

Research Experience for Undergraduates (REU) in Animal Behavior

Lance-tailed Manakin Behavioral Research in Panama

Overview: The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in areas of research funded by the National Science Foundation. REU projects aim to involve students in meaningful ways in ongoing research programs, and in projects specifically designed for REU participation.

This REU fellowship supports an independent research experience in animal behavior for one currently enrolled undergraduate student in May – July 2020. The chosen REU fellow will join a field research team on Isla Boca Brava, Panama to study courtship and mate choice behavior of a wild population of lance-tailed manakins. These small passerine birds have an intriguing cooperative lek mating system, in which males display for females in two-male teams but only the dominant alpha male mates with females they jointly attract. The REU fellow will actively participate in collecting key project data with the field crew for the first week of their residence on the study site, including behavioral observations, mistnetting, and nest searching/monitoring. In collaboration with Dr. DuVal, the fellow will develop their own related project questions and hypotheses, and collect data required to test those hypotheses.

Successful applicants should be prepared for difficult field conditions, including extreme heat, humidity, biting insects, and possible encounters with venomous snakes and scorpions, among other possible dangers. Work will take place off-trail in a dry tropical forest that has been the site of long-term research by Emily DuVal and colleagues since 1999. Details about this species and current work in the DuVal Lab are at: <http://bio.fsu.edu/duval/Research.html>. A list of papers produced by this project that you might find useful for references is available at: <http://bio.fsu.edu/duval/Publications.html>.

Timeline: Starting in early May, the REU fellow will conduct an independent, mentored research project for five weeks on the field site in Panama. At the end of this time, the student will return to Florida State University in Tallahassee, FL to complete analyses and any labwork in the remaining 5 weeks of the REU term, and to prepare research results for presentation in the Department of Biological Science, publication, and/or at the national meeting of the Animal Behavior Society. Exact dates will be determined by the end of the spring semester at the student's university, but participants should plan on leaving for Panama as soon as possible in May to enable sufficient field time to complete their project.

Support: The REU fellow will receive a \$5000 stipend for the 10-week project term, housing and travel expenses in Panama, and funds for lab/field supplies required for their project.

Eligibility: Current freshmen, sophomores, juniors and non-graduating seniors majoring in biological sciences, who are U.S. citizens or permanent residents, are eligible to apply.

Underrepresented minority students, disabled students, and students from small colleges without graduate biology programs are encouraged to apply. Applicants must be willing and able to be employed full-time for the complete 10-week period of the fellowship (please note: *the selected student cannot simultaneously enroll in classes*). The chosen fellow will be required to complete FSU Animal Care and Use training within one month of being chosen for this program, and to be covered by an appropriate health insurance policy while



Above: a pair of displaying male lance-tailed manakins. Below left: manakin chick being banded; right: mistnetting with the field crew.



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participating in the fellowship. REU participants will be recruited from the national pool of undergraduate biology majors.

For this project, you must also be willing & able to work outside in the extremely hot and humid conditions of lowlands Panama during the rainy season; must be able to work safely while hiking off trail in a forest that is home to venomous snakes among other potential dangers; and must be able to tolerate close shared living quarters and long field hours during time in Panama. The ideal candidates will also have: (a) completed relevant coursework, such as ecology, animal behavior, evolution, mathematical modeling, or field biology; (b) serious potential interest in a career that includes biological research; (c) reliability, attention to detail, people-skills, and self-motivation. Research experience is not required, but please include if relevant (including independent projects for courses).

Applications from students from groups underrepresented in science (students of color, first-generation college students, etc.) are highly encouraged and will receive priority consideration.

To apply:

Complete applications should be received by January 30, 2020 and include:

1. **The application form available at:**
http://bio.fsu.edu/duval/papers/REU_Application_2020_DuVal.pdf
2. **A 1-3 page personal statement.** This statement should explain
 - a) your long term career goals,
 - b) why you wish to participate in this REU experience, and
 - c) your research interests and experiences,
 - d) strengths you can bring to the fellowship.
 - e) explanation of your previous experience living in close quarters and/or in field conditions. Fieldwork associated with this project involves living closely in shared housing with an established field crew of 6 other people for 6 weeks of the project, in what is essentially a one-room field house.
3. An **unofficial transcript** (an official transcript will be required for the selected student to be hired, and must match the unofficial transcript)

Have two science faculty who are familiar with your work email letters of recommendation directly to the email address below.

Email application materials to: Dr. Emily DuVal, ehduval@bio.fsu.edu