### Agent
*Francisella tularensis*: Gram negative bacteria with 3 subspecies:
- *F. tularensis tularensis* (Type A): most virulent
- *F. tularensis holarctica* (Type B): most prevalent, found in aquatic rodents (e.g., beavers)
- *F. tularensis novicida*: most rare, and also mildest clinical presentation

### Susceptible Species
- More than 250 species of mammals, birds, reptiles, and fish can be affected
- Most common in rabbits and aquatic wild rodents (beavers and muskrats); domestic sheep and cats particularly susceptible

### Occurrence in BC and the World
- Tularemia occurs only in the Northern hemisphere, with rare exceptions
- Tularemia has been diagnosed in wildlife in BC, including 5 beavers and one case each of a snowshoe hare, muskrat, and house mouse
- There have been 10 documented human cases of tularemia in BC, reported between 1993 and 2009, 0-3 cases per year
  - Where exposure was known, infection was due to animal or insect bites

### Transmission
- Ingestion, inhalation, arthropod–borne transfer (ticks and deer flies), or direct contact with mucous membranes and broken skin

### Diagnosis
**Clinical**
1-10 day incubation period

Clinical signs variable, depending on route of transmission and species affected. May be sudden death, or signs of septicemia, depression, anorexia. Dogs and cattle appear relatively resistant
- Cats: sudden onset of fever, anorexia, lethargy, lymphadenopathy. High case fatality rate.
- Sheep: late term abortion in ewes, illness and death in lambs, fever, anorexia, lethargy, lymphadenopathy

**Laboratory**
Call the Animal Health Centre (1-800-661-9903) for diagnostic assistance if tularemia is suspected.
Culture and PCR (Samples must be collected, handled and shipped with care due to zoonotic risk.)

### Prevention and Control
- Treatment with antibiotics and supportive therapy
- Prevention through tick control and prevent cats and dogs from hunting rodents

### Zoonotic Implications
- Occupational hazard for those in contact with infected animals, including hunters/trappers, farmers, conservation officers and veterinarians
- Tularemia is not contagious from person-to-person

### Reporting
- Tularemia is a reportable disease to the Chief Veterinary Officer (CVO) in BC
  - All suspect and confirmed cases should be reported within 24 hours (604-556-3013)
  - Veterinarians may be contacted by public health authorities for follow-up
- Tularemia is an annually notifiable disease to the CFIA
  - All veterinary laboratories are required to comment on Canada's report to the OIE