

## ***White-tailed Deer Diseases and Parasites***

White-tailed deer can carry several different diseases and host a variety of internal and external parasites. However, among healthy, well-fed Illinois whitetails, it is rare to find an animal that is suffering from disease or heavy parasite load. More often, deer that don't appear normal are the result of some traumatic injury such as being struck by a vehicle or projectile. This information sheet discusses diseases and parasites most commonly encountered by sports persons and outdoor enthusiasts while afield.

### ***Cutaneous Fibromas***

Also known as skin tumors, warts, or papillomas, these dark (often black), scaly hairless growths are caused by a virus and are fairly common among white-tailed deer. They may be of most any size and may have either a smooth or rough surface. The virus that causes fibromas is transmitted from deer to deer by biting insects or by contaminated material (such as a tree limb) which scratches or pierces the deer's skin. Since these tumors are caused by a virus which is host-specific (it is thought to only affect whitetails), they pose no serious health risk to humans. Fibromas only become a problem for the deer when their size or

numbers (or both) are large and impact the sight, breathing or other bodily function of the deer. In addition, secondary infections may occur if the tumors get scratched or opened up by rubbing together as the deer moves or by rubbing against trees, fences, or other objects.

### ***Nasal Bots***

When a host animal dies, both internal and external parasites will attempt to "abandon ship" as the host's body cools. One somewhat unsettling sight is when "worms", looking like large maggots, crawl out of the nasal cavities of a recently dead whitetail. These may be found around the deer's nose, mouth and/or throat. These "bots" are the larvae of flies which lay their eggs around the deer's nostrils or mouth. When ingested and moistened, these eggs hatch and the small larvae migrate into the nasal and sinus cavities. Here the larvae continue to grow and may reach an inch in length. Nasal bots pose no threat to the deer or humans.

### ***Bot Flies and Warbles***

Certain types of flies may lay eggs on or just under the deer's skin or on the hair. The newly-hatched larvae burrow under the skin and create a cavity with an air hole through the skin. The bumps or mounds on the skin caused by the larvae are sometimes referred to as "warbles". Here the larvae molt, grow, and feed until they crawl out and drop to the ground to pupate (to become adult flies). Unless a secondary infection results from the open wound in the deer's skin, these fly larvae pose little threat to the health of the deer or humans ingesting the deer.

#### **References**

*Field Manual of Wildlife Diseases in the Southeastern United States* (second edition) by W.R. Davidson and V.F. Nettles. Southeastern Coop. Wildlife Disease Study, Athens, GA. 1997.

*White-tailed Deer: Ecology and Management* edited by L.K. Halls. Stackpole Books, Harrisburg, PA. 1984.

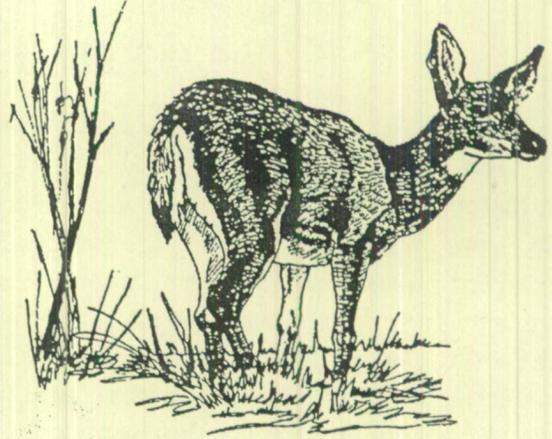
## *Other Parasites*

Occasionally when field-dressing a deer, fairly long, slender white worms can be seen crawling on the internal organs. These are commonly called "roundworms" or "abdominal worms" and are common inhabitants of the deer's abdominal cavity.

White-tailed deer can host a variety of internal parasites. As many as 35 helminth parasites (e.g., round worms, liver flukes, tapeworms, etc.) have been reported from whitetails in the southeastern U.S. However, with careful and sanitary handling of a deer carcass, none of these parasites (and other diseases) pose a threat via human consumption of properly frozen and thoroughly cooked (until juices are clear; never rare or medium rare) venison.

Occasionally fleas or lice can be found on whitetails, but probably most important from a human health perspective is the presence of ticks. In North America, 18 different species of ticks have been reported for whitetails. Some are known to transmit Rocky Mountain spotted fever, Lyme disease, ehrlichiosis and babesiosis. Deer apparently do not catch these diseases but can carry the ticks that transmit them.

Internal or external parasites can be temporarily preserved in a small bottle of rubbing alcohol (70%) for later identification.



## *Other Diseases*

Other diseases which may infect whitetails include bovine tuberculosis, actinomycosis ("lumpy jaw"), salmonellosis, toxoplasmosis and leptospirosis. Often, deer infected with one of these diseases show few, if any, signs of illness. However, EHD or Epizootic Hemorrhagic Disease can occasionally cause die-offs of deer in localized areas. This disease, and the related bluetongue disease, are caused by related viruses which are transmitted by biting gnats or midges. EHD outbreaks occur in late summer and fall. Infected deer may show little sign of illness or may become feverish (and often seek water), have trouble breathing, have swollen necks, heads and tongues.

### *REMINDER*

- After being out in the woods, brush or tall grass or after handling a deer carcass, do a thorough check for ticks on your body and clothing.
- If you find a tick attached to you, do NOT try to burn it off or use any other home remedy. Grasp the tick as near to your skin as possible with a pair of narrow-pointed tweezers and gently put it out/off. Disinfect the bite area and contact your doctor if any rash or swelling or flu-like symptoms appear.
- Do NOT squeeze the tick's body as you attempt to remove it. This essentially makes the tick a living hypodermic needle; anything that is in its body (such as bacteria) may be injected into you.

### *Questions?*

If you have any questions or concerns about a sick deer that you have found or a hunter-harvested deer, you can contact your local IDNR Regional Office or the IDNR Wildlife Resources Office in Springfield at (217) 782-6384 for information and referrals.

Prepared by IDNR Division of Wildlife Resources - Forest Wildlife Program. Printed by authority of the State of Illinois 10/98.

The Illinois Dept. of Natural Resources (IDNR) receives Federal financial assistance and therefore must comply with federal anti-discrimination laws. In compliance with the Illinois Human Rights Act, the Illinois Constitution, Title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973 as amended and the U.S. Constitution, IDNR does not discriminate on the basis of race, color, sex, national origin, age or disability. If you believe you have been discriminated against in any program, activity or facility, please contact the Equal Opportunity Officer, IDNR, 524 S. Second St., Springfield, IL 62701-1787, 217/782-7616 (TTD 217/782-9175, Illinois Relay Number 800/526-0844) or the Office of Human Resources, U.S. Fish & Wildlife Service, Washington, D.C. 20240.