**Animal Science 5400.02**

**Participation Response – Ostrich**

**Cathy Becker** When I think about animal welfare, the first thing that comes to mind is the [Five Freedoms](http://msue.anr.msu.edu/news/an_animal_welfare_history_lesson_on_the_five_freedoms). The idea of the Five Freedoms originated with the 1965 Brambell Report on farm animal welfare in Britain, which stated that animals should have the freedom “to stand up, lie down, turn around, groom themselves and stretch their limbs.” As a result of the report, a Farm Animal Welfare Advisory Committee was created that defined five freedoms encompassing an animal’s physical and mental state:

* **Freedom from Hunger and Thirst**: by ready access to fresh water and a diet to maintain full health and vigor.
* **Freedom from Discomfort**: by providing an appropriate environment including shelter and a comfortable resting area.
* **Freedom from Pain, Injury or Disease**: by prevention or rapid diagnosis and treatment
* **Freedom to Express Normal Behavior**: by providing sufficient space, proper facilities and company of the animal’s own kind.
* **Freedom from Fear and Distress**: by ensuring conditions and treatment which avoid mental suffering.

In 1997 the [Three Circles](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4235121/) model was introduced as another way to think about animal welfare that incorporates science, values, and ethics. The model envisions three overlapping circles with optimum welfare where all three intersect. The circles represent

* **Basic health and functioning**: physical fitness, including good health, normal body function, and normal growth and development.
* **Natural living**: being able to lead reasonably natural lives, perform important, normal behaviors, and have natural elements in their environment.
* **Affective states**: not subjected to excessive negative emotions such as pain, hunger and distress; able to experience positive emotions such as pleasure or contentment.

The Three Circles model can incorporate the Five Freedoms, showing how they intersect and interrelate with each other. For example, basic health and functioning incorporates Freedoms 1, 2, and 3; natural living incorporates Freedom 4, and affective states incorporates Freedom 5.

 Both the Five Freedoms and Three Circles models were conceived to apply to domesticated farm animals such as cattle, chickens and pigs. However, in South Africa there are industries and settings that involve farming and ranching of non-domesticated wild animals. So is animal welfare for non-domesticated animals different?

To answer that, one must look at what domestication is. Domestication is not simply taming a wild animal or socializing a wild animal to humans. Rather, domestication occurs over multiple generations and results in changing a species genetically so that it is adapted to functions assigned by humans rather than evolved over time in nature. [Britannica](https://www.britannica.com/science/domestication) defines domestication as “the process of hereditary reorganization of wild animals and plants into domestic and cultivated forms according to the interests of people.” All of our plant crops and farm animals were domesticated over millennia from their once wild ancestors.

Farming and ranching of a wild species involves working with a species that has not gone through the domestication process. Non-domesticated animals are designed for what they evolved to do in nature, not for humans. Lions eat other animals, rhinos eat leaves and grass, and ostriches are omnivores. All are used to having a lot of space and the freedom to do what they want when they want given environmental constraints.

Because non-domesticated animals are less adapted to humans than their domesticated counterparts, the Five Freedoms are even more important. An animal must have her physical needs met, such as food, water and veterinary care, before she can express normal behavior, avoid negative emotions, and experience positive emotions. By the same token, experiencing pain and stress can also negatively affect an animal’s physical health and reproduction, just as it can in humans. Non-domesticated animals are likely more easily stressed in an environment created by humans, so it is important to make that environment as natural as possible.

A completely natural environment is not possible in every case, however. For example, not only would it be difficult to create a space large enough for a pride of lionesses to hunt, it would also be unethical to stock it with live prey. Lions do need to be fed meat, preferably entire carcasses, which can be obtained from hunters, slaughterhouses, or even road kill. But their prey drive would need to be satisfied through some other form of enrichment, just as we use fishing toys to play with our house cats. Rhinos would need to be given plenty of grazing area, with shade trees and places to hide. Ostriches would need to be housed on grasslands with leaves, seeds, and insects to eat, and allowed to stay in their normal family groupings.

 Human interaction with non-domesticated animals would also need to be different than with domesticated ones. In general, humans should keep their distance from wild animals, both for personal safety reasons and so as not to stress the animal. Wild animals do not read cues from humans in the way domesticated animals do. They can’t as easily predict what you will do next, nor can you predict what they will do next. They are wild animals, even if they are in human custody. For a lion or any big cat, that means not getting into the same enclosure or allowing them to take food directly from humans. Rhinos can also be dangerous, if only by their sheer size. Even ostriches can be aggressive. Strict protocols would need to be developed for how to manage these animals without overly stressing them or putting oneself in harm’s way.

 Farms for non-domesticated animals might want to look at accredited zoos as models of how to set up a natural environment and manage these animals in a way that is safe for both people and animals. Zoos have been working with these animals for a long time, and have come a long way just in the last 20 years. This is the cutting edge of human-animal interactions. A lot is left to learn, and mistakes will be made. But zoos would be a good place to start in learning how farms can work with wild animals.