

ZACHARY A. CAVA

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EDUCATION

SUNY Buffalo State, Buffalo, NY
Department of Biology

Master of Arts, August 2016
Cumulative GPA: 3.86/4.00

Thesis: Behavioral differences between native and exotic invertebrate prey affect susceptibility to predation by a native amphibian predator

Ithaca College, Ithaca, NY
Major/Minor: Biology / Environmental Studies

Bachelor of Arts, December 2009
Cumulative GPA: 3.703/4.000 (magna cum laude)

HONORS & AWARDS

Outstanding Master's Thesis Award, SUNY Buffalo State, Buffalo, NY (2017)
V. Ray Frederick Research Grant, SUNY Buffalo State, Buffalo, NY (2015)
HSBC Commit-to-Change Grant, Ithaca College, Ithaca, NY (2009)
Bernard Scholarship, Ithaca College, Ithaca, NY (2008)

EMPLOYMENT & EXPERIENCE

Teaching Assistant – SUNY Buffalo State, Buffalo, NY (August 25 2014 – August 15 2016; 20 hrs/wk)
- Assisted in preparation, teaching, and grading of laboratory portion of Introduction to Cell Biology (BIO 214)

Volunteer Herpetological Technician – University at Buffalo, Buffalo, NY / NYSDEC: Regions 4, 7, & 9 (August 25 2014 – August 15 2016; 60 hrs total)
- Participated in mark-recapture surveys for eastern hellbenders
- Characterized habitat features; assisted with health assessments, tissue collection, and data entry
- Collected and processed eDNA samples

Project Lead – Tiff Nature Preserve, Buffalo, NY (January 1 2016– January 31 2016; 40 hrs/wk)
- Prepared feasibility assessment for the enhancement of vernal pool habitats at Tiff Nature Preserve

Authorized Biologist – The Sanberg Group, NV/CA (November 5 2012 – July 15 2014; 50+ hrs/wk)
- Conducted preconstruction surveys for desert tortoise and other sensitive species
- Performed biological compliance monitoring during construction activities
- Supervised biological monitors during construction activities
- Prepared daily field monitoring reports documenting project progress

Volunteer Herpetological Technician – Nevada Department of Wildlife (May 1 2013 – July 15 2014; 20 hrs/wk)
- Tracked group of Gila Monsters via radiotelemetry
- Surveyed for Amargosa Toads (May 2013), Columbia Spotted Frogs (July 2013), and Relict Leopard Frogs (October 2013)

Expedition Member – The Biodiversity Group, Ecuador/Vietnam (February 1–15/August 1–15 2013; 40 hrs/wk)
- Hiked transects in remote tropical rainforests to document herpetofaunal diversity
- Recorded observations and photographs of each reptile and amphibian encountered
- Transported animals to lab for processing
- Classified specimens; collected morphometric data and tissue samples

Telemetry Technician – Great Basin Institute, Las Vegas, NV (March 1 – May 31 2012; May 1 – 31 2014; 40+ hrs/wk)

- Tracked group of tortoises in continuous circuit throughout the day using radiotelemetry
- Collected data on tortoise activity patterns for use in analysis of Line Distance Sampling results

Biological Science Technician (GS-0404-06) – U.S. Geological Survey/Western Ecological Research Center, Las Vegas Field Station, Henderson, NV (January 1 2011 – February 15 2012; 40+ hrs/wk)

- Tracked telemetered tortoises and gathered data for a large-scale translocation project
- Characterized habitats utilized by tortoises; identified relevant flora, microclimatic conditions, etc.
- Affixed, removed, and repaired radio transmitters, floy tags, and temperature loggers
- Conducted tortoise health assessments, including tissue sampling, rehydration, and X-rays
- Surveyed transects for unmarked tortoises and signs of canid/lagomorph presence
- Excavated tortoise nests and collected eggs for incubation
- Supervised and trained up to eight seasonal workers

Herpetological Intern – U.S. Fish & Wildlife Service/Eastern Massachusetts National Wildlife Refuge Complex, Sudbury, MA (April 1 – November 1 2010; 40 hrs/wk)

- Participated in research and management of several populations of threatened turtles
- Tracked telemetered turtles; mapped locations and movements with GPS and GIS
- Monitored nesting activity, excavated nests, installed predator exclosures, collected hatchlings
- Characterized and delineated vernal pools
- Conducted amphibian egg mass counts and dip net surveys
- Managed water levels in freshwater impoundments; monitored/maintained culverts
- Collaborated with several partner organizations in efforts focused on Blanding's turtle conservation

Field Technician Assistant – San Diego State University/Clark Lab, Sunol Regional Wilderness, Alameda County, CA (May 1 – July 1 2009; 40+ hrs/wk)

- Aided in study of predator-prey interactions between rattlesnakes and ground squirrels
- Tracked daily movements of telemetered snakes and recorded behavior
- Participated in mark-recapture of squirrels, rattlesnakes, and other herpetofauna
- Utilized videography and biorobotics to study behavioral interactions

Teaching Assistant – Ithaca College, Ithaca, NY (January 1 – May 15 2008, 2009; 3 hrs/wk)

- Supported professors in teaching the laboratory portion of Principles of Biology

Research Intern – The Wetlands Institute/Coastal Conservation Research Program: Terrapin Conservation Project, Stone Harbor, NJ (May 1– August 31 2008; 40 hrs/wk)

- Conducted road surveys, recovered eggs from road-killed terrapins
- Monitored and cleaned eggs during incubation
- Performed PIT tag injection/identification
- Installed roadside barrier fencing and nest exclosures
- Prepared data for public presentation

Camp Counselor – Riverbend Environmental Education Center, Gladwyne, PA (May 1 – August 31 2006; 40 hrs/wk)

- Coordinated and managed outdoor activities for children with emphasis on environmental education

Restoration Technician – Landmark Volunteers, Sheffield, MA (July 1 – 31 2004; 40 hrs/wk)

- Helped control invasive plant species by manual removal
- Serviced and renovated trails; constructed steps and bridges along footpaths

PEER-REVIEWED PUBLICATIONS

Buhlmann, K. A., S. L. Koch, B. O. Butler, T. D. Tuberville, V. J. Palermo, B. A. Bastarache, and Z. A. Cava. 2015. Reintroduction and head-starting: tools for Blanding's turtle (*Emydoidea blandingii*) conservation. *Herpetological Conservation and Biology*, 10(1):436-454.

Cava, Z. A. 2012. Herpetological history. A chelonian Civil War veteran. *Herpetological Review*. 43(4):593-596.

Cava, Z. A. and M. Barbour. 2010. Geographic distribution. *Lampropeltis zonata*. *Herpetological Review*. 41(1):110-111.

POPULAR PRESS

Cava, Z. 2016. JWM Study: How much snow cover do female wolverines need? The Wildlife Society. Available at: <http://www.wildlife.org/jwm-study-how-much-snow-cover-do-female-wolverines-need/>

Cava, Z. 2014. Notes on Building Naturalistic Desert Vivaria. *SWCHR Bulletin* 4(1):3-6.

Cava, Z. 2010. A forest dwelling dinosaur in our own backyards. *The Landmark: The Newsletter of the Lower Merion Conservancy*. 15(4):9.

Cava, Z. 2009. Student spends summer researching rattlesnakes. *The Ithacan*. 76(11):11.

PRESENTATIONS

Cava, Z. A. 2015. Response of Eastern Hellbenders (*Cryptobranchus a. alleganiensis*) to native and exotic prey. 7th Hellbender Symposium, Sheraton Clayton Plaza Hotel, St. Louis, MO, June 14-17.

Cava, Z. A. 2008. The effects of salinity on the growth and distribution of *Chelydra serpentina* and *Malaclemys terrapin*. Coastal Conservation Research Program Science Seminar, The Wetlands Institute, Stone Harbor NJ, August 7.

Cava, Z. A. 2008. Prey preference, dietary inhibition, and feeding pattern modification in neonatal garter snakes (*Thamnophis sirtalis*). James J. Whalen Academic Symposium, Ithaca College, Ithaca NY, April 8.

CERTIFICATIONS & PERMITS HELD

- American Red Cross First Aid Training (Standard First Aid + Adult CPR/AED; February 17, 2011–2014)
- American Safety and Health Institute (ASHI) Wilderness First Aid Training (March 11, 2012–2014)
- OSHA 10-Hour Construction Safety training (July 2012)
- Fort Irwin NTC Range Support Safety Training (October 1, 2012–2013)
- USFWS Research Permits TE102235-4 and TE-030659-6 for desert tortoise
- NYSDEC Invasive Species Permit #00-15-001 for rusty crayfish
- NYSDEC License to Collect or Possess: Scientific #1446