

# WHITE-TAILED DEER IN MINNESOTA



## PARASITES AND DISEASE

As winters have become milder and summers warmer, deer have moved further north into moose habitat. Where their range overlaps in northern Minnesota, these closely related animals share food sources. Unfortunately, the close relationship between these two species also means that deer can bring parasites and disease into moose habitat. Two of the parasites most harmful to moose are brainworm and liver flukes.

### BRAINWORM

As the name implies, brainworm infects the brain of a moose. This parasite completes part of its life cycle in snails or slugs. The other part of the life cycle is completed in deer, without much harm to the deer. Moose can become infected with brainworm by accidentally eating a snail or slug carrying the parasite. Unlike in deer, brainworm in moose can often lead to death. Symptoms of brainworm in moose include weakness in the hind quarters, tilting of the head, inactivity, loss of fear and moving in circles.

### LIVER FLUKES

Liver flukes are flatworms found in the liver of moose. Similar to brainworm, they complete part of their life cycle in a white-tailed deer and part in a snail or slug. When a moose accidentally eats a snail or slug carrying these parasites, the flukes move to the moose's liver. Once in the liver, these flukes can cause infection and liver damage. Generally, moose can survive a heavy liver fluke infestation. However, severe cases of these parasites can cause poor health and weaken a moose against other health challenges.

## LOVE-HATE RELATIONSHIP

Deer are the primary prey of gray wolves. More deer means more wolves. In moose habitat, wolves also prey on adult moose and calves. Overall, moose are found in higher concentrations where both deer and wolves are absent.

## THE WOLF FACTOR

Since the mid-1990s, white-tailed deer numbers have increased in Minnesota. There are currently almost 500,000 deer in the state. There are various viewpoints on deer across Minnesota. Farmers are generally not a fan of deer due to crop damage. In contrast, many hunters wouldn't mind there being more deer. Finding the ideal balance of deer in Minnesota is no easy task.

