Veterinary Student Externships

2015 List of Opportunities
PROJECT-BASED OPPORTUNITIES:

Mountain Gorilla Veterinary Project, Ruhengeri, Rwanda

For nearly 20 years, veterinarians have been helping mountain gorillas survive by providing them with life-saving veterinary care for human-caused or life-threatening illnesses and injuries. The project began as one veterinarian, but has grown now to include an entire team of veterinarians who work together to track ailing gorillas, and treat them when needed, in their native habitat. Most recently, it has joined forces with the UC Davis Wildlife Health Center to advance its One Health approach to conservation.

MGVP’s veterinary staff—collectively, the Gorilla Doctors—are a unique, diverse, and interesting group of people. The in-country field vets are stationed in their home countries, either Rwanda, Uganda, or the DRC, while the regional vets and project director move about. MGVP’s regional headquarters are located in Ruhengeri (Musanze), Rwanda for two main reasons: most of the world’s habituated mountain gorillas live in Rwanda, and Ruhengeri itself is about halfway between the border with Uganda to the northeast and Congo to the west.

Though a subset of the six field vets will sometimes work together on a mountain gorilla when veterinary intervention is required, this happens only a few times a year. Typically, vets are out and about alone or in pairs. They gather monthly for regional veterinary rounds so that they can share case experiences and exchange information.

Externs do not accompany veterinarians or behavioral researchers into the park because access to mountain gorillas is strictly controlled by the conservation offices of the three countries in which they work. However, there are many other ways in which externs can contribute to the MGVP. For example, the MGVP is involved in improving domestic animal, wildlife, employee and community health through special initiatives in the areas surrounding the park. Externs can be utilized to aid in capacity building of the region, and may also help with gorilla related projects in the lab. Administrative and computer data entry volunteers are also welcome. Externs may work on trapping and sampling small animals for surveillance of diseases of concern, as part of MGVP’s work with USAID PREDICT.

http://www.thesilentheroes.org/projects/mountain-gorilla-veterinary-project.htm

Note that it will be required for the student to apply to the MGVP Volunteer Program in addition to the application through SHF. If interested in applying please contact Dr. Adams for the MGVP form. Students are encouraged to apply well in advance of their anticipated externship, as spaces fill up quickly. The cost is approximately $400/month room and board (breakfast and lunch) while staying in the MGVP compound in Ruhengeri. The compound is simple but comfortable with electricity and plumbing, and intermittent internet access. Volunteers are advised to bring an additional $25-100/week to cover costs of local transportation, meals outside the compound, and miscellaneous purchases.
Rwanda is a country still on the mend from the devastating effects of the genocide in 1994. In an effort to create educational opportunities for Rwandan and east African citizens, Umutara Polytechnic was founded in 2004 as a public institution of higher learning. The Veterinary Faculty was established in 2006 with 13 students and three professors, and has expanded to its current enrollment of 111 students with 13 professors. The program offers an Advanced Diploma of higher education in animal health and production, as well as a Bachelor of Veterinary Medicine honors degree.

Within the Faculty of Veterinary Medicine lies the newly formed Department of Wildlife and Aquatic Resources Management, headed by Dr. Ann Apio. Dr. Apio received her Bachelor of Veterinary Medicine degree from Makerere University in Uganda, and went on to complete a PhD in biology in 2009 from Potsdam University in Germany. Her interests lie in molecular behavioral ecology and parasitology. She currently runs the department and teaches ecology to graduate students at the University.

The student will have the opportunity to conduct research in one of the following areas:

1) Large ungulate census in areas adjacent to Akagera National Park.

2) Gastrointestinal parasites of baboons and vervet monkeys along the Muvumba riverine forest. 
   (this is a continuation of pilot research conducted by a student in 2014)

3) Freshwater snail collection for species identification of zoonotic Schistosoma along the Muvumba River.

There will also be opportunities to participate in any wildlife immobilizations or health checks that the Department conducts, as well as other field excursions. It would be possible to arrange a visit to view the Mountain Gorillas while in country.

http://www.thesilentheroes.org/projects/umutara-polytechnic-university-rwanda-project.htm

Accommodation and meals will be more primitive in Rwanda than in other more developed areas of Africa. While in town and working at the University the student would stay at a comfortable B&B with electricity, running water, and some internet access. When traveling to the field for sample collection, the student would need to arrange transport (car or motorbike)-we will assist you with this. An approximate budget of $375-500/week has been developed for this project. Please contact Dr. Adams for more information.
AWARE: Animal & Wildlife Area Research & Rehabilitation, Zimbabwe

Veterinary student externs can go ‘behind the scenes’ to gain clinical experience with the AWARE vets in Zimbabwe during the months of May to September 2013, assisting them on a variety of wildlife and rural expeditions. Students can participate in everything from sterilization campaigns to immobilization of wildlife for research or treatment purposes. AWARE can accommodate a maximum of 6 students at one time; the minimum required stay is 2 weeks. (email Dr. Adams for a detailed calendar of the AWARE work schedule).

**Sterilization Campaigns:** Participate with Zimbabwean veterinarians in a small animal sterilization and health care campaign in some of the poorest areas of the country. The AWARE Trust Sterilization Program works in impoverished communal land villages mostly within the six Trans Frontier Conservation Areas (TFCAs), also known as Peace Parks, located in Zimbabwe. TFCAs usually comprise trans-border National Parks and Wildlife Areas as well as the communal land villages that they are contiguous with. The concept of TFCAs is that by including the villages in the TFCAs, they will benefit directly from increased tourism in the area, while appreciating the need to conserve the adjacent natural ecosystems.

**African Rhino Conservation:** Participate in conservation efforts designed to help save the dwindling black and white rhino populations in Zimbabwe. Work with wildlife vets de-horning and ear notching or translocating rhino. Help monitor the rhino by tracking them on foot patrols or with tracking devices, and observing them up close, or helping decipher footage from camera traps. Help National Park rangers with continued monitoring of the rhino population and anti-poaching operations.

**Bovine tuberculosis in lions project:** Participate in conservation efforts designed to determine the status of lion populations in Gonarezhou National Park (GNP), Zimbabwe, with particular reference to the impact (if any) of Bovine Tuberculosis (BTB). Help track wild lions via dirt road spoor counts, and camera trap sightings. Help set baits and calling stations for lions in the park at night. Assist with lion immobilizations and BTB testing. Be part of an ongoing program helping National Parks rangers with continued monitoring of lion population performance.

**Buffalo disease testing:** Participate in conservation efforts to test buffalo in Zimbabwe for Bovine Tuberculosis (BTB), Foot and Mouth Disease (FMD) and other diseases. Wild African buffalo are notoriously dangerous animals. Experience the adrenaline of being part of a team that mass captures them (in a boma) or immobilizes them individually from a helicopter for disease testing purposes. Learn how to process blood samples for disease testing purposes.

**Rehabilitation.** Participate in conservation efforts in Zimbabwe by providing veterinary treatment to sick or injured wild animals on an individual basis. **Donkey clinics.** Participate in efforts to improve donkey welfare in Zimbabwe in a SPANA funded donkey project, whilst educating donkey owners about proper animal husbandry and draught techniques. (Arguably the best way to experience the 'real' village culture in Zimbabwe.) Participate in disease surveillance in donkeys and research on the efficacy of veterinary interventions in this species.

Due to the dynamic and unpredictable nature of the work, AWARE may need to occasionally change the schedule of activities listed in the detailed work calendar at short notice and cannot guarantee that students will participate in a project they specifically request. AWARE also reserves the right to cancel an internship up to 30 days before placement if that particular period is under-subscribed, as taking only one extra person may require an extra vehicle, which is too cost prohibitive.

[http://www.thesilentheroes.org/projects/AWARE-project.htm](http://www.thesilentheroes.org/projects/AWARE-project.htm)
Your accommodation will vary depending on the Project, but be prepared to camp or stay in more primitive facilities for travel to remote areas. In Harare your accommodation will be in a room in one of the vet’s houses, which will be very comfortable with full amenities. The weekly budget is $750 which includes all meals, accommodation and transport (excluding flights and National Parks fees). This opportunity has additional details available upon request. Please contact Dr. Adams for the complete description.
The Victoria Falls Wildlife Trust is a non-profit organization whose mission is to advance and promote environmental conservation in Southern Africa through hands-on wildlife research, management of a wildlife medical care facility and orphanage, and the education and empowerment of indigenous resources through active involvement in conservation training and community outreach programs. The Trust is currently building a wildlife laboratory and clinic. This facility will be fully operational and equipped for a higher quality of treatment for injured, abandoned, orphaned or any wildlife needing additional care. The Trust will also use the laboratory as a base, as it is situated within Victoria Falls National Park. A wildlife disease monitoring program is already underway in conjunction with the Zimbabwe Department of Veterinary Services Wildlife Unit, in which samples can be processed and either analyzed or sent on to the respective specialists in the field. This facility will be a central destination for visiting externs, in particular those with an interest in conducting research.

Examples of some of the potential extern work includes: testing of cattle for zoonotic disease; assisting with wildlife that has been immobilized for disease diagnostics; helping treat any injured wildlife in the field or clinic; volunteering in the laboratory on specific disease testing as well as general wildlife health; monitoring of wildlife orphan health and treatment of any new animals that arrive at clinic; evaluation of wildlife orphan socialization pre/post release.

Specific diseases of interest to the Trust (and available for the development of student research projects) include: foot and mouth disease, bovine tuberculosis, brucellosis, rift valley fever, and tick-borne diseases such as babesiosis, etc. Banked and fresh samples are readily available from cattle and buffalo throughout Zimbabwe. Additional diseases of cattle such as lumpy skin disease, other skin diseases, and parasites are of interest. Other livestock diseases in which testing and diagnostic protocols need to be established include heartwater & African swine fever. There are many opportunities for disease diagnostic investigation. There may be opportunities for genetic research in rhinos for anti-poaching purposes, and for investigation of anthrax outbreaks in wildlife during the dry season.

TB testing of cattle and wildlife in Malilangwe takes place during the end of February, mid-end July, and November. Vaccination/sterilization campaign in Victoria Falls takes place in July.

For specific information about activities during your dates of interest, please contact Dr. Adams.

Budget is $650 per week for placement in the Victoria Falls location (*2 week minimum); $650 per week for dual placement in Victoria Falls and South East Zimbabwe (*4 week minimum). Students can stay at the Victoria Falls location for longer blocks if desired, for example if performing laboratory research. All prices include room, board and transport in country. Accommodation is either in a local B&B or tented chalets, both will have running water. While staying in Victoria Falls there is electricity and internet access at the laboratory facility. For the dual internship in the lowveld, there is electricity. For projects including TB testing of cattle and wildlife at Malilangwe, an additional cost of $150 per trip to Malilangwe is required.

http://www.thesilentheroes.org/projects/wild-horizons-project.htm
Maun Animal Welfare Society (MAWS), Maun, Botswana

Maun Animal Welfare Society (MAWS) is a non-profit organization which aims to protect Botswana's wildlife through domestic animal care. MAWS is based in Maun on the fringes of the Okavango Delta, the world’s largest inland delta and one of Africa’s most wildlife-rich areas. The economy in Maun, and indeed most of northern Botswana, is dependent on the region’s safari industry. MAWS’ mission is to promote the health and welfare of domestic animals to protect people and wildlife from rabies and other zoonotic diseases.

MAWS’ primary objectives are to: sterilize and vaccinate dogs and cats to reduce the disease risk posed to human and wildlife populations; provide free/subsidized veterinary services to domestic animals belonging to indigent people in Botswana; encourage responsible domestic animal and livestock ownership through education initiatives.

MAWS welcomes vets and vet students year-round who travel to Maun to volunteer with the charity. From their purpose-built veterinary clinic in Maun, MAWS utilizes locally-raised funds to undertake routine sterilizations and administer vaccinations to indigent villagers’ dogs and cats. MAWS also provides life-saving emergency treatment or humane euthanasia to animals beyond help. Furthermore, the charity reunites, rehomes and rehabilitates lost, found and stray animals and provides an emergency first-response service to injured livestock.

MAWS outreach work is endorsed by two internationally-recognized wildlife charities: Botswana Predator Conservation Trust and Cheetah Conservation Botswana. Both organizations share MAWS’ goal of controlling the health and welfare of domestic animals so they do not encroach on or infect wildlife populations.

Externs can participate in research to sample for the prevalence of infectious disease in the domestic dog populations (CDV, parvo, ehrlichia, others?) surrounding wildlife reserves to help define the potential risk to wild carnivore populations. Please note that this is not a clinical externship, however the student may have the opportunity to assist the vets on vaccination and sterilization campaigns, as well as with the veterinary care of injured or sick patients, depending on the number of participating staff and volunteers. Other priority needs of MAWS include epidemiology of community/feral dogs in Maun, assessment of the effectiveness of their dog sterilization program, tracking of domestic dogs to determine whether their routes and roaming bring them into contact with wild canids/felids.

*Weekly budget for the student, excluding international airfare, is approximately $200/week, inclusive of food, accommodation on-site (with running water and electricity), and access to a shared vehicle for necessary travel (student can walk to work daily). Fuel costs will be additional, and costs are split between the volunteers. Internet is available in the MAWS office for a nominal fee, or is available in town at internet cafes.*

http://www.thesilentheroes.org/projects/MAWS-project.htm
Wildlife Emergency Response Unit, Malawi

WERU PROJECTS: While WERU’s primary function is to be on call for wildlife emergencies that require veterinary attention (snares, human/wildlife conflict, etc), this is unpredictable and based entirely on need. A significant portion of WERU’s time is spent on human-wildlife conflict mitigation outreach, non-invasive research projects on wildlife health, and providing veterinary assistance to in-country researchers with their projects.

STUDENT ACTIVITIES: While participation in a particular project or aspect of WERU’s activities cannot be guaranteed, students will be involved in all hands-on animal activities when they occur. Students may also help deliver community education programs, Students will also be exposed to all aspects of wildlife medicine and conservation in this region. They will gain an appreciation for the many underlying issues (e.g. culture, politics, population, poverty) that makes conservation in Malawi such a complex mission.

DATES: The dry season in Malawi is roughly from June – November. It is during this time that most field work takes place. The rainy season, from December – April/May, offers good opportunities to focus on community outreach and research, though some of the more remote locations are inaccessible at this time. Students may apply for blocks of 2 – 8 weeks in length.

STUDENT REQUIREMENTS: Must be enrolled in veterinary school and will ideally have completed at least one year of a four year program and five semesters of a 6 year program. Previous experience in a clinic and working in the field is desirable. It is advantageous if students are extremely flexible, with an “anything goes” attitude due to the unpredictable nature of this work.

ACCOMMODATION: Students will be based at Kuti Wildlife Reserve, but will be traveling with WERU staff on projects as needed. While at Kuti, accommodations include camping, running water, flush toilets, some internet, and some solar power. The 2G/3G service in Malawi is very reasonable on an unlocked smartphone. When in the field, accommodations may range from bush camping, to dorm, or safari lodge. Lodging/board for students will be arranged by WERU staff based on activities; students should budget $100 USD/week for lodging and ~$50 USD/week for meals. There is no fee associated with participation; however it would be greatly appreciated if students could fund-raise for the project. It can cost over $150 USD to respond to one snared animal.

WERU is led by Dr Amanda Lee Salb. Dr Salb received her Doctor of Veterinary Medicine from Louisiana State University, US, in 2004. For the next seven years she practiced in the United States and Canada in a variety of settings focusing on zoo and exotic animal medicine. After receiving her Master of Science studying Wildlife Epidemiology in 2011, she left the States to work as a project manager and instructor for local conservation NGO’s in Belize, Botswana, and Namibia. After completing the course on the Chemical and Physical Restraint of Wild Animals in Zimbabwe,
Amanda came to Malawi as the Lilongwe Wildlife Centre’s veterinarian. She currently works for the Department of National Parks and Wildlife and the Lilongwe Wildlife Trust, providing on-call veterinary care for free-ranging wildlife.

https://www.facebook.com/werumalawi
Cheetah Conservation Fund Namibia

For a complete description of the opportunity and costs, please visit:

http://cheetah.org/you-can-help/volunteer/

In general, vet students spend most of their work with the clinic team, however specific research projects are possible (please discuss interests with Dr. Adams). Students also participate in assisting the ecology, education and husbandry teams, in order to get introduced to all aspects of CCF’s work.

Daily clinical procedures typically involve routine care of CCF’s Livestock Guarding Dogs (Anatolian Shepherds), & small stock (Boer Goats, Dairy Goats, and Damara sheep). Veterinary procedures involving cheetahs are rare (fortunately – that means most of them are in good health the majority of the time), and so the people who work most closely with the cheetahs on a day to day basis are the husbandry team. There are probably only an average of 1 to 2 cheetah anaesthesia procedures per month performed at CCF, and often it is to take a cheetah into town for x-rays or dental work.

CCF’s internship programme is fee-paying and veterinary students pay the same fee as other students, zookeepers, vet techs, vet nurses and vets. The fee is US$2,000 per month (or US$500 per week) and the fee for the work visa is US$130. If students stay longer than 1 month, there is also a refundable room security deposit of US$75 to make sure that CCF’s property is respected and treated well. This fee is being refunded on departure if the contents of the student’s room is complete and has not been damaged.

Please note that June-Aug is quite competitive, so students are encouraged to apply outside of these months in order to have the best chance of securing a spot.

http://cheetah.org
ADDITIONAL NON-PROJECT OPPORTUNITIES OFFERED BY SHF:
(These projects are offered through partnerships with SHF)

In partnership with the School for Field Studies, Tanzania, there are several opportunities:

1. External parasites of livestock at a northern Tanzania game Ranch

Three levels of the One Health interface will be compared, including a working game ranch with a high wildlife/livestock interface, an adjacent dispersal area with low wildlife/livestock interface, and a further remote area with no wildlife interface. Tick samples will be taken from domestic livestock and identified according to species. Samples will be analyzed for tick-borne disease. Fecal samples can also be taken for comparison of GI parasites of importance. Tick loads (and/or GI parasites) can be compared as an indicator of environmental management intensity and parasite density. Pathogens to consider include tick-borne pathogens such as Ehrlichia, anaplasma, theileria (East Coast Fever), and potentially tick-borne viruses. DNA may be extracted and brought back to the US for PCR identification or other molecular diagnostics.

2. Stress & GI parasites in elephants

The student will collect dung samples from elephants in two distinct land types, ie a ranch with mixed wildlife/domestic species, and adjacent to several human communities (thus interaction with both humans on foot, in higher densities, and domestic animals is common), and a national park
where interaction and access to humans is limited, less frequent, and consists of tourists in vehicles. Dung samples will be analyzed for cortisol levels and gastrointestinal parasites. A comparative study will reveal whether elephants adjacent to communal areas have higher stress levels. Parasite loads and types will also be described and compared. It is possible to take fecal samples from livestock on the ranch as well in order look for shared GI parasites.

3. Ethno-veterinary medicine among the Maasai of northern Tanzania

The Maasai culture is a pastoralist based society where an interdependent relationship exists between the people and their cattle. For years, Maasai have relied on ethnobotanical means of treating a variety of internal and external diseases of cattle, thus creating an interdependency on the flora of their region. This relationship between human/animal/environment is representative of the One Health paradigm. In more recent times, Western medicine has an encroaching influence on pastoralist societies, and modern veterinary drugs are replacing more traditional ethno-veterinary knowledge. This coupled with the lack of documented information on medicinal plant use, as it exists as an oral discipline, is leading to the rapid decline of the practice, which may eventually become extinct altogether if not preserved. The aim of this project is to document the ethnomedicinal practices of the Maasai in northern Tanzania. Interviews will be conducted with Maasai herders, elders, and those familiar with plants as treatments for ailments. Samples will be preserved for identification and possible pharmacological analysis. Case studies will be documented along with photographs and clinical samples as appropriate. Reports will be presented scientifically, as well as in layman’s English and Maasai, along with the creation of a booklet to be distributed locally among Maasai tribesmen.

For each of the above, the student would have the following accommodation/budget guidelines:

$200/week living expenses (housing, meals, internet), plus a flat fee of $2000 that covers fees for some transport, translator, logistical and technical assistance/supervision from School for Field Studies staff scientists. There is an additional fee for hiring a car or bike to get to some locations. For detailed budget and description/pics of accommodation, please contact Dr. Adams.

Lilongwe Wildlife Centre, Malawi

Lilongwe Wildlife Centre is Malawi’s only sanctuary for rescued, orphaned and injured wild animals. It was originally set up in 2007 thanks to a Trust of passionate local patrons, the Department of National Parks & Wildlife and members of the Born Free Foundation. The government granted the Trust the concession to 90 hectares of wilderness right in the heart of the city, effectively giving it similar protection to that of a national park. Wherever possible, rescued and orphaned animals are returned back to the wild, though LLWC also offers lifelong sanctuary for those animals who cannot be released in the wild.
The LLWC has a veterinarian on staff and externs will gain **clinical experience** by participating in all veterinary activities. These may include quarantine exams, biannual health exams, scheduled and emergency procedures, pre-release health checks, and preventative tests like fecal exams. As well, externs will participate in other aspects of wildlife rehabilitation such as orphan care, primate care, and behavioral observations. Students will also participate in an ongoing research project comparing fecal pathogen diversity between captive and wild animals.

The cost is approximately $550/week for a 4 week stay (slightly more for shorter stays and slightly less for longer stays) and includes accommodation, basic food, airport transfers, & work related transport. Accommodation is mixed dorm-style with electricity, a kitchen, lounge area, bathroom and hot showers. Flights and insurance are the responsibility of the student.

[www.lilongwewildlife.org](http://www.lilongwewildlife.org)
Nakavango Wildlife Veterinary Program, Victoria Falls, Zimbabwe

This program is a 21 day course for veterinary students interested in wildlife conservation. The program emphasizes a combination of **classroom and veterinary field experience**, to include topics such as wildlife immobilization, disease and sampling, One Health, and conservation management. For a complete description please email Dr. Adams.

The Nakavango Conservation Program has five major focal areas: •Education •Conservation Management •Conservation Research Projects •Community Development •Sustainability

**EDUCATION** will focus on issues related to conservation management, African wildlife, important conservation issues and community development.

**CONSERVATION RESEARCH PROJECTS** are primarily aimed at gaining a better knowledge and stronger understanding of specific species, & enabling more informed decision making regarding species conservation action plans.

**SUSTAINABILITY**, as all of the facilities on the reserve, including the student facility, are committed to “green” operations in order to achieve balance with and minimize impact on the natural environment, and create greater awareness about our footprint on our planet.
CONSERVATION MANAGEMENT, as students can expect to get participate in hands-on conservation management practices, all of which are vital for the successful operations of the game reserve.

COMMUNITY DEVELOPMENT The Nakavango Conservation Program is proudly associated with the Children In The Wilderness Foundation, one of Wilderness Safaris’ outreach programs based at Victoria Falls.

The cost is approximately $4000 for the 21 day program, exclusive of airfare. For full details of the program please request a brochure from Dr. Adams. Accommodation: Volunteers are accommodated in our purpose-built student program facility, called Camp Nakavango, at the Victoria Falls Private Game Reserve.

BROTHERS IMMOBILIZATION COURSE, SOUTH AFRICA

For more information please visit www.brotherssafaris.com and request a brochure from Dr. Adams

ADDITIONAL OPPORTUNITIES TO FOLLOW IN LATE OCTOBER:

(I will provide information on the following via email update)

- Tanzania Wildlife Research Institute

- Queen Elizabeth National Park community health study, with USAID