

FRANK M.S. MUZIO

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Prospective Ph.D. Candidate

I am a creative and critical thinking Bachelor of Science graduate with a major in Zoology. Extensive academic and applied training in scientific studies with an emphasis on animal morphology, conservation, behavior, and ecology. Demonstrated success in producing results in field and laboratory experiments with an excellent ability to take direction from superiors and work independently with negligible oversight. Highly adaptable to challenging environments with a readiness to advance in laboratory and field skills. Methodically records observations in a succinct and timely manner with a focus on accuracy and precision, while maintaining a sterile and organized work atmosphere. I am goal-oriented, have experience working long days to meet regular deadlines, and demonstrate a strong eagerness to learn.

EDUCATION

Humboldt State University | Arcata, CA

2015- 2017

Bachelor of Science, Major in Zoology

Major GPA: 3.80

Relevant Coursework:

Animal Physiology
Ornithology
Ecology
Genetics
Statistics

Mammalogy
Bacteriology
Evolution
Invertebrate Zoology

College of Alameda | Alameda, CA

2013-2015

University of Puget Sound | Tacoma, WA

2012-2013

CORE STRENGTHS

Field Work:

Mammal Identification (Skins and Skulls) | Auditory and Visual Bird Identification | Reptile and Amphibian Identification | Community and Ecosystem Ecology | GIS | Photography/Camera Traps | Data Collection

Computer Skills:

ArcGIS and Mapping Softwares | Statistics: R | MS Excel | MS Word | Adobe | Community Outreach & Networking

Laboratory Proficiencies:

Aseptic Lab Practices | Qualitative / Quantitative Analysis | Dilutions | Propagation

Familiar Apparatus:

PCR | Spectrophotometer | Microscopy | Centrifuge | Kjeldahl

RELEVANT EXPERIENCE

Professional Studies | Olberding Environmental, Inc. | San Ramon, CA

2017 - Present

Roosting Bat Surveys

- Perform pre-disturbance/baseline surveys for roosting/foraging bats
- Operate bat detectors including the Anabat SD2 Active Bat Detector and Echo Meter Touch Pro
- Analyze bat sonograms to determine species based on ultrasonic calls

Santa Cruz Robust Spineflower Population Monitoring

- Perform yearly population monitoring of one of the last nine known Santa Cruz robust spineflower populations
- Conduct percent coverage surveys, seed set monitoring, mapping and calculate total population estimates
- Assist in the design and implementation of maintenance activities including a mowing regime that is currently being used to reduce competing non-natives.

California Tiger Salamander (CTS) and California Red-legged Frog (CRLF) Population Monitoring and Surveying

- Conduct aquatic larval population sampling for both CTS and CRLF across various sites in Alameda, Santa Clara and Contra Costa Counties.
- Conduct protocol level presence/absence surveys for both species.
- Designed, constructed and utilize surveying equipment and techniques
- Acquired federal and state permits required to handle both species.

Riparian/Wetland Habitat Restoration, Construction and Monitoring

- Design and construct riparian habitat across different mitigation sites throughout the Bay Area
- Conduct quarterly/yearly monitoring of installed riparian and wetland habitats to ensure overall success
- Design and oversee maintenance regimes
- Continue to acquire experience in restoration ecology and an understanding of plant relationships

Other Responsibilities:

- Produce and analyze maps and plan sets using ArcGIS Desktop and Trimble GPS units
- Conduct baseline site assessments, wetland delineations, nesting bird surveys, rare plant surveys, riparian dripline/top-of-bank delineations, and creek stability monitoring
- Produce Biological Resource Analyses, Biological Opinions, Wetland Delineations, Long-term Monitoring Reports, Pre and Post-Construction Reports, and other reports and assessments
- Produce permit applications for regulatory agencies including USFWS, CDFW and USACE
- Conduct presence absence surveys for special status species, including CTS, CRLF, western pond turtle, salt marsh harvest mouse, Ridgeway's rail, and San Joaquin kit fox

Undergraduate Projects | Humboldt State University | Arcata, CA

Notable projects from courses taken during undergraduate study.

Isolation and Identification of Bacteria Species (Instructor: Jianmin Zhong, Ph.D.)

Fall 2016

- Developed the skills necessary to isolate and identify families, genera, and common species of bacteria from different sources.
- Gained experience using a variety of lab techniques, equipment and tests required to inoculate, isolate, and key out bacteria species in a sterile lab setting.
- Gained further experience using aseptic techniques to prevent contamination of samples.

Household Remedies and Their Effects on *E. coli*. (Instructor: Jianmin Zhong, Ph.D.)

Fall 2016

- Designed an experimental study to test the disinfecting strengths of household cleaning remedies on *E.coli*.
- Gained further experience utilizing lab techniques including isolation of a bacteria species and dilutions.

Western Thatching Ant Ecology Study (Instructor: Eric S. Jules, Ph.D.)

Spring 2016

- Designed an experimental study to investigate the plant type preference of the western thatching ant (*Formica obscuripes*) in a coastal dune habitat in Humboldt County, CA.
- Conducted field surveys using square quadrats to assess percent coverage of plant types immediately surrounding western thatching ant mounds
- Gained an understanding of the ecological preferences of a keystone species in an ever-changing habitat

Workshops and Additional Education

2017-Present

Laguna de Santa Rosa California Tiger Salamander Ecology/ Rare Ponds Workshop

2018

- Conducted dipnet surveys for larval Sonoma population CTS
- Spotlight surveys for adult CRLF
- Assisted in the assembly and deployment of western pond turtle (WPT) hoop traps
- Lecture on CRLF, CTS and WPT ecology, identification, survey techniques, regulation and conservation

Laguna de Santa Rosa Foothill Yellow-legged Frog (FYLF) Workshop

2018

- Conducted dipnet surveys in the headwaters of Sonoma Creek for juvenile and adult FYLF
- Lecture on FYLF ecology, identification, survey techniques, regulation and conservation

The Wildlife Society, SF Bay Area Chapter Capture and Restraint Workshop

2018

- Learned and utilized techniques on safely capturing and restraining various wildlife species including racoons, skunks, bobcats, deer, rabbits, birds and mountain lions

SFBBO Bat Ecology Workshop

2017

- Lecture on bat ecology, identification, survey techniques, regulation and conservation
- Mist netted, banded and radio tagged bats in Mountain View, California
- Located bats using radio telemetry

PROFESSIONAL HISTORY

Olberding Environmental | 3170 Crow Canyon Pl, San Ramon, CA
Wildlife Biologist

June 2017-Present

John M. Jameson Construction | 2515 Santa Clara Ave, Alameda, CA
Project Manager
Supervisor

June 2012-2017

EXTRACURRICULAR ACTIVITIES

Joseph DiDonato, Wildlife Biologist | San Francisco Bay Area, CA
Volunteer

June 2012-2017

Assisted with field surveys for rare and protected species in the San Francisco Bay Area including:

- Live trapped kangaroo rats and collected hair and skin samples
- Captured and banded juvenile prairie falcons and took blood samples
- Conducted multiple aquatic surveys for CRLF and CTS
- Deployed noose traps to capture adult golden eagles

QUALIFICATIONS AND PERMISSIONS

USFWS 10(a)(1)(A) Recovery Permit for CTS and CRLF (TE99108C-0)

California Department of Fish and Wildlife Scientific Collection Permit (SCP-13781)

California Department of Fish and Wildlife Plant Voucher Collecting Permit (No. 2081(a)-19-053-V)

NAUI Recreational Diver

REFERENCES

P.Dawn Goley, PhD | Biological Sciences | Humboldt State University | Arcata, CA
707.826.4168; pdg1@humboldt.edu

Jianmin Zhong, PhD | Biological Sciences | Humboldt State University | Arcata, CA
707.826.5554; jz15@humboldt.edu

Mark Colwell, PhD | Biological Sciences | Humboldt State University | Arcata, CA
707.826.3723; mark.colwell@humboldt.edu

Jeff Olberding | Olberding Environmental, Inc. | Owner | Folsom, CA
916.985.1188; jeff@olberdingenv.com

Joseph DiDonato | Wildlife Biologist | Alameda, CA
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John Jameson | John M. Jameson Construction | Owner | Alameda, CA
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