YERKES NATIONAL PRIMATE RESEARCH CENTER

Stuart M. Zola, Ph.D.
Director

EMORY

April 21, 2006

Dr. Amy Brisendine
US. CITES Management Authority
U.S. Fish and **Wildlife Service**
4401 N. **Fairfax Drive, Rm. 700**
Arlington, VA 22203

Dear Dr. Brisendine:

(b)(6)

As per your request in an e-mail communication to [redacted] Else on April 18, 2006, I am writing to affirm that the Yerkes National Primate Research Center has a firm and continuing commitment to *in-situ* conservation research, including that being conducted by [redacted] McGraw. As outlined in the MOU that has been forwarded to you, we envision a long-term arrangement with continuing support by Yerkes renewed on an annual basis. Specifically, the P51 Core grant. from NCRR to Yerkes has just been renewed for a five-year period beginning May 1, 2006 and running through April 30, 2011. Although not funded by the P51, we consider this commitment as parallel to this infrastructure support.

Therefore, the Center hereby makes a firm commitment to continue providing support to the *in-situ* conservation research for the next five years. We also intend to work with Dr. McGraw and other scientists to explore the possibility *of* securing additional sources for supporting and enlarging the research/conservation activities in West *Africa.*

I would also like to affirm our enthusiasm for the productive dialog that you have engaged with us and to express our appreciation for the constructive approach proposed. We firmly believe that this arrangement will be mutually beneficial to the vital scientific research that would result and to the efforts toward conservation of this *species.* We look forward to continued discussions and a fruitful relationship.

Sincerely,

Stuart Zola

Stuart M. Zola, Ph.D.
Director

SMZ:mam

cc: [redacted] James Else

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Emory University
954 Gatewood Road NE
Atlanta, GA 30329-4208

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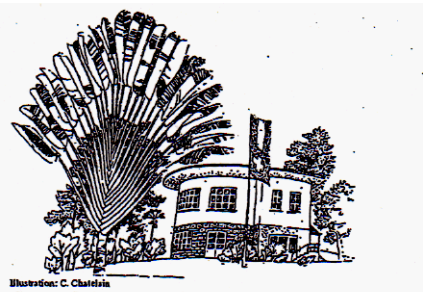

Illustration: C. Chatelain

Centre Suisse de Recherches Scientifiques (CSRS)
en Côte d'Ivoire
B. P. 1303
Abidjan 01
Côte d'Ivoire
☎: 00225 23 47 27 90
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e-mail: gueladio.cisse@csrs.ci

To whom it may concern

Question 8
attachment

Subject: Taï Monkey Project(TMP) m Côte d'Ivoire

The TMP project since his launching in 1989 has been his Ivorian partners in biodiversity research.

All the undertaken researches received clearance from t services of Ministry of research and/or the other Ministries in charge of the forests and the wild animals.

The CSRS is installed in Côte d'Ivoire since 1951; it has a collaborating agreement with the Ministry of research and a diplomatic headquarter agreement with the Ministry of Foreign affairs. We put a lot of efforts in keeping the high level of trust and partnership with all the various authorities.

The CSRS will go on supporting the TMP in conducting its research in the Taï forest, in respect of the local legal framework requests.

Yours faithfully.

Directeur CSRS

CENTRE SUISSE DE RECHERCHES SCIENTIFIQUES EN COTE D'IVOIRE
ADIOPODOUME
01 B. P. 1303
ABIDJAN 01

Dr Gueladio Cissé

3. To establish a mechanism to provide core program support required to protect and conserve the Sooty Mangabey in Tai National Park

4. To promote scientific research that contributes to the conservation of the mangabey in the wild.

The principles under which this Collaboration will operate shall be as follows::

1. Administration: The Collaboration will be managed by Drs. James G. Else (Associate Director; Yerkes), William S. McGraw [Ohio State University and Co-Director, Tai Monkey Project), Klaus Zuberbuhler (St Andrews University and Co-Director; Tai Monkey Project), and Guéladio Cissé (Director, Centre Suisse de Recherche Scientifique).

   The Collaborating groups are:

   The Yerkes National Primate Research Center of Emory University is one of the eight U.S. National Primate Research *Centers* supported by the National Institutes of Health (NIH). In addition to its extensive nonhuman primate resources (over 3,500 Old and New World primates) and biomedical research programs, Yerkes undertakes biomedical studies on selected primate species for the advancement of human health, while promoting the conservation of these species in the wild.

   The Tai Monkey Project (TMP) is a research endeavor aimed at studying and conserving the eight cercopithecid monkey species in the Cote d'Ivoire's Tai National Park. Project personnel include students and faculty members from several American, European and African universities as well as a team of local African field assistants. Research on the behavioral biology of the monkeys at Tai has been carried out since 1989.

   Centre Suisse de Recherche Scientifique (CSRS) is a Swiss institution located in Abidjan, the capital of Cote d'Ivoire. It supports research capacity building in South through North-South partnerships. It helps in identifying and inserting senior researchers and students from universities in Cote d'Ivoire into research projects like TMP. It provides research facilities, logistical and administrative support for researchers working throughout Cote d'Ivoire including the Tai National Park. Among other things, the TMP relies on the CSRS to collaborate with local partners, obtain research permits and to oversee and administer its finances.

2. Primate Conservation: The focus of the Collaboration will be in situ conservation of the Sooty Mangabey, supplemented by behavioral observations and non-interventive sample collections (e.g. feces). Should interventive studies be required (e.g. blood collections) all handling and treatment of the animals will be consistent with the principles expressed in the most recent Institute for Laboratory Animal Research Guide for the Care and Use of Laboratory Animals, and in accordance with all other applicable laws and regulations.

3. Financial Support: The Yerkes National Primate Research Center will contribute up to $25,000 per year to Centre Suisse de Recherche Scientifique to support core TMP activities within the Tai National Park aimed at enhancing the propagation and conservation of the Sooty Mangabey. McGraw will serve as principal liaison between the Tai Monkey Project (TMP) and Yerkes. His responsibilities will include the accounting of costs incurred by TMP's ongoing fieldwork and conservation activities. McGraw will itemize expense reports received through CSRS from field activities of TMP personnel in Cote d'Ivoire and, on a quarterly basis, forward itemizations and payment requests to Yerkes personnel along

Memorandum of Understanding (MOU)

for Mangabey Conservation and Scientific Collaboration

Between:

The Centre Suisse de Recherche Scientifique (CSRS)
B. P. 1303, Abidjan **01**
Cote d'Ivoire

AND

Yerkes National Primate **Research Center (YNPRC)**
of Emory University
Atlanta, Georgia, USA

AND

Tai Monkey Project (TMP)
C/O Department of **Anthropology,**
The Ohio *State* University
Columbus, Ohio, USA

In accordance with a mutual desire to promote international collaboration in the conservation and scientific investigation of the Sooty Mangabey (*Cercocebus atys*) between the United States of America and the Cote d'Ivoire. **Yerkes National** Primate **Research Center** of Emory University in Atlanta, Georgia, the **Tai Monkey Project,** Department of Anthropology of Ohio State University in Columbus, Ohio and the **Centre Suisse** de **Recherche Scientifique.** in Abidjan, Cote d'Ivoire join in the following Memorandum of Understanding (MOU) for scientific and educational cooperation. The Effective Date of this MOU shall be April 6, 2006.

In pursuit of the above, the three above named institutions desire to state hereintheir desire to mutually establish a collaborative initiative (the "Collaboration") for the optimization of resources. for promoting the conservation of the Sooty Mangahey (*Cercocebus atys*), in the Tai National Park; Cote d'Ivoire, West Africa.

The Primary Goal of the Collaboration will be:

To promote the *in* situ conservation of Sooty Mangabey in the Tai National Park and to undertake scientific studies that contribute to our understanding of the biology and ecology of this species in the wild.

Specific Aims:

1. To promote collaboration among the three above named institutions in order to develop a cooperative program aimed at enhancing the conservation of the Sooty Mangabey'

2. To establish the appropriate administrative and organizational structure to support proposed collaborative activities

SFBR
Southwest Foundation for Biomedical Research

SNPRC
Southwest National Primate Research Center

April 17, 2006

Dr. James Else
Associate Director
Yerkes National Primate Research Center
954 Gatewood Road
Atlanta, GA 30322

Dear Jim,

This letter is to confirm my enthusiastic desire to assist you with the genetic management and analysis of your captive sooty mangabey colony. This is a unique and critically important animal resource. It is important to maintain the health and well-being of this population, especially given the disappointing conservation status of this species.

As you and I have discussed, my laboratory staff and I are prepared to conduct molecular genetic analyses designed to reconstruct the pedigree of your colony, and to perform paternity testing for all future newborns. As you know, the first step in developing a genetic management plan will be to reconstruct the genealogy of the current animals in as much detail as possible. In order to undertake this effort, we have identified a series of polymorphic microsatellite loci that will be useful in studies of your animals.

Based on the demographic information you have sent so far, I expect that there is currently a significant amount of molecular genetic variation within your colony. The population began with 15 female and 6 male founders. Only three of the first generation offspring are still alive, but there are larger numbers of second and third generation offspring still present. Despite the modest number of original founders, I anticipate that substantial genetic variability remains within the colony. One of our first goals will be to conduct a series of molecular tests to assess the amount of microsatellite variation in the existing population. These loci, which we have found are polymorphic in this species, will provide an assessment of relative amounts of variation across generations, and should provide preliminary estimates concerning what has been happening the past several generations of breeding. After reconstructing the pedigree and assessing current levels of variation, you and I can discuss specific options for breeding plans that will maximize retention of the extant genetic variability.

I am very pleased to assist you in maintaining and learning from this valuable and unique set of captive primates. I will do all I can to provide you with a thorough genetic characterization of the population and to consult with you concerning appropriate breeding strategies to maintain the extant variability.

With best wishes,

Jeffrey Rogers, Ph.D.
Group Leader for Genetics, Southwest National Primate Research Center

Mailing Address: P.O. Box 760549, San Antonio, Texas 78245-0549 ■ Shipping Address: 7620 NW Loop 410, San Antonio, Texas 78227-5301
Telephone: 210 258 9400 ■ FAX: 210-258-9883 ■ www.snprc.org

Questions for review of amendment to 837068

1. *How many animals are you requesting to lethally take each year (apart from older non-viable animals to make room for new breeding stock)?*

Our request is to take twenty animals each year for use in interventive research studies, some of which will be terminal.

2. *Are the RESEARCH animals going to be separate and apart from the BREEDING animals under the Captive Bred Wildlife Registration?*

Research animals will be removed from the breeding colony and not returned. We are not clear as to the implications of this in respect to our Captive Bred Wildlife Registration

3. *By REMOVING these animals from the population, do you mean euthanize or do you mean remove 20 animals per year from the breeding group to use them for research?*

We mean removing them from the breeding group to be used for interventive research studies that may be terminal or lead to disease.

4. *Will there be any research done on the animals in the breeding population?*

No, other than sample collections during surveys, behavioral observations, *etc.* as is the case with any colony animals.

5. *Provide a copy of the Santiago, 2005, research cited.*

A copy *of* the Santiago paper is attached

6. *Provide more detailed information concerning "infecting" non ADS-infected animals (or causing ADS-resistant animals to develop "AIDS) with ALDS and the corresponding IACUC approval.*

To clarify, the sooty mangabey is naturally infected with its own strain of SIV but does not develop clinical *AIDS.* We have a subset of SIV negative mangabeys maintained as a breeding group that we're originally derived through early weaning –they are not 'resistant' to SIV infection, but rather they do not develop disease (clinical *AIDS).* We have been performing studies of the progression of SIV infection in sooty-mangabeys using a model of experimental infection with uncloned SIVsmm (natural virus derived directly from naturally infected animals - see Silvestri *et* al., J Virol 2005; Muthukumar et al., Blood 2005). While this model of infection is per se non-pathogenic, i.e., does not lead to the development of *AIDS* or disease in the mangabey, it does recapitulate well the natural infection model and, as such, provides an invaluable tool to study the early events of the infection that cannot be studied in the chronically infected animals belonging to the colony of naturally SIV-infected

mangabeys. These studies have received approval from the Emory IACUC (approval letters and project summaries for protocols #040-2005Y; #084-2003Y; #176-2005Y; #208-2005Y; and 129-2005Y are attached). In the future, we hope to identify the mechanisms underlying the lack of disease in naturally or experimentally SIV-infected sooty mangabeys by performing interventions that interfere with specific molecular or cellular pathways that we hypothesize are protecting these animals (see question 9 below). The rationale for all of these studies is to provide clues to the mechanisms of *AIDS* pathogenesis in HIV-infected humans.

7. ***Provide evidence of long-term commitment to the in-situ research (copy of MOU or equivalent agreement, signed by both parties).***

A copy of our recently signed MOU with the Tai Monkey Project and the Centre Suisse de Recherche Scientifique in Abidjan is attached. As you will note, the MOU is renewable annually and it is our intention that this is the start a long term commitment to primate conservation by Yerkes, and will certainly continue beyond our permit agreement with USFWLS.

8. Provide documentation by foreign government showing authorization for in-situ research.

A copy of confirmation letter from Centre Suisse de Recherches Scientifiques en Coite d'Ivorie attached

9. ***Please confirm, the research would be performed on 20 animals annually.***

The research will be performed on 20 animals annually. We initially plan to study the mechanisms underlying the lack of disease in naturally or experimentally SIV-infected sooty mangabeys by performing interventions that interfere with specific molecular or cellular pathways that we hypothesize are protecting these animals. The rationale for these studies is to provide clues to the mechanisms of *AIDS* pathogenesis in HIV-infected humans. This will include ascertaining where the virus is replicating within the animal and corresponding mechanisms of pathogenesis and local immunological response. Some of this information can only be obtained at necropsy after humane euthanasia.

10. ***How many animals are expected to be added to the population each year (# births)?***

As a rule of thumb, we can expect a live birth rate (survive to at least 6 months of age) of 72% for our adult females. We currently have 89 females in social groups, of which 68 are 5-15 years of age, which is optimal for breeding, meaning that we can expect at approximately 49 live births from these animals alone if they were not contracepted. There are an additional 20 females that are >16 years, some of which would also conceive. Thus, if our mangabey colony were to breed at full capacity, our estimated yield of at least 50 animals per year (as put forth in our application) is very conservative and well beyond the 20 animals we are requesting for research purposes and what we would require for replacement animals.

11. *Have any zoos been contacted to determine if they would like any of these surplus animals? (see next related question also).*

We contacted the chair of the AZA SSP for mangabeys several years back and were told there was no interest in the acquisition, displaying or breeding of Sooty Mangabeys by AZA zoos. The reasons given were that they are not endangered in the wild, thus not a conservation priority, and not a 'colorful' species, hence not particularly desirable for public display. We contacted a large number of U.S. zoos with similar results. This is lack of interest is reflected, by the fact that there is only one U.S. zoo that has sooty mangabey (3 females), as reported in our application.

12. *Is it even feasible for zoos to receive any of these animals since they are research animals due to containing SIV? Can zoos have animals that have SIV naturally or do they not Want them because they might infect their other non-human primates?*

It is our understanding that the general policy is that zoos will not accept an animal infected with a virus such as SIV unless it is a species of verified high breeding need (which is not the case for the sooty mangabey).

13. *Does maintaining a SIVsm-free group pose problems for the wild population (since they are "immune" to AIDS, does maintaining a captive bred population for possible reintroduction pose a problem if they do not have SIV; would they possibly evolve to not be resistant to SIV/AIDS?)*

To the best of our knowledge the SIVsm uninfected animals of the Yerkes Colony are NOT immune to AIDS. In fact, these animals are readily infectable with SIVsm as shown in previous studies (Silvestri et al., J Virol 2005; Muthukumar et al, Blood 2005; Gordon et al., manuscript in preparation) whereby more than fifteen animals were inoculated with uncloned SIVsm and all reproduced the phenotype observed in the naturally infected mangabeys. As such, it is very hard to imagine that these SIV uninfected sooty mangabeys would either be resistant to SIVsm infection (or, alternatively, develop symptoms of disease upon natural infection) if reintroduced in the wild.

14. *If Tulane's sooty mangabeys have different strains of the SIV virus, but it is not harmful to the species, why wouldn 'twe want to perpetuate that in the species? (similar to immune functions in humans?)*

A good question - we have further pursued this matter with various scientists working in this area Sooty mangabeys are infected with several strains or lineages of *SNsm*, usually named from 1 to 9. Although the distribution of *SNsm* lineages among infected animals that are kept at the Yerkes and Tulane Primate centers is slightly different, most animals in captivity in the US harbor SIVsm lineage 1, 2, or 3 (Apetrei and Silvestri, manuscript in preparation). So far all but one of the naturally SIV-infected sooty mangabeys have remained asymptomatic

regardless of the particular SIVsm lineage virus that infects them. The general consensus is that these data indicate that, to the best of our knowledge, that there is no clear need to select for the presence of any particular SIVsm lineage in the colony of infected animals. Consequently, depending upon the findings of the ongoing genetic analysis of our own colony, the acquisition of one or two males from Tulane may be a viable option for increasing our genetic diversity.

15. *What is the estimated study duration?*

colony management issues outlined in the application, if a finite study duration period needs to be stipulated.

YERKES
NATIONAL
PRIMATE
RESEARCH
CENTER

James G. Else, DVM, MPVM
Associate Director for Research Resources

EMORY

January 18,2006

Ms. Amy Brisendine
U.S. CITES Management Authority
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, Rm. 700
Arlington, VA 22203

Dear Ms. Brisendine:

Re: Endangered Species Permit #MA837068-0

Please find enclosed our application to renew and amend our permit to take the Sooty Mangabey (*Cercocebus atys*) under the Endangered Species Act (ESA) for scientific purposes. The current permit (issued 10/21/04, expires 10/20/06) allows limited scientific studies, but also restricts a number of research opportunities that are critical to the understanding of the pathogenesis of lentivirus infections (i.e. HIV, SIV) in both primates and humans, and would generate funding to support the conservation of Sooty Mangabeys in the wild. The enclosed permit renewal documentation and other supporting documents will show Yerkes' in situ primate conservation efforts, explain and clarify the need for more flexibility with colony management techniques and humane research studies with the Sooty Mangabey, and request the removal of selected restrictions from the current Endangered Species Permit so that biomedical progress and enhanced support of wild primate populations will be enabled.

Yerkes currently maintains 229 Sooty Mangabeys, primarily in large social groups. It is important to note this represents 75% of the approximately 300 Sooty Mangabeys maintained in facilities throughout the world, and is perhaps the only remaining viable breeding colony. A genetically and demographically balanced Yerkes colony is of paramount importance for the perpetuation of this species in captivity, and for possible reintroduction into the wild. At present the Yerkes colony is aging and no breeding is possible due to inadequate space and funding, and current USFWS permit restrictions. In our response to Question 7 of the renewal application, Yerkes proposes a new comprehensive captive management and in situ conservation strategy for the Sooty Mangabey that will lead to long term program funding for the maintenance of viable breeding groups in captivity, and for direct support for the conservation of this species in the wild.

Yerkes National Primate Research Center
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Atlanta, GA 30329-4208

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Email jelse@rmy.emory.edu
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ANNEX 1

Summary of Mangabey Permit Amendment Request

Yerkes' submitted a request to USFWLS in January, 2006 to amend the current Endangered Species Permit MA837068-0, which was issued on 10/21/04 and expires on 10/20/06. The current permit allows limited scientific studies with the Sooty Mangabey (*Cercocebus atys),* but also restricts a number of research opportunities that are critical to the understanding of the pathogenesis of lentivirus infections (i.e., HIV, SIV) in both primates and humans, and would generate funding to support the conservation of Sooty Mangabeys in the wild. The submitted amendment request outlined Yerkes' *in situ* primate conservation efforts, explained the need for more flexibility with colony management techniques and humane research studies, and requested the removal of selected restrictions *from* the current Sooty Mangabey Endangered Species Permit so that biomedical progress and enhanced support of wild primate populations could be enabled.

- Yerkes currently maintains 229 Sooty Mangabeys, primarily in large social groups. This ***represents 75% of the approximately 300 Sooty Mangabeys maintained infacilities throughout the world, and is perhaps the only remaining viable breeding colony.*** Only one U.S. zoo holds Sooty Mangabeys – 3 females. A genetically and demographically balanced Yerkes colony is of paramount importance for the perpetuation of this *species* in captivity, and for possible reintroduction into the wild. At present the colony is aging and no breeding is possible due to inadequate space and funding, and current USFWS permit restrictions. Yerkes therefore proposes a new comprehensive captive management and *in situ* conservation strategy for the Sooty Mangabey that will lead to long term program funding for the maintenance of viable breeding groups in captivity, and for direct support for the conservation of this species in the wild.

Past and current permitted studies at Yerkes have resulted in enormous progress in the basic understanding of the biology of Simian Immunodeficiency Virus (SIV) infection of Sooty Mangabey. This virus naturally infects both captive and wild Sooty Maugabeys, without causing any appreciable disease. Human Immunodeficiency Virus Type 2 (HIV-2) has been shown to have originated from SIVsm (the SIV type that specifically infects Sooty Mangabeys); similarly, SIVsm is the ancestor of the SIVmac strains that are commonly used in AIDS research. Studies to determine why this virus does not cause disease in its natural host (the Sooty Mangabey), but does so in other primate species, are critical to our understanding of the pathogenesis of HIV infection in humans, and may lead to results that will improve the treatment and prevention of ***AIDS. However,*** this ***knowledge can only be acquired through more invasive studies than are currently permitted.***

3

7a. ***Fully describe the purpose of your proposed activify, If your purpose is for scientific research, attach a copy 0f your research proposal which outlines the purpose, objectives, methods (i.e., include specific information on survey/collection methods, sampling regime, equipment to be used, etc.) and whether similar work has already been done or is currently being done.***

Introduction

This is a request to amend the current Endangered Species Permit MA837068-0 (issued 10/21/04, expires 10/20/06), issued to the Yerkes National Primate Research Center to undertake limited scientific research involving animals from the Yerkes Sooty Mangabey colony. [*It is* important to note that the Sooty Mangabey (Cercocebus atys), according to the current *IUCN/SSC* Red List, is not an 'endangered' or 'fhreatened' species (or subspecies) but rather 'lower *risk/near threatened*'] Through such research, ***Yerkes*** scientists have significantly advanced biomedical understanding of Simian Immunodeficiency Virus (SIV) infection, have disseminated this information broadly through numerous publications and presentations, and have contributed to scientific studies applying this knowledge to mangabey populations in the wild (Santiago, 2005.) Through this amendment request, Yerkes proposes a new comprehensive captive management and in situ conservation strategy for the Sooty Mangabey that will lead to long term program funding for the maintenance of viable breeding groups in captivity, and direct support for the conservation of this species in the wild.

The current permit allows some scientific studies, but also prohibits lethal and disease transmission studies. These restrictions prevent Yerkes scientists from conducting certain humane research studies which would help elucidate the immunological mechanisms and other defense mechanisms that regulate pathogenesis of the SIVsm virus in the Sooty Mangabey. Such research could prove critical to the treatment and control of **AIDS** in humans. The enhanced scientific understanding of this naturally-occurring virus could also benefit mangabeys in the wild, while simultaneously generating funds to be applied to in *situ* conservation *of* Sooty Mangabeys. Therefore, this amendment request seeks permission to expand currently allowed scientific studies.

Very significantly, the current permit restrictions impede optimal reproductive management of the Yerkes **Sooty** Mangabey colony, which is the only viable breeding colony in the U.S., and possibly the world. The current colony is overpopulated with aging males, is likely to be genetically unbalanced, and breeding has had to be suppressed due to lack of space and funds. Therefore, the Center also requests permission to humanely euthanize a limited number of animals that are of no value for breeding and do not in any way support the perpetuation of the species in either captivity or the wild. This increased flexibility in management of the captive colony would allow Yerkes to rebalance the mangabey breeding groups. It would also create adequate space to reinstitute a self-sustainable breeding program that can meet long term animal needs for both conservation and research.

CONSERVATION INTERNATIONAL

To: United States Department of Interior
Division of Management Authority
Fish and Wildlife Service
Washington D.C. 20242

13 December 2005

From: Tom Butynski, PhD
Director, Conservation International's Eastern Africa Biodiversity Hotspots Program, &
Vice-chair, Africa Section, IUCN/SSC Primate Specialist Group
Conservation International, c/o IUCN Eastern Africa Regional Office
68200 City Square, 00200 Nairobi, Kenya
Email: [redacted]

(b)(6)

Re: Letter m Support of the Request from Yerkes National Primate Research Center to the US Fish and Wildlife Service for Amendment to Permit MA 837068-0

I have been *asked* by [redacted] James *G.* Else, *Associate* Director for Research Resources, Yerkes National Primate Research Center, Emory University, to pmvide a letter in support of the *request* from Yerkes National primate Research Center to the US Fish and Wildlife Service for an amendment to Permit MA 837068-0.

I am a primatologist who has been involved with primate field research and conservation since [redacted] mostly in Uganda, Kenya, Tanzania and Equatorial *Guinea.* During this time I have worked on three Critically Endangered *species* of mangabeys; Tana Mangabey (*Cercocebus galeritus*), Sanje Mangabey (*Cercocebus sangei*), and Highland Mangabey (*Lophocebus kipunji*) Mangabeys. For the last [redacted] years or so I have served as the Vice-chair, Africa Section, IUCN/SSC Primate Specialist Group, and as Senior Editor of the journal *African Primates*. I have also led, or 00-led, the last three IUCN/SSC *Red List* 'degree of *threat* assessments' for *all* of Africa's species of primates. My research and conservation work *on* the Tana, Sanje, and Highland Mangabeys continues at this time as I have funding for three field projects that are designed to support long-term conservation e f f i for these three species. For your information, my CV is attached.

I have reviewed the 'Request for Permit Amendment' that Dr. James Else is providing to the US Fish and Wildlife Service. Although we need to be concerned about *the* long-term conservation of the Sooty Mangabey (*Cercocebus @*), this species is, according to the current IUCN/SSC *Red List*, not a 'threatened species' (or subspecies). For *this*

reason, and because of the limited research and colony management actions that Yerkes proposes to undertake on this species, I judge that the proposed activities by Yerkes will, in no way, increase the extinction risk for the Sooty Mangabey. Indeed, I see the activities that Yerkes is now proposing as enhancing the chances for the long-term survival of this taxon.

If the Permit Amendment is approved by the US Fish and Wildlife Service, we can expect the Yerkes National Primate Research Center to:

(1) undertaken research on SIVsm that will provide conservationists, veterinarians, and epidemiologists with a better understanding of Sooty Mangabey interactions with SIVsm and, therefore, help us better manage the heaith of wild populations.

(2) establish and maintain the world's only viable captive population of Sooty Mangabeys.

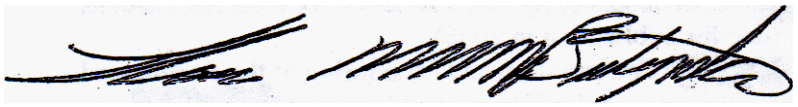
(3) continue to provide financial support to *in situ* efforts to protect this species from poachers, and habitat loss and degradation.

This year, Yerkes is providing US$ 30,000 towards the conservation of the Sooty Mangabey population in the Tai Forest, Ivory Coast. If the permit Amendment is approved, this support towards the *in situ* conservation of the Sooty Mangabey is expected to continue, perhaps at an even higher level. This kind of partnership arrangement between the conservation community, the biomedical community, and the National Primate Research Centers is unique. This partnership should be fully embraced as one that offers considerable opportunity, not only for the long-term conservation of the Sooty Mangabey, but also for the thousands of other species of plants and animals that live in the sites that these funds will help conserve.

In short, I fully support the application by Yerkes National Primate Research Center to the US Fish and Wildlife Service to have Permit MA 837068-0 amended.

Please do not hesitate to contact me by email if you have any questions concerning this letter of support.

Sincerely,



Thomas M. Butynski

THE OHIO STATE UNIVERSITY

Department of Anthropology

244 Lord Hall
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Amy Brisendine
U.S. CITES Management Authority
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive,
Rm. 700,
Arlington, VA 22203

May 8,2006

Dear Amy, (b)(6)

[redacted] Else asked that I provide you with more specific information about our efforts to conserve the sooty mangabey (*Cercocebus atys*) at our field site in the Ivory Coast's Taï National Park. I am very pleased to do so.

Taï National Park is an oasis of African biodiversity considered one of the most significant rainforests on the continent. The park is positioned within a bio-diversity "hotspot" and its preservation has been designated a top conservation priority in Africa by several prominent organizations including *Conservation International*. Despite its significance as a wildlife sanctuary, the forest and inhabitants are faced with serious threats to their survival. Foremost among these is increased pressure from humans. Recent studies suggest that the population density around the park has increased almost 21% to 170/ km^2 in the last ten years. The burgeoning human population's most significant impact is via hunting.

It is illegal to hunt in Ivory Coast yet poaching is rampant throughout the country and widespread in the park. The effects of hunting on Taï's wildlife are significant. The impact of even moderate hunting on primate communities is proportionately high because of the relatively long interbirth interval, long gestation period and longevity of most primates. In addition to these life history features, some characteristics put monkey species at greater risk than others. Sooty mangabeys *Cercocebus atys* are at great risk because they are the largest and only terrestrial monkeys in the Taï Forest. Although their natural densities are lower than several other species in the forest, their large and noisy group sizes make sooty mangabeys easy to locate and they are hunted with dogs throughout West Africa. Further, large mangabeys provide a more profitable yield on the ammunition investment then do smaller primates. Although Sooty mangabeys are excellent at detecting some ground predators (e.g. leopards) from a distance, it is almost certain that they are less successful against cautious hunters with shotguns.

The two mangabeys found in westem-most Africa - *Cercocebus aty atys* (sooty mangabey) and *C. atys lunulatus* (white-naped mangabey) - have suffered from habitat loss and heavy hunting pressure. The white-naped mangabey, *C. lunulatus*, is becoming increasingly scarce in eastern Ivory Coast and may be locally extinct in a number of Ghanaian forest reserves. Little information exists on the abundance of *C. atys* elsewhere in Ivory Coast but it is likely that the vast majority of individuals left in the country are found at Tai. We therefore believe that efforts to conserve C. *atys* as a species/subspecies have the best chance of succeeding if they are focused on the population(s) in and around Tai National Park Core support for OUT long term field project from Yerkes National Primate Research Center will allow us to continue such efforts.

Using our established research station as a base, support from Yerkes will help safe-guard the only remaining intact population of sooty mangabeys in Ivory Coast (and, perhaps, Sierra Leone, Ghana, Liberia, etc.). Protection will be implemented in the following ways:

(1) Trained assistants in OUT project will continue to monitor the two habituated study groups of sooty mangabeys in the westem region of Tai National Park It is essential that our personnel are with the animals 365 days/year to facilitate ongoing research and to send an un-interrupted message to potential poachers that the mangabeys are under constant watch and protection.

(2) We would like to expand our conservation/research base in the eastern region of the park by habituating additional sooty mangabey groups in the immediate vicinity (i.e., south and east) of the research station. Sooty mangabeys have a particularly fluid social structure and we hope to track the *origins* and destinations of arriving and departing (migrating) males. Moreover, additional habituated groups, with additional assistants monitoring their daily movements and behavior translates into broader protection.

(3) Resources permitting, we would like to make a strong push towards establishing a second, satellite research station in the eastern region of the park The park's entire eastern border is essentially unprotected, however we have found that local residents will respect the presence of foreign researchers if the latter *can* establish a permanent presence. By demonstrating our long-term intentions (i.e., constructing a field station, employing local residents vs. fleeting surveys) we are confident that the depleted mangabey populations in the east will rebound (perhaps quickly) as a function of our presence. Ultimately, the habituation of additional mangabey groups will provide valuable comparative data (e.g. fecal samples, etc.) for a variety of uses.

(4) Periodically, we hope to survey additional regions in West Africa in order to assess the meta-population of both *atys* subspecies (C. *atys atys* and *C. atys lunulatus*). Thus, we hope to conduct surveys in the eastern regions of Liberia and Ivory Coast (e.g. Ehy Forest, Mabi, Songan, Bossemattie Forest Reserves, etc.) and westem regions of Ghana.

Depending on the success of these endeavors, I foresee the gradual expansion of our conservation efforts to encompass the red capped mangabey (*Cercocebus torquatus*). I have a graduate student who will be leaving in July for Sette Cama Gabon where she will begin her dissertation research. Our goal is to establish a long term project at Sette Cama similar in scope to our existing project in Tai. Core support from Yerkes will help facilitate this venture and, if it is realized, conservation of West African mangabeys will be on firm ground.

One final comment: At some point in the near future, our project would be very willing to host a "mangabey workshop" in the Tai Forest. This would be an opportunity for specialists in a variety of disciplines to view sooty mangabeys in their natural habitat and to discuss ongoing and future research ideas. At the same time, a gathering of this type would underscore the importance of the park, its fauna, and the attempts to conserve them. Given the recent political instability in the Ivory Coast, it is vital that this message be emphasized at every opportunity.

I hope you have found this helpful. Please do not hesitate to contact me if you have additional questions. I am,

Yours sincerely,

(b)(6)

W. Scott McGraw
Associate Professor