

IVEP

Hokkaido University-The University of Zambia International Vet Exchange Program 2023

Achieving Global Standards of Excellence in Veterinary Education

Student report from
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Project Managers
The University of Zambia

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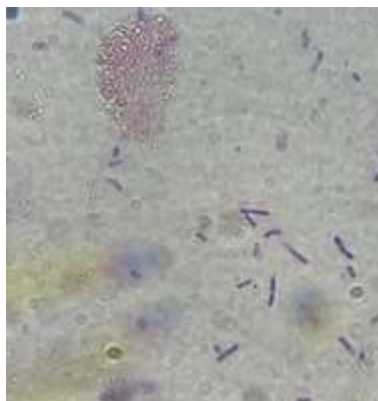
The University of Zambia

Chisato HAYASHI, 3rd year

When taking classes at Hokkaido University or in Japanese textbooks of Veterinary medicine, we often see descriptions of diseases that are "rarely seen in Japan today". Some of these diseases are emphasized for their danger and importance, and pictures of intense cases are shown in classes and in textbooks. Even those who are not familiar with veterinary medicine often know the names of such dangerous diseases, and veterinary students with a little veterinary knowledge should have a more detailed understanding of their dangers. However, because it is "rarely seen in Japan," people tend to think of the danger as if it were not our problem. I felt through this training that I had been thinking of them as if they were not our problem.

Anthrax and rabies are dangerous zoonotic diseases that are "rarely seen in Japan" but have a high fatality rate. Both are well-known diseases in Japan, but there are no outbreaks of these diseases in Japan today. However, they are relatively common in Zambia. We had a lot of opportunities to learn about these diseases in Zambia during the exchange program in the University of Zambia.

In the microbiology class at UNZA, we learned about the current situation of anthrax, bovine tuberculosis, and Contagious Bovine Pleuropneumonia (CBPP) in Africa, as well as diagnostic and treatment methods. In the practical class, we actually observed the pathogens of these diseases under a microscope. This was a very valuable experience that we could not have in Japan. I was particularly impressed by the experience of observing anthrax under a microscope and learning how to distinguish it from other bacteria which belongs to the same family as anthrax.



In the class on rabies, I learned more about rabies than I had learned in Japan. The word "rabies" may make us imagine a rabid animal becoming violent when infected animals show symptoms of rabies. But in Zambia, when infected animals show rabies symptoms, it is said to become calm. In Japan, it is not possible to learn in detail about how to test for rabies or what to do in the event of an outbreak. While rabies outbreaks are rarely seen in Japan, the disease is found in neighboring countries. Therefore, veterinarians may miss infected animals, even though the disease may well occur in Japan.

Veterinarians in Japan have no opportunity to come into contact with cases of these diseases. While it is good for the animals that they are no longer seen, it also means that the veterinarians in Japan lose the opportunity to learn how to diagnose and treat infected animals when outbreaks occur. This is true not only for anthrax and rabies, but also for other human diseases such as malaria. In fact, when there was a malaria outbreak in Japan, there was panic, but to the Zambian doctors who often treat malaria cases, the patients are not special, and they know all they need to do is take medicine and rest. Similarly, we veterinary students rarely have direct contact with important diseases that are no longer seen in Japan. However, now that people and animals can travel quickly and extensively, we cannot look at diseases in foreign countries as not our problems. Therefore, I believe that the knowledge I learned in Zambia is very important and meaningful today.

I also realized that even now that we have access to a lot of information from all over the world through online materials and books from abroad, there are still some things that can only learn by coming to foreign countries. Before coming to Zambia on this exchange program, I had thought that Zambia and Japan were distant and different countries. However, I found many similarities between Zambia and Japan. In small animal clinical practice, in particular, facilities similar to those in Japan were being incorporated, and veterinary care was being provided at the same high level as in Japan.

Although there were differences in the cases seen at the hospital from those in Japan, I felt that I could acquire knowledge in an environment similar to that in which I would learn in Japan. One of the other things that left a strong impression on me was a visit to an animal shelter. As Japanese one, or more than Japanese one, the animals were well managed, clean, and healthy. The environment was very considerate of animal welfare. In addition, they consider the animal's happiness a lot, with questions asked of potential owners before transferring animals and checks made on the owners' environment of animal's house. The spread of animal welfare is also still in developing stage in Japan, and is being actively promoted through education and social networking services (SNS). I felt that there are some points that Japan can learn from, such as the use of SNS to spread the concepts of animal welfare.



I believe that these experiences will definitely be useful in my work as a veterinarian, whose job is to protect the health of people and animals from a wide range of perspectives. In addition to what I have written here, there were many other things I gained during my stay in Zambia. We had a lot of wonderful experiences such as communication in English with a lot of kind people, the warmth of the Zambian people, and the magnificent nature of Zambia. Every experience I had in Zambia was wonderful and taught me a lot, so I will never forget even after the program is over. I would like to become a veterinarian who can protect animal health from a broad perspective, not limited to Japan, based on the knowledge I gained through this exchange program.

I would like to thank all people who supported me before and during this program and made it such a fulfilling experience. This program became a wonderful experience by supporting of them. I would like to express my sincere gratitude to the professors at the University of Zambia and Hokkaido University, the people in IVEP, and everyone else who was involved in this program.



The University of Zambia

Sachiho FUJITA, 5th year

My motivation for this program was interests in wildlife management and the relationship between wildlife and people. I was fascinated by the African savannah itself which I watched in TV, so from the moment I landed in Lusaka, the beauty of the expanse of the horizon and the reddish land filled my heart with emotion. When we visited Mosi-oa-Tunya National Park, even before entering the park, I saw African elephants and baboons roaming about on the road. In the park, I was impressed by hippos, white rhinos and many other wild animals spending their time in peace and quiet. Wild lives are so powerful just by being there. I was also amazed at the proximity between people and wildlife. This is one of the characteristics of Mosi-oa-Tunya National Park. However, I also felt that the presence of wildlife was close to Zambian people and directly related to their daily life, even in the lectures on bacteriology and parasitology and in my daily life in Zambia. It was a good opportunity to re-think the balance between issues, like conflicts between human and animals or the transmission route of infectious diseases, and their use as a resource. I also thought about the balance between development and conservation through these experiences. I am thinking of being a zoo veterinarian. Thus, the experiences of feeling wildlife closely will help me in the future to think about how wildlife and exhibit animals should be treated, and what we can do for in-situ conservation from a zoo.

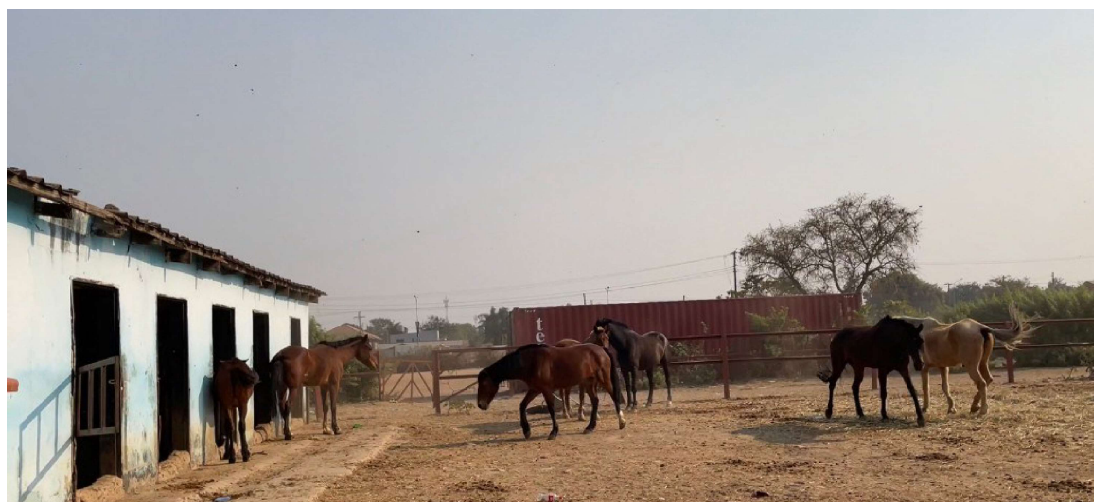


Figure 1: Zambian police horses

I also truly felt the warmth of the Zambian people. In conversations with me, they are so patient that they waited for my poor English, and spoke slowly in easy-to-understand words. At the exchange student event, UNZA students livened up the atmosphere a lot. I also appreciate that the teachers accommodately showed me around the lab in addition to the planned lectures. In addition, everyone kindly accepted our sudden change of plans. One of such events was a visit to see horses owned by the Zambian Police. Dr. Mwape took time out of his busy schedule to coordinate the visit, and the staffs of Zambian Police were also very willing to show the facility and answer our questions. In Japan, most horses are racehorses, but in Zambia they are often bred for police ceremonies and polo, and the horse management in Zambia has several difference between Japanese way. For example, Japanese racehorses have strict and systematic breeding managements, whereas in Zambia, breeding management was the biggest challenge.

Also, Japanese racehorses have races for yearlings, but in Zambia, I heard that horses start to be ridden when they are three or four years old. The pathology laboratory to which I belong has often done necropsies of horses around one year old that have been euthanized due to diseases that tend to occur during their growth period. Although it is difficult to make generalizations because of the different purposes of horses, I felt that the Zambian rearing style is good in terms of horses being able to grow healthily. When we visited the CACTUS foundation shelter, the staff and volunteers were also kind and helpful despite of our short notice. We learned that the CACTUS foundation captures stray dogs, vaccinates them against rabies, spays and neuters them, and then finds foster homes for them. I heard about the current situation of shelter management and educational activities in a cultural background different from that of Japan. For instance, many people do not understand the connection between the enhancement of animal welfare and rabies prevention. Another example is that cats are called witch craft and hated, but the prejudice is gradually being put to rest. I am interested in animal welfare, so all experiences of the staffs and reactions of the local people were very interesting for me. In Japan, animal welfare is often confused with “doubutu aigo”, human love for animal. I think animal welfare is still developing idea both in Japan and Zambia. I believe that we can develop animal welfare by exchanging information with each other and having discussions.

Also, there were many occasions when I felt a connection between Hokkaido University and the University of Zambia. I felt the connection strongly when I visited the Veterinary Hospital in UNZA. The blood tests, CT, echo and other equipment were all made in Japan and very similar to the facilities at HU. Many of the doctors had completed their doctoral studies at Hokkaido University or were thinking of going on to study at Hokkaido University, and they sometimes spoke to us in Japanese. Although the two universities are geographically far apart, I felt that the relationship between them is very close. At the same time, I felt some differences from Japanese veterinary medicine, such as the fact that we saw severe fractures caused by traffic accidents, and the fact that most of the cases were of large guard dogs, not small pet dogs. I regret that I was not able to observe the treatment of some cases, but I was able to see cases that are difficult to experience in Japan and learned a lot. I also felt the differences between Japan and Zambia in large animal clinical practice. I observed cattle being bathed in medicine. The sight of cattle swimming and being bathed in medicine was fresh to me, and it was interesting to know how cattle are chased and the breeds of cattle which are very different from those in Japan. I was surprised at how powerful the farmers are when I heard that they left at 3 a.m. and walked while chasing the cows.



Figure 2: Cattle being bathed in medicine

The program lasted about two weeks was so full of surprises and impressions, and passed so fast. I am very grateful to have had this precious opportunity. I would like to thank Pro. King, Dr Mwape and the other professors and lecturers at the University of Zambia, and the staffs and professors in Hokkaido University for coordinating and supporting the program. I would like to thank everyone involved in this program from the bottom of my heart. Thank you very much.

Chisato FUJITA, 5th year

The reason why I participated in this program was because I had been interested in infectious diseases that cause significant problems in African areas, and I had wanted to learn about them firsthand in the local context. Additionally, I had a desire to visit national parks and witness the wildlife living freely in the vast safari landscapes.

I landed in Africa for the first time on this occasion. My previous impression for Africa had been of "magnificent nature." Upon arriving at the airport and driving to the hotel, I quickly spotted wild monkeys, which heightened my expectations for Africa. On the other hand, I was not a fan of insects, so I had concerned that due to the expansive nature, there might be an abundance of insects. However, contrary to my concerns, I found the hotel room I stayed in to be much cleaner and with fewer insects than I had expected. "During my stay, I encountered three spiders, but I never had to face cockroaches, which was a relief.

The following week, classes and practical trainings had begun at the University of Zambia. In the virology class, we studied rabies, which causing serious issues in Zambia. What impressed me most was the emergence of the new variant of rabies in recent Zambia which came with less typical symptoms. It is called the "Calm" variant, and it often leads infected individuals not to realize they have rabies. Consequently, some people who are bitten by infected dogs do not seek medical attention and may die suddenly a week later. I considered that this was a significant threat not only to Zambia but also to rabies-free countries like Japan. I had thought it was unlikely that dogs with rabies would enter other countries without being detected at quarantine, but with the Calm variant, the chances of slipping through quarantine would be high. This made me realize the importance of vaccination, even in rabies-free countries, and the need to raise awareness among veterinarians and pet owners.

The day after learning about rabies, we visited the "Cactus Foundation," a shelter that focuses on rabies control through three main strategies: (1) dog population control, (2) vaccination, and (3) education. This facility is the only shelter in Zambia that does not resort to slaughtering dogs. My first impression there was that their management was very meticulous. The facility was quite clean, and I could see their efforts such as allowing dogs to sunbathe according to schedules. I was genuinely amazed at how they had developed such expertise in unprecedented circumstances. They capture stray dogs, provide them with vaccinations and spaying/casting, conduct socialization training, and then adopt them to new owners who have passed strict evaluations. Many volunteers are involved in this activity, and they are currently making efforts to expand their work all over the country. It was impressive how they were keenly listening to our opinions of us

At the University of Zambia, changes in the schedule were common occurrences, and nearly half of our classes and practical sessions were rescheduled. The visit to Kafue's Slaughterhouse, which we had been looking forward to, was suddenly canceled the day before. It was disappointing, but we eventually arranged to visit it the following week. I had expected that the methods of slaughtering would be significantly different from Japan, and indeed, I was surprised by the openness and liveliness of the Zambia's slaughterhouse. We could see rows of meat and organs from outside, and general people frequently came in and out to buy meat. This scene would never be seen in Japan due to hygiene and ethical concerns. On the other hand, there were few negative impressions about slaughtering, and I thought it was a positive aspect of Zambia's slaughterhouses that people could feel a closer connection to lives. After observing the slaughterhouse, we also experienced meat inspection and organ inspection. Here, too, I felt significant differences from Japan. In Japan, if clinical symptoms or lesions are found, the organs or even the entire bodies are discarded. In Zambia, they only do some trimming of the affected parts and sell the rest of them to the market. While differences in laws and economic conditions may play a role, I could see that the emphasis on not wasting lives was reflected to the operation of the slaughterhouse.

Slaughterhouse in Kafue



On the weekends, we traveled half a day by car from the capital, Lusaka, to visit Livingstone. After arriving at Mosi-oa-Tunya National Park, we took a briefing from the rangers. At this time, I was disappointed to learn that I wouldn't be able to see lions in this park, which I had been most excited about. However, I shifted my focus to seeing hippos and embarked on the safari the next day. I participated in morning and evening tours, and I could observe the same animals exhibiting different behaviors through each tour. I had not done much research beforehand, but the ranger provided explanations in between driving, which I found very interesting. As for hippos, Nepali student with good eyesight found their herd in Zambezi River. I could not distinguish them from rocks in the river with my eyes, but when I looked through binoculars, I could confirm that they were indeed hippos. During the morning safari, I could only see the heads of elephants sticking out of the river from distance, which was a bit disappointing. However, during the cooler evening safari, the hippos came out of the river and walked right next to our vehicle. I was able to see them up close, and despite some apprehension about the potential aggression of elephants, I felt their immense presence and was thoroughly satisfied with the experience.

Finally, I would like to express my gratitude to everyone who supported me in participating in the IVEP Zambia program. I would like to extend my thanks to Professors Ishizuka, Matsuno, and Nakayama, as well as Mr. Oikawa and all the professors at UNZA who took care of us during the program. I also would like to thank everyone who made this program possible. I hope to apply the experiences I gained during this dispatch to Zambia to my future life and continue learning and growing.

A herd of hippos in Zambezi River



Hikaru SAEKI, 5th year

I am strongly interested in the field of infectious diseases, and I participated in the Zambia program because I wanted to see firsthand the actual situation of infectious diseases that are currently a problem in Africa, the measures taken to combat infectious diseases, and the challenges being faced. This exchange program was my first opportunity to visit a foreign country with my knowledge of veterinary medicine, so it was a valuable experience with many discoveries and a productive one that I could not have obtained in Japan.

One of the most impressive things in Zambia was that the distance between humans, livestock, and wildlife was much closer than I had expected. Just outside the city center, we could see from the car window chickens, goats, cows, and other livestock grazing freely on the land beside the road, and I realized what I had heard in the microbiology lecture about the easy establishment of infection rings between domestic animals and wild animals. The interesting event happened when we went to observe a drug bath for tick control in cattle as part of the large animal clinical practice. The herds of cattle were immersed in a pool of dissolved medicine one after another in a single-file. Just when I thought I had finished our work after handling a huge number of cattle, I saw another herd of cattle being brought by farmers from a distant place, and I was bewildered because I could not see the end of the work. Another day, we moved farther away and passed by various villages. I found that in all of them there were livestock in the space where people were gathering at the same time, reminding us of the closeness between people and livestock.

We also had the opportunity to visit two national parks in Zambia, where we saw many wild animals. In Lusaka National Park, which we visited the day after our arrival, we observed the elephant orphanage, which is the only one of its kind in the South African region, where elephants that have lost their parents due to poaching or other reasons are protected and raised until weaned before being reintegrated into wild herds. In Japan, wildlife protection activities are generally limited to rare bird species, so I was impressed by the fact that there is a facility for the protection of elephants, a large mammal, and that the activities are supported by donations, volunteers, and admission fees paid by tourists, and that the park is fully utilized as a tourist resource. In Livingston's Mosi-o-Tunya National Park, which we visited for three days and two nights, a herd of elephants appeared on the road as soon as we arrived, reminding us of the closeness between human life and wildlife. While it is a pleasant surprise for tourists who happen to witness the appearance of elephants like us, we were told that conflicts with elephants have become a problem among local residents, and in neighboring villages, crops have been destroyed and sometimes residents have been attacked and killed. In one of the buildings in the village, there is a sign in English and the local language that explains what to do if you encounter an elephant and how to deal with it. We were able to glimpse the efforts of local residents who are striving for coexistence with wild animals.



A building with emergency notice regarding elephants (@village)



vaccinating a puppy (@veterinary clinic)

In addition to lectures and practical training at the University of Zambia, we also had the opportunity to visit several off-campus facilities as extracurricular activities. On a spare day when we had no classes scheduled, we were able to visit an animal shelter run by the Cactus Foundation at the suggestion of Prof. Walther, who is a specialist on rabies. Rabies is one of the most common zoonotic diseases found in Zambia and is a serious problem, affecting not only dogs and cats but also people, domestic animals, and sometimes wild animals. As part of its rabies control efforts, the shelter captures stray dogs, vaccinates, spays, and neuters them, and then turns them over to foster families. Such facilities are still rare in Zambia and not highly recognized, but the number of people visiting the shelter through the Internet in hopes of becoming foster parents has been increasing. It was interesting to hear from the staff at the facility that the recent spread of the Internet and social networking services has had a great impact, and that the idea of keeping dogs as pets rather than guard dogs and not throwing stones at wild dogs is becoming increasingly popular in the country.

The lectures at the University of Zambia and visits to facilities like this were the impetus for thinking deeply about rabies that we do not usually feel familiar with in Japan, an island nation and a rabies-free country, and considering how to deal with other infectious diseases such as anthrax, tuberculosis, and CBPP, which are prevalent in Zambia. Through this opportunity, I keenly realized that it is not easy to control infectious diseases across national borders, as each country has various circumstances, including geographical factors such as bordering multiple countries and having many wild animals coming and going, cultural factors such as traditional customs and food habits rooted in the region, and financial issues in the government.

Throughout this exchange program in Zambia, I was able to directly deepen my understanding of infectious diseases in the country, I had the opportunity to reconsider the relationship between people and animals, I met many people from different cultures, and everything I experienced during the two weeks was very stimulating for me. I will devote myself to making the most of this experience for the next time.

Last but not least, I would like to express my sincere gratitude to the professors of the University of Zambia, Prof. Ishizuka and other professors of Hokkaido University, Dr. Matsuno and Dr. Nakayama who led us, Ms. Oikawa, Ms. Doya, Ms. Ogishima who supported us from the preparation to our return to Japan, and all those who were involved.



Elephant orphanage (@Lusaka NP)

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Report from participants 2023

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