

ALESSANDRA ZUNIGA

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EDUCATION

New Mexico State University, Las Cruces New Mexico, United States

December 2014

Bachelor of Science in Biology, College of Arts and Sciences

Minor in Spanish

3.2 GPA

AWARDS & ACHIEVEMENTS

- ❖ Division I athlete at New Mexico State University
Swimming and Diving
- ❖ Student Athlete Academic Honors (2011, 2012, 2013, 2014)
- ❖ Academic All-Conference Award (2011, 2012, 2013, 2014)
- ❖ Academic and Leadership Award (2014)
awarded by: *The Hispanic Faculty/Staff Caucus of NMSU*
- ❖ Completed 70+ hours of community service

2010 – 2014

RESEARCH EXPERIENCE

Phil Robertson lab, Kellogg Biological Station at Michigan State University

National Science Foundation Research Experience for Undergraduates

May 30, 2014–August 7, 2014

- ❖ Investigated the active carbon pool and nitrogen processes in soils across a gradient of fertilizer treatments and perennial cropping systems to determine soil quality.
- ❖ Used soil health indicators to inform farmers on better management ways to enhance soil ecosystem processes, optimize productivity, and improve environmental quality.
- ❖ Sampled soils from KBS LTER sites including Alfalfa, Early Successional, and Resource Gradient Experiments, as well as from farms in Van Buren, Presque Isle, and Isabella counties in the state of Michigan.
- ❖ Made observations of soil quality on site. Subsequently, samples were taken to lab and run under a variety of soil health protocols including: Potentially Mineralizable Nitrogen, Nitrification Potential, Potentially Oxidizable Carbon (or Active Carbon), Rapid Carbon Mineralization, Ammonium Determination, and Nitrate Determination.
- ❖ Laboratory experience at Kellogg Biological Station, Michigan State University, and University of Michigan.
- ❖ Research funded by the Kellogg Biological Station LTER.

LABORATORY EXPERIENCE

Heather Throop lab, New Mexico State University, Las Cruces, NM United States

Level II Lab Research Assistant

January 6, 2015- present

- ❖ Processing/grinding litter and soil samples
- ❖ Loading for carbon and nitrogen determination
- ❖ Updating chemical and lab equipment inventory
- ❖ Soil sampling in the field from various experiments
- ❖ Maintaining a clean, safe, and organized laboratory

PRESENTATIONS

- ❖ Zuniga, A., O'Neill, B., Sprunger, C. and Robertson, P. (2014, August) *Soil Nitrogen and Carbon Measures Sensitive to Management on KBS LTER*. Poster presented at the Kellogg Biological Station Research Experience for Undergraduates Symposium; 2014, August 6th; Hickory Corners, MI.
- ❖ Enriquez, A., Tucker, G., Zuniga, A. (2014, December) *The Variability of Body Size and Beak Length on Song Trill Rate and Fundamental Frequency Among Subspecies of Melospiza Melodia*. Poster presented at the New Mexico State University Animal Communication symposium; 2014, December 3rd; Las Cruces, NM.

PROFESIONAL EXPERIENCE

New Mexico State University Aquatic Center, Las Cruces, NM United States

New Mexico State Lifeguard

May 2013–August 2013

- ❖ Standard First Aid and CPR certification
- ❖ Managed a safe environment for all patrons & maintenance of pool facilities
- ❖ Preparedness to respond to any emergency situation in or out of the pool

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August 2014–December 2014

Las Cruces Aquatic Team, Las Cruces, NM United States

Club Team Swim Coach

June 2012- January 2013

- ❖ Coached children in competitive swimming to prepare them for higher level competition and practice
- ❖ Implemented stroke technique and endurance
- ❖ Instructed various groups of children based on level of ability

New Mexico State Swim School, Las Cruces, NM United States

Swim Instructor

May 2011 - July 2011

- ❖ Taught all different levels of children from preschool to advanced
- ❖ One on one and group lessons to allow kids to advance at their own pace
- ❖ Focused on drowning prevention in early years

LANGUAGES

- ❖ Fluent in English speaking, reading, and writing
- ❖ Fluent in Spanish speaking, reading and writing

AFFILIATIONS

- ❖ Member of the New Mexico State University Ecology Club, a campus chapter of the Ecological Society of America's SEEDS program.

REFERENCES

Brendan O'Neill (KBS research mentor)
Department of Plant and Soil Microbial Sciences
Michigan State University
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(607)227-8934

Christine Sprunger (KBS research mentor)
Department of Plant and Soil Microbial Sciences
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Prof. Philip Robertson (KBS laboratory head)
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