

Willow Park Zoo Internship

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Abstract

Willow Park is a Zoo located in Logan Utah. It has over 40 species of animals including birds, canines, ungulates (hoofed animals), rodents, and reptiles. This 1 credit internship gave me the opportunity to learn about taking care of various kinds of animals. In addition to this, I learned about the disease pathology and treatment of them.

Objectives

- Learn about basic veterinary care for wild and domestic animals
- Learn about zoonotic diseases pertaining to the types of animals at Willow Park
- Learn about vaccination in zoo animals
- Learn how to collect biological samples for pathogen identification in animals
- Learn how to work with animals and better understand how to take care of them

Management and Care of Animals

I was involved in various activities where I learned to take care of animals:

- Finding and giving twigs to rabbits, deer, reindeer, elk and goats
 - Good source of vitamins and minerals
- Preparing meals for birds of prey
 - Butchering and preparing meat
- Preparing meals for herbivore and omnivore birds
 - Fruits and vegetables
- Cleaning and feeding lambs
- Cleaning animals' cages

Zoonotic Diseases Catalog

I wrote a catalog detailing diseases that can possibly infect animals at Willow Park Zoo

Each Disease Entry Included:

- Etiology
- Symptoms
- Prevention
- Treatment
- If the disease is reportable or not

An example of an entry is shown in Figure 1

Disease Prevention

In this internship, I learned about vaccinating zoo animals and collecting biological samples for pathogen identification. I watched several goats get vaccinated via subcutaneous injections. I also helped collect specimens from a goose that was being transferred to a different facility and needed to be tested for pathogens.



Image 1: One of the newly arrived lambs at Willow Park Zoo after being fed and cleaned



Image 2: A Muntjac Deer (only 16 inches tall!) eating a twig

Tularemia (Rabbit Fever)

Tularemia is caused by the bacteria *Francisella tularensis* and has three subspecies. *F. tularensis tularensis*, and *F. tularensis holarctica* are common subspecies in North America. Tularemia is often transmitted by vectors such as *Dermacentor andersoni* (wood ticks), *Amblyomma americanum* (lone star ticks), *D. variabilis* (american dog ticks), and deer flies. Animals can also get tularemia from contaminated water sources, eating infected animals, and aerosolization. *Francisella tularensis* is a gram-negative bacteria and can survive for months in a moist environment.

Infects: Tularemia is known to infect domestic or captive animals such as rabbits, sheep, cats, dogs, pigs, and horses, and non-human primates. *F. tularensis* is known to infect rabbits, which puts high cats at risk for infection as they are natural predators of rabbits. *F. tularensis holarctica* is known to infect a variety of animals including, lagomorphs, rodents, and sheep.

Symptoms: Symptoms vary depending on subspecies, host species, and route of infection. *F. tularensis tularensis* is highly pathogenic in lagomorphs. It is often fatal for cats and non-human primates. Cats and sheep can also become subclinically infected or develop bacteremia, fever, and respiratory infections. If cats become infected by eating infected prey they can develop ulceroglandular or oropharyngeal disease. Many animals develop white lesions on the liver, lungs, lymph nodes, and spleen

Treatment: Prevention includes controlling ticks and other vectors. The antibiotics: streptomycin, gentamicin, and tetracyclines are effective at treating tularemia if given early on. Tularemia is an extremely contagious causation that should be taken in case of an outbreak.

Reportable: Must be reported within 24 hours of a case.

Above: Figure 1: An entry about tularemia in the Zoonotic Disease Catalog

On the right: Image 3: A bald eagle, whom I prepared meat-based meals for



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