ON BEING A ZOO VET

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I have always had a strong interest in exotic animals. As a kid, I had many unusual pets, especially reptiles and amphibians. During high school, my first job was as a seasonal keeper at the Indianapolis Zoo. This was during the 1960's, and at that time the Indianapolis Zoo was mostly a children's zoo but this afforded me the opportunity to work with animals in all sections of the park which broadened my experience. I also worked at the office of Dr Peter Johnson. He was the zoo's on-call vet. I only did menial work at the clinic and assisted Dr Johnson when needed, but it provided exposure to veterinary medicine and helped solidify my goal of being a vet…specifically a zoo vet.

I was accepted into the school of veterinary medicine at Purdue University and graduated in 1975. At that time almost nothing was taught to students regarding exotic animals. My first job as a veterinarian was an internship in small animal medicine and surgery at a large hospital in the Chicago area. I stayed at Berwyn Veterinary Associates for two and a half years, during which time I got a good clinical education in medicine and surgery.

Then I got lucky and was accepted as a resident in Zoo and Exotic Animal Medicine at the University of California at Davis. Our service took care of the Sacramento zoo and all private exotic pets that were brought to the vet school. My head professor was Dr Murray Fowler, a renowned zoo veterinarian. I also rotated through the California regional primate center and the university's laboratory animal services as well. Toward the end of my program I interviewed for several zoo vet positions, including Brookfield zoo in Chicago.

Brookfield zoo hired me as a staff veterinarian where I worked from 1980-1985. It was a great job while it lasted; to be intimately involved with the care of zoo animals. Just being up close to such creatures and getting to touch them was thrilling enough. I'd like to share a few photos of my experiences being a zoo vet. Most of these photos were taken at either Brookfield zoo or the Sacramento zoo.

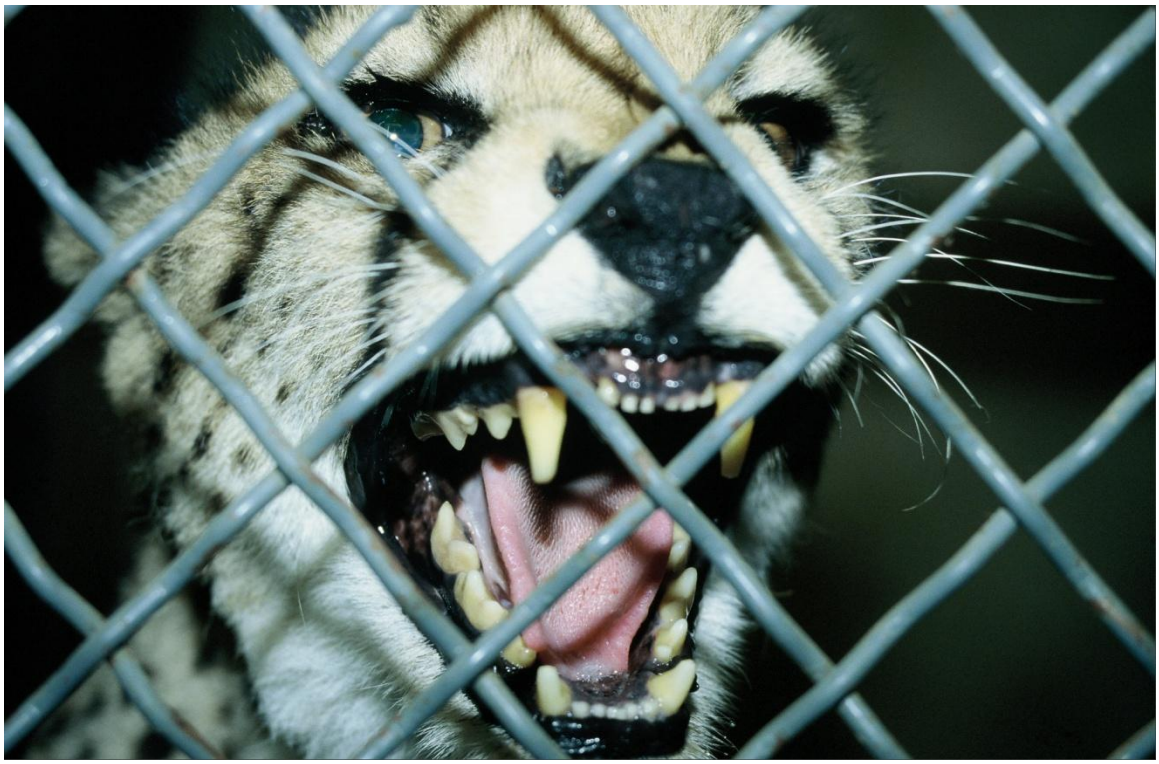


Fig 1 and 2: An angry Cheetah! Working with zoo animals is a bit different from domestics. These are wild animals that will harm you if given the chance. Protocols must be followed when working with large exotics to keep both the animals and humans safe. Learning proper restraint and immobilization techniques is very important in the life of a zoo vet.

Fig 3 and 4: When I was at Brookfield zoo we had a staff of 2 veterinarians. The hospital building was old but it was still adequate and well equipped. We also had an ambulatory vehicle to drive to the different parts of the park to work on animals in their enclosures, since many were too big to transport. Two or three keepers were permanently assigned to the hospital to assist the vets and take care of any animals housed there. Pat Stout and Rich Spevak had been at the hospital for many years and were well experienced. In this photo, Pat is changing a bandage on the chest of a Black and White Colobus monkey.

Fig 5 and 6: Rich is taking care of an infant orangutan while its mother was immobilized for a procedure. Gail Watts (seated) was our laboratory technician and also assisted the vets in all aspects of veterinary care.

Fig 7 and 8: In a zoo setting, the keeper becomes like the client. They contact the curator and/or veterinarian if something is amiss with any of the animals they care for. Once informed, the vet will usually come out to the exhibit to visually inspect the animal and talk further with the keeper about his or her concerns. Unless it was an obvious emergency, further action always required consultation with the curator. With a high profile animal, input from the director was indicated. Further action might require immobilization to allow a more thorough examination, to be able to take laboratory samples, and/or to implement some type or treatment, either medical or surgical. In the case of a high profile animal (i.e. this giraffe), several days or more of planning was usually required to formulate a plan of action and a backup plan if anything should go wrong, and to bring together a team of keepers, staff, and any outside consultants to work together in a coordinated manner.

Fig 9 : I'm not a hunter, but I still got to shoot a lot of animals! A vet gets pretty handy using CO2 powered pistols and rifles and blow guns. Here I'm shooting antibiotics into the rump of a rhinoceros. Immobilization agents and medications can be delivered in this manner, especially to animals that cannot be readily approached.

Fig 10 and 11: This tiger was only partially sedated with an initial dose of tranquiller. A second dose is being given with a pole syringe. Dangerous animals must be completely "knocked out" before opening the cage. Once removed from its cage, this tiger's jaws are stretched open with rope to allow placement of an endotracheal tube into the windpipe. This tube is then connected to a gas machine so that additional inhalation anesthesia can be delivered.

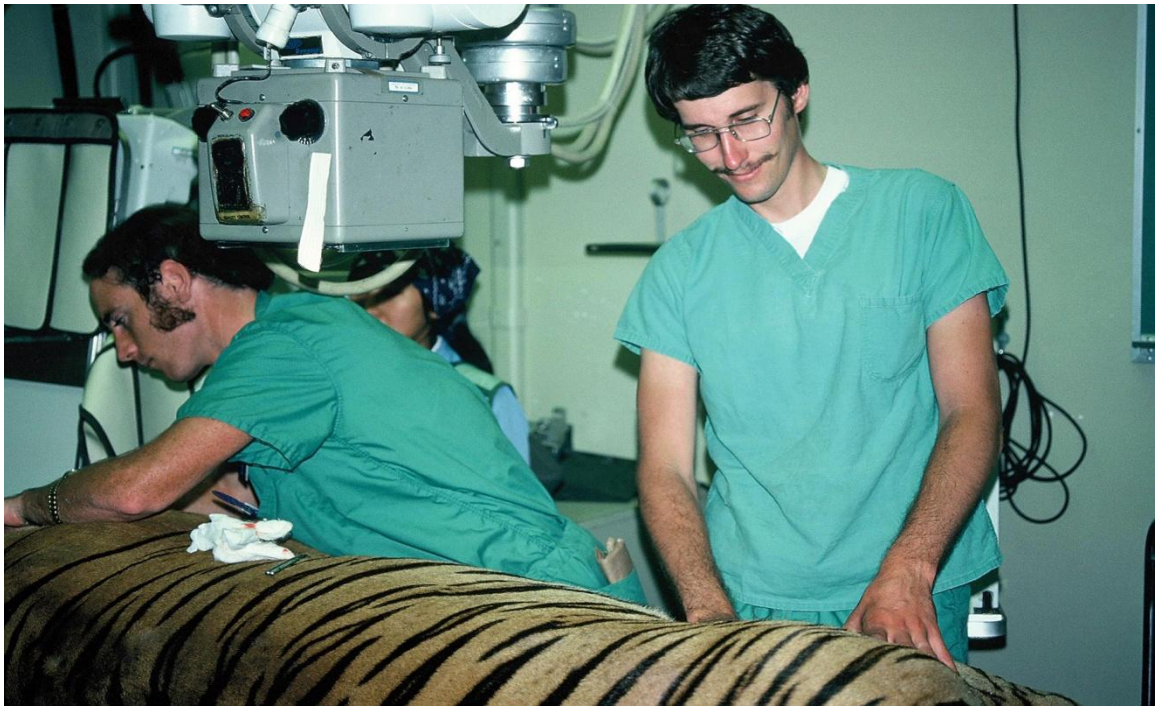


Fig 12: Now that the tiger is totally relaxed, radiographs are taken as part of a presurgical workup for foot surgery to remove some infected toes.

Fig 13 and 14: Dr Murray Fowler is securing an immobilized Zebra at the Sacramento zoo. After using a rifle to deliver the sedative, Dr Fowler approached the relaxed animal and lassoed him with a lariat to help secure him to prevent injury while going down. The Zebra was sedated to trim its hooves…a common procedure in zoos. Hoofstock kept in small paddocks are prone to overgrown hooves and nails.

Fig 15 and 16: Elephants are one of the few large zoo animals that keepers can work with intimately. However trainers should never work alone or let their guard down…these are still potential dangerous animals. This elephant was sedated, intubated, and placed on a ventilator while its feet were trimmed.

Fig 17 and 18: Diseases of the feet in captive elephants are common. Medical problems include overgrown and cracked soles (as shown here), foot abscesses, and nail disorders. Diseases of the sole can lead to lameness due to pain and infection. Treatment included trimming away excess tissue so only smooth healthy sole remained. Copper sulfate was applied as a disinfectant.

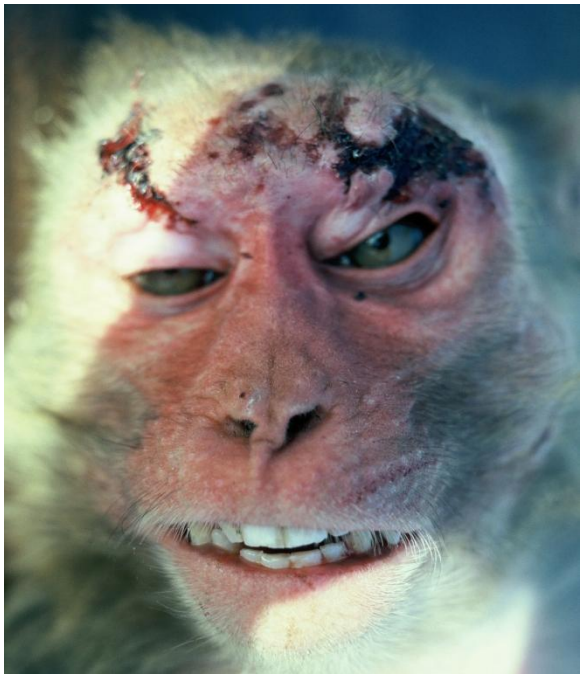


Fig 19 and 20: Siberian Ibex with a broken horn. Rhesus macaque monkey with bite wounds on its head. Surgery is not routinely performed in zoo animals, but when it is, it's often the result of trauma from injury or fighting as shown here. Some days you come to work and have no idea what is about to confront you.

Fig 21 and 22: Brookfield zoo had five dolphins when I worked there. Twice a year they were removed from their pool for routine examinations and laboratory testing. Keepers would trap each dolphin in shallow water at one end of the pool. Once captured, it was hoisted up in a stretcher and laid on a moist mat.

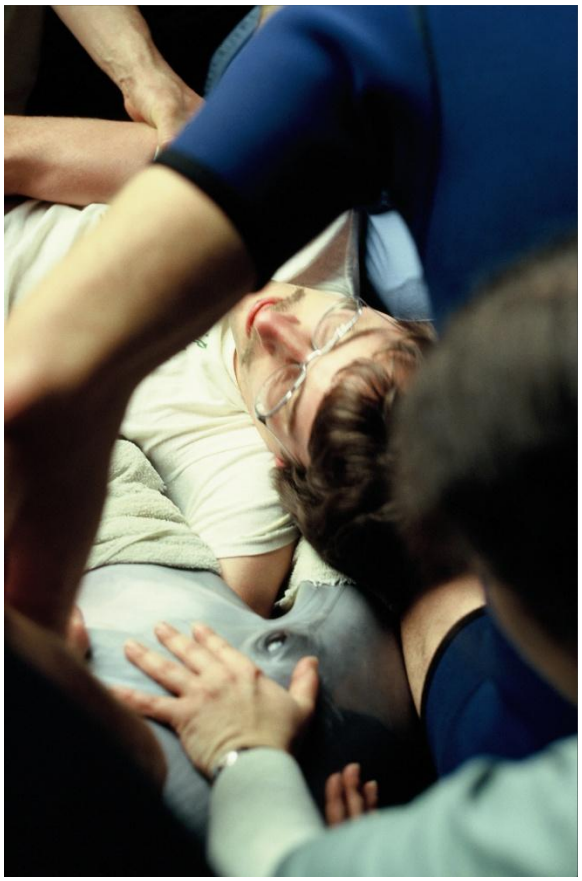



Fig 23 and 24. Dolphins breathe air through their blowhole. They can be kept out of water for an extended period of time as long as they are kept continually wet. One dolphin accidently swallowed a rubber eyecup which was used to cover the eyes to demonstrate how they find objects by echolocation. The cup had a metal pin in it which was identified with radiographs to be in the stomach. With the dolphin's jaws pulled open and the teeth covered with towels, I'm seen here reaching my arm all the way down into the stomach to retrieve the eyecup. The procedure was successful. I was always given the opportunity to swim with the dolphins…but unfortunately I never did.

Fig 25 and 26: This male orangutan is being TB tested and examined. Zoo vets often implement preventative health programs such as vaccines, parasite testing or treatment, and routine examinations which may include laboratory samples. This often requires immobilization. Very rare animals or those in which immobilization may be risky were only sedated on an "as needed" basis.

Fig 27 American buffalo being rectally examined for pregnancy.

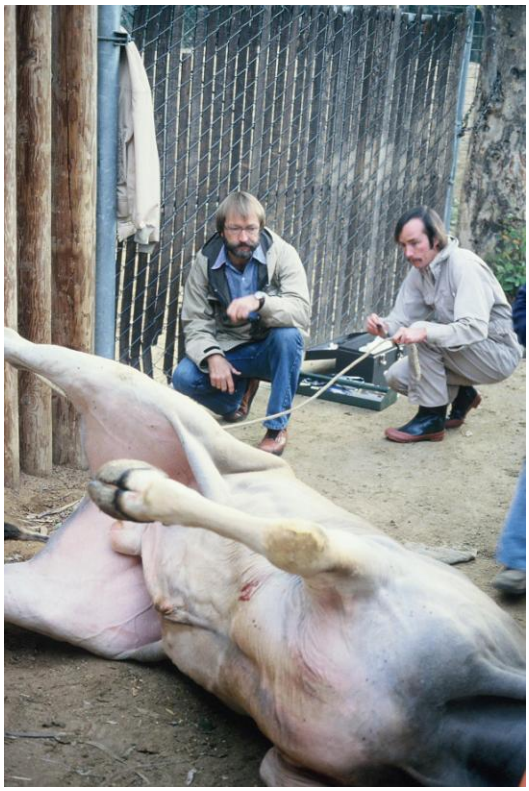


Fig 28: African Eland (large bovine) sedated for blood testing which was required for a health certificate before being shipped out of state to another zoo.

Fig 29: Sitatunga with a broken leg. These small antelope species are very high-strung. The leg broke when she got startled and crashed into a fence.

Fig 30 I'm darting the animal with the aid of a blow gun.

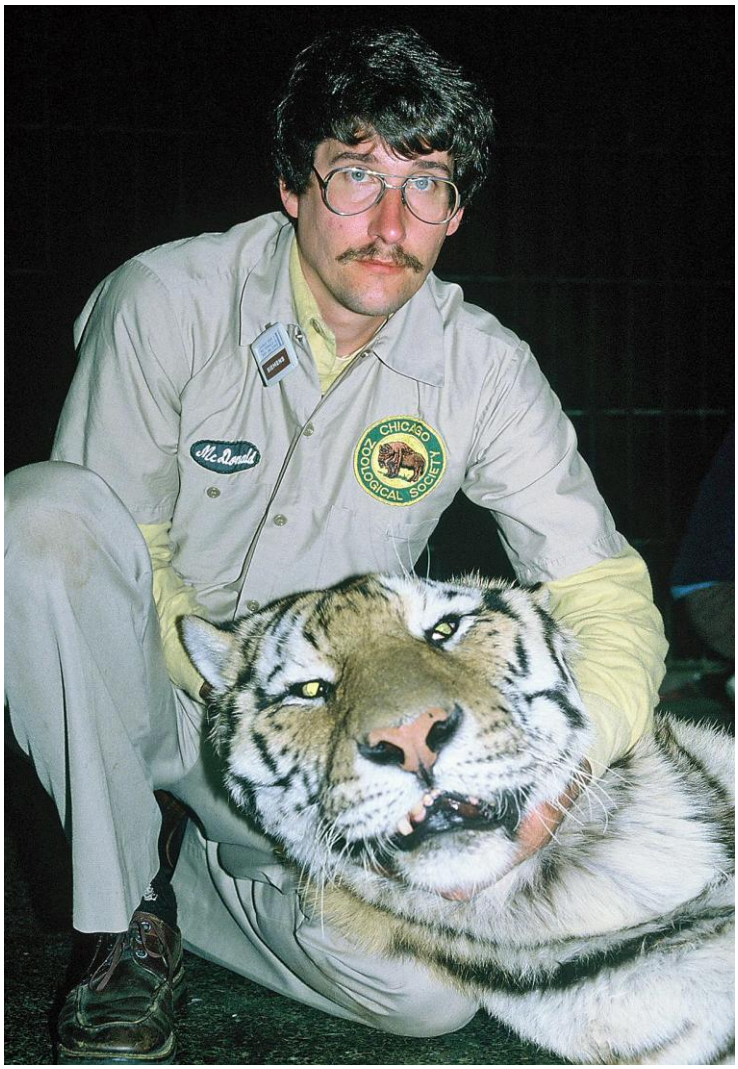
Fig 31 and 32: The dart found its mark in the Sitatunga's rear leg. Once down, we grabbed her and headed back to the hospital to remove the cast and radiograph the leg to see if healing was complete.


Fig 33 and 34: Sometimes the conditions we had to work in were pretty disgusting. This buffalo was being immobilized for disease testing. Hard to miss such a large target at close range!


Fig 35 and 36: The Bison went down in 6 inches of mud…but we still found a vein!


Fig 37 and 38: Despite all our best efforts to keep these animals safe and healthy, a certain percent die each year. Zoo vets do a lot of necropsies. Here a hippopotamus from the Sacramento zoo, that had been off its feed for a few days, was found dead suddenly, floating in a pool of water. The exhibit was cordoned off and after the zoo closed, a city truck with a hydraulic lift was brought in to pull the body out. It was hauled back to the veterinary school where a team of students and staff worked most of the night doing the necropsy. The body weighed 4000 pounds. The cause of death was a tennis ball that someone had thrown into its opened mouth which was subsequently swallowed and then it became stuck in the intestines. So sad.

Fig 39 and 40: Fennec Fox…they weigh only 4 pounds. Found in North African deserts, the large ears help conduct excess heat from the body. That's me cradling the head of "Yuri", a Siberian tiger. It's at times like this when it was all worth it, being a zoo vet.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