# **IPS - Lawrence Jacobsen Education Development Grant Application**

Please complete the following application in the space provided. The application along with a 1-page vitae of the principal investigator should not exceed 6 pages. Font should be no less than 12pt. Please direct any questions regarding your application or this award to Dr. Patrícia Izar (patrizar@usp.br).

Application Due: March 1<sup>st</sup>

Name Last: Valença First: Tatiane

Middle Initial:

<u>Project</u> Title of Proposed Project: Protecting monkeys as a way of combating Yellow Fever

<u>Contact Information</u> Address: Av.Prof.Mello Moraes 1721, São Paulo, SP, Brasil CEP 05508-030

Phone: 55-011-99882-1369 Fax: Email: tatiane.valenca@usp.br

# Provide a 200 word summary of your proposal:

This proposal aim to increase community's understanding of monkey's role in surveillance of yellow fever virus circulation and reinforce a healthier human-monkey relationship, especially in Tietê Ecological Park (TEP). It is important to stop monkey's death by misinformed people and to promote people's health in a yellow fever outbreak context in São Paulo. To achieve the goals, we will develop between April-December 2018 four educative actions: "Protect our Guardian Angels of TEP" Campaign, Monkey Talks, Monkey Watching Days and Animal Weekend. The target audience of these actions are population around Tiete Ecological Park (São Paulo, Brazil) and also around other parks and schools from São Paulo city and surrounding cities. Community will be involved as agents of multiplication of these educational actions through workshops. They will help with the construction of activities related to yellow fever, supporting these activities in the places they attend. The number of monkey's deaths, surveys and observational methods will be used for evaluating success. Grant will be applied to develop the activities, construct materials to be used in the activities and events disclosure.

# 1. Describe the purpose of this request. Provide detail on the <u>conservation need</u> and the <u>educational objectives</u>. (1/2 page maximum)

The main aim of this project is to promote primate conservation and public health for human population who live around Tiete Ecological Park (TEP), in São Paulo, Brazil, and also around other parks in São Paulo and surrounding cities, through educative actions. These actions intend to increase the awareness about the importance of monkeys in fighting against the spread of yellow fever virus, to prevent the killing of monkeys by misinformed people and to encourage a healthier relationship between people and monkeys.

The yellow fever outbreak in the state of São Paulo brought fear to the population. Misinformed people believe monkeys cause the disease, and as a result of a panic reaction, some people are killing the animals, believing this is a good strategy for stopping the epidemics (https://www.ndtv.com/world-news/scores-of-monkeys-killed-in-rio-yellow-fever-panic-1811241). Tiete Ecological Park has a center for wildlife treatment which also receives animals from other places (victims of illegal trade, for example). Last year, they received a marmoset monkey, which turned out to be positive to yellow fever. This situation led the Public Health Secretary to close the park for two months for prevention actions, spreading panic around the neighborhood. Approximately two weeks after that, fourteen capuchins from the park had a sudden death, and the exams showed that they were negative to yellow fever. These deaths are under investigation, but considering the most recent events in São Paulo state (and also in others yellow fever outbreaks in our country, see Bicca-Marques & Freitas, 2010) it is reasonable to think that they were poisoned due to people's panic reaction to yellow fever.

We also aim to improving the interactions between people and the animals at the park. As it is common in many parks around the world, conflicts among humans and animals are frequent at Tietê Ecological Park, being mostly an outcome of inadequate human actions (Saito, 2010). Because of these inappropriate interactions, animals' wellbeing is threatened. For example: people give them inappropriate food, and sometimes show aggressive behavior against them. Human presence may also cause interference in the animals' social behavior. At the same time people go to the park to see the monkeys, they put these animals in danger, posing a difficult scenario for the park staff to deal with.

Bicca-Marques, J.C. and Freitas, D.S. 2010.. *Tropical Conservation Science* Vol. 3 (1):78-89. Saito, C. H., Brasileiro, L., de Almeida, L. E., & Henriques Tavares, M. C. (2010). *Sociedade & Natureza*, 22(3), 515-524.

# 2. What methods will be used to implement the program? Please provide specific details. (1/2 page maximum)

Our project includes a range of educative actions to achieve the goals:

- <u>"Protect our Guardian Angels of TEP" campaign</u> This action is inspired by "Protect our Guardian Angels" campaign by Bicca-Marques and Freitas (2010), which contributed to reduce similar problems faced by the south of Brazil in 2008-2009, and which is still contributing to inform Brazilians through social medias. We will adapt some strategies (messages, lectures, videos, posters and theater piece) to our context and spread these messages in the form of educational activities to schools near Tiete Ecological Park (TEP) and to visitors.
- 2. <u>Monkey talks</u> Our laboratory has been working with TEP groups of Capuchin monkeys (*Sapajus spp.*) for around two decades, studying manipulative behavior, social structure, development and tool use. We have a range of interesting information about them which may enhance visitors' interest and awareness of the importance of monkeys, especially TEP groups. We intend to promote short talks by our primatologists at the park, propagating scientific information, awareness of the monkeys' role in preventing yellow fever, and healthy ways to engage in interactions with primates.
- 3. <u>Monkey watching days</u> Taking the advantage from having a primatological team, we want to promote guided monkey watching, when people will be able to see primates' behavior by their own and learn about it accompanied by a primatologist. We will show some ethological techniques, how to observe animals with less impact of their well-being, and we will also emphasize their importance to the park.
- 4. <u>Animal weekend</u> It consists of a range of ludic animal themed workshops for children and teenagers during weekends. We will invite educational teams and artists to work with us, offering to the visitors activities such as videos-making; pictures takings; theater activities; story-telling and drawings. We will be approaching animal conservation in a playful way, addressing the yellow fever question and promoting healthier animal -human relationships in the park (especially with monkeys), and also addressing the illegal wildlife trade question with the help of TEP staff.

#### 3. What methods will be used to evaluate the success of your program?

- 1) Surveys before and after "Protect our Guardian Angels of TEP" campaign activities and monkey talks will allow us to assess previous knowledge of the audience and whether our activities caused a positive impact in improving their knowledge. High knowledge improvement indicates success.
- 2) The number of people participating in each action will be monitored during the program, which allow us to change our strategies focusing in activities that enhance community engagement and enjoyment. High participation will indicate success.
- 3) We have already collected information about the frequency of human-monkey interactions and proportion of interactions that involves food and touching. Since the reopening of the park, we are monitoring these in the same way, pairing observation days with those from last year. We will be able to measure if the frequency of interactions are returning to baseline, and if the proportion of interactions involving food and touching will decrease after our actions, which will indicate success.
- 4) We will evaluate if materials produced by visitors (e.g. drawings, photos, stories) during the workshops portray a positive view of monkeys and other animals, and if conservation is addressed in them, which will indicate success.
- 5) Monkeys' deaths will be monitored, and zero deaths by unnatural causes indicate success.

#### 4. Describe the potential conservation impact.

Primates are facing a decline in population in São Paulo state caused by yellow fever. Since October 2017 around eighteen parks and one zoo were closed for some time only in São Paulo city, due to preventive actions after a monkey's death (vaccination of the surrounding human population, evaluation of the presence of mosquitoes vectors and of virus in them). Public agencies registered more than 500 monkeys' deaths, and it has not stopped yet. For example, in Cantareira Park, São Paulo city, an entire population of howler monkeys died. This decline is becoming more dramatically with massive killing of them by misinformed people in São Paulo state, as well as in other two states (Rio de Janeiro and Minas Gerais).

This project has the potential to protect the lives of Tiete Ecological Park's primates. Additionally, we believe that our project has potential to cause positive impact in other places of our city and state, increasing the protection of other non-human primate groups: addressing a healthier coexistence with primates may positively impact not only TEP monkeys welfare, but also the health of animals from other parks. Moreover, while emphasizing their important role in nature and teaching who they are and how they live, we can also help to prevent animal traffic.

### 5. Provide a timeline for the education initiative.

- 1) "Protect our Guardian Angels of TEP" campaign: April/2018 December/2018
- 2) Monkey Talks: October/2018
- 3) Monkey Watching Days: April & November/2018
- 4) Animal Weekend: June-September/2018

- <u>Budget</u> Please provide detailed information for all expenditures not to exceed \$1500.00. Do you have additional funds for this program? If so, please list funding sources and amounts.
- Print informative materials that will be distributed in schools and at the park: ~5000 units, \$200
- Print stickers with a monkey photo and our main conservation message, which will help us spread a clear message in a creative way that we believe people will want to use: ~5000 units, \$120
- Create a board with a big picture with people and monkeys in a healthy relationship and a conservation message, at the park. We believe that it will catch people's attention to the places where our activities will be driven, increasing the advertisement of the events and thus participation. Additionally, it will be a useful resource for the spread of messages by people themselves through playful photos taken by visitors/participants and posted on social medias. \$580
- Production of bottons with a monkey photo and our conservation main message, that will identify our team in schools and at the park, and to give to our supporters (those that are contributing to enable the project):
  ~100 units, \$50
- Print of promotional material which will inform people in strategic places about our actions: \$50
- Print of surveys and other materials that will be used during Monkey Talks and Monkeys Watching Days \$30
- Transportation of primatologists to the park to make presentations in Monkey Talks and to lead Monkey Watching days: \$30
- Materials, transport and services of educational teams and artists during Animal Weekend: \$440

# Total amout: \$1500

Ps: The prices were estimated on February/2018 according to Brazilian stores.

#### Additional funds

The master student (Tatiane Valença) is doing research on human-animal interactions at Tiete Ecological Park and is receives a scholarship from CNPq for two years (a total of \$11,532.00).

Three assistants from High School Research Programs involved in the same human-animal interactions research receive CNPq's scholarships for one year (a total of \$960.00).

We are also applying for Santander/University of São Paulo grants (an amount that is around \$ 3,000.00).

### (Optional Section) Conservation through Community Involvement (CCI)

If you plan to include community conservation in your program you may be eligible for an additional award of \$500 to support these initiatives. Please describe your Community Conservation Initiative (CCI) component below, addressing how these funds will be used and how this will impact conservation in your region. For more information on CCI and suggested CCI practices, please see the Guidelines for Conservation through Community Involvement posted in the publications section of the IPS website. (Do NOT exceed the space provided here. If you are not applying for CCI funds, write "Not Applicable.")

We want to empower high schools'students and undergraduates who study near Tiete Ecological Park, and some key people of this community (e.g. elderly people who usually frequents this park) to spread the "Protect our Guardian Angels of TEP" campaign in their own and other schools, and also in Tietê and around other parks from São Paulo city and surrounding cities. We planned workshops with four items:

- 1. Epidemiologic lectures with veterinarians and epidemiologists that will elucidate them about yellow fever causes, symptoms, transmission and prevention, actual context of this disease in the state, and specially how monkeys are really related with the illness with their fundamental role in fighting yellow fever through the surveillance of virus circulation;
- 2. Primatological talks with primatologists to enhance their knowledge about who are the New World monkeys taxonomically and morphologically, why they are important in the ecosystem, what are their habits and behaviors, and more specifically who are the monkeys of Tiete Ecological Park and why they are important;
- 3. Conservation discussions with biologists to improve their awareness about negative impacts that New World Monkeys are facing in Atlantic Forest, as illegal trade and yellow fever itself, and about human-animal interactions and conflicts, showing also how we could live a healthier relationship with them;
- 4. Educational and creative workshop to construct with them activities that will be presented in their educational places. It will be discussed how they could explain the main topics related to the problem. We will provide helpful and didactic resources, and produce creative materials together with the trainees to ensure that the message will be spread through a stimulating approach, as a theatre play or a short movie, for example.

These additional funds will be used to make feasible the training and presentations of the activities in the schools, as described below:

- \$300 Students, general community and specialists transportation to training and to schools This is an estimative that includes transportation of 45 students during three days of training and two days of presentation in schools, and transportation of eight specialists;
- \$200 Materials used during the training to prepare the students and to make the production of creative materials together with them during workshop possible.

This will impact conservation warranting young leaders that will spread conservation messages through educational activities. The messages will achieve other students in this region and also their parents indirectly. We expect that these actions will prevent monkey deaths and ensure healthier interactions with them in Tiete, and also in other parks visited by these people in São Paulo and cities around, which are facing these problems. We believe that the community participation will be more effective because their own members will be agents of information spread.

Send this application with a 1-page vitae of the principal investigator to: Dr. Patrícia Izar (<u>patrizar@usp.br</u>).