

MELANY MCENTEE

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Incoming M.S. student in Wildland Resources at Utah State University (Fall 2026) working under Dr. David Stoner. Currently employed as a Wildlife Technician conducting field research on human-moose interactions in Summit and Wasatch County in collaboration with the Utah Division of Wildlife Resources. My research focuses on recreation ecology, human-wildlife conflict, wildlife conservation, and science-based outreach to improve coexistence between people and wildlife.

EDUCATION

M.S., Ecology-Wildlife Biology - Utah State University Advisor: Dr. David Stoner. Thesis: *Developing science, outreach, and communication materials to address moose-human conflicts in Summit and Wasatch Counties, Utah.* Expected May 2028

B.S., Ecological, Evolutionary, and Organismal Biology - California State University, Chico Graduated May 2021

A.A., Liberal Arts and Science - Las Positas Community College, Livermore, CA Graduated May 2017

Relevant Coursework: Fundamentals of Ecology, Aquatic Ecology, Principles of Evolution, Herpetology, Ornithology, Mammalogy, Field Ecology, Plant Biology & Ecology, Animal Biology & Evolution, Cellular & Molecular Biology, Genetics, General Chem I and II, Organic Chem I and II, General Physics I and II, Sustainability Issues, Introduction to R, Statistical Methods for Biologists

RESEARCH AND PROFESSIONAL EXPERIENCE

Wildlife Technician, Utah State University, Department of Wildland Resources – Northern Utah

May 1, 2026 – Present | Full-Time (40 hrs/week)

- Working within Department of Wildland Resources and Ecology Center to **develop a master's research project** focused on moose-human interactions
- Conduct **literature reviews** to support development of project
- Develop materials list and **equipment procurement plans**, including evaluation of field equipment and supplies given funding constraints
- **Design field sampling strategies** and deployment logistics for camera trap surveys
- Utilize ArcGIS Pro and public geospatial datasets to **identify and evaluate camera trap locations** based on habitat characteristics, trail networks, and study objectives
- **Coordinate field operations**, including camera trap installation, maintenance, and data collection across the study area
- **Manage long-term monitoring efforts** through routine field visits for equipment servicing, battery replacement, and SD card retrieval
- Collaborate with faculty advisor to **establish research methodology, field protocols, and data management procedures**

Environmental Scientist II, *Elkhorn Slough National Estuarine Research Reserve — Moss Landing, CA*

April 8, 2025 – Present | Full-Time (40 hrs/week)

- **Run large-scale monitoring programs for NOAA research:** Lead scientist for the Reserve's nutrient and water quality monitoring programs, overseeing program coordination and implementation of field and laboratory protocols. Maintain, calibrate, and operate YSI water quality sondes for continuous monitoring across multiple sites. Conduct water collection, nutrient sampling, laboratory filtration, and chlorophyll analysis, collaborating with Moss Landing Marine Labs for additional nutrient processing. Perform extensive data QA/QC, manage grab sample data, and submit finalized datasets to NOAA's national database. Analyze long-term and short-term water quality trends across more than 30 monitoring sites.
- **Managing teams:** Manage a trained volunteer team responsible for field collection and laboratory filtration while ensuring compliance of existing protocols. Supervise a separate 12-member marine mammal monitoring team at an active restoration construction site, overseeing daily observations, reporting, scheduling, data management, communication, and recruitment. Supervise a part-time staff member who assists with nutrient and water quality sampling programs.
- **Other field work:** Conduct annual seine surveys for saltwater fish and seasonal dip-net surveys for listed amphibians including California red-legged frogs, California tiger salamanders, and Santa Cruz long-toed salamanders. Support major restoration projects through native vegetation planting, monitoring, and targeted species surveys for amphibians, bivalves, ghost shrimp, and Tryonia snails. Operate groundwater well irrigation systems to support vegetation establishment at large-scale marsh restoration sites.
- **Chair interdisciplinary committees:** Chair two interdisciplinary working groups- one focused on recreational access and community engagement through grant-funded initiatives, and another dedicated to watershed-wide water quality improvement with agency and stakeholder collaboration. Serve on the Tidal Wetland Program's Science Panel, providing technical expertise for estuary-wide strategic planning and stakeholder coordination.
- **Lab manager & Budgeting:** Serve as Laboratory Manager, overseeing chemical inventory, procurement, equipment maintenance, and safety compliance. Build and deploy experimental equipment such as crab traps and bivalve propagation devices to support research and restoration. Manage purchasing within monthly credit limits and annual NOAA-allocated budgets.
- **Data entry and QA/QC:** Act as the primary point of contact for submitting water quality data to internal, state, and federal databases. Perform extensive QA/QC on large datasets in Excel and prepare standardized, final datasets for NOAA's national environmental database, ensuring accuracy and continuity of long-term water quality records.
- **Large-scale habitat restoration:** Contribute to large-scale marsh restoration efforts through planting, coordination of volunteer and conservation corps teams, and providing experimental support. Design and executed a fertilizer-addition field experiment to test vegetation growth in low-organic soils, including all stages from design to data collection. Lead an independent study on pickleweed fragmentation, from greenhouse trials through statistical analysis, and presented findings publicly at a research symposium.
- **Problem-solving:** Took on full responsibility for program operations during a supervisor transition, requiring rapid skill development, effective prioritization, and calm, efficient problem-solving in dynamic conditions.
- **Grant experience:** Support project manager on major restoration grants by preparing reporting templates, tracking deadlines, sending reminders, conducting final edits, and organizing all deliverables into streamlined OneDrive systems for submission to the Ocean Protection Council.

Environmental Scientist: July 31, 2024 – April 7, 2025 | Full-Time (40 hrs/week)

- **Nutrient sampling:** Supported ongoing nutrient sampling and water quality monitoring across the Elkhorn Slough watershed, including data collection, lab processing, and database management.
- **Revegetation/Experimentation:** Participated in the Hester Marsh Restoration Project, performing native vegetation planting and monitoring to evaluate ecological restoration success. Developed and led an independent study on pickleweed fragmentation, from greenhouse implementation through data analysis, to inform revegetation strategies for artificial marsh habitats.

- Biological monitoring: Conducted targeted species surveys, including for California tiger salamander, Santa Cruz long-toed salamander, California red-legged frog, native bivalves, ghost shrimp, and *Tryonia* snails.
- Equipment building/maintenance: Built and deployed experimental equipment such as crab traps and bivalve propagation devices to support research and habitat restoration. Maintained YSI sondes and calibrated weekly.

Research Assistant: October 16, 2023 – July 30, 2024 | Part-Time (20 hrs/week)

- Equipment maintenance: Maintained, calibrated, and operated water quality sondes for continuous environmental monitoring at multiple sites throughout the Elkhorn Slough.
- Nutrient sampling: Assisted in monthly nutrient sampling campaigns, including in-field water collection, laboratory filtration, and chlorophyll analysis to assess ecosystem health.
- Habitat restoration: Conducted weekly irrigation efforts by operating a groundwater well system to water newly planted native vegetation across a large-scale marsh restoration site.
- Data entry: Performed comprehensive data QA/QC in Excel and prepared finalized datasets for submission to NOAA's national environmental database, contributing to high-integrity, long-term water quality records.

Scientific Aid, Elkhorn Slough National Estuarine Research Reserve — CDFW

August 31, 2022 – September 1, 2023 | Part-Time (25 hrs/week)

- Provided science-based interpretation and public outreach at the Elkhorn Slough Visitor Center, educating diverse audiences on the estuary's ecology, history, and active conservation projects.
- Delivered guided tours and interactive presentations focused on local habitats, including estuarine, salt marsh, mudflat, oak woodland, and grassland ecosystems.
- Developed and implemented educational materials and field trip curricula for K–12 and college-level groups, aligning activities with ecological learning objectives and California science standards.
- Collected, prepared, and identified macroinvertebrate specimens for use in microscope labs; communicated their ecological roles, life cycles, and behaviors during educational programming.
- Designed an informational brochure on local fungi using Microsoft Publisher, covering species identification, life cycles, and ecological relevance for public distribution.
- Utilized Microsoft Word's Mail Merge to create customized plant ID notecards for use in interpretive displays.
- Participated in seasonal dip-net surveys to monitor for threatened and endangered amphibians, including the California red-legged frog, Santa Cruz long-toed salamander, and California tiger salamander.

Seasonal Aid, Upper Butte Basin Wildlife Area, CDFW

October 1, 2021 - May 30, 2022 | Full-Time (40 hrs/week)

- Contributed to a morphometric study assessing drought resilience in waterfowl by collecting biometric data (e.g., wing, tarsus, and bill measurements; body mass) and identifying, aging, sexing, and sampling ducks at check stations.
- Operated the hunting check station at the Llano Seco Unit, ensuring compliance with safety regulations and state protocols while providing courteous and informative service to the public.
- Managed confidential information and handled monetary transactions with accuracy and professionalism.
- Supported habitat and facility maintenance activities, including field fertilization, pump operation, water management, and data collection to inform seasonal water mapping.

- Created detailed water maps manually to assist with planning water allocations for the following season.
- Performed data entry and management for hunting records and annual avian surveys to support reporting by the lead environmental scientist.
- Assisted with maintenance and repair of wood duck nest boxes using power tools, and participated in the live capture and banding of wood ducks as part of ongoing monitoring efforts.

Biologist – Camp Fire Hazard Tree Removal Project, CalRecycle (Contractor via Mountain G. Enterprises) – Paradise, CA

May 2, 2021 – September 27, 2021 | Full-Time (50 hrs/week)

- Provided biological support and environmental compliance monitoring for hazard tree removal operations in regions affected by the Camp Fire.
- Conducted pre-construction biological surveys, including Watercourse and Lake Protection Zone (WLPZ) assessments and nesting bird surveys.
- Performed daily on-site biological monitoring of tree crews to ensure adherence to environmental regulations and protection of sensitive species and habitats.
- Executed focused surveys for herpetofauna, avifauna, rare plants, and small mammals within the project area.
- Regularly used ArcGIS Online and Survey123 for data collection, mapping, and reporting.
- Conducted Enhanced Vegetation Management (EVM) work for PG&E, assessing tree health and prescribing vegetation management actions in high fire threat districts.
- Identified tree species native to Northern California and diagnosed health conditions, including sudden oak death and other decay causes.
- Collaborated with property owners to ensure environmental protection and wildfire mitigation aligned with community needs.
- Performed extensive fieldwork in challenging terrain and extreme weather conditions (110°F+), utilizing company-issued equipment (vehicle, work phone, tablet, and credit card).

Research Assistant – Northern Saw-whet Owl Migration Project, Altacal Audubon Society – Chico, CA

October 1, 2019 – November 30, 2020 | Part-Time & Seasonal (10 hrs/week)

- Participated in long-term research studying the migration patterns of Northern Saw-whet Owls (*Aegolius acadicus*).
- Assisted in the deployment of mist nets and acoustic lures to capture owls for study.
- Collected biometric data including weight, wing chord, and molt condition; sexed and aged owls using wing analysis under UV light.
- Followed strict animal handling protocols for the safe capture, handling, and release of avian subjects.
- Entered biological data with high accuracy and consistency, ensuring compliance with project data standards and federal banding requirements.

PROFESSIONAL INVOLVEMENTS & RECOGNITIONS

Member: Tidal Wetland Program Science Panel (2025 - present), **Dean's Honors List** each semester for the College of Natural Sciences, California State University, Chico, **Awarded first place** prize for best upper division undergraduate research at the 24th Annual Biological Sciences Student Research Symposium, **Member: Omicron Theta Epsilon**, Biological Honors Society (2021), **Member: National Society of Leadership and Success** (2020 – present)