NSF International Research Experience for Students Program



Behavior, Ecology and Conservation Undergraduate Student Research in Argentina

Summer 2022

Application Deadline January 15, 2022



Behavior, Ecology and Conservation Research Opportunity in Argentina

Second Communication, v. September 24, 2021

Dr. Eduardo Fernandez-Duque Dr. Claudia R. Valeggia Dr. Margaret Corley Yale University

U.S students are encouraged to apply to participate in the NSF International Research Experience for Students (IRES) Program titled "Behavioral Ecology, Demography and Conservation of Primates in the Humid Chaco of Argentina".

We are seeking six (6) undergrad students to join us in a yearlong program that includes preparatory training during the Spring, field research during 8-weeks in June-July 2022 and data analyses and writing up of results during the following fall. Participants in the program will conduct research on animal behavior, ecology, and conservation in Formosa, a province located in northeast Argentina. Our field site is located in Estancia Guaycolec (~25 kms from Formosa city), a 25,000 ha cattle ranch in the Humid Chaco ecoregion. The Humid Chaco is comprised of a mosaic of dense gallery forests, palm savannahs, and wetlands and is home to some of South America's most charismatic megafauna such as capybaras, tapirs, giant anteaters, howler monkeys, ocelots, pumas, rheas, deer, peccaries, toucans, maned wolves and, of course, owl monkeys.

The student educational research activities will be developed within the Owl Monkey Project of Argentina (OMP), an international multidisciplinary program that will celebrate its 25th Anniversary in 2022! Owl monkeys are one of the few pair-living and sexually monogamous primates in the world, the only primate genus with nocturnal habits in the Americas, and one of two primates with the most extreme forms of paternal care among mammals. Thus, they have become a model system for the study of the evolution of

NSF International Research Experience for Students Program

diurnality/nocturnality and activity patterns, pair bonding and monogamy, and infant care in the scientific literature.

The individual student projects will be expected to answer specific questions about the behavior of one species, comparing the behavior of two different species, or testing an explanatory hypothesis in relation to behavior, physiology or conservation, while focusing on the dynamics of intra- and inter-specific competition and of predation pressure in owl monkeys. Ultimately, this will contribute to advance our understanding of the mechanisms and evolution of monogamy, pair-bonding, and bi-parental care.

In the spring prior to traveling to the field site, IRES students will participate in four 3-hour virtual meetings led by the PIs (Drs. Fernandez-Duque and Valeggia and Postdoctoral Fellow Dr. Margaret Corley from Yale University). These meetings will introduce them to key concepts in primate behavior and ecology, prepare them for fieldwork, and enable them to design high-quality feasible research projects.

Students will conduct their individual research projects under the guidance and mentoring of the USA PIs and 4 foreign collaborators from the local Universidad Nacional de Formosa (Dr. Cecilia Juárez), the Universidad Nacional de Misiones (Dr. Inés Badano) and the local National Council for Scientific Research (Dr. Martín. Kowalewski and Dr. Luciana Oklander). The PIs and foreign collaborators will all be at the field site and will take responsibility for advising IRES participants as they plan their studies and the collect data.

On a day-to-day basis, participants can expect to work closely with one another and undergraduate students from a variety of institutions. They will also have the opportunity to work with and learn from graduate students, postdocs, collaborators from the local university in Formosa, and assistants from the US, Argentina, and other countries during their time in the field.

Back in the US, participants will participate in three monthly interactive virtual workshops, during which the PIs will provide guidance for completing final data analyses and interpreting and effectively displaying results. At the end of the fall semester, participants will present their projects in a symposium at Yale.

Student support

The program will cover all expenses including domestic and international travel to and from the field site. Students will also receive a stipend still to be determined, but commensurate to a summer job.

Qualifications

Required

⇒ US Citizenship or Permanent Resident; Freshman/Sophomore/Junior students at time of application.

NSF International Research Experience for Students Program

- ⇒ Applicants should have some coursework or experience in primatology, animal behavior, ecology, biology, environmental studies, or biological anthropology and a demonstrated capacity for working independently.
- ⇒ Ability to work and live in a remote field site with limited utilities (no internet, bathrooms, or electricity) for up to one full week at a time.
- ⇒ Good social and cooperation skills and profound sensitivity and respect to foreign cultures and your coworkers.

Preferred

- ⇒ Spanish is not required, but basic knowledge would make your life easier and more fun.
- ⇒ Students from underrepresented minorities.
- ⇒ Previous research experience.
- ⇒ Relevant coursework completed Animal Behavior, Ecology, Behavioral Ecology, Evolution, Physiology, and Statistics.

<u>For more information</u> about the Owl Monkey Project and the field site please visit https://www.owlmonkeyproject.com/

You can also check our work in the Netflix documentary series #NightonEarth and #NightonEarth:ShotintheDark.

To apply

Interested applicants should apply by completing the Google Form "NSF-IRES Summer 2022, Behavior, Ecology and Conservation Research Opportunity in Argentina" available at:

Application Form

As part of the form, the applicant needs to upload the following:

- a. a letter of interest describing your interest in the project and how it pertains to your current academic and career goals.
- b. a CV or résumé that includes a list of any relevant coursework, prior research, or fieldwork experiences, and international travel experiences and names of two references and their contact information (including phone number and email address).

We will review applications on a rolling basis until January 15th, 2022.