**Animal Science 5400.02**

**Reflection Paper – Cheetah**

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 This week we talked about a wide variety of issues in the lectures about cheetahs. I agreed with some of it, disagreed with some of it, while some of it made me sad, some surprised me, and some I would like to know more about.

 First, I was sad to learn how few cheetahs are left in the wild. There are only about 7,100 in the world of which about 4,000 are in southern Africa. Namibia has the largest population because people have killed all the lions and leopards that kill cheetahs. Cheetahs are at risk from habitat loss, conflict with humans, and the exotic pet trade. They also are at risk due to an exceptionally small gene pool. An extinction event 12,000 years ago led to a population bottleneck, so today cheetahs have low genetic diversity. This means many of them suffer genetic mutations such as kinked tails, and that an entire population could be wiped out by an infectious disease. One thing I wondered was whether this extinction event 12,000 years ago affected other species, especially other big cats. I have not heard of this happening regarding any species besides the cheetah, though many species are so endangered or threatened today that by definition their gene pools are not very large.

 Something I was surprised to learn was that while cheetahs are incredibly fast animals, sprinting up to 70 mph, they don’t have much endurance. After they catch their prey, they have to rest for several hours to recover from the sprint before they can eat it. This means hyenas and leopards often swoop in and take the prey away. That seems a little unfair – the cheetah did the work to catch the prey, but someone else gets it. I suppose it is the same principle that led royalty in past decades to use cheetahs for coursing. Hopefully in the wild the cheetahs get enough to eat to continue hunting.

 I enjoyed the video about Lisa Hanssen and the Africat Foundation. Overall I thought they were doing good work to address human-animal conflict in Namibia, and to try to raise awareness of the threats facing cheetahs. It sounds like farmers using box traps to catch and kill cheetahs is fairly common. One thing I wondered was whether governments in Namibia or South Africa compensate farmers for livestock lost to predation by big cats, as occurs here. A program like that could help reduce tensions over conflict with wildlife. I also wonder if allowing natural prey such as kudus would help divert cheetahs from killing livestock – maybe not in all cases, but probably some.

 I did cringe, however, when I saw Lisa cuddling with cheetahs and allowing a wild cheetah to get up in the car with humans to get food. For that cheetah in particular, one could tell he was stressed. I agreed with Andrew that this is not a good practice. First, it is just asking for a passenger in the jeep to get mauled. Second, it gets cheetahs habituated to humans, which is not good for a wild cheetah because the next human he approaches could very easily kill him. An accredited zoo or sanctuary would never allow keepers or tourists to have such close contact with a big cat in captivity, much less wild.

 Where I disagreed with Andrew was on the issue of raising big cats such as lions for hunts. I was relieved to hear South Africa is trying to impose regulations requiring a lot of space and an animal to be a certain age before being hunted, but unless the government provides enough enforcement, lions and other big cats will be raised in inhumane conditions and killed in terrible ways at a young age regardless of the law. But more than that, I am still unconvinced that this industry, predicated on the deaths of endangered animals, is needed. I asked about photos, and Andrew said it would require too many photographers, but I don’t think photo safaris would have to allow more tourists than the animal population could handle. A photo safari might not cost as much as a hunting safari, but it could resemble a hunting trip in that people must be employed to carry camping gear and equipment, and track animals through a large area until the photographer could get a good shot. If only a certain number of photographers were allowed, prices would go up, the country could make money, and the animals would not have to be stressed beyond what their quality of life can handle.

There is already an example of this in Africa. Rwanda charges a lot of money for people to go on treks to see mountain gorillas. There are less than 1,000 mountain gorillas in the country, yet Rwanda makes a substantial amount of money from gorilla tourism in its national parks. I don’t understand why the same could not be done for lions, rhinos, cheetahs, or any other endangered species in a national park. If the animals can make more money alive then dead, then the country will start to place more value on them, and they will have an incentive to hire more rangers to protect them from poachers. Further, villagers could make money from an industry based on having the animals alive rather than dead. We simply must protect these highly endangered species, both to preserve biodiversity on the planet, and because they belong to all of us. But we need to do it in a way that benefits both the people and the animals.

Predators are difficult for humans to protect, because they create competition for space and for prey species. But predators evolved to play a role in their ecosystems, and removing them does not just cause that one species to go extinct, but has reverberations across the entire ecosystem. A video called How Wolves Change Rivers demonstrates how that works in the United States, and it is probably similar in other countries. If we put aside areas of land the size of a national park, allowed predators and prey to exist and interact naturally, then set up an industry that sold a certain number of tickets for photographers and researchers to come in and observe each year, that could provide a lot of jobs and income to directly benefit the people in the area who could act as guides and drivers, run hotels and restaurants, and manage the park.