

Mia Guarnieri

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EDUCATION

Master of Environmental Science and Management (Expected June 2023)

Bren School of Environmental Science & Management – University of California, Santa Barbara

Specialization: Conservation Planning

Highlighted Coursework: Ecology of Managed Ecosystems, Environmental Politics and Policy, Advanced Data Analysis for Environmental Science and Management, Geographic Information Systems (GIS), Economics of Environmental Management, Environmental Law and Policy, Conservation Planning and Priority Setting (All to be completed by June 2022)

Bachelor of Science in Wildlife, Fish, and Conservation Biology – Focus in Wildlife Health (June 2019)

University of California, Davis

Awards/Fellowships: Henry A. Jastro Scholarship (2015–2019), National Center for Sustainable Transportation Undergraduate Summer Research Fellowship (2018)

WILDLIFE BIOLOGY AND CONSERVATION EXPERIENCE

Biologist (7/21–9/21)

Certis Solutions, Santa Cruz, CA – full-time

- Conducted biological monitoring of hazard tree removal for wildfire remediation in Big Basin State Park to prevent harm to wildlife, especially protected species, in collaboration with WSP Global Inc
- Identified presence of 8 protected species, any nesting birds, and protected waterways at 20 work sites within the park, and verbally informed contractor representatives of appropriate avoidance or mitigation protocols
- Compiled 2-page daily biological assessments of tree removal impacts to work sites as well as presence of nesting birds and target species for WSP, for Federal Emergency Management Agency (FEMA) compliance

Biological Monitor (3/20–11/20, 3/21–7/21)

Olberding Environmental, Inc., San Ramon, CA – full-time

- Performed biological monitoring of construction and restoration activities at 10 different project sites to prevent harm to wildlife; Handled and relocated wildlife present on construction sites
- Evaluated permits related to the Endangered Species Act, Habitat Recovery Plans (HCPs), monitoring and mitigation plans, and take or habitat alteration permits (such as creek bed alteration permits) for each project
- Identified target species and nesting bird presence on construction sites, and informed construction managers of appropriate protocols to follow, such as buffer zones, trench ramps, and shutting off certain equipment
- Presented 15-minute talks educating new construction crews of 10-20 members on species identification, habitat, and preventative measures each morning at the job site
- Prepared 3-to-4-page Daily Monitoring Reports (DMRs) for 4 projects and compiled monitoring photos for 3 additional projects that didn't require formal DMRs
- Conducted protocol-level nesting bird surveys; protocol level aquatic surveys for California tiger salamander (CTS) and red-legged frog (CRLF); and daytime surveys for CTS, CRLF, raptor nests, and burrowing owls
- Surveyed for rare plants, and performed riparian plant counts for monitoring of riparian mitigation corridors

Student Assistant, Wildlife-Crossing Mitigation Effectiveness with Traffic Noise and Light (4/17–9/19)

Road Ecology Center, Department of Environmental Science & Policy, UC Davis, Davis, CA – part-time

- Contributed to planning camera trap use methodology and collecting data for project to determine how traffic noise and light affect wildlife crossing structure use and efficacy
- Set out, maintained, and collected camera traps and noise meters and assisted in light measurement collection
- Sorted and analyzed project data and organized data compilation site (the Wildlife Observer Network, WON) for future analysis and to make wildlife tracking data available to other scientists via the WON framework
- Tagged behavioral data in Behavioral Observation Research Interactive Software (BORIS) for future analysis
- Identified California vertebrate species and their activity in several thousand observation photos from 210 camera across 25 sites to track species use of and behavior at wildlife crossing structures vs. background sites

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Student Assistant, Wood Duck Reproductive Behavior Project (4/17–6/17)

Department of Wildlife, Fish, and Conservation Biology, UC Davis, Davis, CA – part-time

- Monitored approximately 50 wood duck nest boxes once per week to assess nesting success
- Counted and measured eggs in each box, monitored and banded nesting hens, tagged hatched ducklings with Passive Integrated Transponders (PIT) tags, and took duckling blood samples and measurements

ADDITIONAL WILDLIFE EXPERIENCE

Animal Care Intern – Wildlife Center of Silicon Valley, San Jose, CA (6/17–9/17, 6/18–9/18)

Animal Care Volunteer – Wildlife Center of Silicon Valley, San Jose, CA (10/14–9/16)

Pre-Vet Cheetah Care Volunteer – Ann Van Dyk Cheetah Center, Hartbeespoort, South Africa (6/16–7/16)

PROJECTS

Impacts of Human Presence At Wildlife Crossing Structures (12/18–4/19)

- Evaluated camera trap data at 10 crossing structures and performed statistical tests to determine species richness and activity at structures as related to frequency and intensity of human activity at structures
- Created a poster to convey pertinent information, and presented results to visitors in 10 to 15-minute individual talks at the UC Davis Undergraduate Research Conference in April 2019

Microhabitat Selection of Merriam's Kangaroo Rats (*Dipodomys merriami*) in the Mojave National Preserve (9/18)

- Designed and executed a study using a spool and line technique to obtain data about the microhabitat preferences of Merriam's kangaroo rats as part of a course on field research methods
- Conducted statistical analysis to quantify these preferences and wrote a 7-page finalized research paper in publication format to communicate the findings of the study to peers and professors

Human and Vehicle Impacts on Wildlife Activity at Culverts (3/18–9/18)

- Utilized data from 13 sites along highways I-80, I-280, and I-680 to conduct research as part of an Undergraduate Summer Research Fellowship from the National Center for Sustainable Transportation
- Analyzed Annual Average Daily Traffic (AADT) and camera trap observations of humans and wildlife to determine their effects on timing of animal activity at wildlife crossing structures, and overall structure use
- Completed a final presentation on the results to send to National Center for Sustainable Transportation (NCST) representatives, and wrote a final report which was published by the NCST

Predators and Prey Respond Differentially To Traffic Noise (12/17–4/18)

- Compiled and statistically evaluated behavioral and sound level data for multiple species at two wildlife crossing structures to determine if predator and prey species react differently to noise and light pollution
- Created a poster to convey pertinent information, and presented results to visitors in 10 to 15-minute individual talks at the UC Davis Undergraduate Research Conference in April 2018

CONFERENCE PRESENTATIONS

***Impacts of Human Presence At Wildlife Crossing Structures, Mia Guarnieri* (April 2019)**

UC Davis Undergraduate Research Conference (Poster Session), Davis, CA

Presented for 10-15 minutes for each visitor intrigued by the poster over the course of several hours

***Predators and Prey Respond Differentially To Traffic Noise, Mia Guarnieri and Parisa Farman* (April 2018)**

UC Davis Undergraduate Research Conference (Poster Session), Davis, CA

Presented for 10-15 minutes for each visitor intrigued by the poster over the course of several hours

SKILLS

Data Analysis Tools: R and RStudio, Excel, Behavioral Observation Research Interactive Software (BORIS)

Communication Tools: Microsoft Word and PowerPoint, Zoom, Google Suite, Box

Field Equipment: Camera traps, digital sound level meters, Passive Integrated Transponders (PIT) tags

Languages: English, Spanish (intermediate writing and reading, basic speaking and conversational skills)

Protected Species Monitored For: California red-legged frog, California tiger salamander, Burrowing Owl, California giant salamander, foothill yellow-legged frog, San Francisco garter snake, marbled murrelet, Santa Cruz black salamander, Alameda whip snake Coho salmon, steelhead trout

Field Identification: Proficient in the identification of California vertebrates, particularly birds and mammals