

Andrew M. Antaya
aantaya@arizona.edu

Education

- Master of Science, Natural Resources 5/2018
Wildlife Conservation and Management Emphasis
University of Arizona, Tucson, Arizona
- Bachelor of Science, Fisheries and Wildlife Science, concentration in Wildlife Science 5/2013
Minor, Geographic Information Systems (GIS)
Paul Smith's College, Paul Smiths, NY
Cum Laude, Dean's List for 7 semesters

Research Experience

- Research Specialist 8/2018-Current
School of Natural Resources and the Environment, University of Arizona, Tucson, AZ
Principal Investigator: Dr. George Ruyle
- Examine interspecies relationships between large grazing mammals and the corresponding effects on their environment
 - Develop novel approaches using time-lapse photography and very large data sets to differentiate effects of grazing species
 - Write periodic reports on University of Arizona monitoring efforts on the Apache-Sitgreaves National Forests
 - Present research results to agency personnel, researchers, and producers

- Master's Research 7/2016-5/2018
School of Natural Resources and the Environment, University of Arizona, Tucson, AZ
Research advisor: Dr. David Christianson
Thesis: *Effects of human activity on the distribution of desert bighorn sheep along the border in southwestern Arizona and northern Sonora*
- Field study of the effects of human activity on bighorn sheep habitat use in areas with varying levels of human activity
 - Examined patterns in spatial distribution accounting for variation in habitat features and varying levels of human activity
 - Developed novel approach for application in hierarchical occupancy models when detectability and replication is low
 - Analytical approach demonstrated the importance of human activity as a modifier of available wildlife habitat

Teaching Experience

- Teaching Assistant, University of Arizona 2017

Wildlife Ecology, Conservation, and Management (Fall 2017)

- Designed and lead field trips for students
- Met individually with students and graded labs
- Created lab assignments for students

Peer Mentor and Tutor, Paul Smith's College

2011-2012

Biology 1, Biology 2, Ecology, Introduction to Geographic Information Systems

- Met individually and in small groups of students to review course material
- Assisted with laboratory assignments
- Led supplemental review sessions for 30-40 students each week
- Created review handouts for students

Professional Experience

Associate Wildlife Biologist

3/2016-7/2016

University of Arizona, Tucson AZ

- Conducted behavioral observations of Sonoran pronghorn using spotting scopes and defined behavioral codes
- Located Sonoran pronghorn with radio-telemetry
- Maintained wildlife camera traps (70+), assisted with the installation of new camera traps, downloaded and managed photo database
- Collected pronghorn fecal samples and analyzed samples in the lab using glucocorticoid hormone assays

Wildland Firefighter (Seasonal)

4/2015-10/2015

U.S. Fish and Wildlife Service Arizona Fire District

Buenos Aires National Wildlife Refuge, Sasabe, Arizona

- Served as a wildland firefighter type 2 on a type 6 and type 4 engine crew
- Suppressed wildland fires by constructing control lines with hand tools
- Mopped up near control lines to prevent further spread of fire
- Prepared for 3 prescribed fires by thinning vegetation near control lines and constructing handline with hand tools.
- Operated a drip torch on 1 prescribed fire and 1 wildland fire for a total of 1000 acres burned
- Maintained firefighting hand tools, fire engines and other equipment to Red Book standards

Wildlife Technician Internship

9/2013-4/2015

U.S. Fish and Wildlife Service

Cabeza Prieta National Wildlife Refuge, Ajo, Arizona

- Surveyed for bighorn sheep via helicopter on 6 flights
- Surveyed for endangered Sonoran pronghorn via airplane on 5 flights
- Conducted 16 songbird surveys, 20 owl surveys, 3 endangered bat counts, and 50 road cross-sectional area surveys

- Established 3 long-term monitoring plots using the Sonoran desert terrestrial vegetation and soils monitoring protocol
- Managed network of 15 wildlife camera traps; collected, sorted, and organized 200,000+ photos
- Managed network of 10 weather stations; collected, compiled, and assisted with interpolation of weather data
- Assisted staff at Sonoran pronghorn semi-captive breeding facility by repairing fences, feeding animals, and capturing and handling 50 Sonoran pronghorn
- Created 4 maps to support inventory and monitoring program using ESRI ArcGIS

Wildlife Technician and Invasive Species Control Internship

5/2013-9/2013

U.S. Fish and Wildlife Service

Balcones Canyonlands National Wildlife Refuge

- Tracked color-banded golden-cheeked warblers (endangered bird) by sight and sound. Mapped each bird's territory with handheld GPS. Inputted data into geodatabase.
- Conducted 3 presence/absence surveys for black-capped vireos (endangered songbird) using playback calls.
- Conducted 2 deer spotlight surveys to determine relative abundance for refuge hunt program.
- Collected fuel loading and canopy cover vegetation data at 5 plots
- Treated stands of invasive woody vegetation and invasive grasses with handheld herbicide sprayers, backpack herbicide sprayers, agricultural tractor, and hand tools
- Entered invasive species treatment data into geodatabase

Volunteer, Woodcock Research

5/2013

Wildlife Management Institute

- Operated mist nets for 4 nights and removed 3 woodcock from mist nets.
- Measured length of bill and weight of 3 woodcock and recorded information on datasheets
- Assisted with placement of radio- transmitter on 2 woodcock

Volunteer, Saw-Whet Owl Research

10/2012-11/2012

Project Owl-Net

- Operated mist nets for 2 nights/week for 2 months.
- Operated digital game call to lure saw- whet owls into mist nets
- Removed 3 owls from mist nets
- Assisted with measuring wing chords, mass, and age and recorded information on datasheets

Backcountry Steward Internship

5/2011-8/2011 and 5/2012-8/2012

New York State Department of Environmental Conservation

- Interacted with 10-20 visitors on a daily basis, provided information on recreational opportunities and unit regulations, and provided environmental and historical education, including Leave No Trace outdoor ethics
- Performed trail work on an as-needed basis: removed fallen trees and brush, repaired drainage problems with hand tools. Rehabilitated heavily impacted campsites by removing trash and mulching site with dead down woody debris
- Paddled or backpacked 10-15 miles per day carrying 50+ lbs of gear in remote locations and primitively camped in remote locations 5 days/week

Scientific Publications

2020- **A. Antaya**, B. Mayer, S. Noelle, G. Ruyle. Examination of the ecological interactions of free-roaming horses on the montane riparian systems of the Apache-Sitgreaves National Forests, Arizona, USA. *Report submitted to the U.S Forest Service.*

2019- B. Blum, S. Noelle, B. Mayer, **A. Antaya**, G. Ruyle. Examination of behavioral variation, site use, and interspecies interaction in the Heber Wild Horse Territory, Arizona, USA. *Report submitted to the U.S. Forest Service.*

Scientific Presentations

2020- **A. Antaya**, G. Ruyle. Range riders as citizen scientists. *Presented at The Summer Meeting of the Society for Range Management Arizona Section, September 24.*

2020- **A. Antaya**, G. Ruyle. Adding value to range rider programs through low-cost, scalable citizen science. *Presented at The Winter Meeting of the Society for Range Management Arizona Section, January 21.*

2019- **A. Antaya**, B. Blum, B. Mayer, S. Noelle, G. Ruyle. Free-roaming horses in montane riparian areas of Arizona: examining use of forage resources. *Presented at The Society for Range Management Annual Meeting, Minneapolis, Minnesota, February 13.*

2017- **A. Antaya**, D. Christianson, T. Coleman. Using occupancy models to understand the effects of border-related human activity on desert bighorn sheep (*Ovis canadensis mexicana*). *Poster presented at The Wildlife Society Conference, Albuquerque, New Mexico, September 27.*

Professional Memberships

The Wildlife Society	(2014-present)
Southwest Chapter of the Wildlife Society	(2016-present)
Arizona Chapter of the Wildlife Society	(2016-present)
American Association for the Advancement of Science	(2017-present)
Society for Range Management	(2018-present)
Arizona Section Society for Range Management	(2018-present)

Professional Society Leadership Roles and Duties

Young Professionals Conclave (YPC) Delegate	(2020-present)
Arizona Section Society for Range Management	
Public Relations Chair Arizona Section Society for Range Management	(2020-present)
Website Manager Arizona Section Society for Range Management	(2020-present)

References

Dr. David Christianson
Assistant Professor, University of Arizona
Email: dchristianson@email.arizona.edu
Office Phone: 520-626-7621

Dr. Tyler Coleman
Wildlife Biologist, National Park Service
Email: tyler_coleman@nps.gov
Phone: 406-223-6979

Kim Veverka
Partners for Fish and Wildlife Biologist, U.S. Fish and Wildlife Service
Email: kim_everka@fws.gov
Phone: (509) 665-3508, ext 2012