

**Faculty:** Zarin Machanda, Assistant Professor, School of Arts & Sciences

**Project Locations:** Medford, MA and Kibale National Park, Uganda

**Dates:** mid-May – early August 2020

**Project Title:** Teaching Leadership to Ugandan School Children

**Project Details:** one the directors of both the Kibale Chimpanzee Project (KCP) and the Kasiisi Project. Together, these two organizations work towards the conservation of Kibale National Park, Uganda through programs that support education, health, and care for the environment in local government primary schools. Currently, there are almost 1500 wild chimpanzees living in Kibale National Park. However, this habitat is threatened by the pressure caused by increased human population growth around the park boundaries. These anthropogenic factors are predicted to cause the extinction of all wild apes including chimpanzees by 2100 (Nishida et al. 2001). Effective conservation activities are necessary to save this species. Kasiisi Project works in 16 primary schools that are all located within 5km of the border of Kibale National Park. We service over 10,000 children and our philosophy is that we offer a diverse set of programs to make these schools as wonderful as possible. We believe that we need to give students the resources they need to succeed in order to pursue a future that does not rely on cutting down Kibale National Park for subsistence farming. Along with programs on health, nutrition, reading, art, drama, and photography (to name a few), we also have several programs that teach the students about conservation and the environment. This summer, we are launching a new conservation education program that combines information about animals with personal empowerment training by teaching the children about leadership through the use of animal models. We have three major education goals. (1) First, we hope to illustrate using chimpanzees that leadership can take different forms. Chimpanzees form linear dominance hierarchies in the wild, but alpha males exhibit different dominance styles so that successful alpha males may be highly aggressive but many often lead through group through the use of affiliative behaviors instead. (2) Our second message is that females can be strong and effective leaders as well which we will illustrate using both baboons and elephants as models. In these species, females form strong matrilineal and females are often important sources of knowledge in the group. (3) Lastly, we want to use lions and chimpanzees to teach children that leadership requires cooperation. Both of these species engage in a number of cooperative behaviors where individuals rely on each other to accomplish tasks like group hunting. Leaders often catalyze these cooperative behaviors and important leaders in one domain like hunting do not necessarily adopt leadership positions in other domains. The GRAP students along with a team of two other students will first be tasked with designing the leadership curriculum before they go to Uganda. The curriculum will span 4-5 weeks and be implemented in 2-3 schools (depending on timing). We are going to target the school prefects at the elementary schools who are senior boys and girls (aged approximately 12-14) who have been assigned leadership roles in the schools for the year. The curriculum will involve a number of different kinds of activities including music, dance and drama. The GRAP students will teach the curriculum with the aid of Ugandan field assistants who are able to translate things into the local languages. The research component of this project involves designing new evaluations for assessing these kinds of conservation education initiatives. Unlike our education improvement programs which can be measured by looking at improvement in standardized test scores, the effectiveness of our other kinds of education programs is much harder to measure. To date, most of our evaluations have centered on conducting surveys to assess whether or not attitudes to the forest and to animals have changed before and after conservation programming. From these surveys, we know that students are more likely to say that they have more positive feelings and use more positive language about the park and its wild inhabitants. While these data suggest a shift in attitudes from the conservation programs, our students

often suffer from survey fatigue and we often worry that our students respond in ways that they think will match our expectations. Therefore, it would be ideal if we could test different kinds of assessments to see if a) we get different results from survey data compared to other kinds of assessments and b) if we can measure changes in behavior as opposed to simply attitudes. This summer, we will ask the GRAP students to conduct three types of evaluations: (1) our standardized surveys that we have used for other program evaluations. (2) A writing evaluation where students are asked to write a paragraph about chimpanzees, elephants, baboons and lions before the education program and then again after the program. The paragraphs will be scored for positive vs. negative descriptions of the animals. (3) Finally, a test of behavioral change that was developed with the help of our GRAP student from last summer. Before the study, each child will be given 10 tokens and then asked if they want to donate their tokens to conservation of Kibale National Park or towards buying biscuits for their class. Following the programming, the research students will then run a second round of donation games with the children and will then compare these values with the baseline set by each child. The expectation is that children should show an increase in the donations to animal conservation after seeing the connections between animal leadership and themselves. Data from this project will provide valuable information about differences between types of evaluation and whether new methods maybe more valuable. We will be able to refine and improve our conservation education strategies with this data. This will also be of great interest to any NGO that engages in conservation education since almost all studies that assess the efficacy of conservation education programs have relied on survey data. To date, we have designed the study and have approval from the Ugandan authorities as well as a Ugandan IRB. The existing infrastructure of the Kasiisi Project will allow students to start working on this research as soon as they arrive in Uganda. We are proposing that students will spend the first week or two on campus helping to finalize the design of the curriculum. The students will then spend at least 6 weeks in Uganda at the field site to work with our existing conservation teams to collect data.

#### **Tasks and Responsibilities of Research Assistant:**

1. Training with Dr. Zarin Machanda on the details of the curriculum and how to conduct the evaluations
2. Designing a 4-5 week curriculum on animal leadership
3. Running the pre-program and post-program evaluations
4. Teaching the curriculum to groups of student leaders at 2-3 primary schools
5. Assisting the current conservation teams in planning their programming for the summer

#### **Qualifications:**

Professor Machanda will hire two research assistants. The students do not need any special skills other than strong word and data processing on a computer. They should have a deep interest in learning about different cultures and be comfortable traveling to a part of the world without first world amenities like running water and reliable electricity. Students should also be extremely adaptable, patient and understand that they will need to listen to and follow directions that might not make sense to them given their cultural background. It would be helpful if students have an interest in conservation in the developing world and enjoy working with children.

#### **Description of Field Site:**

Students will be living in rural Uganda, about a 20 minute car ride from the closest town. There is no running water, so students should be prepared to have bucket showers and use pit latrines. Drinking

water comes from boiled and filtered rain water. There is electricity to charge laptops and phones but there are frequent outages. A generator is available at the office for emergencies.

**Housing in Uganda:**

Students will stay in project owned accommodation built to house volunteers. They will share the house with at least 3 and up to 5 other American volunteers and interns, likely with their own room but this is not guaranteed. The house has pit latrines and bucket showers. All drinking water is from rain barrels and is boiled and filtered. The house is surrounded by a fence with a barbed wire top and a locked metal gate. During the day, there is a cook on site and at night there is a security guard. The local supervisor lives 8 km from the volunteer house. For the duration of this study, there will be an Assistant Field Director on site. The house has a safe for valuables.