

## **TULAREMIA IN BRITISH COLUMBIA WILDLIFE HEALTH FACT SHEET**

Tularemia is an infectious disease caused by the bacterium, *Francisella tularensis*. The disease is present throughout North America and is reported occasionally in British Columbia. The most recent occurrences were in 1998 when dead beavers were reported near Salmon Arm and the Vanderhoof/Chetwynd areas and in 2003 with dead beavers near Wells. Rodents (muskrats, beaver, voles and squirrels) and lagomorphs (rabbits and hares) are most commonly affected. Tularemia is important to recognize since it can cause severe disease in humans.

There are two forms of tularemia in North America. One occurs in rabbits and hares, spreading primarily through infected ticks. Humans are potentially at risk by the bite of infected ticks. The second form occurs in rodents associated with fresh water (beaver, muskrat, voles). Transmission is primarily through water contaminated from carcasses of animals dying of tularemia, or from organisms shed in the urine of less severely affected rodents, particularly voles. Humans are exposed through handling live animals or carcasses, eating improperly cooked meat (i.e. smoked muskrat), or from contaminated water. Trappers and individuals handling wild rodents or rabbits for research or rehabilitation who recognize the following symptoms should see their doctor and notify them of contact with these species. As a general rule, trappers should not skin animals found dead.

Animals usually die quickly and are rarely seen affected. If alive, they are very weak and ill. Signs of human disease include a persistent ulcer at the site of infection (i.e. cut on the hand), fever, chills, a general ill feeling and swollen lymph nodes. When correctly identified, the disease in humans is responsive to antibiotic treatment.

Dead animals of the above species should be handled carefully using gloves, then bagged, chilled or frozen and submitted for necropsy. The diagnosis of tularemia requires laboratory culture and identification of the bacterium from affected tissues.

This organism is probably carried by normal individuals in wild populations, with outbreaks of disease occurring during high animal density, poor nutrition or other stress causing factors.