



**TAMBOPATA SUMMER RESEARCH OPPORTUNITY**  
**IN THE PERUVIAN AMAZON**  
June to September 2016

Now in our 15<sup>th</sup> year, the Anthropology Department is again organizing three to four summer research opportunities for students—undergraduate and graduate—who are interested in conservation and community development in Amazonia. These research positions are offered by the Peruvian ecotourism company, Rainforest Expeditions (abbreviated “RFE”) and all require a summer (or fall) commitment of at least 8 weeks. All provide free room and board at lodges operated by RFE in the Tambopata-Candamo Reserved Zone in the lowland rain forest area of southeastern Peru. All you need to provide is your interest, time and effort, plus the cost of air travel to the Amazon, which undergraduates can request from UAR. *This is wonderful opportunity* in a lovely microcosm for learning about the Amazon rainforest and its inhabitants! And it is nearly ideal for newcomers to independent research as well as for experienced practitioners.

At least two of the summer positions (called “New Researchers”) entail working on a project as defined and described by RFE, such as the ones described briefly below. One or two additional positions are for “Experienced Researchers:” in the latter, students are free to work on an approved research project of their own design. In each case, Rainforest Expeditions offers 3 meals a day at one of their Amazon lodges – either El Refugio Lodge, Posada Amazonas (which is co-owned by an indigenous community), and the unparalleled Amazon wildlife experience of “Tambopata Research Center.” They offer lodging in the guides’ & researchers’ facilities at these lodges, and round-trip boat passage between them from the regional capital, Puerto Maldonado, which is accessible by daily jet flights from Lima. In return, students are expected to give periodic presentations on their work to international tourists in the lodges (sometimes as many as 1-3 presentations a week) and to share at least one meal a day with tourists in the dining room (details follow). This summer will be the 15<sup>th</sup> year of the program, designed to increase opportunities for student research and experiential learning in the Amazon. Stanford students who took part in previous summers are available on campus to answer questions and to discuss this special educational opportunity.

### **The Ecotourism Company**

Rainforest Expeditions is a Peruvian ecotourism company with a reputation for socially- and environmentally-responsible operation in the Amazon. In addition to promoting ecotourism as one form of sustainable development in Tambopata, RFE is committed to ensuring local community participation, continuous conservation research, and a program of monitoring ecotourism impacts in the area. The company was formed as an outgrowth of the Macaw Project, a conservation effort that helped reverse the declining population of scarlet and blue-and-yellow macaws in the region. Two years into the project, the Tambopata Research Center (TRC) was transformed into an ecotourism lodge. More information about Rainforest Expeditions, including the multiple international ecotourism awards, can be found at their web site: [www.perunature.com](http://www.perunature.com).

Located in the heart of the Tambopata-Candamo reserve, about 7 hours by motorized dugout from Puerto Maldonado, the TRC continues to host scientific research in the areas of ecology and conservation biology. In addition, Rainforest Expeditions opened a second lodge, Posada Amazonas, in April 1998, in joint partnership with the local Native Community, known by its indigenous name, "Baawaja," and also its Spanish name, "Infierno." Located between TRC and Puerto Maldonado (the port of arrival for tourists), Posada Amazonas was designed to cater to short-term visits to the region, to serve as a rest stop for tourists traveling to the TRC, and to provide a means for the local population to participate as stakeholders in the ecotourism industry of the area. RFE's third lodge, El Refugio, is located roughly halfway between the other two and was built in partnership with Conservation International (full list of awards here: <http://www.perunature.com/amazon-ecotourism-travel-awards.html>). For ecotourists, these three lodges offer terrific opportunities to view the famous macaw and parrot "licks" of the region (highlighted in the January 1994 issue of National Geographic), to visit an oxbow lake with highly endangered giant otters (*Pteronura brasiliensis*), and sometimes to view periodically active Harpy eagle nests (*Harpia harpyja*). For students, the unique characteristics of these three lodges provide opportunities to examine first hand the challenges to conservation and community development in the Amazon.

### **Opportunities for Summer 2016**

Students applying for Tambopata Summer Research Opportunities have the choice of participating in the form of New Researcher or Experienced Researcher, each lasting at least 8 weeks. In some cases, New Researchers will assist other researchers, Peruvian or international, who have an ongoing project in Tambopata. In other cases, New Researchers will design and carry out research with little supervision. *New Researcher positions are ideal for students who are new to fieldwork, but would like to learn how it is done, perhaps with an eye to future independent research or Honors.* Experienced Researcher positions are available for students who already have: (a) some fieldwork experience in research (it need not be in Peru or the Amazon, though that is certainly an advantage), and (b) ideas for their own research project in the lowland rainforest. *Experienced Researcher positions are ideal for graduate students and Honors undergraduates.* Students may participate in this program for multiple years.

Because transportation to sites at a distance from the lodges is difficult and often expensive, projects should be designed carefully. If your ideas do not fall under the proposed projects below, please make sure to discuss them before you apply with Prof. Bill Durham, faculty coordinator at Stanford, or with Tambopata Program Coordinator, Autumn Albers, who knows the area well. Good projects for summer 2016 include the following candidates. Note that this list is NOT exclusive: it is intended as "food for thought." You can certainly pick one of these suggested topics, or come up with new ideas or variants to suit your own goals and curiosities.

### **List of Proposed Projects (\* signifies a project of special interest to RFE this year)**

**\*Hummingbirds:** Design and build a hummingbird garden near the Refugio Amazonas eco-lodge based on previous studies of hummingbirds in the area. Also design informational identification cards to help visitors appreciate and understand the hummingbirds they see.

**\*Orchids and bromeliads:** Participate in orchid and bromeliad research, which will include plant identification as well as natural and in-vitro managing of propagation. In addition, help to build an epiphyte/orchid garden near the Refugio Amazonas eco-lodge.

**\*Brazil Nuts:** Conduct a census and monitoring program to evaluate the natural productivity of 130+ local Brazil Nut trees near the Refugio Amazonas lodge. Also consider how productivity might be improved and experiment to see if pollinators like bees affect productivity.

**\*Harpy Eagle:** Build nesting platforms for harpy eagles to use in Brazil Nut trees. In addition, conduct research that encourages harpy eagle protection by demonstrating the enormous value of harpy eagles in nature and tourism.

**\*Artificial Macaw Nest boxes:** After studying and fixing problems that have occurred in existing artificial macaw nests, design an “ideal artificial macaw nest.” Build several ideal nests, place them in the forest, and then study their use by macaws.

**\*Green Design:** Work on select aspects of green design and construction (especially solar panels) for new Rainforest Expedition (RFE) eco-lodges. This work on facility design will involve collaboration with the RFE founders and architects.

**\*Camera trapping:** Study nocturnal animals at an existing clay lick to analyze visitation frequencies. Design a way to share night photography (either the process and/or the products) with lodge guests. This project could be expanded if two or more students work together to make an experimental mammal lick near one of the lodges, with a suitable blind and live video camera.

**Updating trail maps:** Improve existing trail maps for eco-lodges, noting changes in elevation and plant communities, and using GPS to show trails accurately. This project could be expanded with 2 or more people to create mini “virtual tours” that would give guests a visual preview of what they might see on the trails.

**Guide summaries:** Create materials (such as PowerPoints) on the topics of gold mining, agriculture, logging, and brazil nut harvesting near the El Refugio eco-lodge. The materials will be used by guides to teach guests about these topics.

**Natural history of Hoatzins.** Determine the best approach for tourists to see and appreciate the amazing adaptations, morphological & behavioral, of this most unusual bird. Develop educational materials to help guests realize just how unusual a bird the hoatzin is.

**Climate change and Tambopata.** Assemble from a variety of sources (guides, managers, local residents, tourists themselves) local signs or indicators of climate change in the Tambopata region. Prepare a summary and PowerPoint to share with future visitors.

**Rainforest Palms – Their Properties and Uses:** Conduct an inventory and create a map of the main species of palms within easy walking distance from 1 or 2 of the RFE Lodges. Research their natural

history, zoological relations, and uses today by local people. Prepare a PowerPoint and/or self-study guide to Rainforest Palms of the area.

**Create-your-own Project!** Check out John Kricher's book, *A Neotropical Companion* (Princeton 1997), which is rich with natural history and species interactions, and propose a project that especially intrigues you.

## Requirements

**General:** These summer research fellowships provide an excellent opportunity for experiential, hands-on learning in the lowland tropical forests of South America. But they also assume that you are a hardy, experienced traveler who is **self-motivated, responsible, and congenial even under demanding conditions**. You will be expected to maintain a positive, helpful attitude during your stay in the lodges, and not make unreasonable demands upon fellow students, visitors, and lodge staff. While everyone wants this to be the educational experience of a lifetime, you should also be aware that failure to live up to these expectations may result in a cancellation of your research fellowship by Rainforest Expeditions at any time. Note also that anyone (including parents, siblings, and friends) who may decide to visit you during the period of the Fellowship will be expected to pay full-price for their accommodations and meals, which can run over \$100 per day. While we encourage family and friends to visit you during this opportunity, please do not expect RFE to give "special discounts" for your visitors.

**Specific:** Unless you request alternative arrangements in writing at the time of your application, you are expected to be in Tambopata working with RFE for no less than 56 days (8 total weeks; any shorter period may require prorating any supporting funds administered by Stanford, UAR, etc). At least **some conversational ability in Spanish is required** for participation in this program. Preference will also be given to students whose background includes at least one Stanford class covering some aspect of natural or social science in the Amazon region, such as ANTHRO 162, "Indigenous Peoples and Environmental Problems," ANTHRO 165 "Parks and People," or ANTHRO 169 "Evolutionary Ecology and Conservation." In addition, students chosen for the fellowship are expected to meet with Prof. Durham and TRO Program Coordinator, Autumn Albers, in a special pre-Tambopata "prep seminar" that will meet several times during spring quarter to discuss evolving plans for their summer work. **Students are responsible for all preparations before arriving on site in Tambopata, including vaccinations, health insurance, valid passport, international flight arrangements, etc.** We encourage students to travel to and from Tambopata in groups.

## Expectations

During your time in Tambopata, please bear in mind that you will be expected to fulfill the following commitments:

- (1) Arrive with a **realistic plan for your work** there, whether as a New or Experienced Researcher.
- (2) **Devote at least eight weeks** (56 total days) to your research project. In some few cases, when arranged at the time of application—but ONLY at the time of application—Rainforest Expeditions might consider a slightly shorter time commitment, like 6.5 or 7 weeks. If you can only commit to a period of less than 8 weeks, be sure to say so in your application and briefly explain the circumstances. Candidates who can devote 8 or more weeks to the program will receive priority.
- (3) Be prepared to describe your research to tourists visiting the lodges, from **1 to 3 presentations per week**, as a rule.
- (4) **Share meals** at least once a day with tourists and guides in the dining room.

(5) Include Rainforest Expeditions, Tambopata Research Center, El Refugio, and/or Posada Amazonas in the **acknowledgments** to any reports, Honors projects, or publication(s) that may stem from your work.

(6) After you return to campus, provide Rainforest Expeditions and Prof. Durham with a 12-15 page **Final Report** of your summer's work NO LATER THAN the end of fall term, 2016. The report must be suitable for public viewing on the RFE website, and for submission to Peruvian authorities in renewal of our research permits: **we need both printed and e-document versions of your report.**

(7) Please note that academic credit can sometimes be arranged at Stanford with your major (or minor) department. To receive such credit, however, be sure to explore your options with the department BEFORE your summer position: no guarantees are made about retroactive credit once you depart.

### **How To Apply**

If you are interested in the Tambopata Summer Research Opportunity, please read carefully the requirements. Be sure to discuss your questions or concerns with Prof. Durham ([eb.whd@stanford.edu](mailto:eb.whd@stanford.edu) 50-51C), Autumn Albers – Program Coordinator ([aalbers@stanford.edu](mailto:aalbers@stanford.edu) 50-51D) or Anahid Sarkissian, Undergraduate Student Services Specialist ([Anahids@stanford.edu](mailto:Anahids@stanford.edu), Bldg 50-51N). Then complete the following application and return as a single Word attachment, plus a .jpg picture file as explained below, to Anahid Sarkissian and to Prof. Durham (email addresses just above) no later than **February 15, 2016**. Applications will be read by a selection committee of faculty, graduate students, summer program alums, and staff at Stanford and RFE. Informal interviews are often requested. Applicants will be notified of the results by email in early March.

For further information or clarification, please contact Anahid Sarkissian, Autumn Albers, or Prof. Durham at the email addresses above. Applications are available online at the Anthropology website, under “Department Forms,” <https://www.stanford.edu/dept/anthropology/cgi-bin/web/?q=node/23>

Student Application for the  
**TAMBOPATA SUMMER RESEARCH OPPORTUNITY**  
8-week commitment, Summer 2016

**Please complete the 2-page cover sheet at the end of this document, and put it at the front of your application.** Then, on additional pages with standard margins and 12 pt-or-larger font, please provide the following additional information to the selection committee:

1. Tambopata research projects, whether for a New or Experienced Researcher, require initiative, motivation and self-reliance. In one page or less, please tell us about an episode in your life in which you had to draw on these properties in yourself in order to get something done. Please include a recent digital photo of yourself (as a .jpg file).
2. In a second page or less, please describe how your course of study at Stanford and your future goals would be enhanced by a Tambopata Summer Research Opportunity.
3. In one or two pages, describe a research project (like those on pages 2-3 of this form) you would be interested in working on during your stay in Tambopata. Include a brief description of two or three hypotheses you would like to test in this research, and preliminary methods you would propose to use. Include citations of 5 or more comparable studies from the Peruvian Amazon (including other RFE studies from their website) or elsewhere in the Amazon. There is a useful bibliography and search

engine of publications about biodiversity and conservation in the area around Tambopata: go to [http://atrium.andesamazon.org/biblio\\_search.php](http://atrium.andesamazon.org/biblio_search.php). Note that Atrium provides source citations only (not links) so you will need to locate articles and books using Stanford's online resources. If applying for an Experienced Researcher position, please include instead a 3 to 5 page research proposal for your time in Tambopata. Would this work constitute an Honors project for you, or an MA/MS project?

4. Research equipment is hard to come by in the rain forest regions of Peru, so it is best to keep your equipment needs to modest levels. Happily, with the help of alums and a local foundation, Prof. Durham maintains a small "pool" of equipment for students on this program. The pool includes a number of good digital cameras, a Windows notebook computer and a MacBook, several pairs of binoculars (including waterproof models), a couple of durable headlamps for night work, 2 Bushnell "Yardage Pro 400" Laser Rangefinder binocs, and a couple of decent digital recorders (audio). Please provide a few sentences on page 4 regarding your anticipated equipment needs. If you require items that are not currently in the equipment pool, please describe how you expect to procure this equipment by the start of the summer period.

5. Conditions in the lodges are quite comfortable and the food is generally excellent. However, there is only intermittent electricity, no telephone (but there is periodic web access, radio communication and email), the weather is extremely hot and humid, and there are many insects and other discomforts. In addition to these demanding physical conditions, you will be in a setting of almost constant change, with tourists and visitors changing daily, many of whom come from other countries, cultures and language backgrounds. In a fourth page or less, please discuss how well you think you would adapt to such a demanding situation. Have you ever been in circumstances like these before? Describe an example of coping strategies you have used in the past that will help you make the most of this experience.

6. On a fifth page please discuss the following:

- A. *Some ability at conversational Spanish is required for this experience.* And you will certainly get more from the experience of a summer in Tambopata if you are comfortable speaking Spanish. Please describe briefly and frankly your Spanish conversation ability. Please include any courses taken or other relevant experience.
- B. Please describe any special health or nutritional needs or conditions that might affect your work in Tambopata (including such things as allergies to bee and/or wasp stings), and discuss what precautions, if any, you would expect to take. Vegetarian diets are readily supported at the lodges; vegan is more difficult.
- C. If you are on financial aid at Stanford, with the expectation that you will have summer earnings to contribute, we do have limited summer earnings offset funds. Please tell the committee exactly how much you need and why.
- D. Please describe how you plan to cover the cost of round trip airfare to Lima, Peru, and from Lima to Puerto Maldonado (e.g. UAR small grant, self- or family-funded, Earth Sys internal grant, etc).
- E. Is there anything else you would like the selection committee to know about you that is not included elsewhere in this application?

Please don't forget to include the cover sheets that follow below...

**Thank you for your application to the Tambopata Summer Research Opportunity!**

Application Cover Sheets  
TAMBOPATA SUMMER RESEARCH OPPORTUNITY  
IN THE PERUVIAN AMAZON  
June to September, 2016

Please attach these 2 pages as cover sheets to your application and submit the whole document as a single Word attachment, plus a .jpg picture, **by February 15, 2016** to Anahid Sarkissian, Undergraduate Student Services Specialist at [Anahids@stanford.edu](mailto:Anahids@stanford.edu) (Bldg 50-51N), **and** to Prof. Durham, [eb.whd@stanford.edu](mailto:eb.whd@stanford.edu). Applications will be read by a selection committee of faculty, graduate students, summer program alums, and staff at Stanford and RFE. Informal interviews are often requested. Applicants will be notified of the results by email in early March.

Name \_\_\_\_\_ Local Phone \_\_\_\_\_

Major and Area of Concentration \_\_\_\_\_

Year at Stanford: 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> 4<sup>th</sup> 5<sup>th</sup> Other Expected Date of Graduation \_\_\_\_\_

Email address: \_\_\_\_\_ Local PO Address \_\_\_\_\_

Permanent/Home Address: \_\_\_\_\_

Permanent/Home phone Number: \_\_\_\_\_

**CHECKLIST:** Please check and complete all of the following that apply to you:

\_\_\_ I have read the Tambopata Summer Research Information Packet and Rainforest Expeditions Web Site, and I understand the conditions and expectations of these opportunities. I wish to apply for:

- \_\_\_ a Summer "New Researcher" Position
- \_\_\_ a Summer "Experienced Researcher" Position
- \_\_\_ a position outside the normal summer period (eg. autumn 2016, winter 2017, etc.)  
(If you check the latter, please attach an additional sheet explaining why)

\_\_\_ I am available and willing to commit to a period of \_\_\_ weeks this summer, beginning approximately (month and day) \_\_\_\_\_ through (month and day) \_\_\_\_\_. (If you indicate fewer than 8 weeks--56 days--of fieldwork time, please briefly explain the extenuating circumstances on a separate sheet. Travel outside Tambopata to Cuzco, Machu Picchu, etc. does not count as fieldwork time.)

\_\_\_ I am in good physical condition and am ready to take part in daily activities that require mobility and agility.

\_\_\_ I understand that I will be provided with room and board, under modest conditions, in the guides/researchers section of one of the lodges managed by Rainforest Expeditions.

\_\_\_ I already have a passport and have checked that it is valid (as required by US law) for 6 months beyond my expected date of return from Tambopata.

Number: \_\_\_\_\_ Valid through: \_\_\_\_\_  
Place of Issue: \_\_\_\_\_

\_\_\_ I will apply for (or renew) my passport well before the starting date shown above.

\_\_\_ I understand that it is my responsibility to arrange for my own travel to and from Puerto Maldonado Peru, including funding such travel and making international airline reservations. Please indicate how you expect to cover these costs (personal funds, UAR major grant, UAR small grant, etc):\_\_\_\_\_

\_\_\_ I understand that is also my responsibility to arrange for accident, illness, and equipment insurance for the duration of my travel and stay in Tambopata.

\_\_\_ I include a copy of my personal Resume, a copy of my current Stanford transcript (please also include your previous transcript, if you are a transfer student), and a recent jpg-photo (as requested in question #1).

\_\_\_ I have read the **Expectations** section above and agree to fulfill those commits, including a 12-15 page Final Report of my summer's work which I will turn in to Prof. Durham and to Rainforest Expeditions, NO LATER THAN the end of Fall Term 2016 unless explicitly arranged otherwise beforehand.

\_\_\_ I am \_\_\_ am not planning to arrange academic units for this work in Tambopata.

I hereby apply for the 2016 Tambopata Summer Research Opportunity. The information I have given above is complete and accurate to the best of my knowledge:

\_\_\_\_\_(Signed)

**(Please attach these cover sheets to the FRONT of your application!)**