**ANISCI 5797.05 South Africa**

**Final Reflections Paper**

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I took this class on Exotic Animal Behavior and Welfare in conjunction with a class this spring on Wildlife Conservation Policy through the School of Environment and Natural Resources. That class concentrated on the history of wildlife conservation and management of wildlife species in North America, with information about Ohio in particular.

Throughout the trip, I wanted to see how wildlife conservation in North America compares to South Africa. The history of the countries is totally different, as are the species being managed, but a lot of problems, such as overhunting and human-wildlife conflict, are similar.

With that in mind, here are some thoughts about the learning outcomes after my trip:

1. **Identify and evaluate key behavioral characteristics of exotic animals in relation to the animal’s habitat and external influences.**

In North America, wildlife is divided into three basic categories: game species, which are the subject of hunting seasons and regulations; protected species, which are most species; and non-protected species or nuisance animals that can be killed at any time. In South Africa, the [Animal Protection Act of 1962](https://api.worldanimalprotection.org/country/south-africa) applies only to wild animals in captivity or under human control. In South Africa, that is most wild animals. While in the United States, wild animals are considered a public trust belonging to no one, in South Africa, if you own a property, you are considered to own all the wild animals on that property.

The law in South Africa bans laying out poison for owned wild animals unless they are considered vermin, and bans laying traps to destroy a wild animal except for protection of property or to prevent spread of disease. These exceptions are enough to allow for the killing of a lot of South Africa’s wildlife. South Africa is using more and more of its land for agriculture, both animals and crops, to feed a growing population. This crowds out wild animals from land they once had, but if they step foot into agricultural land, particularly if they kill livestock for food, they are often killed.

Much of the area we drove through had been planted with pine forest, which is not native to South Africa but was being used for paper and wood. Unfortunately pine is toxic to South African wildlife – but because this industry exists to fulfill human needs, the effect on wildlife does not seem to be a consideration.

Finally, South Africa also has a lot of very poor people who will eat anything they can get their hands on. They do not pay much attention to legal norms – they take whatever animals they can find and kill them however they can, and there doesn’t seem to be much prevention or penalty for this. South African people in general seem to hold their wildlife with very little regard, seeing them as a threat or nuisance, not something to be valued and conserved. This is very different from how people in North America see wildlife.

1. **Characterize the challenges and opportunities of managing exotic animal populations in relation to society expectations, competing domesticated species, government policy, and cultural perspectives.**

One of the most interesting concepts from the Wildlife Conservation Policy class was the North American Model of Wildlife Conservation. This model has informed wildlife conservation in North America since the mid-19th century. Growing out of the near extinction of much of our wildlife due to hunting for commercial markets during the exploration and settlement of the United States and Canada, the model rests on the idea that wildlife is for non-commercial use of citizens and should be kept at optimal population levels forever. The [U.S. Fish and Wildlife Service](https://www.fws.gov/hunting/north-american-model-of-wildlife-conservation.html) lists seven tenets:

1. **Wildlife is a public resource**. In the Unites States, wildlife is considered a public resource, independent of the land or water where wildlife may live. Government at various levels have a role in managing that resource on behalf of all citizens and to ensure the long-term sustainability of wildlife populations.
2. **Markets for game are eliminated**. Before wildlife protection laws were enacted, commercial operations decimated populations of many species. Making it illegal to buy and sell meat and parts of game and nongame species removed a huge threat to the survival of those species. A market in furbearers continues as a highly regulated activity, often to manage invasive wildlife.
3. **Allocation of wildlife by law**. Wildlife is a public resource managed by government. As a result, access to wildlife for hunting is through legal mechanisms such as set hunting seasons, bag limits, license requirements, etc.
4. **Wildlife can only be killed for a legitimate purpose**. Wildlife is a shared resource that must not be wasted. The law prohibits killing wildlife for frivolous reasons.
5. **Wildlife species are considered an international resource**. Some species, such as migratory birds, cross national boundaries. Treaties such as the Migratory Bird Treaty and CITES recognize a shared responsibility to manage these species across national boundaries.
6. **Science is the proper tool for discharge of wildlife policy**. In order to manage wildlife as a shared resource fairly, objectively, and knowledgeably, decisions must be based on sound science such as annual waterfowl population surveys and the work of professional wildlife biologists.
7. **The democracy of hunting**. In keeping with democratic principles, government allocates access to wildlife without regard for wealth, prestige, or land ownership.

The North American Model of Wildlife Conservation is credited with stemming the widespread extinction of once-abundant species in the United States and Canada. So one thing I thought about during my trip was whether this model could be used in South Africa, where many species are also nearing extinction. The answer I came up with was no except in very limited circumstances. Here is why for each point of the model:

1. **Wildlife is a public resource**. This is not how it works in South Africa. There if you own a tract of land, then you also own all the wildlife on that land. Wildlife is a private resource by definition of the law, and in practice almost all wildlife is owned. South Africa has lots of private game reserves where wildlife is owned by private citizens, and in national parks like Kruger it is considered to be owned – not managed as a public trust – by the government. Wild animals are not seen as owned by everyone but as there to make a profit for the landowners.
2. **Markets for game are eliminated**. Some markets for game in South Africa are eliminated, but that is more because they are eliminated internationally, not because the South African government wants to eliminate them. A prime example is rhino horn. John Hume, the largest private owner of rhinos in the world, wants to sell rhino horn on the open market. He has a large stockpile of rhino horn, and obtains more by trimming the horns of the rhinos he owns. This started as a tactic to protect them from poachers, but Hume believes legalizing rhino horn trade would flood the market and crash the value of rhino horn, thus disincentivizing poachers from wiping out the species. Hume convinced the South African government to open rhino horn trade, but it is still illegal on the international market. In other areas, wild animal parts are all over the place. Many shops we visited sold wild animal skins as well as jerky made of various wild animals.
3. **Allocation of wildlife by law**. As in North America, hunting laws in South Africa are [set by each province](http://www.sahunters.co.za/index.php/hunting-jagsake/item/324-hunting-licences-and-permits-in-south-africa). However, they can vary widely province to province. In all provinces hunters must have a permit, and in some they must also have a license. Some provinces have different categories of permits for different types of animals. Provinces have various restrictions on the type of hunting that can be done depending on location and species. Even so, trophy hunting is big business, and there’s an industry of professional hunters to guide non-citizens on hunts. Animals that are threatened and endangered can be hunted for the right price.
4. **Wildlife can only be killed for a legitimate purpose**. What is considered a legitimate purpose in South Africa might not be considered such by most people in North America. Is it legitimate to kill a lion in South Africa to bring back its head to the United States, or an elephant for its tusks? In South Africa these things can be done legally, because the money may be used for a societal purpose. But many people in the United States would consider such trophy hunting to be frivolous.
5. **Wildlife species are considered an international resource**. A lot of Americans consider African wildlife to be owned by everyone as an international resource. But South Africans don’t see it this way. They don’t understand why everyone else in the world thinks they can tell Africa what to do with its wildlife, and they look up on a lot of their wildlife as a nuisance if not dangerous. I can see why they feel that way, but at the same time, preserving biodiversity is very important for everyone, and some of the most iconic and endangered species live in Africa.
6. **Science is the proper tool for discharge of wildlife policy**. In the United States, wildlife is considered a public trust to be managed by the government on behalf of all citizens. Although it often seems our wildlife agencies bow to the pressures of corporate interests, ideally they are supposed to use science and science alone to make decisions about how to manage wildlife. That does not seem to be a priority in South Africa, where most wildlife is privately owned. Although there is a general understanding of conservation, most private owners are managing for a specific purpose, such as stocking game for trophy hunters or nature photographers. This can keep species from going extinct, but it also puts the emphasis on a few iconic species that people want to see and interact with, not the ecosystem as a whole.
7. **The democracy of hunting**. This is not a principle in South Africa either, and in some ways it is probably a good thing that it’s not. With so many poor and hungry people, if everyone had access to guns and could easily obtain a hunting license, wild animal populations in South Africa would be decimated more completely and more quickly than they already are. Hunting in South Africa does require money and means, and that is the way the government has designed it.

The public trust doctrine in South Africa does not seem to exist as it does in the United States. Private ownership is the norm. South Africa is an African nation full of various African tribes of people who speak different native languages and have different customs. All of this is overlaid with white European settlers who brought western ideas.

Conservation is essentially a western, not an African, idea. South Africa does have national parks like Kruger, but Africans don’t visit in large numbers. Almost everyone we saw in Kruger was white, usually older retired people from other countries. Most Africans seem to have low regard for wildlife and don’t understand why Europeans want to preserve it. If they could, many Africans would dismantle Kruger National Park and put that land to human use instead, even though it is 1% of the land area of South Africa.

1. **Identify and explain the intrinsic and extrinsic factors that influence health and well‐being of exotic species and the scientific approaches used to address exotic animal health issues.**

One place where we ran into health and disease issues was on John Hume’s rhino ranch. Dr. Michelle and the other staff at this facility provide top notch care for the rhinos, going to great lengths to treat and prevent illness and disease. But sometimes it happens there anyway, as on the day we visited. Hume’s facility is located on old cattle ranch land. Cattle have not lived on that land for many years, yet sometimes their diseases can be left behind. When we visited, we got to help with the necropsy of a rhino who had died from such as disease called clostridium. The ranch had experienced extremely heavy rains in the previous few weeks, which stirred up the soil and dislodged the clostridium bacteria from its dormant state. It caused an acute reaction in the rhino who died, basically destroying her small intestine and liver. Dr. Michelle said there is treatment for clostridium, but only if you can get it to a rhino fast enough, which is difficult to do with so many rhinos on an enormous ranch when the disease acts so quickly.

1. **Appreciate the diversity, complexity, and value of alternative exotic animal management approaches on animal and their surroundings.**

One thing I had not considered before coming on this trip to South Africa is the role of private game reserves and private breeders and farmers in wildlife conservation. This is just not done on any scale in North America. The closest might be captive deer facilities, which are currently experiencing a lot of problems with chronic wasting disease.

In South Africa, because most wildlife is privately owned, working with private facilities to conserve wildlife is crucial. There is simply no other way to do it. John Hume’s ranch will likely be a major factor in preventing the extinction of the rhino, if that is possible. The crocodile farm we saw has already helped move the Nile crocodile off the IUCN endangered species list. Private game reserves, along with national parks like Kruger, play a role in preserving iconic wildlife such as elephants, lions and cape buffalo. There’s just no substitute for have large spaces where they can live, browse or hunt, and reproduce as they evolved to do before humans took over the world.

The catch, of course, is these species are not being managed for themselves, but for some type of human use. That means they will be managed to produce something that humans want – whether that is rhino horn, crocodile skin, or a chance to shoot an iconic species with a gun or a camera. Thus, the emphasis will be placed on meeting the human need, not creating the same environment for the animals as their ancestors evolved in.

That may be the best we can do for them right now. The renowned biologist E.O. Wilson has the idea of preserving [half the earth](http://www.half-earthproject.org/) just for wildlife, and maybe at some point in the future that will be possible. Humans are only one species, but [according to a study](https://www.theguardian.com/environment/2018/may/21/human-race-just-001-of-all-life-but-has-destroyed-over-80-of-wild-mammals-study) published just this week, humans and their livestock account for 96% of all mammals on earth, with all other mammals accounting for only 4%. Among all life forms humans account for 0.01%, but we have destroyed 83% of all wild mammals.

Clearly this is not sustainable – and if we cause the mass extinction of so many species, besides impoverishing our planet we threaten our own existence. Right now it is a war to preserve them, and many of the people we talked to such as Dr. Michelle and Andy to some extent seem to be suffering from a form of PTSD by being on the front lines.

In a crisis situation like this, you have to use whatever tools are on hand to address the problem. In South Africa that means working with private landowners, as well as with provincial and national governments, and with international organizations such as CITES and the NGOs. All of them will have pieces of a solution to keeping these species around long enough for humans to get their act together enough to create a space for wildlife.

In thinking about this, I see two stages to dealing with this problem. First, we have to stop the hemorrhaging of wildlife, which means finding a way to get people to stop “pissing them away,” as Andy put it. That will require getting people to care about keeping them around, which means we have to find a way to make them worth more alive than dead.

To do that, the people who now see Africa’s wildlife as a dangerous nuisance have to start deriving some benefit from keeping them around, whether that is through regulated hunting, ecotourism, farming, or something else. However it is done, the general population who lives in the area must get some of the proceeds whether that means creating jobs, building schools, providing food, or another way to help them.

Second, development needs to happen to bring the standard of living for people in poverty to a tolerable level. When people cannot fulfill their own basic needs for food, shelter, and sanitation, they do not care about wildlife. Eradicating poverty, achieving food security, providing health care, ensuring access to water and sanitation, providing education, and achieving gender equity are the first six of the 17 United Nations [Sustainable Development Goals](https://www.un.org/sustainabledevelopment/sustainable-development-goals/) for 2030 and beyond. These goals put people at the center because to preserve the natural world, we have to meet the needs of the humans that oversee it. Although we have been [making progress](https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017.pdf) on these goals, we still have more to do. If we can one day stabilize life for most humans, we will be able to save a lot more animals.