

HANNAH MAE HALIE ERTL

Curriculum Vitae

EDUCATION

Texas A&M University, College Station, Texas

Scheduled Graduation: May 2016

In progress: M.S., Wildlife and Fisheries Sciences

Thesis: Impact of Neonicotinoid Insecticides on Northern Bobwhite Quail in Texas

Advisor: Miguel A. Zacarias- Mora, Ph.D.

Arizona State University, Tempe, Arizona

May 2011

B.S., Wildlife and Restoration Ecology

Magna Cum Laude

TECHNICAL SKILLS

- Proficiency in R Statistical Programming, ArcGIS, and Microsoft Office.
- Excellent communication and technical writing skills; close attention to detail.
- Multivariate statistical analysis; geospatial analysis and map construction.
- Sample preparation and analytical chemistry.
- Vegetation and wildlife sampling techniques.
- Operation of 4WD and all terrain vehicles.
- Backcountry navigation skills; wilderness first responder and search and rescue training.
- Safe firearm handling procedures and hunting safety.
- Ability to set and achieve realistic goals.
- Ability to work on a team or as an individual.

RESEARCH EXPERIENCE

Graduate Research Assistant, Texas A&M University, College Station, Texas

June 2014 - Present

- Sought out, contacted, and secured landowners willing to cooperate with me on a controversial thesis topic.
- Developed SOP protocols for collecting and processing bobwhite quail in the field and lab.
- Instructed undergraduate assistants in research and sample collection methods through hands-on training in the field and laboratory analyses using sample preparation and UPLC-MS/MS methods for detection of insecticides in quail tissues.
- Extensive use of ArcGIS and R Statistical Programming to perform geospatial analysis, multivariate statistics, and model selection.
- Knowledge in ecotoxicology and ecological risk assessment.
- Experience in grant writing and maintaining state and federal permits.

Herpetology Technician, Wyoming Game and Fish Department, Casper, Wyoming

May - September 2012

- Captured, identified, and processed reptiles and amphibians as part of a statewide herpetological survey. Fieldwork often consisted of camping for extended periods of time and surveying in hot or adverse conditions. Dawn, dusk, and regular nighttime surveys yielded very long work days and irregular work schedules.
- Acquired animal capture skills using turtle traps, lizard nooses, snake sticks, and tubing venomous snakes.
- Frequent contact with landowners and the general public.
- Experience in operation of four-wheel drive vehicles and backcountry navigation.

Volunteer, Arizona Game and Fish Department, Phoenix, Arizona

October 2011- January 2012

- Assisted herpetologists on leopard frog tadpole release. Fieldwork required hiking in rough terrain while carrying a 5-gallon bucket filled with water and tadpoles. Assessed water quality of natural pools to determine those acceptable for release. Counted and document number and species of tadpoles released.
- Performed data review and transcription and specimen organization weekly at regional office.

Biological Technician, Arizona Game and Fish Department, Pinetop, Arizona

May - August 2010

- Developed a human-black bear conflict plan for Pinetop-Lakeside, Arizona. Proposed implementation of bear-proof garbage containers and restrictions on unattended garbage and bird feeders. Processed bear reports from the regional office and made follow-up visits to educate residents on bear safety.

- Implemented a population study in the White Mountains as part of a mark-recapture study before and after the hunting season that resulted in restrictions in the area bear harvest. Set, baited, and checked bear hair snags over a 400 km² area of remote Northern Arizona.
- Frequent hiking (often in excess of 10 miles per day) in extremely rough terrain and adverse weather conditions.
- Experience in operation of four-wheel drive vehicles and backcountry navigation.

Volunteer, Arizona Game and Fish Department, Phoenix, Arizona

April 2010

- Assisted biologists on desert tortoise surveys near Sugarloaf Mountain in Arizona. Gained experience in radio telemetry and identification of desert tortoise habitat.

Volunteer, Bosque del Apache National Wildlife Refuge, Socorro, New Mexico

November 2009

- Assisted refuge biologists on their season waterfowl count. Gained experience in gun netting, capturing, banding, processing, and identification of waterfowl on the refuge.

Volunteer, Arizona Game and Fish Department, Audrey Valley, Arizona

October 2009

- Assisted biologists on a black-footed ferret recovery survey in Aubrey Valley, Arizona. Gained experience in nighttime spotlighting, trapping, and processing of ferrets.

Biological Technician, Yosemite National Park, Yosemite Village, California

May - August 2009

- Mitigated human-black bear conflicts in Yosemite Valley using aversive conditioning methods, educating park visitors, and occasionally relocating nuisance bears.
- Acquired animal capture skills using small mammal traps, snake sticks, and Have a Heart traps to occasionally move animals out of campground areas. Set and baited bear traps to process and relocate bears. Extensive use of radio-telemetry to locate black bears in the Valley.
- Constant contact with the general public.

TEACHING EXPERIENCE

Graduate Teaching Assistant, Fundamentals of Ecology

August - December 2015

- Responsible for answering student emails, resolving student issues, and grading reports for a 400+ student class.
- Lectured on biomes and global climate during instructor absence.

LEADERSHIP & ACTIVITIES

Society of Environmental Toxicology and Chemistry

2015 - 2016

National Member, South-Central Regional Chapter Member

Society of Environmental Toxicology and Chemistry Texas A&M University Student Chapter

2015 - 2016

President, Founding Member

Graduates Students of Wildlife and Fisheries Sciences

2014 - 2016

Texas A&M University

Vice President, Member

Undergraduate Student Mentor

2014 - 2016

Mentor for three undergraduate research assistants in field and lab protocols.

Wildlife and Restoration Student Association

2008 - 2011

Arizona State University

Vice President, Member

POSTERS & PRESENTATIONS

Wyoming Game and Fish Expo. Casper, Wyoming, August 2012.

Presentation: "Herps of Wyoming."

Guest Lecture, Texas A&M University. College Station, Texas, April 2015.

Presentation: "Ecotoxicology and the impact of neonicotinoid insecticides on Northern Bobwhite Quail in Texas."

Society for Environmental Toxicology and Chemistry South-Central Regional Meeting. Lafayette, Louisiana, May 2015.

Poster: "Preliminary evaluation of neonicotinoid insecticide effects on Northern bobwhite quail in Texas."

Symposium on Reversing the Quail Decline. Abilene, Texas, September 2015.

Poster: "Assessing the impact of neonicotinoid insecticides on Northern Bobwhite Quail in Texas."

Society for Environmental Toxicology and Chemistry North America Annual Meeting. Salt Lake City, Utah, November 2015.

Presentation: "Assessing the impact of neonicotinoid insecticides on Northern bobwhite quail in Texas."

Society for Environmental Toxicology and Chemistry South-Central Regional Meeting. Forth Worth, Texas, April 2016.

Scheduled Presentation: "Assessing the impact of neonicotinoid insecticides on Northern bobwhite quail in Texas."

PUBLICATIONS

Manuscripts in Preparation:

Ertl, H.M., Mora, M.A., Brightsmith, D.J., Carson, K.H., Rollins, D., Boellstorff, D.E. Detection of neonicotinoid insecticides in Northern Bobwhite Quail (*Colinus virginianus*) in Texas.

Ertl, H.M., Mora, M.A., Brightsmith, D.J., Rollins, D., Boellstorff, D.E. Impact of neonicotinoid use on Northern Bobwhite Quail (*Colinus virginianus*) abundance in Texas.

AWARDS

Graduates Students of Wildlife and Fisheries Student Travel Grant Support for travel and presentation of research \$100.00	2015
Graduate Student Presentation Grant Support for travel and presentation of research \$500.00	2015
Undergraduate Research Funds Support for undergraduate research assistant activities \$1,200.00	2015
Nova Silvy Fellowship Graduate educational support for upland game bird research \$2,000.00	2015 - 2016
Texas A&M University Excellence Fellowship Graduate educational Support \$9,000.00	2014
Arizona State University President's Award Undergraduate educational support \$32,000.00	2007 - 2011

REFERENCES

Miguel A. Zacarias- Mora, Ph.D., Full Professor
Thesis Advisor
Dept. of Wildlife and Fisheries Sciences
Texas A&M University
Mail Stop 2258 TAMU
316 Nagle Hall
College Station, TX 77843
(979) 845-5775
mmora@tamu.edu

Dr. Nova J. Silvy, Ph.D., Regent's Professor
Supervisor, Research Assistantship
Dept. of Wildlife and Fisheries Sciences
Texas A&M University
Mail Stop 2258 TAMU
311 Nagle Hall
College Station, TX 77843
(979) 845-0598
n-silvy@tamu.edu

Stanley Cunningham, M.S. Associate Professor
Professor, Undergraduate Wildlife Ecology
Dept. of Applied Biological Sciences
Arizona State University
Mail Stop 2780
340 C Waner
Gilbert, AZ 85212
(480) 727-1928
stanley.cunningham@asu.edu

Katherine H. Carson, Ph.D., Research Scientist
Lab Manager, Analytical Chemistry Lab
Dept. of Soil and Crop Science
Texas A&M University
Mail Stop 2474
608 Heep Center
College Station, TX 77843
(979) 845-4629
kcarson@tamu.edu

Ronald Thompson, M.S. Large Carnivore Biologist
Supervisor, Arizona Game & Fish Department
Primer Conservation
P.O. Box 16106
Portal, AZ 85632
(602) 942-3000
leoneroronatsulross@gmail.com

Ryan Leahy, M.S., Wildlife Specialist
Supervisor, Yosemite National Park
Yosemite National Park
9039 Village Dr., P.O. Box 577
Yosemite National Park, CA 95389
(209) 372-0476
ryan_leahy@nps.gov

X. Ben Wu, Ph.D., Presidential Professor
Supervisor, Graduate Teaching Assistantship
Dept. of Ecosystem Science and Management
Texas A&M University
Mail Stop 2120 TAMU
Centeq 130 B
College Station, TX 77843
(979) 845-7334
xbw@tamu.edu

Tom Saunders, President and CEO
Supervisor, Converse County Bank
322 Walnut Street
Douglas, WY 82633
(307) 358-5300
tsaunders@ccbdouglas.com