

# Madison Landin

School of Life Sciences at Arizona State University | mrlandin@asu.edu

## Education

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**School of Life Sciences at Arizona State University**, Tempe, AZ, (2022 - 2027)

### **Master of Science, Biology**

Current GPA: 4.00

Expected Graduation: May 2027

Prospective Master's Thesis: *Bycatch Reduction Trials in Jalisco's Small-Scale Fisheries Reveal Patterns in Bony Fish Interactions with Illuminated Gillnets in Estuarine Ecosystems*

Graduate Committee: Dr. Jesse Senko, Dr. Michael Britton

### **Bachelor of Science, Biological Sciences (Conservation Biology and Ecology)**

Minor of Spanish Language and Conversation

GPA: 4.00 (Summa cum laude)

(August 2022 - May 2026)

## Paid Internships

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State Government Intern, *Arizona Game and Fish Department (Contracts Division)*

Summer Field Season (May 2025 - August 2025).

*Supervisors:* Maggie Huck, Jared Farquhar, Ronald Mixan

- Conducted vehicle transect surveys to identify and record active Harris's Hawk (*Parabuteo unicinctus*) nests in order to monitor the health of their populations across Arizona. Gained experience in field identification of a variety of species and in the usage of programs such as ArcGIS.
- Conducted call-and-response as well as bait-and-follow surveys to detect individuals from the endangered Mexican Spotted Owl (*Strix occidentalis lucida*) subspecies with the goal of locating active nesting sites and converting surrounding land into protected activity centers. Gained experience in the usage of field instruments, the completion of well-organized data sheets, and the entry of field data into electronic databases.
- Organized data from multiple different projects to be more effective and streamlined for future use. Analyzed sound recording data to identify bat species using the program

SonoBat. Identified and recorded incidences of different species from personal camera and mounted trail camera data.

- Received training and experience in the use and operation of a variety of vehicles used in field research, including emergency procedures for those vehicles. Utilized mist netting to capture and gather data on roosting bats. Gained experience in the husbandry of feeder mice that were brought into the field to be used in bait-and-follow surveys.

Audubon Field Intern, *Audubon Southwest*, Summer Field Season (May 2025 - August 2025, & May 2026 - August 2026).

*Supervisors:* Karen LaFrance, Tim Flood, Bob McCormick

- Conducted call-and-response surveys to identify and record instances of individuals of the threatened subspecies of Western Yellow-Billed Cuckoos (*Coccyzus americanus occidentalis*) and completed related survey datasheets.
- Gained experience in field visual and sound identification of southwestern bird species.

## Research Experience

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Undergraduate Researcher, *Senko Lab for Marine Megafauna and Fisheries Conservation* School for the Future of Innovation in Society, Arizona State University (October 2024 - Present).

*Supervisor:* Dr. Jesse Senko

- Developed an undergraduate thesis in artisanal estuarine fishery bycatch reduction.
- Reviewed and analyzed the current state of knowledge on bycatch reduction technologies and techniques to discuss future directions for research.
- Assisted in the aggregation, analysis, and coding of interview response data gathered from artisanal fishers in Baja California del Sur, Mexico by PHD candidate Cindy Vargas, and collaborated in the writing of a future publication on fisher willingness to participate in bycatch reduction.
- Collaborated in the qualitative coding of news articles from across the political spectrum to synthesize a publication on the way in which political biases can affect reporting on the impacts of plastic pollution in sea turtles in collaboration with fellow master's student Emily Bowen.

Field Researcher, Tonto National Forest 2020 Bush Fire Recovery Project

*Personnel:* Dr. Heather Throop, Dr. María José Sanín, Laura Steger, Arely Castillo (April 2025)

*Collaborators:* The United States Forest Service

- Participated in the completion of one phase of a larger project to examine the recovery of small mammal and perennial woody vegetation populations after the large fire that occurred in 2020 in the Tonto National Forest.

- Established multiple belt transects in areas of different burn severity in the Tonto National Forest, identified woody perennials within the study area, measured the size of identified plants, characterized the soil within the belt transect, and recorded results.

Field Research Student, *Techniques in Conservation Biology and Ecology* for the School of Life Sciences, Arizona State University (January 2025 - Present).

*Instructor:* Heather Throop

- Participated in species capture and release, wildlife and plant census, soil sampling, and other field research techniques in a wide variety of locations, including small mammal trapping, sonoran desert tortoise monitoring, as well as Phoenix talussnail and waterbird population surveys.
- Collaborated with professionals and fellow undergraduate researchers in the field to conduct complex studies and participate in complicated projects.
- Connected with biology research professionals to build relationships across disciplines.

Global Intensive Experience Study Abroad, *Sea Turtles Sharks and Fisheries of Baja California*, Arizona State University, Spring 2024

*Instructors:* Dr. Jesse Senko, Cindy Vargas

- Participated in an ASU study abroad program utilizing study sites throughout the Gulf of California, including La Paz, Mexico and Isla El Paredito.
- Utilized field techniques to capture, tag, and take measurements from sea turtles and other marine species to study their biology and anatomy.
- Interviewed fishers and participated in community-based conservation initiatives, including gear use demonstrations and biology presentations.
- Linked findings to global conservation efforts to direct future studies.

## Awards & Honors

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- Accelerated Master's Award Scholarship (May 2026)
- Arizona State University Moeur Award (May 2026)
- College of Liberal Arts and Sciences Dean's list (2022 - Present)
- New American University - President's Award, \$32,000 (2022 - Present)
- AP Scholar Award (May 2022)
- President's Award for Educational Excellence (May 2016 - May 2022)
- Graduated with a class rank of top 20 (97.95% percentile) from Perry High School (May 2022)

## **Presentations**

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*Landin, M.* Novel strategies to improve conservation education and messaging. Presented at ASU The School of Ocean Futures Symposium. Tempe, Arizona. October 2024.

## **Volunteer Service**

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Liberty Wildlife Rescue and Rehabilitation Center (January 2025 - Present)

- Gained hands-on experience in the handling of wild –potentially dangerous– animals and how to keep myself, as well as the animal, safe while interacting with them.
- Cleaned and maintained proper husbandry of the habitats of a variety of species of wild birds, reptiles, and mammals.
- Received training in veterinary medicine, orphan bird and rabbit care, and wildlife rehabilitation.

Arizona Game and Fish Department Phoenix Talussnail Population Survey (February 2025)

- Collaborated with the Arizona Game and Fish Department Invertebrate Team, lead by Jeff Sorenson, to participate in conservation efforts for Phoenix talussnails (*Sonorella allynsmithi*).
- Cooperated with fellow undergraduate researchers to divide work efficiently.
- Gained invaluable experience in conducting research on elusive wildlife in the harsh conditions of the Sonoran Desert, including extreme heat and uneven terrain.

Arizona Sustainability Alliance Adopt-A-Park Event (February 2025)

- Gained training and education on the invasive species of Arizona and their removal.
- Collaborated with conservation professionals and fellow students in the removal and disposal of invasive plant species at the Audubon Center.

No More Deaths at Arizona State University (November 2023 - April 2024)

- Participated in an off-trail hike of the Sonoran desert in association with the nonprofit organization *No More Deaths* to carry supplies– including canned food and gallons of water –to sites in the desert that are frequented by immigrants crossing the southern border from Mexico.
- Discussed and learned more about immigration policies, laws, and the history behind it; as well as analyzed statistics of fatalities related to border crossings in the region.

Proyecto Asís Costa Rica Wildlife Sanctuary (June 2023)

- Interacted hands-on with the animals undergoing rehabilitation at the wildlife sanctuary in San Carlos, Costa Rica and learned about associated conservation efforts.

- Selected, weighed, and cut fruit, and constructed enrichment devices which were given to the wildlife undergoing rehabilitation at the sanctuary.

#### Feed My Starving Children (February 2022)

- Measured, portioned, distributed, and oversaw the packing of food supplies into boxes.

#### Arizona Animal Welfare League and SPCA (September 2018 - March 2020)

- Participated in the student education program, which taught students to perform CPR on dogs and cats of all sizes. Conducted standard veterinary wellness examinations on a variety of species, and administered vaccinations. Dissected biological specimens.
- Gained hands-on experience in the handling and husbandry of a variety of species, including mammals large and small, reptiles, and invertebrates.
- Cleaned the enclosures of and prepared food and water for the animals residing at the shelter, as well as engaged in the socialization of the dogs and cats there..

### Relevant Coursework

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|------------------------------------------|-------------------------------------------|
| BIO 610 Responsible Conduct of Research  | BIO 579 Data Analysis and Visualization R |
| BIO 423 Population & Community Ecology   | BIO 411 Quantitative Methods Conservation |
| BIO 410 Techniques in Conbio & Ecology   | BIO 324 Environmental Ethics              |
| BIO 370 Vertebrate Zoology               | BIO 331 Animal Behavior                   |
| JUS 444 Environment & Justice            | STP 231 Statistics for Biosciences        |
| BIO 322 Conservation of Biodiversity     | BIO 340 Genetics                          |
| BIO 345 Evolution                        | BIO 320 Fundamentals of Ecology           |
| SPA 471 IndoHispanoMexicano Civilization | ENG 301 Writing for the Professions       |

### Work Experience

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Student Instructional Aide, *Arizona State University* (October 2025 - Present)

*SEA 201: Ocean Conservation* | (October 2025 - December 2025) | *Instructor Yuuki Niimi*

*SEA 101: Ocean Futures* | (January 2026 - March 2026) | *Instructor Dr. Amy Maas*

*SEA 201: Ocean Conservation* | (July 2026 - August 2026) | *Instructor Yuuki Niimi*

- Worked closely with a course instructor and fellow Student Instructional Aides to evaluate student assignments and provide thorough, detailed feedback along with grades.
- Communicated with students to provide additional assistance, guidance, and advice.

Freelance Pet Care, *Rover* (October 2023 - Present)

- Created close relationships with diverse clientele.
- Provided precise and personalized service to pets based on their unique individual needs.

Retail Associate, *Walmart* (July 2021 - October 2023)

- Worked closely with a team of other associates to ensure that the store was well organized and that all customer needs were attended to.
- Translated for Spanish-speaking customers.

## Research Interests

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Zoology; Applied conservation; Animal behavior; Mammalogy; Phylogenetic analysis; Environmental justice and activism; Evolutionary biology; Conservation ecology; Sustainability technology; Conservation legislation; Environmental communication and education; Social dimensions of conservation; Biodiversity trends; Animal husbandry and care.

## Skills and Certifications

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- Field methods - Wildlife capture, tagging, and measurement; Keeping field records and notes; Wildlife handling and husbandry; Hiking through difficult terrain
- Veterinary skills - Vaccine administration; Veterinary health examination; Oral medication administration; CPR administration; Food preparation
- Research skills - Google Suite; Microsoft Office Suite; Statistical analysis; Generating figures; Analyzing data; Scientific writing; Collaborating with others; Attention to detail and precision
- Additional skills - Public speaking; Photography; Videography; Graphic design; Illustration; Social media management; Spanish translation; Video editing
- Certifications - Open Water SCUBA Certification (Saguaro SCUBA September 2019)
- Languages - Native English speaker; Intermediate American Sign Language user; Professional proficiency Spanish speaker

## References

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