Jessie F. Salter

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RESEARCH INTERESTS

Drivers of speciation in birds, phylogeography, next generation methods, & historical DNA.

EDUCATION

Louisiana State University, Baton Rouge, LA   **August 2015 – present**

Ph.D. Student

Department of Biological Sciences and Museum of Natural Science
Advisors: Brant C. Faircloth and Robb T. Brumfield

Occidental College, Los Angeles, CA   **August 2010 – May 2014**

B.A. in Biology, cum laude

RESEARCH EXPERIENCE

Moore Laboratory of Zoology, Occidental College   **May 2013 – September 2014**

Undergraduate Researcher

Advisor: John E. McCormack

- **Designed project** to **resolve disputed localities in the Fulvous Owl (*Strix fulvescens*)**. Extracted DNA from **toepad tissues** and amplified sections of two mitochondrial genes (CO2, ND6).

- Designed and optimized primers and amplified **historical DNA from museum specimens** (ND2, ATPase). Contributed to **international study** resolving controversial **evolutionary history of Pine Siskins (*Spinus pinus*)**.

- Identified blood and feather samples, extracted DNA, and amplified genes using PCR for **NSF-funded project** to build new **phylogenies of bird species of the Mexican highlands** using **genome-scale molecular methods** and **biogeographic methods** to determine the influence of geological and climatic events on their evolutionary history.

PUBLICATIONS

Alvarez, S., **J. F. Salter**, J. E. McCormack, and B. Mila. In press. Speciation in mountain refugia: phylogeography and demographic history of the pine siskin and black-capped siskin complex. ***Journal of Avian Biology***.

SCIENTIFIC PRESENTATIONS

Salter, J. F., J. M. Maley, J. E. McCormack. 2014. Sequencing DNA from museum specimens helps elucidate disputed localities in the Fulvous Owl (*Strix fulvescens*). Talk. Annual Meeting of the American Ornithologist's Union, Sep. 23-27, Estes Park, CO.

Salter, J. F., J. E. McCormack. 2013. Creating a phylogeography using genomic data for bird species from Mexican pine-oak forests. Talk. Occidental College Summer Research Program Conference, Jul. 31, Los Angeles, CA.

Salter, J. F., J. M. Notestein. 2010. Biofuel: a scientific, political, and ethical exploration. Talk. Evanston Township High School, Senior Studies Oral Defense, May 7, Evanston, IL.

Salter, J. F., K. G. Beaumont. 2007. Focal cell adhesion: an introduction. Talk. Evanston Township High School Annual Science Symposium, May 14, Evanston, IL.

GRANTS

Occidental College Summer Research Program Fellowship ($3900)   **2013**

TEACHING EXPERIENCE

BIOL 1208 Intro Biology Lab for Science Majors   **August 2015 – present**
Graduate Teaching Assistant

OUTREACH

LSU Fall Fest   **October 2, 2015**
LSUMNS Volunteer

Selected bird specimens from the LSUMNS collection to teach students and community members about the museum and ornithology program at LSU. Event was targeted to undergraduates and affiliated community members.

History 355 / Moore Laboratory of Zoology Collaboration   **January – May 2014**
Education in Action Program Facilitator

Developed a curriculum and six research topics for students in History 355 (Indigenous Peoples of Mexico). Using specimens and other resources from the MLZ collection, students investigated how the biology of Mexican bird species influenced their relative importance in Aztec culture, religion, and economy. Project culminated in a presentation to the Board of Trustees.

Los Angeles County Science Olympiad (26th & 27th Annual)   **February 25, 2012 / February 23, 2013**
Volunteer

Developed exam questions, proctored, and scored the Forestry event for Division B (middle school) students.

FIELD EXPERIENCE

SE Arizona   **May 31 – June 11, 2015**
MLZ collecting trip

Focus on bird species of the Dragoon and Chiricahua Mountain sky islands

Costa Rica and Panama   **May 21 – June 14, 2014**
Occidental College Tropical Ecology Field Course

La Selva Biological Station, Pacuare Nature Reserve (CR); Institute for Tropical Ecology and Conservation (Bocas del Toro, PA)