

Report of Tour and Training at Arignar Anna Zoo, Chennai and other zoos in South India Jamshid Noori*

This article is about my first foreign training, tour and report after I graduated from the Veterinary Science Faculty College and was engaged as a veterinary doctor in Kabul Zoo, Afghanistan. Although I had also completed some short courses, I felt the need of some advanced training.

Dr. Jalil of the Mayhew Animal Home consulted Zoo Outreach in India who approached the Arignar Anna Zoo in Tamil Nadu, India and Chester Zoo in U.K. to make advanced training possible for me. In a few weeks I flew to Chennai and was hosted by the A.A. Zoo and its Veterinary Hospital to obtain hands-on medical training for different animals.

When I arrived there the Zoo Director, Dr. Thirumurugan and the clinic staff warmly welcomed me, and straightaway began explaining important parts of their facility and its activities. We soon covered appropriate drugs, the operating room, quarantine room, laboratory and X-ray room all which are very well managed. My training began immediately with the following programs:

X-ray of a peafowl; operation of the squeeze cage in securing a lion and a white tiger for treatment, Practicing the use of tranquilizer gun and blow- pipe techniques for giving injection and carrying out other procedures on the animals; practicing the production of blood samples and fecal samples; reviewing the food storage area; observing methods of feeding of the animals; assisting postmortem findings on a deceased monkey by taking samples from the internal organs; and assisting vasectomy surgery on a rhesus monkey.

Exercise on X-ray machine:

Dr. Thiru explained in detail how to use the x-ray machine and also how to conduct x-rays on the animals. Demonstrating first on a peafowl, he explained how to do



Arignar Anna Zoo Veterinary Hospital, Vandalur, Tamil Nadu



X-ray room in the Arignar Anna Zoo Veterinary Hospital

x-ray on various animals. He demonstrated how to fix, wash and dry the x-ray films so they could be viewed accurately.

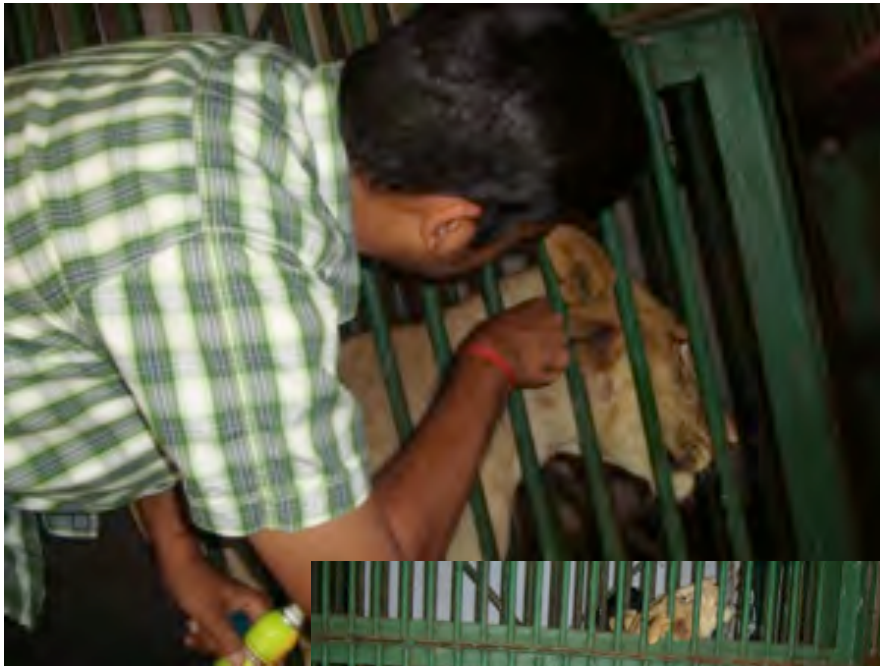
Immobilization for treatment:

Dr. Thiru showed me the lion and tiger enclosures so I could observe large carnivores immobilized for physical examination and treatment. Every animal has a squeeze cage inside their enclosure; this lessens stress on the animal when it doesn't have to be moved a long

distance to a squeeze cage. When the animal needs treatment it can be brought immediately to the squeeze cage and held safely until the procedures are finished.

Dr. Thiru explained how injections can be given from long distances using the tranquilizer gun and blow pipe with darts and needles.

*Veterinarian, Kabul Zoo, Afghanistan. Email: jamshidnoori97@yahoo.com



Treatment of large animals such as lions cannot be done effectively without immobilizing the animal in the squeeze cage. The squeeze cage makes it possible to avoid drugs for day to day treatment which is better for animals.



Dr. Thiru helped me practice how to fill darts with the required drug and how to prepare the dart for gun or blow pipe. I practiced many times with both instruments on a target chart so that when I get this equipment in Kabul Zoo I will know how to handle it.

Practice in making blood and fecal slides: We practiced the diagnoses of internal parasites, external parasites and blood parasites in the laboratory. Fecal samples and blood samples were collected and viewed under the microscope. We made fecal slides and blood smear slides for observation under the microscope, and learned how to search and identify parasite eggs, worms and blood parasites. We also practiced counting blood cells on chamber slides under the microscope.

Zoo animal food storage: The Kabul Zoo changed their food system to be similar to those of other South Asian countries. I observed the food store room and feeding system for the mammals, birds and reptiles and visited many enclosures to observe different feeding methods. This was very impressive due to the vast number of animals.

Postmortem findings on a dead monkey: We have conducted postmortem investigation in a few cases in Kabul Zoo. Dr. Thiru explained a number of techniques for taking samples from internal organs for laboratory diagnosis. We conducted a postmortem on a deceased primate and practiced physical examinations. We could see changes in the internal organs and now I know how to do very accurate postmortem findings and collect samples from internal organs.

Vasectomy operation on a monkey: I was permitted to assist in a vasectomy operation in the operating room of the hospital where, first, I practiced giving injections of anesthesia to the monkey. Then we readied the operating table and other equipment before transferring the



Above: Feeding the elephants at Arignar Anna Zoo. Below: Storage of food in the food store, where the foods for different species of animals are kept in separate containers for correct and easy distribution

monkey. We tied its legs on the table, and began the operation. We used a thermo hydrometer machine, with which we could do operations without bleeding. We cut the skin and found the *vas deferens* tube after which we cut both the *vas deferens* tubes and sutured them. Then I injected necessary drugs and released the monkey in a cage for recovery.

Treatment of some sick animals:

We treated a small elephant which is very much loved by the Afghan people, as it does not occur in our country. The elephant was diagnosed with diarrhea. We injected the animal in its enclosure and also gave the keeper some tablets to mix with food. Another day we went to a tiger enclosure and treated the animal for injuries. I learned how to immobilize and inject lions, tigers and other carnivores. Also we treated a wild horse which had a foot injury and lacerations. We kept the animal in a small cage and treated it with some tablets and spray because it was difficult to inject the animal.

Dr. Thirumurugan gave me data references and a very useful medical book. All references, etc. were very useful and important for



Assisting in a vasectomy surgery on a primate in the zoo hospital operating room ... giving anesthetic, securing the animal and using a device (thermo hydrometer) that enabled conducting operations without bleeding. The primate was given drugs and put in a small cage to recover from the operation.

me to bring positive changes to our clinic at Kabul Zoo. This is the end of Part I. With help from ZOO's Education Officer, R. Marimuthu I visited zoos in other parts of South India. I also spent time with zoo staff who were friendly and helpful to me.



Visits to other zoos in South India

Madras Croc Bank Trust (MCBT): I had heard stories of the various Zoos in or near Chennai from my colleagues at Kabul Zoo who had visited a few years ago. After my training was completed, on 24 August 2013 I visited MCBT, Snake Park and Guindy National Park which were very interesting and helpful.

At the Crocodile Bank the staff explained their breeding system and showed me many different species of crocodiles, snakes, amphibians and their enclosures. Then I was allowed to refer their books and drugs and get some references for treatment and habitat of the reptiles. At the Snake Park, I met the director and staff members also.



MCBT -- Madras Croc Bank Trust

VOC Park Zoo, Coimbatore: After Chennai we went to Coimbatore where I could meet the Zoo Outreach staff and see their office. Next day we visited VOC Park Zoo and met the Director, Dr. Asokan who related the full history of the zoo. He also practiced techniques of handling snakes with me and showed their incubator and photos of surgery operations. Afterwards we visited Nilgiri Biosphere Nature Park which keeps a variety of small animals and provides walking trails so visitors get a taste of nature.

Chamarajendra Zoological Gardens, Mysore:

Before I went to Mysore zoo I had seen photos in Kabul copied from Mysore zoo by our Director, Aziz Gul. I saw the animal health clinic in Mysore Zoo and met some experienced veterinary doctors who helped me practiced using their tranquiliser gun. They helped me tour all of Mysore zoo and showed me some pictures of several interesting operations.

Bannerghatta Zoo, Bangalore. Next I visited the zoo and the Sloth Bear Rescue Center. Zoo personnel took me to drug storage, operating room, equipment and, most important, their beautiful animals. These were items I needed to see and practice. The tour was really useful for me. I learned a great deal about zoo animal care, clinic management and use of anesthetic drugs with tranquilizer gun and blow pipe.

Summary of results of my training and tour:

The Veterinary Science Faculty College which I attended do not have a department for wild animals, thus, I could study only domestic animals. After graduation and was hired by Kabul Zoo I faced many problems. Dr. Abdul Qadir Bahawi, Zoo Veterinarian and the Kabul Zoo Administration helped me in all activities of the zoo. Also I got more experiences from the data which they had from their training and tours of South Asia.

When I returned, I explained-all the training and practices which I got from 1st August to 31 August 2013 in Arignar Anna Zoological Park, MCBT, VOC, Mysore Zoo, and Bannerghatta Zoo about animal health, veterinary care, enclosure design, maintenance, tranquilization equipment (tranquilizer gun and blow pipe) laboratory, postmortems, immobilization, capturing operations, surgeries, and feeding of animals. I feel I got an enormous amount of experience from my first foreign tour and returned to my zoo with many ideas and changes in our animal hospital and also knowledge for all our zookeepers by teaching new techniques.

Thanks! I want to thank the supporter organizations: Mayhew Foundation, Zoo Outreach Organization and Arignar Anna Zoo for organizing training and tour; to the Chester Zoo and Universities Federation for Animal Welfare for financial support; to directors and staff of the zoos I toured, for their warm welcome to me, their hospitality and accommodation. My Director, Mr. AzizGul Saqib, joins me in thanking all who helped with this wonderful training opportunity.



Dr. Asokan, Director of VOC Park in Coimbatore, Tamil Nadu reviews its history and also demonstrated some techniques for handling reptiles as well as other items in the zoo.



Mysore Zoo is one of the oldest & prettiest zoos in India, having kept up with modern zoos evolution. I enjoyed staff hospitality who demonstrated the tranquilizer gun and took me around the zoo.



The Bannerghatta facility is a lot of things ... a zoo, a nature park, and a Sloth Bear Rescue Center. They were generous with their time and expertise.