



GORILLA DOCTORS™

Mountain Gorilla Veterinary Project & UC Davis Wildlife Health Center

REGIONAL HEADQUARTERS
B.P. 115
Musanze, Rwanda
25-078-830-7578

Bukoma, Uganda
Kisoro, Uganda
Kampala, Uganda

Goma, Democratic Republic
of the Congo

U.S. HEADQUARTERS
Karen C. Drayer Wildlife Health Center
UC Davis
One Shields Avenue
Davis, CA 95616

PO Box 350
Davis, CA 95617

DIRECTORS

Michael Cranfield
(410)917-7060

Kristen Glandt
(530)752-4898
kvglandt@ucdavis.edu

MGVP, Inc. Tax ID #06-1752363

September 12, 2017

Application for renewal of an expired CITES Import permit

Dear Kathleen

We spoke on the phone about 2 months ago but I then went back to Africa and could not get a check to you. I have included our recently expired permit and would like to have the identical permit for another year. We are importing fewer samples as years go on and the host countries are getting the capacity to do diagnostics. We work with the wild, confiscated and captive eastern and western gorillas, the common chimpanzee, the bonobos and the L'hoest monkey in Uganda, Rwanda and DRC. We need a multiple use permit since we can not predict when a disease outbreak may occur and may need a permit ASAP, and with some research projects we do multiple imports. Included in the mailing are the application itself, an addendum, the previous permit, my CV, and a check for 100 dollars. I am traveling back to Africa on the 18th of September but can be reached by email or text. Please let me know if you need any more information. Please note our legal name is the initials MGVP, Inc which is for the Mountain Gorilla Veterinary Project but our public media name is Gorilla Doctors hence the Mountain Gorilla Veterinary Project (MGVP, Inc.), should appear on the permit. Thanks

Mike Cranfield

Executive Director MGVP, Inc.

Co Director Gorilla Doctors



Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

RCVD SEP 18 2017

LB

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: 1A
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
EXPORT/RE-EXPORT/IMPORT/INTERSTATE AND
FOREIGN COMMERCE/TAKE OF ANIMALS
(LIVE/ SAMPLES/PARTS/PRODUCTS) (ESA and/or CITES)
(circle/highlight proposed activity)
☐ New Application
☒ Requesting Re-issuance/Amendment of Permit#: 16US117181

Complete Sections A or B, and C through H of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual			
1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution			
1.a. Name of business, agency, Tribe, or institution Mountain Gorilla Veterinary Project (MGVP, Inc.)		1.b. Doing business as (dba) Gorilla Doctors	
2. Tax identification no. 84-603-2307		3. Description of business, agency, Tribe, or institution Conservation NGO during veterinary health care on primates	
4.a. Principal officer Last name Cranfield	4.b. Principal officer First name Michael	4.c. Principal officer Middle name/ initial	4.d. Suffix
5. Principal officer title Executive Director		6. Primary contact name Michael Cranfield	
7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number 443-320-009	7.d. Business e-mail address

C. All applicants complete address information					
1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes) The Maryland Zoo in Baltimore 1876 Mansion House Drive					
1.b. City Baltimore	1.c. State MD	1.d. Zip code/Postal code 21217	1.e. County/Province	1.f. Country USA	
2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)					
2.b. City	2.c. State	2.d. Zip code/Postal code	2.e. County/Province	2.f. Country	

D. All applicants MUST complete	
1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE in the amount of \$100 nonrefundable processing fee. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee - attach documentation of fee exempt status as outlined in instructions. (50 CFR 13.11(d))	
2. Do you currently have or have you ever had any Federal Fish and Wildlife permits? Yes <input checked="" type="checkbox"/> If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 16US117181/9 No <input type="checkbox"/>	
3. Certification: I hereby certify that I have read and am familiar with the regulations contained in Title 50, Part 13 of the Code of Federal Regulations and the other applicable parts in subchapter B of Chapter I of Title 50, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001. Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) <i>Michael Cranfield</i> Date of signature (mm/dd/yyyy) <i>September 12/2017</i>	

E. EXPORT/RE-EXPORT/IMPORT/INTERSTATE AND FOREIGN COMMERCE/TAKE OF NON-NATIVE ANIMALS (Live/samples/parts/products) (CITES and/or ESA)

Allow at least 90 days for the application to be processed. Applications for endangered species permits must be published in the Federal Register for a 30-day public comment period.

Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you submit, indicate the application question number you are addressing. If you are applying for multiple specimens, be sure to indicate which specimen you are addressing in each response.

1. What activity are you requesting authorization to carry out (Indicate appropriate activities):

EXPORT ☐

INTERSTATE COMMERCE ☐

IMPORT ☒

FOREIGN COMMERCE ☐

*Interstate Commerce permits authorize the sale of endangered and threatened species across State lines, but only for that will contribute to enhancing the propagation or survival of that species. Captive-breeding alone will not generally meet this requirement. Scientific research must be related to the species to be permitted. Interstate commerce activities with wildlife require the buyer to obtain a permit prior to the sale.

2. For EACH animal/specimen involved in the proposed activity provide:

Scientific name (genus, species, and, if applicable, subspecies)	Common Name	Birth/Hatch Date (mm/dd/yyyy) Or Approximate date	Quantity	Gender, if known	Permanent markings (e.g., tattoo, ID #, microchip #, scars), if alive	Type of Sample or product (e.g., blood, tissue, DNA)
EXAMPLE: <i>Macaca fascicularis</i>	Crab-eating macaque					
Gorilla beringei	eastern gorilla	N/A	N/A	N/A	N/A	Biological samples for veterinary diagnostics and health research
Pan Troglodytes	common chim	N/A	N/A	N/A	N/A	Biological samples
Pan paniscus	bonobo	N/A	N/A	N/A	N/A	Biological samples

3. The current location of the specimen(s) (address and country):

Name: Andrew Seguya

Business Name: Uganda Wildlife Authority (UWA)

Address: Plot 7 Kira Road, Kamwokya

Address:

City: Kampala

State/Province:

Country, Postal Code: Uganda

CITES IMPORT PERMIT Application

Question 2 continuation

Gorilla gorilla	Western lowland	N/A	N/A	N/A	N/A	Biological samples for veterinary diagnostics and health research
Cercopithecus L'Hoesti	L' Hoest monkey	N/A	N/A	N/A	N/A	Biological samples for veterinary diagnostics and health research

Question 3 continuation

2. Balongelwa Wilungula Cosma

ICCN (Insutut Conolese pour la Conservation du Nature)
13 Avenues des Cliniques Kinshasa-Gombe
Kinshasa Democratic Republic of Congo

3. Antoine Mudakikwa

RDB (Rwanda Development Board)
Boulevard de L'umuganda Gishushu Nyrarutarana
Kigali Rwanda

Question 4. Continuation

2. Balongelwa Wilungula Cosma

ICCN (Insutut Conolese pour la Conservation du Nature)
13 Avenues des Cliniques Kinshasa-Gombe
Kinshasa Democratic Republic of Congo

3. Antoine Mudakikwa

RDB (Rwanda Development Board)
Boulevard de L'umuganda Gishushu Nyrarutarana
Kigali Rwanda

Question 5. A and B N/A

Question 6. Not applicable

Question 7.

MGVP, Inc. has functioned in the region for 31 years. Its programs are executed in Uganda, Rwanda and the DRC consist of a combination of two programs: the conservation field work of the Mountain Gorilla Veterinary Project and the Predict portion of USAID's Emerging Pandemic

Threats program which enables Gorilla Doctors to implement its programs and build capacity in research and science as well as clinical aspects of conservation. The following are the activities of MGVP, Inc. with the eastern gorillas and other great apes and primates.

- 1) Providing health monitoring, clinical interventions, disease surveillance (post mortems), and orphan and sanctuary health care to great apes and other primates in the wild and in sanctuaries of eastern DRC, Rwanda and Uganda.
- 2) Working with the government to collect, biobank, and perform diagnostics and health research on a extensive variety of biological specimens from the primates of the region.
- 3) Through EPT2 (Predict) studying the human/wildlife interfaces, particularly primates, (tourism and bushmeat) to assess the prevalence of viruses and the risk factors that increase the potential for zoonotic transmission. A positive side effect of this it the development of cold chains, secure biobanks and increased diagnostic capacity.

Question 8.

Mountain gorillas are the only great ape species in the wild that is on the increase, growing at 4% a year. MGVP, Inc. health program is credited with 50% of that growth in a paper entitled Extreme Conservation by Martha Robbins. Our work with the primates and subsequent samples helps the governments make informed management decisions. It is hoped that the health model will be replicated for the eastern lowland subspecies in the future to help reverse their decline. The work in sanctuaries aids law enforcement in the illegal trade of primates. It also provides fertile training grounds for capacity building of wildlife careers.

Question 9 N/A

Question 10 N/A

Question 11 N/A

Question 12

MGVP, Inc. does not gain financially from any of the diagnostics or research done on the biological samples. The samples although valuable to the scientific community have no commercial value themselves.

Question 13 N/A

Question 14 N/A

Question 15

The possible ports of entry will be Baltimore, Atlanta, and New York but the main port of entry will be Dulles International airport and MGVP, Inc. has an active airport exemption permit for this location.

Question 16 N/A

Question 17 N/A

4. **Recipient/Sender:**

- If export, provide name and address of the recipient in the foreign country.
- If import, provide name and address of the exporter in the foreign country.
- If interstate or foreign commerce, provide name and address of recipient.

Name: Andrew Seguya

Business Name: Uganda Wildlife Authority

Address: Plot 7 Kira Road Kamwokya

Address:

City: Kampala

State/Province:

Country, Postal Code: Uganda

F. SOURCE OF SPECIMEN (answer question 5 or 6 for each animal/specimen involved, as appropriate).

5. For each animal or animal from which specimen are obtained born in captivity:

- a. If you are the **breeder** of the specimen(s), please provide a signed and dated statement that includes the following:

- i. Scientific name (genus, species, and, if applicable, subspecies) and common name;
- ii. That the animal was bred and born at your facility;
- iii. Birth/hatch date (mm/dd/yyyy), and, if applicable, identification information (as described in question 2b above);
- iv. Name and address of your facility where each animal was bred and born; and
- v. Location (Name of facility, address, city, State/province, postal code) of parental stock.

- b. If you are **NOT the breeder** of the specimen(s), provide copies of documentation showing that you acquired the animal from the breeder or documentation demonstrating the history of transactions (e.g., chain of ownership of the animal) and a signed and dated statement from the breeder or breeder's record that clearly includes the following:

- i. Scientific name (genus, species, and, if applicable, subspecies) and common name;
- ii. That each animal was bred and born/hatched at his/her facility;
- iii. Birth/hatch date (mm/dd/yyyy), and, if applicable, identification information (as described in question 2b above);
- iv. Name and address of the breeder's facility; and
- v. Location (name of facility, address, city, State/province, postal code) of parental stock.

6. For each animal/specimen **taken from the wild**, provide the following:
- Scientific name (genus, species, and, if applicable, subspecies) and common name;
 - Specific location of where, when, and by whom (name and address) the specimen was removed from the wild;
 - Purpose of removal and length or approximate length of time held in captivity;
 - Describe your efforts to use captive specimens (e.g., captive-born, captive-held), or parts thereof, in lieu of taking animals from the wild.
 - Copies of your foreign or domestic collecting permit, license, contract or agreement;
 - Documentation showing that the specimen(s) was legally obtained by the applicant; and
 - Copies of any applicable State, Tribal, Federal, or Foreign government permits or licenses that authorized the removal of this animal from the wild.

G. JUSTIFICATION FOR REQUESTED ACTIVITY.

7. Provide a full statement justifying the proposed activity, particularly the following:
- Describe the purpose of your proposed activity. For example, if the purpose is scientific research, attach a copy of your research proposal outlining the purpose, objectives, methods (e.g., specific information on survey/collection methods, sampling regime, equipment to be used), and whether similar work has already been done or is currently being done. If the purpose is conservation education, provide copies of educational materials (e.g., handouts, text of signage or public presentations), and include the purpose and objectives of the proposed activity. If the purpose is for propagation for conservation purposes, provide a description of how the species will be propagated, disposition of progeny, and cooperative agreements that are/will be established for re-introduction.
 - Description of the technical expertise of each person (please include CV or resume), as it relates to the proposed activities. If the proposed activity involves the import of live animals, include the experience of each animal caretaker working with the species.
 - Copies of contracts, agreements or other documents that identify persons involved and dates of activities for which authorization is being requested.
8. Provide a statement on how the activities will **enhance or benefit the wild population** (e.g., in-situ and ex-situ projects).
9. If live specimens are to be held in captivity as part of the proposed activity:
- Provide a detailed description (e.g., size, construction materials, protection from the elements) and photographs or diagrams (no blueprints, please) clearly depicting the existing facilities **where the wildlife will be maintained**. If the specimens will be housed at multiple facilities, either immediately or within the next year, provide a full description of each facility. If you are unsure of which facilities may be receiving specimens (e.g., SSP has not made final decision), please indicate likely candidates and the mechanism that will be used to determine recipient facilities.
 - A statement of the specific technical experience of CV or resume available to the recipient(s) for maintaining and propagating live specimens of the same or similar species.
 - The number of years each species has been maintained at the facility;
 - The number of births by year for each species for the last 5 years; and
 - Mortalities at the facility with these or similar species in the last 5 years, causes of such mortalities, and steps taken to avoid or decrease such mortalities.

H. IMPORTS, EXPORTS, OR RE-EXPORTS.

10. For shipment of LIVE specimens, the transport conditions for animals must comply with the CITES Guidelines for Transport of Live Animals or, in the case of air transport, with the International Air Transport Association (IATA) live animal regulations (contact airline for information). As such, describe:
 - i. The type, size, and construction of any shipping container; and
 - ii. The arrangements for watering or otherwise caring for the wildlife during transport.
11. For import of LIVE CITES Appendix-I marine mammal specimens, provide a copy of your FWS or NOAA Fisheries permit or authorization.
12. For import of CITES Appendix-I listed species, provide information to show the import is not for primarily commercial purposes as outlined in Resolution Conf. 5.10 (www.cites.org).
13. For export of CITES Appendix-I species, provide a copy of the CITES import permit, or evidence one will be issued by the Management Authority of the country to which you plan to export the specimen(s). In accordance with Article III of the CITES treaty, it is required that import permits are issued before the corresponding export permit.
14. If the specimen is being re-exported (e.g., exporting a specimen that was previously imported into the United States), provide:
 - a. A copy of the canceled CITES export or re-export document issued by the appropriate CITES office in the country from which the wildlife was imported (if applicable); and
 - b. A cleared copy of Form 3-177, wildlife Declaration for Import (hard copy or electronic release); or
 - c. If you did not make the original import, provide a copy of the importer's documents outlined above and the invoice or other documentation that shows you acquired the wildlife from the original importer or history of transactions which demonstrate chain of ownership.
15. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from <http://www.fws.gov/le/designated-ports.html>. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).
16. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):
17. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please **DO NOT** include credit card number or other information; you will be contacted for this information.
☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 11. I understand that you will contact me for my credit card information once the application has been processed.

18. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Mike Cranfield, [REDACTED] I will be in Africa while this is being processed and so the email address is the best option

19. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☒ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.



CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

IMPORT PERMIT

Page 1 of 3

1. Original Permit/Certificate No.

16US117181/9

2. Valid

07/12/2017

Original
Permit &
Original, Unused
Permit Returned

3. Permittee (name and address, country)

MOUNTAIN GORILLA VETERINARY PROJECT, INC.
C/O THE MARYLAND ZOO IN BALTIMORE
1876 MANSION HOUSE DRIVE
BALTIMORE, MD 21217
U.S.A.

4. Consignor (name and address, country)

5. Special Conditions

- MUST COMPLY WITH ATTACHED GENERAL PERMIT CONDITIONS.
- U.S. ENDANGERED SPECIES [50 CFR 17.22].
- PERMIT MAY BE COPIED FOR MULTIPLE SHIPMENTS; PERMITTEE TO RETAIN ORIGINAL.
- PERMITTEE MUST COMPLETE BLOCKS 4, 11, 12 AND SHIPMENT #: _____, PRIOR TO EACH SHIPMENT.
- RE-ISSUES AND REPLACES 14US117181/9 ISSUED 10/31/2014.

-May not be used for commercial purposes. For live animals, only valid if the transport conditions comply with the CITES Guidelines for Transport of Live Animals or, in the case of air transport, with IATA Live Animals Regulations.

5a. Purpose of Transaction

S

6. U.S. Management Authority

U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803



07/13/2016

Issuing Date

United States Management Authority

AUTHORITY: Endangered Species Act of 1973 (16 USC 1531 et. seq.)

7/8. Common Name and Scientific name (genus and species) of Animal or Plant

9. Description of Part or Derivative, including identifying marks or numbers (age/sex if live)

10. Appendix No. and Source

A. Common Name
EASTERN
GORILLA

9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM WILD ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.

10. 1 W

Scientific Name
GORILLA
BERINGEI

11. Quantity (including units)

12. Country of Origin

B. Common Name
EASTERN
GORILLA

9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CAPTIVE-BRED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.

10. 1 F

Scientific Name
GORILLA
BERINGEI

11. Quantity (including units)

12. Country of Origin

C. Common Name
EASTERN
GORILLA

9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CONFISCATED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.

10. 1 I

Scientific Name
GORILLA
BERINGEI

11. Quantity (including units)

12. Country of Origin

D. Common Name
WESTERN
GORILLA

9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM WILD ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.

10. 1 W

Scientific Name
GORILLA
GORILLA

11. Quantity (including units)

12. Country of Origin

E. Common Name
WESTERN
GORILLA

9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CAPTIVE-BRED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.

10. 1 F

Scientific Name
GORILLA
GORILLA

11. Quantity (including units)

12. Country of Origin



IMPORT
CONTINUATION
SHEET

U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: 1A
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

Page 2 of 3

1. Original Permit/Certificate No.
16US117181/9



6. U.S. Management Authority

FALLS CHURCH VA

07/13/2016

PLACE

Issuing Date

7/B. Common Name and Scientific name (genus and species) of Animal or Plant	9. Description of Part or Derivative, including Identifying marks or numbers (age/sex if live)	10. Appendix No. and Source
F. Common Name WESTERN GORILLA	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CONFISCATED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 I
Scientific Name GORILLA GORILLA		11. Quantity (including units)
		12. Country of Origin
G. Common Name BONOBO	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM WILD ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 W
Scientific Name PAN PANISCUS		11. Quantity (including units)
		12. Country of Origin
H. Common Name BONOBO	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CAPTIVE-BRED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 F
Scientific Name PAN PANISCUS		11. Quantity (including units)
		12. Country of Origin
I. Common Name BONOBO	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CONFISCATED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 I
Scientific Name PAN PANISCUS		11. Quantity (including units)
		12. Country of Origin
J. Common Name COMMON CHIMPANZEE	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM WILD ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 W
Scientific Name PAN TROGLODYTES		11. Quantity (including units)
		12. Country of Origin
K. Common Name COMMON CHIMPANZEE	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CAPTIVE-BRED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 F
Scientific Name PAN TROGLODYTES		11. Quantity (including units)
		12. Country of Origin
L. Common Name COMMON CHIMPANZEE	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CONFISCATED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 I
Scientific Name PAN TROGLODYTES		11. Quantity (including units)
		12. Country of Origin
M. Common Name L'HOEST'S MONKEY	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM WILD ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 2 W
Scientific Name CERCOPITHECUS LHOESTI		11. Quantity (including units)
		12. Country of Origin



IMPORT
CONTINUATION
SHEET

U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: 1A
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

Page 3 of 3

1. Original Permit/Certificate No.
16US117181/9



6. U.S. Management Authority

FALLS CHURCH VA

07/13/2016

PLACE

Issuing Date

7/8. Common Name and Scientific name (genus and species) of Animal or Plant

9. Description of Part or Derivative, including identifying marks or numbers (age/sex if live)

10. Appendix No. and Source

N. Common Name
L'HOEST'S
MONKEY

9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CAPTIVE-BRED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.

10. 2 F

11. Quantity (including units)

12. Country of Origin

Scientific Name
CERCOPITHECUS
LHOESTI

O. Common Name
L'HOEST'S
MONKEY

9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CONFISCATED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.

10. 2 I

11. Quantity (including units)

12. Country of Origin

Scientific Name
CERCOPITHECUS
LHOESTI

Common Name

9.

10.

11. Quantity (including units)

12. Country of Origin

Scientific Name

Common Name

9.

10.

11. Quantity (including units)

12. Country of Origin

Scientific Name

Common Name

9.

10.

11. Quantity (including units)

12. Country of Origin

Scientific Name

Common Name

9.

10.

11. Quantity (including units)

12. Country of Origin

Scientific Name

Common Name

9.

10.

11. Quantity (including units)

12. Country of Origin

Scientific Name

Common Name

9.

10.

11. Quantity (including units)

12. Country of Origin

Scientific Name

Karen C Drayer Wildlife Health Center • One Shields Ave • Davis Ca 95616
Cell: [REDACTED] • Work: 443 552-3385 • [REDACTED]

Michael [REDACTED] Cranfield, DVM

Areas of Interest

AVIAN MALARIA (PENGUIN MALARIA IN PARTICULAR)

ACCOMPLISHMENTS:

Co-development of new ELISA and PCR tests for avians and mosquitoes
Co-development of an effective vaccine for canaries and penguins
Completed environmental assessments of penguin rehabilitation centers in South Africa
SSP Medical Advisor for penguins

CONSERVATION MEDICINE (MGVP, INC. IN PARTICULAR)

ACCOMPLISHMENTS:

Started the first Employee Health Program for employees working in the field close to gorillas
Co-developed IMPACT: a data collection, storage and analysis program for health monitoring gorillas
Started a capacity building program to train African vets in the U.S.
Mentored several PhD and masters students, plus dozens of four year students both at the Zoo and at Makerere University

REPTILIAN CRYPTOSPORIDIOSIS

ACCOMPLISHMENTS

Delineated zoonotic potential, and family susceptibility
Developed new diagnostic tests including ELISA
Developed new and effective treatments using hyperimmune bovine colostrum

REPRODUCTIVE PHYSIOLOGY (MACAQUES IN PARTICULAR)

ACCOMPLISHMENTS:

First lion-tailed macaque produced by artificial insemination
First baby of any sort by invitro fertilization in a zoo
Tenth live birth of a primate in the world by IVF , freezing and transfer
Production and biobanking of 52 lion-tailed macaque (*Macaca silenus*) embryos
Developed techniques to collect usable sperm from the bladder after retroejaculation from electroejaculation
SSP medical advisor for lion-tailed macaques (*Macaca silenus*)

BANKING OF BIOLOGICAL RESOURCES

ACCOMPLISHMENTS:

Developed the biobank at the Maryland Zoo that holds thousands of samples from the zoo collection as well as thousands of samples from the Mountain Gorilla Veterinary Project including most of the species in the gorilla habitat. Developed biobanks and cold chains in the host countries.

Professional Experience

Senior Veterinarian and Co director of Gorilla Doctors
Karen C Drayer Wildlife Health Center
One Shields Ave
Davis Ca 95616

[REDACTED]

Project Director, Mountain Gorilla Veterinary Project (MGVP Inc.)
1876 Mansion House Drive
Baltimore, MD 21217

[REDACTED]

Faculty, Comparative Medicine, [REDACTED] University

[REDACTED]

[REDACTED]

Veterinarian, [REDACTED] Exotic Animal Practice and
[REDACTED] Park and Zoo [REDACTED]

[REDACTED]

Director of Research and Conservation, [REDACTED] Zoo in [REDACTED]

[REDACTED]

[REDACTED]

Director of Animal Management, Research & Conservation, [REDACTED] Zoo

[REDACTED]

[REDACTED]

Adjunct Assistant Professor, [REDACTED] Regional Veterinary College

[REDACTED]

[REDACTED]

Adjunct Faculty, Department of Wildlife and Fisheries, [REDACTED]

[REDACTED] University

[REDACTED]

[REDACTED]

Chief Veterinarian, [REDACTED] Zoo Medical Department

[REDACTED]

[REDACTED]

Veterinarian, [REDACTED] Memorial Veterinary Hospital

[REDACTED]

[REDACTED]

Veterinarian, [REDACTED] Veterinary Services

[REDACTED]

[REDACTED]

Education

University of [REDACTED] [REDACTED]

[REDACTED] Veterinary College, [REDACTED], *Doctor of Veterinary Medicine*, [REDACTED]

[REDACTED] Veterinary College, [REDACTED] Zoo, [REDACTED]
Residency in Zoological Medicine and Diploma in Pathology, [REDACTED]

Awards

AAZV; Dr. Emil P. Dolensek Award – For Exceptional Contributions
 To The Conservation, Care And Understanding Of Zoo And Free-Ranging
 Wildlife, [REDACTED] [REDACTED]

Schalm Award – In recognition of outstanding contributions to conservation medicine [REDACTED]

Michael Hankin Award: For individuals who epitomize the legacy of conservation,
 volunteerism, and philanthropy. [REDACTED]

Honorary PhD (Science): University of [REDACTED] [REDACTED]

Board Affiliations

Life Time Board Member of the Riverview Park And Zoo [REDACTED]
 Board Member SOS Rhino Chicago [REDACTED]
 Member Of Animal Policy Committee, National Aquarium In Baltimore [REDACTED]

Professional Affiliations

American Association Of Zoological Veterinarians
 American Veterinary Medical Association
 Canadian Association Of Zoo And Aquariums
 American Association Of Zoo And Aquariums
 American Association Of Wildlife Veterinarians
 Wildlife Disease Association

Can. Vet. J. 25:63-66.

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11. Graczyk, T. K., Cranfield, M. R., Shaw, M. L., and L. E. Craig. 1994. Maternal

- Anti-Plasmodium spp. Antibodies in African Black-footed Penguins (*Spheniscus demersus*) Chicks. J. Wildl. Dis. 30: 365-371.
12. Cranfield, M. R., and T. K. Graczyk. 1994. Experimental Infection of Elaphid Snakes with *Cryptosporidium serpentis* (Apicomplexa: Cryptosporidiidae). J. Parasitol. 80 (5): 823-826.
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BOOK CHAPTERS

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Personal Interests



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Kisoro Uganda
Kampala, Uganda

Goma, Democratic Republic

of the Congo

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PO Box 356
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MGVP, Inc. Tax ID #06-1752363

To whom it may concern

Gorilla Doctors (MGVP, Inc.) is applying for a renewal of their CITES Import permit. Since it has been five years we have filled out a complete application. Please find the following enclosed

1. The permit application
2. The old permit
3. Copy of the paper Extreme Conservation
4. CVs and Contracts of all members of the teams
5. MOUs with Uganda Wildlife Authority, Rwanda Development Board and the application for renewal for Institut Congolese pour la Conservation du Nature
6. A list of mortality at the Lwiro Chimp Sanctuary

Mike Cranfield

Executive Director MGVP, Inc.

Co Director Gorilla Doctors



Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form 9 2017

Return to: U.S. Fish and Wildlife Service
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Type of Activity:

EXPORT/RE-EXPORT/IMPORT/INTERSTATE AND
FOREIGN COMMERCE/TAKE OF ANIMALS
(LIVE/ SAMPLES/PARTS/PRODUCTS) (ESA and/or CITES)
(circle/highlight proposed activity)

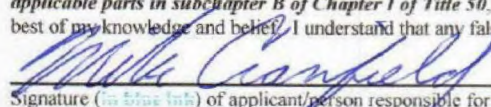
☒ New Application
☒ Requesting Re-issuance/Amendment of Permit#: 16US117181

Complete Sections A or B, and C through H of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual			
1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution			
1.a. Name of business, agency, Tribe, or institution Mountain Gorilla Veterinary Project (MGVP, Inc.)		1.b. Doing business as (dba) Gorilla Doctors	
2. Tax identification no. 84-603-2307		3. Description of business, agency, Tribe, or institution Conservation NGO during veterinary health care on primates	
4.a. Principal officer Last name Cranfield	4.b. Principal officer First name Michael	4.c. Principal officer Middle name/ initial	4.d. Suffix
5. Principal officer title Executive Director		6. Primary contact name Michael Cranfield	
7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number 443-320-009	7.d. Business e-mail address

C. All applicants complete address information					
1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes) The Maryland Zoo in Baltimore 1876 Mansion House Drive					
1.b. City Baltimore	1.c. State MD	1.d. Zip code/Postal code: 21217	1.e. County/Province	1.f. Country USA	
2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)					
2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country	

D. All applicants MUST complete	
1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE in the amount of \$100 nonrefundable processing fee. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee - attach documentation of fee exempt status as outlined in instructions. (50 CFR 13.11(d))	
2. Do you currently have or have you ever had any Federal Fish and Wildlife permits? Yes <input checked="" type="checkbox"/> If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 16US117181/9 No <input type="checkbox"/>	
3. Certification: I hereby certify that I have read and am familiar with the regulations contained in Title 50, Part 13 of the Code of Federal Regulations and the other applicable parts in subchapter B of Chapter I of Title 50, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.  Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures)	
Date of signature (mm/dd/yyyy) Jan 2 2018	

E. Export/re-export/Import/interstate and Foreign Commerce/take of Non- Native Animals CITES and /or ESA

1. What activity are you requesting authorization to carry out (Indicate appropriate activities):

EXPORT _____ IMPORT **XX**

INTERSTATE COMMERCE _____ FOREIGN COMMERCE _____

2. For EACH animal/specimen involved in the proposed activity provide:

Scientific name (genus, species, and, if applicable, subspecies)	Common Name	Birth/Hatch Date (mm/dd/yyyy) Or Approximate	Quantity	Gender, if known	Permanent markings (e.g., tattoo)	Type of Sample or product (e.g., blood, tissue, DNA)
Gorilla beringei beringei	mountain gorilla	N/A	N/A	N/A	N/A	blood, tissues, DNA, fecals, saliva, urine
Gorilla beringei graueri	eastern lowland gorilla	N/A	N/A	N/A	N/A	blood, tissues, DNA, fecals, saliva, urine
Gorilla gorilla gorilla	western lowland gorilla	N/A	N/A	N/A	N/A	blood, tissues, DNA, fecals, saliva, urine
Pan paniscus	bonobos	N/A	N/A	N/A	N/A	blood, tissues, DNA, fecals, saliva, urine
Pan troglodytes	common chimp	N/A	N/A	N/A	N/A	blood, tissues, DNA, fecals, saliva, urine
Cercopithecus L'hoesti	L'hoesti monkey	N/A	N/A	N/A	N/A	blood, tissues, DNA, fecals, saliva, urine

3. The current location of the specimen(s) (address and country):

The specimens are in Gorilla Doctor biobanks in the three countries. Any specimens collected in the future will also be stored here.

DRC

Name: Gorilla Doctors (Eddy Kambale Syaluha)

Business Name: MGVP, Inc.

Address: 24 Av. Grevilleas Address:

City: Ville de Goma

State/Province:

Country, Postal Code: DRC

Uganda

Name: Gorilla Doctors (Benard Ssebide)

Business Name: MGVP, Inc.

Address: Wildlife Department, College of Veterinary Medicine

Makerere University Main Campus, Kampala

P O Box 72901

City: Kampala

State/Province:

Country, Postal Code: Uganda

Rwanda

Name: Gorilla Doctors (Julius Nziza)

Business Name: MGVP, Inc.

Address: Po Box 115

NM 203 St 4 e AVE 12

88 38 22 30; + 250 (0) 788 30 39 67

City: Musanze

State/Province: Northern Province

Country, Postal Code: Rwanda

4. Recipient/Sender:

- If import, provide name and address of the exporter in the foreign country.

Gorilla Doctors will be shipping specimens from their locations in Africa to the United States for diagnostic testing and research

DRC

Name: Gorilla Doctors (Eddy Kambale Syaluha)

Business Name: MGVP, Inc.

Address: 24 Av. Grevilleas Address:

City: Ville de Goma

State/Province:

Country, Postal Code: DRC

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NM 203 St 4 e AVE 12

City: Musanze

State/Province: Northern Province

Country, Postal Code: Rwanda

F. SOURCE OF SPECIMEN (answer question 5 or 6 for each animal/specimen involved, as appropriate).**5. For each animal or animals from which specimen are obtained born in captivity:**

N/A This is not applicable since we work with animals in a wild setting or animals that have been confiscated and brought to a sanctuary as part of the conservation law enforcement efforts in the region.

6. For each animal/specimen taken from the wild, provide the following:**a) Scientific name (genus, species, and, if applicable, subspecies) and common name;**

Please see table in answer 2 for the list of possible genus species for which we might collect samples.

b) Specific location of where, when, and by whom (name and address) the specimen was removed from the wild;

Below is a list of the countries and parks where we work and the veterinarians that took or would be taking the specimens in each country. These activities have occurred over the last thirty years and will continue on a regular basis into the future

Rwanda

Volcanoes National Park

MGVP, Inc.

Address: Po Box 115

NM 203 St 4 e AVE 12

City: Musanze

State/Province: Northern Province

Country, Postal Code: Rwanda

Veterinarians

1. Jean Bosco Noherri
2. Gaspard Nzayisenga
3. Julius Nziza
4. Jean Claude Tumushime
5. Methode Bahizi
6. Mike Cranfield

Uganda

Bwindi National Park

Mgahinga National Park

MGVP, Inc.

Wildlife Department, College of Veterinary Medicine

Makerere University Main Campus, Kampala

P O Box 72901

City: Kampala

State/Province:

Country, Postal Code: Uganda

1. Benard Ssebide
2. Ricky Okwello
3. Fred Niseyimana
4. Mike Cranfield

DRC

Virunga National Park

Kahuzi Biega National Park

1. Eddy Kambale Syaluha
2. Luis Florres
3. Martin Kabuyaya
4. Mike Cranfield

c. Purpose of removal and length or approximate length of time held in captivity;

Gorilla Doctors does not remove animals from the wild but does give medical support to the confiscation process of each government as part of the law enforcement. When an animal is brought into one of the sanctuaries where we work it is usually for the rest of its life although on a case by case basis one may be returned to the wild

d. Describe your efforts to use captive specimens (e.g., captive-born, captive-held), or parts thereof, in lieu of taking animals from the wild.

Since our work involves the health care of the wild population for conservation of those populations it is not possible to use the captive sanctuary animal. We do use samples from the sanctuary animals as part of the management of those captive animals.

e. Copies of your foreign or domestic collecting permit, license, contract or agreement;

We have active MOUs with the Ugandan and Rwandan governments and are in the process of renewing our MOU with DRC

f. Documentation showing that the specimen(s) was legally obtained by the applicant; and

See in the MOUs

g. Copies of any applicable State, Tribal, Federal, or Foreign government permits or licenses that authorized the removal of this animal from the wild.

The permission to take the samples for diagnostics, research and biobanking is outlined in the MOUs

G. JUSTIFICATION FOR REQUESTED ACTIVITY.

7. Provide a full statement justifying the proposed activity, particularly the following:

a. Describe the purpose of your proposed activity. For example, if the purpose is scientific research, attach a copy of your research proposal outlining the purpose, objectives, methods (e.g., specific information on survey/collection methods, sampling regime, equipment to be used), and whether similar work has already been done or is currently being done. If the purpose is conservation education, provide copies of educational materials (e.g., handouts, text of signage or public presentations), and include the purpose and objectives of the proposed activity. If the purpose is for propagation for conservation purposes, provide a description of how the species will be propagated, disposition of progeny, and cooperative agreements that are/will be established for re-introduction.

The purpose of our work is to promote self-sustaining wild populations of eastern gorillas in the countries of Rwanda, Uganda and DRC. This is done through active health monitoring of the wildlife (with strong emphasis with Gorillas and other primates) in the parks where we work and disease surveillance in the region. When animals are found sick or injured with the permission of the applicable government agencies we perform clinical interventions to save the animals. During these interventions if they involve anesthesia we collect blood, swabs of orifices, hair, fecal, and urine. If any animals die in the parks we do complete post mortems (and we collect an entire set of samples) to understand the causes of death to help better work with the live animals. When orphan animals are confiscated from poachers we are involved with their long-term health care.

As part of our work we conduct research on specimens that arise from the above activities or from non-invasive samples from the populations. The purpose of such research is to help with evidence based management decisions for future management and health decisions. We have four biobanks (one in each country in the region and one in Baltimore Md) and have developed efficient cold chains which allows us to store samples indefinitely and for researchers anywhere in the world to have samples for their research after obtaining permission for the governments. We conduct a wide arrange of research to better understand the epidemiology of disease in the region. We are presently sponsor 11 masters students at Makerere University whom will be doing various research project to fulfill their obligations for their degree.

We have been doing the above activities in the region for over thirty years and will continue at the discretion of the governments. We have funding for a large parasite study in the mountain gorillas over the next three years which will include next generation sequencing and other new molecular techniques that have never been used in great apes before.

b. Description of the technical expertise of each person (please include CV or resume), as it relates to the proposed activities. If the proposed activity involves the import of live animals, include the experience of each animal caretaker working with the species.

All field employees involved with the project are qualified veterinarians presently holding active degrees to practice veterinary medicine in the countries we work. Please see the CV's and contracts enclosed.

c. Copies of contracts, agreements or other documents that identify persons involved and dates of activities for which authorization is being requested.

Please see enclosed contracts. The project has been conducting its work for over 30 years and will continue into the foreseeable future.

8. Provide a statement on how the activities will enhance or benefit the wild population (e.g., in-situ and exsitu projects).

The mountain gorillas are the only great ape whose numbers are on the increase. The population is growing at 4% a year and Martha Robbins in her review of this success (Extreme Conservation see enclosed) stated that veterinary medicine accounted for over 45% of this increase. Gorilla Doctors is solely responsible for this activity. The eastern lowland gorilla population is in sharp decline. This is mainly due to the unrest in the area

and the fact that not many groups are habituated which then allows for the same level of veterinary activity we perform with the mountain gorillas. There is a small area of Kahuzi Biega that contains a few groups of habituated gorillas and we do perform veterinary work on them and these are showing a similar increase. Without this life saving veterinary care the populations of the great apes we work with would not be increasing in the areas where we work.

9.If live specimens are to be held in captivity as part of the proposed activity:

Gorilla Doctors is not holding animals in captivity but is sub contracted to provide health care to the CRPL (Center Rehabilitation du Primates Lwiro) for chimps and smaller primates and to Senkwekwe for the 4 mountain gorillas.

- a. Provide a detailed description (e.g., size, construction materials, protection from the elements) and photographs or diagrams (no blueprints, please) clearly depicting the existing facilities where the wildlife will be maintained. If the specimens will be housed at multiple facilities, either immediately or within the next year, provide a full description of each facility. If you are unsure of which facilities may be receiving specimens (e.g., SSP has not made final decision), please indicate likely candidates and the mechanism that will be used to determine recipient facilities.

N/A

- b. A statement of the specific technical experience of CV or resume available to the recipient(s) for maintaining and propagating live specimens of the same or similar species.

N/A

- c. The number of years each species has been maintained at the facility;

N/A

- d. The number of births by year for each species for the last 5 years; and
There is an active birth control program to stop propagation.

- e. Mortalities at the facility with these or similar species in the last 5 years, causes of such mortalities, and steps taken to avoid or decrease such mortalities.

Lwiro deaths are on a separate table. Gorilla Doctors has only worked there for 2 years and so the table relies of the managers of the sanctuary for the earlier data. The pathology program now will document at a higher level the causes of death allowing for better health care in the future.

Senkwekwe Deaths

Juvenile Male; Kaboko. Dysentery during a rebel insurgences where vet care was not possible

Adult Female: Maisha, Chronic debilitating pancreatitis

H. IMPORTS, EXPORTS, OR RE-EXPORTS.

10. For shipment of LIVE specimens, the transport conditions for animals must comply with the CITES Guidelines for Transport of Live Animals or, in the case of air transport, with the International Air Transport Association (IATA) live animal regulations (contact airline for information). As such, describe:

- i. The type, size, and construction of any shipping container; and
- ii. The arrangements for watering or otherwise caring for the wildlife during transport

N/A Gorilla Doctors does not import or export live animals

11. For import of LIVE CITES Appendix-I marine mammal specimens, provide a copy of your FWS or NOAA Fisheries permit or authorization.

N/A Gorilla Doctors does not import or export live animals

12. For import of CITES Appendix-I listed species, provide information to show the import is not for primarily commercial purposes as outlined in Resolution Conf. 5.10 (www.cites.org).

The importation of the biological specimens is for the scientific purposes of diagnostics and research and not for financial gain.

13. For export of CITES Appendix-I species, provide a copy of the CITES import permit, or evidence one will be issued by the Management Authority of the country to which you plan to export the specimen(s). In accordance with Article III of the CITES treaty, it is required that import permits are issued before the corresponding export permit.

N/A This application is for import permit only.

14. If the specimen is being re-exported (e.g., exporting a specimen that was previously imported into the United States), provide:

- a. A copy of the canceled CITES export or re-export document issued by the appropriate CITES office in the country from which the wildlife was imported (if applicable); and
- b. A cleared copy of Form 3-177, wildlife Declaration for Import (hard copy or electronic release); or
- c. If you did not make the original import, provide a copy of the importer's documents outlined above and the invoice or other documentation that shows you acquired the wildlife from the original importer or history of transactions which demonstrate chain of ownership

N/A This application is for import permit only.

15. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from <http://www.fws.gov/le/designated-ports.html>. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3- 200-2).

1. BWI- Baltimore
2. Dulles- Washington (airport exemption permit is in date)
3. Hartsfield-Jackson Atlanta
4. La Guardia- New York

16. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

Same address as above

17. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 11. I understand that you will contact me for my credit card information once the application has been processed.

N/A

18. Who should we contact if we have questions about the application? (Include name, phone number, and email):

Please contact Mike Cranfield. The phone number of [REDACTED] can be used for SMS texting only when Dr Cranfield is traveling in Africa. Please use [REDACTED] for all communications as it is easier to access while in Africa



CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

IMPORT PERMIT

Page 1 of 3

1. Original Permit/Certificate No.

16US117181/9

2. Valid

07/12/2017

3. Permittee (name and address, country)

MOUNTAIN GORILLA VETERINARY PROJECT, INC.
C/O THE MARYLAND ZOO IN BALTIMORE
1876 MANSION HOUSE DRIVE
BALTIMORE, MD 21217
U.S.A.

4. Consignor (name and address, country)

5. Special Conditions

- MUST COMPLY WITH ATTACHED GENERAL PERMIT CONDITIONS.
- U.S. ENDANGERED SPECIES [50 CFR 17.22].
- PERMIT MAY BE COPIED FOR MULTIPLE SHIPMENTS; PERMITTEE TO RETAIN ORIGINAL.
- PERMITTEE MUST COMPLETE BLOCKS 4, 11, 12 AND SHIPMENT # _____, PRIOR TO EACH SHIPMENT.
- RE-ISSUES AND REPLACES 14US117181/9 ISSUED 10/31/2014.

-May not be used for commercial purposes. For live animals, only valid if the transport conditions comply with the CITES Guidelines for Transport of Live Animals or, in the case of air transport, with IATA Live Animals Regulations.

5a. Purpose of Transaction

S

6. U.S. Management Authority

U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

07/13/2016

Issuing Date

United States Management Authority

AUTHORITY: Endangered Species Act of 1973 (16 USC 1531 et. seq.)

7/8. Common Name and Scientific name (genus and species) of Animal or Plant	9. Description of Part or Derivative, including identifying marks or numbers (age/sex if live)	10. Appendix No. and Source
A. Common Name EASTERN GORILLA Scientific Name GORILLA BERINGEI	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM WILD ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 W 11. Quantity (including units) 12. Country of Origin
B. Common Name EASTERN GORILLA Scientific Name GORILLA BERINGEI	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CAPTIVE-BRED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 F 11. Quantity (including units) 12. Country of Origin
C. Common Name EASTERN GORILLA Scientific Name GORILLA BERINGEI	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CONFISCATED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 I 11. Quantity (including units) 12. Country of Origin
D. Common Name WESTERN GORILLA Scientific Name GORILLA GORILLA	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM WILD ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 W 11. Quantity (including units) 12. Country of Origin
E. Common Name WESTERN GORILLA Scientific Name GORILLA GORILLA	9. IMPORT: UNLIMITED BIOLOGICAL SAMPLES FOR VETERINARY DIAGNOSTIC ANALYSIS FROM CAPTIVE-BRED ANIMALS FROM THE DEMOCRATIC REPUBLIC OF THE CONGO, RWANDA, AND/OR UGANDA.	10. 1 F 11. Quantity (including units) 12. Country of Origin

Extreme Conservation Leads to Recovery of the Virunga Mountain Gorillas

Martha M. Robbins^{1*}, Markye Gray², Katie A. Fawcett³, Felicia B. Nutter⁴, Prosper Uwingeli⁵, Innocent Mburanumwe⁶, Edwin Kagoda⁷, Augustin Basabose², Tara S. Stoinski^{3,8}, Mike R. Cranfield⁴, James Byamukama², Lucy H. Spelman⁴, Andrew M. Robbins¹

1 Department of Primatology, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany, **2** The International Gorilla Conservation Programme, Kigali, Rwanda, **3** Dian Fossey Gorilla Fund International, Atlanta, Georgia, United States of America, **4** Mountain Gorilla Veterinary Program, School of Veterinary Medicine, University of California Davis, Davis, California, United States of America, **5** Parc National des Volcans, Rwanda Development Board, Gishushu, Kigali, Rwanda, **6** Parc National des Virunga-sud, Institut Congolais pour la Conservation de la Nature, IGCP-DRC, Gisenyi, Rwanda, **7** Mgahinga Gorilla National Park, Uganda Wildlife Authority, Kampala, Uganda, **8** Zoo Atlanta, Atlanta, Georgia, United States of America

Abstract

As wildlife populations are declining, conservationists are under increasing pressure to measure the effectiveness of different management strategies. Conventional conservation measures such as law enforcement and community development projects are typically designed to minimize negative human influences upon a species and its ecosystem. In contrast, we define “extreme” conservation as efforts targeted to deliberately increase positive human influences, including veterinary care and close monitoring of individual animals. Here we compare the impact of both conservation approaches upon the population growth rate of the critically endangered Virunga mountain gorillas (*Gorilla beringei beringei*), which increased by 50% since their nadir in 1981, from approximately 250 to nearly 400 gorillas. Using demographic data from 1967–2008, we show an annual decline of $0.7\% \pm 0.059\%$ for unhabituated gorillas that received intensive levels of conventional conservation approaches, versus an increase $4.1\% \pm 0.088\%$ for habituated gorillas that also received extreme conservation measures. Each group of habituated gorillas is now continuously guarded by a separate team of field staff during daylight hours and receives veterinary treatment for snares, respiratory disease, and other life-threatening conditions. These results suggest that conventional conservation efforts prevented a severe decline of the overall population, but additional extreme measures were needed to achieve positive growth. Demographic stochasticity and socioecological factors had minimal impact on variability in the growth rates. Veterinary interventions could account for up to 40% of the difference in growth rates between habituated versus unhabituated gorillas, with the remaining difference likely arising from greater protection against poachers. Thus, by increasing protection and facilitating veterinary treatment, the daily monitoring of each habituated group contributed to most of the difference in growth rates. Our results argue for wider consideration of extreme measures and offer a startling view of the enormous resources that may be needed to conserve some endangered species.

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Competing Interests: One author is affiliated with Zoo Atlanta. Zoo Atlanta is a non-profit 501(c) 3 and therefore there are no competing interests. The authors have declared that no competing interests exist.

* E-mail: robbins@eva.mpg.de

Introduction

While the need to show the impact of different conservation strategies is increasingly recognized, such analyses are often difficult or impossible due to a lack of data to assess trends in population dynamics under different conservation regimes and ecological conditions [1–5]. In many cases, simply getting an accurate assessment of population sizes may be difficult, even for large, terrestrial megafauna that capture the public’s attention and serve as flagship species for conservation [6,7]. Conventional conservation measures such as law enforcement and community development projects are typically designed to minimize negative human influences upon a species and its ecosystem. In contrast, we define “extreme” conservation as efforts targeted to deliberately increase positive human influences, including the detection and veterinary treatment of potentially life threatening conditions and

close surveillance of individual animals [8,9]. Assessments of both approaches can be enhanced by understanding the natural and human-induced influences upon the population dynamics of a species. Here we quantify the relative impact of anthropogenic and socioecological influences upon the population growth rate of the Virunga mountain gorillas, a critically endangered primate that has received an extraordinary level of both conservation approaches.

Wild gorilla populations have suffered catastrophic losses in the past two decades, and three of their four subspecies are critically endangered [10,11]. Mountain gorillas (*Gorilla beringei beringei*) are one of the most critically endangered of all great ape subspecies, with only two isolated populations remaining. One of these populations, the Virunga mountain gorillas, is confined to 450 km² in three contiguous national parks that straddle the borders of Rwanda, Uganda, and the Democratic Republic of

Congo. The Virunga Massif is surrounded by some of the highest rural human population densities in the world [12], up to 820 people per km². High human densities can adversely affect local wildlife conservation [13], and the Virunga mountain gorillas have faced multiple threats such as habitat destruction and poaching.

This study can be divided into three approximate time periods with different levels of conservation efforts and different threats to the gorillas (dashed vertical lines in Figure 1a). The first of six complete censuses of the Virunga mountain gorillas was conducted in 1971, and the population declined from 275 to 254 gorillas over the next decade due to habitat destruction and poaching (circles in Figure 1a). Mountain gorillas traditionally have not been hunted for bushmeat, but they get caught in snares that poachers set for antelope, and they get killed for other reasons (e.g., when infants are abducted for pets). International focus on the population increased in the late 1970s and 1980s as research findings and conservation challenges were widely publicized. Conservation activities intensified in the 1980s with a multi-pronged approach of local conservation education, law enforcement, an innovative veterinary program, and pioneering efforts to habituate gorillas for ecotourism [14–16]. As a result of those efforts, the gorilla population increased to 320 gorillas by 1989. Civil unrest erupted in the 1990s, with armed forces and refugees occupying areas in and around parks to the present [17,18]. Nonetheless, high levels of monitoring continued throughout most of this period, and the gorilla population continued to increase, reaching 380 individuals in 2003. Approximately 70% of that population is now habituated for ecotourism or research [18]. Nearly 20,000 tourists visited habituated groups in Rwanda in 2008, generating approximately \$8 million in revenue for the park service and providing local employment [19]. Despite these benefits, habituation potentially increases the risk of disease transmission between humans and the gorillas [20,21].

To protect the gorillas from poaching threats, the Virungas currently have more than 50 field staff per 100 km², which consists of both national park and NGO staff, and is more than 20 times the global average [12]. The staff is primarily funded by revenue generated through ecotourism and NGOs, with the latter revenue being especially critical during times of military conflict. The staff patrols the entire park and confiscates more than 1500 snares per year. In addition, each habituated gorilla group is now continuously guarded by a separate team of field staff during daylight hours. To reduce the threat of disease transmission, tourists and researchers are required to stay at least seven meters away from the gorillas, but adherence to this rule can be difficult due to dense vegetation and the behavior of the gorillas. The veterinary program provides an additional line of protection against both threats by treating habituated gorillas for snare wounds, respiratory diseases, and other life threatening conditions.

Efforts to save the Virunga mountain gorillas represent an exceptional opportunity to compare two different conservation approaches in the same population at the same time. While the entire population has received conventional conservation measures such as ranger patrols and law enforcement, habituated gorillas have also received the more extreme approaches of continuous monitoring and *in situ* veterinary care. We use time-series analyses to compare the growth rates of the habituated versus unhabituated gorillas, as well as Leslie matrix calculations and individual-based models to provide more detailed results for the habituated groups. For example, we quantify how the growth rate of habituated groups has been influenced by poaching, respiratory disease, and veterinary interventions. In addition to examining those anthropogenic factors, we considered whether differences in the growth rates arose from socioecological

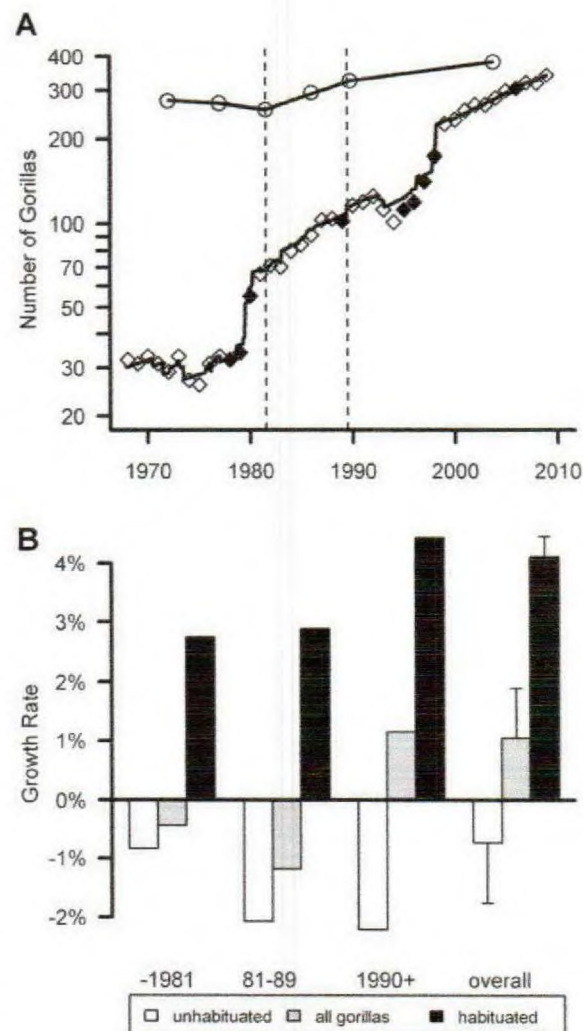


Figure 1. Temporal variations in the population size and growth rate. a. Size of the total population (circles) and the habituated groups (diamonds) throughout the study. Filled diamonds indicate years when additional groups were habituated. Solid lines show the results from the time series analyses for the intervals before the 1972 census, between each pair of consecutive censuses, and after the 2003 census. Dashed vertical lines show the three broader time intervals used in Figure 1b. The overall population density equals the total population size divided by the park area (450 km²). b. Time series analyses for the growth rates of the habituated groups, unhabituated groups, and the total population before the 1981 census, after the 1989 census, and during the interval in between. Error bars for the overall growth rates indicate the standard error among the five intervals between consecutive censuses.

doi:10.1371/journal.pone.0019788.g001

influences such as feeding competition. If so, then we might expect lower reproductive success for females in larger groups and areas of lower food density [22]. We discuss the broader implications of our results for optimizing the conservation of other critically endangered species.

Results

Calculations of the actual growth rate

The habituated groups have grown from 30 gorillas in 1967 to 339 gorillas at the end of 2008 (diamonds in Figure 1a), which

represents an average increase of 6.6% per year. However that increase partially reflects the habituation of 122 additional gorillas throughout the study period, as well as dispersal between the habituated and unhabituated groups (Text S1; Table S2). After adjusting for all exchanges between the habituated and unhabituated groups (Text S1, Section C), time-series analyses indicate an average growth rate of $4.1\% \pm 0.088\%$ SD per year for habituated gorillas (See the Methods and Text S1, Section C for details about how we adjusted for exchanges between the habituated and unhabituated groups.) After adjusting for the exchanges, the time series analyses indicate that unhabituated gorillas had an average growth rate of $-0.7\% \pm 0.059\%$ (Figure 1b). Habituated gorillas had a higher growth rate than unhabituated gorillas in all five intervals between consecutive censuses (paired t-test: $t = 4.1$, $df = 4$, $p = 0.015$; Text S1, Section C).

A Leslie matrix model predicts a growth rate of 3.1% in the habituated groups (Text S1, Section B) based on an average rate of 0.255 births per adult-female year and age-specific survivorship values (Figure 2). Whereas the time-series analyses quantify how a population size has changed in the past, the Leslie matrix calculations predict what the growth rate would be if the population maintained the specified survivorship and birth rates for several generations [23]. The Leslie matrix calculations assume that exchanges between the habituated and unhabituated groups would become negligible in the long-term. We used the age-based Leslie matrix models to calculate the elasticity of the growth rate to survival and fertility as a function of age (Figure S6). Elasticity is defined as the percentage change in a model output (variable) relative to a percentage change in model parameter [24,25]. Fertility accounts for only 5% of the overall elasticity in the growth

rate, with another 42% coming from survival of immatures, and the remaining 53% from adult survival. Those results suggest that the population growth rate is more sensitive to proportional changes in survivorship than fertility.

Even if the habituated and unhabituated gorillas faced the same socioecological and anthropogenic influences, their fertility and mortality rates could differ due to demographic stochasticity. To estimate the potential magnitude of such demographic stochasticity in the habituated groups, we converted the Leslie matrix model into an individual-based dynamic model. We ran 1000 simulations of the habituated population, which showed a standard deviation of only $\pm 0.4\%$ among the 1000 growth rate predictions (with a mean growth rate of 3.9%). Even less demographic stochasticity would be expected for the unhabituated groups, because on average during the course of the study, their subset of the population had more gorillas (195 ± 20 SE among the censuses) than the habituated groups (123 ± 37). Thus demographic stochasticity could explain only a small portion of the difference in growth rates between the habituated versus unhabituated gorillas.

Estimates of socioecological influences upon the growth rate

The Virunga Massif is an afro-montane forest varying in altitude from 1500–4500 m, with several habitat types that differ in the biomass density of foods consumed by the gorillas (Figure 3). Using data from vegetation sampling, satellite imagery, and home range utilization, we calculated that the average food density varied from 4.2 to 66.3 g/m² among habituated groups. The sizes of those groups have varied from 2–65 individuals. Despite the wide variations in those factors, we found no significant evidence that female reproductive success was limited by food availability or the assumed increased energetic demands of large group size (Table 1). Given that group sizes and food density for unhabituated groups fall within the ranges for habituated groups, those factors do not appear to account for differences in growth rates between the two populations.

In addition to feeding competition, two other socioecological influences upon primates are predation and infanticide [22]. The Virunga mountain gorillas currently have no natural predators, and we estimated that infanticide has not been a major source of variability in their population growth rate (Text S1, Section E). Therefore, we conclude that socioecological factors have made little or no contribution to variability in the population growth rate, so differences between the habituated versus unhabituated gorillas were more likely to arise from human influences.

Estimates of human impacts upon the growth rate

Throughout this study, 26 habituated gorillas have been killed by humans, representing 12% of all known mortality in this study. The time-series analyses indicate that if no gorillas had died from poaching, the growth rate in habituated groups would have been $4.6\% \pm 0.069\%$ SD (Table 2). Three of the poaching deaths were due to gorillas getting caught in snares set for other animals, fifteen died as a result of shootings by militia groups, and eight were killed by villagers or poachers for various reasons including to capture gorillas for the pet trade, to stop crop raiding, or for bushmeat. Sixteen habituated gorillas died from respiratory disease during this study, but it is unknown whether those diseases were transmitted from humans, and the overall prevalence of human borne infections in gorillas was not quantified [26–28]. If no gorillas had died from respiratory disease, the growth rate of the habituated groups would have been $4.5\% \pm 0.072\%$ (Table 2).

Forty two interventions were conducted to treat snare wounds on habituated gorillas. All but one of those individuals survived,

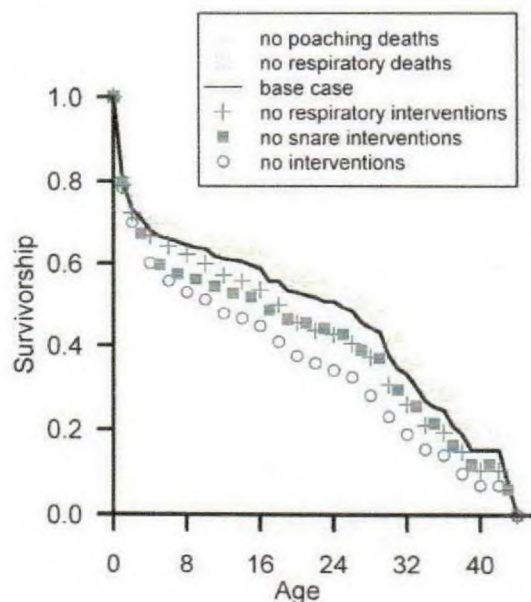


Figure 2. Survivorship curves used in Leslie matrix models for the growth rate of habituated groups. Listed from top to bottom, the cases show survivorship without poaching deaths (red triangles), without respiratory deaths (red asterisks), the base case (i.e., the complete dataset, black line), without veterinary interventions for respiratory disease (green plus marks), without interventions for snare wounds (green squares), and without any veterinary interventions (green circles). These values represent the modeling with 100% mortality in the absence of the veterinary interventions; assuming lower mortality would move the lines closer to the base case model. doi:10.1371/journal.pone.0019788.g002

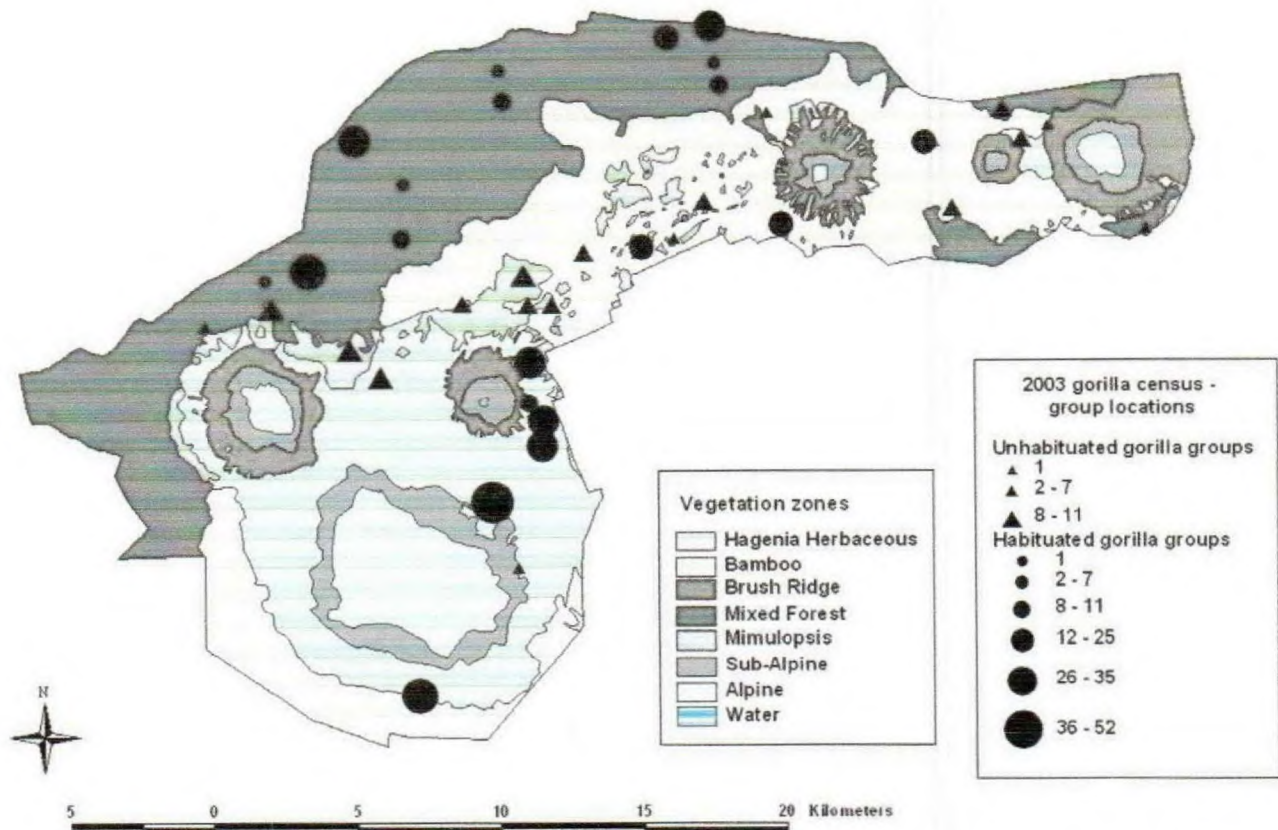


Figure 3. Distribution of the Virunga mountain gorilla groups in the 2003 census, and satellite mapping of vegetation zones throughout their habitat. The sizes of the circles and triangles indicate the total number of gorillas in each habituated and unhabituated group [18]. The dry weight biomass of foods consumed by gorillas was 74.3 g/m² for hagenia and herbaceous zones, 4.2 g/m² for bamboo, 15.4 g/m² for brush ridge, 19.3 g/m² for mixed forest, 18.8 g/m² for mimulopsis, and 25.0 g/m² for subalpine zones [35]. The alpine and water zones are not gorilla habitats.

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but if treatment had not been available and they had died, the predicted growth rate for the habituated groups would have dropped from $4.1\% \pm 0.088\%$ to $3.4\% \pm 0.066\%$ (Table 2). Veterinarians monitored seventeen outbreaks of respiratory disease affecting more than 245 gorillas in the habituated groups

(Table S3; Text S1, Section H). Forty-two gorillas were treated and 36 recovered (86%). If all 42 gorillas had died, the growth rate in habituated groups would have been $3.4\% \pm 0.068\%$ SD.

Additionally, the veterinarians have treated 28 habituated gorillas for other injuries and illnesses. If veterinary treatments

Table 1. Generalized linear mixed models for the potential effects of group size and biomass density upon the age of first parturition (P_1), offspring survival (I_{SURV}), and interbirth intervals with offspring that survive to reach weaning age (IBI).

Dependent variable	Independent variable	N_{DATA}	N_{MOM}	N_{GRP}	coefficient	standard		P
						error	t	
P_1	Group size	52	52	14	-0.004	0.016	-0.222	0.537
P_1	Biomass	52	52	14	0.002	0.012	0.157	0.869
I_{SURV}	Group size	276	110	19	-0.003	0.016	-0.204	0.838
I_{SURV}	Biomass	276	110	19	-0.003	0.009	-0.321	0.748
IBI	Group size	133	69	18	-0.196	0.083	-2.373	0.059
IBI	Biomass	133	69	18	0.027	0.052	0.516	0.748

The identity of the group was included as a random effect in all analyses. The identity of the mother was included as a random effect in the analyses of I_{SURV} and IBI, but not P_1 because that analysis involved only one data point per mother. N_{GRP} , N_{MOM} , and N_{DATA} are the number of groups, mothers, and total data points involved in each analysis. Although the relationship between group size and IBI is nearly significant, it is in the opposite direction of predictions for feeding competition. No significant results emerged from multivariate analyses, including when we added an interaction term (biomass/group size).

doi:10.1371/journal.pone.0019788.t001

Table 2. Time series analyses and Leslie matrix models for the growth rate of habituated groups.

	N	Rate \pm SE	Time series analyses	Leslie matrix models
Base case			4.1%	3.1%
Excluding deaths from:				
Poaching	26	0.0046 \pm 0.00023	4.6%	3.5%
Respiratory disease	16	0.0028 \pm 0.00021	4.5%	3.3%
Assuming death without veterinary interventions for:				
Snare wounds	42	0.0074 \pm 0.00034	3.4%	2.4% [2.8%]
Respiratory disease	42	0.0074 \pm 0.00022	3.4%	2.5% [2.8%]
Other	28	0.0050 \pm 0.00014	3.7%	2.8% [3.0%]
All	112	0.0198 \pm 0.00051	2.2%	1.4% [2.3%]

The base case used the actual data for survivorship and fertility throughout the study, without making any adjustments for any types of deaths or veterinary interventions. The additional cases excluded deaths from poaching or respiratory disease, and added deaths when gorillas received veterinary interventions. The rate per gorilla-year equals the number of those deaths or interventions (N), divided by the 5652 gorilla-years observed during this study. The standard errors (SE) for those rates are calculated among the calendar years observed. Numbers in brackets indicate Leslie matrix predictions of the growth rate if 50% of the gorillas treated would have died in the absence of veterinary treatment. See the Methods for estimates of other potential sources of uncertainty in the growth rates.

doi:10.1371/journal.pone.0019788.t002

had not been available, and all of the gorillas afflicted by snares, respiratory disease or other maladies had died instead, the time-series analyses indicate a growth rate of $2.2\% \pm 0.069\%$ for the habituated groups (Table 2). That growth rate would have been higher if some gorillas could have survived without interventions (e.g., see Text S1, Section D, Figure S2, and the values in brackets in Table 2), but treatment is typically withheld until conditions are considered life-threatening (Text S1, Section H). Thus, the time series analyses of habituated and unhabituated gorillas suggest that veterinary interventions could account for up to 40% of the difference between their growth rates (Figure 4). Given that demographic stochasticity and socioecological factors showed little or no influence on growth rates, we attribute the remaining difference (60% or more) between the habituated and unhabituated populations as resulting mainly from the increased protection provided by daily monitoring.

Discussion

This study is one of the most comprehensive investigations of factors influencing the growth rate of an endangered primate, made possible through intensive long-term management, monitoring and research [17,29,30]. In contrast with the sharp declines of other great ape populations, the Virunga mountain gorillas have sustained a 1% growth rate over the past four decades (Figure 1), but habituated gorillas have been growing at a higher rate than unhabituated gorillas ($4.1\% \pm 0.088\%$ growth versus $0.7\% \pm 0.059\%$ decline per year). Detection and veterinary treatment of illness/injury could account for up to 40% of the difference between the habituated versus unhabituated groups (Figure 4), so most of the remaining difference (60% or more) was likely to arise from increased protection against poachers. Therefore, daily monitoring of each habituated group contributed to most of the difference in growth rates, because it increased protection against poachers and it facilitated the veterinary program by spotting the ailments that have been treated.

Using data from long-term research, elasticity analyses suggest that conservation efforts should place more emphasis on improving survivorship than fertility, because fertility has less impact on population growth [31–34]. This conclusion is also

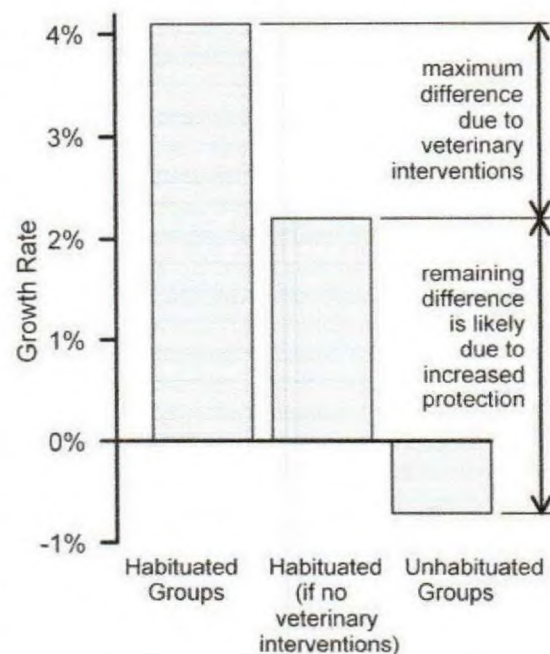


Figure 4. Time series analyses of growth rates under different management regimes. The first bar shows the growth rate for habituated groups, which received both continuous monitoring and veterinary treatment. The second bar estimates what the growth rate would have been for habituated groups, if they had been monitored continuously but did not receive veterinary care, and all afflicted gorillas had died instead. The difference between the first bar and second bar represents the maximum potential impact of veterinary interventions on the habituated gorillas (assumption of 100% mortality without interventions). The third bar shows growth rate for the unhabituated groups, which did not receive either continuous monitoring or veterinary treatment. The difference between the second bar and third bar shows what the impact of continuous monitoring could have been without veterinary interventions. Most of this difference was likely to arise from increased protection against poachers.

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supported by our results showing that conservation efforts to improve biomass density would have little or no impact upon female reproductive success (Table 1). The apparent lack of significant feeding competition over a wide range of habitats may suggest that all of the gorillas have relatively abundant food, and that the population is below their carrying capacity [35,36]. However some herbivores may not show evidence of density dependence until their ecosystem is highly altered and damaged [37,38], so careful monitoring of the gorilla habitat is warranted.

Concerns about the habituation of primates have increased in recent years because habituated animals can be more vulnerable to poachers and face greater risk of disease transmission [39,40]. Habituation and research have provided a detailed understanding of the gorillas that has been instrumental for the successful development of the ecotourism program [41]. Given their precariously small population, the mountain gorillas remain vulnerable to epidemics and armed conflicts, both of which have decimated other gorilla populations [39,42]. Habituated Virunga gorillas have occasionally been directly targeted and killed by humans, but the overall population was spared from far greater losses during the civil unrest because the gorillas are not traditionally eaten as bushmeat and because the economic value of ecotourism was recognized by the local communities and all parties involved in the political conflicts [17]. To reduce killing of gorillas, anti-poaching patrols should be improved, particularly in areas where the unhabituated groups range, and community-based programs should be expanded [4,43]. To minimize the threat of human pathogens and reduce the need for veterinary interventions, rules for visiting the habituated gorillas should be strengthened [44] and some gorilla groups should remain unhabituated (Text S1, Section I). Extreme conservation and more conventional approaches are both essential for maximizing the long-term growth of the Virunga mountain gorillas.

This study suggests that ecosystem-based conservation strategies are necessary, but may not be enough to prevent some population declines, even when intensively applied in a relatively small area. Habituation and close monitoring of primates is typically done for research purposes and this study is consistent with other reports of their benefits for conservation [45,46]. Disease management of endangered wildlife has often involved immunizations, rather than the cure of infected individuals as described in this study [47,48]. Additional extreme conservation approaches include the creation of habitat corridors to link isolated populations [49], modifying existing habitat (e.g., bridges and tunnels around roadways) [50], removal of predators or exotic species [51], ecotourism [52], provisioning [53], translocations [54], and at the most extreme, captive breeding [55]. The results of this study argue for wider consideration of extreme conservation measures in addition to ecosystem based approaches, but the optimal approach for saving each species will depend upon its socioecology, its population size, and the specific threats to its survival.

Extreme conservation methods will generally be more practical to implement when the remaining populations are small, terrestrial, the animals have relatively small home ranges, and they are relatively easy to locate. Similar to ecosystem-based conventional approaches, *in situ* extreme measures may benefit not only the target species, but indirectly improve conditions for other species living in the same habitat and for people living in the surrounding communities. In contrast, however, extreme conservation is more likely to alter the natural behavior or life history of a species, potentially disrupting natural selection by helping less fit individuals to survive, and even leading to new threats such as human induced disease [47,56]. Given these issues, it is necessary to evaluate whether it is more strategic to increase the intensity of

conventional ecosystem-based approaches or develop extreme methods, further emphasizing the need to monitor the effectiveness of strategies applied [1,2].

The implementation of most conservation programs has been limited by resources, and extreme measures can require more money and manpower than conventional approaches. The relative cost effectiveness of both approaches could influence the optimal distribution of conservation resources among and within species [57]. In a world where resources for conservation are finite, the channeling of resources toward one species is unavoidably done to the detriment of the conservation for other species. Until sufficient money is made available, conservationists will continue to be faced with the dilemma of devoting more resources to save a few species versus spreading resources too thinly to achieve success with any species [58]. Similarly, when focusing on a single population, spreading resources too thinly over a large area may reduce the likelihood of saving even a small area [59,60]. Conservationists even face trade-offs about whether to divert limited resources away from direct conservation activities in order to perform rigorous cost benefit analyses of their effectiveness [1]. The call for more resources is justifiably common [3,61], but if conventional ecosystem-based measures cannot succeed alone, then the need for additional resources could be far greater than typically anticipated. The extraordinary efforts needed to save the mountain gorillas may imply sobering prospects for some endangered species, but our results argue for the continued development of creative, cost-effective, and efficient approaches to conservation.

Methods

Ethics Statement

This research involved non-invasive work with wild non-human primates. All work was done in accordance with guidelines of the national authorities where the work occurred.

Study population

The size of the overall population (and the unhabituated gorillas) was measured during six censuses of the entire region from 1971–2003 (Figure 1a and Figure S3) [18]. Additional demographic data for births, deaths, and dispersal patterns of 668 gorillas are reported from 20 social units (groups and solitary males) that have been habituated by the Dian Fossey Gorilla Fund International Karisoke Research Center^a since 1967, along with 26 social units that have been habituated for tourism and monitored through the Ranger Based Monitoring programs of the three national park services (Text S1, Section A; Table S1). Gorillas are naturally afraid of humans and ‘habituated’ means that through repeated, neutral contact with humans, they exhibit normal behavior when people are in close proximity.

Overview of growth rate calculations

We examined the population growth rates from three perspectives: time series analyses (Text S1, Section C), Leslie matrix calculations (Text S1, Section B), and a dynamic individual based model (Text S1, Section D). The time series analyses provided the main basis for comparing the growth rates of habituated versus unhabituated gorillas, because it did not require data for vital rates (mortality and fertility) which were not available for unhabituated gorillas. We used Leslie matrix calculations to provide a longer-term perspective on the growth rate of habituated gorillas, and for elasticity analyses, and for future comparisons with other studies. We used the individual based dynamic model to evaluate demographic stochasticity and temporal variability in the age/class structure of habituated gorillas (Figure S3).

Leslie matrix calculations of the growth rate

We used Leslie matrix models to predict what the growth rate of the habituated groups would be if they maintained the specified mortality and fertility rates for several generations and equilibrated into a stable age distribution (Text S1, Section B). Mountain gorillas are not seasonal breeders so we used birth flow calculations, as in pages 23–25 of [23]. Each year of age was a separate stage in the models. Mortality probabilities (Q_x) for each age (x) were calculated as the number of deaths divided by the number of gorillas that reached that age (gorilla-years started). The survival probability (P_x) equaled $1 - Q_x$. Survivorship (L) to reach age x was calculated as the product of P_x from all preceding ages (Figure 2 and Figure S1).

To simulate what the growth rate would be without deaths from poaching or respiratory disease, we removed those reported deaths from the survivorship data. Data was censored at the age when the individual was last observed. To simulate what the growth rate would be without veterinary interventions, we added a death at each age when each of those interventions occurred. For example, if a female received veterinary treatment at age 20, but survived until age 30, we added another death to the life table at age 20, while retaining the subsequent data for the female. Results were similar when we removed all subsequent data for individuals after their treatments. For sensitivity studies of the impact of veterinary interventions, we adjusted the mortality probability for the ages when those events occurred, with the assumption of 25, 50, 75, and 100% mortality in the absence of veterinary care (Text S1, Section D; Figure S2).

Time series analyses of the growth rate

We used time-series calculations to quantify what the growth rate has actually been for both habituated and unhabituated groups, during each decade and throughout the entire study (Text S1, Section C). The growth rate was determined by starting with an initial number of gorillas and using Equation 1 to calculate the number of gorillas in each subsequent month:

$$N_i = [N_{i-1} * (1 + r_m)] + A_i \quad (1)$$

In that equation, N_i represents the number of gorillas in month “i”, N_{i-1} is the number of gorillas in the previous month, r_m is the monthly growth rate. The adjustment factor “ A_i ” equaled the number of gorillas that joined the specified groups during each month (e.g. through immigration or additional habituation), minus the number of gorillas that left those groups (e.g. through emigration). The time series analyses include both males and females, but the values for A_i do not account for the age or sex in which each adjustment occurred (Table S2). We used iterative calculations with the bisection method to find the value of r_m that enabled us to match the observed size of the habituated groups at the end of the study period [62]. The monthly growth rate was converted into an annual growth rate (r_a) using Equation 2, to account for monthly compounding.

$$(1 + r_a) = (1 + r_m)^{12} \quad (2)$$

To simulate what the growth rate would have been without deaths from poaching or respiratory disease, we subtracted the count of those deaths from the value of A_i in the year/month when they occurred. For example, if a poaching death occurred in December of 1974, we reduced the value of A_i by one gorilla for that year/month. To simulate what the growth rate would have been

without veterinary interventions, we added the number of those interventions to the value of A_i in the month when they occurred.

The overall population growth rate for unhabituated gorillas had an estimated standard deviation of $\pm 0.12\%$ due to uncertainty in their census counts (Figure S7), and a standard deviation of $\pm 0.059\%$ due to uncertainty in the fate of gorillas that disappeared from habituated groups^c. The convergence tolerance of the bisection method caused less than 0.0005% uncertainty in the estimated growth rates of habituated and unhabituated gorillas^c. The number of habituated gorillas was known exactly due to direct daily observations, so their growth rates had essentially no uncertainty from census counts. In Table 2, the “base case” population growth rate for habituated gorillas had an estimated standard deviation of $\pm 0.088\%$ due to uncertainty in the fate of gorillas that disappeared from their groups. Unless otherwise stated, the main text shows standard deviations that are based on uncertainty in the fate of gorillas that disappeared from habituated groups, but those results should be considered a lower limit for the overall uncertainty in the growth rates from time series analyses (Text S1, Sections C, D, J).

Individual-based dynamic model of demographic stochasticity

To estimate the potential magnitude of demographic stochasticity in the habituated groups, we converted the Leslie matrix model into an individual-based dynamic model, as in Section 15.1.2 of [23]. The initial group compositions (and subsequent habituation and dispersal) were fixed to match the age/sex classifications of the actual gorillas entering and leaving the habituated groups in each year. The model tracked each individual through the years of the study, using a random number generator for values between 0–1. For example, if a gorilla had survival probability (P_x) of 0.95 in a particular year of the simulation, then it survived until the next year unless the randomly generated number was greater than 0.95. The model generated a new random number each time it evaluated whether a gorilla would give birth or die in each year. The model included separate mortality data for adult males (to simulate the entire age/sex structure), but we assumed that males had no influence upon the birth rate. We used Equations 1 & 2 to convert the final number of gorillas into an annual growth rate.

Female reproductive success versus group size and biomass density

We used published data from vegetation sampling for the average biomass density of the home ranges of the research groups studied prior to 1993 [35,63,64]. We used three sets of data to determine the average biomass density for the home ranges of most groups monitored in the 1990s and 2000s (Text S1, Section E). First, we used previously reported data from vegetation sampling for the average biomass density of six vegetation zones (see the Legend in Figure 3). Second, we used data from satellite imagery to determine the distribution of those six vegetation zones throughout the Virungas (Figure 3). Third, we estimated the home range of each group using GPS points of their daily locations throughout 2004. The average biomass density of a group equaled the proportion of time that the group spent in each vegetation zone, multiplied by the biomass density for each respective zone. Detailed ranging data was not available for four groups so we assumed that their biomass density was similar to other groups whose home range had a similar location.

Analyses for the age of first parturition were limited to data points in which the age of the mother and her first offspring were

both in known to within 15 days (Figure S4). Similarly, the analyses of interbirth intervals (IBI) were limited to data points in which the beginning and end of the interval was known to within 15 days. The dependent variable for offspring survival equaled "1" when an offspring survived to reach age three, and "0" when it did not. Analyses of offspring survival were limited to data before 2006, because the study ended before we could fully evaluate the survival of subsequent offspring. To focus on the potential effects of feeding competition, the analyses of offspring survival also excluded infants that were killed by poaching or infanticide (Figure S5). The analyses of IBI and offspring survival do not include primiparous mothers, who have shown lower reproductive success than multiparous females [65].

Analyses of offspring survival were done using generalized linear mixed models (GLMM) with a binomial error distribution, by specifying that "family = binomial" in the "lmer" function of the "lme4" package developed for R (Version 2.7.0, R Development Core Team 2008, <http://www.R-project.org>). Analyses of IBI and the age of first parturition were also done using GLMM, but with a Gaussian error distribution because the response variable was continuous rather than dichotomous. The lmer function does not report p-values for analyses with a Gaussian error distribution, so we estimated those p-values using a bootstrap procedure with 10,000 iterations.

Supporting Information

Figure S1 Survivorship curves for male (triangles) and female (circles) mountain gorillas, depending upon whether unexplained disappearances were due to dispersal (filled symbols with lines) or deaths (open symbols without lines).

(TIF)

Figure S2 Predicted growth rates for all habituated groups if gorillas had died instead of receiving veterinary care for snares (triangles), respiratory diseases (circles), both (plus-marks), "other" (squares, see Methods for which interventions are included in this category), or all three categories of interventions (x-marks). The x-axis represents the assumed probability that a gorilla would have survived to complete the year of age in which it received such veterinary care, if the care had not been provided.

(TIF)

Figure S3 Proportion of immature gorillas (black circles), adult females (red triangles), and adult males (blue squares) in the habituated groups. Solid lines are the average values from 1000 simulations with the individual-based dynamic model. The dashed lines represent the stable age structure that would arise if survivorship and fertility remained fixed for several generations without exchanges between the habituated versus unhabituated groups.

(TIF)

Figure S4 Quantile plots for the age of first parturition (circles), interbirth intervals when an offspring survives to reach age three (asterisks), and interbirth intervals when the offspring dies (triangles). Sample sizes are 52, 133, and 73 respectively. Smoothed curves are from regressions of logit(quantile) versus ln(time).

(TIF)

Figure S5 Survivorship curves for all 460 infants born during this study (black), and excluding six infanticide deaths during group disintegrations after the dominant silverback died (red), and excluding 31 deaths from

poaching or known/suspected cases of infanticide (blue).

(TIF)

Figure S6 Elasticity of the growth rate to female fertility (triangles) and survival (circles) as a function of age. In the main text, the elasticity for fertility equals the sum of the values at each age shown here. The elasticity for immature survival equals the sum of the values at each age from 0–7, and the elasticity for adult females equals the sum of the values from ages eight upward.

(TIF)

Figure S7 Negative binomial distributions for the probability that a specified number of gorillas were missed in the 1972 census (triangles) and the 2003 census (diamonds). For example, the negative binomial distribution function showed a 3% probability that exactly seven unhabituated gorillas were missed in the 1972 census.

(TIF)

Table S1 Summary of the social units (groups and solitary males) that have been habituated for research (1a) and tourism (1b) in each country (Rw = Rwanda, DRC = the Democratic Republic of Congo). Some groups have ranged outside the country where they are listed. For example, Beetsme's group has ranged in both Rwanda and the DRC, and the Nyakagezi group has ranged in the DRC, Rwanda, and Uganda. First, last, and total years of observation for each group, as well as the proportion of months that the group was multimale (versus one-male). Number of gorilla-years and adult-female years observed, and total number of gorillas (average, minimum, and maximum) per group. Number of total births, and deaths, and unexplained disappearances (unex).

(DOC)

Table S2 Summary of changes in the number of gorillas in habituated groups. The immigrations and emigrations show only exchanges between the habituated and unhabituated groups, not among the habituated groups. The total number of changes (702) exceeds the total number of gorillas in the database (668) because some individuals have moved between the habituated and unhabituated groups more than once.

(DOC)

Table S3 Respiratory outbreaks monitored by the Mountain Gorilla Veterinary Program (MGVP) between 1986 and 2008.

(DOC)

Text S1 Supporting Information.

(DOC)

Acknowledgments

We thank the governments of Rwanda, Democratic Republic of Congo, and Uganda for their steadfast commitment to conserving the mountain gorillas and their transboundary collaboration. We are greatly indebted to the local rangers, guides, field assistants, and staff who have worked tirelessly to protect the gorillas as well as collect the data used in this study. These men and women have shown extraordinary commitment to work during dangerous times, and approximately 100 staff members have been killed while working to protecting the gorillas.

The Karisoke Research Center is a project of the Dian Fossey Gorilla Fund International (DFGI). DFGI thanks the Rwandan government and national park authorities for their long-term commitment to gorilla conservation and their support of the Karisoke Research Center. DFGI is greatly indebted to the many Karisoke field assistants and researchers for their work in collecting demographic data over the past 40 years and to

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[REDACTED] Country Coordinator: MGVP/USAID/PREDICT Program/RWANDA.

[REDACTED] Field Veterinarian In charge of Nyungwe National Park, RWANDA
DEVELOPMENT BOARD/ TOURISM & CONSERVATION.

[REDACTED] Veterinary Practitioner with Ministry of Agriculture and Animal
Husbandry (National Agricultural Advisory and Delivery services) in
Kisoro District, Uganda.

[REDACTED] Technical Representative of Quality Chemicals Uganda limited, Western
Uganda.

[REDACTED] Visiting Assistant Lecturer/Department of Wildlife and Aquaculture
Faculty of Veterinary Medicine, Umutara Polytechnic.

[REDACTED] In-charge of Kampala Animal Clinic and Kennel club.

EXECUTIVE POSITIONS HELD, SCIENTIFIC SOCIETIES

[REDACTED] Coordinator-Rwanda Small Mammal Group.

[REDACTED] Bats conservation Africa, Member

[REDACTED] UCN Wildlife health specialist, member

Student Co-supervision

HONOURS STUDENTS: [REDACTED] one student. [REDACTED] 5 students.

Invited specialist contributions and other scientific activities

- 1998: Attended Intensive Course on Introductory to the use of Computers training.

- 2002: Participation in the scientific researchers' workshop from Bwindi Impenetrable National Park, Presented Bachelor's degree thesis partial results: At white Horse Inn, Kabale, Uganda.
- 2008: Training in Geographic Information Systems (GIS) organized by National University of Rwanda at Kitabi, Rwanda.
- 2008: Participated in First Aid Training for wildlife managers in Nyungwe National Park: Rwanda.
- 2009: Participated in the Envirovet Course in Florida and Georgia and then Tanzania organized by ENVIROVET SUMMER INSTITUTE, UNIVERSITY OF CHICAGO AND UNIVERSITY OF FLORIDA, Focusing on wildlife management, domestic animal and human interactions, problems and mitigation impacts.
- 2009: Participated in the training on biodiversity sampling and data management techniques, organized by Wildlife Conservation Society for wildlife managers, in Nyungwe National Park: Rwanda.
- 2009: Participated in the training in Wildlife Management and Restraint Techniques in Akagera National Park; Rwanda.
- 2010: Lecturer and facilitator of USAID/PREDICT (Wildlife Zoonotic diseases surveillance program) protocols to the wildlife field veterinarians in Rwanda and Democratic Republic of Congo.
- 2011: Participated in the Regional USAID/RESPOND Training on leadership skills for the One Health For East and Central Africa (OHCEA) - in Kigali, Rwanda.
- 2011: Participated in the 19th Regional OIE meeting for the commission of Eastern Africa in Kigali, Rwanda.
- 2011: Participated in the W.I.L.D – RESPOND training in Akagera National Park, Rwanda.
- 2011: Presenter (Poster session) on 'The role of Mountain gorilla veterinary project in mitigating the zoonotic wildlife diseases in Rwanda' in the 1st Congress on Pathogens at the Human- Animal Interface: Impact, Limitations for Developing countries in Addis Ababa, Ethiopia.
- 2011: Member of the IUCN Wildlife Health Specialist Group.(Joined)
- 2009 - 2011: Visiting Lecturer on Topics: Wildlife Diseases and Wildlife Nutrition: in Kitabi College of Conservation and Environmental Management- Kitabi, Rwanda.
- 2011: Participated in the Annual Conference of American Association of Zoo Veterinarians (AAZV) in Kansas city- Missouri, USA: and International member of AAZV.
- 2011: Participated in the Safe capture Course- Anesthesia and immobilization of wildlife in Laurel, Maryland, USA
- 2011: Participant in the 1st Congress on Pathogens at the Human- Animal Interface: Impact, Limitations for Developing countries in Addis Ababa, Ethiopia.
- 2013: Participant in the Annual Meeting of USAID/PREDICT (wildlife zoonotic diseases surveillance program): representing Rwanda: In Rome, Italy.
- 2013: Presenter (Poster session) on 'Predicting the emergence and mitigating the spread of wildlife zoonotic diseases in Rwanda' in the 2nd Congress on Pathogens at the Human- Animal Interface: Impact, Limitations for Developing countries in Recife, Brazil.
- 2013: Member of the Bats Conservation Africa Network: Participant in the founding and launch in Naivasha, Kenya.
- 2011-2017: Supervision and participation in molecular laboratory analysis of wildlife samples: cDNA and RNA extraction on bats, rodents and primates samples for viral pathogens of emerging infectious diseases: In Wildlife Virology Laboratory: Kigali: Rwanda
- 2014 : Participation in the processing and validation of Rwanda National Epidemic control and Prevention Plan
- 2015: Participant in the 3rd International Congress on Pathogens at the Human- Animal Interface (ICOPHA1 2015): One Health for sustainable Development, in Chiang Mai, Thailand
- 2016 : Participant of Panel for One Health at the frontline in the conference for Consortium for Global Health Universities, April ,San Francisco, USA
- 2017: Presenter at Research symposium :Research around National Parks, Rwanda Development board

- 2017: Presenter and participant at One health Zoonotic Diseases workshop OH-SMART workshop, Rwanda

Collaborative work in progress or in preparation for publication

1. Mountain Gorilla Veterinary Project PREDICT Program-Rwanda: Coordinator: USAID Funded program focussing on the Wildlife zoonotic diseases surveillance, involving sampling of Bats, Rodents and Primates: Molecular laboratory analysis for broad species specific zoonotic viral families that are potentially pandemic. Confirmed Results and preliminary results in progress with the five-year program winding up in 2014 Sept.: Manuscripts are in progress:

- Study of viral diversity in Bats of Rwanda; Diversity at human-wildlife interface and a call for One Health approach. Publication 2018.
- Prevalence of Factors associated with non-malaria febrile illness in Patients in community around Volcanoes National Park, Rwanda.

2. Rwanda Bats checklist: Developed with National Museum of Kenya (Paul Webala) and BCI (Cullen Geiselman) Data collection in progress and publication soon after.

4. Identification of ectoparasites in bats species of Rwanda: Implications for diseases: Developed in collaboration with MGVP/PREDICT, National Museum of Kenya and western Kentucky University.

Theses

Julius Nziza (2003). Prevalence of *Sarcoptes scabiei* infections in the human population and dogs living around Bwindi Impenetrable National Park in Kisoro District, Bachelors Degree thesis, Faculty of Veterinary Medicine, Makerere University.

Julius Nziza (2017) Factors associated with non-malaria acute febrile illness among patients in the local communities around Volcanoes National Park (MPH 2017)



MOUNTAIN GORILLA VETERINARY PROJECT CENTRE VÉTÉRINAIRE DES GORILLES DE MONTAGNE

EMPLOYMENT CONTRACT

MGVP Inc. Predict Country Coordinator, RWANDA, Africa

Contract date: October 1st 2011 - Sept 31st 2018

THIS EMPLOYMENT AGREEMENT ("Agreement") is entered into by and between MGVP, Inc., ("Employer"), and JULIUS NZIZA ("Employee").

Employer desires to employ Employee, and Employee desires to be employed by Employer. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1. Term of Employment

Employer hereby agrees to employ Employee, and Employee hereby accepts employment with Employer, upon the terms set forth in this Agreement, for the period commencing on October 1st 2011 ("Commencement Date") and ending on September 31st 2018 ("Employment Period"), unless sooner terminated in accordance with the provisions of this Agreement.

2. Title; Capacity. Obligations

Employee shall serve as **PREDICT Country Coordinator -RWANDA**

2.1 Obligation of the Employee

The employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon; To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees' dignity; To respect rules prescribed by the Project; and To work with other employees as a team.

2.2 Obligations of the employer

The employer declares:

To pay the employee the agreed remuneration regularly and in due time; To give to the employee the agreed work, under those conditions, at the time and in accordance

MGVP, Inc.
EXECUTIVE DIRECTOR

CHAIRMAN OF THE BOARD

PRESIDENT

MINISTER

ADVISORY BOARD

ghem

REGIONAL HEADQUARTERS

U. S. HEADQUARTERS

MGVP, Inc.
PO Box 357
Davis, CA 95617
-and-
1878 Mansion House Drive
Baltimore, MD 21217
Phone: 443-552-3388

MOUNTAIN GORILLA ONE
HEALTH PROGRAM

Wildlife Health Center
UC Davis
1 Shields Ave.
Davis, CA 95617

Kirsten Gillerdi
MGOH Director

410-917-7666
530-752-4895 Gillerdi

Tax ID #06-1752353

UGANDA OFFICE

WARM (Wildlife and Animal
Resources management)

- 5.2. At the election of Employer, for cause, immediately upon notice by Employer to Employee. For the purposes of this Section 5.2, a termination "for cause" shall include, but not be limited to, a termination for any of the following (including any act or omission which gives rise to any of the following:
- a) Except for those action set forth in Section 5.2(c) below, Employee breaches or neglects the primary duties that Employee is required to perform under the terms of this Agreement, after receiving a warning by Employer of the consequences of such actions and failing to cure within a period of two (2) days after receiving such warning;
 - b) Employee commits a dishonest act toward Employer;
 - c) Employee breaches Section 7 and 8 hereof, engage in any criminal conduct or violate any law.
- 5.3. Upon the death or thirty (30) days after the disability of Employee. As used in this Agreement, the term "disability" shall mean the inability of Employee, due to a physical or mental disability, to perform the essential functions of his position, with or without reasonable accommodation. A determination of disability shall be made by a physician satisfactory to both Employee and Employer, provided that if Employee and Employer do not agree on a physician then these two together shall select a third physician, whose determination as to disability shall be binding on all parties.
- 5.4. At the election of Employee, upon not less than sixty (60) days prior written notice of termination.
- 5.5. At the election of Employer, without cause, at any time for any reason or no reason, upon not less than sixty (60) days prior written notice of termination.

6. Effect of Termination

- 6.1. Termination for Cause, at Election of Employee or Upon Disability. In the event Employee's employment is terminated for cause pursuant to Section 5.2, upon disability pursuant to Section 5.3, or at the election of Employee pursuant to Section 5.4, Employer shall pay to Employee the compensation otherwise payable to him under Section 3 through the last day of his actual employment with Employer.
- 6.2. Termination without Cause. In the event Employee's employment is terminated pursuant to Section 5.5, without cause, except as described in Section 6.4 below, Employer shall pay Employee the compensation owed to him under Section 3 through the remainder of the Employment Period.
- 6.3. Termination for Death. If Employee's employment is terminated by death pursuant to Section 5.3, Employer shall pay the estate of Employee his earned but unpaid salary through the last day of actual employment.
- 6.4. Project Termination. In the event the Project is discontinued for any reason prior to the expiration of the term of this Agreement, the financial obligations of the Employer cease on the date of Project termination.

7. Waiver, Release and Indemnification

Employee acknowledges, agrees and understands that there are, or may be, risks, hazards and dangers attendant to Employee's employment on the Project. Employee willingly assumes such risks, hazards and dangers as his responsibility, and (individually, and on behalf of his heirs, successors, personal representatives, administrators and assigns) waives, releases, indemnifies and agrees to save, defend and hold harmless Employer, its officers, trustees, agents and employees, to the fullest extent permitted by law, from and against, any and all losses, claims, damages, liabilities or actions connected with Employee's position and employment with Employer (including, without limitation, all medical treatment rendered or secured for Employee in the event of need); and for any death, injury, accident, property damage or personal loss to Employee resulting directly, indirectly or otherwise, including without limitation, acts of war, terrorism, weather, defects in vehicles, breakdowns of equipment, animal attacks, strikes, theft, or delay or changes in itinerary or schedule.

- 7.1 The parties agree that nothing in this section, or Agreement in general, shall constitute a waiver by Employee of Employee's right to seek benefits for injury covered by workers' compensation.

8. **Amendment**

This Agreement may only be amended or modified by a written instrument executed by both Employer and Employee.

9. **Miscellaneous**

- 9.1. No delay or omission by Employer in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by Employer on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.
- 9.2. The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.
- 9.3. In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.
- 9.4. For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Uganda, internal rules and regulations of the employer, and the employee's job description. By signing this contract, employee acknowledges that he has received a copy of employer's internal rules and regulations and his/her job description.

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement

Julius Nziza ,DVM
PREDICT Country Coordinator

Michael R. Cranfield, DVM
MGVP Project Director

Date


Date Oct 31/11

Name: NOHELI Jean [REDACTED]

Address: [REDACTED]

Cell: [REDACTED]

E - mail: [REDACTED]

PROFILE SUMMARY

I have served gorillas doctors staff since I graduated from veterinary school and was involved in different capacities such as regional laboratory management which included processing , running and backing biological samples and management of veterinary supplies, Assisting researchers on sample collection and processing and helping local veterinary interns and Field veterinarian which also include assessment and management of health issue with mountain gorillas and other wildlife in and around Volcanoes National Park.

COMPUTER SKILLS:

MS Office, data analysis using SPSS, R software and QGIS

LANGUAGE ABILITY:

EDUCATION

I am now pursuing a Masters degree in wildlife health and management of [REDACTED] University.

I am holder of a BSc degree in veterinary medicine Issued by High institute of Agriculture and Animal Husbandry (Now University of [REDACTED] in the year [REDACTED]

PROFESSIONAL PLACEMENT

Field veterinarian at Mountain Gorillas Veterinary Project/Gorilla doctors

Duties:

Veterinary care of the mountain gorillas, and other species in Volcanoes National Park



PROJET VÉTÉRAIRE DES GORILLES DE MONTAGNE
MOUNTAIN GORILLA VETERINARY PROJECT, INC.

Regional Headquarters and Field Veterinary Office, Musanze, Rwanda

EMPLOYMENT CONTRACT

Between

MOUNTAIN GORILLA VETERINARY PROJECT, INC. hereinafter referred to as the
"employer", which administers the Mountain Gorilla Veterinary Project, hereinafter
referred to as the "Project",

And

Jean Bosco NOHERI of _Rwandan_ Nationality

And Resident at _____Cell Ruhengeri__Sector Musanze_District

Having identity n° _____ or passport n° _____

Delivered at _Ruhengeri_ on January 2017__ hereinafter referred to as the
"employee";

The following has been agreed up on in conformity with the Rwandan labor
law:

Article 1: Nature of the contract

The present contract is an employment contract, where the employee shall
be appointed as the **Field Veterinarian of** the Project. His/her attributions are
detailed in the attached job description. The employee is responsible of his/her
acts. The employer is not responsible for the professional misconduct done by the
employee in the exercise of his/her functions.

Article 2: Duration of the contract

The present contract shall run as an open contract. It shall come into force on__Jan 2017

Article 3: Leave

The employee is entitled to annual leave (vacation), at a base of one day and half per month, or 18 work days per year, which shall be made available to the employee after one year of employment.

If the contract is terminated before the employee takes his/her due annual leave, or the employee does not take his/her annual leave in the contract year, a payment for the unused annual leave will be offered.

Other incidental/occasional leaves shall include maternity leave, wedding, and death of a relative, holiday leave, and sick leave, shall be approved by the employer.

For every leave except sick leave, the employee has to make a written demand at least one week in advance to the employer which must be approved in writing.

All employees will automatically be given off all public holidays recognized by the Rwandan Labor law.

Article 4: Salary

The salary is fixed at \$13000 per year. The said salary shall be inclusive of transport, housing, and communication fees.

Every payment shall be done in Rwandese Francs (FRW).

Article 5: Obligation of the Employee

The employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon;

To respect the employer's or his/her deputies' orders when given so as to have the work done;

To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees' dignity;

To respect rules prescribed by the Company, its branch or the place where he/she is to do his work;

To give back in good order to the employer, tools and remaining raw materials that have been given him or her; and

To work with other employees as a team.

Article 6: Obligations of the employer

To pay the employee the agreed remuneration regularly and in due time;

To give to the employee the agreed work, under those conditions, at the time and place agreed;

To ensure health care of the employee in accordance with employer's practices from time to time; this shall not include illnesses or diseases that require continuous health care.

To supervise the employee and confirm that the work is done correctly.

Article 7: Termination of contract

The present contract can be terminated before the end of duration if one of the parties requires so, preceded by a written notice. The notice is fixed to one month.

However, due to misconduct manifested by either party and after explanations given by the employee to the facts which manifested the misconduct, the concerned party shall terminate the contract without notice immediately after

informing the inspector of labor. This condition also holds true for employees under probation contract.

The lack of funds for MGVP is a justifiable reason of termination of the contract.

However, probation employment contracts may be terminated without notice in the probation period if an employee commits gross misconduct. The employee must be notified within 48 hours of the misconduct in the presence of two witnesses or by a behalf.

Article 8: Transitional clause

For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Rwanda, internal rules and regulations of the employer, and the employee's job description. By signing below, employee acknowledges that he has received a copy of employer's internal rules and regulations and job description.

Done in Musanze on the: January 2017.

For and on behalf of the
Employer Mike Cranfield

Employee Jean [REDACTED] Koberi

CURRICULUM VITAE

NZAYISENGA Gaspard

August, 2017

EDUCATION

Bachelor's degree of veterinary medicine.

University/ University of

High school diploma/ Biology and chemistry

Groupe scolaire

Ordinary level certificate

Groupe scolaire

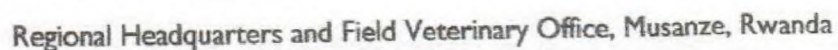
EMPLOYMENT HISTORY

July 2015 -
Present

Field veterinarian, Mountain Gorilla Veterinary Project/Gorilla
Doctors

Responsibilities:

- Perform routine visual monitoring of the health status of the mountain gorillas.
- Perform medical interventions, in a field situation in the Mountains of Rwanda (and potentially Democratic Republic of Congo and Uganda, and Bwindi Impenetrable National Park in Uganda).
- Provide the veterinary care of confiscated wildlife, including mountain gorillas, and other species
- Assist in complete and detailed post mortem examinations on gorillas (and other wildlife)
- Utilize the Internet-assisted Management Program to Assist Conservation Technologies ("IMPACT").
- Keep accurate medical records and prepare SOAPs and other reports
- Participate in opportunities to organize field training sessions for veterinary students from university of Rwanda in domestic and farm animals.
- Initiate and conduct approved research studies in collaboration with the Project Director
- Assist in data collection for other projects and research approved by the Project.



Regional Headquarters: B.P. 115, Musanze, Rwanda, CENTRAL AFRICA
International Headquarters: Maryland Zoo in Baltimore, Druid Hill Park, Baltimore, MD, USA

To give to the employee the agreed work, under those conditions, at the time and place agreed;

To ensure health care of the employee in accordance with employer's practices from time to time; this shall not include illnesses or diseases that require continuous health care. MGVP will pay for the third category of CORAR yearly and the 10% co pay to a maximum upon receipt of legitimate bills from the recognized health institution.

To supervise the employee and confirm that the work is done correctly.

Article 8: Termination of contract

The present probation contract can be terminated before the end of duration if one of the parties requires so, preceded by a written notice. The notice is fixed to one month.

However, due to misconduct manifested by either party and after explanations given by the employee to the facts which manifested the misconduct, the concerned party shall terminate the contract without notice immediately after informing the inspector of labor.

The lack of funds for MGVP is a justifiable reason of termination of the contract.

However, probation employment contracts may be terminated without notice in the probation period if an employee commits gross misconduct. The employee must be notified within 48 hours of the misconduct in the presence of two witnesses or by a bailiff.

Article 9: Transitional clause

For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Rwanda, internal rules and regulations of the employer, and the employee's job description. By signing below, employee acknowledges that he has received a copy of employer's internal rules and regulations and job description.

Done in Musanze on the 25th July, 2015

For and on behalf of the Employer

Mark Crawford



Employee

Gaspard

NGAYISENEA

CURRICULUM VITAE

I. IDENTITY

1. First name: Methode

Last name: BAHIZI

2. Father's names: [REDACTED]

3. Mather's names: [REDACTED]

4. Date of birth: [REDACTED]

5. Place of birth: [REDACTED]

6. Place of residence: [REDACTED]

7. Nationality: [REDACTED]

8. Civil status: [REDACTED]

9. Contact mobile no. [REDACTED]

E-mail address: [REDACTED]

II. EDUCATION

✓ **Certificate: Principles of Biobanking**

Faculty of Science, Technology and Communication Universite du [REDACTED]

✓ **Bachelor of Veterinary Medicine,** [REDACTED]

Umutara [REDACTED]

✓ **Advanced Diploma in Animal Health Science,** [REDACTED]

Higher Institute of Agriculture and Animal Husbandry (ISAE)

✓ **A2 Diploma,** [REDACTED]

Ecole Agri Veterinaire de [REDACTED]

✓ **Ordinary Level Completion** [REDACTED]

Ecole Agri Veterinaire de [REDACTED]

✓ **Primary School completion,** [REDACTED]

[REDACTED] Primary School



PROJET VÉTÉRINAIRE DES GORILLES DE MONTAGNE
MOUNTAIN GORILLA VETERINARY PROJECT, INC.

Regional Headquarters and Field Veterinary Office, Musanze, Rwanda

EMPLOYMENT CONTRACT

Between MGVP INC., hereafter referred to as the "employer", which administers the Mountain Gorilla Veterinary Project, hereinafter referred to as the "Project",

And METHUSE BAHIZI, of Rwandan Nationality

And Resident at [REDACTED]

Having identity n° [REDACTED]

Delivered at MUSANZE on 14th 2016 hereinafter referred to as the
"employee";

The following has been agreed on in conformity with the Rwandan labor law:

Article 1: Nature of the contract

The present contract is an employment contract, where the employee shall be appointed as the REGIONAL LABORATORY TECHNICIAN Rwanda, of the Project. His/her attributions are detailed in the attached job description. The employee is responsible of his/her acts. The employer is not responsible for any professional misconduct done by the employee in the exercise of his/her functions.

Article 2: Duration of the contract

Employer hereby agrees to employ Employee, and Employee hereby accepts employment with Employer, upon the terms set forth in this Agreement, and in the MGVP, Inc. Internal Rules & Regulations (appended herein) for an unlimited period commencing on FEBRUARY 1ST, 2016 ("Commencement Date") subject to renewal based on performance and available funding, unless sooner terminated in accordance with the provisions of this Agreement.



PROJET VÉTÉRINAIRE DES GORILLES DE MONTAGNE
MOUNTAIN GORILLA VETERINARY PROJECT, INC.

Regional Headquarters and Field Veterinary Office, Musanze, Rwanda

EMPLOYMENT CONTRACT

Between MGVP INC., hereafter referred to as the "employer", which administers the Mountain Gorilla Veterinary Project, hereinafter referred to as the "Project",

And NISTHANE BAHIZI, of Rwandan Nationality

And Resident at [REDACTED]

Having identity n° [REDACTED]

Delivered at MUSANZE on 14th 2016 hereinafter referred to as the
"employee";

The following has been agreed on in conformity with the Rwandan labor law:

Article 1: Nature of the contract

The present contract is an employment contract, where the employee shall be appointed as the REGIONAL LABORATORY TECHNICIAN, Rwanda, of the Project. His/her attributions are detailed in the attached job description. The employee is responsible of his/her acts. The employer is not responsible for any professional misconduct done by the employee in the exercise of his/her functions.

Article 2: Duration of the contract

Employer hereby agrees to employ Employee, and Employee hereby accepts employment with Employer, upon the terms set forth in this Agreement, and in the MGVP, Inc. Internal Rules & Regulations (appended herein) for an unlimited period commencing on FEBRUARY 1st, 2016 ("Commencement Date") subject to renewal based on performance and available funding, unless sooner terminated in accordance with the provisions of this Agreement.

To respect rules prescribed by the Company, its branch or the place where he/she is to do his work;

To give back in good order to the employer, tools and remaining raw materials that have been given him or her; and

To work with other employees as a team.

To pay all debts owed to MGVP, Inc. at the time of leaving, including loans and salary advances.

Article 6: Obligations of the employer

To pay the employee the agreed remuneration regularly and in due time;

To give to the employee the agreed work, under those conditions, at the time and place agreed;

To ensure health care of the employee in accordance with employer's practices from time to time; this shall not include illnesses or diseases that require continuous health care. MGVP will pay (for or equal to) the health insurance of that year in Rwanda and the 10% co pay to a maximum upon receipt of legitimate bills from the recognized health institution.

To supervise the employee and confirm that the work is done correctly.

Article 7: Termination of contract

The present contract can be terminated before the end of duration if one of the parties requires so, preceded by a written notice. The notice is fixed to one month.

However, due to misconduct manifested by either party and after explanations given by the employee to the facts which manifested the misconduct, the concerned party shall terminate the contract without notice immediately after informing the inspector of labor. This condition also holds true for employees under probation contract.

The lack of funds for MGVP is a justifiable reason of termination of the contract.

However, probation employment contracts may be terminated without notice in the probation period if an employee commits gross misconduct. The employee must be notified within 48 hours of the misconduct in the presence of two witnesses or by a bailiff.

Article 8: Transitional clause



For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Rwanda, internal rules and regulations of the employer, and the employee's job description. By signing below, employee acknowledges that he has received a copy of employer's internal rules and regulations and job description.

Done in KIGALI on the February 1st 2016

For and on behalf of the Employer



Employee_

Methode BAHIZI
[Signature]

CURRICULUM VITAE

Jean [REDACTED] TUMUSHIME

[REDACTED] Agriculture Board, Virology Building

Mountain Gorilla Veterinary Project-Gorilla Doctors-PREDICT

Tel: [REDACTED]

E-mail: [REDACTED] or jeanclaude@gorilladoctors.org

Educational Background

Institution	Award	Year
[REDACTED] Polytechnic	Bachelor 's degree in veterinary medicine	[REDACTED]
Groupe Scolaire [REDACTED] [REDACTED]	High School Certificate	
[REDACTED] High School	Result slip	

Areas of Interest

- Wildlife Disease ecology and Conservation medicine
- Wildlife Management and Conservation
- Human-Wildlife Interactions

July 2015 to Date: Field veterinarian and Laboratory Technician for Gorilla Doctors-USAID Emerging Pandemic threat (EPT)-PREDICT 2

Responsibilities

- Collecting biological samples from wildlife and domestic animals at high-risk wild-domestic-human interfaces, from various animals including but not limited to rodents and shrews, bats living in caves and in human dwellings, trees and non-human primates(gorillas, chimpanzees, monkeys, baboons) that live in and around National Parks(Nyungwe National Park, Volcanoes National Park and Akagera National Park).
- Processing and testing biological samples from wild and domestic animals for viral pathogens of potential pandemic threat using molecular techniques.

- **June 12-13, 2014:** Workshop on Ranger Based Monitoring tool in the Virunga-Bwindi Region of East-Central Africa: A Data Collection Tool for Park Management held in Musanze-Rwanda.
- **April 24-25, 2014:** Workshop on managing wildlife outside protected areas case of Akagera National Park held in Kigali-Rwanda.

April 2014 to January 2015: Volunteer and Intern at Mountain gorilla veterinary project/ Gorilla Doctors

Responsibilities

- Assisted in performing health monitoring and clinical interventions, on habituated critically endangered mountain gorillas.
- Participated and assisted in release of ensnared wild animals in and outside Volcanoes National Park-Rwanda.
- I participated in the rabies vaccination program on dogs and cats around Volcanoes National Park (VNP) a home of mountain gorillas and other wildlife.
- I volunteered with The Grey Crowned Cranes Project in Rwanda, where we sensitized local communities on how to conserve these birds and stop their illegal trading.
- I participated and assisted in making an inventory of all captive cranes in Rwanda.
- I participated and assisted in the reintroduction of cranes from captivity to their natural habitat at the Akagera National Park.

SKILLS AND LANGUAGE PROFICIENCIES

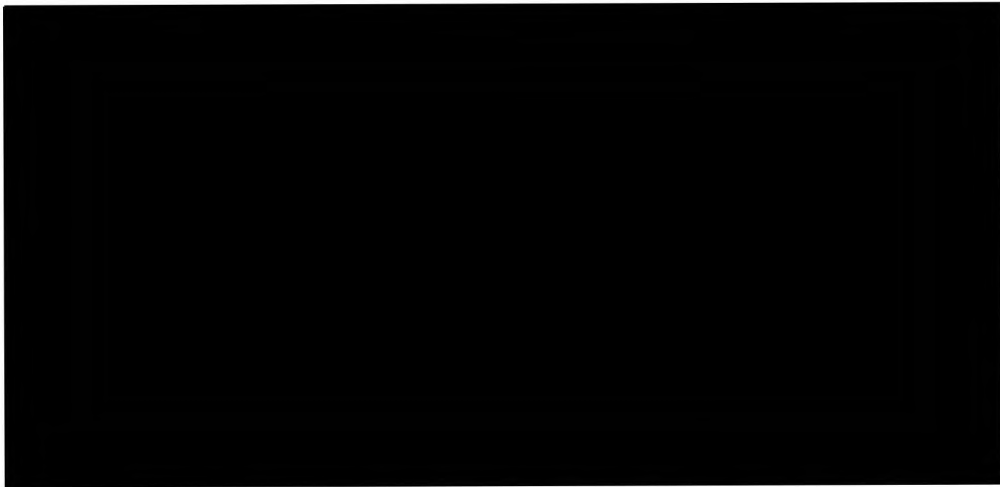
- Computer literate: MS Word, MS Excel, MS PowerPoint.
- Languages: [REDACTED]
Kinyarwanda [REDACTED]

MEMBERSHIPS

- East African Bat Network.
- Rwanda wildlife Association.
- African Primatological Society

References







PROJET VÉTÉRINAIRE DES GORILLES DE MONTAGNE
MOUNTAIN GORILLA VETERINARY PROJECT, INC.

Regional Headquarters and Field Veterinary Office, Musanze, Rwanda

EMPLOYMENT PROBATION CONTRACT

Between

MOUNTAIN GORILLA VETERINARY PROJECT, INC. hereinafter referred to as the
"employer", which administers the Mountain Gorilla Veterinary Project, hereinafter referred
to as the "Project",

And

JEAN CLAUDE TUMURAHINE of Rwanda Nationality

And Resident at _____ Cell [REDACTED] Sector GATUNDA District

Having identity n° [REDACTED] or passport n° _____

Delivered at GATUNDA on _____ hereinafter referred to as the
"employee";

The following has been agreed up on in conformity with the Rwandan labor law:

Article 1: Nature of the contract

The present contract is a probation employment contract, where the employee
shall be appointed as the PROJECT LABORATORY ASSISTANT of the Project. His/her attributions will
be detailed in the attached job description. The employee is responsible of his/her acts.
The employer is not responsible for the professional misconduct done by the employee in
the exercise of his/her functions.

Article 2: Duration of the contract

The present probation contract shall run for a period of three months. It shall come into
force on 1st July 2015.

Article 3: Probation Period

The Probation period shall run to three months renewed once by employer if necessary. The present contract will be effective after the probation period. The start, the end, the renewal of the probation period is notified to the employee by a letter.

Article 5: Salary

The salary is fixed at + 2,250,=. The said salary shall be inclusive of transport, housing, and communication fees.

Every payment shall be done in Rwandese Francs (FRW).

Extra time worked during probation period shall not be defined until employee get an employment contract.

Article 6: Obligation of the Employee

The employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon;

To respect the employer's or his/her deputies' orders when given so as to have the work done;

To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees' dignity;

To respect rules prescribed by the Company, its branch or the place where he/she is to do his work;

To give back in good order to the employer, tools and remaining raw materials that have been given him or her; and

To work with other employees as a team.

Article 7: Obligations of the employer

To pay the employee the agreed remuneration regularly and in due time;

Rwanda Agriculture Board/ Animal Virology building, Rubilizi
P.O.Box:4936, Kigali, Rwanda, KK 18 Av 286
Tel: [REDACTED]
Email: [REDACTED] or jnziza@gorilladoctors.org

3. Dr. Kizito NISHIMWE, DVM, MSc., Lecturer
University of Rwanda College of Science and Technology
P.O.Box 3900 Kigali- Rwanda, Avenue de l'armée
Email: [REDACTED]
Phone: [REDACTED]

To give to the employee the agreed work, under those conditions, at the time and place agreed;

To ensure health care of the employee in accordance with employer's practices from time to time; this shall not include illnesses or diseases that require continuous health care. MGVP will pay for the third category of CORAR yearly and the 10% co pay to a maximum upon receipt of legitimate bills from the recognized health institution.

To supervise the employee and confirm that the work is done correctly.

Article 8: Termination of contract

The present probation contract can be terminated before the end of duration if one of the parties requires so, preceded by a written notice. The notice is fixed to one month.

However, due to misconduct manifested by either party and after explanations given by the employee to the facts which manifested the misconduct, the concerned party shall terminate the contract without notice immediately after informing the inspector of labor.

The lack of funds for MGVP is a justifiable reason of termination of the contract.

However, probation employment contracts may be terminated without notice in the probation period if an employee commits gross misconduct. The employee must be notified within 48 hours of the misconduct in the presence of two witnesses or by a baliff.

Article 9: Transitional clause

For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Rwanda, internal rules and regulations of the employer, and the employee's job description. By signing below, employee acknowledges that he has received a copy of employer's internal rules and regulations and job description.

Done in Musanze on the 02nd July 2015

For and on behalf of the Employer Mike Cranfield

Employee JEAN CLAUDE TUMUITHINE D/S.

Curriculum Vitae

PERSONAL INFORMATION

First name(s) / Surname(s) LUIS [REDACTED] GIRÓN.

Address [REDACTED]

Telephone(s) [REDACTED]

Fax(es) [REDACTED]

E-mail [REDACTED]

Nationality [REDACTED]

Date of birth [REDACTED]

Gender [REDACTED]



Desired employment / Occupational field

I would like to work in a project of wildlife Conservation in Africa, mostly with Primates.

WORK EXPERIENCE

Institution Gorilla Doctors – Centre de Rehabilitation de Primates de Lwiro – Democratic Republic of Congo.

Dates Since 17 September 2016 until now.

Occupation or position held Veterinary Advisor and Capacity Building Manager.

Main activities and responsibilities Veterinary Department management in coordination with local vets. Research development at the center. Responsible of set up and running of the capacity building program.

Institution [REDACTED] veterinaries para la Fauna Salvaje

Dates [REDACTED]

Occupation or position held Co-founder, Co - Direction and Veterinarian of the Spanish Society Wildvets S.L.P., Wildlife Veterinarians (www.wildvets.com).

Main activities and responsibilities During this time we have been engaged in wildlife veterinarian services from a variety of in situ Conservation projects, Zoological parks, rescue centers, private animal collection and others.

WORK EXPERIENCE

Institution [REDACTED] and Rehabilitation Centre for Iberian Wildlife [REDACTED].

Dates [REDACTED]

Occupation or position held Veterinarian at the Animal Health Department.

Main activities and responsibilities Care of the zoo animal collection and animals entering the rescue center; design of facilities; veterinary works at the in situ conservation programs (Waldrap ibis reintroduction program in southern Spain; Iberian lynx ex situ conservation program); person in charge of purchases from suppliers; responsible for the veterinarian internship.

Institution [REDACTED] veterinaries para la Fauna Salvaje

Dates [REDACTED]

Occupation or position held Co-founder, Co - Direction and Veterinarian of the Spanish Society Wildvets S.L.P., Wildlife Veterinarians (www.wildvets.com).



Main activities and responsibilities **During this time we have been engaged in wildlife veterinarian services from a variety of in situ Conservation projects, Zoological parks, rescue centers, private animal collection and others.**

Works as Wildvets

Institution **FAADA (<http://www.faada.org>) - Generalitat de Catalunya – Rescue of 12 lions (*Panthera leo*) and 4 bears (*Ursus arctos*) from Aqualeon (Tarragona) to Wild Animal Sanctuary (EEUU)**

Dates [REDACTED] (this is the time we have spent organizing all the aspect of the rescue).

Main activities and responsibilities **Organization of the all aspect of the rescue. Crates construction, Health certificates, anesthesia of the animal and loading, ticket flight and transport form Barcelona to EEUU.**

Institution **FAADA (<http://www.faada.org>) ORAL PRESENTATION IN THE CATALUNYA PARLAMENT AGAINTS THE USE OF ANIMALS IN CIRCUSES.**

Dates [REDACTED]

Main activities and responsibilities **Oral presentation against the use of animal in circuses. This is a collaboration with FAADA, a very important animal welfare organization in Spain. (http://www.parlament.cat/web/parlament/cataluna/parlament/parlament/sequence/videos/0_CD1#/15bb486d_CD2#/1571116d_CD3#/1571003).**

Institution **Barbary Macaque (*Macaca sylvana*) coalition (It is a group of different Europeans organization around the conservation of the Barbary macaque led by AAP, www.aap.nl).**

Dates [REDACTED]

Main activities and responsibilities **Member of the coalition as specialist veterinarians in primate conservation contributing in the elaboration of the global strategy for the conservation of the specie in Europe and Morocco.**

Institution **Rainfer, Rescue Center for Primates, [REDACTED]**

Dates [REDACTED]

Main activities and responsibilities **Technical direction of the center. Set up of the veterinary department. Organization and supervision of all the works related to the animal care and database. Ongoing training of the veterinarian and keepers of the center.**

Institution **Generalitat de Catalonia (Regional government of Catalonia), [REDACTED]**

Dates [REDACTED]

Main activities and responsibilities **Engaged to do the Anesthesia, checking and Loading of a group of 54 specimens of *Kobus megacerus* in the Animal Park "Aqualeon", Tarragona. Spain. Responsible of the Anesthesia, animal checking and loading.**

Institution **Generalitat de Catalonia (Regional government of Catalonia) [REDACTED]**

Dates [REDACTED]

Main activities and responsibilities **Engaged to do the Anesthesia, checking and Loading of a group of 32 specimens of *Kobus megacerus* in the Animal Park "Aqualeon", Tarragona. Spain. Responsible of the Anesthesia, animal checking and loading.**

Institution **Generalitat de Catalonia (Regional government of Catalonia) [REDACTED]**

Dates [REDACTED]

Main activities and responsibilities **Engaged to do the Anesthesia, checking and Loading of a group of 18 specimens of Zebra (*Equus burchelli*) in the Animal Park "Aqualeon" [REDACTED] Responsible of the Anesthesia and loading of the animal group.**

Institution **Direction of "Third International Course of Primates: Biology, Medicine and Conservation" Faculty of Veterinary Medicine, Universidad [REDACTED]**

Dates [REDACTED]

Main activities and responsibilities **Course creator, Director and Coordinator. Elaboration of the program and all the brochures and information about the course. Responsible for the publicity and promotion. Coordination with the University staff. Coordinator of all the logistic aspect.**

Institution **[REDACTED] Veterinary clinic, [REDACTED] (as Wildvets).**

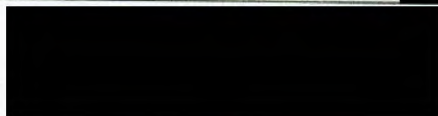
Dates [REDACTED]

[REDACTED]

Main activities and responsibilities	Exotic animal Vet consultation. Head of the veterinary services for exotic pets consultation (birds, mammals and reptiles). Medicine and surgery.
Institution	Several institutions.
Dates	2003 until 2014.
Main activities and responsibilities	Facilities design services for several zoos: master plan for the safari of Évora (Portugal) in 2006/07; wolf (<i>Canis lupus signatus</i>) enclosure for Vigo Zoo 2007, review of the master plan for Cordoba Zoo in 2002; review of the master plan and new design for Ayamonte Zoo in 2003/04; several facilities in Safari Badoca 2008/09, new enclosure for the European otter (<i>Lutra lutra</i>) in L'aquarium of La Coruña, Spain (oct 2010).
Institution	Several institutions.
Dates	2003 until 2014.
Main activities and responsibilities	Veterinary advisors of private exotic animal breeders, zoological centers and game farms.
Institution	"White Tiger Breeding Centre" (as Wildvets).
Dates	Since 2003 until 2014.
Main activities and responsibilities	Veterinarian Services. Responsible of health and care (prophylactic programs, medical diagnostic and treatment, surgery and anesthesia) of the whole animal collection (tigers, lions and cheetahs) and also responsible to ensure compliance with all relevant national and international regulations about international animal trade (C.I.T.E.S. regulations), animal health (regional, national and international regulations), welfare and disease management.
Institution	"Teledart" GMBH, remote delivery systems () Germany (as Wildvets).
Dates	Since 2007 until now.
Main activities and responsibilities	Responsible of commercial Sales and Adviser of the label in Spain, Portugal and Latin America.
Institution	Wild animal transport
Dates	Since 2003 until now.
Main activities and responsibilities	Organization (and sometimes execution) of wild animal transport by land, sea and air accomplish the IATA normative, CITES normative and Sanitary policy regulations in each moment, intra and extra Europe for zoos and conservation programs. Construction of transport crates following the IATA requirements.
Institution	Zoological garden of Ayamonte, Huelva, Spain (as Wildvets).
Dates	Since 2004 until 2014.
Main activities and responsibilities	Veterinarians and curators advisor of the center. Advising for health and care (prophylactic programs, medical diagnostic and treatment, surgery and anesthesia) of the whole animal collection; and also to ensuring compliance with all relevant national and international regulations about international animal trade (C.I.T.E.S. regulations), animal health (regional, national and international regulations), welfare and disease management.
Institution	Centre de Recuperation des Primates du Lwiro (CRPL) South Kivu, Democratic Republique of Congo , (As Wildvets).
Dates	December 2012 – January 2013.
Main activities and responsibilities	Technical Director and Veterinarian replacing former technical director and vet Dr. Carmen Vidal. Person in charge for the captive care of the captive primate population, prophylaxis and treatment, staff organization and center management.
Institution	Centre de Recuperation des Primates du Lwiro (CRPL) South Kivu, Democratic Republique of Congo, (As Wildvets).
Dates	November 2011 – January 2012.
Main activities and responsibilities	Technical Director and Veterinarian replacing former technical director and vet Dr. Carmen Vidal. Person in charge for the captive care of the captive primate population, prophylaxis and treatment, staff organization and center management.
Institution	Direction of "Second International Course of Primates: Biology, Medicine and Conservation" Faculty of Veterinary Medicine, Universidad Autónoma de Madrid.
Dates	19, 20 y 21 de octubre de 2012

Main activities and responsibilities	Course creator, Director and Coordinator. Elaboration of the program and all the brochures and information about the course. Responsible for the publicity and promotion. Coordination with the University staff. Coordinator of all the logistic aspect.
Institution	Primate rescue centre "Rainfer", Spain (As Wildvets) (www.aswildvets.com)
Dates	2004 – 2012.
Main activities and responsibilities	Veterinarians responsible for the second largest primate rescue centre in Europe with a primate collection of more than thirty species of primates from the New and old worlds (chimpanzees, orangutans, gibbons, macaques, squirrel monkeys, Cercopithecus, tamarins and marmosets, etc.). Responsible for health and care (prophylactic programs, medical diagnostic and treatment, surgery and anesthesia); organizing workshops and animal transportation.
Institution	Centre de Recuperation des Primates du Lwiro (CRPL) South Kivu, Democratic Republique of Congo, (http://www.crppl.org) (As Wildvets).
Dates	November 2010 – January 2011.
Main activities and responsibilities	Technical Director and Veterinarian replacing former technical director and vet Dr. Carmen Vidal. Person in charge for the captive care of the captive primate population, prophylaxis and treatment, staff organization and center management.
Institution	Lagos Zoological Garden. Iberian Association of Iberian Zoos (AIZA) Portugal , (www.aiza.org)
Dates	September 2009 – may 2011.
Main activities and responsibilities	Veterinary advisors. Advising for health and care (prophylactic programs, medical diagnostic and treatment, surgery and anesthesia) of the whole animal collection.
Institution	Badoca Safari Park, Iberian Association of Iberian Zoos (AIZA), Portugal (www.badoca.com).
Dates	2008 – 2011.
Main activities and responsibilities	Co direction of the Veterinarian and Curator Department. Responsible of the veterinary and curator department. Responsible of the keepers staff.
Institution	Reference Research Centre of South West Spanish Roe deer (<i>Capreolus capreolus</i>), Empresa de gestión del Medio Ambiente (EGMASA), Junta de Andalucía.
Dates	2005 – 2011.
Main activities and responsibilities	Veterinary services. Establishment of protocol for captures and necropsies and models for veterinary reports. Annual capture of wild populations in the station to establish an in situ anesthesia protocol and normal values for hematological and biochemical parameters in the subspecies. Necropsy of the animals found dead in the whole province. Elaborating individual reports of each intervention and annual reports.
Institution	VIGO ZOO, Iberian Association of Iberian Zoos (AIZA), Spain (www.vigozoo.es)
Dates	March 2010 - August 2011.
Main activities and responsibilities	Veterinary advisors. General Inspection and development of a first report with the recommendations to ensure compliance with all relevant national and international Animal Regulations about international trade (CITES Regulations), animal health (regional, national and BALAI Directory), welfare and disease management. Development of a plan of prophylaxis and hygiene. Development of the nutritional plan. Development of a working model for the veterinary department. Bimonthly Monitoring park according to the changes established.
Institution	Estación Biológica de Doñana, Spain (http://www.ebd.csic.es)
Dates	2005 – 2011.
Main activities and responsibilities	Laboratory analyses services, determination of biochemical parameters and proteinograms of wild populations for research project in birds and mammals (<i>Falco naumani</i> , <i>Bubo bubo</i> , <i>Panthera onca</i> , <i>Pandion haliaetus</i> , <i>Geronticus eremita</i>) in our own laboratory.
Institution	"Eremita Project", Empresa de gestión del Medio Ambiente (EGMASA), Junta de Andalucía.
Dates	May to September 2007, 2008, 2009, 2010 and 2011.
Main activities and responsibilities	Responsible for the project of "Adoptive parents" in the "Proyecto Eremita (<i>Geronticus eremita</i>)" during the breeding season of, in the Bald ibis conservation program in the south of Spain, Engaged by the Consejería de Medio Ambiente de la Junta de Andalucía,, Cadiz - Spain.

Institution	"First International Course of Primates: Biology, Medicine and Conservation" Faculty of Veterinary Medicine, Universidad Autónoma de Barcelona.
Dates	[REDACTED]
Main activities and responsibilities	Course creator, Director and Coordinator. Elaboration of the program and all the brochures and information about the course. Responsible for the publicity and promotion. Coordination with the University staff. Coordinator of all the logistic aspect.
Institution	Crocodile farm "Kariba", Jerez de la Frontera, Cádiz, (www.crocodilofarm.com).
Dates	[REDACTED]
Main activities and responsibilities	Veterinary services. Advising for health and care (prophylactic programs, medical diagnostic, treatment and nutrition) and management of the whole collection; responsible for the breeding season (artificial incubation and babies care); and also to ensuring compliance with all relevant national and international regulations about international animal trade (C.I.T.E.S. regulations), animal health (regional, national and international regulations), welfare and disease management.
Institution	Zoobotánico de Jerez de la Frontera, AIZA, EAZA, WAZA, (www.zoobotanicojerez.com)
Dates	[REDACTED]
Main activities and responsibilities	Veterinary Services for the zoo animal collection and rescue centre.
WORK EXPERIENCE (following)	
Institution	[REDACTED] and Rehabilitation Centre for Iberian Wildlife ([REDACTED]).
Dates	[REDACTED]
Occupation or position held	Veterinarian at the Animal Health Department.
Main activities and responsibilities	Care of the zoo animal collection and animals entering the rescue center; design of facilities; veterinary works at the in situ conservation programs (Waldrap ibis reintroduction program in southern Spain; Iberian lynx ex situ conservation program); person in charge of purchases from suppliers; responsible for the veterinarian internship.
Institution	[REDACTED] Non Governmental Organization for Biodiversity Conservation.
Dates	[REDACTED]
Occupation or position held	Scientifique Coordinator and Co-organiser of the expedition to Mauritania "Looking for new marine turtles nesting places in the west coast of Africa".
Main activities and responsibilities	Direction of the expedition. Organisation of the technical and logistic aspect of the expedition. Data collection and presentation of results. Elaboration of final reports and article.
Institution	[REDACTED] and Rehabilitation Centre for Iberian Wildlife ([REDACTED]).
Dates	[REDACTED]
Occupation or position held	Veterinarian at the Animal Health Department.
Main activities and responsibilities	Care of the zoo animal collection and animals entering the rescue center; design of facilities; veterinary works at the in situ conservation programs (Waldrap ibis reintroduction program in southern Spain; Iberian lynx ex situ conservation program); person in charge of purchases from suppliers; responsible for the veterinarian internship.
Institution	[REDACTED] and Rehabilitation Centre for Iberian Wildlife ([REDACTED]).
Dates	[REDACTED]
Occupation or position held	Veterinarian at the Animal Health Department.
Main activities and responsibilities	Care of the zoo animal collection and animals entering the rescue center; design of facilities; veterinary works at the in situ conservation programs (Waldrap ibis reintroduction program in southern Spain; Iberian lynx ex situ conservation program); person in charge of purchases from suppliers; responsible for the veterinarian internship.
Institution	[REDACTED] Animal Park, [REDACTED]



Dates [REDACTED]
 Occupation or position held **Veterinarian** at the Veterinary Department.
 Main activities and responsibilities Veterinary responsible for the care of the zoo animal collection and animal nutrition; design of facilities; person in charge of purchases from suppliers; responsible for the veterinarian internship.
 Institution **ZooBotánico Jerez and Rehabilitation Centre for Iberian Wildlife (C.R.A.S.) /**
www.zoobotanicojerez.com).

Dates [REDACTED]
 Occupation or position held **Veterinarian at the Animal Health Department.**
 Main activities and responsibilities Care of the zoo animal collection and animals entering the rescue center; design of facilities; person in charge of purchases from suppliers; responsible for the veterinarian internship.
 Institution **Tamandua tetradáctila, Non Governmental Organization for Biodiversity Conservation. In Bolivia, La Paz, Bolivia.**

Dates [REDACTED]
 Occupation or position held **Co-founder and vice president.**
 Main activities and responsibilities Foundation of the organization. Identification of possible conservation projects and execution.
 Institution **Zoological garden "Vesty Pakos", La Paz, Bolivia.**

Dates [REDACTED]
 Occupation or position held **Biodiversity adviser**
 Main activities and responsibilities Organization of the animal collection and veterinary department following the The World Zoo and Aquarium Conservation Strategy. Elaboration of projects and person in charge of purchases from suppliers in the Animal Health Department.
 Institution **ZooBotánico Jerez and Rehabilitation Centre for Iberian Wildlife (C.R.A.S.) /**
www.zoobotanicojerez.com).

Dates [REDACTED]
 Occupation or position held **Veterinarian at the Animal Health Department.**
 Main activities and responsibilities Veterinary responsible for the care of the zoo animal collection and animal nutrition; design of facilities; person in charge of purchases from suppliers; responsible for the veterinarian internship.
 Institution **ZooBotánico Jerez and Rehabilitation Centre for Iberian Wildlife (C.R.A.S.) /**
www.zoobotanicojerez.com).

Dates [REDACTED]
 Occupation or position held **Veterinarian at the Animal Health Department.**
 Main activities and responsibilities Veterinary responsible for the care of the zoo animal collection and animal nutrition; design of facilities; person in charge of purchases from suppliers; responsible for the veterinarian internship.

Education and training

Title of qualification awarded **Degree in Veterinary Medicine and Surgeon. DVM.**
 Dates [REDACTED]
 Principal subjects/occupational skills covered Veterinary Medicine and Surgeon.
 Name and type of organisation providing education and training Faculty of the [REDACTED] University, [REDACTED]
 Level in national or international classification Degree in Veterinary Medicine.

GRANTS

Type of grant **National Government Grant.**
 Dates [REDACTED]
 Objectives Accomplishment of the University studies
 Type of grant **"Erasmus Grant" at the Veterinary Faculty of Liege, Belgium.**
 Dates [REDACTED]

Objectives	Accomplishment of the last university course in Belgium.
Type of grant	"Leonardo Grant" at the Veterinary Faculty of Liege, "Université de Sart Tilman", Liege, Belgium.
Dates	
Objectives	Internship in 'Diagnostic of pregnancy in Cows' at the Obstetric department, Veterinary Faculty of Liege.
PUBLICATIONS	Articles, posters, workshops and presentations.
Title	"Physical and chemical immobilization of primates: methodology, drugs and anesthetic combinations".
Type	Oral Presentation.
Authors	Flores, L.
Place	Faculty of Veterinary Medicine, official university studies of the Universidad Autónoma de Madrid, Spain.
Date	19-21 October 2012.
Title	"The Primates and their current problems for Conservation".
Type	Oral Presentation.
Authors	Flores, L.
Place	Faculty of Veterinary Medicine, official university studies of the Universidad Autónoma de Madrid, Spain.
Date	19-21 October 2012.
Title	"Some clinical cases in primate medicine".
Type	Oral Presentation.
Authors	Flores, L.
Place	Faculty of Veterinary Medicine, official university studies of the Universidad Autónoma de Barcelona, Spain.
Date	14th - 16th October 2011.
Title	"Tuberculosis in primates: diagnostic methods and importance in the conservation of wild primate population"
Type	Oral Presentation.
Authors	Flores, L.
Place	Faculty of Veterinary Medicine, official university studies of the Universidad Autónoma de Barcelona, Spain.
Date	14th - 16th October 2011.
Title	"Mainly infectious diseases and parasitic diseases in primates".
Type	Oral Presentation.
Authors	Flores, L.
Place	Faculty of Veterinary Medicine, official university studies of the Universidad Autónoma de Barcelona, Spain.
Date	14th - 16th October 2011.
Title	"Deaths compatible with acute/subacute tannin intoxication in four species of african ruminants (<i>connochaetes taurinus</i>, <i>ammotragus lervia</i>, <i>taurotragus oryx</i>, <i>syncerus caffer nanus</i>) from the zoological collection of badoca safari park (portugal)".
Type	Poster
Authors	RODRÍGUEZ P ¹ , SIERRA C ¹ , FLORES L ¹ , GARGALLO A ¹ , FARIÑAS F ² .
Place	"International Conference in diseases of zoo and wildlife animals", EAZWV, Lisbon, Portugal.
Date	2-5 June 2011.

Title	"Use of the Primate antibody test kit TB STAT-Pak® assay as a diagnostic tool in a tuberculosis outbreak in chimpanzees (<i>Pan troglodytes schweinfurthii</i>) at the rehabilitation centre of primates of Lwiro, D.R. of Congo"
Type	Poster
Authors	FLORES L ¹ , Vidal C ² ., Masunga ² , RODRÍGUEZ P ¹ , FARIÑAS F ² , Magura D ² . Poster in the
Place	"International Conference in diseases of zoo and wildlife animals, EAZWV, Lisbon, Portugal.
Date	2-5 June 2011.
Title	"Zoo and Wildlife Anesthesia – basics"
Type	Workshop, organization and carrying out.
Authors	Flores, L & Rodríguez P.
Place	EAZWV-IZW International Conference of Diseases of Zoo and Wild Animals, in Madrid, Spain.
Date	May 2011.
Title	"INTOXICACIÓN POR TANINOS EN RUMIANTES AFRICANOS LOCALIZADOS EN UN SAFARI PARK".
Type	Article.
Authors	Soler, F ¹ ; Rodríguez, P ² ; Sierra, C ² ; Flores, L ² ; Gargallo, A ² ; Fariñas, F ³ ; Pérez-López, M ¹
Place	Revista de la asociación española de toxicología, Volumen 28 Número 1.
Date	July 2011.
Title	"Tuberculosis outbreak in chimpanzees (<i>Pan troglodytes schweinfurthii</i>) at the Lwiro Primate Rehabilitation Centre (crpl) and its implication in primate conservation".
Type	Oral Presentation.
Authors	Flores L ¹ , Vidal C ² , Masunga ⁴ , Rodríguez Lopez del Rio P ¹ , Fariñas F ³ , Mangura D ⁴
Place	international Conference on Diseases of Zoo and Wild Animals, Lisbon, Portugal.
Date	2-5 June 2011.
Title	"Zoo and Wildlife Anaesthesia – basics".
Type	Workshop
Authors	Flores, L & Rodríguez P.
Place	EAZWV-IZW International Conference of Diseases of Zoo and Wild Animals, Lisbon, Portugal, June 2011.
Date	2-5 June 2011.
Title	"How to perform a Primates necropsy".
Type	Workshop.
Authors	Flores, L.
Place	"The Fourth Theoretical and Practical Course in Primates: Ethology and Cognition. Madrid, "RAINFER", Rescue Centre for Primates.
Date	2-3 de October 2010
Title	"Tele-injection and primate Anesthesia".
Type	Workshop.
Authors	Flores, L.
Place	"The Fourth Theoretical and Practical Course in Primates: Ethology and Cognition. Madrid, "RAINFER", Rescue Centre for Primates.
Date	2-3 de October 2010
Title	"First Report of a Uterine Leiomyoma in a Common Marmoset (<i>Callithrix jacchus</i>): Statistical Study Confirms Rarity of Spontaneous Neoplasms".
Type	Article.
Authors	P. Rodríguez ¹ ; L. Flores ¹ ; F. F. Guerrero ² , and J. Bakker ³ .
Place	LABORATORY PRIMATE NEWSLETTER Vol. 48, No.1.

Date	January 2009.
Title	"Barbary Macaque rescue and problematic in Spain"
Type	Oral Presentation.
Authors	Flores, L.
Place	"The Third Theoretical and Practical Course in Primates: Cognition and Conservation, Madrid, "RAINFER", Rescue Centre for Primates.
Date	3-4 de October 2009.
Title	"Tele-injection and primate Anesthesia".
Type	Workshop.
Authors	Flores, L.
Place	"The Third Theoretical and Practical Course in Primates: Cognition and Conservation, Madrid, "RAINFER", Rescue Centre for Primates.
Date	3-4 de October 2009.
Title	"How to perform a Primates necropsy".
Type	Workshop.
Authors	Flores, L.
Place	"The Third Theoretical and Practical Course in Primates: Cognition and Conservation, Madrid, "RAINFER", Rescue Centre for Primates.
Date	3-4 de October 2009.
Title	"Clinical management of Callitricides in captivity".
Type	Oral Presentation.
Authors	Flores, L.
Place	"The Second Theoretical and Practical Course in Primates: Evolution and Conservation, Madrid, "RAINFER" Rescue Centre for Primates.
Date	18-19 April 2009.
Title	"How to perform a Primates necropsy".
Type	Workshop
Authors	Flores, L.
Place	"The Second Theoretical and Practical Course in Primates: Evolution and Conservation, Madrid, "RAINFER" Rescue Centre for Primates.
Date	18-19 April 2009.
Title	"The Study Station of the Andalusian Roe Deer", study and conservation of <i>Capreolus capreolus</i> in the south of Spain.
Type	Oral Presentation.
Authors	Flores, L.
Place	XII Course AVAFES Zaragoza (Veterinary Association for the Care of Exotic and Wild Animals), "Wild ungulates". Faculty of Veterinary Medicine of the Zaragoza University.
Date	12-15 march 2009.
Title	"Necropsy of one specimen of Roe deer (<i>Capreolus capreolus</i>) and its importance to the population conservation"
Type	Oral Presentation.
Authors	Flores, L.
Place	XII Course AVAFES Zaragoza (Veterinary Association for the Care of Exotic and Wild Animals), "Wild ungulates". Faculty of Veterinary Medicine of the Zaragoza University.
Date	12-15 march 2009.
Title	"Tele-injection and primate Anesthesia".
Type	Workshop
Authors	Flores, L & Rodríguez P.

Place	"The First Theoretical and Practical Course in Primates: Management, Conservation and Ethology of Primates. Madrid, , "RAINFER" Rescue Centre for Primates.
Date	4-5 October 2008.
Title	"Principles of medicine and surgery of reptiles: clinical cases".
Type	Oral Presentation.
Authors	Flores, L.
Place	XI Course AVAFES Zaragoza (Veterinary Association for the Care of Exotic and Wild Animals), "Biology, Medicine and Conservation of the Latin American Fauna". Faculty of Veterinary Medicine of the Zaragoza University.
Date	10-16 march 2008
Title	"Principles of Medicine and Pathology of Psittacine: clinical cases"
Type	Oral Presentation.
Authors	Flores, L.
Place	XI Course AVAFES Zaragoza (Veterinary Association for the Care of Exotic and Wild Animals), "Biology, Medicine and Conservation of the Latin American Fauna". Faculty of Veterinary Medicine of the Zaragoza University.
Date	10-16 march 2008
Title	Clinical management of Callitricides in captivity: clinical cases".
Type	Oral Presentation.
Authors	Flores, L.
Place	XI Course AVAFES Zaragoza (Veterinary Association for the Care of Exotic and Wild Animals), "Biology, Medicine and Conservation of the Latin American Fauna". Faculty of Veterinary Medicine of the Zaragoza University.
Date	10-16 march 2008.
Title	"Conservation projects: Marine turtles Conservation in Costa Rica"
Type	Oral Presentation.
Authors	Flores, L.
Place	XI Course AVAFES Zaragoza (Veterinary Association for the Care of Exotic and Wild Animals), "Biology, Medicine and Conservation of the Latin American Fauna".
Date	10-16 march 2008.
Title	"How to perform a Primates necropsy".
Type	Workshop
Authors	Flores, L.
Place	"The First Theoretical and Practical Course in Primates: Management, Conservation and Ethology of Primates. Madrid. "RAINFER" Rescue Centre for primates.
Date	4-5 October 2008.
Title	"Capture and chemical immobilization of roe deer (Capreolus capreolus) in SW Spain"
Type	Poster
Authors	Flores L., Rodríguez P., Sanjose C., Dorado A., Oliveros F.
Place	8th European Roe deer meeting in Velenje, Slovenia.
Date	25-29 June 2007.
Title	"Spontaneous Leprosy in chimpanzee (Pan troglodytes): a report of four cases".
Type	Oral Presentation.
Authors	Fariñas F1, P Rodríguez2, L Flores2.
Place	SEAPV Congress (Spanish society of veterinary histopathology), La Manga del Mar Menor, Murcia, Spain.
Date	2007

Title **"Jopling type 2 Leporreacción (erythema nodosum leprosum) in a chimpanzee (Pan troglodytes) treated with ultidrug therapy against Mycobacterium leprae".**

Type Oral Presentation.

Authors Fariñas F1, P Rodríguez2, L Flores2.

Place SEAPV Congress (Spanish society of veterinary histopathology), La Manga del Mar Menor, Murcia, Spain.

Date 2007

Title **"Isolation of a methicillin-resistant staphylococcus aureus (mrsa) in an African grey parrot (Psittacus erithacus erithacus)".**

Type Poster

Authors P. Rodríguez1, L. Flores1, F. F. Guerrero2

Place 43rd International Symposium on Diseases of Zoo and Wild Animals in Edinburgh, Scotland.

Date May 2007.

Title **"Comparison between tail and jugular venipuncture techniques for blood sample collection in common chameleons (Chamaeleo chamaeleon)."**

Type Article

Authors Cuadrado M¹; Molina I¹; Flores L¹.

Place Veterinary Journal *Veterinary Record*, July 2003, Pages 93-97.

Date July 2003.

Title **"Looking for new nestling places in Mauritania".**

Type Article.

Authors Flores, L; De Ben, A; Salado, I; Clavero, J; Yllescas, L.

Place Quercus, N° 206, 2003, págs. 42-44.

Date 2003.

Title **"New nesting places for Marine turtles in the African Coast".**

Type Article

Authors L. Flores, A. de Ben, I. Salado, E. Morote, J. Clavero y L. Yllescas.

Place "Ecologista", Newsletter. Number 36, 2003.

Date 2003.

Title **"Alternative Animal production".**

Type 30 hours course.

Authors Flores, L.

Place Course in the Master "Animal Productions in the Tropics", National Agrarian University of Managua, Nicaragua. Associated Teacher of the Universidad Autónoma de Barcelona.

Date From 10 July to 20 July 2002.

CONGRESS AND COURSES (attended)

Name **First advanced course on anesthesiology, mechanical ventilation and monitoring for veterinarians (CCMI-Cáceres - <http://www.ccmijesususon.com>)**

Date [REDACTED]

Place [REDACTED]

Name **IX Course on veterinary laparoscopy surgery (CCMI-Cáceres - <http://www.ccmijesususon.com>)**

Date [REDACTED]

Place [REDACTED]

Name **PASA 2011 Veterinary Workshop, (Pan African Sanctuary Alliance).**

Date [REDACTED]
Place [REDACTED]
Name International Conference on Diseases of Zoo and Wild Animals. European Association of Zoos and Wildlife Veterinarians (EAZWV).
Date [REDACTED]
Place [REDACTED]
Name International Conference on Diseases of Zoo and Wild Animals. European Association of Zoos and Wildlife Veterinarians (EAZWV).
Date [REDACTED]
Place [REDACTED]
Name The First Internacional Simposium on Conservation of Threatened Species.
Date [REDACTED]
Place Faculty of Veterinary Medicine, Universidad [REDACTED]
Name The first Internacional Simposium on Wild Mammals in captivity, Principles and Techniques.
Date [REDACTED]
Place Faculty of Veterinary Medicine, Universidad de [REDACTED]
Name The third Congress of Management of wildlife in the Amazonia.
Date [REDACTED]
Place Santa Cruz de la [REDACTED]
Name Course of Management and Pathology of Marine Mammals.
Date [REDACTED]
Place Faculty of Veterinary Medicine, Universidad de [REDACTED]
Name The second course on Pathology and Managing of free-ranging and captive wildlife.
Date [REDACTED]
Place Faculty of Veterinary Medicine, Universidad de [REDACTED]
Name First course on Modernization in Microbiology and Immunology.
Date [REDACTED]
Place Faculty of Veterinary Medicine, Universidad de [REDACTED]
Name The first course on Pathology and Management of free-ranging and captive wildlife.
Date [REDACTED]
Place Faculty of Veterinary Medicine, Universidad de [REDACTED]

MEMBER OF European Association of Zoo and Wildlife Veterinarian (EAZWV).

LANGUAGES

Mother tongue(s) [REDACTED]

Other language(s)

Self-assessment

Understanding

Speaking

Writing

European level (*)

Official First Certificate in

**SOCIAL SKILLS AND
COMPETENCES**



Organisational skills and competences	Great organizational skills in the work for the different activities that must be carried out. Excellent ability to organize groups of people. This is a competence that i have been done during the last ten years in my work. Big capacity to be integrated in a multicultural ambient.
Technical skills and competences	Great Technical Skills and competences as a wildlife veterinarian acquired during the last 15 years. My work with very different species of animals, in captivity and in the wild, and situations gave me a big capacity to give solution to any problems that could happen and also a very good general knowledge about medicine and conservation. I acquired also a big technical skills in physical and chemical restraint of wild animal anaesthesia, performing anaesthesia in different species of mammals, birds and reptiles, using just different combinations of fix agents or combining them with gas, being this one of my prefer competences.
Computer skills and competences	Capacity of use computer as a general user. Perfect knowledge of Microsoft office.
Sports	
Driving licence	
Additional information	If you want to get some reference of me you can contact: <div style="background-color: black; height: 30px; width: 100%;"></div> <div style="font-size: small; text-align: right;"> HOW TO CONTACT ME </div>





PROJET VÉTÉRINAIRE DES GORILLES DE MONTAGNE
MOUNTAIN GORILLA VETERINARY PROJECT, INC.

Regional Headquarters and Field Veterinary Office, Musanze, Rwanda

EMPLOYMENT CONTRACT

Between

MGVP, Inc., hereinafter referred to as the "employer", which administers the Mountain Gorilla

Veterinary Project, hereinafter referred to as the "Project", and Luis Florres DVM

Delivered at _Ruhengeri on September 15, 2016 hereinafter referred to as the "employee";

Article 1: Nature of the contract

The present contract is an employment contract, where the employee shall be appointed as the Staff Veterinary Advisor and Vet Capacity Building Manager of the CRPL Sanctuary. His/her attributions are detailed in the attached job description. The employee is responsible of his/her acts. The employer is not responsible for any professional misconduct done by the employee in the exercise of his/her functions.

Article 2: Duration of the contract

Employer hereby agrees to employ the Employee, and Employee hereby accepts employment with Gorilla Doctors

Employer, upon the terms set forth in this Agreement, and in the MGVP, Inc. Internal Rules & Regulations (appended herein) for a one year period including a 3 month probation period commencing on September 15 2016 ("Commencement Date"). unless sooner terminated in accordance with the provisions of this Agreement.

Article 3: Leave

The employee is entitled to annual leave (vacation), of two weeks, which shall be made available to the employee after one year of employment.

If the contract is terminated before the employee takes his/her due annual leave, or the employee does not take his/her annual leave in the contract year, a payment for the unused annual leave will be offered.

Other incidental/occasional leaves shall include maternity leave, wedding, death of a relative, holiday leave, and sick leave, and shall be approved by the employer.

For every leave except sick leave, and death of a relative, the employee has to make a written demand at least one week in advance to the employer which must be approved in writing.

All employees will automatically be given off all public holidays recognized by the DRC government

Article 4: Salary

The salary is fixed at 3200 usd/ month during probation and 3500 usd/month after successful completion of the probation period.. The said salary shall be exclusive of transport, (when work related and away from the main area of employment). Every payment shall be done in US dollars.

Article 5: Obligation of the Employee

Employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon;

To respect the employer's or his/her deputies' orders when given so as to have the work done;

To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees 'dignity;

To respect rules prescribed by the Company, its branch or the place where he/she is to do his work;

To give back in good order to the employer, tools and remaining raw materials that have been

given him or her; and

To work with other employees as a team.

At the time of leaving the employee will have to pay all debts owed to MGVP, Inc. at that time including loans and salary advances.

Article 6: Obligations of the employer

To pay the employee the agreed remuneration regularly and in due time;

To give to the employee the agreed work, under those conditions, at the time and place agreed;

To ensure health care of the employee in accordance with employer's practices from time to time; this shall not include illnesses or diseases that require continuous health care. MGVP will cover local health costs and evacuation insurance to the maximum of 1500 dollars a year.

To supervise the employee and confirm that the work is done correctly.

Article 7: Termination of contract

The present contract can be terminated before the end of duration if one of the parties requires so, preceded by a written notice. The notice is fixed to one month.

However, due to misconduct manifested by either party and after explanations given by the employee to the facts which manifested the misconduct, the concerned party shall terminate the contract without notice immediately after informing the inspector of labor. This condition also holds true for employees under probation contract.

The lack of funds for MGVP is a justifiable reason of termination of the contract.

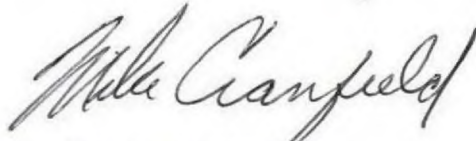
However, probation employment contracts may be terminated without notice if an employee commits gross misconduct.

Article 8: Transitional clause

For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in the state of California, internal rules and regulations of the

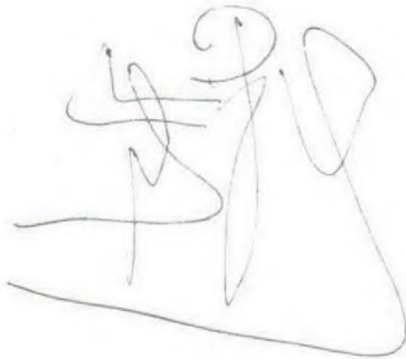
employer, and the employee's job description. By signing below, employee acknowledges that he has received a copy of employer's internal rules and regulations and job description.

Done in MADRID on the 29.08.16

A handwritten signature in black ink, appearing to read "Mike Canfield". The signature is fluid and cursive, with a large initial "M".

For and on behalf of the Employer

Employee LUIS FLORES GIRÓN
31.681.765.R

A handwritten signature in black ink, appearing to read "Luis Flores Girón". The signature is stylized and cursive, with a large initial "L".

Curriculum Vitae

Personal information

Martin Kabuyaya Balyananzu

Phone :

Email:

Family situation :

Nationality

Education and training

1. In [redacted] Training in surgery techniques
2. In [redacted] Great Apes training in [redacted]
3. [redacted] University [redacted] in Veterinary Medicine: *Bachelor of veterinary medicine.*
4. Secondary school at Collège Mwanga [redacted]: **Advanced certificate of education(option:- Chemistry-Biology).**
5. Primary school: E.P. KARISIMBI / [redacted] Certificat.

Professional experience

- ✓ 2012-now: Gorilla doctors DRC-Field veterinarian,
- ✓ From [redacted] In Charge of serology service at [redacted] Vet.Lab
- ✓ [redacted] Expert in Charge of animal health at NGO IDPE(Innovation pour le Développement et la Protection de l'Environnement) based around [redacted] national park [redacted]
- ✓ [redacted] Teacher at [redacted] university
- ✓ [redacted] Office Manager at [redacted] NGO ODPI [redacted] Development Program International)

Languages knowledge

Other

- Good capacity of adaptation in multicultural environment.
- Good competences in computers skills (Microsoft office).
- Can drive vehicles: license
- Good ability in communication,
- Good in field activities.

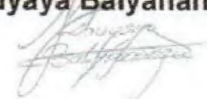
Publications

- Mémoire D3 : Présence des corps jaunes cavitaires chez la chèvre gestante de Lubumbashi en étude ex-vivo
- TFC G3 : Cowdriose des ruminants.

I declare on my honor that these informations are true and can be verifiable.

[redacted] December, 19th 2017

Martin Kabuyaya Balyananzu





PROJET VÉTÉRINAIRE DES GORILLES DE MONTAGNE
MOUNTAIN GORILLA VETERINARY PROJECT, INC.

Regional Headquarters and Field Veterinary Office, Musanze, Rwanda

EMPLOYMENT CONTRACT

Between

MGVP INC. hereinafter referred to as the "employer", which administers the Mountain Gorilla Veterinary Project, hereinafter referred to as the "Project",

And

Martin Kabuyaya of _Congolese Nationality

And Resident at [REDACTED]

Having identity n° [REDACTED] or passport n° _____

Delivered at Goma on 9/3/12 hereinafter referred to as the "employee";

The following has been agreed on in conformity with the Rwandan labor law:

Article 1: Nature of the contract

The present contract is an employment contract, where the employee shall be appointed as the Head Field Veterinarian-DRC of the Project. His/her attributions are detailed in the attached job description. The employee is responsible of his/her acts. The employer is not responsible for the professional misconduct done by the employee in the exercise of his/her functions.

Article 2: Duration of the contract

The present contract shall run through the end of the fiscal year on June 30, 2013 when a new annual contract will be issued. It shall come into force on __July 1st 2012.

Article 3: Leave

The employee is entitled to annual leave (vacation), at a base of one day and half per month, or 18 work days per year, which shall be made available to the employee after one year of employment. Employees will be given an extra day for every three years of employment.

If the contract is terminated before the employee takes his/her due annual leave, or the employee does not take his/her annual leave in the contract year, a payment for the unused annual leave will be offered. At the time of leaving the employee will have to pay all debts owed to MGVP, Inc. at that time including loans and salary advances.

Other incidental/occasional leaves shall include maternity leave, wedding, death of a relative, holiday leave, and sick leave, and shall be approved by the employer.

For every leave except sick leave, the employee has to make a written demand at least one week in advance to the employer which must be approved in writing.

All employees will automatically be given off all public holidays recognized by the DRC Labor law.

Article 4: Salary

The salary is fixed at 9,000 USD__ per year. The said salary shall be inclusive of transport,(when work related and away from the main area of employment). Every payment shall be done in US dollars .

Extra time worked shall be defined in each job description and henceforth remunerated according to the DRC Law in force. The extra time must be authorized by the employer and must be declared by the employee and approved by the employer within 48 hours. If the employee doesn't respect this clause there will not be any remuneration for extra time.

Article 5: Obligation of the Employee

The employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon;

To respect the employer's or his/her deputies' orders when given so as to have the work done;

To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees' dignity;

To respect rules prescribed by the Company, its branch or the place where he/she is to do his work;

To give back in good order to the employer, tools and remaining raw materials that have been given him or her; and

To work with other employees as a team.

Article 6: Obligations of the employer

To pay the employee the agreed remuneration regularly and in due time;

To give to the employee the agreed work, under those conditions, at the time and place agreed;

To ensure health care of the employee in accordance with employer's practices from time to time; this shall not include illnesses or diseases that require continuous health care. MGVP will pay (for or equal to) the health insurance of that year in Rwanda and the 10% co pay to a maximum upon receipt of legitimate bills from the recognized health institution.

To supervise the employee and confirm that the work is done correctly.

Article 7: Termination of contract

The present contract can be terminated before the end of duration if one of the parties requires so, preceded by a written notice. The notice is fixed to one month.

However, due to misconduct manifested by either party and after explanations given by the employee to the facts which manifested the misconduct, the concerned party

Curriculum Vitae

I. Personnal information

First/Middle/last name: Eddy [REDACTED] Syaluha

Place and date of birth: [REDACTED]

Matrimonial status: [REDACTED]

Nationality: [REDACTED]

Home address (es): [REDACTED]

Work address/Gorilla Doctors: 024 Grevellias1 AV, Quartier Les Volcans, Goma town North-Kivu Province/DR Congo.

Mobile : [REDACTED]

E-mail : [REDACTED]

II. Education and training:

Year/Place	Name&Type of organisation providing education and training	Title of qualification awarded
[REDACTED]	[REDACTED] University, WARM-CoVaB;	Master in Wildlife Health and Management.
[REDACTED]	Catholic University of [REDACTED]	Doctorate in Veterinary medicine.
[REDACTED]	Technical Institute: Agriculture & Veterinary (ITAV), [REDACTED]	Diploma in veterinary science.
[REDACTED]	Primary school of [REDACTED]	Certificate of primary studies
[REDACTED]	Three monthes, Public Slaughterhouse and veterinary clinic. Five months, private farm of [REDACTED]	-

III. Work experience:

Period	Place	Organisation	Occupation	Main activities&Responsabilities
[REDACTED]	Goma/DR C	MGVPInc (Mountain Gorilla Veterinary Project)	Field Veterinarian and promoted to Head Field veterinarian at 2012.	General project and veterinary duties: carry out policies and program of the project in a professional manner within «One Health Approach, lives and health are connected». - Veterinary health care: clinical&pathology aspects of Mountain&lowland gorillas, confiscated wildlife (Gorilla, chimpanzees and monkeys), other species and livestock; - Perform routine visual monitoring of the health status using IMPACT program of mountain and lowland gorilla; perform or assist in complete



GORILLA DOCTORS

Mountain Gorilla Veterinary Project & UC Davis Wildlife Health Center

EMPLOYEE ANNUAL PERFORMANCE APPRASIAL REPORT

Period covered (month/day/year) from 1 January 2014 to 1 July 2014

Employee Name: Eddy Kambale

Employee Title: HEAD COUNTRY VETERINARIAN, DR Congo and PREDICT Country Coordinator
as of 1 October 2014

Length of time (years) in this position: 8 months with new ToRs

Length of time (years) with Gorilla Doctors: 10 years

Evaluator: Jan Ramer, Regional Manager

Salary as of 1 January 2014:



Salary as of 1 January 2015:

BASIC RESPONSIBILITIES BASED ON ToR FOR THIS POSITION

Veterinary care for habituated gorillas

- Performs RHCs, monitoring visits and interventions
- Supervises Field Veterinarian and orphan caregivers
- Promotes use of IMPACT among park personnel
- Consults with RM on all clinical cases
- Conducts or ensures careful PMs
- Prepares complete and accurate medical records in VMACS and forward to wildlife authorities as requested by RVM

Reviewer comments: Eddy is extremely good at monitoring habituated gorilla health, making sure all groups are visited by either he or Martin on a regular basis. He is growing into his supervisory position, and is reviewing Martin's reports before they are sent to me for review. Eddy is excellent at keeping the RM informed of all clinical cases and consulting when cases are difficult. His PMs are conducted carefully and thoroughly and reports are completed on time. He was the first Gorilla Doctor to adopt VMACS, which is very much appreciated. Reports need to be written for review within 36 hours when possible. Now that the generator is installed reports can be produced in a more timely manner.

Coordinate and implement PREDICT eDRC

Reviewer comments: Eddy and Jacque work well together on fiscal responsibilities, including the park work plans that Eddy prepared for PNKB and PNVi. Eddy did a very good job implementing PREDICT surveillance protocols in DRC for the first phase of PREDICT.

Supervisory Responsibilities

- Discuss and implement job assignments and bi-annual goals for direct reports, with assistance of the RM
- Prepare and give job evaluations annually to direct reports.
- Reviews VMACS reports of Field Veterinarian

Reviewer comments: Eddy is transitioning well into the role of Field Veterinarian supervisor. He currently reviews the FV SOAPs and RHCs, and has made sure that Martin is working in VMACS. He handled a difficult issue regarding Martin's attitude about his salary very well. He is conducting Martin's annual review. Eddy has also done a very good job stepping into his new role as Country Coordinator for eastern DRC for the second phase of PREDICT.

Capacity Building

- Oversee national student internships and volunteers by selecting fairly, guiding and mentoring them
- Assist visiting graduate students in all levels of research
- Develop and approve student projects in consultation with the RM

Reviewer comments: Eddy worked extremely well with a German veterinary student, with a volunteer photographer and has been very helpful in facilitating the work of PhD student Alisa Kubala in PNKB. It would be nice to begin having Congolese students work with Gorilla Doctors.

Continuing Education and Research

- Write case reports, retrospective study or primary research manuscripts for peer reviewed publication with permission of RM and director(s).
- Participate in or lead primary investigations in consultation with RM and director(s)
- Pursue advanced education in the form of training certificates or master's programs with permission of RM and director(s)

Reviewer comments: Eddy is presented a powerpoint on Gbg pathology at AAZV in October and plans to submit a full manuscript of the same subject soon. He is very interested in pursuing a master's degree, and we are committed to helping him find a compatible program.

Principles of Community

- Respects and abides by the Gorilla Doctors Principles of Community

Reviewer comments: Eddy is extremely friendly and respectful with staff and peers. He actively promotes good relationships with all the team and is a pleasure to work with.

FUNCTIONAL AND CORE COMPETENCIES

Communications

- Expresses ideas and thoughts verbally
- Expressed ideas and thought in written form
- Exhibits good listening and comprehension
- Keeps supervisor adequately informed
- Selects and uses appropriate communication methods

Reviewer comments: Eddy is among the best communicators of our staff, good at expressing ideas verbally and in writing, even though English is not his first language. He is very good at listening and considering other's opinions. He always keeps RM informed.

Conflict Resolution

- Encourages open communications
- Confronts difficult situations objectively
- Uses negotiation skills to resolve conflicts
- Keeps emotions under control

Reviewer comments: Eddy works hard to stay above conflict, used his even temper to help resolve conflict. He is extremely good at keeping his emotions under control. He recently handled a difficult situation when Martin was quite unhappy with his salary, diffusing the emotions objectively.

Dependability

- Responds to requests for service and assistance
- Follows instructions, responds to management direction
- Keeps commitments
- Meets attendance and punctuality guidelines

Reviewer comments: Extremely dependable, although there are 2 group projects with the other HVs that have not been completed in over 6 months.

Managing People

- Provides direction and gains compliance
- Includes subordinates in planning
- Takes responsibility for subordinates' activities
- Is available to subordinates
- Provides regular performance feedback
- Develops subordinates' skills and encourages growth

Reviewer comments: Eddy is growing into his position as supervisor of the FV. He and Martin appear to have a good working relationship, and Eddy is good at identifying strengths and weaknesses, working with Martin to encourage growth.

Problem Solving

- Identifies problems in a timely manner
- Develops alternative solutions to resolve problem in early stages
- Works well in group problem solving situations

Reviewer comments: Problems are identified early and Eddy is thoughtful and open to discussions about resolution. He works well in group situations.

Quality of work

- Demonstrates accuracy and thoroughness
- Displays commitment to excellence
- Applies feedback to improve performance
- Monitors own work to ensure quality

Reviewer comments: Eddy's works hard to make his reports thorough and accurate. He seeks and accepts feedback in all areas of work. He is thorough and follows protocol during interventions.

Safety and Security

- Observes safety and security procedures
- Reports potentially unsafe conditions
- Reports potentially insecure situations
- Reports potentially illegal activities

Reviewer comments: Eddy follows all safety protocols, monitors security in the parks so that he is not working in an unsafe situation, and reports all security and safety issues to the RM.

Teamwork

- Balances team and individual responsibilities and needs
- Exhibits objectivity and openness to others' views
- Gives and welcomes feedback
- Contributes to building a positive team spirit
- Puts success of team above own interests

Reviewer comments: Eddy is committed to the team of Gorilla Doctors, is objective about other's views and is humble and open with regard to feedback.

Expectations for 2015

Complete manuscript on pathology lesions in Gbg, as a follow-up to the presentation at AAZV. We support Eddy's goal of enrolling in a Master's program in the next year and will work with him to find a compatible program. Work with RM and Co-directors to complete the Gorilla Doctors obligations to the eastern landscape grant. As new PREDICT Country Coordinator for Eastern DRC, work with co-directors to develop this program. With the other HVs, complete the recommendations for volunteer, student, intern (obtaining permissions, etc.), and recommendations for the Conservation Advisors.

Eddy's expressed goals:

Get SOAPs completed within 36 hours of event
Improve is the store organization/equipment, putting shelves
Vehicle mileage records... as requested in the last book
Improve punctuality.

Strengthen relationships with partners.

Summary comments: Thank you for your continued excellent work in support of Gorilla Doctors.

Employee comments: *IMPACT - soon in PNV. Need camera.
working with Martin on attitude.
Like the idea of new position in DRC for Lwiro/Grace/Sentawekwe.*
Department head (supervisor of evaluator) comments:

SIGNATURES:

Employee:

~~Eddy Kambale S.~~

Evaluator:

Ramer 12 Jan 15

Department Head (supervisor of evaluator):

Mike Cianfield

BENARD [REDACTED] SSEBIDE, DVM, MSc (WHM)

PERSONAL INFORMATION

- a) Name : Ssebide Benard [REDACTED]
- b) Address : [REDACTED]
- c) Date of Birth : [REDACTED]
- d) Nationality : [REDACTED]
- e) Sex : [REDACTED]
- f) Profession : Veterinary Surgeon
- g) Contacts : [REDACTED]

EDUCATION

[REDACTED] Doctor of Veterinary Medicine, [REDACTED] University, [REDACTED]
[REDACTED] MSc in Wildlife Health & Management, [REDACTED] University, [REDACTED]

SUMMARY OF ACCOMPLISHMENTS

Dr Ssebide has a degree in Veterinary Medicine and a Masters degree in Wildlife Health and Management. He joined the staff of the Mountain Gorilla Veterinary Project (MGVP, Inc.) as a field veterinarian in Uganda in 2007, and then transitioned to become MGVP, Inc.'s Country Coordinator for the USAID funded Emerging Pandemic Threats (EPT) PREDICT Project in Uganda in 2010, and MGVP's Country Head Veterinarian in 2014. As the EPT PREDICT Country Coordinator, Ssebide leads a field team that collects samples from more than 1000 wild primates, bats and rodents for the detection of potentially zoonotic viruses in wildlife with a high degree of contact with people. He has primary responsibility for: implementing systematic sampling across a variety of landscapes and at a variety of human-animal interfaces; supervising staff in the field and office; liaising with the in-country diagnostic laboratory to facilitate sample testing; rapid and accurate data entry; communications with government and non-governmental partners and stakeholders; budget management; and representing EPT PREDICT on the Government of Uganda's National Task Force and One Health Technical Working Group for several disease outbreak investigations. Prior to joining MGVP, Inc., Dr. Ssebide worked for the Ugandan Wildlife Authority, first as a Veterinarian and then as Chief Park Warden of Mgahinga Gorilla National Park in southwestern Uganda. Dr Ssebide has significant experience in all aspects of wildlife health and conservation, including but not limited to: wildlife veterinary interventions and disease investigation; wildlife captures and translocations; scientific research in wildlife diseases, especially zoonoses; monitoring of wildlife populations; wildlife censuses, including the habitat assessments; community conservation education and awareness raising; protected area management and planning; and environment projects planning, management, and evaluations.

PROFESSIONAL EXPERIENCE

2014 – Current

Uganda Country Head Veterinarian

Mountain Gorilla Veterinary Project, Inc., Kampala, Uganda

The primary responsibility of the Head Veterinarian is to oversee and ensure the successful implementation by him/herself and the country-based teams of all clinical and health monitoring elements of the Gorilla Doctors program that are pertinent and specific to his/her country of operation. These include but not limited to monitoring the health of, and delivering veterinary care to, human-habituated mountain gorillas in the field, including but not exclusive to clinical care and pathology, and to other wildlife species, to the best of his/her abilities; Performing routine visual checks of the health status of habituated gorillas, and respond to reports from wildlife authorities and researchers about ill or injured gorillas by performing a veterinary assessment; Supervising and supporting the Field Veterinarian(s) and technicians employed by the project; Ensure that other staff veterinarians and park personnel are well trained to make and report health observations through the official data collection tools; Conduct and/or ensure that careful, detailed and complete post-mortem examinations are conducted on all dead gorillas (and other wildlife when resources allow) for which carcasses are retrievable, in a timely manner; ensure that post-mortem reports are written, filed, and shared; Prepare complete and accurate medical records in VMACS and prepare reports as required by the country's wildlife authorities, and as requested by the Project Director.

2010 – Current

EPT PREDICT Country Coordinator, UGANDA

Mountain Gorilla Veterinary Project, Inc., Kampala, Uganda

The Uganda Country Coordinator is responsible for the planning and implementation of PREDICT program activities within Uganda and for the coordination and collaboration of Uganda country activities with the Uganda Team Leads; PREDICT Core Team; USAID Mission; and other country partners. The Country Coordinator is also be responsible for ongoing monitoring and evaluation of PREDICT activities in Uganda, along with reporting of program operations and activities to the Management Entity at UC Davis and USAID. Specific roles and responsibilities for PREDICT Country Coordinator based on the USAID-approved work plan and on-going PREDICT planning includes Wildlife pathogen detection and identification of novel wildlife pathogens that pose a significant public health threat; Capacity building (including infrastructure, training, coordination and systems improvements toward sustainability); Capacity assessment and tracking of development progress; Surveillance and coordination of surveillance activities across Uganda; Technology development and pathogen discovery; Sample tracking and information management; Program management; Risk determination; and Outbreak response capacity building.

Wildlife Field Veterinarian

Mountain Gorilla Veterinary Project, Inc., Kampala, Uganda

The Field Veterinarian duties included but are not limited to: Provide the veterinary care of the mountain gorillas, other primates and wildlife of Uganda; Act as liaison between the MGVP and the College of Veterinary Medicine, Makerere University and Uganda Wildlife Authority; Teach lectures in Wildlife Medicine at the College of Veterinary Medicine; Initiate and coordinate outside

collaborations with institutions to better the capacity of the wildlife department with respect to wildlife issues related to the students and faculty at the College of Veterinary Medicine; Coordinate the submission of samples and the reporting of results of all gorilla and other wildlife samples sent to diagnostic laboratory; Initiate and conduct research studies, and assisting in the long term research projects of the MGVP; Coordinate MGVP Inc. activities with the Ugandan government, the International Gorilla Conservation Programs, and other non-governmental organizations working for mountain gorilla conservation.

**Warden-in-Charge Mgahinga Gorilla National Park
Bwindi Mgahinga Conservation Area, Uganda Wildlife Authority**

The core function as a warden-in-charge was Resource Conservation and Protected Area Management which includes but not limited to Protected area operations; Planning, environment impact assessment, performance monitoring and evaluation; Research and ecosystem health monitoring; Veterinary services; Community conservation; Ecotourism services management, Habitat restoration; and Security and safety. Also included were support functions such as human resources; financial management and accounting.

**Veterinarian and Warden for Research & Monitoring
National Park,**

A warden for research and monitoring is the team leader for all functions related to wildlife resource monitoring and relevant research to inform management decisions. He is also responsible for supervision and coordination of all research and monitoring activities within the national park by both UWA personnel and independent researchers. These include monitoring of wildlife populations, wildlife censuses, and habitat assessments.

PROFESSIONAL AFFILIATIONS

Uganda Veterinary Association; Wildlife Disease Association; American Association of Zoo and Wildlife Veterinarians; International Primatological Society; IUCN Species Survival Commission – Wildlife Health Specialist Group

SELECTED PUBLICATIONS

Tierra Smiley Evans, Linda J. Lowenstine, Kirsten V. Gilardi, Peter A. Barry, Benard J. Ssebide, Jean Felix Kinani, Fred Nizeyimana, Jean Bosco Noheri, Michael R. Cranfield, Antoine Mudakikwa, Tracey Goldstein, Jonna A. K. Mazet, Christine Kreuder Johnson. **Mountain gorilla lymphocryptovirus has Epstein-Barr virus-like epidemiology and pathology in infants.** *Scientific Reports*, 2017; 7 (1)

Anthony SJ, Gilardi K, Menachery VD, Goldstein T, Ssebide B, Mbabazi R, Navarrete-Macias I, Liang E, Wells H, Hicks A, Petrosov A, Byarugaba DK, Debbink K, Dinnon KH, Scobey T, Randell SH, Yount BL, Cranfield M, Johnson CK, Baric RS, Lipkin WI, Mazet JAK. 2017. Further evidence

for bats as the evolutionary source of Middle East respiratory syndrome coronavirus. *mBio* 8:e00373-17

Smiley Evans, T, Gilardi, KVK, Barry, PA, Ssebide, BJ, Kinani, JF, Nizeyimana, F, Noheri, JB, Byarugaba, DK, Mudakikwa, A, Cranfield, MR, Mazet, JAK & Johnson, CK 2016, 'Detection of viruses using discarded plants from wild mountain gorillas and golden monkeys' *American Journal of Primatology*.

Tierra Smiley Evans, Peter A. Barry, Kirsten V. Gilardi, Tracey Goldstein, Jesse D. Deere, Joseph Fike, JoAnn Yee, Benard J Ssebide, Dibesh Karmacharya, Michael R. Cranfield, David Wolking, Brett Smith, Jonna A. K. Mazet, Christine K. Johnson. Optimization of a Novel Non-invasive Oral Sampling Technique for Zoonotic Pathogen Surveillance in Nonhuman Primates. *PLOS Neglected Tropical Diseases*, 2015; 9 (6):

Bisson, Isabelle-Anne, Ssebide, Benard J. and Marra, Peter P. 2015. Early Detection of Emerging Zoonotic Diseases with Animal Morbidity and Mortality Monitoring. *Ecohealth*, 12(1): 98-103.

Sarah H. Olson, Patricia Reed, Kenneth N. Cameron, Benard J. Ssebide, Christine K. Johnson, Stephen S. Morse, William B. Karesh, Jonna A. K. Mazet, Damien O. Joly. 2012. Dead or alive: animal sampling during Ebola hemorrhagic fever outbreaks in humans. *Emerging Health Threats* 5: 9134.

Gray, M., McNeillage, A., Fawcett, K., Robbins, M. M., Ssebide, B., Mbula, D. and Uwingeli, P. (2010), Censusing the mountain gorillas in the Virunga Volcanoes: complete sweep method versus monitoring. *African Journal of Ecology*, 48: 588–599

Benard J. Ssebide. 2007. Daily ranger based symptomatic observations and health monitoring of habituated mountain gorillas (*gorilla beringei beringei*) of Uganda. MSc Thesis, Makerere University, P O Box 7062, Kampala.

Jonathan M. Sleeman, William Guerrero, Jasper B. Ssebide, Lonny B. Pace, Travers Y. Ichinose, and John S. Reif. 2002. Medical survey of the local human population to determine possible health risks to the mountain gorillas (*Gorilla gorilla beringei*) of Bwindi Impenetrable National Park, Uganda. *J. Parasitol.* 4: 103 –7.

Graczyk TK, Bosco-Nizeyi J, Ssebide B, Thompson RC, Read C, Cranfield MR. 2002. Anthroponotic *Giardia duodenalis* genotype (assemblage) infections in habitats of free-ranging human-habituated gorillas, Uganda. *J Parasitol.* 88(5): 905-9.

Benard J. Ssebide. 2001. The prevalence of brucellosis in cattle and humans in areas around Bwindi Impenetrable National Park, Uganda. Bachelor of veterinary medicine degree thesis, Makerere University, P O Box 7062, Kampala, Uganda.

PROFESSIONAL / TECHNICAL COURSES

General Primate Biology (Course of Essentials); German Primate Center (DPZ), Gottingen, Germany; Organized by the European Union Primate Network (EUPRIM-NET)

Envirovet Summer Institute of University of Illinois, USA
White Oak Conservation Center and Harbor Branch Oceanographic Institute
Florida USA; University of Pretoria South Africa

Veterinary Clinical Residence / Internship
Falls Road Animal Hospital and John Hopkins University, Baltimore, Maryland, USA

Wildlife safe capture and translocation course by Safe Capture International
Essex County College Police Academy, Fairfield, New Jersey, USA

Wildlife crime investigation and intelligence course
Uganda Police Training School, Masindi, Uganda
Lusaka Agreement Task Force (LATF) on Wildlife Crime Prevention, Uganda Police
and Uganda Wildlife Authority (UWA)

Forest fire fighting, prevention, and management techniques
Uganda Wildlife Authority In-house training course supported by the International
Gorilla Conservation Program (IGCP) and facilitated by US Forest Services

Management information system for wildlife research and monitoring
Uganda Wildlife Authority In-house training course facilitated by the Germany
Technical Cooperation (GTZ)

Wildlife veterinary interventions and wildlife welfare management
Primate Research Institute, Nairobi, Kenya facilitated by the International Fund for
Animal Welfare (IFAW) and Kenya Wildlife Service (KWS)

INTERNATIONAL PRESENTATIONS

ICOPHAI 2015: Third International Congress on Pathogens at the Human- Animal
Interface (ICOPHAI): One Health for Sustainable Development: Chiang Mai, Thailand

ICOPHAI 2013: Second International Congress on Pathogens at the Human- Animal

Interface (ICOPHAI): One Health for Sustainable Development: Porto de Galinhas, Brazil

ICOPHAI 2011: First International Congress on Pathogens at the Human- Animal Interface (ICOPHAI): Impact, Limitations, and Needs in Developing Counties: Addis Ababa, Ethiopia

The Future of Biodiversity in Africa in the Face of Climate Change; Organized by the African Biodiversity Collaborative Group (ABCG) and the International Union for Conservation of Nature (IUCN), Dar es Salaam, Tanzania

International Primatological Society Congress
Edinburgh, Scotland

International Primatological Society Conference
Entebbe, Uganda

Gorilla Conference: Integrated Health Management; Organized by the Wildlife Conservation Society (WCS) Field Veterinary Program, and the Mountain Gorilla Veterinary Project (MGVP), Limbe, Cameroon

Diseases of wildlife: A conservation challenge; Wildlife Diseases Association (WDA), Africa and Middle East section conference; Abu Dhabi Wildlife Center, Abu Dhabi, United Arab Emirates

First world meeting on diseases of great apes and establishment of the Great Ape Health Monitoring Unit (GAHMU); Organized by the Max Planck Institute of Evolutionary Anthropology, Leipzig, German


Planning meeting for establishment of the East African Wildlife Fund; Organized by the East African Wildlife Society, and Leaky Foundation; Naivasha National Park, Naivasha, Kenya

SPECIAL ASSIGNMENTS

Elephant collaring in Queen Elizabeth National Park
Supported by Wildlife Conservation Society

Rhinoceros Translocation
From Solio Wildlife Ranch, Kenya to Ziwa Rhino Sanctuary, Uganda

Eland Translocation
From Lake Mburo National Park to Kidepo Valley National Park



Mountain gorilla population census

Virunga massif conservation area, Uganda, Rwanda and DR Congo

Mountain gorilla population censuses

Bwindi Impenetrable National Park, Uganda



GORILLA DOCTORS™

Mountain Gorilla Veterinary Project & UC Davis Wildlife Health Center

*Wildlife and Aquatic Resources Management (WARM) Department, College of Veterinary Medicine, Makerere University
P O Box 72901, Kampala, Uganda*

EMPLOYMENT CONTRACT

Uganda Head Veterinarian and PREDICT Project Coordinator

Contract date: October 1st 2014 - September 30th 2019

THIS EMPLOYMENT AGREEMENT ("Agreement") is entered into by and between **MGVP, Inc.**, ("Employer"), and **Dr Benard Jasper Ssebide** ("Employee").

Employer desires to employ Employee, and Employee desires to be employed by Employer. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1) Term of Employment

Employer hereby agrees to employ Employee, and Employee hereby accepts employment with Employer, upon the terms set forth in this Agreement, and in the MGVP, Inc. Internal Rules & Regulations (appended herein) for a 5-year period commencing on **October 1st 2014** ("Commencement Date") and subject to renewal based on performance and available funding, unless sooner terminated in accordance with the provisions of this Agreement.

2) Title, Capacity, Obligations

Employee shall serve as **Head Veterinarian and PREDICT Project Coordinator – Uganda**

a) Obligation of the Employee

The employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon; To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees' dignity; To respect rules prescribed by the Project; and To work with other employees as a team.

b) Obligations of the employer

The employer declares:

To pay the employee the agreed remuneration regularly and in due time; To give to the employee the agreed work, under those conditions, at the time and place agreed; To ensure health insurance of the employee in accordance with employer's practices from time to time; and To supervise the employee and confirm that the work is done correctly.

Performance Evaluation

Goals will be set at the beginning of each 6-month period and will be evaluated at the end of each such 6-month period conducted by the Project Director. Employee will receive a performance appraisal after each 6 months during the Employment Period.

3) Salary and Benefits

Employer shall pay Employee, in monthly installments, a basic net yearly salary of **\$29,400** (US Dollars twenty nine thousands and four hundred only).

4) Vacation and or Annual Leave

- a) Employee will be allowed 28-working days annual leave during the year to be taken in installments and during periods as will be agreed upon by the Employee and Employer.
- b) Employee will be allowed other leave such as paternity leave, compassionate leave, sick leave, and public holidays as will be agreed upon by the Employee and Employer.
- c) For every leave except sick leave, the employee has to make a written demand at least one week in advance to the employer which must be approved in writing.

5) Employment Termination

The employment of Employee by Employer pursuant to this Agreement shall terminate upon the occurrence of any of the following:

- a) Expiration of the Employment Period in accordance with Section 1
- b) At the election of Employer, for cause, immediately upon notice by Employer to Employee. For the purposes of this Section 5 b), a termination "for cause" shall include, but not be limited to, a termination for any of the following (including any act or omission which gives rise to any of the following:
 - i) Except for those action set forth in Section 5 b) iii) below, Employee breaches or neglects the primary duties that Employee is required to perform under the terms of this Agreement, after receiving a warning by Employer of the consequences of such actions and failing to cure within a period of two (2) days after receiving such warning;
 - ii) Employee commits a dishonest act toward Employer;
 - iii) Employee breaches Section 7 and 8 hereof, engage in any criminal conduct or violate any law.
- c) Upon the death or thirty (30) days after the disability of Employee. As used in this Agreement, the term "disability" shall mean the inability of Employee, due to a physical or mental disability, to perform the essential functions of his position, with or without reasonable accommodation. A determination of disability shall be made by a physician satisfactory to both Employee and Employer, provided that if Employee and Employer

do not agree on a physician then these two together shall select a third physician, whose determination as to disability shall be binding on all parties.

- d) At the election of Employee, upon not less than sixty (60) days prior written notice of termination.
- e) At the election of Employer, without cause, at any time for any reason or no reason, upon not less than sixty (60) days prior written notice of termination.

6) Effect of Termination

- a) Termination for Cause, at Election of Employee or Upon Disability. In the event Employee's employment is terminated for cause pursuant to Section 5 b), upon disability pursuant to Section 5 c), or at the election of Employee pursuant to Section 5 d), Employer shall pay to Employee the compensation otherwise payable to him under Section 3 through the last day of his actual employment with Employer.
- b) Termination without Cause. In the event Employee's employment is terminated pursuant to Section 5 e), without cause, except as described in Section 6 d) below, Employer shall pay Employee the compensation owed to him under Section 3 through the remainder of the Employment Period.
- c) Termination for Death. If Employee's employment is terminated by death pursuant to Section 5 c), Employer shall pay the estate of Employee his earned but unpaid salary through the last day of actual employment.
- d) Project Termination. In the event the Project is discontinued for any reason prior to the expiration of the term of this Agreement, the financial obligations of the Employer cease on the date of Project termination

7) Waiver, Release and Indemnification

Employee acknowledges, agrees and understands that there are, or may be, risks, hazards and dangers attendant to Employee's employment on the Project. Employee willingly assumes such risks, hazards and dangers as his responsibility, and (individually, and on behalf of his heirs, successors, personal representatives, administrators and assigns) waives, releases, indemnifies and agrees to save, defend and hold harmless Employer, its officers, trustees, agents and employees, to the fullest extent permitted by law, from and against, any and all losses, claims, damages, liabilities or actions connected with Employee's position and employment with Employer (including, without limitation, all medical treatment rendered or secured for Employee in the event of need); and for any death, injury, accident, property damage or personal loss to Employee resulting directly, indirectly or otherwise, including without limitation, acts of war, terrorism, weather, defects in vehicles, breakdowns of equipment, animal attacks, strikes, theft, or delay or changes in itinerary or schedule.

- a) The parties agree that nothing in this section, or Agreement in general, shall constitute a waiver by Employer of Employee's right to seek benefits for injury covered by workers' compensation.

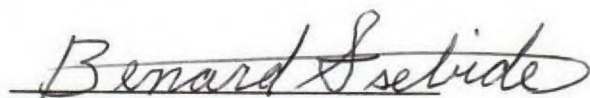
8) **Amendment**

This Agreement may only be amended or modified by a written instrument executed by both Employer and Employee.

9) **Miscellaneous**

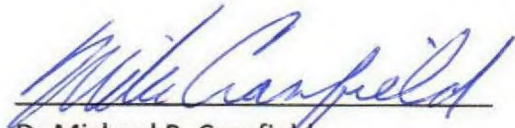
- a) No delay or omission by Employer in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by Employer on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.
- b) The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.
- c) In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.
- d) For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Uganda, internal rules and regulations of the employer, and the employee's job description. By signing this contract, employee acknowledges that he has received a copy of employer's internal rules and regulations and his/her job description.

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement.



Dr Benard Jasper Ssebide
Head Veterinarian and PREDICT CC

Date: Oct 1 2014




Dr Michael R. Cranfield
PROJECT DIRECTOR

Date: Oct 1 2014

OKWIR RICKY OKELLO, BVM, MSC
Field Veterinarian, Gorilla Doctors

Personal Information

a) Name	:	
b) Date of Birth	:	
c) Nationality	:	
d) Sex	:	
e) Profession	:	

Summary of Accomplishments

Dr. Ricky is a Uganda in-country field veterinarian for Mountain Gorilla Veterinary Project aka Gorilla Doctors since 2014 and at the same time working with PREDICT Project in Uganda since 2011. PREDICT is a USAID funded global project looking for evidence of emerging zoonotic viruses in primates, rodents, bats and other wild animals.


He completed his Bachelor of Veterinary Medicine degree at Makerere University in 2011 and Masters of Science in Global Health and Infectious Diseases at the University of Edinburgh in 2015. Dr. Ricky completed an internship with the Gorilla Doctors Uganda PREDICT team during his time in the BVM program and continued to volunteer with Gorilla Doctors following completion of his degree. He then joined the Budongo Conservation Field Station as a Veterinarian in the Chimpanzee Health Monitoring Program and the PREDICT/Smithsonian Institution as a Field Coordinator for the Wildlife Animal Mortality Monitoring Program in Queen Elizabeth National Park.

Dr. Ricky has been doing many activities in the field of wildlife conservation including but not limited to wildlife veterinary interventions and disease investigation; wildlife captures and translocations; scientific research in wildlife diseases; monitoring of wildlife populations, wildlife censuses including the habitats; community conservation education and awareness raising; environment projects planning, management, and evaluations.

Professional Experience

September 2014 – To-date Field Veterinarian, Uganda (Gorilla Doctors)

Key responsibilities: Provide the veterinary care of the mountain gorillas of snared, injured or sick Gorilla in both Bwindi and Mgahinga National Park. Wildlife sample collection and management; Coordinate the submission of samples and the reporting of results of all gorilla and other wildlife samples sent to diagnostic laboratory; Initiate and conduct research studies, and assisting in the long term research projects of the MGVP.

 Field Coordinator, Wildlife Mortality Monitoring Program, Uganda
Smithsonian Institution/PREDICT Project, USAID EPT Program

Key responsibilities: Monitoring of an animal mortality pilot project in Queen Elizabeth National Park. This project involves using Mobile phone-Internet based technology to report dead or sick wildlife in Queen Elizabeth National Park. After a report is sent by a ranger, I instantly verify the data and go to the site and carry out a post-mortem examination to determine the cause of death. Additionally collect samples for laboratory investigations.



GORILLA DOCTORS™

Mountain Gorilla Veterinary Project & UC Davis Wildlife Health Center

Wildlife and Aquatic Resources Management (WARM) Department, College of Veterinary Medicine, Makerere University
P O Box 72901, Kampala, Uganda

EMPLOYMENT CONTRACT

Uganda Field Veterinarian

Contract date: November 1st 2014 - October 31st 2019

THIS EMPLOYMENT AGREEMENT ("Agreement") is entered into by and between **MGVP, Inc.**, ("Employer"), and **Dr Ricky Okwir Okello** ("Employee").

Employer desires to employ Employee, and Employee desires to be employed by Employer. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1) Term of Employment

Employer hereby agrees to employ Employee, and Employee hereby accepts employment with Employer, upon the terms set forth in this Agreement, and in the MGVP, Inc. Internal Rules & Regulations (appended herein) for a 5-year period commencing on **November 1st 2014** ("Commencement Date") with a six months probation period (November 2014 to April 2015), and subject to renewal based on performance and available funding, unless sooner terminated in accordance with the provisions of this Agreement.

2) Title, Capacity, Obligations

Employee shall serve as **Field Veterinarian – Uganda**

a) Obligation of the Employee

The employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon; To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees' dignity; To respect rules prescribed by the Project; and To work with other employees as a team.

b) Obligations of the employer

The employer declares:

To pay the employee the agreed remuneration regularly and in due time; To give to the employee the agreed work, under those conditions, at the time and place agreed; To ensure

health insurance of the employee in accordance with employer's practices from time to time; and To supervise the employee and confirm that the work is done correctly.

Performance Evaluation

Goals will be set at the beginning of each 6-month period and will be evaluated at the end of each such 6-month period conducted by the Project Director. Employee will receive a performance appraisal after each 6 months during the Employment Period.

3) Salary and Benefits

Employer shall pay Employee, in monthly installments, a basic net yearly salary of **\$9,900** (US Dollars nine thousands and nine hundred only).

4) Vacation and or Annual Leave

- a) Employee will be allowed 28-working days annual leave during the year to be taken in installments and during periods as will be agreed upon by the Employee and Employer.
- b) Employee will be allowed other leave such as paternity leave, compassionate leave, sick leave, and public holidays as will be agreed upon by the Employee and Employer.
- c) For every leave except sick leave, the employee has to make a written demand at least one week in advance to the employer which must be approved in writing.

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 - i) Except for those action set forth in Section 5 b) iii) below, Employee breaches or neglects the primary duties that Employee is required to perform under the terms of this Agreement, after receiving a warning by Employer of the consequences of such actions and failing to cure within a period of two (2) days after receiving such warning;
 - ii) Employee commits a dishonest act toward Employer;
 - iii) Employee breaches Section 7 and 8 hereof, engage in any criminal conduct or violate any law.
- c) Upon the death or thirty (30) days after the disability of Employee. As used in this Agreement, the term "disability" shall mean the inability of Employee, due to a physical or mental disability, to perform the essential functions of his position, with or without reasonable accommodation. A determination of disability shall be made by a physician

satisfactory to both Employee and Employer, provided that if Employee and Employer do not agree on a physician then these two together shall select a third physician, whose determination as to disability shall be binding on all parties.

- d) At the election of Employee, upon not less than sixty (60) days prior written notice of termination.
- e) At the election of Employer, without cause, at any time for any reason or no reason, upon not less than sixty (60) days prior written notice of termination.

6) Effect of Termination

- a) Termination for Cause, at Election of Employee or Upon Disability. In the event Employee's employment is terminated for cause pursuant to Section 5 b), upon disability pursuant to Section 5 c), or at the election of Employee pursuant to Section 5 d), Employer shall pay to Employee the compensation otherwise payable to him under Section 3 through the last day of his actual employment with Employer.
- b) Termination without Cause. In the event Employee's employment is terminated pursuant to Section 5 e), without cause, except as described in Section 6 d) below, Employer shall pay Employee the compensation owed to him under Section 3 through the remainder of the Employment Period.
- c) Termination for Death. If Employee's employment is terminated by death pursuant to Section 5 c), Employer shall pay the estate of Employee his earned but unpaid salary through the last day of actual employment.
- d) Project Termination. In the event the Project is discontinued for any reason prior to the expiration of the term of this Agreement, the financial obligations of the Employer cease on the date of Project termination

7) Waiver, Release and Indemnification

Employee acknowledges, agrees and understands that there are, or may be, risks, hazards and dangers attendant to Employee's employment on the Project. Employee willingly assumes such risks, hazards and dangers as his responsibility, and (individually, and on behalf of his heirs, successors, personal representatives, administrators and assigns) waives, releases, indemnifies and agrees to save, defend and hold harmless Employer, its officers, trustees, agents and employees, to the fullest extent permitted by law, from and against, any and all losses, claims, damages, liabilities or actions connected with Employee's position and employment with Employer (including, without limitation, all medical treatment rendered or secured for Employee in the event of need); and for any death, injury, accident, property damage or personal loss to Employee resulting directly, indirectly or otherwise, including without limitation, acts of war, terrorism, weather, defects in vehicles, breakdowns of equipment, animal attacks, strikes, theft, or delay or changes in itinerary or schedule.

- a) The parties agree that nothing in this section, or Agreement in general, shall constitute a waiver by Employer of Employee's right to seek benefits for injury covered by workers' compensation.

8) **Amendment**

This Agreement may only be amended or modified by a written instrument executed by both Employer and Employee.

9) **Miscellaneous**

- a) No delay or omission by Employer in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by Employer on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.
- b) The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.
- c) In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.
- d) For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Uganda, internal rules and regulations of the employer, and the employee's job description. By signing this contract, employee acknowledges that he has received a copy of employer's internal rules and regulations and his/her job description.

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement

Dr Ricky Okwir Okello
FIELD VETERINARIAN

Date: _____

Dr Benard Jasper Ssebide
FOR: PROJECT DIRECTOR

Date: _____

NIZEYIMANA, Fred (BVM)
Veterinary Doctor,
 MOUNTAIN GORILLA VETERINARY PROJECT, GORILLA DOCTORS

Phone: [REDACTED]

Email: [REDACTED]

Bio-data:

Sex: [REDACTED]

Date of birth: [REDACTED]

Nationality: [REDACTED]

PROFILE:

I am a Veterinarian for Uganda sector with Mountain Gorilla Veterinary Project, Gorilla Doctors since 2010 to-date. Currently doing an MSc in Wildlife Health at Makerere.

From [REDACTED] I worked at [REDACTED] Chimpanzee Sanctuary under Chimpanzee Sanctuary and Wildlife Conservation Trust (CSWCT) as a veterinarian and a Sanctuary manager.

I also worked with [REDACTED] Health Project [REDACTED] as Acting Project manager from [REDACTED]

My work currently entails mainly Veterinary Health-care/ treatment Interventions, snare removal, post-mortems and routine health monitoring in Mountain gorillas.

My previous experiences include chimpanzee healthcare and management of the sanctuary, Veterinary interventions in wildlife conservation areas to rescue ensnared and sick animals, behavioral research organization and general/ specific disease prevention and control at the Ngamba chimpanzee sanctuary, Uganda Wildlife Education Centre and Budongo Forest Conservation Station in Uganda.

I headed and did laboratory work for the Research Project, [REDACTED] Health Project on disease transmission in Primates of [REDACTED]

With a Bachelor of Veterinary Medicine degree (BVM) from [REDACTED] University, I have sufficient gorilla and chimpanzee health-care knowledge, nature conservation knowledge. In addition, I did primate health-care training at the [REDACTED] National Primate Research Centre, University of [REDACTED]

I am computer literate in MS word, MS excel, and MS power point.

I am a member of Uganda Veterinary Association, Uganda Wildlife Veterinary network, Pan African Sanctuary Alliance, African Primatological Society, American Association of Zoo Veterinarians and Wildlife Disease Association.

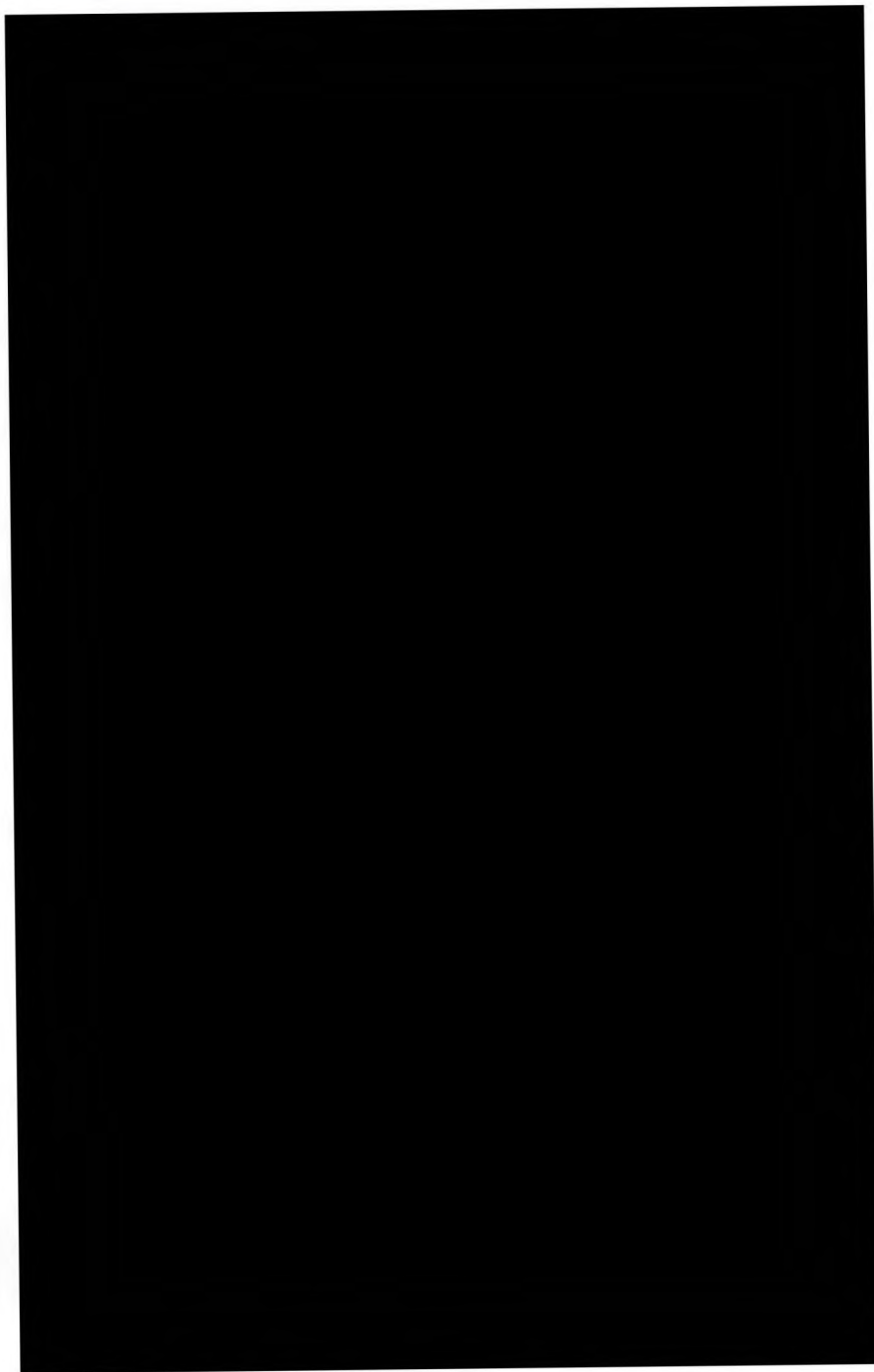
EDUCATION:

	<p>Bachelor of Veterinary Medicine, [REDACTED] UNIVERSITY, [REDACTED]</p> <p>Thesis: Antimicrobial Resistance in enteric bacteria isolated from Mountain gorillas, Buffaloes, Humans and Domestic livestock in and around Mgahinga National Park</p>
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WORK EXPERIENCE:**VETERINARY HEALTHCARE/ INTERVENTIONS AND CONSERVATION MANAGEMENT**

[REDACTED]	<p>MOUNTAIN GORILLA VETERINARY PROJECT Inc. HOUSTON, USA Clinical practice and training at the Houston zoo veterinary and animal hospital, USA.</p>
[REDACTED]	<p>MOUNTAIN GORILLA VETERINARY PROJECT Inc. UC DAVIS, USA Clinical practice and training on Rhesus monkeys at the California National Primate Research Centre in USA.</p>
[REDACTED]	<p>MOUNTAIN GORILLA VETERINARY PROJECT Inc. BWINDI, UGANDA Head of the Northern teams in Mountain Gorilla census in Bwindi Impenetrable National Park.</p>
[REDACTED]	<p>MOUNTAIN GORILLA VETERINARY PROJECT Inc. UGANDA SECTOR Field Veterinarian, Bwindi Impenetrable and Mgahinga Gorilla National Parks doing routine gorilla health monitoring, treatment and post-mortem interventions. Assists and supervising research students both local and international. Participation in Mountain gorilla conservation programs.</p>
[REDACTED]	<p>[REDACTED] CHIMPANZEE SANCTUARY [REDACTED] Management of the sanctuary, health-care of sanctuary chimpanzees and interventions in chimpanzee conservation areas.</p>
[REDACTED]	<p>[REDACTED] CONSERVATION FIELD STATION [REDACTED] Veterinary interventions for snare removal and post- mortem examinations on dead chimpanzees.</p>
[REDACTED]	<p>[REDACTED] HEALTH PROJECT [REDACTED] Project Manager responsible for research activities, Laboratory work and day-to-day field activities.</p>

References:





GORILLA DOCTORS™

Mountain Gorilla Veterinary Project & UC Davis Wildlife Health Center

Wildlife and Aquatic Resources Management (WARM) Department, College of Veterinary Medicine, Makerere University
P O Box 72901, Kampala, Uganda

EMPLOYMENT CONTRACT

Uganda Field Veterinarian

Contract date: October 1st 2014 - September 30th 2019

THIS EMPLOYMENT AGREEMENT ("Agreement") is entered into by and between MGVP, Inc., ("Employer"), and Dr Fred Nizeyimana ("Employee").

Employer desires to employ Employee, and Employee desires to be employed by Employer. In consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1) Term of Employment

Employer hereby agrees to employ Employee, and Employee hereby accepts employment with Employer, upon the terms set forth in this Agreement, and in the MGVP, Inc. Internal Rules & Regulations (appended herein) for a 5-year period commencing on **October 1st 2014** ("Commencement Date") and subject to renewal based on performance and available funding, unless sooner terminated in accordance with the provisions of this Agreement.

2) Title, Capacity, Obligations

Employee shall serve as **Field Veterinarian – Uganda**

a) Obligation of the Employee

The employee declares:

To personally carry out his/her work or service in the time, place and conditions, as agreed upon; To abstain from all that might threaten his or her security or that of his/her companions or third party, or prejudice his/her and other employees' dignity; To respect rules prescribed by the Project; and To work with other employees as a team.

b) Obligations of the employer

The employer declares:

To pay the employee the agreed remuneration regularly and in due time; To give to the employee the agreed work, under those conditions, at the time and place agreed; To ensure health insurance of the employee in accordance with employer's practices from time to time; and To supervise the employee and confirm that the work is done correctly.

www.gorilladoctors.org

Wildlife Health Center, UC Davis, 1 Shields Ave. Davis, CA 95617 -and- 1876 Mansion House Drive, Baltimore, MD 21217 USA

do not agree on a physician then these two together shall select a third physician, whose determination as to disability shall be binding on all parties.

- d) At the election of Employee, upon not less than sixty (60) days prior written notice of termination.
- e) At the election of Employer, without cause, at any time for any reason or no reason, upon not less than sixty (60) days prior written notice of termination.

6) Effect of Termination

- a) Termination for Cause, at Election of Employee or Upon Disability. In the event Employee's employment is terminated for cause pursuant to Section 5 b), upon disability pursuant to Section 5 c), or at the election of Employee pursuant to Section 5 d), Employer shall pay to Employee the compensation otherwise payable to him under Section 3 through the last day of his actual employment with Employer.
- b) Termination without Cause. In the event Employee's employment is terminated pursuant to Section 5 e), without cause, except as described in Section 6 d) below, Employer shall pay Employee the compensation owed to him under Section 3 through the remainder of the Employment Period.
- c) Termination for Death. If Employee's employment is terminated by death pursuant to Section 5 c), Employer shall pay the estate of Employee his earned but unpaid salary through the last day of actual employment.
- d) Project Termination. In the event the Project is discontinued for any reason prior to the expiration of the term of this Agreement, the financial obligations of the Employer cease on the date of Project termination

7) Waiver, Release and Indemnification

Employee acknowledges, agrees and understands that there are, or may be, risks, hazards and dangers attendant to Employee's employment on the Project. Employee willingly assumes such risks, hazards and dangers as his responsibility, and (individually, and on behalf of his heirs, successors, personal representatives, administrators and assigns) waives, releases, indemnifies and agrees to save, defend and hold harmless Employer, its officers, trustees, agents and employees, to the fullest extent permitted by law, from and against, any and all losses, claims, damages, liabilities or actions connected with Employee's position and employment with Employer (including, without limitation, all medical treatment rendered or secured for Employee in the event of need); and for any death, injury, accident, property damage or personal loss to Employee resulting directly, indirectly or otherwise, including without limitation, acts of war, terrorism, weather, defects in vehicles, breakdowns of equipment, animal attacks, strikes, theft, or delay or changes in itinerary or schedule.

Performance Evaluation

Goals will be set at the beginning of each 6-month period and will be evaluated at the end of each such 6-month period conducted by the Project Director. Employee will receive a performance appraisal after each 6 months during the Employment Period.

3) Salary and Benefits

Employer shall pay Employee, in monthly installments, a basic net yearly salary of **\$13,250** (US Dollars thirteen thousands, two hundred and fifty only).


4) Vacation and or Annual Leave

- a) Employee will be allowed 28-working days annual leave during the year to be taken in installments and during periods as will be agreed upon by the Employee and Employer.
- b) Employee will be allowed other leave such as paternity leave, compassionate leave, sick leave, and public holidays as will be agreed upon by the Employee and Employer.
- c) For every leave except sick leave, the employee has to make a written demand at least one week in advance to the employer which must be approved in writing.

5) Employment Termination

The employment of Employee by Employer pursuant to this Agreement shall terminate upon the occurrence of any of the following:

- a) Expiration of the Employment Period in accordance with Section 1
- b) At the election of Employer, for cause, immediately upon notice by Employer to Employee. For the purposes of this Section 5 b), a termination "for cause" shall include, but not be limited to, a termination for any of the following (including any act or omission which gives rise to any of the following:
 - i) Except for those action set forth in Section 5 b) iii) below, Employee breaches or neglects the primary duties that Employee is required to perform under the terms of this Agreement, after receiving a warning by Employer of the consequences of such actions and failing to cure within a period of two (2) days after receiving such warning;
 - ii) Employee commits a dishonest act toward Employer;
 - iii) Employee breaches Section 7 and 8 hereof, engage in any criminal conduct or violate any law.
- c) Upon the death or thirty (30) days after the disability of Employee. As used in this Agreement, the term "disability" shall mean the inability of Employee, due to a physical or mental disability, to perform the essential functions of his position, with or without reasonable accommodation. A determination of disability shall be made by a physician satisfactory to both Employee and Employer, provided that if Employee and Employer



- a) The parties agree that nothing in this section, or Agreement in general, shall constitute a waiver by Employer of Employee's right to seek benefits for injury covered by workers' compensation.

8) **Amendment**

This Agreement may only be amended or modified by a written instrument executed by both Employer and Employee.

9) **Miscellaneous**

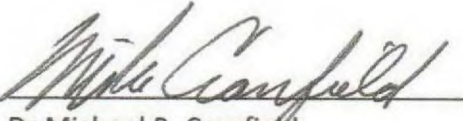
- a) No delay or omission by Employer in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by Employer on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.
- b) The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.
- c) In case any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.
- d) For anything that is not specified in the present contract the parties will refer to legal provisions and legislation in force in Uganda, internal rules and regulations of the employer, and the employee's job description. By signing this contract, employee acknowledges that he has received a copy of employer's internal rules and regulations and his/her job description.

IN WITNESS WHEREOF, the parties hereto have executed this Employment Agreement



Dr Fred Nizeyimana
FIELD VETERINARIAN

Date: _____



Dr Michael R. Cranfield
PROJECT DIRECTOR

Date: Director MGVF
1/12/15



THE REPUBLIC OF UGANDA

MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

UGANDA WILDLIFE AUTHORITY
(UWA)

AND

MOUNTAIN GORILLA VETERINARY PROJECT
(MGVP, INC)

NOVEMBER 2016

MEMORANDUM OF UNDERSTANDING (MoU)

This **AGREEMENT** is made this _____ day of _____ 2016, between **UGANDA WILDLIFE AUTHORITY** (hereinafter referred to as "UWA") of Plot 7 Kiira Road Kamwokya, P.O. Box 3530, Kampala, on the one part; and the **MOUNTAIN GORILLA VETERINARY PROJECT Inc.** (hereinafter referred to as "(MGVP, Inc)") of University of California, Davis, on the other part; (collectively referred to as "both parties").

Preamble

MGVP, Inc. is a non-profit non-governmental organization duly registered in Uganda based in Davis, California, USA with regional administrative headquarters in Musanze Rwanda and satellite offices in Uganda and Democratic Republic of the Congo (DRC). The Mountain Gorilla Veterinary Project (MGVP) is a long-term project that has been providing veterinary care to the mountain gorillas (*Gorilla beringei beringei*) of Rwanda, Uganda and the Democratic Republic of Congo (DRC) since 1986, with the goal of long-term survival of the species. MGVP's recognizes the importance of and participates in One Health, Capacity Building, and Research in its approach to the health care of the mountain gorillas.

MGVP, Inc. recognizes the need for close cooperation and collaboration between organizations and agencies in order to realize that goal. To that end, MGVP, Inc. formed a partnership with the University of California Davis Wildlife Health Center, and the MGVP has active Memoranda of Understanding with wildlife authorities in Rwanda and the Democratic Republic of the Congo and with the College of Veterinary Medicine at Makerere University, Kampala, Uganda.

In addition to providing veterinary care and health monitoring for wild gorillas, MGVP is now also responsible for implementation of the USAID funded Emerging Pandemic Threats (EPT) PREDICT project in Uganda and Rwanda through its affiliation with the UC Davis Wildlife Health Center. The objective of the PREDICT Project is to detect emergent zoonotic pathogens of wildlife that have human pandemic potential.

MGVP, Inc. would like to emphasize its collaboration with Uganda Wildlife Authority (UWA) with respect to wildlife health care and monitoring, training, research, and capacity building to help ensure the survival of the mountain gorilla, facilitate wildlife conservation, and better understand wildlife-human health risks in Uganda. It is the desire of MGVP, Inc. to review and renew the existing



Memorandum of Understanding with UWA to promote collaborative efforts in the area of conservation in general and wildlife health in particular.

The Uganda Wildlife Authority (UWA), created in 1996 by an Act of Parliament, the Uganda Wildlife Act cap 200 of 2000 is the lead government agency charged with the management of wildlife resources in Uganda. Through its directorate of conservation and the veterinary unit, UWA has the formidable charge of health management for all wildlife, including the mountain gorillas. As a flagship species, and the cornerstone of Uganda's ecotourism industry, the endangered mountain gorilla features prominently in the conservation activities of UWA and its Veterinary Unit. UWA recognizes the expertise of MGVP, Inc. in health care of gorillas and it is therefore the interest of UWA to renew the formal working agreement with MGVP, Inc.

UWA has embraced and is an active partner in the globally recognized strategy to promote collaborative efforts of multiple disciplines to attain optimal health for people, animals and environment through the One Health Approach, an innovative strategy to promote application of knowledge and skills of medical, public health, veterinary and environmental health by working together to address animal, human and environmental health challenges. To this end, UWA joined other collaborative government ministries, departments and agencies such as Ministry of Health, Ministry of Agriculture, Animal Industry and Fisheries, Ministry of Water and Environment to establish a One Health Framework for Uganda.

WHEREAS UWA recognizes collaboration and cooperation, as one of the strongest approaches that could be used to secure better management and protection of wildlife;

AND WHEREAS UWA is desirous of entering into collaboration and cooperation with MGVP Inc. in promoting wildlife health care and monitoring, training, research, and capacity building to help ensure the long term survival of the mountain gorilla, to facilitate wildlife conservation, and to better understand wildlife-human health risks and protection in Uganda;

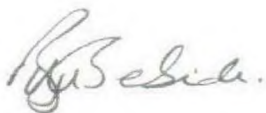
NOW IT IS HEREBY AGREED between UWA and MGVP, Inc. as follows:

Article 1:

Responsibilities and Obligations of MGVP, Inc.

The MGVP, Inc. shall:

- 1.1. Directly assist and work with UWA in providing health care of the gorillas of Uganda, including routine health monitoring, health evaluations, veterinary interventions and medical treatments and postmortem examinations.
- 1.2. Assist in coordination of wildlife diagnostic laboratory testing and histopathology at Makerere University and / or other qualified laboratories, in Uganda and or internationally.
- 1.3. Support the UWA's BSL II veterinary diagnostic laboratory in Queen Elizabeth National Park with consumables, equipment, capacity development and technical expertise to ensure the functionality of the laboratory.
- 1.4. In collaboration with UWA implement the USAID's Emerging Pandemic Threats (EPT) PREDICT project, including free-ranging and captive wildlife sampling at high-risk human-wildlife interfaces throughout the country, focusing primarily on non-human primates, bats and rodents; engage and involve UWA personnel in the wildlife surveillance activities, including provision of essential supplies to ensure efficient collection and processing of high-quality wildlife samples.
- 1.5. Co-own and regularly share data and information arising from the implementation of the Emerging Pandemic Threat (EPT) project to better inform either party of any evolution, emerging and re-emerging pathogens especially viruses that are of importance to animal health (especially mountain gorillas) and public health.
- 1.6. When specifically requested by UWA, and when MGVP, Inc. resources allow, be on call to respond to other wildlife health problems in Uganda or facilitate UWA veterinary team with financial and logistical support to undertake such an emergency response.
- 1.7. Share with UWA any/all information related to diagnosed and/or suspected disease outbreaks in other wildlife populations or global species that may be of threat to gorilla populations in the three host countries, in a timely manner.
- 1.8. Recognize that the final responsibility for diagnosis and treatment of mountain gorillas in Uganda shall remain the responsibility of UWA, unless designated by UWA to the attending MGVP, Inc. veterinarian or other qualified veterinarian.



- 1.7 Assist UWA in developing and maintaining a wildlife biological resource center for sample storage for diagnostic and research purposes.
- 1.9. Assist in training UWA personnel in gorilla health monitoring and management as well as training UWA personnel to manage the wildlife biological resource center.
- 1.10. Support and facilitate UWA staff to attend conferences, meetings and symposia that are of relevance and beneficial to wildlife management in general and gorilla conservation in particular both regionally and internationally
- 1.11. Utilize computerized medical record-keeping systems Gorilla VMACs and IMPACT, for mountain gorilla health and epidemiologic monitoring and support its integration into UWA SMART system for ease of access and use by UWA staff.
- 1.12. Submit quarterly and annual reports of MGVPs activities including implementation of the EPT II PREDICT program to UWA management for review, information and decision making.
- 1.13. Comply with all applicable national and international laws and regulations, official policies and procedures regarding deployment of MGVP personnel to conduct wildlife health care, monitoring and surveillance activities in Uganda.
- 1.14. Comply with all applicable national and international laws, official policies and instructions regarding any transport, shipment and storage of biological samples.
- 1.15. Assist UWA within MGVP's available resource limits with veterinary supplies to aid in maintaining the health of the mountain gorillas and other wildlife in Uganda.
- 1.16. Ensure that the involvement of any other party or in any activity not mentioned or covered by this memorandum, originating from MGVP, will first be approved by UWA in writing.
- 1.17. Disengage from activities or actions that may be interpreted by UWA as competing with or compromising UWA's interests and roles as enshrined in this MoU or in the laws of Uganda.

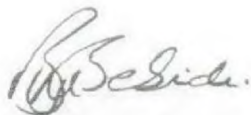
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Article 2: Responsibilities and Obligations of the Uganda Wildlife Authority

The Uganda Wildlife Authority shall, to the best of its abilities:

- 2.1. Acknowledge the expertise and resources of MGVP, Inc. in mountain gorilla health care and research by allowing MGVP, Inc. veterinarians to provide health monitoring, health evaluations, diagnostics, treatments, and necropsies to mountain gorillas in Uganda.
- 2.2. On request and subject to its policies, grant MGVP personnel and collaborators/funders access to MGVP field activity sites.
- 2.3. Recognizing that the mountain gorillas are a trans-boundary species, and if UWA resources and regional collaborative arrangements allow, assist MGVP Inc. veterinarians in health care of the mountain gorillas of Rwanda and the DRC, including health monitoring, health evaluation, immobilizations, treatment, and / or post mortem examinations.
- 2.4. Cooperate with MGVP, Inc. in reaching its goals for mountain gorilla conservation by sharing:
 - 2.4.1 Biological materials from mountain gorillas and other wildlife for diagnostic and research purposes;
 - 2.4.2 Data from mountain gorillas and other wildlife where appropriate.
- 2.5. Contribute to international mountain gorilla conservation efforts by contributing biological samples to the international sample bank maintained by MGVP Inc.
- 2.6. Facilitate and collaborate with MGVP Inc.'s implementation of the USAID Emerging Pandemic Threats (EPT) PREDICT project, including facilitating and collaborating in wildlife surveillance, sample collection and diagnostics.
- 2.7. Comply with all applicable national and international laws, official policies and procedures regarding any transfer, transport, shipment and storage of wildlife biological samples.



Article 3: Copyright of Scientific Results and Ownership of Biological Materials

Both Parties agree that:

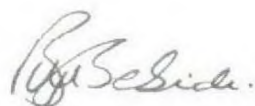
- 3.1. Ownership of all gorilla and other wildlife biological samples, specifically blood products, tissues, hair, urine, feces, swabs and skeletal remains from gorillas and other wildlife of Uganda, including those which are passed to other parties and/or sent abroad for diagnostic and/or research purposes shall be retained by the government of Uganda through UWA. Biological samples should be split and portions transferred to UWA repository facility and to the Ugandan Wildlife Biological Resource Centre, MGVP Inc., and to any other location as may be deemed necessary and or required by the laws and policies of Uganda to safeguard against natural or manmade occurrences that could affect the quality of the samples in the long-term.
- 3.2. Access to and control of scientific results arising from joint studies or operations between UWA and MGVP Inc. shall be retained jointly by UWA and MGVP Inc. All publications and / or presentations arising from such data shall be reviewed by both parties and written permission from said parties obtained before submission. In the case of scientific and /or popular presentation or publication where contributors are not co-authors, appropriate credit will be given to all significant contributors e.g. assistance in the field, and preparation of manuscripts.

Article 4: Duration

This agreement is for a period of five (5) years from the date of signing by the authorized representatives of the parties, subject to renewal after a mutual agreement in writing by both parties.

Article 5: Amendments and Termination

- 5.1. There shall be a mandatory mid-term review of this MoU. However, routine reviews or amendments from time to time as deemed appropriate by mutual agreement in writing by both parties may be done.
- 5.2. Both parties undertake not to unreasonably withhold any issue pertaining to the review/amendment of this MoU.



5.3. This agreement may be terminated by breach or diversion from a party's obligations herein mentioned, or by loss of interest in the partnership by any party.

5.4. Either party may terminate this agreement by giving the other one (1) month written notice prior to the intended termination.

Article 6: Disputes

Any dispute between the parties hereto arising from or related to interpretation of this agreement or its enforcement shall amicably be settled between the parties or referred to Arbitration under the UNCITRAL Rules.

Article 7: Force Majeure

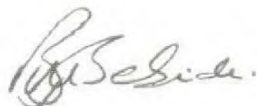
No party shall be held responsible/ liable for the inability to implement the obligations or terms in this MoU if such inability arises from civil strife, government restrictions, war, curfew, acts of God and other genuine natural unforeseeable circumstances. Any situation of force majeure shall be communicated to the other party within 14 days from the occurrence of such force majeure for an amicable/ mutual solution.

Article 8: Indemnity

No party hereto shall be held responsible/ liable for any loss/ risk/ damage that may arise from the actions of the other party during the execution of this MoU. Each party shall be responsible for its own actions or omissions that may as a result of its negligence or of its servants/agents/employees cause loss/risk/damage and shall compensate the affected party accordingly.

Article 9: Notices

Any notice required to be given under this agreement shall be deemed to be duly served if left at the parties' addresses herein mentioned or such other addresses the parties may expressly designate from time to time, in which case either party will have been notified in writing of the change of address



Article 10 Governing Law

The laws of Uganda and policies promulgated there under whether now in force or hereafter enacted or promulgated shall govern this agreement and its administration by both parties

IN WITNESS WHEREOF the undersigned, being duly authorized thereto have on behalf of UWA and MGVP Inc. signed the AGREEMENT on the day and year written above:

For: Uganda Wildlife Authority

SIGNATURE: _____

TITLE: _____

NAME: _____

DATE: _____

In presence of:

SIGNATURE: _____

TITLE: _____

NAME: _____

DATE: _____

For: Mountain Gorilla Veterinary Project

SIGNATURE: _____

TITLE: _____

NAME: _____

DATE: _____

In presence of:

SIGNATURE: _____

TITLE: _____

NAME: _____

DATE: _____



GORILLA DOCTORS™

Mountain Gorilla Veterinary Project
a 501(c)(3) Non-Profit Organization

Memorandum of Understanding

Between

Rwanda Development Board

And

Mountain Gorilla Veterinary Project (MGVP, Inc.)

Date _____

MOU REF: RDB/LD/No....../....../2017

Rwanda Development Board (RDB), a Public Institution created by the Organic Law No. 46/2013 of 16/06/2013, with its Head Office at RDB Building, Gishushu, Kigali, Rwanda (hereinafter referred to as 'RDB') represented by Clare Akamanzi, Chief Executive Officer.

AND

Mountain Gorilla Veterinary Project (MGVP, Inc.), a US-registered non-profit non-governmental organization based in California, USA (IRS Federal EIN 06-1752363), formally partnered with the University of California, Davis with principal offices in the United States, Uganda, Democratic Republic of Congo, and Rwanda (hereinafter referred to as MGVP). Africa regional administrative headquarters are in Musanze, Rwanda. Street No. NM 4 AVE 12, represented by Dr. Mike Cranfield, Project Director.

Preamble

WHEREAS:

The Rwanda Development Board (RDB) is the Public Institution charged with management of parks and tourism in Rwanda, among others, and has the formidable charge of health management for wildlife in the parks, including mountain gorillas (*Gorilla beringei beringei*). As a flagship species and the cornerstone of Rwanda's ecotourism industry, the endangered mountain gorilla figures prominently in the activities of RDB; and

MGVP is a long-standing organization that has been providing health care to mountain gorillas in Rwanda since 1986, and thereafter also to mountain gorillas in Uganda, and to mountain and Grauer's gorillas in the Democratic Republic of Congo, with the goal of helping to ensure the long-term survival of the eastern gorillas. MGVP appreciates and recognizes the need for governmental permissions, and for cooperation and collaboration among organizations and agencies in order to realize the goal.

IN CONSIDERATION THEREOF:

RDB recognizes the expertise of the MGVP in providing health care for gorillas, and in monitoring disease in free-ranging wildlife in Rwanda. MGVP would like to foster its collaboration with RDB with respect to gorilla and wildlife health monitoring, clinical care, training, research, and capacity-building, to help ensure the survival of the mountain gorillas, and to facilitate wildlife conservation in Rwanda.

It is therefore the desire of RDB to enter into a formal working agreement with MGVP for continued operation in Rwanda;

NOW THEREFORE;

RDB and MGVP (hereinafter referred to as "Parties") hereby agree as follows:



Article 1. Objective of MOU:

Recognizing the role and expertise of each Party, it is the desire of both Parties to enter into a formal working agreement to promote collaborative efforts for the long-term survival of the mountain gorillas, to define communication protocols and responsibilities of each Party, and to establish title and disposition of select assets. The terms of this partnership are herein detailed below:

Article 2. Responsibilities of MGVP:

MGVP shall, to the best of its abilities, undertake to:

- a) Directly assist RDB in providing health care for the Mountain gorillas of Rwanda, including routine health monitoring, health evaluations, immobilizations, medical treatments and postmortem examinations, and emergency and routine health care for confiscated gorillas and other great apes.
- b) Assist in coordination of diagnostic laboratory testing and histopathology within Rwanda and internationally.
- c) Report to RDB in a timely manner all diagnosed and/or suspected disease outbreaks occurring in eastern gorilla populations in Uganda and Democratic Republic of Congo, as these diseases have the potential to affect Mountain gorilla populations in Rwanda.
- d) Assist RDB in managing gorilla and wildlife biological resource centers in Rwanda and in the United States, for gorilla and wildlife sample storage for diagnostic and research purposes.
- e) Prioritize in-country capacity-building for wildlife veterinary medicine; work with RDB to identify individuals who may be appropriate Rwandan candidates for an internship or volunteer position with MGVP.
- f) Comply with all applicable national and international laws, official policies and instructions regarding any transport, shipment and storage of biological samples that are being transported or shipped to diagnose causes of morbidity or mortality in gorillas or other Rwandan wildlife when accurate diagnostics cannot be obtained in Rwanda, or for research purposes, as stipulated in an approved Research Permit issued by RDB.
- g) Implement the US Agency for International Development (USAID) Emerging Pandemic Threats PREDICT-2 project, including sampling wild and captive wildlife at high-risk human-wildlife interfaces throughout the country, focusing primarily on primates, bats and rodents; keep RDB apprised of surveillance activities, and involve RDB personnel in field activities when requested.
- h) Submit draft manuscripts to RDB in advance of submission for publication or presentation, and inform RDB in advance of the pending publication of any abstract, scientific paper, public presentation or article that references MGVP activity in Rwanda.
- i) Inform RDB prior to production, broadcast or publication of interviews or documentaries for popular audiences relating to its activity in Rwanda.
- j) Abide by the terms and provisions of signed material removal transfer agreements; transfer samples to third parties for diagnostic purposes only, unless previously approved by a specific research permit.
- k) Provide in a timely manner an annual report, an annual work plan and budget, and quarterly regional reports to RDB.



l) Provide to RDB an annual staffing plan, and notice of changes in staffing as soon as practicable and include RDB on the interviewing panel when hiring field staff.

Article 3: Responsibilities of RDB

RDB shall, to the best of its abilities, undertake to:

- a) Acknowledge the expertise and resources of MGVP in mountain gorilla health care by allowing MGVP veterinarians to perform gorilla health monitoring, health evaluations, diagnostics, interventions (procedures that involve remotely administering a pharmaceutical by dart or chemically immobilizing a gorilla or other wildlife to perform veterinary treatments) and necropsies and health care to orphan great apes.
- b) Grant MGVP the right to make clinical decisions and recommendations (based on its observations and assessments) regarding whether or not to conduct interventions to treat ill and injured gorillas and other wildlife, and after consultation with RDB decide whether or not to conduct a clinical intervention.
- c) Report to MGVP in a timely manner all health problems occurring in the Mountain gorillas of Rwanda, to assure the best possible health outcome for an individual or group, as disease has the potential of affecting gorilla populations in all three-host countries.
- d) Cooperate with MGVP in reaching mutual goals in mountain gorilla conservation by sharing data and biological material for diagnostic and research purposes (with an approved research permit) and contribute to international mountain gorilla conservation efforts by sharing biological samples with MGVP when needed including enabling transfer internationally for diagnostic testing if accurate diagnostics cannot be obtained in Rwanda and comply with all applicable national and international laws, official policies, and instructions regarding transport of animals and shipment and storage of biological samples, including timely, accurate preparation and completion of all required forms for shipment of animals or biological samples, with RDB providing permits at least one week prior to shipping date.
- e) Provide feedback within 14 days of receipt, on draft manuscripts (e.g. abstract, scientific paper, public presentation or article) and research proposals submitted by MGVP to RDB.
- f) Help MGVP import without delay any supplies, equipment, vehicles and other materials necessary to complete its function as outlined in this MOU.
- g) Facilitate and collaborate with MGVP's implementation of the USAID Emerging Pandemic Threats PREDICT-2 project, including providing necessary permits for wildlife surveillance and sample collection and diagnostics, and by making RDB personnel available for assistance with surveillance and sample collection when feasible and desired by both parties.
- h) Acknowledge that property of any sort which is purchased or imported into Rwanda by MGVP is the property of MGVP and may be moved by MGVP within Rwanda or outside of Rwanda, or transferred by MGVP through sale, gift or otherwise according to normal channel rules under Rwandan law governing NGOs.



Article 4. Copyright of Scientific Results and Ownership of Biological Materials

Both parties agree that:

- a) The intellectual ownership of all gorilla biological samples, exclusively blood products, tissues, hair, urine, feces and skeletal remains, from gorillas of Rwanda, including those that are passed to other parties and/or sent abroad for diagnostic and/or research purposes, shall be retained by RDB. MGVP must request permission from RDB if it is transferring samples to a third party for diagnostic purposes; under no circumstances shall MGVP transfer samples to a third party for research purposes unless the third party has an approved scientific research permit for said research from RDB.
- b) Access to and control of scientific results arising from joint studies or operations between RDB and MGVP shall be retained jointly by RDB and MGVP. All publications and/or presentations arising from such data shall be reviewed by both Parties and written permission from said Parties obtained within 14 days of receipt by the one Party of the proposed publication or presentation from the other Party, before submission. A lack of a response on the part of either Party by 7 days after receipt of the request, the requesting party shall be required to give a reminder. After another 7 day period with no response for permission it will be considered implied approval. In the case of scientific and/or popular presentations or publications where contributors are not co-authors, appropriate credit will be given to all significant contributors (e.g. assistance in the field, preparation of manuscripts, etc.).
- c) In the spirit of professional conduct and regional cooperation and collaboration, both Parties shall, when appropriate, include the other in gorilla research studies, preparation of scientific publications, and publication of scientific results, including but not limited to, scientific results obtained from gorillas of multiple countries and/or joint participation in treatment, etc. in other countries. In all cases, appropriate credit shall be given to the other and/or third party participants in any publicity and /or scientific publications resulting from such cooperative activities.

Article 5. Duration and Terms

- a) This MOU is entered into upon the date of signature as set forth below.
- b) This MOU is in force for a period of three (3) years from the date of signatures as set forth below.
- c) This MOU will be renewed every three years after review and input from both Parties.

Article 6. Language

The language for the purposes of implementing the obligations herein created shall be the English language.



Article 7. Dispute Resolution

The Parties shall strive to amicably by mutual understanding settle any disputes or differences arising from or in connection with this MOU.

Article 8. Force Majeure

Neither Party shall be liable for failure to perform any of its obligations under this MOU as a result of the occurrence of a Force Majeure event or situation, which for the purposes of this MOU means any event or situation that makes it impossible for a Party to perform its obligations, and includes but is not limited to acts of God, national emergencies, war or civil conflict.

Article 9 Amendments

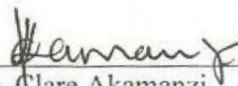
This MOU can only be amended through an agreed modification in writing approved by both Parties.

Article 10 Termination

This MOU may be terminated by either Party giving at least sixty (60)-calendar days written notice in advance to the other Party of its intention to terminate this MOU.

IN WITNESS THEREOF the Parties have caused two (2) copies of this MOU to be executed by their duly authorized signatories who do hereby append their signatures and seals on the day indicated below:

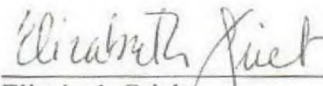
For RDB:



Ms. Clare Akamanzi
RDB Chief Executive Officer

Date: _____

For MGVP, Inc.



Elizabeth Grieb
President, MGVP, Inc.

Date: November 2, 2017

Renewal In Process

INTRODUCTION

The Ministry of Planning and Monitoring the Implementation of the Revolution of Modernity here represented by the Minister;

and

The Mountain Gorilla Veterinary Project" MGVP, Inc.", a non-governmental organization (NGO) non-profit and a registered 501c3 in the state of Maryland. Mountain Gorilla Veterinary Project (MGVP, Inc.) is a long-term project that provides health care to gorillas (*Gorilla beringei beringei* and *Gorilla beringei graueri*) of the Democratic Republic of Congo (DRC), Rwanda and of Uganda since 1986 with the aim of long-term survival of the species. The University of California Davis (UCD) and MGVP, Inc. has a collaboration agreement under which MGVP Inc. will assume operations of Mountain Gorilla Veterinary Project as part of the Wildlife Health Center of UCD. The MGVP, Inc. recognizes the need for close cooperation and collaboration between organizations and agencies in the direction of achieving this goal.

The MGVP, Inc. memoranda of agreement with assets, Uganda Wildlife Authority (UWA), Rwanda Development Board (RDB), State University of California Davis USA, the Department of Animal Resources Management and Wildlife University of Makerere in Uganda and DFGFI.

The MGVP, Inc. would like to strengthen its cooperation with ICCN in applying training on the health of wildlife, research and capacity building to facilitate the conservation of wildlife in the DRC. It is a desire for MGVP, Inc. to renew a formal protocol of work with ICCN to promote collaborative efforts in conservation areas in general and medicine in particular..

Hereinafter referred to as "The Parties"

Aware of the objectives and spirit of the law n ° 004/2001 of 20 July 2001 laying down general provisions on Nonprofit Associations and Institutions of Public Utility in the Democratic Republic of Congo;

Recognizing the need to sign a Framework Agreement between the Ministry of Planning and Monitoring the Implementation of the Revolution and Modernity and MGVP accordance with the legal provisions in force and in accordance

HAVE AGREED AS FOLLOWS:

CHAPTER I: BACKGROUND AND OBJECTIVES

Section 1: Framework for Collaboration.

Article 1: The parties agree to establish the Democratic Republic of Congo, a general framework for cooperation for sustainable survival of populations of gorillas (*Gorilla beringei beringei* and *G. beringei graueri* b.) Living in the wild and in captivity.

Section 2: Objectives

-

Article 2: This framework agreement is intended to carry out the activities on the following themes for:

- Monitoring the health status of families of gorillas in the Virunga Massif and in the Kahuzi-Biega and Mount Tshaberimu
- Interventions for treatment, if necessary, health problems endangering the lives of gorillas especially when they are induced because of the man;
- Necropsy and diagnostic analysis of samples taken from dead animals;
- Monitoring health of gorilla conservation employees and their families as outlined in the Employee Health Protocol;
- The health management gorilla orphans after their confiscation and their sanctuary;
- Capacity building of field staff of the Congolese Institute for the Conservation of Nature with priorities given veterinarians and monitoring staff ;
- Research on relevant topics in the field of health approach "One Health" and disseminating results through conferences, presentations or publications.

CHAPTER II: OBLIGATIONS OF BOTH PARTIES

Section 3: Commitments MGVP

Article 3: MGVP will:

(I) Designate a representative authorized by him to act on his behalf and to receive information and communications of the Ministry of Plan Implementation and Monitoring of the work of the Revolution of Modernity.

(II) Establishing a representative office in the Democratic Republic of Congo and other operational sub-offices in the entire national scope if necessary, recruit, train and promote national staff in the course of its operation.

(III) Establish and implement programs in collaboration with the Ministry of Planning and Monitoring the Implementation of the Revolution of Modernity that the dashboard of the general development of the country, other government departments and authorities, and that in partnership with local partners in accordance with the laws and customs of the people Congolese organizations.

(IV) To receive a gift and buy locally or outside the vehicle, materials, equipment, spare parts, computer and communications equipment, pharmaceuticals, books and other

supplies, goods and services necessary for the implementation of its programs, the operation of its offices and for the achievement of its objectives.

(V) Allow MGVP seek funding from various donors (private, public or other international institutions) to enable it to develop and implement projects with its partners.

(VI) Inform the Ministry of Planning and Monitoring the Implementation of the Revolution of Modernity, volume of funds introduced in the Democratic Republic of Congo for its projects through annual activity reports submitted once the fiscal year in the spirit of Article 3 paragraph (X) of this Agreement.

(VIII) Recruit for the implementation of its projects, local and foreign personnel and pay all costs related to staff work, travel and staff accommodation and repatriation of foreign personnel at the end warrant or in cases of force major.

(IX) Bring to the attention of the Representatives of the Government of the Democratic Republic of Congo all irregularities that may arise and / or identified in the implementation of this Agreement.

(X) Reporting to the Tax Authority all amounts paid to third parties who have performed work for MGVP, excluding staff salaries.

Submit to the control of the Tax Administration.

(XII) Provide a report of activities and detailed reports to the Ministry of Planning and Monitoring the Implementation of the Revolution of Modernity annually.

(XIII) A closure of the representative office MGVP all operational facilities may be at the end of a program:

- ♣ ie, assigned to the donor, if the regulations of the contract made with the lessor require;
- ♣ ie, assigned to a partner organization that pursues the same objectives in the DRC;
- ♣ be re-exported if a specific need to be used in another country.

Section 4: Duties of the Ministry of Planning and Monitoring the Implementation of the Revolution of Modernity.

Article 4: The Ministry of Planning

and Monitoring Implemented Revolutionary Modernity is committed to:

(I) Designate a representative of the Department to assess the impact on the ground support provided by MGVP its local partners for the implementation of their projects;

(II) Provide political and administrative support necessary for the proper operation of programs MGVP recommending administrative authorities at all levels, to give him their support and cooperation in order to accomplish its mission over the entire extent of the Democratic Republic of Congo;

(III) Granting MGVP expatriate staff working in the Democratic Republic of Congo and its staff based outside the Congo, administrative facilities for obtaining an entry visa, residence and exit.

(IV) To facilitate entry into the Democratic Republic of Congo Democratic Republic of Congo capital goods, equipment and spare parts and vehicle maintenance, medications, supplies, and all imported supplies needed to carry objectives and functioning services MGVP, exempt from customs duties and taxes;

(V) Subject to the review of the case by the competent department in charge of analyzing the exemptions to the Ministry of Planning and Monitoring the Implementation of the Revolution of Modernity, recognize MGVP, by order of the Interministerial following tax and customs exemptions materials:

a. Actual taxes:

- Property tax on the area of developed land and undeveloped
- tax on vehicles
- Tax traffic.

b. Schedular income taxes

- Tax on rental income
- Professional Tax on earnings and profits.

c. Indirect taxes including value added tax on imports.

d. Special tax on salaries of expatriate staff.

e. Duties and taxes on the import of goods and equipment related to the mission of MGVP, including administrative charges.

(VI) Granting MGVP, facilities for the use of radios, phonics, telephones and other means of communication, according to the laws in force in the sector.

(VII) Grant MGVP, facilities for exemption from taxes and duties prescribed by the Board Airway Flight carrying animals, materials, capital equipment and staff needed to conduct activities and, accordance with the legal texts governing the sector.

(XI) Grant MGVP, facilities for import and export agents for its mission, its expatriate

staff, their spouses and family members who are dependent on them, personal effects including a vehicle for personal use for each family, furniture, appliances, art and household items, free of customs duties and taxes.

(XII) Allow MGVP rent or buy buildings for its services;

(XIII) Allow MGVP hold bank accounts under the laws in force in respect of exchange;

(XIV) a) Take any corrective action required on all irregularities in the implementation of this Framework Agreement and bring to the attention of or (s) representative (s) of the Government by the Resident Representative MGVP;

b) Allow all public institutions and all government departments, including the Directorate General of Customs and Audience (LDB), the Directorate General of Taxes (DGI), the Directorate General of Revenue and Administrative Domaniales (DGRAD) the General Directorate of Migration (DGM) and the Congolese Control Office (CCO) occurring within the framework of the implementation of these facilities to apply.

CHAPTER III: SETTLEMENT OF DISPUTES

Article 5: Any dispute arising from the application or interpretation of the provisions of this Framework Agreement shall, in the absence of an amicable settlement between the two Parties, the competent courts within the jurisdiction of representative office MGVP Democratic Republic of Congo.

Previous disputes the entry into force of this Framework Agreement will be a particular moratorium.

CHAPTER IV: GENERAL PROVISIONS

Article 6: To ensure the effective implementation of the provisions of this Framework Agreement, the Contracting Parties agree to inform and consult each other.

Article 7: An agreement with another Department will be held as additional to this Framework Agreement and shall comply with the basic terms defined therein.

CHAPTER V: FINAL PROVISIONS

Article 8: The Framework Agreement is made subject to obtaining the Presidential Order authorizing the establishment of the NGO in the Democratic Republic of Congo.

Article 9: This collaboration agreement committing both parties for a period of five (5) years renewable upon evaluation for the same period commencing on the date of its signature.

Article 10: Either party may terminate this Framework Agreement by giving six (06) months notice to the other with acknowledgment.

The short notice from the date of receipt of the notification.

Article 11: Any changes to this Framework Agreement is for an amendment signed by both parties jointly.

Article 12: This Framework Agreement shall enter into force on the date of its signature.

Made in Kinshasa in five (5) copies, the
Not for the Organization for the Ministry of Planning and Monitoring Implementation
Government of the Revolution of Modernity

MGVP

Michael Robert CRANFIELD

ICCN

Vunabandi Kanyamihigo

Minister Executive Director

Mortality at Lwiro						
Nº	Name	Sex	Species	Died	ID	Cause
11	Monuc	Female	<i>Pan troglodytes</i>	10.12.10	101210LFGPt001 MONUC	General infectious associated
12	Pendeza	Female	<i>Pan troglodytes</i>	11.01.11	110111LFGPt001 PENDESA	General infectious associated
13	Kavumu	Male	<i>Cercopithecus ascanius</i>	10/29/2011	111029CVMCa001 KAVUMU	Wasting disease syndrome
2012-2017						
14	Mama Kivu	Female	<i>Cercopithecus ascanius</i>	3/5/2012	120305CVMCa001 MAMA KIVU	Wasting disease syndrome
15	Noel	Male	<i>Cercopithecus hamlini</i>	5/1/2012	120501CVMCa001 NOEL	Trauma by aggression
16	Coco Kalonge	Male	<i>Cercopithecus ascanius</i>	may.-12	120501CVMCa001 COCO KALONGUE	Wasting disease syndrome
17	Peppin	Male	<i>Cercopithecus ascanius</i>	sept.-12	120901CVMCa001 PEPPIN	Wasting disease syndrome
18	Mapendo	Female	<i>Chlorocebus pygerythrus</i>	4/3/2013	130403CVMCa001 MAPENDO	Trauma by aggression
19		Male	<i>Cercopithecus ascanius</i>	12/24/2013	131224CVMCa001	Wasting disease syndrome
21	Becky	Female	<i>Papio anubis</i>	7/22/2014	140722CVMPa001 BECKY	Trauma by aggression
22	Atari	Female	<i>Cercopithecus ascanius</i>	Aug-14	140801CVMCa001 ATARI	Wasting disease syndrome
23	Baby Biega	Female	<i>Pan troglodytes</i>	9/17/2014	140917MLBPt001 BABY BIEGA	Priental trauma/cranial fracture
24	Biega	Female	<i>Pan troglodytes</i>	10/9/2014	141009MLBPt001 BIEGA	Not identify, possible infectious associated
25	Harry	Male	<i>Cercopithecus ascanius</i>	11/17/2014	141117IVG001 HARRY	Wasting disease syndrome
26	Chantal	Female	<i>Cercopithecus hamlini</i>	1/7/2015	150107IVGPT001 CHANTAL	Trauma by aggression
27	Bernardette	Female	<i>Cercopithecus hamlini</i>	5/27/2015	150527LNCh001 BERNARDETTE	Wasting disease syndrome
28		male	<i>Cephalopus spp.</i>	6/21/2015	150621LNCspp001 ANTILOPE	Cranial fracture
29		Male	<i>Kinixys erosa</i>	7/24/2015	150724LNKe001 Kinixys	Arrival in very bad body condition
30	Mubi	Male	<i>Pan troglodytes</i>	8/15/2015	150815IVGPT001 MUBI	Acute respiratory disease/possible viral infectipus associated
31	Bintu	Female	<i>Cercopithecus hamlini</i>	5/5/2015	150505LNCh001 BINTU	Not identify, possible gastrointestinal infectious associated.
32	Popi	Female	<i>Pan troglodytes</i>	3/5/2016	161012JDPPt001POPI	Not identify, possible infectious associated
33	Monique	Female	<i>Pan troglodytes</i>	5/9/2016	161013JDPPt001	Not identify, possible infectious associated
34	Rex	Male	<i>Manis tricuspis</i>	5/21/2016	160521LNMt001 REX	Perinatal infectious associated
36	Itonbwe	Male	<i>Papio papio</i>	19.02.17	170219LFGPp001 ITOMBWE	Abdominal Itumour
37	Nzovu	Male	<i>Cercopithecus ascanius</i>	29.04.17	170429LFGCa001 NZOVU	Wasting disease syndrome by protozoal enteritis + social estrés
38	Hyrax	Female	<i>Dendrohyrax arboreus</i>	06.05.17	170506LFGDa001 HYRAX FEMALE	Enterotoxemia
39	Rabbit	-	<i>Oryctolagus cuniculus</i>	16.06.17	170616LFGOC001 RABBIT WOMEN EADM	Acute Coccidium infection

40	Kongolo	Male	<i>Cercopithecus ascanius</i>	09.08.17	170809LFGCa001 KONGOLO	Wasting disease syndrome by protozoal enteritis + social estrés
41	Perroquet	-	<i>Pssitacus erhitacuss</i>	28.08.17	170828LFGPe001 PERROQUET	Metabolic diseases/hepatitis
42	Hyrax	Male	<i>Dendrohyrax arboreus</i>	26.09.17	170926LFGDa001 HYRAX MALE	Enterotoxemia
43	Mechant	Male	<i>Canis familiaris</i>	19.02.17	170219LFGCf001 MECHANT	Generalized tumour/Lymphoma?

MICHAEL CRANFIELD 04-82

[Redacted]

Jan 3 2018
Date

[Redacted]

Pay to the order of U.S. Fish + Wildlife
One hundred

\$ 100⁰⁰
Dollars

Handed Clerk

Bank of America

ACH R/T 052001633

Memo

Mike Cranfield

MP

[Redacted]

RCVD JAN 10 2018



GORILLA DOCTORS™

Mountain Gorilla Veterinary Project & UC Davis Wildlife Health Center

January 3, 2018

REGIONAL HEADQUARTERS

B.P. 115
Musanze, Rwanda
25-078-830-7578;

Buhoma, Uganda;
Kisoro Uganda
Kampala, Uganda

Goma, Democratic Republic

of the Congo

U. S. HEADQUARTERS

Karen C. Drayer Wildlife Health Center
UC Davis
One Shields Avenue
Davis, CA 95616

PO Box 356
Davis, CA 95617

DIRECTORS

Michael Cranfield
(410)917-7666

Kirsten Gilardi
(530)752-4896
kgilardi@ucdavis.edu

MGVP, Inc: Tax ID #06-1752363

To whom it may concern

Gorilla Doctors (MGVP, Inc.) is applying for a renewal of their CITES Import permit. Since it has been five years we have filled out a complete application. Please add the following CV for Mike Cranfield to the documents mailed separately. Thanks

Mike Cranfield

Executive Director MGVP, Inc.

Co Director Gorilla Doctors



Michael ■ Cranfield, DVM

Areas of Interest

AVIAN MALARIA (PENGUIN MALARIA IN PARTICULAR)

ACCOMPLISHMENTS:

Co-development of new ELISA and PCR tests for avians and mosquitoes
Co-development of an effective vaccine for canaries and penguins
Completed environmental assessments of penguin rehabilitation centers in South Africa
SSP Medical Advisor for penguins
Twenty-two journal publications and one book chapter

CONSERVATION MEDICINE (MGVP, INC. IN PARTICULAR)

ACCOMPLISHMENTS:

Started the first Employee Health Program for employees working in the field close to gorillas
Co-developed IMPACT: a data collection, storage and analysis program for health monitoring gorillas
Started a capacity building program to train African vets in the U.S.
Mentored two PhD students and three masters students, plus dozens of four year students both at the Zoo and at Makerere University
Sixteen journal publications and five book chapters

REPTILIAN CRYPTOSPORIDIOSIS

ACCOMPLISHMENTS

Delineated zoonotic potential, and family susceptibility
Developed new diagnostic tests including ELISA
Developed new and effective treatments using hyperimmune bovine colostrum
Thirty-seven journal publications and three book chapters

REPRODUCTIVE PHYSIOLOGY (MACAQUES IN PARTICULAR)

ACCOMPLISHMENTS:

First lion-tailed macaque produced by artificial insemination
First baby of any sort by invitro fertilization in a zoo
Tenth live birth of a primate in the world by IVF , freezing and transfer
Production and biobanking of 52 lion-tailed macaque (*Macaca silenus*) embryos
Developed techniques to collect usable sperm from the bladder after retroejaculation from electroejaculation
SSP medical advisor for lion-tailed macaques (*Macaca silenus*)
Seven journal publications and one book chapter

BANKING OF BIOLOGICAL RESOURCES

ACCOMPLISHMENTS:

Developed the biobank at the Maryland Zoo that holds thousands of samples from the collection as well as thousands of samples from the Mountain Gorilla Veterinary Project including most of the species in the gorilla habitat

Professional Experience

Project Director, Mountain Gorilla Veterinary Project (MGVP Inc.)

1876 Mansion House Drive

Baltimore, MD 21217

Feb 1998 – Present

Faculty, Comparative Medicine, Johns Hopkins University

Ross 459, 1721 East Madison, Baltimore, MD 21205

Jul 1982 – Present

Veterinarian, [REDACTED] Exotic Animal Practice and

[REDACTED] Park and Zoo [REDACTED]

[REDACTED]

Director of Research and Conservation [REDACTED] Zoo in [REDACTED]

[REDACTED]

[REDACTED]

Director of Animal Management, Research & Conservation, [REDACTED]

Zoo

[REDACTED]

[REDACTED]

Adjunct Assistant Professor, [REDACTED]

Regional Veterinary College

[REDACTED]

[REDACTED]

Adjunct Faculty, Department of Wildlife and Fisheries, College of Forest Resources,

[REDACTED] State University

State, [REDACTED]

[REDACTED]

Chief Veterinarian, [REDACTED] Zoo Medical Department

[REDACTED]

[REDACTED]

Veterinarian, [REDACTED] Memorial Veterinary Hospital

[REDACTED]

[REDACTED]

Veterinarian, [REDACTED] Veterinary Services

[REDACTED]

[REDACTED]

Education

University of [REDACTED]

[REDACTED]

██████████ Veterinary College, ██████████, *Doctor of Veterinary Medicine*, ██████████

██████████ Veterinary College, ██████████ Zoo, ██████████
Residency in Zoological Medicine and Diploma in Pathology, ██████████

Awards

AAZV; Dr. Emil P. Dolensek Award – For Exceptional Contributions
 To The Conservation, Care And Understanding Of Zoo And Free-Ranging
 Wildlife, Tampa, Florida, ██████████

Schalm Award – In recognition of outstanding contributions to conservation medicine ██████████

Michael Hankin Award: For individuals who epitomize the legacy of conservation,
 volunteerism, and philanthropy. ██████████

Honorary Phd Science: University of ██████████ ██████████

Board Affiliations

Life Time Board Member of the Riverview Park And Zoo ██████████
 Board Member SOS Rhino Chicago ██████████
 Member Of Animal Policy Committee, National Aquarium In Baltimore ██████████

Professional Affiliations

American Association Of Zoological Veterinarians
 American Veterinary Medical Association
 Canadian Association Of Zoo And Aquariums
 American Association Of Zoo And Aquariums
 American Association Of Wildlife Veterinarians
 Wildlife Disease Association

Publications

1. Cranfield, M.R., Barker, I.K., Mehren, K.G., and W.A. Rapley. 1984.. Canine
 Distemper in Wild Raccoons (*Procyon lotor*) at the Metropolitan Toronto Zoo.
Can. Vet. J. 25:63-66.
2. Taischman, N. S., Simpson, D. L., Dakurada, S., Cranfield, M. R., DiRienzo J,
 and J. Slato. 1987. Comparative Studies on the Biology of *Actinobacillus*
Actinomycetemcomitans Leukotoxin in Primates. *Oral Microbial. Immunol.* 97-104.

3. Kincaid, A. L., Bunton, T. E., and M. R. Cranfield 1988. Herpesvirus-like Infection in Black-footed Penguins (*Spheniscus demersus*): J Wildl Dis., 24(1):173-5.
4. Haigh, J. C., Cranfield, M. R., and R. G. Sasser. 1988. Estrous Synchronization and Pregnancy Diagnosis in Red Deer. J. Zoo An. Med. 19:202-207
5. Cranfield, M. R., Schaffer, N., Bavister, B. D., Boatman, D., Kempske, S. E., Miner, N., Panos, M., Adams, J., and P. Morgan . 1989. Assessment of Oocytes from Stimulated and Unstimulated Ovaries of Pig-tailed Macaques (*Macaca nemestrina*) as a Model to Enhance the Genetic Diversity of the Captive Lion-tailed Macaque (*Macaca Silenus*). Zoo Biol. Supp. 1:33-46.
6. Schaffer, N., Cranfield, M. R., Meehan, T., and S. E. Kempske. 1989. Semen Collection and Analysis in the Conservation of Endangered Non-human Primates. Zoo Biol. Supp. 1:47-60.
7. Graczyk, T. K., Cranfield, M. R., and C. J. Shiff. 1993. ELISA Method for Detecting Anti-Plasmodium Relictum and Anti-Plasmodium Elongatum Antibody in Duckling Sera Using Plasmodium Falciparum Antigens. J. Parasitol. 79:879-885
8. Graczyk, T. K., Cranfield, M. R., Skjoldager, M., and M. L. Shaw. 1994. An ELISA for Detecting Anti-Plasmodium spp. Antibodies in African Black-footed Penguins (*Spheniscus demersus*) J. Parasitol. 80: 60-66
9. Graczyk, T. K., Shaw, M.L., Cranfield, M.R., and F. B. Beall. 1994. Hematological Characteristics of Avian Malaria Cases in African Black-footed Penguins (*Spheniscus demersus*) During the First Outdoor Season. J. Parasitol. 80:302-308.
10. Cranfield, M. R., Graczyk, T. K., Beall, F. B., Ialeggio, D. M., Shaw, M. L., and M. Skjoldager. 1994. Subclinical Avian Malaria Infections in African Black-footed Penguins (*Spheniscus demersus*) and Induction of Parasite Recrudescence. J. Wildl. Dis. 30: 372-376.
11. Graczyk, T. K., Cranfield, M. R., Shaw, M. L., and L. E. Craig. 1994. Maternal Anti-Plasmodium spp. Antibodies in African Black-footed Penguins (*Spheniscus demersus*) Chicks. J. Wildl. Dis. 30: 365-371.
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Abstracts:

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Dziwulski, Kara <kara_dziwulski@fws.gov>

CITES Permit Re-Issuance PRT# 117181

8 messages

Dziwulski, Kara <kara_dziwulski@fws.gov>

Mon, Oct 23, 2017 at 2:15 PM

To: [REDACTED]

Mr. Cranfield,

My name is Kara and I am a biologist with the USFWS CITES Management Authority. I am contacting you regarding the application you submitted to our office on behalf of the Mountain Gorilla Veterinary Project.

Since it has been five years since your permit was published in the federal register, and because your permit has been with our office for decades, we are going to need you to submit an entire new application to our office. This can mirror applications you have submitted to us in the past, but we need to make sure every question on the application is completed as if this were a new application. Basically, we want to make sure we have all the newest information relating to the goals of your project, what has come from past imports (published papers?), what activities you are still requesting for what species, your collaborators and authorizations in the foreign countries, and the CV's of the individuals currently associated with their project.

Please feel free to send the requested information to me via email.

Also, as I mentioned above, the permit request will also need to be published in the federal register as you are requesting activities that involve endangered species. Please be aware that this process is taking about 3 months to complete at the moment (including the mandatory 30-day public comment period) given the new administration change . Unfortunately, this is a component of our permitting process that our office has no control over.

If you have any questions about what I am requesting please let me know!

Thanks,

Kara

If we do not receive the information requested above within 45 days from the date of this email, your incomplete application will be placed in our inactive files and we will not complete your request for a permit.

--
Kara Dziwulski
Permits Biologist
Division of Management Authority
U.S. Fish and Wildlife Service
Office of International Affairs
5275 Leesburg Pike, MS:IA
Falls Church, VA 22041-3803
703-358-1797

Mike Cranfield <[REDACTED]>
Reply-To: [REDACTED]
To: "Dziwulski, Kara" <kara_dziwulski@fws.gov>

Tue, Oct 24, 2017 at 4:32 AM

Do this mean 3 months from when the last application was submitted or from when I get this one to you. We have 15 veterinarians working for us do you want the CV of each of them. Mike

[Quoted text hidden]

Dziwulski, Kara <kara_dziwulski@fws.gov>

Tue, Oct 24, 2017 at 8:56 AM

To: Mike Cranfield [REDACTED]

It will take three months once I have a complete application from you. If you wouldn't mind just attaching them to this email that would be great. It can be modified to only highlight their experience that directly relates to this activity if that helps?

Thanks,

Kara

[Quoted text hidden]

Mike Cranfield [REDACTED] >

Tue, Oct 24, 2017 at 12:09 PM

Reply-To: [REDACTED]
To: "Dziwulski, Kara" <kara_dziwulski@fws.gov>

Dear Kara

Here is what Kathleen Moore said I should submit and I did, so not sure what has to change. (From Kathleen) You can go to our website directly and put in the search box Form 3-200-37 and it will be your first hit. It is an CITES/ESA permit request. Thanks.

It would now appear that one should start to apply 6 months in advance of the expiration of ones CITES permit to be able to complete the important work of actually trying to save wildlife. Mike

[Quoted text hidden]

Dziwulski, Kara <kara_dziwulski@fws.gov>

Tue, Oct 24, 2017 at 12:35 PM

To: Mike Cranfield [REDACTED]

Mike,

Yes, that is the correct permit application. You just need to fill it out completely as if you were applying for the permit the first time, rather than just providing us enough supplemental information to satisfy a re-issuance.

When I received this application, Kathy informed me that she discussed with you during your last re-issuance that your permit would need to be re-entered into the federal register this time around, and to be prepared to provide us a full application. The federal register is a federal requirement that our office has no control over. In the future, you can mark in your records that every 5 years your permit application with us will need to be re-submitted into the FR. This way you can plan on what years your application will take longer to issue and submit your application accordingly.

It is unusual for the federal register process to take around 3 months, but as I said before this is simply a product of the new administration change which we have no control over.

Thanks,

Kara

[Quoted text hidden]

Dziwulski, Kara <kara_dziwulski@fws.gov>

Thu, Dec 14, 2017 at 3:20 PM

To: Mike Cranfield [REDACTED]

Mike,

This is a reminder that I needed additional information from you in order to move forward with your application. Technically, if we do not receive requested information within 45 calendar days it is our office policy to abandon your application.

Given potential holiday-related delays, I will **extend your information submission window until January 4th**. On that date, if we still have not received additional information from you, your permit application will officially be abandoned.

Thank you,

Kara

[Quoted text hidden]

Mike Cranfield <[REDACTED]>

Thu, Dec 14, 2017 at 3:54 PM

Reply-To: [REDACTED]

To: "Dziwulski, Kara" <kara_dziwulski@fws.gov>

Thank you Kara. I am presently in the states and will get on that right away. As I start this (hopefully tomorrow) could I phone you if confused over some the sections. When I looked at it a while ago it seemed like a lot of sections were not applicable to ushow do I handle that. Thanks again for the reminder. Mike

[Quoted text hidden]

Dziwulski, Kara <kara_dziwulski@fws.gov>

Fri, Jan 19, 2018 at 11:24 AM

To: Mike Cranfield [REDACTED]

Dr. Cranfield,

Sorry for the delay in getting back to you! I hope 2018 is treating you well so far! I received your new application and have a couple questions given the information in your application and also the authorization under your old permit:

- Eastern lowland gorilla (*Gorilla beringei graueri*) is only found in the DRC (not in Rwanda and Uganda) Therefore, if I restricted your permit to "unlimited biological samples..... from the Democratic Republic of the Congo" is there a reason why this would be incorrect?
- Western lowland gorilla (*Gorilla gorilla gorilla*) is not found in the DRC, Rwanda, or Uganda. Therefore, how are you importing samples from these species from these countries? Is there a reason why this species should not be removed from the permit?
- Bonobos (*Pan paniscus*) are only found in the DRC (not in Rwanda and Uganda) Therefore, if I restricted your permit to "unlimited biological samples..... from the Democratic Republic of the Congo" is there a reason why this would be incorrect?
- Lastly, for each of these species you have various source codes listed including: "W" taken from the wild, "F" captive-bred, and code "I" confiscated or seized specimens. Are all three of these source codes still applicable? How often do you deal with seized specimens.

Thank you for the clarification!

Kara

If we do not receive the information requested above within 45 days from the date of this email, your incomplete application will be placed in our inactive files and we will not complete your request for a permit.

[Quoted text hidden]



Dziwulski, Kara <kara_dziwulski@fws.gov>

CITES

1 message

Mike Cranfield

Sat, Jan 20, 2018 at 5:47 AM

Reply-To: [REDACTED]

To: "Dziwulski, Kara" <kara_dziwulski@fws.gov>

Kara

We work in the three countries of Rwanda DRC and Uganda, The Gorilla berengei berengei are in all three countries and so we need CITES to reflect that. You are correct that Gorilla berengei graueri lives only in DRC and so yes the CITES can reflect thisin the past they just put all of them together but your approach is fine. The Gorilla gorilla gorilla is still considered to exist in western DRC and some times we are asked to work with sanctuaries housing these also and so it would be helpful to leave them in although it will be rare for us to use them. Again you are right about the Pan paniscus and we only need them for DRC. Our work is mainly focused in the wild and so the "W" code, we then provide the health care for the sanctuaries in eastern DRC for chimps, gorillas and many smaller primates and so the "I" category and yes we deal a lot with confiscated primates. Although captive animals should not be born into sanctuaries but occasionally this happens. I would like to keep "F" captive category in there but it would be rare and so if you feel strongly about eliminating it it would not affect our goals very much.

Thanks very much for helping us with our workMike