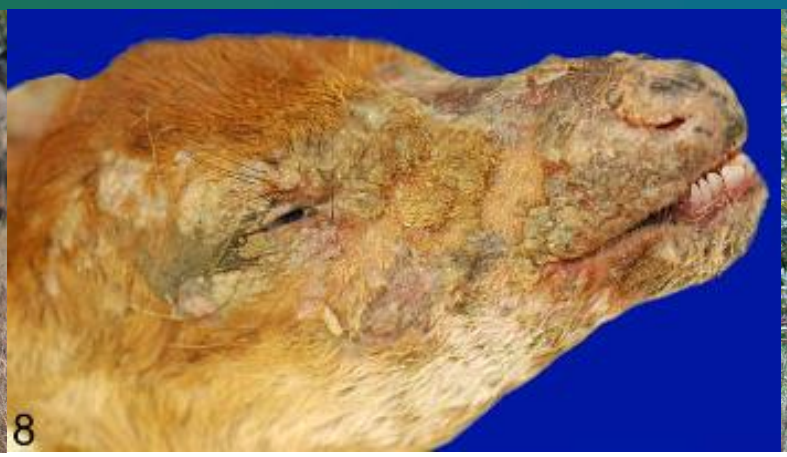
DERMATOPHILOSIS (Rain Rot)

Office of Fish and Wildlife Health and Forensics



Introduction

Dermatophilosis or “Rain Rot” is a fungal disease caused by *Dermatophilus congolensis* that thrives in wet weather. It primarily occurs in domestic animals but has been found in both captive and wild cervids. The infection appears as matted hair and lesions of the skin. It is likely transmitted through direct contact, the soil, and biting insects.

Species Affected

Aside from domestic animals, dermatophilosis affects wild and captive deer, elk, and moose. Humans can become infected *D. congolensis* if they come into contact with an infected animal.

Clinical Signs

The signs of dermatophilosis are often apparent as raised and matted hair tufts, scabbing, and alopecia (hair loss). Lesions may be apparent but often require a biting insect or other cause to break the skin’s surface. The back and legs are the most typical regions of the body to show signs of infection. There is usually little effect on the overall health of the infected animal, despite the poor appearance of the infection.

Transmission

Direct contact is likely the primary route of infection between individuals. The fungus is also a saprobe, which breaks down decaying material in the environment. This gives reason to believe that environmental transfer is occurring through soil. Additional transmission likely occurs through biting insects.

Diagnosis

Laboratory testing is required to confirm the cause of the condition, as there are various etiologies that may result in hair loss or lesions, such as mange. Testing typically involves histopathology, cytology, and ELISA.

Epidemiology

D. congolensis can exist in a dormant or quiescent state in the skin until environmental conditions become ideal to grow and cause infection. Because of this, wetter seasons of the year typically show the greatest number of infections. There is an additional effect of wet conditions in that they cause an increase in biting insects which serve as a vector for *D. congolensis*.

Additional Resources

Dermatophilosis in Animals - Integumentary System - Merck Veterinary Manual (merckvetmanual.com)

Cornell Wildlife Health

Cover image of white-tailed deer with dermatophilosis infection:

Nemeth, Nicole & Ruder, Mark & Gerhold, Rick & Brown, J & Munk, Brandon & Kubiski, Steven & Keel, Kevin. (2013). Demodectic Mange, Dermatophilosis, and Other Parasitic and Bacterial Dermatologic Diseases in Free-Ranging White-tailed Deer (Odocoileus virginianus) in the United States From 1975 to 2012. Veterinary pathology. 51. 10.1177/0300985813498783.