

## Bwindi Apes Conservation Education Partnership Annual Report 2016

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### **Bwindi Apes Conservation Education Partnership (BACEP)**

The Bwindi Ape Conservation Education Partnership (BACEP) is a collaboration among the Max Planck Institute for Evolutionary Anthropology, Cleveland Metroparks Zoo, North Carolina Zoo, and UNITE for the Environment. BACEP's mission is to conserve endangered great ape species of Bwindi Impenetrable National Park through community conservation awareness programs. BACEP is currently working with four primary schools, all within a radius of five kilometers from the park boundary. These schools are: Ruhija Primary School, Bitanwa Primary School, Mburameizi Primary School and Kanyashogi Primary School. This partnership began in 2014 and builds on previous conservation education activities that were organized since 2008 by the Bwindi Gorilla Project of the Max Planck Institute for Evolutionary Anthropology. BACEP expands those activities by adding two components: teacher training developed by the UNITE for the Environment programme (based near Kibale National Park) and evaluating the effectiveness of the work being done by BACEP. The focus of the teacher training workshops is student-centered teaching, which has been shown to be a very effective method of learning.

## **Overview**

Local people living in the communities on the edge of Bwindi Impenetrable National Park typically know very little about the environment, conservation issues, or the critically endangered mountain gorillas living nearby. Additionally, there is a great need to improve the educational standards as well as the infrastructure of the schools (they have no electricity or running water and basic supplies such as paper, pens, chalk and portable chalkboards are always in short supply). One way to address this concern is to provide lessons and other activities in conservation education to primary school children. In 2008, the Bwindi Gorilla Project of the Max Planck Institute of Evolutionary Anthropology began working with the two primary schools nearest to where they are based in Ruhija, the Ruhija Primary School and the Bitanwa Primary School. Both of these schools have only six teachers with about 350 students studying in grades primary 1- 7. In 2012 the project expanded to include an additional six schools (Mburameizi, Ruhija Model and Nursery, Kamuko, Kanyashogi, Buremba and Karambi) through a collaborative project entitled the Great Ape Education Program (GAEP). The previous work done in this area has now evolved to create BACEP. We are extremely grateful to all organizations and individuals, including Mondberge, who have contributed funding for this project. In 2016, we worked with approximately 330 children at each of the four schools.

## **Overall Goals:**

- Provide conservation education lessons on a monthly basis to grades P6 and P7 at the four primary schools. The aim is to have lessons taught in the same student centered teaching that is being demonstrated at the teacher trainings.
- Hold teacher trainings each term (two per year; will increase to 3 per year in 2017) to develop the knowledge of the teachers in areas of conservation and methods of student-centered teaching.
- Conduct additional activities to provide the students and teachers with more 'hands-on' experience for learning and conservation education. These activities include forest walks, litter pick-up days, and tree nurseries.
- Develop links among the schools by conducting competitions every term, in which schools demonstrate their learning of conservation issues in different formats including debate, music, dance and drama.

## **Activities Overview - 2016**

It has been a very successful year for the Bwindi Apes Conservation Education Partnership. Due to the tireless efforts of our staff, donors and the local communities and schools, the project has made tremendous progress during the course of 2016. To date, this project has been very well received by both the students and teachers. They are keen to learn and very interested in how conservation issues interact with their everyday lives. We are optimistic that the program will increase the knowledge of students in the area about the value of the mountain gorillas, Bwindi Impenetrable National Park, and conservation issues in general. We are confident that BACEP will be a success and that it will provide an example of how effective conservation education can be performed.

To outline just a few of this year's achievements we have successfully:

- Provided lessons in conservation to four local primary schools, in addition to providing essential scholastic equipment. Approximately 330 children at the four schools participated in BACAP activities.
- Implemented community outreach programs including film showings and litter pick up days.
- Maintained tree nurseries at the primary schools, resulting in the distribution of nearly 6000 tree seedlings to the families of the school children.
- Organized five training workshops about fuel efficient stoves which enabled communities further from Ruhija to benefit from this technique, including Batwa pygmy communities.
- Held three interschool competitions among the four schools. One was a debate competition with a theme of 'Gorilla Tourism'. The second was a sports competition involving nearly 150 students competing in netball and football. The third competition was a music, dance and drama competition with a theme of 'Conservation of the Environment', involving a poem, traditional dance and song based on soil conservation, water conservation and forest conservation respectively.
- Held two teacher training workshops each attended by about 35 teachers. The topics of these weekend-long events were Population Growth and the Environment and Soil Conservation.
- Conducted student evaluations and classroom observations to help assess the progress and effectiveness of our program.

### **Classroom Lessons on Conservation**

We provided five conservation education lessons to grades P6, and P7 at the four schools in the program. The lessons given this year were: Gorilla Tourism, Gorilla Social Structure, Litter Collection, Tree Nurseries and Chimpanzee Social Structure. This year we taught the conservation lessons to only P6 and P7 students. We decided to stop working P5 children so we could reduce class size and improve effectiveness. By reducing the number of students taking part in the lessons and increasing the number of times each lesson is given at each of the schools we are able to have smaller classes and tailor the lessons to the level of students present. Now we give each lesson two or three times at each school with the aim to keep class size below 50s students. This will provide a more suitable learning experience. The curriculum emphasizes local biodiversity and conservation needs by focusing on the ecology of Bwindi and the two great ape species, chimpanzees and mountain gorillas. We also have including lessons that give ackground knowledge to support the activities being done, including a lesson on the necessity of tree nurseries and a 'Tragedy of the Commons' themed lesson to partner with the litter collection activity. We endeavor to have an interactive activity in each lesson and also aid the development of skills such as reading, writing, arithmetic and problem solving. The lessons are always taught in a manner to encourage student involvement and self-discovery.



### **Interschool Competitions**

BACEP held three school competitions among the four schools in 2016. The first was a debate competition centered around the advantages and disadvantages of 'Gorilla Tourism', with the aim to help the pupils learn more about gorilla tourism from the varying perspectives of different stakeholders. The competition was planned to tie into the classroom lesson of the same topic which was taught before this event. The competition included two debates in which two schools teamed up together to form each of the two sides. The students were encouraged to take on the perspective of different stakeholders (community members, park staff, tour guides, tour operators and gorillas) to develop arguments in support of their position whether to 'abolish or maintain gorilla tourism'. The second debate was centered around the distribution of profits from the gorilla tourism and whether communities should receive more of the money being brought in by the park.

The second competition was a sports competition. Despite not having direct conservation education benefits, the BACEP team includes a sports theme competition because it is popular among the students. This year almost 150 students participate in netball (girls) and football (boys).

The third competition of this year was a music, dance and drama competition. This competition had a more general conservation theme and involved three different performances from each school. The activities included a traditional dance about 'water conservation', a poem in English about 'soil conservation' and a song in English on the theme of 'forest conservation'. There were 35 participants from each of the four schools. Community members and parents also attended the competition. The students from the winning school of the Music, Dance and Drama competition performed their winning pieces on the local radio, which helps to promote BACEP as well as conservation around Bwindi.

## **Teacher Training Workshops**

BACEP carried out two teacher training workshops in 2016. The teacher training workshops were developed from a method used by 'UNITE for the Environment' in Kibale National Park over the past six years. The ultimate goal for the teacher training workshops is to have all primary school teachers easily integrate conservation education into their lessons and shift their teaching methods towards student-centered learning. The teacher training workshops include lesson planning, discussion sessions, and activities which can be used in the classrooms to teach their students about the topic. The topics chosen for this year's trainings were 'Population Growth and the Environment' and 'Soil Conservation'. At the beginning and at the end of training, the teachers were evaluated to find out if the training has had an impact on the teachers' knowledge and attitude on the topic.

## **Classroom Observations**

The goals of classroom observations were two fold. First, we sought to determine if the teachers were integrating the conservation and environmental knowledge they learned at the trainings into their lessons. Secondly, we wanted to observe the teaching methods being used by the teachers.

- 73% (23 of 28) of all the teachers in the BACEP schools were been observed teaching.
- Each teacher observed was given feedback about the lesson and advised on how to integrate conservation education and improve on their teaching methods.

## **Student Evaluations**

Pupils in Primary three and six were evaluated using simple questionnaires at the beginning and end of the school year to determine if the information teachers were taught during BACEP trainings was transferred to the students. A total of 169 pupils were evaluated at the beginning of the year and 186 were evaluated at the end of the year. To establish the effectiveness of the BACEP program these evaluations have also been done in two schools that are not part of our teacher training programs, to serve as controls (Karambi and Kitojo). The data are currently being analyzed to see how effective the work has been.

## **Community Film Showings**

BACEP has shown great ape conservation films to the communities around Ruhija. The goal of this activity is to help educate people in the communities about great apes and inspire the improved measures for gorilla conservation within Bwindi national park. The films include three 20 minute videos created by the Great Ape Education Program (GAEP) program that address major conservation related issues of great apes in Uganda (consumption of bush meat, snares and deforestation). Additionally, the films provide access to scientifically based information about gorilla behavior and ecology otherwise unavailable to members of local communities. Due to the popularity of this program we have already shown the films in nearly all churches within 30 minutes' drive from Ruhija. Therefore we only had one screening this year, in which 178 people attended. We plan to start the film showings again during 2017 and return to locations where the communities are requesting that the films be shown a second time. Each film showing is followed by a discussion with the audience about what they have learned and their opinions on how to conserve Bwindi National Park.

## Tree Nurseries

One of the largest pressures on the local communities surrounding Bwindi is their overwhelming need for wood as both cooking fuel and building materials. The tree nurseries serve as an interactive classroom, enabling children to become active participants in the germination, gardening, and tree planting process. When the seedlings are ready to be permanently planted, each school keeps some and the rest are distributed to children's families. The wood from these nurseries will eventually be used as a sustainable means of provisioning building material and fuel wood for both school projects and children's families.

<b>BACEP - Trees Grown 2016</b>		
<b>School</b>	<b>Tree species</b>	<b>No of trees</b>
Mburameizi Primary School	<i>Greveria</i>	278
	<i>Pinus patura</i>	720
	<i>Podocarpus</i>	0
Ruhija Primary school	<i>Greveria</i>	1800
	<i>Pinus patura</i>	2175
	<i>Podocarpus</i>	0
Bitanwa Primary School	<i>Greveria</i>	560
	<i>Pinus patura</i>	450
	<i>Podocarpus</i>	0
<b>Total</b>		<b>5983</b>

## Fuel Efficient Stoves



The fuel efficient stove project started with a workshop in 2013 during which local members of the community were taught how to construct fuel efficient stoves. These stoves (shown above) are built to better conduct heat, therefore less firewood is needed. During 2016 we held five more workshops, in which 77 people participated and built 23 stoves. We now use a local community member as the resource person in these trainings. This person attended the first workshop in 2013 and now constructs stoves for community members for a living. Two trainings took place during 2016 further from Ruhija so that more people could benefit from the technology, including one training which took place in a Batwa community. We also held one training at each of the four schools we work within which we taught parents and teachers and resulted in stoves built at all the schools.

### **Litter Collection Day**

As we have done in previous years, we had a litter collection day in 2016. This event takes place on the public road that runs through Bwindi. This year a total of 292 pupils from four schools participated in this activity. The act of litter collection is supposed to help develop a personal accountability for the state of the environment and build a sense of community responsibility for keeping the local area clean. Not only does this activity encourage students to take initiative with respect to maintaining the health of their local environment, but it also exposes them to local wildlife they might not otherwise encounter, such as monkeys, birds, snakes, and other small animals. This year Ugandan Wildlife Authority helped in the facilitation of this activity by engaging the participation of park staff and community members who usually work as porters for tourists. They also took a vehicle and group of people to pick litter on the road from the entrance of the park up to Ruhija, which spans 12km. The Warden in Charge of Ruhija sector also joined the activity. This year the litter collection activity was accompanied by a background lesson about litter collection with the theme of 'tragedy of the commons' (in common areas, there is the tendency for nobody to feel responsibility). After the activity the pupils met with UWA officials for additional knowledge about the national park and what should be done maintain our natural resources.

### **Staff and Partners**

The BACEP project is being administered by Ms. Emilly Turinawe and Mr. Anthony Kalyegira (under the supervision of Dr. Martha Robbins and Mr. Tinka John). Ms. Turinawe has a background in environmental science and community involvement. Mr. Anthony Kalyegira took over the position as BACEP Education Officer, from Mr. Joseph Agaba in August. Ms. Turinawe and Mr. Kalyegira are from the area and speak the local language, Rukiga. Their participation allows us to communicate effectively to the pupils and people from the community whose English is limited and ensures that our lessons are being understood by the local pupils and teachers. The project also benefits from a close working relationship with the Ugandan Wildlife Authority and some government officials, such as the local chairperson (Local Council Three), Sub County Chief, and Councilor in charge of education. These organizations often provide assistance to BACEP with the organization of interschool competitions and events and gladly attend BACEP events.

## **Acknowledgements**

We would like to thank all staff of BACEP, MPI, ITFC, UNITE for the Environment and UWA who helped with this project. In particular we thank James Basuka, Corinne Kendall, and Kristen Lukas. We also are very grateful to the various donors, especially Mondberge, for their longstanding support of our work. Lastly, we thank members of the local communities for making this a successful collaboration.