Pennsylvania Game Commission Wildlife Disease Reference Library

Dermatophilosis

<u>Other Names</u>: Rain rot, contagious dermatitis, streptothricosis, strawberry foot rot, lumpy wool

Cause

Dermatophilosis is a skin disease of many animal species, and sometimes humans, caused by the spore-forming bacterium *Dermatophilus congolensis*. This species of bacteria is unusual because its life cycle and characteristics are similar to that of a fungus. Dermatophilosis was first described in domestic cattle in Zaire, Africa in 1910.

Significance

This disease occurs occasionally in wildlife when environmental conditions are moist, but it does not seem to have a significant impact on wildlife populations. Dermatophilosis is more important in domestic livestock, and it has rarely been transmitted to humans working closely with affected animals. Human infection usually results in mild, self-limiting skin lesions. People with deficiencies of their immune system may experience more severe infections.

Species Affected

Dermatophilosis has been reported in at least 21 species of wild mammals, and all mammals are probably susceptible. The disease has been reported in several species of wild ungulates (hooved mammals), including white-tailed deer and mule deer. It has also been found in rabbits, rodents, woodchucks, striped skunks, camels, primates, and several species of carnivores including a captive polar bear. Dermatophilosis is also known to occur in reptiles, and has been described in crocodiles. Domestic animals commonly infected include cattle, sheep, goats, and horses. Humans, pigs, dogs, and cats are also rarely infected.

Distribution

Dermatophilosis has been reported in animals worldwide, except Antarctica. This disease is more common in tropical and subtropical climates.

Transmission

D. congolensis spores can remain infective for months on skin, hair, and dried crusts from healed lesions. These spores can infect new animals through direct contact or can act as a source of re-infection for the original host. Biting insects such as ticks and flies can also transmit the spores. Outbreaks are often associated with rainy seasons because persistently wet skin facilitates infection. The spores also readily enter cuts or abrasions of the skin. Animals that congregate naturally or do so because of man's influence, such as at feeders, are at particular risk. In Pennsylvania this is a common feeder-associated disease.

Clinical Signs

D. congolensis infections result in exudates that form crusty scabs on the skin and often areas of patchy or extensive hair loss. The scabs can become detached and reveal raw, red, inflamed, and often bleeding deep layers of skin. Infections can range from mild and barely visible to severe. Lesions may be small or large, and may occur on any part of the body though the topline and sloping areas of the body that become wet are often affected. Severely affected animals may become emaciated and die, but most infections are mild and will heal spontaneously with time and a normally functioning immune system. Dry weather helps to accelerate the healing process.

Diagnosis

Dermatophilosis is diagnosed by isolating the bacteria from skin lesions.

Treatment

Antibiotics may be used to treat this disease, but treatment is usually not attempted in wildlife.

Management/Prevention

Dermatophilosis is not considered a significant disease in wildlife, so management and prevention is not currently necessary.

Suggested Reading

Dermatophilosis: Introduction. 2011. The Merck Veterinary Manual. <http://www.merckvetmanual.com/mvm/index.jsp?cfile=htm/bc/70600.htm&word=dermatophilosis>.

Leighton, F. A. 2001. Dermatophilosis. Pages 489-491 *in* E. S. Williams and I. K. Barker, editors. Infectious diseases of wild mammals. Iowa State University Press, Ames, Iowa, USA.