# Alan J. Lizarraga M.S.

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#### **Education**

**University of Texas at Tyler** 

**B.S. Biology** 

2013-2015

#### 1<sup>st</sup> Year Subjects Include:

- Plant Taxonomy
- Cell Biology
- Ecology
- Organic Chemistry I&II
- Medical Terminology
- Consumer Health

#### **Final Year Subjects Include:**

- Microbiology
- Physiology
- Biochemistry
- Vertebrate Natural History
- Genetics
- Biogeography
- Drugs and Health

#### M.S. Biology

2018-2020

#### 1<sup>st</sup> Year Subjects Include:

- Evolutionary Genetics
- Environmental Microbiology
- Developmental Biology
- Advanced Cellular Physiology

#### 2<sup>nd</sup> Year Subjects Include:

- Landscape Ecology
- Ecotoxicology
- Advanced Statistics
- Host-Pathogen Interactions

**M.S. Thesis:** PREVALENCE OF SNAKE FUNGAL DISEASE CAUSED BY OPHIDIOMYCES OPHIODIICOLA IN EAST TEXAS

- Competed in the presentation portion of 2015 Texas Academy of Science conference. Presented my research into the effects of artificial wetland water treatment facilities on anuran populations.
- Research finding baseline frog populations for John Bunker Sands with this opportunity I was
  responsible for all data collection and interpretation. Being entrusted with this research allowed
  me to show my critical thinking, responsibility, and leadership.
- Member of the organization Biologist of Tyler Texas a club whose interest are in the ecological matters in Tyler and east Texas.
- Member of Student Veterans Association a club in which we reach out to veterans and the community for community support. During my time there we were honored by our local U.S. Representative for our outstanding service.
- Earned Award for Outstanding Service for an Undergraduate 2015.

### **Research Experience**

#### January 2018 - December 2020 - Graduate Thesis Work, University of Texas at Tyler

During my graduate work I created my own experimental design and executed it to a successful thesis defense. My work included creating snake encounters, sampling snakes, taking measurements, PCR methods, DNA extraction, and Gel Electrophoresis. This required scheduling of a field seasons as well as laboratory procedures. Thesis available upon request.

#### October 2016 - Present - University of Texas at Tyler

During my time as a staff member at The University of Texas at Tyler I have participated in various research projects working with mussels and crayfish. I am often tapped due to my work proximity to aid in research projects of faculty and graduate students.

#### May 2014 - September 2015 - Research Assistant University of Texas at Tyler

During my employment I assisted in mussel density research along tributaries of the Neches River located in the Big Thicket National Preserve. Collected and identified mussels then collected data on species found. While assisting heavy lifting and use of canoe/kayak were required to reach some specimen collection areas.

I also worked for a project on Masasauga rattlesnakes funded by the state of Texas. Working within the Matador Wildlife Management Area along with sites in Waco, TX. I aided in tracking of snakes, collection of snakes, trap construction, data collection and organization of materials. The purpose of these were niche modeling, population health and hibernaculum assessment.

## **Relative Professional Experience**

#### October 2016 - Present - Laboratory Supervisor, Biology Department University of Texas at Tyler

Duties include, assisting instructors in laboratory courses, preparing chemicals, solutions and media. Ordering and maintaining accurate inventory of chemicals, supplies, and equipment. Providing routine maintenance on equipment and instruments. Supervising lab safety, security, and proper disposal of

chemical wastes, serve as departmental safety liaison. Preparing chemicals and equipment for chemical demonstrations presented during classes.

#### May 2014 - September 2015 - Research Assistant, Biology Department University of Texas Tyler

Worked on multiple research projects including mussel density and travel patterns of Masasauga Rattlesnakes. During this period I won an award for my service to the department.

# October 2002 - October 2007 United States Marine Corps – Meteorological and Oceanographic Journeyman

While in the marines I held different positions but mainly METOC Journeyman. In this operational specialty I was tasked with disseminating weather conditions to national database. This required skills in depth perception, organization, attention to detail, precision, and intermediate knowledge of meteorology.

During this time I was temporarily assigned duties such as gate guard Marine which included basic police training. Also was part of the headquarters squadron itself tasked as the assistant to the substance abuse commanding officer. This included duties related to drug abuse prevention (i.e. administration of urinalysis, classes).

I was also assigned to Transient Aircrew Service Division where I acted as guide to taxiing aircraft as well as park and fuel them. Provided services to VIP's and dignitaries visiting the base which included escort. For a short four month time I was assigned to building and grounds maintenance where many skills in landscaping such as chainsaw and forklift training was required.

### **Achievements/Honors/Awards**

Comptrollers Ecological Laboratory Program – Awarded \$6,400 grant to continue my master's research

University of Texas at Tyler Presidential Staff Research Grant – Awarded \$5,000 to continue my master's research

Outstanding Service for Veterans – U.S. Representative Louie Gohmert

Undergraduate Award for Outstanding Service – University of Texas at Tyler Biology Department

Customer Service Award March 2016 – Cracker Barrel Old Country Store

Global War on Terrorism Medal – Awarded for service during OIF and OEF

National Defense Medal – Awarded for service in United States military

#### **Certifications & Licenses**

Meteorological Observer, Keesler AFB- September 2003

Animal Handling UT Tyler – October 2016

Biosafety in Laboratories – October 2016

Good Laboratory Practices for Molecular Genetic Testing, Center for Disease Control – October 2016

Packaging and Shipping Division 6.2 Materials, Center for Disease Control – October 2016

#### M.A.S.T.E.R. Program:

Antimicrobial Susceptibility Testing Methods, Center for Disease Control – October 2016

Antimicrobial Susceptibility CLSI Standards, Center for Disease Control - October 2016

Antimicrobial Susceptibility Quality Assurance and Quality Control, Center for Disease Control – October 2016

Basic Culture Media and Isolation Techniques, Basic Microbiology Curriculum - October 2016

Safe Zone – February 2017

Trained Crowd Manager - October 2017

#### CITI Program:

Biosafety and Biosecurity, Group 1: Initial Biosafety Training, Stage 1 – July 2019

Working with the IACUC, Students working with Animals, Lab Animal Research – July 2019

Responsible Conduct of Research, Biology, Basic Course – July 2019

Basic Life Support Provider – October 2019

Certificate of Achievement: Research Fellows Program – Summer 2021