# Alejandro Ríos Franceschi

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## Personal statement

I am interested in the ecology and evolution of amphibians and reptiles (Herpetology). My main focus are the interactions between spatial and temporal changes in the environment. My latest research focuses in sexual communication of anurans (Eleutherodactyus) in Puerto Rico, studying the bioacoustical components of their repertoire.

## Key Skills

- Data collection (Tissue for DNA purposes)
- Use in Statistical Software such as R, Info Stat, Presence and OpenMEE.
- Proficiency in all areas of Microsoft Office, including Excel, Word and PowerPoint
- Excellent communication skills, both written and verbal in English and Spanish
- National Animal Health Emergency Response Corps, USDA, 2013
    - Exotic Avian Diseases Certificate
    - Cleaning and Disinfection Certificate
- S-130 Wildland Firefighter, S-190 Introduction to Wildland Fire Behaviour and Fire Shelter Training, 2012
- UXO Awareness Training, 2010
- Security in Laboratories: Labelling of Hazardous Waste, 2010
- Exposure prevention of blood pathogens and body fluids, 2009
- Proper Management of Hazardous Materials and Wastes, 2008

## Employment History

### Professor, University of Puerto Rico, Utuado
*(August 2013- 2017)*

Achievements and responsibilities:

- Biological Sciences, Integrated Sciences and General Biology, Topics in Biology.
- Coordinated biology laboratories for the year 2014
- Coordinated field work and research
- Coordinated Natural Sciences Department Undergraduate Symposium.
- Responsible of writing, implementing and modifying test procedures and work instructions
- Performed tests, analysed the data and issued written and oral reports with recommendations.

### Professor, Metropolitan University (S01007539), Puerto Rico, Jayuya
*(August 2013- December 2014 & 2017)*

Achievements and responsibilities:

- Pharmacotherapy, Integrated Sciences, Microbiology, Environmental Law and Human Anatomy and Physiology.
- Science laboratory Technician
- Coordinated field work and research
- Responsible of writing, implementing and modifying test procedures and work instructions
- Performed tests, analysed the data and issued written and oral reports with recommendations.
- Applied Sciences Laboratory Technician.

### Reviewer, ***Life: The Excitement of Biology***. *Blay Publishers.*
*(March 2014- Present)*
### Reviewer, ***Herpetologica***. *The Herpetologist's League.*
*(March 2017- Present)*

### Professor, University of Puerto Rico, Rio Piedras
*(August 2015- December 2016)*

Achievements and responsibilities:

- Zoology laboratories

### Professor, University of Puerto Rico, Arecibo
*(August 2013- 2015)*

Achievements and responsibilities:

- Biological Sciences (I & II), General Biology Courses and undergraduate Seminar Course.
- Coordinated field work and research
- Responsible of writing, implementing and modifying test procedures and work instructions
- Performed tests, analysed the data and issued written and oral reports with recommendations.

### Professor, Dewey University, Puerto Rico, Manatí
*(January 2015- May 2015)*

Achievements and responsibilities:

- Human Biology
- Pulmonary Pathophysiology

### Microbiology Technician Assistant, University of Puerto Rico, Mayaguez
*(January 2013- May 2013)*

Achievements and responsibilities:

- Medium Preparation
- Sterilization (Autoclave)
- Preparation of teaching laboratories
- Microbiota transfers

### Laboratory Instructor, University of Puerto Rico, Mayaguez
*(August 2008- August 2012)*

Achievements and responsibilities:

- Biological Sciences and Zoology Courses
- Coordinated field work and research
- Responsible of writing, implementing and modifying test procedures and work instructions
- Performed tests, analysed the data and issued written and oral reports with recommendations

### Consultant, Barrick Gold Corp., Cotuí, Dominican Republic
*(November 2011)*

Achievements and responsibilities:

- Implemented Occupational Models for amphibians
- Developed and performed *Batrachocytrium dendrobatidis* analyses.
- Maintenance of the Amphibian Pod
- Took care of the amphibians recovered from disturbed areas

### Biological Science Aid, Fish and Wildlife Service, Culebra & Cabo Rojo, PR
*(December 2009 – December 2011)*

Achievements and responsibilities:

- Data collection and analysis during sea turtle project monitoring activities by Chelonia.
- Supporting interpretation and research activities by assisting the Refuge Manager in attending the public and conducting group presentation and tours for visitors
- Biological surveys
- Maintenance of the refuge

### Field Research Coordinator, University of Puerto Rico (RDC), Mayaguez
*(June 2009 – May 2009)*

Achievements and responsibilities:

- Coordinate environmental surveillance monitoring activities between the Electrical and Computer Engineering Department's WALSAIP project and the Puerto Rican Crested Toad Recovery Group
- Classification of anurans and birds species via audio recordings

### Field Research Assistant, University of New Mexico, Puerto Rico
*(May 2008)*

Achievements and responsibilities:

- Frog identification
- Toe clipping for genetic purposes and swabbing for the identification of the fungi *Batrachochytrium dendrobatidis* (Bd)

## Education

### University of Puerto Rico/Rio Piedras
*(January 2015 – In progress)*

Doctor in Philosophy Degree (Candidate)**:**

- Bioacoustics
- Ecology, Evolution and Biodiversity

**University of Puerto Rico/Mayaguez**

*(August 2008 – June 2013)*

Master's Degree**:**

- Biology
- Ecology
- Herpetology

**University of Puerto Rico/Mayaguez**

*(August 2003 – June 2008)*

Bachelor's Degree**:**

- Biology
- Zoology

## Publications, Meetings and Talks

- PR-LSAMP Program (University of Puerto Rico), 2017 Humacao, Puerto Rico
  - Oral presentation "Microevolution of bio-acoustic signals and inner ear anatomy of *Eleutherodactylus coqui* and *Eleutherodactylus antillensis* in Puerto Rico." in the Junior Technical Meeting.

- Radio interview- By: 11qtv.com and 1140am, April 25th, 2017
  - Topic: "Coquies de PR, descripción, estatus, amenazas y beneficios." De Revista con Dorilinda Ramírez.

- **Ríos-Franceschi, A**., García-Cancel, J.G., Bird-Picó, F.J., Carrasquillo, L.D., 2016. Spatiotemporal Changes of the Herpetofaunal Community in Mount Resaca and Luis Peña Cay, Culebra National Wildlife Refuge, Culebra, Puerto Rico. Life: the Excitement of Biology. 3(4) 254-289.

- Barker, B. and **Rios-Franceschi, A**., 2014. Population declines of mountain coqui (*Eleutherodactylus portoricensis*) in the Cordillera Central of Puerto Rico. Herpetological Conservation and Biology 9(3) 578-589.

- Population declines of Mountain Coqui (*Eleutherodactylus portoricensis*) in the Cordillera Central of Puerto Rico, Herpetological Corservation and Biology, Accepted.

- 3rd Sub-graduate Research Symposium in Biology, 2013 Mayagüez, Puerto Rico
  - Judge

- 27th Festival Tierra Adentro, 2012 Utuado, Puerto Rico
  The amphibians and reptiles of Puerto Rico.

- 3rd Herpetology Simposium, 2010 Arecibo, Puerto Rico
  Poster presentation "Change in the Geographic Distribution of *Eleutherodactylus portoricensis* (Mountain Coqui)"

- Casa Pueblo, 2010 Adjuntas, Puerto Rico
  - Poster presentation "Change in the Geographic Distribution of *Eleutherodactylus portoricensis* (Mountain Coqui)"

- Presence of Pb, Cu, Zn, Ni and Cd in *Anolis cristatellus* in Toro Negro State Forest(Villalba, Puerto Rico) and Mount Resaca(Culebra,Puerto Rico)

- PR-LSAMP Program (Ponce Hilton), 2009 Ponce, Puerto Rico

  Poster presentation “Change in the Geographic Distribution of *Eleutherodactylus portoricensis* (Mountain Coqui)” in the PR-LSAMP Program, Pfizer & Bridge to the Doctorate.

## Current Research

Research is divided in two areas: Acoustics and histology. It involves how anuran communication evolves in the ever-changing environment. We use high performance ultra-directional microphones to record anuran vocalizations across multiple populations. This data is analyze using an interactive sound analysis software to generate quantitative data that we can use to make comparisons between each population. The histological part consists in how the anuran inner ear (reception of sound) and larynx (sound emission) changes across populations in the Island of Puerto Rico.

## Hobbies & Interests

Ecology and conservation, ecological restauration and management,
Wildlife photography.

## References & Webpage

References are available upon request.
http://guasabara.wixsite.com/herplab