer@nmsu.edu](mailto:groemer@nmsu.edu)

Dr. Ken Boykin (Research Professor)

New Mexico State University  
Department of Fish, Wildlife & Conservation Ecology  
Las Cruces, NM 88003  
Phone: (575) 646-6303; E-mail: [kboykin@nmsu.edu](mailto:kboykin@nmsu.edu)

Heidi Garbe (Project Manager)

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