



Partners for Red Colobus

Protecting Preuss's red colobus (*Piliocolobus preussi*): An integrative conservation strategy through education, ethnographic, and ecological research.

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Mohammad bin Zayed Species Conservation Fund (7,500 USD)

Primate Society of Great Britain (1,400 USD)

University of Georgia Graduate School (Hofner Flight)

Overview:

In 2018 at the International Primatological Society congress in Kenya, the Red Colobus Action Plan (ReCAP) was presented, representing the first Action Plan to target an entire group of African monkeys. As a taxonomic group, red colobus monkeys (*Piliocolobus* spp.) have been identified as one of Africa's most threatened, signaling a need for such targeted conservation action across species' ranges. There are at least 18 forms across West, Central, and East Africa, and more than two thirds of these to be Critically Endangered or Endangered by the IUCN Red List of Threatened Species.

Piliocolobus preussi, Preuss's Red Colobus, is classified as Critically Endangered since 2008. It is endemic to forests between Nigeria's Cross River and Cameroon's Sanaga River and fragmented into two sub-populations; one in the contiguous forests of the southwestern Cameroon (Korup National Park) and southeastern Nigeria (Cross River National Park) and the other in Cameroon's Ebo-Makombe Ndokbou forest block. To date, most of the detailed information about this monkey has come from forest and bushmeat surveys in and around Korup National Park (hereafter Korup). Research on *P. preussi* has been prevalent in the Korup area since the 1980's, focused on population monitoring, bushmeat offtake, and socio-economic surveys (Edwards 1992; Walter et al. 2002; Linder and Oates 2011). This work suggests that hunting for subsistence and to supply the commercial trade in bushmeat has led to extirpation across much of its range (Hofner 2016; Linder and Oates 2011).

Following the suggested conservation actions for red colobus outlined in ReCAP, and with funding by Mohammad bin Zayed Species Conservation Fund, the Primate Society of Great Britain, and the University of Georgia we have initiated "Partners for Red Colobus." This is a collaborative group of researchers and organizations that contributes to the development and implementation of education and outreach as a tool for red colobus conservation while supporting biomonitoring and ethnographic data collection relevant to the conservation of this highly threatened species.

In 2018-19, we produced and distributed conservation education materials and supported in-situ outreach activities in collaboration with local conservation organizations in South West Cameroon. The larger goal of this project is to extend a conservation education initiative across the range of *P. preussi* and support biomonitoring and ethnographic research in collaboration with local conservationists. Given the political status and continued armed conflict throughout the country, the outcomes of our project so far reflect conservation outreach activities in Limbe, South West Region Cameroon, which remains stable. We are continuing with the production of education materials that will be used in a regional program for this species in Korup National Park, with the aim to expand our activities into the Ebo-Makombe Ndokbou forest block.

Project Objectives

Our objective is to improve regional understandings of the plight of *P. preussi* through rural and urban conservation outreach programming. Specifically, we aim to increase conservation knowledge of the fragility of natural resources and the need to preserve *P. preussi* and other wildlife. Within this objective, we strive to build a foundation for sustained, long-term education programs in that highlight the unique and irreplaceable species and ecosystems in Cameroon. We are working to develop this framework for deployment by conservationists throughout West and Central Africa. As part of our long-term objectives, we aim to gain rigorous understanding of the sociocultural aspects associated with the conservation of *P. preussi* and increase our knowledge of the distribution of *P. preussi* and population abundance in Cameroon and Nigeria. Instability in Cameroon has limited our ability to carry out portions of our initial project; however, we continue to support local efforts so that materials are prepared and ready for deployment.

Outcomes 2018-2019

In 2018-2019 we developed outreach materials and educational programming for the Limbe Wildlife Center (LWC) (Limbe, Cameroon) and Korup Rainforest Conservation Society (KRCS) (Mundemba, Cameroon). At the LWC we set up an educational exhibit in the Nyango Exhibition Hall, a heavily trafficked area within the center. Additionally, we held a special event during the LWC Saturday Nature Club, "Red Colobus Nature Club," and gave a presentation and training to Limbe Wildlife Center Staff on red colobus monkeys and our program. All education materials were made collaboratively with student artists and *P. preussi* researchers from the United States, England, and Cameroon. These materials include a red colobus calendar, a short comic, and posters to highlight and this species as unique to the region and communicate research related to ecology and conservation. All materials are translated in both French and English and ready to be replicated for other areas across the range of *P. preussi*. They are the result of long-term ethnographic work in Cameroon, ensuring cultural sensitivity and relevancy. We aim to increase participant's knowledge of endemism, basic ecology, conservation status, and local involvement in red colobus conservation. To our knowledge, this is the first conservation education campaign specific to red colobus monkeys in West and Central Africa. Primate Society of Great Britain funds were used to commission artists, purchasing view masters, and materials for the exhibit at Limbe Wildlife Center.

Nyango Exhibition Hall: This exhibit includes interactive and stationary materials. There are photos and an illustration of *P. preussi*, an interactive story board including view masters showing photographs of red colobus and other primates, a red colobus photo op poster, an interactive education poster, a poster documenting population status and research on *P. preussi*, skeletal remains of colobus and other primates to reinforce the text. As part of a broader message surrounding wildlife trades, we incorporated a cage used to house a confiscated chimpanzee who now resides at the center. This exhibit will remain in the hall for one year. After it is rotated off, we will loan the materials to other organizations working with Partners for Red Colobus.

Red Colobus Nature Club: The event included a structured presentation and activities for an interactive approach to teaching. Our presentation covered basic conservation and ecology of *P. preussi*. Activities reinforced this information and included a guided tour of the Limbe Wildlife Center primates, a walk through the colobus exhibit in the exhibition hall, and other education activities. Activities included: 1) a foraging game to locate leaves hidden in the center; 2) color your own colobus mask; 3) forest ecosystem coloring sheets; and 4) draw your own colobus hand activities. Each child went home with a colobus mask or a sticker and a two-year red colobus calendar.

We publicized this event using social media, radio and newspaper announcements, posting flyers at local churches, and advertising at the center. Approximately 130 children attended the event, ages 6-16. The lesson plan and activities that were used at this event were developed with the Limbe Wildlife Center Education Team so that they are appropriate for use in schools, as well as in rural villages. The presentation was available in both English and French, should any children require translation. Participating education team members included Ateh Wilson Bern, Head of education, Mbakop Armel, and Muma Alvin Ndiangang. Our program will be evaluated and used to implement a long-term education program as part of a 5-year plan in conjunction with the red colobus action plan (ReCAP). Evaluation of our event at Limbe Wildlife Center will be carried out by the education team. This protocol includes a simple questionnaire in the format currently used to assess their ongoing Nature Club program. It will be administered to returning students and visitors who were present for the Red Colobus Nature Club. This project and the evaluation protocols have been reviewed and approved by the Institutional Review Board for Human Subjects Research at the University of Georgia (PROJECT00000659).

As indicated in our proposal and previous reports, we are working to collaborate with our local counterparts to disseminate materials in villages near Korup National Park and Ebo-Makombe Ndokbou forest block. During our field trip, we met with representative from both the Korup Rainforest Conservation Society and Ebo Forest Project to plan future outreach efforts. Both organizations are interested in collaborating with Partners for Red Colobus in the coming year. Focusing on science communication and outreach, Partners for Red Colobus is also active on social media. Our social media accounts track our current work in Cameroon, as well as communicate current science in red colobus ecology and conservation in a format accessible to general audiences. You can find us on Instagram and Facebook @partners4redcolobus.

Next Steps

The funding used to implement the project thus far has allowed us to create the educational materials for *P. preussi*, jumpstart a conservation education protocol, and connect with our local counterparts regarding collaboration. With the ongoing support of our local collaborators, we are confident that this project will be successful through the range of *P. preussi* in Cameroon. With future programming, we hope to empower the local communities in Cameroon to act as stewards of this highly threatened species while also providing framework and inspiration to red colobus researchers and conservationists throughout Africa to include education and local outreach within conservation programs.

During the ongoing instability in the Anglophone regions of Cameroon, conservation research and programming is limited. Therefore, it is imperative to continue efforts to provide education materials and support for this Critically Endangered primate. Our next steps will include applying for funding to provide both Ebo Forest Project and Korup Rainforest Conservation Society with materials to disseminate in rural villages to introduce the project and begin to increase public knowledge on both the uniqueness and conservation status of *P. preussi*. With our support, the field teams of KRCS are ready to begin and complete these projects as the situation improves. We are currently in discussion with the Ebo Forest Project on how best to implement this program as part of their ongoing research and outreach programming in the Littoral Region of Cameroon. We would also like to continue to work in Limbe, which has remained stable throughout the crisis. This will include school visits during the academic year by local collaborators and dissemination of our materials adapted to be cost effectively mass produced and disseminated throughout the city.

As we expand this project, we are working to run outreach events in rural villages as football/handball tournaments, with additional programming for children including a mobile version of our exhibit and educational program. In coupling outreach initiatives with social data collection methods in rural communities we will gain insight to local knowledge, perceptions, and use of this species. By collecting oral histories regarding conservation and its effects on local communities, we will be better equipped to inform conservation management planning for red colobus in these spaces while fostering communicative relationships between local communities and conservation practitioners. There is currently very little known about the ecology of this species, and the populations existing outside of Korup. With our program, we intend to fill this gap in research by working closely with local conservationists to implement a survey protocol in forest spaces surrounding Korup, as well as Cross River National Park, Nigeria.

Please visit our website at (<https://partnersforredcolobus.weebly.com/>) to view photos and videos of this work. All photos and videos are available upon request. We have also published a small piece outlining our organization in African Primates, found here: <http://www.primatesg.org/african-primates-volume-13/>. We thank you for your support.

References-

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