

IVEP

Hokkaido University-The University of Zambia International Vet Exchange Program 2025

Achieving Global Standards of Excellence in Veterinary Education



Student Report from School of Veterinary Medicine,
Hokkaido University
September 6th to 22nd

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University of Zambia
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Ryota TSUTSUI, 5th year

During my stay in Zambia, I was able to learn various things. The most impressive thing for me was the virological practice on rabies. Rabies was the topic I had been most eager to learn in Zambia since I decided to join this program, and through the practical sessions I was able to gain new knowledge and perspectives about rabies.

In the practice, we conducted diagnostic exercises using brain samples from a dog infected with rabies in Zambia. I was first surprised by the diagnostic methods themselves, which involved using Lateral Flow Device (LFD) for quick diagnosis and real-time PCR to confirm the diagnosis. I did not know at all that the diagnostic kit like LFD existed for rabies, and I was even more surprised to learn that it had been developed in Japan. I had studied rabies many times in lectures in Japan, but I realized that, since rabies no longer occurs in Japan, I could not truly understand what kinds of measures were being carried out in



Figure 1 Virological practice.

countries where the disease is still present. On another day of the program at the animal hospital in UNZA, I also had the opportunity to see a cat hospitalized for rabies, which enabled me to feel much more familiar with rabies.

Regarding rabies, one of the things I was most curious about was what kinds of countermeasures are taken in terms of legislation and vaccination, how effective these measures are, and whether there is any cooperative effort with neighboring countries or across Africa as a whole. When I tried to get information from Japan, I mainly came across information suggesting that a lack of vaccines and insufficient education which resulted from poverty were the primary reasons for the prevalence of rabies. However, I was not entirely convinced, and I wanted to see the reality for myself.

I found that vaccines for both dogs and humans are available at prices that are not too high, and that annual vaccination of owned dogs is legally required. However, the vaccination rate is not so high and stray dogs were still commonly seen while we were driving in the city. I thought that perhaps these situations made it difficult to eradicate rabies. I also learned that LFD was in use in Kenya, but it seemed that neither country was extending its efforts to support rabies control measures in other nations.

I came to understand that the issue is not a shortage of vaccine supply but lack of awareness and knowledge toward vaccination. Also, there are many cases in which owners start to have dogs just as guard dogs rather than companion animals so owners may lack sufficient understanding of rabies prevention. Since such background factors likely differ from country to country, I felt that infectious disease control cannot be addressed through financial measures alone and cultural and educational aspects are equally important.

This practice shifted many of the impressions I had before traveling. At least in terms of diagnostic methods of rabies, I felt that the systems in place were more advanced than those in Japan. In addition, having the chance to see a cat infected with rabies directly also helped me form a more concrete image of the disease, although I only had had an abstract image. Of course, just one experience of seeing an animal infected with rabies will not directly contribute to diagnosis when I work at animal hospital in the future, but it was exactly a rare and valuable experience. It reminded me of the importance of learning through direct observation and hands-on experience.

Moreover, I really enjoyed national parks. They offered breathtaking opportunities to observe many kinds and enormous amounts of wildlife. I was able to see elephants, rhinos, zebras, lions, hippos, crocodiles, buffaloes, impalas, kudus, hyenas and so on. I have never seen all these animals in wild, so I was glad to find them and captivated by the sight of them. I also learned about wildlife conservation and especially, I was able to gain detailed knowledge about elephants. The number of elephants has been increasing and there are a lot of human – wild elephant conflicts. In some other African countries, elephants are culled and used as a source of food in order to reduce their population, and I wondered why culling was not carried out in Zambia. The answer was not that “it is not done,” but rather that “it cannot be done.” Zambia is not able to conduct such culling because the country is a member of CITES.



Figure 2 Elephants in the national park.

In Japan as well, brown bears sometimes attack humans and then they are culled, while at the same time there are a certain number of people opposing such culling. I felt that the situation was partly similar between Zambia and Japan: even if those who are directly affected by the animals wish to take certain measures, those who are not directly affected are opposing the proposals. The most impressive thing for me was that the lecturer repeatedly used the expressions such as “it should be done” or “it must be done.” I realized that it is difficult to take truly effective measures while listening to the opinions of both supporters and opponents. Therefore, such situations may be the time when veterinarians should play an active role as professionals of animals, I think.

My stay in the national park was not only enjoyable but also deeply meaningful because I was able to learn about conservation efforts as well as seeing many animals. Although I could not see every species I hoped to find, the experience of searching for wild animals itself was extremely exciting and fascinating.

Through this program, I realized that I had had little information about Africa and that I imagine Africa mostly by assumptions without enough knowledge. Indeed, I found Zambia was a wonderful country, where people greeted us warmly everywhere even if we were strangers and center of the city was well developed with many excellent restaurants, so the food was great. Visiting JICA and the Japan Overseas Cooperation Volunteers also deepened my interest in their work and inspired me to think more broadly about the various paths I could take as a veterinarian in the future.

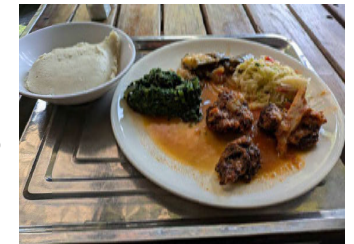


Figure 3 Zambian food (Nshima and Game meat)

Finally, I would like to thank the professors in UNZA who provided wonderful lectures and practical training, and all those who supported us during our stay. Thanks to everyone's support, this program became an extremely precious experience for me.

The University of Zambia

Taku OTSU, 5th year

The reason why I applied IVEP is that I'm so curious about the interaction between human and animals in Zambia. In Africa, the number of wildlife is higher than one in Japan, so I thought there would be many conflicts among them. I wanted to know what kind of feeling local people have, then what kind of problem happens there and how they make efforts to avoid conflicts. Also, I'm interested in relationships between human and animals such as domestic and pet.

From the lectures in UNZA, I learned a lot about my curiosity. Especially in bacteriology class, I realized unique action, culture and situations in Zambia can be cause of zoonosis. The most interesting account what I learned in the class is the diseases related to domestics because the situation is totally different from Japan. Beyond the lecture, I saw so many domestics walk around freely while driving near cities. This scene shows me how close relationships between humans and animals are here and makes me realize what I learned in class. In terms of epidemiology, we should separate the habitat areas of human and domestics, but I didn't think we should do it. Of course, we must prohibit some actions related to zoonosis, but I also thought this close relationships are the culture here and should be respected in some part. I don't know true or lie, but some people said the meat in Zambia is delicious because they can move freely. Exactly, I thought the meat was delicious and I like the boldness of people in Zambia.

The disease among wildlife is also interesting for me. One of the most impressive slide shows that tsetse fly transmits Anthrax among them. This way of transmission seems unique in Africa where many kinds of wildlife exist. I also learned that this transmission reaches carnivore or scavenger along with the food web. I worried about the impact on carnivore because their population is lower than that of herbivores. If once it happens, they could be extinct. The professor told me that they conduct surveillance research and grasp the population dynamics to avoid it. I realized that it is important to detect before it becomes irreversible. I also realized that my way of thinking gives weight to pre-actions, but it is also useful that let it be and when it happens, we try to stop it. This notice was meaningful for me.

I learned about the issues related to wildlife in Lower Zambezi national park visiting CLZ, an NPO. This NPO is run by local people mainly and they do educate the people in GMA which surrounds the national park and arrest poaching. The staff told us about their activities and their progress. It seems important that getting local people involved in conservation to protect wildlife. Before visiting Zambia, I thought it would be hardest part for us to make local people who are annoyed by wildlife realize the preciousness of the wildlife and the importance of conservation. One of surprising things I learned from CLZ is that they also educate local people how to get along with wildlife. I thought local people must know wildlife in details and conflicts must happen despite their effort to avoid it. However, the stuff told me they don't know the way, so they also need to educate how to do it. The real situation is totally different from my image, so I was very impressed to know that local people do conservation by themselves and thanks to their activities local people's way of thinking is gradually changing. I also learned that foreign countries are getting involved in poaching. We should conserve wildlife by cooperating with all over the world, but other countries that are not related to Africa interrupt conservation. This situation is so annoying. To punish this foolish activity, we have treaty. However, this could also be problematic. In Zambia, there are too many elephants to get along well, but elephant is registered as CITES 1 of Washington convention, so we cannot do anything to address the issues. Thorough visiting CLZ, I realized some situations are better and other parts are more complicated than I expected.

While these two weeks in Zambia, I had many opportunities to talk with people in Zambia, and I also learned many things from the conversation. Not everyone in Zambia is familiar with wildlife. They often eat game meat for special days, and they like the flavor. Some of them like wildlife and others not. These things may be common sense or just a matter we can know from the internet. However, I realized in detail by talking in person and trying by myself. Even in

Japan, we are not familiar with thought of not veterinarians, so this experience to talk with resident in Zambia about veterinary stuff was so precious for me.

Through these experiences in Zambia, I notice the importance of thinking from several perspective. One issue is not caused by only one problem, and we can solve the problem in several ways. I also realized how wonderful relationship with animals are in Zambia. The situation related animals are totally different from Japan, so I can notice good point of each other. Moreover, it is interesting that Japan and Zambia have same problem despite they are in different situation. This acquiring knowledge can only be achieved by visiting actual places. So, if there were some students who are really interested in Zambia or Africa, I want them to try IVEP. This would be good experience for you.

Finally, I appreciate Prof. Ishizuka, assistant Prof Maezono, Doya san and Kawashima san for management and arrangements our schedules. Thanks to you, we could concentrate on our studies and enjoy staying without any unconscious. Also, I'm grateful to Prof. Victor C. Zulu, Prof. Kabemba E. Mwape, every teacher in UNZA and every driver I saw for accepting us and giving wonderful opportunities to learn. Thanks to you, we could learn many things that we cannot learn in other countries. Thanks Zambia!!



The University of Zambia

Shogo IZU, 4th year

During my study abroad experience in Zambia, I had the unique opportunity to compare the practices, challenges, and philosophies of veterinary medicine in two very different contexts: Japan and Zambia. This experience was not only educational in a technical sense, but also eye-opening culturally and socially. It allowed me to see that veterinary medicine is shaped not only by scientific knowledge but also by economic realities, cultural attitudes, and national priorities. In reflecting on what I observed, I have organized my impressions into several areas: small animal practice, large animal practice, wildlife conservation, fisheries, and the influence of financial constraints. Together, these themes illustrate the contrasts and connections between the two systems and show how veterinary knowledge can remain valuable even under severe limitations.

In the field of small animal practice, the difference in attitudes toward pets was immediately striking. In Japan, pets are typically regarded as family members, with owners investing significant emotional and financial resources into their care. Veterinary clinics in Japan are highly organized, sterile environments, and the culture strongly emphasizes hygiene, efficiency, and respect for both patients and their owners. By contrast, in Zambia, I observed a much more utilitarian view of pets. Some owners valued their pets, but many treated them more casually, sometimes even harshly. I was told of cases where people accidentally ran over their own dogs with cars and then simply brought them to the animal hospital. Such stories illustrated to me a gap in cultural understanding of animal welfare. Inside the hospital, I noticed that hygiene standards were inconsistent. Instruments were not always cleaned or stored properly, and disinfectants were sometimes misused, for example, people drank the alcohol meant for sterilization. These differences underscored how cultural norms shape professional practices, even within the same discipline.

Large animal practice offered another striking contrast. In Japan, many veterinary students choose to focus on small animals or enter corporate roles in fields like pharmaceuticals or food safety. At the University of Zambia (UNZA), however, many students intend to become cattle veterinarians. This reflects Zambia's economic and agricultural landscape, where livestock is central to livelihoods. Zambia also faces diseases unfamiliar to Japan, such as certain parasites and infectious conditions. Preventive methods include practices like medicated baths for cattle, which are rarely used in Japan. While Zambia deals with more aggressive and widespread diseases, the facilities supporting disease control were often inadequate. The slaughterhouse I visited, for instance, had windows left open and no real system to prevent outsiders from entering without disinfection. Such lapses would be unacceptable in Japan, where strict regulations govern hygiene. These observations reminded me of the close connection between infrastructure, resources, and public health outcomes.

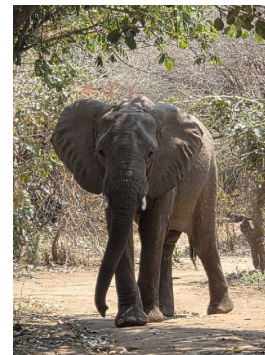
Wildlife conservation and fisheries provided additional dimensions of comparison. Zambia is home to diverse ecosystems and iconic wildlife species, which require specialized forms of veterinary involvement. One notable practice was the use of police dogs to detect poachers, demonstrating how veterinary knowledge intersects with law enforcement and conservation. In fisheries, the differences were equally telling. Japan, surrounded by oceans, has a long history of fishing and aquaculture, with numerous institutions providing education and training. In contrast, Zambia is landlocked and has very few schools devoted to fisheries. Those who do graduate with such training often take positions at large commercial farms rather than supporting small or medium-sized fisheries. This creates a shortage of skilled professionals in the very areas where they are most needed. It struck me as an example of how geography, education, and economics combine to shape the structure of an entire industry. Amid all these differences, the factor that impressed me most was the influence of money—or rather, the lack of it. Financial limitations explained why university hospitals struggled with shortages of basic supplies, why slaughterhouse equipment remained broken for long periods, and why even disposable protective clothing and gloves

were highly valued despite being reused. In Japan, such shortages would seem unimaginable. Yet in Zambia, they were normal. However, I came to realize that veterinary medicine is not defined solely by expensive equipment or abundant funding. At its heart, it is about applying knowledge wisely and creatively, often in ways that cost little but make a tremendous impact. For example, I observed that at the slaughterhouse, the esophagus and colon were tied off before butchering, exactly as in Japan. This simple procedure prevents contamination and maintains food safety. Likewise, at Lower Zambezi National Park, a guide used a stick to point at a skeleton rather than touching it with his hands. This cautious behavior protects against diseases such as anthrax. I also learned that carcasses of animals suspected of anthrax infection are buried in deep pits to prevent floods from spreading the bacteria during the rainy season. These examples show that effective measures can be implemented even in the absence of financial resources, so long as knowledge is present.

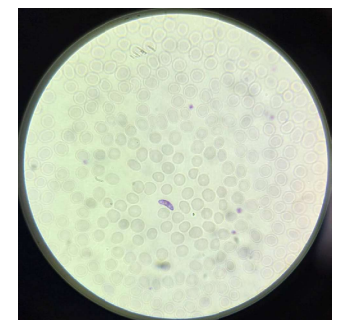
Through these observations, I developed a deeper appreciation for the true value of veterinary medicine. It is not merely a science dependent on technology and money, but a discipline that teaches creativity, adaptation, and problem-solving. Even in contexts like Zambia, where conditions are financially and logistically difficult, veterinary knowledge provides tools for protection and improvement of both animal and human lives. This realization made me respect even more the educational activities of the senior veterinarians working in Zambia. Their efforts directly contribute to building capacity and empowering local communities. I also began to see veterinary education as an essential force in shaping resilient systems that can withstand cultural, financial, and environmental challenges.

In conclusion, my study abroad experience in Zambia not only highlighted the differences between Japanese and Zambian veterinary practices, but also revealed the universal strengths of veterinary knowledge. While financial resources certainly matter, the ingenuity and wisdom embedded in veterinary science allow for practical solutions that transcend economic boundaries. I left Zambia with a renewed sense of respect for the profession and with gratitude to the professors who made the experience possible, both in Japan and Zambia. This journey showed me that veterinary medicine is not just about treating animals; it is also about protecting public health, supporting communities, and fostering international understanding. In every context, regardless of wealth or resources, it remains a vital discipline that teaches us resilience, compassion, and responsibility. (1,043 words)

(Picture 1) "Hello, my neighbor."



(Picture 2) Me and the bone of aardvark



(Picture 3) Malaria

The University of Zambia

Wakaba FURUTA, 5th year

My life and practical training in Zambia were a continuous series of valuable learning experiences that reshaped my perspectives. In this report, I will focus on the observations that left the strongest impression on me, focusing on the connections between veterinary science, public health, and the socioeconomic fabric of a nation.

The most impactful part of my training was the internship at the Kafue slaughterhouse. This facility served as a microcosm of Zambia's challenges. The process began with an ante-mortem inspection of the cattle arriving for slaughter. Veterinarians checked for issues such as inadequate body size, pregnancy, or visible skin lesions. These checks are a critical first line of defense against zoonotic diseases like Foot-and-Mouth Disease (FMD) or Lumpy Skin Disease. Following this inspection, the slaughter and butchering process began. The skin was removed, and the sternum and pelvis were split with heavy, axe-like tools before the internal organs were extracted.

The first thing that surprised me was that almost every part of the animal, including the organs, was sold on-site immediately following evisceration. The intestines, for example, were sold after their contents were simply flushed out with a hose, a cursory process. Organs vital for post-mortem inspection—such as the liver, spleen, kidneys, lungs, and trachea—were incised by inspectors to check for internal abnormalities. I was told by the supervising veterinarian that parasites are frequently found, though I did not observe any on that particular day. This highlights the risk of parasitic zoonoses if inspection is not thorough. It was also memorable when the veterinarian mentioned that the lungs and trachea are considered "very delicious," which made me curious about local culinary practices.

Post-mortem inspection was also crucial. Inspectors observed the size, color, and consistency of lymph nodes and the nature of fluids from cut surfaces. These indicators are essential for detecting systemic diseases. If any signs suggestive of tuberculosis, FMD, or anthrax were suspected, the entire carcass was condemned and destroyed. What struck me next was the stark difference in fundamental hygiene standards. Many workers operated with their bare hands, without gloves, handling both raw meat and contaminated surfaces. I was particularly shocked to witness someone drinking directly from the same hose that was being used to wash the contents out of the intestines. This act symbolized a different understanding of contamination and disease transmission.

In Japan, the meat processing industry is governed by stringent regulations, often based on HACCP principles. Carcasses are processed while suspended from an automated crane system, minimizing contact with the floor. Internal organ inspections are conducted on designated stainless-steel tables. However, at the Kafue facility, the crane had reportedly been broken for about five years. With no funds available for repair, all butchering, evisceration, and inspection work was done directly on the concrete floor. This contaminated floor posed a massive risk for cross-contamination of the meat. I felt strongly that improving this basic infrastructure—a matter of funding—could significantly reduce the risk of infection and foodborne illness for both the workers and the end consumers. Additionally, the small animal clinical rotation at the University of Zambia (UNZA) highlighted a major cultural difference in attitudes toward companion animals. This experience complemented the lessons from the slaughterhouse. In Zambia, I learned that cats and owls are sometimes associated with "witchcraft." As a result, they are often feared or despised, and I was told they are even stoned if seen on the street. Consequently, very few people own cats as pets. Dogs, therefore, reportedly make up about 80% of the patients at the veterinary hospital. Most of these dogs are mongrels (mixed-breeds).

Unlike in Japan, where pets are often treated as integral "family members" receiving advanced medical care, the prevailing impression in Zambia was that dogs are kept primarily as guard dogs or simply exist on the periphery of human life. Their value is primarily functional.

This was reinforced by a shocking sight: people selling puppies by the roadside from car windows, alongside vegetables and crafts. The price was around 200 Kwacha (about 1200 JPY). Apparently, it is not uncommon for people to purchase animals in this manner. This unregulated trade signals a profound lack of awareness regarding animal health management. This trade lacks traceability, vaccination history, or deworming. I was told by the UNZA clinicians that most dogs are heavily infested with ticks, leading to a high prevalence of tick-borne diseases such as Babesiosis and Anaplasmosis. Furthermore, the lack of widespread vaccination protocols poses a persistent risk of zoonoses like rabies.

Throughout my time in Zambia, I realized that the issues I observed—in both food safety and animal welfare—were not simply due to "undeveloped systems or culture." These deficiencies are inextricably linked to a lack of resources: funding, technology, infrastructure, and widespread public education. At the root of this lies poverty.

In such circumstances, poor hygiene and improper animal handling practices translate directly into public health risks and economic losses. When meat safety is compromised, it can lead to outbreaks of food poisoning and infectious diseases. This increases the national healthcare burden, reduces labor productivity, and erodes public trust in the food supply. Similarly, the condemnation of a single carcass for a preventable disease represents a devastating financial loss for a small-scale farmer. Furthermore, the low utilization of veterinary services and the prevailing perceptions of pets create a reservoir for zoonotic diseases.

This experience abroad made me strongly realize that the systems, hygiene standards, and animal welfare concepts I took for granted in Japan are by no means universal. They are the product of a foundation built upon decades of economic stability, investment in infrastructure, universal education, and specific cultural developments.

My time in Zambia was an invaluable, humbling opportunity. It forced me to understand firsthand the significant, foundational role that economic systems, cultural norms, and public awareness play in public health, animal welfare, and poverty reduction. A veterinarian's role in such a context is linked to the health and stability of the entire community.

Finally, I would like to express my sincere gratitude to everyone who made the University of Zambia dispatch program possible: the faculty at Hokkaido University, including our supervisors; the staff at IVEP; the dedicated faculty at the University of Zambia; all our hosts at the various training sites; and the fellow students I had the privilege to work with. Thanks to your support, I was able to complete the program safely and gain knowledge and perspective. I will use this experience as a foundation for my future efforts. Thank you very much.

(1086 words)



Visit to the Kafue Slaughterhouse



Commemorative Photo at the National Park