International Primatological Society

IPS Bulletin

July 2014

Volume 40 Number 1

President's Corner

matsuzaw@pri.kyoto-u.ac.jp

Three responsibilities of primatologists: Research, Education, and Public Outreach

I hope this finds everyone well. Our biennial conference, this year the 25th IPS Congress, is now only just around the corner. It will take place in Ha Noi, Vietnam, August 11th - 16th, with the IPS General Assembly on the last day. The IPS Council meetings will be held before after the main conference program. Several satellite meetings have also been arranged. I encourage all to attend, and look forward to seeing many of you there. Please join us.

I would like to give you a brief overview of my activities carried out as IPS President over the past six months. I have performed three main tasks in this period. The first task was to create a database listing all previous IPS officers. You may not realize that we previously lacked an easily accessible record of past officers on the IPS website. In order to reconstruct our history, I reviewed past IPS Bulletins and published Conference Proceedings, and checked with past IPS Presidents and Officers, with the assistance of the Secretary to the IPS president, Dr. Claire Watson. The IPS was founded in 1960. It will be our 60th anniversary in 2016. With our society so well-established, this seems an ideal juncture to reflect on our past and plan for the future. The first step, to this end, was setting up an archive of past Officers. I wanted to allow members to see, at a glance, the names and geographical distribution of those formerly holding each IPS Office. These facts are, in my view, essential information for IPS members voting to elect future IPS Officers.

My second task was to chair the IPS 2014 Election Committee. As you may know, there is an election for half of the IPS officers once every two years, in the same year as the IPS Congress. Just prior to this year's election, the IPS Constitution and Bylaws were updated. Following IPS regulations, we asked IPS members to nominate candidates to run in the election of new IPS officers. My thanks, once again, to both nominators and nominees. Voting closed on May 1st and the result was announced at the end of the month: Nancy Caine as General Secretary, Steve Schapiro as Treasurer and VP for membership, Joanna Setchell as VP for Research, and Janette Wallis as VP for Conservation. The four officers, all re-elected, will serve this society over the next four years, 2014 - 2018. I would like to

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Claudia Fichtel, Editor

IPS Officers

acknowledge the other members of the Election Committee: Elizabeth Lonsdorf, Karen Strier, Elisabetta Visalberghi, John Oates, Carolus van Schaik, and Jorge Martinez Contreras.

The Election Committee discussed a number of important issues that require attention in the near future. For example, how best to ensure a balanced representation of the geographical range of IPS members, whether we should consider introducing term limits for IPS Officers and whether or not the exact number of votes for each candidate should be released following future IPS elections and, if so, how.

The third task was to chair the 2014 IPS Lifetime Achievement Award Committee. Thank you very much to everyone who took the time and effort to make a nomination. The Committee was presented with a huge selection of excellent candidates. I was incredibly touched to know that so many people have dedicated their lives to nonhuman primates: be it through contribution to research, teaching and public engagement, conservation, and/or promoting welfare. It was an extremely difficult task to choose a single awardee from the many highly deserving nominees. The LAA 2014 will be awarded to Prof. Jeanne Altmann, who has dedicated herself to the study of baboons. She has published a vast number of articles, including the landmark paper, in 1974, introducing methods for how best to observe and record animal behavior. Jeanne Altmann has also served as a Vice president of Conservation for IPS. I acknowledge my fellow Lifetime Achievement Award Committee members: Nancy Caine, Elisabetta Visalberghi, Julia Fischer, Claudia Fichtel, John Oates, and Augustin Basabose.

The term of the IPS president is limited to a single term of four years, according to the IPS Constitution and Bylaws. My term began in 2012, after the 24th IPS Congress in Cancun, Mexico, and will end in 2016 right after the 26th IPS Congress in Chicago (August 2016). Almost half of my term has already passed. I will continue to do my utmost to serve this society, in collaboration with the IPS Officers and all IPS members.

It is my opinion that every scientist should carry out three major strands of activity: research, education, and public outreach (or public engagement). Scientific research is important because it provides guiding empirical evidence to keep us headed in the right direction. Education is necessary to pass our efforts from one generation to the next. Regarding research and education, we should not neglect conservation and primate welfare issues. I believe strongly that the study of captive primates should include research and efforts towards maximizing animal welfare, whilst fieldwork should be linked to research and projects to promote conservation. Public engagement involves direct communication with members of the public, to inform them about nonhuman-primates, about scientist's activities, and to engage their interest and opinions. For example, what makes nonhuman primates so fascinating and important, threats to endangered species and raising awareness of welfare issues. Perhaps most important of all, we can explain to the public how they can best contribute to help protect nonhuman primates.

I want to take this opportunity to share my recent efforts, within my own field of expertise, following the three strands I have outlined above. My scientific research has always involved studying chimpanzees in captive settings and in the field, in parallel. The well-known Ai-Project began in 1978 and continues today. Field workers in Bossou and Nimba, Guinea, this year, confronted a new challenge, the first Ebola outbreak in West Africa. I took the decision to recall all research colleagues and students from the field. Next, we held a meeting in Japan to discuss the best policy to ensure people's safety in the future and raise awareness among Guinean people living near the field site. Having finalized a plan for implementation, we gradually recommenced fieldwork, from June, in close collaboration with our Guinean colleagues.

Recently, my colleagues and I launched a leading graduate program in 'Primatology and Wildlife Science' (PWS), within Kyoto University, to promote excellence in education. PWS supports young scholars, with the aim of creating a new generation of trained professionals who will dedicate themselves to promoting conservation and welfare of nonhuman primates, and public outreach on these issues. Please take a look at the web site: www.wildlife-science.org.

To help further public outreach, I took on the role of director of the Japan Monkey Center (JMC) this year. The JMC was founded in 1956, the first institution of the early pioneers of Japanese primatology led by the late Kinji Imanishi (1902 - 1992). The center comprises both a museum and a zoo specializing in nonhuman primates. The zoo currently houses 68 different species of nonhuman primates with a total of 985

individuals. The JMC, financed initially by a prominent railway company, became an independent nonprofit NGO as of April this year. Kyoto University researchers will collaborate to continue existing JMC endeavors, among them: publishing the longest-running specialist primate journal "Primates", published by Springer, and managing a unique zoo of nonhuman primates, as a window on nature.

To conclude my report, I want to give you my most recent news: the former president of IPS, Juichi Yamagiwa, has been elected as the next president of Kyoto University, beginning a 6 year term from October 2014. Another fellow primatologist was the former vice-chancellor of Cambridge University, UK University: Professor Alison Richard. I hope that Dr. Yamagiwa's long career of studying wild gorillas helps him face the very difficult challenge of heading a vast number of people with different opinions, beliefs and values. Please join me in welcoming him at the congress in Ha Noi as a member of our IPS family.

Tetsuro Matsutzawa
President, IPS

VP for Research

joanna.setchell@durham.ac.uk

2013 Research grants competition

The competition was very strong again this year, with 93 applications (a 16% increase from last year), from 21 countries (vs. 22 last year).

I am very grateful to the members of the IPS Research Committee for their help in reviewing the applications and providing constructive feedback which we sent to all applicants: Federica Amici, Judith Burkart, Melanie Damm-hahn, Antje Engelhardt, Eduardo Fernandez-Duque, Cyril Grueter, Goro Hanya, James Higham, Maren Huck, Lydia Hopper, Reinhold Hutz and Patricia Izar (the fact that we only get up to I in the alphabet is pure chance!).

Due to financial constraints, we awarded a total of US$ 7 452 in five grants, although there were many more excellent applications. None of the successful applicants included Community Conservation Initiatives in their applications.

The successful applicants were:

- **Ilaria Agostini** (Argentina): "Interaction between food availability and parasitism in primates: wild black-horned capuchin monkeys (*Sapajus nigritus*) as a model"
- **Shauhin Alavi** (USA): "Orangutans, what do they know and where are they going?"
- **Ryan Burke** (UK): "Are gelada monkeys keystone species? A broadscale analysis of the population status of Ethiopia's herbivorous primate and consequences for ecosystem processes"
- **Addisu Mekonnen** (Ethiopia): "Sleeping site selection of Bale monkeys (*Chlorocebus djamdjamensis*) at Kokosa forest fragment in southern Ethiopia"
- **Efstathia Robakis** (USA): "Vocal regulation of dispersal in two sympatric callitrichids, *Saguinus fuscicollis* and *S. imperator*"

Meanwhile, I have been continuing to work with a small steering committee (Erin Riley, Katie MacKinnon, Eduardo Fernandez-Duque, and Paul A. Garber) and a larger committee of field primatologists representing major primatological societies and organizations from Africa, Asia, Europe, and North, Central, and South America to craft a "code of best practices" to help field primatologists navigate the contemporary ethical landscape. More on this soon.

If you are interested in the activities of the Research Committee, or if you have specific issues you would like addressed, please contact me.

I look forward to seeing many of you in Ha Noi.
Jo Setchell
VP for Research

VP for Education and Outreach

elizabeth.lonsdorf@fandm.edu

I would like to thank the many dedicated members of the IPS Education Committee who assisted with reviews of applications for the Lawrence Jacobsen Education Development Grant and nominations for the Charles Southwick Conservation Education Commitment Award.

Three Jacobsen grants were awarded:

- **Sonya Kahlenberg**, Developing an education trail at the Gorilla Rehabilitation and Conservation Education Center - DRC
- **Bradley Parks**, Rotecting the critically-endangered Tonkin Snub-nosed monkeys in Vietnam through conservation education - Vietnam
- **Colin Pringle**, Adapting proven materials of primate conservation education in SE Nigeria - Nigeria

Three Southwick awards were bestowed:

- **Maria de Gracas de Souza**, Environmental Education Coordinator, IPE (Institute for Ecological Research), Brazil, nominated by Suzanne Padua
- **Nixon Sajita Kwayiya**, Chairman, Kakamega Environmental Education Program, Kenya, nominated by Marina Cords
- **Hilaire Guilahoux**, Environmental Education Program Officer, Wild Chimpanzee Foundation, nominated by Christophe Boesch

Congratulations to all of our awardees! And please check below for project reports from previous awardees.

In addition, I would like to congratulate the following individuals, who have been named as finalists for the student paper and poster competitions at the upcoming IPS Congress. Their presentations will be judged by members of the Education Committee and winners will be announced at the end of the meeting.

Oral presentations:

- **Christina Bergey**, "The population genomics of a baboon hybrid zone inferred from thousands of markers in hundreds of individuals"
- **Andreas Berghänel**, "Social play drives motor skill acquisition at the expense of growth: a developmental tradeoff"
- **Esther Carlitz**, "Long-term stress monitoring in chimpanzees (*Pan troglodytes*) through hair cortisol measurement"
- **Jonathan Clayton**, "Associations between nutria-tion, gut microbiome, and health in red-shanked doucs (*Pygathrix nemaeus*): a model for the subfamily Colobinae"
- **Lynda Dunkel**, "The adaptive significance and eventual determinants of male develop-mental arrest in orangutans"
- **Eloisa Guerreiro Martins**, "Do common marmosets teach, and do they adjust their teaching behavior according to the skills of immatures?"
- **Laura Matthews**, "The utility of nuclear introns to diagnose slow loris species (genus *Nycticebus*)"
- **Steven McPhee**, "A camera trap study of the cryptic, terrestral guenon *Cercopithecus lomamiensis* in central democratic republic of the Congo"
- **Sarah Pope**, "Baboons (*Papio papio*) take the shortcut in a touchscreen task while humans stick to the long way"
- **Christoph Völter**, "Great apes follow visual trails to locate hidden food"
- **Philip Wadewitz**, "Towards an objective classification of vocal repertoires"

Poster presentations:

- **Benjamin Buckley**, "Ranging behaviour of male orang-utans in an unfragmented bornean habitat and implications for mating-system mechanics"
- **Takashi Hayakawa**, "Evolution of the bitter taste receptor gene reprtoire in primates"
- **Rachel Jacobs**, "Developing novel face recognition techniques for population assessments and long-term research of threatened lemurs"

- **Maria John**, "Value attribution related to limited availability in chimpanzees and children"
- **Rebecca Koomen**, "Inhibitory control in the context of renewable resource use by chimpanzees"
- **Onja Razafindratsima**, "Assessing the value of lemur seed-dispersers to plant recruitment success in Madagascar rainforests"
- **Alejandro Sanchez**, "Natural choices of food in great apes"
- **Nicole Seiler**, "Human gorilla conflict around Bwindi impenetrable National Park, Uganda"

If any IPS members are interested in serving on the Education Committee, as a student competition judge, or have specific issues they would like addressed, please contact me at elizabeth.lonsdorf@fandm.edu

Elisabeth Lonsdorf
VP for Education and Outreach

VP for Captive Care

cschwitzer@bcsf.org.uk

Captive Care grants 2014

We had 21 applications for IPS Captive Care grants this year, requesting a combined US$28,913. We were able to fund one quarter of the proposals, and the Captive Care Committee awarded grants to the following five applicants:

- **Francis Cabana**, UK, "Using nutritional ecology (native ingredients and chemical composition) of the Javan slow loris to improve captive feeding husbandry"
- **Karin Jaffe**, USA, "An applied ethological study of the potential for former laboratory squirrel monkeys (*Saimiri sciureus*) to be successfully retired to the San Francisco Zoo"
- **Sonya Kahlenberg**, USA, "Safety upgrades to sanctuary for orphaned Grauer's gorillas in eastern Democratic Republic of the Congo"
- **Colin Pringle**, Nigeria, "Enhancing primate handling facilities to promote welfare & conservation actions in Nigeria"
- **Milada Reháková**, Czech Republic, "Establishing of a Philippine tarsier conservation centre in Bilar, Philippines"

Christoph Schwitzer
VP for Captive Care and Breeding

VP for Communication

claudia.fichtel@gwdg.de

I thank all members of the society for submitting news items, project reports, job postings, and other items of interest for inclusion in the IPS Bulletin. If you have any pieces of information that you would like to circulate to the membership, please feel free to e-mail them to me, and we can determine the best way to get your information out (i.e. bulletin, webpage, list-serve).

If you have any questions about the IPS bulletin or general society issues, please don't hesitate to send me an e-mail.

Claudia Fichtel
VP for Communication

VP for Conservation

wallis@primateconservation.info

Once again, it has been a busy time for the IPS Conservation Committee. I'm happy to report the results of our hard work.

2014 Galante Family Winery Conservation Scholarship

For this year's competition, we reviewed 11 complete applicants for the 2014 Galante Family Winery Conservation Scholarship. You'll recall that this award is meant to help source country primatologists acquire additional training/ education related to their careers in primate conservation. Of these applicants, the IPS Conservation Committee selected **Bishwanath Rijal of Nepal** as the winner.

Bishwanath is a high school biology teacher working on his master's degree. His species focus is the Assamese macaque and human-wildlife conflict. This scholarship will yield a double benefit: Bishwanath will use it to support travel to the upcoming IPS meeting in Vietnam, where he'll present a paper titled "Ecological Study of Rhesus and Assamese Macaques and Their Conflict with Humans in Nagarjun Forest, Kathmandu, Nepal" and he will then stay in Vietnam to then attend the post-congress workshop "Training in Primatology Series" that focuses on Asian primates.

Congratulations to Bishwanath Rijal for this remarkable opportunity. We look forward to following his career and seeing great things come from his continued training.

2014 IPS Conservation Grants

Each year, the IPS Conservation Committee receives applications for the IPS Conservation Grants and we carefully review these to decide which projects will be funded. For this year's competition, we had 61 applications. As usual, it was difficult to review them and select only a few; many were top notch applications. In the end, we selected 7 proposals to fund. The following list provides the principle investigator, (country of origin in parentheses), where the work will be carried out, and the title of the project. Those with "(CCI)" were selected to receive an additional $500 from the Conservation through Community Involvement initiative. We congratulate these winners and thank them for their work for primate conservation!

Jacky Youssouf, Ibrahim (Madagascar), Madagascar "The ecology of *Lemur catta* facing varying ecological and anthropogenic conditions in the new Tsinjoriake protected area, Southwestern Madagascar: Education and community developed in an endangered coastal habitat" (CCI)

Kilian, Rachel M. (USA), Costa Rica, "Connecting canopies and communities at the Gandoca-Manzanillo Wildlife Refuge, Costa Rica" (CCI)

Matsuda Goodwin, Reiko & Houngbedji, Gboja Mariano (USA/Benin), Benin, "Surveys of threatened primates in the Lama Forest and along Benin-Nigeria Border"

Ceballos-Mago, Natalia (Venezuela), Venezuela, "Conservation of the endemic and critically-endangered Margarita capuchin monkey in Venezuela"

Hoang, Chuong Van (Vietnam), Vietnam, "Assessment of anthropogenic pressure to primates in Gia Lai Province, Vietnam" (CCI)

Nguyen, Toai V (Vietnam), Vietnam, "Education Conservation Program for primates within Vietnam's Bu Gia Map National Park"

Gonzalez, Tania Ivanova (Ecuador), Ecuador, "Junior Parabiologist Program for the conservation of the critically endangered brown-headed spider monkey (*Ateles fusciceps fusciceps*) and its habitat in the Ecuadorian Chocó (Canandé area)"

2014 Alison Jolly Lemur Conservation Grant

As most of you know, IPS – and the entire primatology community – lost a conservation giant recently in the passing of Alison Jolly. The IPS Officers decided to recognize Alison's service to IPS and her dedication to her beloved lemurs by naming one grant per year in her name. The IPS Conservation Committee is happy to announce that the first winner of this named grant is **Ibrahim Jacky Youssouf of Madagascar**. His

project (listed above) will no doubt honor Alison's legacy. Congratulations to Ibrahim.

2014 Pre-Congress Training Program

The other activity the IPS Conservation Committee is tasked with is the selection of our Pre-Congress Training Program (PCTP) participants. Plans are underway for the next PCTP before the upcoming meeting in Hanoi, Vietnam. For this exciting event, a select number of primatologists from primate habitat countries are offered full support to travel and participate in the PCTP (and the IPS meeting itself), together with a small number of primatologists serving as guest lecturers and mentors. The PCTP program agenda includes sessions covering various conservation status and threats, as well as sessions focused on strengthening field research skills (GPS use, primate surveys, etc.). Eligible applicants include citizens of primate habitat countries who work with primate conservation and are relatively early in their careers.

For this year's competition, we received 77 applications. From these, we selected 12 participants. Congratulations to the following individuals! I can't wait to meet them all in Vietnam.

- **Rose Marie Randrianarison**, Madagascar
- **Peter Abanyam**, Nigeria
- **Bertin Murhabale**, DRC
- **Jean Paul Hirwa**, Rwanda
- **Kasih Putri Handayani**, Indonesia
- **Pingfen Zhu**, China
- **Truong Van Nguyen**, Vietnam
- **Rahayu Oktaviani**, Indonesia
- **Eder Murrieta Villalobos**, Peru
- **Hermano Nunes**, Brazil
- **Paola Moscoso**, Ecuador
- **Mayra Alvarado**, Mexico

Thanks to the Committee

Finally, I continue to be grateful to the wonderful individuals who have served on the IPS Conservation Committee. They're all busy people and their work for us is very much appreciated. The following individuals have generously provided input on at least a portion of our work this year: Richard Bergl, Ramesh Zimbo Boonratana, Drew Cronin, Alejandra Duarte, Thomas Gillespie, Lisa Gould, Inza Kone, Martin Kowalweski, Jenna Lawrence, Laura Marsh, Duc Hoang Minh, Bethan Morgan, Anna Nekaris, Melanie Seiler, Arif Setiawan, and Mauricio Talebi.

2014 IPS Conservation Silent Auction

The IPS Silent Auction has become a staple and social centerpiece for our Congresses over the years. The funds raised at this event go to the IPS Conservation Fund. PLEASE donate to this worthy cause. If you're going to the IPS meeting in Vietnam, please don't forget to bring items to put in the auction. We especially welcome items that are likely to receive a lot of interest (and high bids) – such as artwork, books, and other items focused on primates. This year, we're adding a section that will feature local teas, coffees, and spices from primate habitat countries. Be creative and help us make this the best auction ever. (If you are NOT attending IPS in Vietnam, you can still help us by making a monetary donation to the IPS Conservation Fund!)

If you have any suggestions for the IPS Conservation Committee – including new ways to raise money for the Conservation Funds, please contact me!

Janette Wallis
VP for Conservation

Trea$ury Note$

sschapir@mdanderson.org

The IPS Treasury remains in decent shape, although our non-Congress-related revenue stream is still down. We may have to cut our non-Congress-related expenditures again in 2014, which means fewer grants and awards. If you have yet to renew your IPS membership for 2014, now would be a good time to do so. Any time is a good time to make a donation to IPS, so a few donations at this point would be quite helpful.

IPS has already paid out well over **$57,000** from the Conservation and General Funds during the 2014 calendar year to cover the Community Conservation Initiative, Conservation Small Grants, Jacobsen Awards, Southwick Awards, Captive Care Grants, Research Grants, the Galante Award, and the Pre-Congress Training Program. As usual, thanks to everyone who has paid their dues, made a contribution, registered for a recent Congress, or purchased IJP. It is your commitment to IPS, primatology, and primates that has maintained the Society's financial health up until now, and allowed us to support so many worthy programs, projects, and individuals.

We did not have much of a chance to replenish our funds in 2013. Again, we encourage you to make a contribution to the Conservation Fund or the General Fund at your earliest convenience. There is a "**Donate Now**" function on the IPS website. Please give it a try; it is fast and easy.

If you have not already done so, please **renew your IPS membership for 2014**. As always, you can join through the IPS website www.internationalprimatologicalsociety.org or through your National Primate Society (American, German, Congolese, and Spanish only).

Membership figures for 2013 were down considerably, however we have already noticed an influx of members in 2014, as individuals renewed their memberships to submit abstracts and register for the 2014 Congress in Ha Noi.

Remember, you can still receive substantial savings on registration fees for the 2014 IPS Congress in Ha Noi, Viet Nam, if you are a member in good standing in IPS in 2014. Registration for the Congress can still be done at the IPS membership webpage or through the Congress webpage:
http://ips2014.vnforest.gov.vn/
There are over 900 abstracts on the program for the 2014 Congress and many look very, very interesting. You can see the entire program at:
https://www.asp.org/IPS/IPS2014/conferenceschedule.cfm

Remember, we will NOT be including a hard copy of the full program and the abstracts in your conference bag. Please use the '**Add to Schedule'** function on the on-line version of the program to customize your schedule. You will receive a thumb drive in your conference bag that WILL include the full program and the abstracts.

IJP subscriptions can be purchased through IPS and the sooner you purchase your subscription, the sooner you will have access to the Society's official journal

There are now 187 Full or Partial Lifetime Members in IPS. New Lifetime Members include:

M Emery Thompson	B. Li
P. Fan	V.T. Nguyen
S.T. Guo	P. Zhang

Lifetime Members will never have to pay dues again, but they can still order IJP or make contributions to the General Fund or the Conservation Fund from the webpage and are encouraged to do so. If you have made a career of primatology or plan to do so, please consider a Lifetime Membership. You can either purchase the membership with one payment ($520) or you can choose to pay in two installments of $260 each. Now would be a great time to purchase your Lifetime Membership.

Let me know if you have any other Membership and/or Treasury questions, especially those related to the **2014 Congress in Ha Noi**. Once again, please consider a donation to IPS (use the "**Donate Now**" function), especially to the Conservation Fund, to help support primates, primatology, and primatologists across the globe.

Steve Schapiro
IPS Treasurer and VP for Membership

Secretary General

ncaine@csusm.edu

I would like to thank the membership for honoring me by re-electing me to the post of Secretary General. I am sure that the colleagues against whom I ran in this election also received a great deal of support, and any of them would have done a fine job in this role. The Congress in Hanoi is less than 3 months away, and the excitement is building. I would like to remind the officers of national and regional scientific primate societies to contact me, if they have not yet done so, to establish their formal affiliation with IPS and to arrange for one person to attend the pre- and post-Congress Council meetings as the representative of their society. Please feel free to contact me if you have any questions about the time/place/content of those meetings.

I would also like to urge EVERYONE who is at the Hanoi Congress to attend the General Assembly. The General Assembly is a critical part of governance of IPS, and is a place where members can learn about important IPS business and raise questions/issues about IPS activities and plans. The officers of IPS encourage the membership to propose actions that would benefit our society. Article 9 of the IPS Bylaws provides the following procedures about such motions made by IPS members: "Members who intend to present a motion on the floor of the General Assembly should submit the motion to the Secretary General one month in advance of the Congress such that it can be considered by the Council at its pre-Congress meeting. Motions that arise on the floor of the General Assembly may be brought to a vote, except that the President may determine that the motion should first be referred to Council for consideration of the motion's potential impact to the Society.

In this case, the Council shall consider the motion at the post-Congress Council meeting and shall communicate the result to the membership within one month."

Therefore, if you have a motion you would like to bring forward, it is most expedient to do so prior to the Congress, as explained above. I will be happy to receive any such motions and place them on the pre-Council meeting agenda. Likewise, if you have an issue that does not necessarily take the form of a motion but you would like it to be considered by the Council, please let me know right away and it can be added to the agenda.

As always, it is my role and my pleasure to assist any IPS member with questions or concerns regarding IPS. Please do not hesitate to contact me at any time at ncaine@csusm.edu.

Best regards,
Nancy Caine
Secretary General

IPS 2014 in Ha Noi, Vietnam

The XXV Congress of the International Primatological Society (IPS-2014), wil l take place in the Melia Ha Noi Hotel, Vietnam, from August 11-16, 2014.

http://ips2014.vnforest.gov.vn

In addition to the scientific program, congress attendees will be able to enjoy a variety of pre- and/or post-congress tours to enjoy the wildlife and cultural history of the country.

Other Interesting News Items

DONATE YOUR IJP SUBSCRIPTION

Do you currently receive paper issues of IJP that you do not use? Do you prefer to utilize the journal electronically? If so, we have a wonderful new program that will relieve you of your extra clutter while helping primate facilities in need. IPS, in association with IJP, is now offering you the opportunity to redirect your paper issues of IJP to a primate center or field station in need. If you would like to donate the paper portion of your subscription, or know of a research center/field station/ sanctuary that would benefit from receiving bound copies of the journal, please contact IPS VP for Education,

Elizabeth Lonsdorf

Recognize Primatology's Unsung Heroes

Would you like to formally recognize someone's service to primate conservation and/or welfare? The IPS Council has initiated a program to formally acknowledge the work of individuals who support the goals of IPS but whose contributions are unlikely to be recognized in traditional ways. It is our hope that this program will provide an opportunity to honor those that make the work of our membership possible, such as (but not limited to) a colony manager, a park ranger, a docent, a customs officer, journalist, laboratory technician, or law enforcement agent. This program is not meant to be a competition; instead, individuals whose work is deemed to support the aims of our society will be sent a letter of recognition on behalf of the IPS Council. If you would like to recognize an "Unsung Hero of Primatology," please send a 1-2 page testimonial of this individual's work and how it promotes our efforts to IPS VP for Communications,

Claudia Fichtel

In Memoriam

Alison Jolly

Lady Alison Jolly

A chance invitation to babysit laboratory lemurs at Yale University in 1959, where she was a graduate student immersed in the study of sea sponges, triggered a change of direction and a distinguished career as a primatologist for Alison Jolly, who has died at home in Lewes, East Sussex, aged 76.

Driven by a commitment to the wildlife, ecology and development of one of the world's poorest yet most iconic countries, Madagascar, Jolly became an expert on lemurs. David Attenborough recently wrote: 'not only they but the people and land of Madagascar captured her heart'.

She made her name as the first scientist to do an in-depth account of the behaviour of the ring-tailed lemur, *L. catta*, beginning field work in 1962. She discovered that this species - and as it turned out most other lemurs - have female dominance over males, breaking the then orthodoxy that primates were male-dominant. As she later observed, the 'king' of the DreamWorks animation *Madagascar* ought to have been a 'queen'.

Jolly also pioneered the argument that the evolution of intelligence has more to do with social behaviour than ecological factors. When she published her breakthrough *Science* paper in 1966, many thought intelligence evolved to master simple tools. Jolly speculated that more likely it evolved through the challenge of maintaining complex social relationships, a position now taken for granted.

Working primarily in the south of Madagascar at Berenty, a private reserve of forest set in a semi-arid desert, her forty-year research of ring-tailed lemurs expressed a love and scientific fascination for another species and its environment. *Lords & Lemurs: Mad Scientists, Kings With Spears, and the Survival of Diversity in Madagascar* (2004) is a compelling account of her work and connections with the local Tandroy population and the aristocratic semi-feudal French landowners, the De Heaulmes.

Jolly's perceptions were articulated with precision and clarity, notably in her classic textbook *The Evolution of Primate Behavior* (1972), and later in a consideration of the evolution of co-operation and inter-dependence, *Lucy's Legacy: Sex and Intelligence in Human Evolution* (2001). These and other works reflected her position as a woman challenging the individualist bent of masculinized sociobiology, though her passions were directed towards conservation and ecology rather than feminism. Her achievements were remarkable for a mother of four who never had a full time faculty position.

Her approach to lemur life was holistic, arguing for approaches which worked with local people and government, and in particular nurturing a generation of Malagasy scientists, sometimes at her own expense. In many ways this reflected the influence of her beloved husband of fifty years, Sir Richard Jolly, the development economist.

Her pragmatism together with her concerns about Madagascar's parlous political and economic state could sometimes sustain uncomfortable involvements, such as with Rio Tinto in the development of the QMM titanium mine on the country's southern coast. She was an

advisor on the independent Biodiversity Committee set up to oversee the company's commitment to net positive improvement in both environment and society during the life of the mine and its pledge not to cause the extinction of a species. As she said: "If you think that people and forest will somehow muddle through before the hills are scraped as bare as Haiti, then there is no reason to think that money and organization will improve life. If you look at the statistics of forest loss, you opt for the mine."

Enjoying an idyllic childhood in Ithaca, New York, she was the child of the artist Alison Mason Kingsbury and the humorist and Cornell scholar, Morris Bishop. She quipped that since her mother knew everything about art and her father about literature, her only choice was to become a scientist. However she was herself a marvelous story teller about animal behavior, and vivacity peppers her writing, with sifakas 'silently soaring against the blue sky in great ballet leaps', stopping 'to feed with no fuss or bickering'. This approach drove *The Ako Series* (2005/12), a ground-breaking project to protect Madagascar's biodiversity jewels through books aimed at the country's children, which she wrote with her Malagasy colleague, Hanta Rasaminanana.

She stood out as a tall American-in-England in her trademark Tilly bush hat, colourful necklaces and man-sized sneakers. Her gentle professional style and dislike of competition could veil her impressive achievements. She held a BA from Cornell, and a PhD from Yale. She had been a researcher at the New York Zoological Society, and the universities of Cambridge, Sussex, Rockefeller and Princeton. At the time of her death she was a Visiting Scientist at the University of Sussex. She was President of the International Primatological Society 1992/96 and received its Lifetime Achievement Award in 2010. She was awarded a Knighthood by the National Order of Madagascar in 1998 and the Osman Hill Medal by the Primate Society of Great Britain in 2008. She received Honorary Doctorates from the University of Antananarivo and the Università degli Studi di Torino both in 2012. In June 2006, a new species of mouse lemur, *Microcebus jollyae*, was named in her honour, while a parcel of recently restored mining forest in Madagascar was named for her in January 2014, reflecting the hope that in so doing the people involved will be more likely to sustain it.

Her books include *Lemur Behavior: A Madagascar Field Study* (1966); *Lucy's Legacy: Sex and Intelligence in Human Evolution*; and *A World Like Our Own: Man and Nature in Madagascar* (1980). Her final book, *Saving Madagascar: Conservation Diaries of Alison Jolly* will be published posthumously. Jolly wrote over 100 scientific and popular articles and was featured in 20 television programmes. Her writing for children included the *Fiddle stories*, featuring the time-travelling adventures of a young girl, modelled on a beloved granddaughter.

Alison Jolly is survived by her spouse, Sir Richard Jolly, four children, Margaretta, Susan, Arthur and Richard, and four grandchildren.

Alison Jolly, primatologist and conservationist, born 9 May 1937, died 6 February 2014.

Nick Fairclough,
Margaretta Jolly
and
Arthur Jolly

The IPS has decided to designate one of the annual IPS Conservation Grants to honor Dr. Jolly. The winner of the first "IPS Allison Jolly Lemur Conservation Grant," Mr. Ibrahim Jacky Youssouf was chosen during the 2014 competition.

Report for 2013 IPS Captive Care Grant Sonya Kahlenberg

Improving health care facilities for orphaned Grauer's gorillas in eastern Democratic Republic of Congo

Background

The Gorilla Rehabilitation and Conservation Education (GRACE) Center was established in 2009 as the only facility in the world dedicated to providing rehabilitative care to Grauer's gorillas (*Gorilla beringei graueri*) confiscated from poachers and illegal traders. Endemic to eastern Democratic Republic of Congo (DRC), Grauer's gorillas are seriously threatened by habitat loss, poaching, and insecurity in the region. It is estimated that fewer than 5,000 individuals now remain in the wild. In 2012, this gorilla subspecies was recognized as among the 25 most endangered primates – they were the only ape to make this list.

Gorilla orphans at GRACE.

GRACE is located in North Kivu Province of eastern DRC near the Tayna Nature Reserve, which is natural Grauer's gorilla habitat. The project is committed to providing lifetime care for individuals that require it, but its ultimate aim is to reintroduce gorillas back into the wild. GRACE currently has 13 young gorilla orphans (ages 3-12) in its care, with two more scheduled to arrive in 2014. Gorillas live in a single, integrated social group with older females providing surrogate care for infants.

Though an ideal environment for the gorillas, GRACE's remote, mountainous location presents a major challenge for providing health care to gorillas since electricity is unreliable, making needed refrigerator and freezer storage difficult to manage.

Project activities & outcome

Thanks to funding from a 2013 IPS Captive Care grant, GRACE was able to purchase highquality, gas-powered refrigerator and freezer units for its veterinary block. This is the first time this equipment has been available at GRACE, and it has greatly improved our ability to provide health care to the gorillas. For example, we can now reliably store vaccines on site as well as cartridges for diagnostic machines and biological samples from routine health checks and necropsies. Gorillas are susceptible to human diseases, so an immediate benefit to having this new equipment is that the gorillas are now able to receive vaccines on schedule because they can be stored on site. GRACE is currently establishing a scientific research program, so the refrigerator and freezer will also soon be used to store samples for research purposes.

New gas-powered refrigerator unit at GRACE.

Conservation through community involvement

While conservation is primarily concerned with safeguarding wildlife and habitat, the success of these initiatives often lies in the hands of local communities. With this in mind, one of GRACE's major goals is to work with people living near the Tayna Nature Reserve on conservation education and development projects. The local community is committed to conservation and even donated the land on which GRACE was built. They have also implemented several conservation initiatives, including the Tayna College for Conservation Biology, Africa's first university geared toward training conservationists, and a conservation-focused radio station. However, decades of political instability and war in this region have left people struggling to secure a reliable source of income. Average income is less than $300 USD/year. Food is also very expensive in this region, leading people to consume bushmeat and extract resources from the forest as a means of survival.

Since its inception, GRACE has been working with a women's group in Katoyo, the village nearest to GRACE, on several projects, including a recent effort to teach women how to care for rabbits to promote them as an alternative source of meat to bushmeat. Currently, this group is interested in initiating a similar program focused on raising and selling guinea pigs for local consumption. Though members of the women's group are highly motivated, one major obstacle that they face is the lack of training to make their business endeavors run smoothly.

GRACE was awarded $500 by IPS through the Conservation through Community Involvement Fund to assist the women's group with this need. This paid for a local woman with training and experience in business and accounting to help train the Katoyo Women's Group in leadership skills, bookkeeping, project planning and management. This capacity building will be immediately useful for the guinea pig project, but, more importantly, it will have a long-term impact on all of the group's future projects and will ultimately provide help to some of the poorest women in the community.

Members of the local women's group

Accounting for Grant Funding

2013 IPS Captive Care Grant to GRACE

Item	**Cost ($)**
Gas-powered freezer	650
Gas-powered refrigerator	360
Gas bottles ($80/each x 3)	240
Hoses	20
Regulators	24
Transport (partial)	206
Total spent	**1,500**

While the project was funded by the IPS because reliable measures of adrenocortical activity. Second, because GCMs can potentially degrade over time when stored in this way (see Kalbitzer & Heistermann, in press), we tested for storage effects after 3, 6, 9, and 12 months of storage. Differences in fecal GCM levels between each time point and time 0 were within the range of typical inter-assay variation (i.e., <10%; see Shutt et al. 2012), indicating that samples extracted according to the field technique can provide reliable measures even after stored for 12 months, at least when assayed with the corticosterone EIA.

Sonya Kahlenberg
Gorilla Rehabilitation and Conservation Education (GRACE) Center

Report for Lawrence Jacobson Education Development Grant
S. Parama Anandan

Restoration and Monitoring of Endangered Nilgiri Langur (*Trachypithecus johnii*) in the Natural Habitats of Kurangani Hills, the Western Ghats Mountains, India for Effective Conservation

Summary

Nilgiri langur (*Trachypithecus johnii*) is the common rainforest old world monkey of the Sothern Western Ghats Mountains in Tamilnadu, India. It is confused with the Lion-tailed Macaque but has different morphological features. In Tamil, it is called Black Monkey and they live in troops of five to 16 monkeys. They live near agricultural fields, tea, coffee and cardamom estates on the mountain areas. They eat fruits, shoots and leaves. Today, this species has become endangered because of deforestation and poaching for its fur and flesh since local people and indigenous communities believe that their flesh have aphrodisiac properties. The mountain community has strong superstitious belief that their dried flesh can cure Asthma and severe cough among infants. Dried flesh is used by tribes for medicinal purpose. Nilgiri langurs are hunted illegally and indiscriminately in Kurangani and other hilly areas of the Western Ghats Mountains in Theni district. These primates also face anthropogenic problems from rural and indigenous communities since they depend on forest resources for fuel wood and minor forest products thus depriving the primates of food resources. FRSD (Foundation for Research and Sustainable Development, RH 239, Ellis Nagar, Madurai, Tamilnadu, India. Email: frsdmdu@yahoo.co.in), with the kind support of the IPS, as a Member, received a small grant under **Lawrence Jacobsen Education Development Grant** in 2013. FRSD completed with the help of the IPS Grant an intensive awareness program among the mountain communities in Kurangani hills to emphasize the conservation significance of these threatened primates and the necessity to protect their natural habitats in various tribal hamlets, plantations and other hilly areas in Kurangani hills.

Educational materials referred for guidance

1. Best Practice Guidelines for Surveys and Monitoring of Great Ape Populations by H. Kühl, F. Maisels, M. Ancrenaz & E.A. Williamson (for successful completion of the project in Kurangani hills)
2. Guidelines for Conservation through Community Involvement, Prepared by Vernon Reynolds and Tammie Bettinger (for community conservation initiatives by indigenous tribal communities in Kurangani hills)
3. Wildlife Protection Act 1972, Government of India (to educate mountain people on the urgent necessity to conserve primates in the Western Ghats)

Advisors (technical and scientific)

- Dr Peter Selvanayagam, M.Sc, M.Phil, Ph.D
- Dr S. Mutheeswaran, M.Sc, M.Phil, Ph.D
- Mr. Udhaya Kumar, Ranger, Forest Department, Govt of Tamilnadu
- Mr. Arumugam, Member of the Tribal Community, Kurangani hills
- Dr Selvaraj, M.Sc, Ph.D, (Zoo)
- South Asian Primate Network team

Report on the project carried out:

FRSD conducted an initial survey in 2013 with

hills. The survey provided baseline information on distribution and population of Nilgiri langurs in the region and their behavior during seasons. Migration is reported from Kurangani hills to other hilly areas in Theni district like Megamalai hills, Vellimalai hills, Suruli hills, Ahamalai hills etc where the Nilgiri langurs are found in common along with the threatened Lion Tailed Macaques.

We have observed various disturbance factors while monitoring the movement of these primates. We assessed the impact of current threats like indiscriminate hunting for flesh, habitat degradation due to land conversion for plantation estates of tea, coffee and cardamom.

Another threat is the instruction of Spices Tourism being introduced in 2009 in Kurangani hills where trekking of tourists from India and abroad has become a regular activity. All the tourists are not aware of the impact of the plastic wastes thrown on trekking paths on wildlife. Degraded plastic particles were removed by our field staff and safely burned in the Central Station with the help of local volunteers during the project period.

FRSD is concerned by the widespread growth of the Lantana camara, one of the worst invasive alien species in the entire mountain region of Theni district, a major threat to native plants/trees and wildlife. We are sure that the invasive species will alter forest density, diversity, and function, especially in *Shola* forests (Evergreen montane forests), natural habitat of wildlife.

Land conversion for commercial gains is also another threat to habitat fragmentation in Kurangani hills. The region is now popular for coffee and tea estates owned by corporate sectors.

FRSD observed that frequent forest fire destroy natural habitats, native trees and plants in Kurangani hills. As a result, primates are threatened, killed, and they migrate to unsafe hills i.e. out of Reserve Forests in Kurangani hills.

FRSD has educated mountain communities on the urgent need for working out contemporary conservation goals to protect all the primates in the Kurangani hills which includes Nilgiri langurs, Slender loris and Lion tailed macaques.

FRSD has requested the indigenous communities, the natural guardians of our ancient forests to protect all the primates, especially the threatened Nilgiri langur from indiscriminate hunting.

Recommendations

a) Promoting coordinated voluntary organizations action for conservation of threatened primates in Kurangani hills by formation of a network of grassroots level nongovernmental organizations in the district.
b) Empowering the local Panchayat, Kottagudi, to initiate strict action against offenders hunting primates in Kurangani hills and hand over them to the Forest Department, Theni District.
c) Eradicating Lantana camara, one of the worst invasive alien species in the entire mountain region to save and protect wildlife.
d) Initiate steps to avoid frequent forest wild fires that destroy mountain biodiversity and ecosystem by removing dry grass and other introduced exotic tree species which cause fire during summer seasons.
e) Persuade the local district authorities to bring the Kurangani hills under "Ecologically Sensitive Areas" as proposed by the Ministry of Environment and Forests, Government of India (under Environment Protection Act 1986). This can be done by a net work of NGOs, Kottagudi Panchayat and Indigenous community leaders. *(The present Nilgiri langur population in the wild in the State can touch 15,000. They are listed as vulnerable in the IUCN red list.)*
f) Strengthening the newly formed Community Conservation Committee, supported and guided by the FRSD with more membership from mountain people for protecting primates in the hilly terrain. Human-Primate conflicts can be avoided through proper awareness programs by the Forest Department, NGOs, and the Kurangani Spices Tourism Society, Kurangani.
g) Deterrent punishment for primate hunters in the district by the Forest Department under the existing Wildlife Protection Act 1972.
h) Limiting firing of wild grass and other unwanted crops on mountain lands during summer seasons so that we can avoid devastating forest fires in Kurangani hills.
i) Providing proper disposal points along the trekking route from Lower Station to Top Station to dispose waste materials, plastic cans, water bottles and garbage by tourists, trekking people and occasional visitors and research students in the mountain areas.

j) Continuing the Conservation Education programs in the region emphasizing the role played by primates in regenerating the forest ecosystem of the Western Ghats range of mountains in Theni District, Tamilnadu, India.
k) Schools, Colleges and all educational institutions in Theni district can arrange Wildlife/Nature Tour to various mountain areas like Megamalai wildlife Sanctuary, Suruli Hills, Ahamalai Hills, Kurangani Hills, Top Station, and National Wildlife Sanctuary, Pampadum Solai near Top Station. Students can be educated on primate conservation and related issues.
l) Planting native fruit trees in various forest areas by the Forest Department (*Ficus benghalensis*, *Ficus glomerata*, *Tectona grandis* and Jack fruit trees) which are the favorite fruits for primates and habitats during day time. Nilgiri langur is purely a leaf eating primate and loves to live in moist deciduous forests close to water. Nilgiri langurs prefer the leaves of teak trees, *Tectona grandis*, and consume these larger leaves.

Community conservation meetings among Tribes in Kurangani

Report for Lawrence Jacobson Education Development Grant
Tabitha Price

A view of Niokolo Koba National Park from CRP Simenti field site

Niokolo Koba is a National Park in the South of Senegal. It is one of the largest National Parks in West Africa, and its diverse fauna supports a rich array of wildlife, including populations of Western chimpanzee (*Pan troglodytes verus*), Guinea baboon (*Papio papio*), green monkey (*Chlorocebus sabaeus*), patas (*Erythrocebus patas*), Western red colobus (*Procolobus badius*) and Senegal Galago (*Galago senegalensis*). But in recent years animal numbers have declined rapidly, and the park has been placed on the UNESCO list of World Heritage Sites in Danger. With rural populations around the park depending more and more on park resources for food, fuel and building materials, the outlook for wildlife and people in the area is worrying.

Concerned by this plight of the park, researchers at CRP Simenti (a field site run by The German Primate Center's Cognitive Ethology Lab) collaborated with the Niokolo Koba Park Service (PNNK) to initiate a waste management and sustainable livelihoods project within and around the park; and in April 2013 I received a Larry Jacobsen Education Development Award to expand on this work with an environmental

education project for village schools in the area. This programme focused on five environmental issues of particular local relevance; wildlife and poaching, deforestation and reforestation, water and water conservation, rubbish and recycling, and overgrazing and soil fertility, and was to be carried out by GPN Oumar Ndiaye (a fellow park agent), Dr. Tabitha Price (an ex-researcher at CRP Simenti), Hamadi Dandio (a local employee) and myself, with support from CRP Simenti and PNNK. Using presentations, films, classroom and outdoor activities and games, and a school trip into the park, we aimed to teach young people more about their local environment and wildlife and the threats these are under. In doing this we hoped to motivate and empower them to conserve the amazing biodiversity on their doorstep.

In Dec 2013, after discussions with the Department of Education for Tambacounda, we initiated our programme in Dar Salam primary school, working with approximately 50 children between the ages of 10 - 14. The village of Dar Salam is situated right at the main entrance to the National Park, but while many of the children's parents were born in the park, none of the children had ever entered further than the 1km border zone where they go for gathering firewood.

Each topic began with a screening of an environmental education film focussed on the issue at hand. The films were produced by Nature for Kids and filmed in Tanzania and Botswana with a local crew and cast. The fantastic thing about these films is that each one features a young African "conservation super-hero" who makes a real difference in their community, inspiring our children with the feeling that they too can make a real difference. The films were screened using our pedal-powered cinema system, a great invention of Colin Tonks of Electric Pedals. This equipment allows us to project films onto a big cinema screen all by pedal-power, which is a real experience in rural African villages without access to electricity. Films were followed by a weekly environmental education morning, with presentations of key topics followed by class activities such as the building of pop-up desert, forest and savannah habitats, the identification of local trees, and the creation of our own guides for identifying and learning about a range of animals living within the park.

Pre-and post class tests were used to evaluate students' understanding of the environment and environmental issues before and after modules, however we found that many of the students struggled with a written test format, and so subsequently switched to verbal surveys and questionnaires. Carried out like this, these tests showed a huge improvement in students' understanding of key learning objectives- from fewer than 10% to more than 85% of the class responding correctly to questions. This may also be due to an increase in confidence as the course went on as we did a lot to encourage students to be confident in talking about and sharing their understanding with other class members. Indeed, the very wide range of reading and writing abilities and proficiency in French (in this area Mandink is the primary language learnt and

Dr. Tabitha Price using the cycle cinema to talk about forests

Wood is used in the construction of village huts

Cooking school lunch with the new school stove

spoken outside of school) was one of the biggest challenges in carrying out this programme. To deal with this we tried to develop activities that did not involve too much writing, and emphasised group work so that older students could help younger students when they got stuck with new French vocabulary.

Outdoor and practical activities were also an important part of the programme, showing the students how the information that they learnt in class could be applied in everyday village life. We joined forces with Caritas to develop a school garden and tree nursery, teaching the children practical skills in organic agriculture and agro forestry with the additional aim of growing garden products to be cooked or sold to supplement the school's lunch menu, and trees to be planted in the area for fruit and natural fencing. Students also participated in the making of our own Mandink translation of a film discussing the importance of trees and how to reduce wood consumption. This project was carried out in collaboration with the UK film production charity, Purple Field Productions, and

Oumar Ndiaye explaining the sowing of seeds

Doing the mud-brick dance

culminated in the building of a brick stove to reduce the amount of wood used for cooking school lunches. We also built a pedal-powered blender to inspire students with an interest in alternative technologies, currently awaiting some dynamo-tinkering and a puncture repair we hope to be back making mango smoothies very soon. Whether they were doing the "mud-brick dance" in preparation for the brick stove, singing and dancing in our film project or attacking the dry sandy soil with pick axes with slightly alarming enthusiasm in preparation for seed sowing- the energy of the students and of their teachers was truly inspiring.

The big class trip took place in March, when we and a local guide went with the school students and teachers for their first trip into Niokolo Koba National Park. The day began early, with a 6am breakfast of kinkiliba (a drink

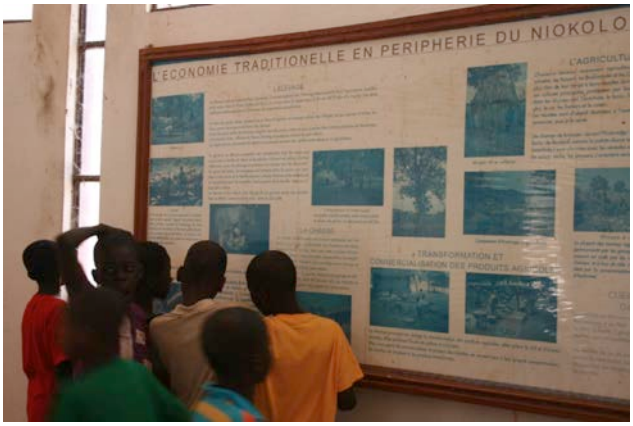
School trip breakfast preparations

Boat trip and a student discussing hippo behaviour with local guide Maoudo Kante

made from the leaves of a local tree) and pain au chocolat and we then set off in the National Park's truck to see the wildlife that we had been learning about roaming in their natural habitat. The truck was the ideal lookout to observe warthogs and antelope sheltering in the shade, patas monkeys peering down at us from the branches and eagles sawing overhead. We also took a boat tour to get a closer view of the crocodiles and hippopotami, visited the park's museum and were treated to a super talk about guinea baboon behaviour, with very realistic vocalisation impressions, by Dr. Matthis Drolet and Federica Dal Pesco, researchers at CRP Simenti field site. It was a great day, and we hope one that will stay in the memories of all for a long time, helping to remind the students just why Niokolo Koba is such a special place and why it's worth striving to conserve.

Because of our later than expected start date, the education programme is still ongoing and we have a conservation day planned for the end of the school year. We hope to continue with work in the area, with the formation of a school Nature Club, and by sharing our resources with other groups and schools in the area to inform and inspire a young generation of conservationists and to work together to build a more secure future for Niokolo National Park and its human and non-human dependants.

Guinea baboon talk by CRP Simenti researchers



Visiting Niokolo Koba National Park museum

Acknowledgements

This programme would not have been possible, and certainly not nearly as enjoyable, without the many people who contributed. I would like to thank National Park Staff, in particular Conservateur Colonel Ousmane Kane, Abdoulaye Seck and Mamadou Bar, and Julia Fischer and the rest of the CRP Simenti team for their help and support throughout. I would also like to thank all of the Inspectors with the Department of Education of Tambacounda who gave us permission to work in Dar Salam School, Coly and the Caritas team for such a friendly and productive collaboration, and Dar Salam school teachers, Mr. Ousseynou Touré and Mr. Thierno Barry, for their enthusiasm, patience and sense of humour in the face of occasional chaos. School activities were developed with the aid of films kindly made available to us by Dagmar Van Weeghel from Nature for Kids, materials from The Pan African Conservation Education Project (PACE), pedal power from Colin Tonks of Electric Pedals, and the filming expertise of the Purple Field Productions team who worked with us- Chloe White, Paul Smethurst and Elspeth Waldie. This project was funded by an IPS Jacobsen Education Development Award with additional contribution from The Rufford Foundation and the BenQ Corporation.

Report for Lawrence Jacobson Education Development Grant
Thierry Aimable Inzirayineza

Increasing local awareness about the importance of the Gishwati Forest Reserve and the primates that it shelters, Rwanda

In April 2013, Forest of Hope Association (FHA) was awarded a grant from the International Primatological Society (IPS) to educate local people about the importance of Gishwati Forest Reserve and its biodiversity by focusing on primate conservation. The main goal of the project was to ensure extensive awareness in local community on the importance of Gishwati forest and the biodiversity that it shelters, in order to reduce the primates habitat degradation, poaching, and risks of diseases transmission between humans and primates. Gishwati Forest Reserve is home for a number of threatened primate species including: eastern chimpanzees (*Pan Troglodytes schweinfurthii*, listed as threatened on the IUCN Red List); golden monkeys (*Cercopithecus mitis kandti*, listed as endangered); mountain monkeys (*Cercopithecus l'hoesti*, listed as vulnerable); a large number of plant species and more than 130 bird species.

This project was implemented during 12 months. In May 2013, Thierry Aimable Inzirayineza, the Coordinator of FHA visited the 13 eco-clubs and explained to them the components of the project. From June 2013 to August 2013, we designed and developed education materials including 30 posters describing main primates of the Gishwati Forest Reserve, 30 posters describing potential anthropogenic activities that destroy the forest and its biodiversity (including poaching, cattle grazing, mining, charcoal making, timber harvesting and firewood collection). We also designed 100 posters showing the cycle of transmissible diseases between humans and primates and 20 education guides that were used by eco-club members during community awareness. In addition of that, we developed 200 booklets about the importance of the Gishwati Forest Reserve and its Biodiversity, the main human threats to the forest and to primates and the best practices to reduce the threats. These booklets were distributed to communities during the awareness campaigns. The number of posters was doubled because of the $500 that was added by IPS to the grant of $1,500, and the reason was that our project was a Community Conservation Initiative

In September and October 2013, we trained members of the 13 eco-clubs about how to use the education materials. The training participants were teachers who are in charge of eco-clubs and two representative students from each eco-club in schools that surround Gishwati Forest Reserve. They were trained on how to use education materials, and the best techniques they will use to communicate the message to the local community efficiently. At the end of the training we have distributed education materials to school representatives and launched the start of the community awareness campaign.

From November 2013 to March 2014, eco-clubs conducted awareness campaigns in the communities living in villages around schools, and Students reached several households around their schools using different methods. Some eco-clubs had prepared original songs and dances to attract people in the village before the process of utilizing education guides and distributing the booklets. Others have tried to visit all households and educate on a house to house basis in order to

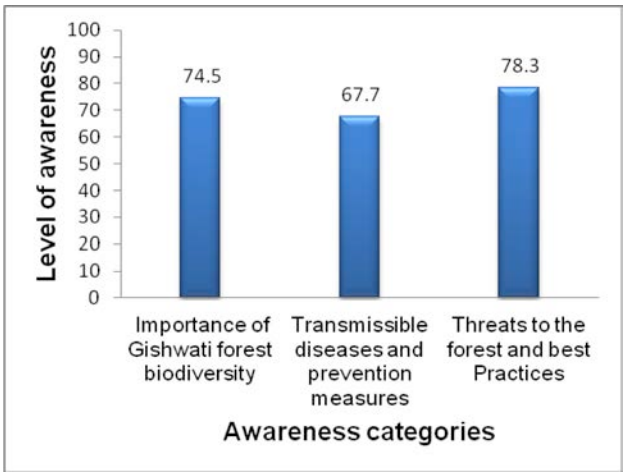
Students and teachers after training

Students in awareness campaign (1)

Students in awareness campaign (2)

reach as many people as possible in the community. Another strategy used was attending meetings and reaching other places that bring people together such as markets and commercial centers, to spread the awareness messages.

In April 2014, we evaluated the success of the project. 130 members of the communities (10 households in the village around each school) were randomly selected for an interview that was including questions about the conservation message that eco-clubs were spreading in the community. Each of them has answered ten questions grouped into three categories considering three evaluation categories: (1) the importance of the Gishwati Forest Reserve and its biodiversity, (2) transmissible diseases between human and primate, and (3) the main human threats to the forest and the best practices to reduce threats. These data were analyzed using MS. Excel to show the level of local awareness about the project target. The following graphs represent the results.



Graph 1: Average score considering the evaluation categories

The total number of households in 13 villages around schools is 1,966 with an estimate of 11,796 people. Based on responses we recorded during the evaluation, about 92.4 % of the interviewees have been reached by this conservation message. This project has increased a positive attitude towards the Gishwati Forest Reserve conservation from 66% (Uwimana, 2011 n=125) to 73.5 % (n=130). Considering the project target, about 78.3% were giving enthusiastic response to questions about the best practices to reduce threats to the forest and primates (Graph1). This level of awareness demonstrates their commitment to participate in this forest management. Also, the level of the awareness on the transmissible diseases information (67.7%) shows a good image of how this project has increased local awareness, as this was a new concept for the local community. These numbers are promising and representing the effectiveness of local community education methods. Even if it is a bit early to say

Students in awareness campaign (3)

Awards to the overall winners (1)

Presentation during the final ceremony

that this project have had an effect on reducing local pressure on the forest and primates, we are confident that it significantly contributed to the behavior change of the local community. This project success has also demonstrated that giving the opportunity to students in schools to share the knowledge they already have is a practical tool to spread a conservation message to the community. Also, students have the opportunity to learn effective communication methods, how to spread the information they learn in school and why these messages are important. We believe that the more local people will be educated the more they will become concerned with the Gishwati forest protection.

As it was planned this initiative was combined with annual eco-clubs competition organized by FHA, where the high ranking community in proving best answers to the questions has to give a chance to its eco-club to get the best annual price. Among the prices that FHA provided include: uniform for traditional dance group of eco-clubs, Radio receivers, soccer balls, etc.

The FHA mission is to engage local people in Gishwati Forest Reserve protection. Currently, we have a plan to continue local awareness raising programs about the importance of the conservation of Gishwati through school eco-clubs. Students in eco-clubs have the capacity to educate the community especially when they have education materials, and they are motivated by annual eco-club competitions that FHA organizes to evaluate their performance. FHA will continue to write grant proposals to support students' activities in the community. If granted, the funds will build on this project achievement to maximize local awareness about the Gishwati Forest Reserve biodiversity to further spread knowledge to the community and its future leaders.

Awards to the overall winners (2)

Thierry Aimable Inzirayineza
Coordinator, Forest of Hope Association
Rutsiro, Western Province, Rwanda
P.O. Box: 538 Gisenyi
fharwanda2012@gmail.com

Report from Conservation Grant Recipient Pierre Fidenci

Indigenous people protecting the Philippine tarsier and its habitat, Philippines

Summary

During the project, essential data were gathered to create the tarsier sanctuary. Data on distribution and population size of the Philippine tarsier (*Carlito syrichta*) and habitat delineation at the Mt. Matutum Protected Landscape were collected. A total of 39 endangered Philippine tarsiers including 12 infants were captured during surveys. Tarsiers were found in remaining patches of forest and dense vegetation. Based on the data collection, a map of the sanctuary was created. The sanctuary was verified and approved by the Department of Environment and Natural Resources as the Tarsier Sanctuary, a 509 critical habitat for the Philippines tarsier. The sanctuary is now the first protected area dedicated to the conservation of the Philippine tarsier in Mindanao.

Endangered tarsier observed at the sanctuary during surveys

For the first time, the project provided education and awareness on the importance of conserving nature to the B'laan indigenous people. We organized training on biodiversity, tarsier survey, monitoring techniques, and tools for the tarsier sanctuary. We also provided equipment to the B'laan indigenous people (e.g., binoculars, camera, GPS, boots, note books, and guide books) to assist them in properly managing the sanctuary and report illegal deforestation.

The Mt. Matutum Protected Landscape where activities occurred

During our activities 2,500 native and endangered trees were planted to recover habitat for the Philippine tarsier, prevent further soil erosion and potential landslides, and to conserve watershed natural services. As part of the alternative livelihood efforts, the B'lans now produce and sell small traditional crafts ensuring indigenous culture and tradition will be passed to future generations.

Goals of the project

The goals were:

- For the the first time, to protect the Philippine tarsier in Mindanao and use it as a flagship species to save other endangered species and their natural habitats.
- To create the tarsier sanctuary that will protect a viable tarsier population and its habitat.
- To respond to the strong desire of the local community, in particular the Bl'aan indigenous people, to save the remaining population of the Philippine tarsier and protect forest.

The objectives were to:

- To gather essential data on the distribution and population size of the Philippine tarsier at the Mt. Matutum Protected Landscape.

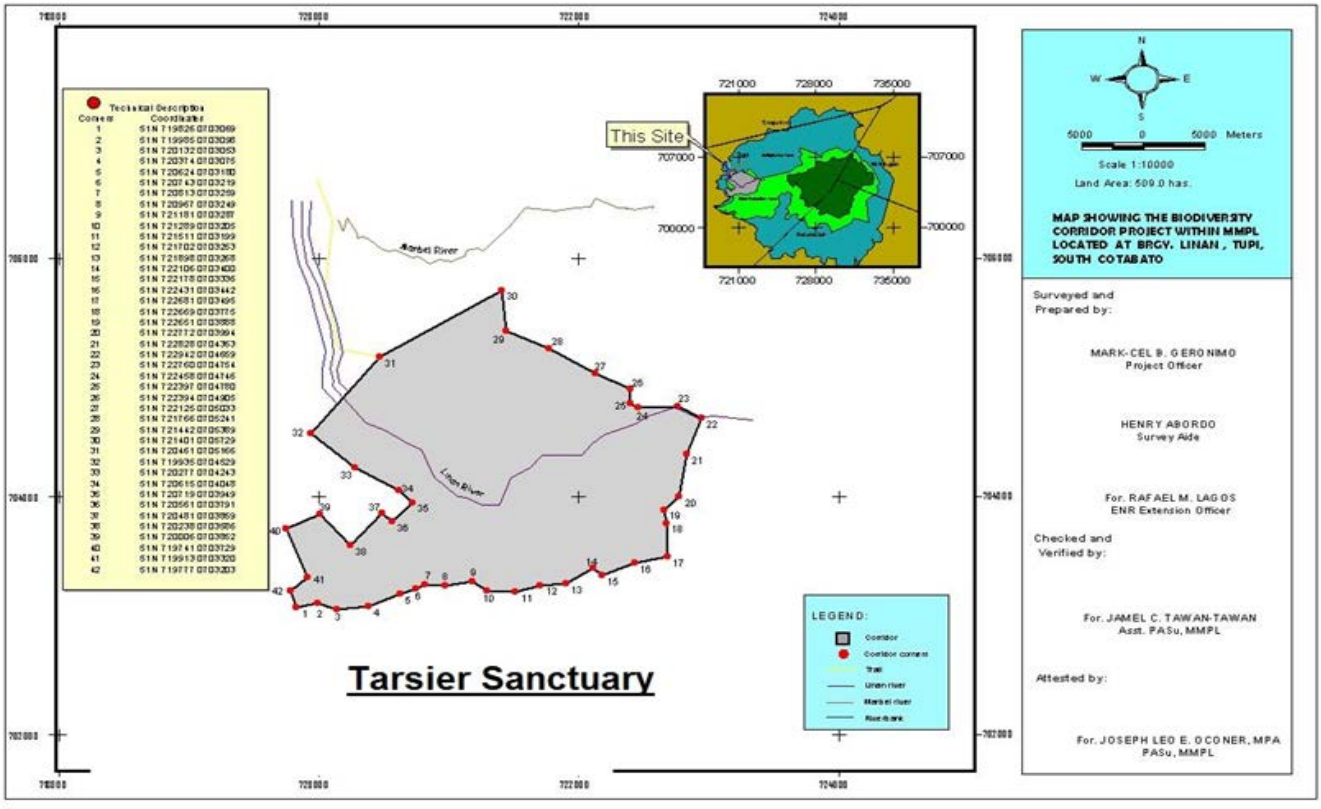
- To delineate critical habitat for the Philippine tarsier in order to create the tarsier sanctuary.
- To train indigenous people about tarsier survey, monitoring techniques, and management tools for the tarsier sanctuary.
- To plant native trees at key areas within proposed tarsier sanctuary to stop erosion and expend tarsier habitat.

Project results and achievements

- Delineated and created tarsier sanctuary via the full involvement of the B'laan indigenous people. Tarsier sanctuary was declared on March 2013 by the Protected Area Management Board, Department of Natural Resources and Environment. The tarsier sanctuary encompasses 509 hectares of viable tarsier habitat and restoration habitat within the Mt. Matutum.
- Trained the local community on tarsier survey and monitoring and management of the tarsier sanctuary for about 50 B'laan indigenous people. Eight training was conducted.
- Surveyed the sanctuary for the endangered Philippine tarsier. Found and marked 39 endangered Philippine tarsiers including 12 infants and mapped their occurrences.
- Formulated and submitted rules and regulations for proposed sanctuary to Protected Area Management Board of Mt. Matutum.
- Provided four eco-guides from the B'laan tribe with equipment including binoculars, camera, GPS, and proper mountain gears.
- Planted 2,500 native and endangered trees at the tarsier sanctuary. The reforestation effort occurred within 100 hectares of protected and ancestral lands.
- Considerable exposure of the project site during activities via news media (GMA TV, articles in newspapers, and radio interviews) and significant increase in the number of visitors.

Tarsier sanctuary delineated and declared

During months of May 2012 to March 2013, we gathered extensive data for the delineation of the proposed tarsier sanctuary. Mapping was completed in September 2012 and declaration of the tarsier sanctuary approved in March 2013. The resolution 04 Series 2013 designate the 509



hectares of forest lands within Mt. Matutum located in the municipality of Tupi, South Cotabato as tarsier core habitat and sanctuary and approving the policies that will govern in the management of the area in adherence to presidential proclamation no. 552, republic act 7586, national integrated protected areas system act (NIPAS), republic act 9147 (Wildlife Resources Conservation and Protection act of 2001), ra 8371, indigenous people's rights act (Ipra law) and republic act 7160 (local government code), South Cotabato environment code of 2010.

The declaration of the 509 hectares of tarsier sanctuary is a significant step and progress in protecting the endangered Philippine tarsier and its habitat. This is the first designated tarsier core habitat in Mindanao Island.

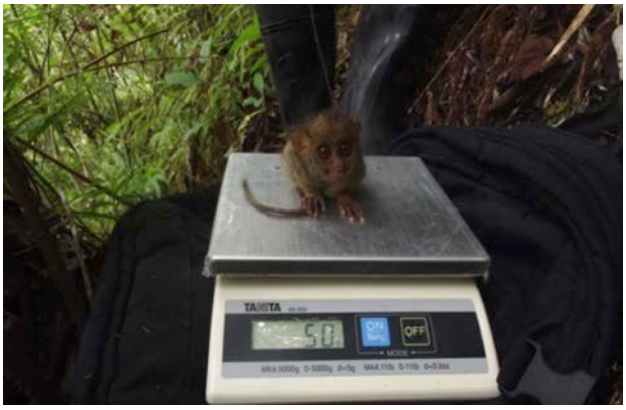
Tarsier survey results

Philippine tarsier surveys occurred two to four times per week at the tarsier sanctuary at the Mt. Matutum. Night surveys involved walking transects at night using torch light to locate tarsiers from 6 pm to 11 pm. Ten polyester mist-nets (length: 9 - 12 m; height: 2.10 - 2.70 m; mesh-size: 16 mm) were set up for each trapping occasion, from ground level up to 2.5 m above the ground. Nets were opened 1 to 2 h before dusk and at dawn, otherwise rolled down. We checked the nets every 1 to 2 hours and cleaning it from other unexpected animals. The mist-nets were transferred to other locations when no tarsiers were caught or observed for 5 to 7 consecutive nights. Each morning from 5 am to 10 am, plots were surveyed without mist nets searching for tarsiers at sleeping sites. Upon detection of any movement, vocalization, or scent mark, the number of tarsier individuals, their sex, and their relative age was determined. Tarsiers were captured by hand by a team of four B'laan indigenous people who undergo two week training. Captured animals were examined through visual assessment, and palpation to determine gender and reproductive condition (pregnant, non-pregnant). Locations of tarsier were recorded using GPS and then mapped.

A total of 39 tarsiers were captured in the sanctuary. Philippine tarsiers were observed in secondary forest and dense vegetation including bamboos and small caves. Tarsiers were absent in crop plantations such bananas and coconuts. Of the 39 tarsiers captured, 18 were adult females, 9 were adult males, and 12 were infants. Thus, there were significantly more adult females observed than males. Of the 12 infants that were captured 10 were males and 2 were females.

The estimated density of about 15 individuals per 100 hectares is much less that observed by Neri-Arboleda (2001) and Gurskya et al. (2010). Neri-Arboleda (2001) estimated the density of the Bohol tarsier as approximately 57 individuals per km² and Gurskya et al. (2010) as 155 individuals per km². Our lower estimate can be easily explained by the lack of suitable habitat in the sanctuary where coconut and banana plantations have illegally replaced by natural vegetation. The unequal sex ratio of the population with more females captured than males is characteristic of the tarsier population observed at the sanctuary. This might be an artifact of capturing techniques.

Number of tarsiers captured (2012)				**Number of tarsiers captured (2013)**			
site: Bagong Silang				site: Fortuna			
	Ad F	**In F**			**Ad F**	**In F**	
	15	2	15		3	0	3
	Ad M	**In M**			**Ad M**	**In M**	
	8	7	14		1	3	4
total	23	9	32	**total**	4	3	7



Male infant captured within the tarsier sanctuary during surveys.

Impacts of the project

The project had considerable impacts on the Philippine tarsier by protecting for the first time its remaining wild population and its habitat in Mindanao Island. The project provided skills and experience to the Bl'aan indigenous people to monitor tarsier population and manage the newly tarsier sanctuary.

The project is boosting eco-tourism at the Mt. Matutum Protected Landscape by providing an additional tourism destination by visiting the tarsier sanctuary and the B'laan indigenous village of Balonsilan which both are located within the project area. Since the Philippine tarsier is a flagship species, it will help to raise awareness on other primate species.

The project benefits directly the local communities especially the B'laan indigenous tribe by increasing their local incomes from the entrance fees generated by the sanctuary. This project is a community-based project that was in essence created by the local community and Endangered Species International. As a result of the project, strong partnerships and collaborations have been built with the B'laan indigenous people, the municipality of Tupi, the Department of Environment and Natural Resources, and the province of South Cotabato.

Our findings and accomplishments had a strong influence on conservation priorities and policy. Our finding on tarsier distribution and population size served as a basis for creating the tarsier sanctuary. Our activities also encouraged the government to approve the regulations that protect tarsier habitat in the sanctuary. Since the start of the project, our activities have pushed the local and national governments to be involved in the conservation of the tarsier in our project area.

Tree planting and monitoring activities at the tarsier sanctuary.

Further the local government has passed in January 2013 a resolution prohibiting the capture of tarsiers and further illegal clear cutting. The Department of Environment and Natural Resources is now preparing a conservation plan using our data to ensure that the tarsier sanctuary continues to support a viable population of the Philippine tarsier. The plan will be executed towards the end of 2013.

The project has long-term implications for the survival of the Philippine tarsier and its habitat. For the first time, the Philippine tarsier and its habitat are protected and restored in Mindanao. Further, the creation of the sanctuary opens doors for the local community to gain some income through tourism at the tarsier sanctuary. The next steps include tarsier and illegal activity monitoring, executing the conservation plan, planting additional native trees, and continuing awareness and education.

Tree planting and monitoring activities at the tarsier sanctuary.

Budget / IP Conservation Grant get

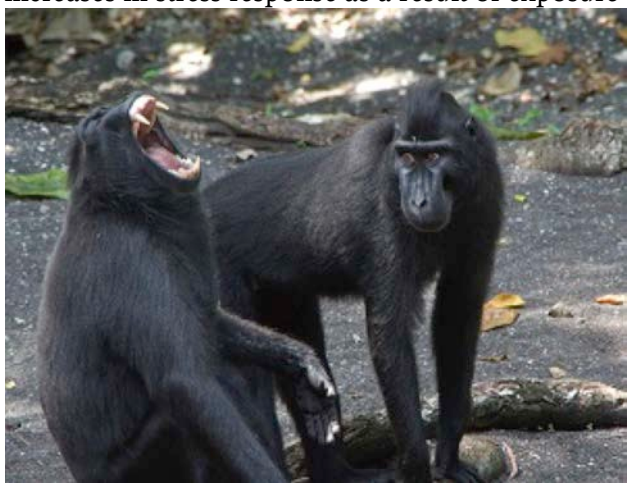
Expense item	**Total**
Transportation for conducting tarsier research and delineation of tarsier sanctuary/protected area.	$600 for local transportation to various sites to conduct tarsier surveys and assessment.
Equipment for tarsier research: 10 mist nets, 10 flashlights, walkie-talkies, rechargeable batteries, flagging, 1 GPS, raingears, notebooks, forms, maps and gloves.	$900 ($20 per mist net, $200 flashlights, $100 walkie-talkies, $200 GPS, $200 raingears, gloves, maps).
2,500 native tree seedlings + transportation	$ 500
Total	**$ 2,000**

Report from Conservation Grant Recipient Dominique A. Bertrand

The stress factor: Anthropogenic sources of stress in an eco-tourist location containing wild *Macaca nigra* (Preliminary Study 2)

Tangkoko Reserve, Sulawesi, Indonesia is home to three habituated social groups of *Macaca nigra* (named: Rambo I, Rambo II, Pantai Batu) that are exposed to varying types and intensities of anthropogenic stress. Rambo II is exposed to research, tourism and range restriction, Rambo I to research and tourism, and Pantai Batu to research only.

My general goal was to test methodology and generate preliminary results for a larger dissertation project on the behavioral and physiological effects of tourism and range restriction on black crested macaques. This was the second such pilot study. The first was conducted during the low tourist season (from Dec '12 - Jan '13). For this preliminary study I collected data between July 4th, 2013 - August 18th, 2013 from two of the three groups (Rambo II, 70 individuals & Pantai Batu, 60 individuals). Rambo II has been subject to tourism for decades, and although they may tolerate tourists well, there are indications that they experience increases in stress response as a result of exposure



to them (Bertrand, 2013). In addition, Rambo II is also subject to range restriction (crop raiding defense). Range restriction has been known to cause high rates of infant mortality in macaques, specifically *Macaca thibetana* (Berman et al., 2007). The possible stress response to this anthropogenic influence has yet to be examined in *M. nigra*. I followed the groups from dawn to dusk to familiarize myself with their normal daily activity patterns, the number of individuals I was able to

tourists could be reliably recorded, and what tourist characteristics could be recorded. Specifically, for Rambo II, I verified that the low tourist season data collection techniques were adequate for the high tourist season, and I tested data collection methods to record instances of Rambo II's range restriction. In addition, for Pantai Batu, I tested the saliva collection methods on females, and collected fecal samples in order to examine possible diurnal fluctuation in cortisol metabolites and to compare a field extraction technique using ethanol with current methods that require freezing in the field until samples can be transported to a lab.

Results

Observation:
I was able to verify that the observational methods proven effective in the first preliminary trip (low tourist season) were also effective during the high tourist season. Both Rambo II and Pantai Batu were successfully followed from dawn until dusk and both groups' compositions allowed for focal follows and group scans. Monkeys had significantly higher rates of scratching (t=-2.443, n=31, p=0.021), but no significant difference in the rates of grooming (t= .774, n=31, p=0.445) when tourists were present vs. absent (Fig. 1). Nevertheless, there was a positive correlation between number of tourists and behavioral stress indicators. As the density of tourists increased above 1, rates of scratching (r=0.599, N=18, p=0.009) and rates of grooming (r=0.562, N=18, p=0.015) increased (Fig. 2). When considering the occurrence of any

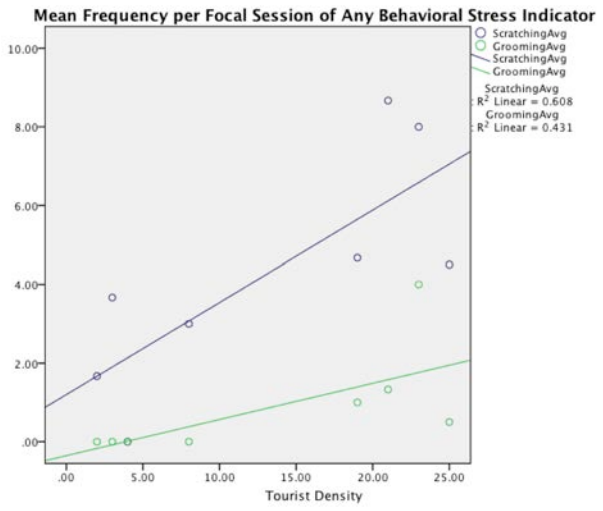


Fig. 1

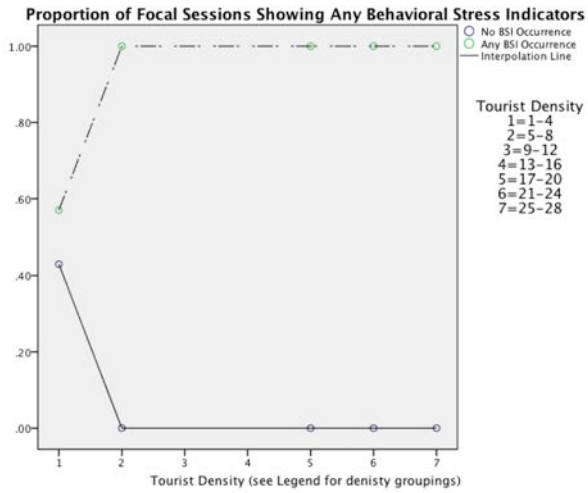


Fig. 2

behavioral stress indicator, monkeys were more likely to either scratch or groom when tourist density was higher than 4.

Salivary:
Using swabs soaked in mango syrup, I attempted to collect a total of 27 salivary samples from females in Pantai Batu. In no case did either an intended female or an unintended female chew on the swab. In 60.37% of cases, the monkey showed no interest, and in 29.63% the monkey showed negative responses (spitting the swab out immediately). In addition, I examined the salivary samples collected from males during the low tourist season and selected six to thaw and centrifuge in order to determine if at least 100ul of saliva was present. I previously found that in order to attract any interest, the swabs needed to stay partially saturated. This is a potential concern as excess fluid may affect the cortisol readings (Higham et al. 2010). In order to address the excess fluid question, I centrifuged several samples in the endocrinology lab at the Bogor Agricultural University, (Bogor, Java) from the low tourist season that were of varying saturation points when administered, and had been chewed for different time amounts. Regardless of how saturated the swab was when presented to monkeys, each swab contained approximately the same amount of liquid (3 ml). This suggests that the Salivette dental swabs soaked in mango syrup are effective saliva collection devices, but firm conclusions as to their suitability as cortisol collection devices await formal assaying.

Fecal:
I was successful in collecting 45 samples from three individual females (RP, TP, SP) of varying reproductive states (RP had a 12 month old infant, TP was 4 months pregnant, SP was cycling and her oldest offspring was 2yrs old). 22 samples were collected in the morning (RP:7, TP:6, SP:9) and 23 were collected in the afternoon (RP:7, TP:8, SP:8). These samples will be assayed in July.

Discussion

Behavior:
I found an increase in the rates of behavioral stress indicators when tourists were present as opposed to absent; as the number of tourists increases, so does the frequency of behavioral stress indicators. This increased occurrence of behavioral stress indicators is consistent with the notion that the monkeys experience more stress when exposed to tourists. This is a noteworthy finding in a population that has been subjected to tourism for decades and is apparently tolerant of them. I am currently seeking funding to continue this project over an extended period of time (one year) in order to more thoroughly address a common assumption among primate researchers and conservationists that, when long term exposure to presumed benign anthropogenic influences such as tourism leads to apparent tolerance, harmful stress responses and their fitness effects are neutralized (Bejder et al., 2009). Although my observational data were sparse, these results are consistent with previous studies (Matheson et al., 2006; Maréchal et al., 2011; Bertrand, 2013) and verify that the observational methods used appear to be adequate to collect tourist data in a longer study. Also, while it was not possible to collect detailed behavioral responses to range restriction while it was occurring because the primary response was generally chaotic flight, it was possible to record detailed behavioral response immediately afterward.

Additionally, my preliminary work has confirmed the need for an assistant to collect more comprehensive data during both tourism visits and range restriction. Overall, this preliminary study allowed me to further develop viable behavioral collection techniques that take into account individual differences in behavioral response. This is an important inclusion as many factors are likely to play into the ways in which animals respond to environmental challenges, including human disturbance. For example, individuals may respond differently based on age, sex, dominance status, or personality (Sapolsky, 2005; Martin & Réale, 2008; Coleman, 2012).

Salivary:
While it is clear that male *M. nigra* will chew mango soaked swabs (Bertrand, 2013), it was unclear whether females will participate in this activity. Overall Pantai Batu appears to be the least likely group to interact with novel objects. For this reason, I chose their females to test my salivary collection technique. Unfortunately, they appear to have little to no interest in these swabs. The staff at the *Macaca Nigra* Project is currently working to familiarize females in an effort to increase their interest by the time I return. Nevertheless, progress was made regarding the usability of mango soaked swabs as salivary collection devices. Since each centrifuged sample from the low tourist season held approximately the same amount of liquid, it is unlikely that having only partially dry swabs results in excess fluid; monkeys likely chew the swabs until the flavorful liquid is gone, regardless of how much flavor is initially present. Whether variation in the dryness of swabs might bias determinations of cortisol levels will have to wait until permission is obtained.

Fecal:
I was able to collect fecal samples from identified monkeys, at times appropriate to determine diurnal effects. Although Gholib (2011) has shown that male macaques do not appear to express significant diurnal differences in fecal metabolites, no one has explored this in female *M. nigra*. In addition, it was important to collect samples from females in different reproductive states due to the effect that reproductive hormones may have on cortisol expression. If significant diurnal differences are found (assays pending permit), corrections will be applied to future samples. I also intend to compare levels of cortisol metabolites in feces following field extraction (via ethanol) vs. lab extraction (via lypholization/ methanol) once permits are obtained. Finding a reliable extraction method that reduces the reliance on freezers is important for remote field sites (Palme et al. 2005). However, if results of the extraction evaluation show limited comparability this may point to a factor other than a failed field extraction technique. Samples may have been subject to contamination or degradation.

Therefore, I will be conducting an experiment using fecal samples collected from captive *M. nigra* at the Buffalo Zoo, thereby testing the two extraction methods in a more controlled environment.

Acknowledgements

I gratefully acknowledge the financial support of the International Primatological Society. I would also like to acknowledge the Indonesian Natural Resource Conservation Agency (BKSDA) and the local management of the Tangkoko Nature Reserve for their cooperation and support, for their permission to work in Tangkoko. I thank the Department of Reproductive Biology at the German Primate Center, Göttingen, Germany, especially Dr. Antje Engelhardt and Dr. Michael Heistermann. In addition, I thank Dr. Muhammad Agil from the Faculty of Veterinary Medicine of the Bogor Agricultural University (IPB) for providing administrative and logistic support. And a special thanks goes to my committee, in particular my advisor Dr. Carol Berman. Finally, I would also like to thank the Sponsored project Services at SUNY Buffalo for their logistical assistance in my grant proposal application and grant award management.

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Report from Conservation Grant Recipient Mariano Houngbedji

Conservation state and dynamic of *Cercopithecus erythrogaster erythrogaster* population in Togbota-Agué forest, Benin

Benin or Dahomey Gap endemics species are of special interest. The flagship example here is the red-bellied guenon (*Cercopithecus erythrogaster erythrogaster*), which is only known from southern Benin and one site in Togo. Due to threats to the survival of primates, conservation initiative ensuring their protection in fragmented and unprotected forest habitats is critically important. Togbota is in the Ouémé valley one of the last refuge for red-bellied guenon (*Cercopithecus e. erythrogaster*). We collected data on red-bellied guenon's demography, threats facing the monkey and its habitat. We found that the red-bellied

Cercopithecus e. erythrogaster at Hounvigue

Chlorocebus a. tantalus at sacred forest Vazoun

monkey (*Cercopithecus e. erythrogaster*) was the most common primate in all of the forests patches. The average group size for red-bellied monkey ranges from 5 individuals at Adjossito to 12.33 individuals at Issawémè. The average group size for mona monkey ranges from 5.66 in Issawémè to 12.16 individuals in Hounviguè. One group of tantalus monkey (*Chlorocebus aethiops tantalus*) was present at Vazoun sacred forest with average group size of 13.83 individuals. Major threats to the conservation of *C. e. erythrogaster* documented in the area include trafficking trade of the monkey, poaching for crop protection, in addition to the increasingly detrimental habitat degradation due to agriculture and fuel wood collection. The outreach activities we led involved all the stakeholders and include primary and secondary schools, local authorities and local people.

Cercopithecus mona at Hounvigue

Results

I. Study area

The ecosystem of Togbota-Agué, located about 40 km north of Cotonou, on the banks of the River "Togbo" is a mosaic of dense forests, gallery forests, swamp savannah in the RAMSAR site N° 1017. The landscape is mainly dominated by a dense undergrowth varying between 2 - 4 m in height and few larger trees (>10 m). Most of the forest fragments are surrounded by fields (maize, cassava, pepper and peanut). The area is seasonally flooded. Togbota consists of several forest fragments and shelters three primate species: *Cercopithecus e. erythrogaster*, *Cercopithecus mona*, and *Chlorocebus aethiops tantalus*. Togbota ecosystem is also habitat for seven (7) mammal species outside of primates: sitatunga, bushbuck, bushpig, common duiker, common grasscutter, Gambia rat and otter.

II. *Cercopithecus e. erythrogaster* census and threats

1. Primate species list for Togbota-Agué

The primate species listed for Togbota-Agué is presented by table 1.

Table 1. Primate species list for Gnanhouizounmè forest.

Togbota-Agué Forest patches	Species	Heard[1]	Seen[1]	Reported[2]
	Cercopithecus e. erythrogaster	x	x	x
	Cercopithecus mona	x	x	x
	Chlorocebus aethiops tantalus	x	x	x
	Procolobus verus			x

[1] Primate species heard or seen by the author, [2] Primate species reported by hunters to be still present.

2. Identification of habitats of primate at Togbota-Agué

During exploratory study, ten (10) sites (forest patches) had been identified as potential primate habitats. Six (6) of these patches forest shelter primates. The fragment boundaries of each patch were mapped with the use of a Global Positioning System (GPS). The GPS was set to record positions every 30 second (recording positions in latitude/longitude) while an observer walked the perimeter of each fragment. The area of the fragment was defined by the area of forest, where no agriculture was allowed. Location and detail of observations for each patches forest surveyed were presented by table 2.

Table 2. Location and detail of observations for patches forest surveyed

Localities of Togbot-Ague	Coordinates	Area (ha)	Survey type	Survey effort (hour)	Species		
					C. e. erythrogaster	*C. mona*	*Chlorocebus a. tantalus*
Hounviguè	N6°42'57.8" E2°24'42.1"	3,7438	1; 2	47h	+	+	-
Adjossito	N6°42'59.4" E2°24'15.6"	6,55	1; 2	41h	+	+	-
Agbodo	N6°41'17.1" E2°24'49.7"	7,0194	1; 2	48h	+	-	+
Isawémè	N6°43'14.6" E2°25'02.5"	13,2	1; 2	62h	+	+	-
Gbédedji	N6°43'10.4" E2°24'15.5"	14,989	1; 2	59h	+	+	-
Vazoun	N6°41'42.2" E2°24'32.9"	5,4609	1; 2	48h	-	-	+
Hountan	N6°42'38.6" E2°25'01.7"	-	1; 2	6h	-	-	-
Sotor	N6°42'17,1" E2°25'04.5"	-	1; 2	7h	-	-	-
Doaffa	N6°42'22.9" E2°25'04.5"	-	1; 2	6h	-	-	-
Sahounou	N6°42'57.2" E2°25'06.5"	-	1; 2	5h	-	-	-

+: observed by author in the patch forest, - not observed by author in the patch forest
Survey effort: h = hours spent surveying the forest
Survey type: 1 Primate species heard or seen by the author, 2 Primate species reported by hunters to be still present

3. Group size and density

Groups were approached silently, and whenever a group was encountered, their group size was estimated. Good group counts were easier early in the morning, when the groups left their sleeping trees, or late in the day, when they moved towards their sleeping site. However, it was not often known where the sleeping trees were, thus, to have a better chance of finding groups, searching was continuous from 6:00 to 11:00 in the morning and from 4:00 to 7:00 in the afternoon. For every fragment, survey was repeated six times. Density was obtained by dividing the mean of population's size by the area. D=S/A where D: density; S: mean of population's size; A: area of the fragment.

The mona monkey (*Cercopithecus mona*) was the most common primate in all of the forests patches. The average group size for mona monkey ranges from 5.66 at Isawémè to 12.6 individuals at Hounviguè. The red-bellied guenon (*Cercopithecus e. erythrogaster*) groupe size varies between 3.5 individuals at Gbédédji to 12.33 individuals at Issawémè. In the sacred forest Vazoun, the

average group size for tantalus monkey (*Chlorocebus aethiops tantalus*) was 13.83 individuals. All the monkeys display greater variation in average group size. Table 3 present population size and density for each patches forest.

Table 3. Density of *C. e. erythrogaster*, *C. mona* and *Chlorocebus aethiops tantalus* for Togbota-Agué patches forest.

Patches forests	Population size (Ind.)		
	C. e. erythrogaster	*C. mona*	*Chlorocebus a. tantals*
Hounviguè	7 ± 8	12,16 ± 6	-
Adjossito	5 ± 26	6 ± 17	-
Agbodo	7,66 ± 6	-	-
Isawémè	12,33 ± 6	5,66 ± 8	-
Gbédedji	8,8 ± 28	11,33 ± 18	-
Vazoun	-	-	13,83 ± 16

Patches forests	Individual density (Ind./km^2±CV[1])		
	C. e. erythrogaster	*C. mona*	*Chlorocebus a. tantals*
Hounviguè	186,97	324,8	-
Adjossito	76,33	91,6	-
Agbodo	109,12		-
Isawémè	93,4	42,87	-
Gbédedji	58,7	75,58	-
Vazoun	-	-	25,32

[1]CV= coefficient of variation= SD/x , where SD= standard deviation and x = mean

Patches forests	Group density (Gr./km^2±CV)		
	C. e. erythrogaster	*C. mona*	*Chlorocebus a. tantals*
Hounviguè	26,71	26,71	-
Adjossito	15,26	15,26	-
Agbodo	14,24		-
Isawémè	7,57	7,57	-
Gbédedji	13,34	6,67	-
Vazoun	-	-	1,83

4. Threats facing red-bellied guenon in Togbota-Agué

a. Habitat loss and habitat fragmentation

Unfortunately, red-bellied guenon habitats are highly threatened by human activities. Indeed, Togbota is a great marketing pole of firewood. Forest patches are heavily exploited for firewood exportation to other parts of the country by river. The best preserve site in Togbota-Agué is the sacred forest. All the others forest fragments are dense undergrowth varying between 2-4 m in height and dominated by few larger trees (>10 m). The necessity to ensure food security in conditions of extreme poverty leads these populations to uncontrolled exploitation and natural resources used abuse.

b. Poachings

Main threat in Togbota for red-bellied guenon conservation is a trafficking of *Cercopithecus e. erythrogaster*. More than %91 of interviewed people told about. The red-bellied captured are mainly sold in Cotonou to foreign. We approached hunter but they denied the facts. Several activities were carried out in/near red-bellied guenon habitat, with different impacts. Table 4 present activities in relation with habitat and their impacts on red-bell ied guenon survival.

Table 4. Impacts of activities on red-bellied guenon survival

Activities	Impacts
Agricultural	• Main factor of the fragmentation of red-bellied guenon habitat; • Agricultural fields established at the boundary of forest patches allow red-bellied guenon and sympatric guenon to damage cultures. Guenons were hurt or killed by snares set on the ground.
Firewood collecting and logging activities	• Principal activity of people at Togbota, firewood trade is the second main activity that contribute to the fragmentation of red-bellied guenon habitat; • The level of damage caused by firewood activities and the species of trees logged (some are important fruit sources) can reduce food availability and affected red-bellied guenons densities in the short or long term.
Cercopithecus e. erythrogaster trafficking	• Some red-bellied guenons are shot to protect crops. Certain hunters at Togbota specialized in red-bellied guenon capturing and selling. This trafficking may involve authorities and agencies at different levels. Intervention from the authorities in charge of the conservation of biodiversity is urgent to stop this traffic.

III. Conservation Education Activities

1. Public awareness campaigns

10 education and sensitization panels have been organized via schools and villages (Table 6).

Furthermore, 250 posters have been produced and distribuated during the awareness sessions. See appendix 2 for poster used during education and sensitization panels and appendix 3 for photographs of education and sensitization panels.

Targets	Number of pannel implemented	Estimated participant number
Togbota-Agué Primary School	4	70
Community of Togbota-Agué	5	150
Secondary School of the district	3	130
Municipality of Adjohou	1	10
Total		**360**

2. Public awareness via radio

10 awareness sessions have been achieved via the radio "la voix de la Vallée" that is the popular radio listen in the Ouémé valley. The awareness programmes covered such topics as the concepts of endangerment and extinction, primates (with a focus on red-bellied guenon), ecotourism, ecosystem services.

3. Public awareness via social network

A page named "*Cercopithecus erythrogaster erythrogater*" has been created to share informations about the red-bellied guenon, and the project's goals and results. It's a real way to communicate with the whole word in spite of natural and physic barrier. The page can been find following this link: wwwfacebook.com/oddbong/ Cercopithecus erythrogaster erythrogater.

4. Strength and weakness to red-bellied guenon conservation in Togbota-Agué and ecotourism promotion

Location	Strengths	Weakness
Agbodo	• forest under protection by the owner • availability of food resources • no agricultural encroachment • no poaching • easy access for tourists • easiness to observe red-bellied guenon	• local people say not getting any incomes from tourism led by "Urgence Afrique"
Adjossito	• easy access for tourists • availability of food resources	• seriously degraded habitat • recurrent burning • agricultural encroachment • threat due to snares set on ground by people to protect crops
Hounviguè	• availability of food resources • availability of water	• seriously degraded habitat without larger trees • difficult access for tourists • agricultural encroachment • damage to cultures
Isawemè	• availability of food resources • availability of water	• agricultural encroachment • damage to cultures • difficult access for tourists • poaching to protect culture (a red-bellied was shot the day of the interview)
Gbédédji	• -habitats bien conservé • availability of water	• difficult access for tourists • fragment is object of conflit between two families
Sacred forest Vazoun	• forest under good protection • easy access for tourists • no agricultural encroachment • availability of water	

Financial information

Items	Budgeted Amount ($)	Actual Amount ($)	Difference ($)
Travel to research sites	647	660	+13
Assistants and local workers	200	195	+5
Awareness campaign, education.	648	664	-18
TOTAL	**1495**	**1495**	**0**
Conservation through Community Involvement (CCI)			
Flipchart, easel and marker pen	100	90	10
Office furniture (Paper, CD, floppy disk, flash disk, etc.)	50	40	10
Renting of a projector	70	85	-15
Accommodation for participants	180	165	+15
Additional manpower	100	120	-20
TOTAL	**500**	**500**	**0**

Acknowledgments

This work was funded by International Primatological Society Conservation Grant. We are grateful to the whole staff of International Primatological Society for your commitment in Primates conservation.

We are grateful to Togbota-Agué local communities. Our acknowledgments also go to the colleagues, Chrystelle DAKPOGAN and Guillaume HOUNDEMIKON for their assistance during the field data collection phase and outreach activities.

Report from Research Grant Recipient Francis Rwabuhinga

Francis Rwabuhinga, B.A., was awarded the International Primatological Society's Charles Southwick Conservation Education Commitment Award in 2013. Francis, a graduate from Makerere University in Environment Management, is jointly employed by the Kasiisi Project, Kibale Forest Schools Program, and Kibale Snare Removal Program. Francis works collaboratively with the different projects to promote primate education and conservation, particularly with regard to chimpanzees, in the local schools neighboring Kibale National Park.

Affiliated projects:

Kasiisi Project (http://www.kasiisiproject.org/), Kibale Forest Schools Program, and Kibale Chimpanzee Project (via Kibale Snare Removal Program, http://kibalechimpanzees.wordpress.com/snare-removal-program/)

Collaborative projects' aims

- Promote primate education and conservation, particularly with regard to chimpanzees, in the local schools and communities neighboring Kibale National Park.

- Increase community tolerance toward chimpanzees and other wildlife living in Kibale National Park.
- Develop a deeper respect for the national park and its inhabitants.
- Reduce the amount of human disturbance within the national park, especially with regard to snaring and poaching.

Methods

Throughout the award period, Francis was involved in, organized, and lead many different primate conservation education activities in the 14 Kasiisi Project schools. In particular, he was charged with showing conservation videos, giving talks, organizing teacher workshops and school debates, and planning an Ngamba Island enrichment activity and contest.

Outcomes

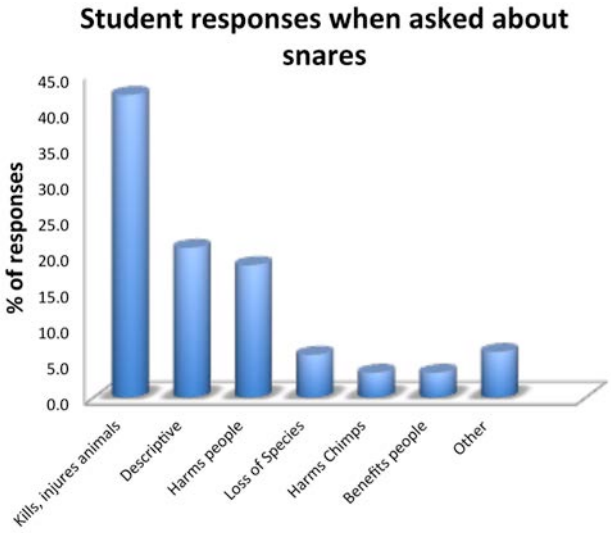
Conservation Videos. Francis traveled to the 14 different Kasiisi Project schools to show Wildlife Clubs a great ape conservation video that follows a young African boy helping wildlife authorities protect chimpanzees and gorillas from habitat loss, the bushmeat trade, and snaring in the national park. These three topics were shown as three independent videos on three separate occasions so that each issue could be discussed at length following the video.

Debates

In November, the Makerere University Biological Field Station at Kanyawara, Kibale National Park hosted the Kasiisi Project Debate Cup. The Debate Cup, an annual event, is an opportunity for the different Kasiisi Project schools to compete by debating conservation related issues.

Kiko primary student makes a point during a debate.

Ruteera primary student argues his points in front of the Debate Cup judges.



Debate cup post-survey student responses when asked about snaring.

This weekend event was a huge success, and students really enjoyed the opportunity to discuss issues and show off their debate skills. With regard to the topic of snaring in the national park, the majority of student responses in a post-debate

Ruteera teacher coaching his students before the debate.

survey indicate that students understand the negative impacts of snaring. Hopefully this attitude will translate to a reduction of snaring in the national park in future generations.

Workshops

On Feb 16, 2014, Jessica Hartel (Director, Kibale Snare Removal Program) presented Francis with his three conservation awards (IPS Charles Southwick Commitment Award, ASP Conservation Award, and Primate Education Network Educator of the Month Award for June) at a Disney Wildlife Club (WLC) Workshop for the Kasiisi Project's 14 schools Wildlife Club teachers (2 per school). Francis helped lead this workshop with the Kasiisi Project Field Manager, Debi Hoege. This workshop presented the prefect opportunity to present his awards in front of all of his colleagues that are also focused on conservation education in the local schools near Kibale National Park. The workshop provided an opportunity for Wildlife Club teachers to discuss conservation issues and activities, and brainstorm new ways to address these issues in the future.

Jess Hartel, Director of Kibale Snare Removal Program, presenting Francis Rwabuhinga with his American Society of Primatologists' Conservation Award.

Ngamba Island enrichment activity

This Kasiisi Project activity was planned to increase students' awareness of chimpanzees and their susceptibility to the bushmeat and pet trade in both Uganda and surrounding countries. Ngamba Island, an island chimpanzee sanctuary in Lake Victoria, is home to ~50 chimpanzees that were either orphaned (because of the bushmeat trade), were former pets, or were confiscated by authorities. Two representatives from Ngamba Island visited seven of the Kasiisi Project schools and gave a talk about Ngamba Island. Students then created enrichment items for the sanctuary chimpanzees. In a follow-up activity, students competed in a chimpanzee conservation drawing competition in which a small number of students were chosen to hand deliver the enrichment items to Ngamba Island with their teachers. These students got to experience first hand what sanctuary life is like for wild chimpanzees! Students then reported back to their classes about their experience.

Future directions

This month, Francis, along with two other Kasiisi Project colleagues, will be leading a training workshop for the Kibale Snare Removal Program's five rangers. The workshop will focus on the rangers teaching and presentation skills. Since our rangers have little to no teaching experience, the workshop aims to improve their public speaking ability, presentation effectiveness, and show them how to tailor their talks to a young audience

They will also be incorporating a Wildlife vs. Poachers game to get the kids more actively involved in the talk and demonstrate how snaring can quickly decimate animal populations. The rangers will then be giving talks about the Kibale Snare Removal Program to some of the Kasiisi Project schools' Wildlife Clubs later this year. Rangers will also be showing the Kibale Snare Removal Program's Short Documentary to the students.

In general, all three projects will continue to strongly focus our efforts on primate conservation in the nearby schools through talks, videos, and activities.

Kibale Snare Removal Program ranger giving at snare removal talk at a local school.

Report from Conservation Grant Recipient Jenna J. Wehr

In June and July of 2011 data pertaining to plant species distribution and the diet of Verreaux's sifaka (*Propithecus verreauxi*) were collected in Parcel II of the Beza Mahafaly Special Reserve. This research was conducted as an initial effort to understand the plant species composition of Parcel II and to determine which of these species are consumed by sifaka.

The local and species names of plants in 10, 2 x 50m plots of forest, in Parcel II were noted, as well as 10 in the reserve's extension between June 24th and June 30th.

The diameter and height of each specimen were recorded as well. Between July 1st and July 29th, 2011 one group of six *P. verreauxi* in Parcel II of the reserve was habituated and then the diet and activity budgets of the three adult members of the group were recorded by Mme Jenna J. Wehr and M Elahavelo. Photos of the plant species comprising the study group's diet were taken as well. Table 1 provides a list of the plants consumed by *P. verreauxi*, in Parcel II of the Beza Mahafaly Special Reserve. Figures 1 through 3 portray some species of plant consumed by *P. verreauxi* in this study.

After having observed that one of the adult female sifaka in the study group was unable to use its left hand, most likely due to a radius/ulnar or wrist fracture, Mme Jenna Wehr decided to record the posture the three focal sifakas were assuming each time they were eating. This information may be used in the effort to investigate how *P. verreauxi* uses behavioral responses to adapt to injury. The female with the injury is depicted in Figure 4.

Table 1. A list of the plants consumed by *P. verreauxi*.

No	Local Name	Scientific Name	Family
1	Avoha	*Dichrostachys humbertii*	Mimosaceae
2	Fandrean-dambo	*Physena sessiliflora*	Flacourtiaceae
3	Fatra	*Terminalia fatrae*	Combretaceae
4	Hazomena	*Phyllanthus decoryamus*	Euphorbiaceae
5	Jabihy	*Operculycaria decaryi*	Anacardiaceae
6	Karimbolomitse		
7	Katrafay	*Cedrelopsis grevei*	Ptaeroxylaceae
8	Kililo	*Metaporana parvifolia*	Convolvulacea
9	Maintifofotsy		
10	Maranatolok		
11	Mendravy		
12	Piravola		
13	Rombe		
14	Taly	*Terminalia seyrigii*	Combretaceae
15	Talyvorokoko		
16	Tapisaky	*Xerosicyos danguyi*	Cucurbitaceae
17	Taraby	*Commiphora brevicalyx*	Burseraceae
18	Tsiri-drambo		
19	Vololo	*Grewia spp.*	Tiliaceae

Fig. 1. Maintyfofotsy (scientific name unknown)

Paired-samples t-tests showed that the injured female did not spend less time feeding than the uninjured pregnant female ($p = 0.19$), nor were there differences observed between the latter and the male ($p = 0.058$), but that the injured female did spend less time feeding than did the male ($p = 0.048$). The injured female spent 3.84% of feeding time suspended, while the uninjured female and male spent 19.46% and 20.41% of feeding time, respectively, in a suspensory position. These results suggest that disability may constrain feeding time among sifaka.

Fig. 2. Fandrean-dambo (*Physena sessiliflora*).

Fig. 3. Avoha *(Dichrostachys humbertii)*

Results from this research will increase the knowledge of the diet and ecology of Verreauxi's sifaka, in Southwestern Madagascar, and provides ESSA with basic information about the species in Parcel II and the extension, which can be used for management policies at the Beza Mahafaly Special Reserve. It is also the first step in the doctoral dissertation research of Mme Jenna Wehr, which will ultimately focus on the conservation of *P. verreauxi* and the well-being of Malagasy people residing in the villages surrounding the reserve.

Fig. 4. A female *P. verreauxi* with an injured radius and ulna or wrist.

Report from Research Grant Recipient James P. Herrera

Dwarf lemur speciation in Madagascar (Genus *Cheirogaleus*): the roles of ecology and sex

Species diversity is generated by the evolutionary processes of speciation. Many primates have served as models of speciation, especially concerning species contact zones, hybridization, and ecological/socio-sexual divergence (e.g., baboons, guenons). Lemurs are speciose strepsirrhine primates that appear to diverge in ecology among closely related species, but less is known about the ecological basis of species divergence than in haplorhine primates. Further, Madagascar is one of the most crucial conservation priorities in the tropics due to the high microendemism and rapid habitat loss. Lemurs are flagship species that have received great conservation attention due to the diversity of species and the fragmented landscape in which they live. While some species are widespread and occur in multiple forest types, others are geographically restricted and their habitats are often under heavy anthropogenic pressure. Some species are limited to ranges that are unprotected and fragmented, like Sibree's dwarf lemur, *Cheirogaleus sibreei*. This species was thought to be extinct until 2009, when it was found in a forest fragment in central eastern Madagascar (Tsinjoarivo). *C. sibreei* is considered Critically Endangered because of its small geographic range and population size. In this project, I explored a high-mountain site in Ranomafana National Park (RNP) and high plateau forest in the unprotected forest corridor to the north of RNP to determine if *C. sibreei* was present there, as previously suspected (Figure 1).

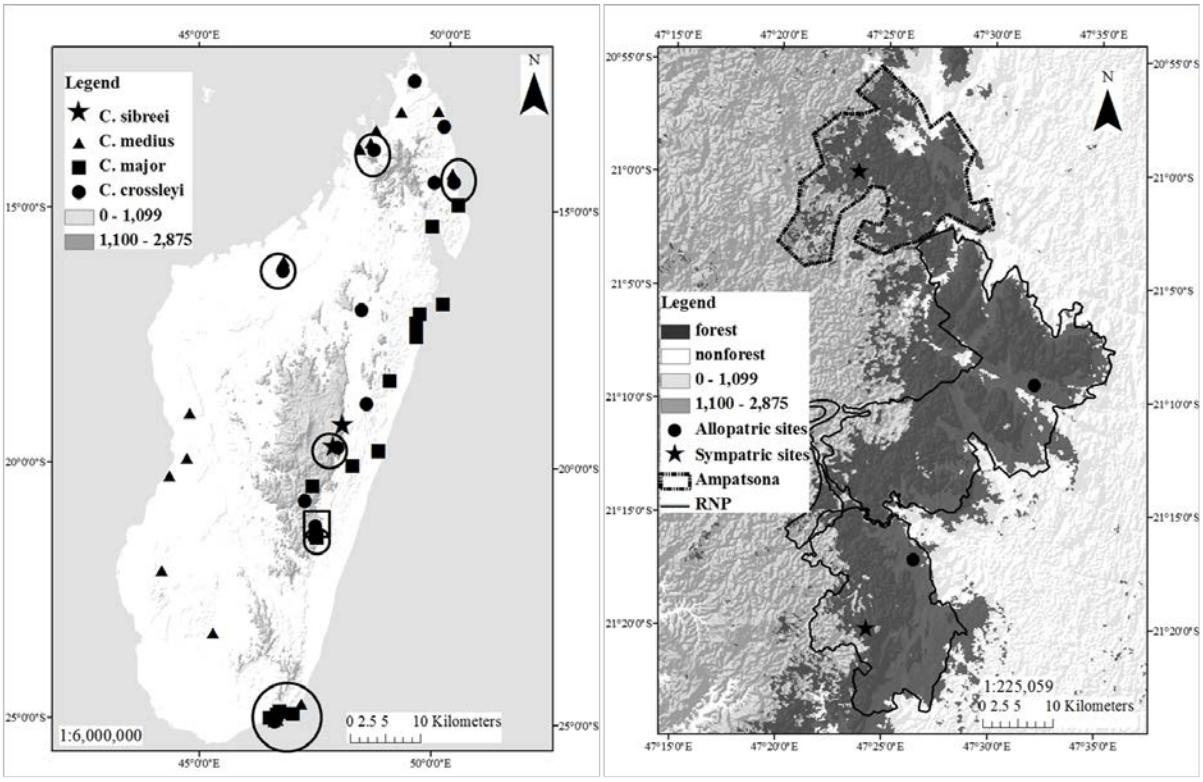


Fig 1. Maps displaying: (A) the location of major mountain systems in the eastern and central high plateau, and localities where the four commonly recognized dwarf lemur species occur. Sites of dwarf lemur species sympatry are outlined in circles. The study sites in this chapter are outlined in one rectangle. (B) Sites surveyed in this study, with sympatric sites (Ampatsona north, Maharira south) marked with stars and allopatric sites (Miaranony north, Valohoaka south) marked with circles. Landcover data based on Harper et al. [2007] classification of Landsat data from 2005. Digital elevation model from NASA Global Elevation Data. Data on distribution of dwarf lemurs from Groeneveld et al. [2009] and Groeneveld et al. [2010]. Maps created with ArcGIS9.2 with the projection WGS 1984 UTM Zone 38S.

The most important outcome of this project is confirming the presence of Sibree's dwarf lemur in RNP and the unprotected corridor north of the park. Thus, this discovery reveals the only known protected area where this species occurs. This is a range extension of >200 km south from its only other known site, Tsinjoarivo. Tsinjoarivo is an unprotected forest fragment, suffering from continued logging and clearing for agriculture. Confirming the presence of Sibree's dwarf lemur in a protected area is a huge aid to its conservation. Not only is *C. sibreei* present at these two sites, but it is sympatric with the closely related *C. crossleyi*, which is a widespread species found throughout low to high elevation rainforests. The sympatric distributions of these two species will allow me to parse apart the effects of ecological adaptation and sexual selection on species boundaries. In the laboratory phase of this research, I will test for hybridization and determine if these two species can interbreed at contact zones or if some mechanisms prevent hybridization.

I set Havahart and Sherman brand live-traps (25-60 traps per night) on trails throughout the study areas between August 2012 - February 2013 and September - December 2013. In total, I captured 19 individuals from RNP and the unprotected corridor to the north that match the external morphological description of *C. sibreei* (Figure 2). Further, morphometric data support that the *C. sibreei*-like individuals from RNP most closely match confirmed *C. sibreei* from Tsinjoarivo (Principle components analysis shows two distinct morphometric clusters in multivariate space (Figure 3) and discriminant function analysis classified 100% of *C. sibreei*-like individuals as Tsinjoarivo *C. sibreei*). Lastly, female *C. sibreei*-like individuals from RNP and the corridor have the distinctive female genital morphology described for *C. sibreei* from Tsinjoarivo (Figure 2). These morphological results strongly suggest the individuals at RNP are indeed *C. sibreei*. I have returned to Stony Brook University to begin genetic analysis in January 2014 to confirm the species I have captured with molecular evidence.

The second most important outcome of this study is discovering that the habitat where Sibree's dwarf lemur occurs on Mt Maharira in RNP and in the corridor to the north is in stark contrast to the eastern slope rainforest that makes up most of the region. While predominantly rainforest on eastern slopes, Mt Maharira and the

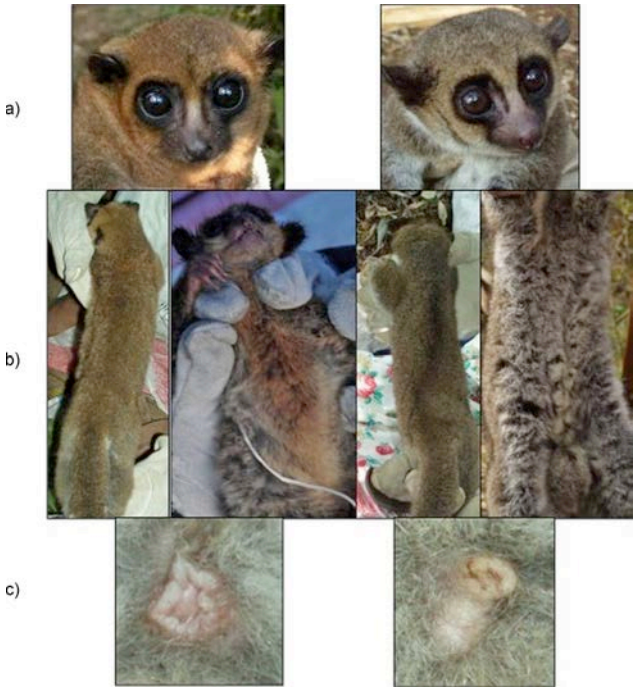


Fig. 2. Photographs displaying the morphological variation in *Cheirogaleus crossleyi* (left) and *C. sibreei* (right) faces (a), dorsum and ventrum (b), and female genital morphology (c).

northern corridor contains elements of dry forest otherwise found in western Madagascar. The orography and topographic continuity of Mt Maharira and the northern corridor with the western high-plateau create a unique biome, isolated from other such forests by as much as 200km. Having a better understanding of the habitat requirements for Sibree's dwarf lemur will help target further sites for survey and protection. For example, I used local maps as well as remote sensing and GIS to identify remaining forest similar to Mt Maharira. I targeted a forest north of RNP with similar topography and part of the central high plateau and have confirmed a third site with Sibree's dwarf lemur. This site north of the park is currently under consideration for addition to the protected area system, and the presence of the Critically Endangered Sibree's dwarf lemur in the forest may tip the scale in favor of protection.

Lastly but equally important is that this study supported local rural communities bordering the forests where research was conducted. I hired up to 15 local villagers as guides and research assistants throughout this project and for many of them, this was the first time they earned a salary. I also hired over 300 different people for temporary work as porters to the field site. I bought food locally and from numerous different local people, spreading the economic aid as far as I could. I

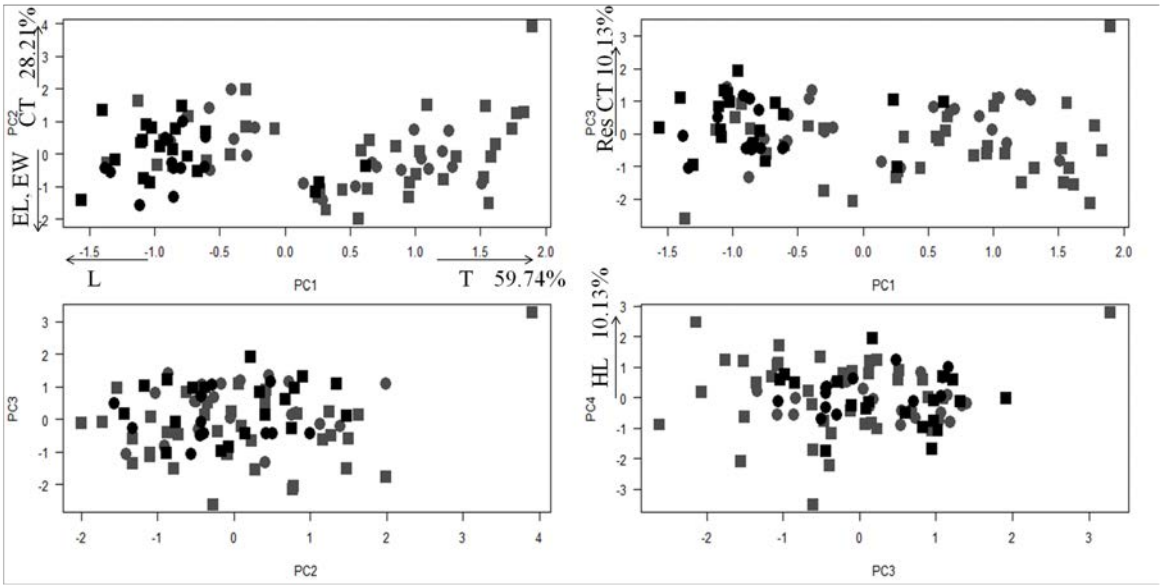


Fig. 3. Scatterplots of principle components representing variation in the two dwarf lemur species in multivariate space. *Cheirogaleus sibreei* is represented by black data points and *C. crossleyi* by grey data points. Squares are individuals collected from southeast Madagascar, while circles are individuals collected by M Blanco from central eastern Madagascar (unpub. data). The primary morphometric loading and variation explained by each component are given on the axes. All raw morphometrics were size-adjusted by dividing by the geometric mean of measurements and size was not entered into the PCA; thus, the scatterplots represent relative shape. CT=crown-tail length; T=tail length; L=leg length; HL=head length; EL=ear length; EW=ear width; res CT = residual variation in crown-tail length. (A) Principle component 2 vs. 1; (B) principle component 3 vs. 1; (C) principle component 3 vs. 2; (D) principle component 4 vs. 3.

also supported a Malagasy graduate student from the University of Antananarivo, Tongasoa Lydia. Lydia has been assisting me in my project as well as developing her own PhD project, complimentary to my study. I helped Lydia design her research project and seek funding from granting agencies. She is now an independent researcher near to completing her dissertation fieldwork.

The next steps I will take in this project will be to increase survey effort in the unprotected forests north of RNP, where I have also discovered a population of *C. sibreei*. This species appears to be abundant in the western forests north of RNP, a relatively large patch of unique high-plateau forest. The unprotected forest is used heavily by local populations. My future goals include: [1] conservation research focusing on refining the geographic distribution and population size estimates for *C. sibreei*, and [2] developing sustainability projects for the local population. I will include some of the last remaining patches of high-plateau forest in southeast Madagascar to identify forests that support populations of *C. sibreei* and prioritize them for preservation. Further, I will use my trapping data to estimate population densities and total population sizes via Mark-Recapture techniques. Important sustainability projects I will initiaite include: clearing fire-breaks between agricultural lands and remaining forest patches, training in hillside terrace farming as an alternative to slash-and-burn agriculture, and reforestation using a mixture of native and fruit-crop trees. I have initiated some of these projects during October – December 2013 and in March 2014 with funding from the Margot Marsh Biodiversity Foundation and the Mohamed bin Zayed Species Conservation Foundation. Further, I have been advising the local population who agree to establish an association focusing on protecting and managing the remaining forests locally; this community-based management project is called "Ny Alan'olona": the people's forest. I have received some funding to continue this project into 2014 and continue to seek funding for to conserve the valuable unprotected corridor. Through these research and development activities, I hope to preserve more of the last remaining high-plateau forest, one of the most endangered habitats in Madagascar, and its unique biota, including Sibree's dwarf lemur.

James P. Herrera,
Stony Brook University, NY

Report from Research Grant Recipient Erik J. Scully

Retroviral transmission among chimpanzee reservoirs in western Uganda

The transmission of infectious disease constitutes an expected cost of sociality. Selection is expected to optimize tradeoffs between host socioecology and disease burden, potentially driving the social evolution of group-living taxa. A number of RNA viruses (e.g., simian immunodeficiency virus, ebola hemorrhagic fever virus) have been demonstrated to exert a particularly strong impact upon great ape survival and reproduction. As a result of high mutation rates, short generation times, and large population sizes, RNA viruses also frequently cross species boundaries, rapidly evolving the capacity to exploit novel hosts. Indeed, the majority of viruses that infect contemporary human populations originated in animal reservoirs. Because humans and chimpanzees share recent common ancestry, these taxa harbor pathogens that are particularly likely to be 'pre-adapted' to cross-species transmission. Not only have major human pandemics (e.g., HIV-1) originated in chimpanzee hosts, but human viruses have also caused large-scale die-offs in chimpanzee communities during recent years. The purpose of this analysis is to quantify the contribution of host socioecology to retroviral transmission among chimpanzee subpopulations occupying geographically isolated forests in western Uganda.

Field assistants – Friday Charles (left) and Mutebi Michael (right) – and Erik J. Scully waiting to collect fecal samples from chimpanzees of the Kanyawara chimpanzee community in Kibale National Park, Uganda.

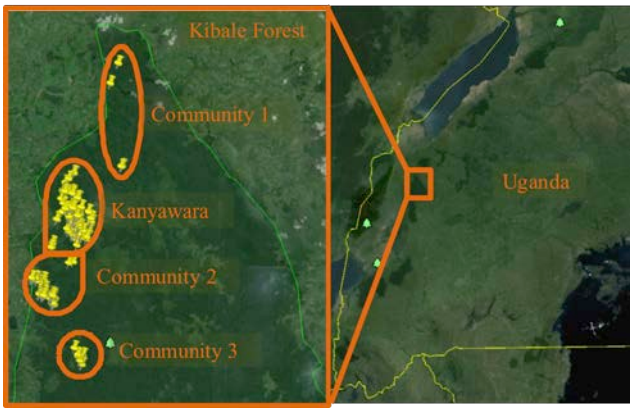


Figure demonstrating sampling locations within the northern region of Kibale National Park, Uganda. In addition to the habituated Kanyawara chimpanzee community, samples were collected from three non-habituated communities. Unique identities of the latter communities are hypothetical and will be confirmed by genotyping samples at a panel of neutral, autosomal microsatellite loci.

To begin to quantify retroviral transmission among chimpanzee subpopulations, I used funding provided by the IPS Research Grant to conduct fieldwork in western Uganda between May and August 2013. With the help of local Ugandan field assistants, I collected 220 fecal samples from the habituated Kanyawara chimpanzee community, as well as three neighboring (unhabituated) communities within Kibale Forest. Samples were collected in RNAlater and stored at the field station at -20°C until shipment to the United States and storage at -80°C for subsequent viral genetic analysis. Additional sample collection from chimpanzee subpopulations located in geographically isolated forests in western Uganda is currently underway.

To extract viral RNA from chimpanzee fecal samples, I tested several commercially available RNA extraction kits. One kit in particular (Quick-RNA MiniPrep kit, Zymo Research) consistently produced high yields (mean concentration = 165.0 ng/µl) of pure RNA (mean 260/280 ratio=2.0) with few PCR inhibitors (mean 260/230 ratio=1.97). Samples will be submitted to a Bioanalyzer to further assess extraction quality. Using published primers, I have proceeded to amplify segments of three simian foamy viruses (SFVcpz) genes. Using reagents purchased with

the funding provided by the IPS Research Grant, optimization of the aforementioned PCR protocol is also currently underway. PCR amplicons will subsequently be sequenced and aligned for phylogeographic analyses to infer rates of viral transmission between sampling location s.

Relevance and future directions

Theoretical models and empirical studies suggest that host migration rate, population size, and habitat quality mediate parasite transmission in host meta-populations. Following sequencing, I intend to use Bayesian phylogeographic methods to quantify rates of viral transmission between sampling localities. This Bayesian framework will also enable me to quantify the contribution of these three predictor variables to dyadic rates of SFVcpz transmission. Elucidation of the factors that influence viral transmission dynamics within reservoir hosts can offer insight into the evolution of host socioecology, while enabling identification of chimpanzee groups that are likely to serve as sources of viral transmission to other groups of chimpanzees, as well as the human population. Because SFVcpz exhibits high prevalence within chimpanzee communities (>90% in many groups), has been previously extracted from fecal samples preserved in RNAlater, is transmitted both horizontally and vertically, and is occasionally transmitted to humans (albeit asymptomatically), this virus will serve as a proof of concept, and subsequent analyses will target other microparasites of particular relevance to conservation and public health.

Erik J. Scully
Human Evolutionary Biology
Harvard University
Cambridge, MA

Funding Opportunities

Nominations solicited for the Charles Southwick Conservation Education Commitment Award

In honor of Dr. Charles Southwick's longstanding commitment to conservation education, we have developed the Charles Southwick Conservation Education Commitment Award. This award is dedicated to recognizing individuals living in primate habitat countries that have made a significant contribution to formal and informal conservation education in their countries. The amount of the award is $1,000: $750 will be given directly to the recipient and $250 will be given in the recipient's name to a project of their choosing in their community.

We encourage investigators working in primate habitat areas to nominate members of their staff (or of the local community) that they feel have made a significant contribution to conservation education in their study area. Eligible candidates must be residents of the region in which they are working and include education staff, field assistants, graduate students, or other individuals that are directly involved with providing educational programs to the people living around the project area.

Candidates do not need to have an advanced degree to be eligible. Nominators should provide the name, title and full mailing address of their nominee, along with a letter of recommendation stating the nominee's qualifications for the award, focusing on past and potential contributions to conservation education. A copy of the nominee's resume should also be included. Supporting letters from other individuals acquainted with the nominee's work may be submitted as art of the packet.

Deadline for applications is **March 1st, 2015**. Email applications to:
Dr. Elizabeth Lonsdorf
elizabeth.lonsdorf@fandm.edu

Matha J. Galante Award

Grant proposals are solicited from professionals of habitat countries of primates. Money awarded is to be used for conservation training including: transportation to the course or event location, course or event fees, or expenses during the event period.
People interested in receiving this award should:

- be officially enrolled in an academic institution or a similar organization (either taking or giving courses or doing research or conservation work)
- provide information about the program of interest (courses, congresses, symposia, field work, etc.)
- send a letter explaining his/her interest in participating in the course or event (in English)
- send a C.V. in English
- include a letter of acceptance for the respective course
- provide two recommendation letters (including information about referee).

Deadline for applications is **March 1st, 2015**.
Send the completed grant proposal by email to:
Dr. Janette Wallis
janettewallis@sbcglobal.net

Lawrence Jacobsen Education Development Grant

The Education Committee of IPS solicits grants of up to $1,500 to support the development of primate conservation education programs as part of the Lawrence Jacobsen Conservation Education Award. These initiatives should support field conservation programs, work with local community and/or schools, or are used to provide training in conservation education techniques.

Application information and forms are available on our website.

Deadline for submission is **March 1st, 2015**.
If you have any questions regarding this award please contact

Dr. Elizabeth Lonsdorf
elizabeth.lonsdorf@fandm.edu

IPS Research Grant

The IPS Research Committee awards grants of up to $1,500 to support outstanding primate research proposals. We invite proposals for primate-oriented research projects with a strong theoretical component. These projects can be conducted in the field and/or in captivity. Scientific excellence will be the primary selection criterion. Proposals for projects focusing solely on primate conservation or on the captive care of nonhuman primates will not be considered by the Research Committee and should be directed to the Conservation or Captive Care Committees.

Deadline for applications is **March 1st, 2015**.
If you have any questions regarding this funding mechanism, please contact

Dr. Joanna Stechell
joanna.setchell@durham.ac.uk

IPS Conservation Grant

The Conservation Committee of IPS is soliciting applications of up to $1,500 to support the development of primate conservation field programs. The committee expects to distribute up to $10,000.00 per year.

The deadline for this award is **March 1st, 2015**.
For guidelines about the application process please see the IPS website or contact

Dr. Janette Wallis
janettewallis@sbcglobal.net

IPS Captive Care Grant

The Captive Care and Breeding Committee of IPS awards grants of up to $1,500 for projects focusing on captive care issues that relate to: (1) the status of primates in captivity (e.g., sanctuaries, private, commercial) in range countries, (2) information from local wildlife officials and field researchers on the problems relating to captive primates, and (3) improving conditions for the well-being of captive primates in range countries.

Deadline for applications is **March 1st, 2015**.
For guidelines about the application process please see the IPS website or contact

Dr. Christoph Schwitzer
cschwitzer@bcsf.org.uk

Upcoming Meetings

XV. Congress of the International Society for Behavioral Ecology
31 July – 5 August 2014, New York, USA
http://www.isbe2014.com

51st Annual Meeting of the Animal Behavior Society
09 – 14 August 2014, Princeton University, New Jersey, USA
http://abs2014.princeton.edu

25th Congress of the International Primatological Society
11 – 16 August 2014, Hanoi, Vietnam
http://ips2014.vnforest.gov.vn

37th meeting of the American Society of Primatologists
12 – 15 September 2014, Decatur, GA
https://www.asp.org/meetings/conference.cfm

14th conference of the Gesellschaft für Primatologie (GfP)
11 - 13 February 2015, Leipzig, Germany.
http://www.eva.mpg.de/primat/conferences/gfp-2015/home.html

38th meeting of the American Society of Primatologists
17 – 20 June 2015, Bend, Oregon at the Riverhouse Hotel and Convention Center

34th International Ethological Conference – Behaviour 2015
9 – 14 August 2015, Tropical North Queensland, Australia
http://www.behaviour2015.org

Membership Application/Renewal Form 2014

(please type or print legibly or attach business card)

Name: ……

Mailing Addresse: ……

……

City: ……

State/Province: ……

Postal code: ……

Country: ……

Phone: ……

Fax: ……

Email: ……

Specify National Primate Society Membership:

Address all membership Correspondence and remit payment to:
Steven J. Schapiro, Ph.D.
IPS Treasurer
UTMDACC
650 Cool Water Dr.
Bastrop, TX 7802 USA
512-321-3991
512-332-5208 (fax)
sschapir@mdanderson.org

Dues (please place an X in all boxes that apply)

Regular member

Annual:……	$ 40.00 US	☐
Lifetime:……	$ 520.00 US	☐
Lifetime (installment payment plan):……	$ 260.00 US	☐
Student member:……	$ 20.00 US	☐
Complimentary annual membership for an individual residing in a developing country who is financially unable to pay dues……	$ 0.00 US	☐
Int. J. Primatology Subscription (hard copy & electronic, annual)…	$ 48.00 US	☐
Int. J. Primatology Subscription (electronic only) ……	$ 37.00 US	☐
Contribution to Conservation Fund……	$……US	☐
Contribution to General Fund ……	$……US	☐
Voluntary contribution to offset credit card fees (4%)……	$……US	☐
TOTAL PAYMENT	$……US	

Method of payment (please place an X in the appropriate box)

Check in US $ enclosed ……☐

(Make check payable to International Primatological Society)

Credit card payment ……☐

Visa ☐ Master Card ☐

Card number …… Expiration date……

Name on card……

Signature to authorize IPS to charge the card for the total payment above

……

Visit the IPS membership website at/ www.asp.org.:IPS:MembersOnly:selectloginoptions.cfm