

Agent	<ul style="list-style-type: none"> • <i>Yersinia pestis</i> (gram negative bacterium , family Enterobacteriaceae)
Susceptible species	<ul style="list-style-type: none"> • Wild rodents are the host of plague <ul style="list-style-type: none"> • In North America hosts include: ground squirrels, prairie dogs, chipmunks, wood rats, deer mice, voles • Domestic rats are important reservoirs in urban settings • Can infect many other mammalian species including: humans, domestic cats, dogs, rabbits, hares, wild carnivores (cougars, bobcats and mustelids). Felids are particularly susceptible.
Occurrence in BC and the world	<ul style="list-style-type: none"> • <i>Y. pestis</i> can be found in parts of Africa, the Middle East, Asia, and North and South America, as well as on Madagascar. • Plague believed to be enzootic in BC, actual prevalence and geographic ranges unknown <ul style="list-style-type: none"> • Only reported case of <i>Y. pestis</i> disease in BC occurred in two bushy-tailed woodrats near Lillooet, BC, 1988 • 2-4% of mink, bobcats, marten, lynx and weasels from southern and central BC had antibodies to <i>Y. pestis</i> • No cases of human plague in BC , 1993-2013
Transmission	<ul style="list-style-type: none"> • Most commonly through flea bites (fleas are principal vector) • Direct contact with infected animals • Inhalation of infectious aerosols
Diagnosis Clinical Laboratory	<p>Incubation period in animals: 1-7 days</p> <ul style="list-style-type: none"> • Rodents and rabbits: varies from subclinical to sudden death • Three presentations in domestic cats: <ul style="list-style-type: none"> • <u>Bubonic (most common)</u>: lymphadenopathy, fever, depression, dehydration, anorexia, oral ulcers • <u>Septicemic</u>: fever, depression, vomiting • <u>Pneumonic</u>: fever, cough, bloody sputum <p><i>Differential diagnoses include (cats) : frontal sinusitis/rhinitis, sepsis, neoplasia, toxemia, pyometra, lymphoma</i></p> <p>Contact laboratory before taking samples, due to important zoonotic disease risk. Samples may include lymph node aspirate or swab of lesion to demonstrate organism.</p>
Prevention and control	<ul style="list-style-type: none"> • Flea control products , prevent pets from hunting rodents or coming into contact with rodent carcasses • Early treatment of cases with antibiotics. Animals with signs suggestive of plague should be placed in isolation, with infection control measures implemented for the protection of staff and other animal patients without waiting for a definitive diagnosis.
Zoonotic implications	<ul style="list-style-type: none"> • Most human cases are associated with wild rodents or lagomorphs; among domesticated animals, cats seem to be most likely to transmit plague to humans • Persons exposed to a potentially infected animal should seek immediate medical attention
Reporting	<ul style="list-style-type: none"> • Plague is a reportable disease to the Chief Veterinary Officer (CVO) in BC <ul style="list-style-type: none"> ○ All <u>suspect and confirmed</u> cases should be reported within 24 hours (604-556-3013) ○ Veterinarians may be contacted by public health authorities for follow-up