

***Mycoplasma ovipneumoniae* surveillance in Yukon wildlife**

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ABSTRACT: The bacterium *Mycoplasma ovipneumoniae* (*M. ovi*) has been implicated in outbreaks of pneumonia in bighorn sheep in British Columbia, Canada and the western United States. In Yukon, *M. ovi* has been identified as a pathogen of potential health concern for thinhorn sheep and mountain goats, although no outbreaks of pneumonia have been detected to date. Since 2015, over 450 nasal swabs samples have been collected from harvested thinhorn sheep and mountain goats throughout Yukon and tested for *M. ovi*. Given the recent detection of *M. ovi* in caribou, moose and thinhorn sheep in Alaska, USA, over 160 caribou, moose, deer, elk and muskox samples from Yukon have also been tested for *M. ovi* since 2018. To date, *M. ovi* has not been detected in any wildlife samples. Increased surveillance efforts in wild species is occurring by providing hunters with sample kits in order to collect higher quality samples. *M. ovi* is carried by domestic sheep and goats, and contact between wild sheep or goats and domestic small ruminants is implicated in the transmission of the pathogen and initiation of outbreaks. On January 1, 2020, a control order under the *Animal Health Act* came into effect in Yukon, intended to reduce the risk of transmission of respiratory pathogens, including *M. ovi*, from domestic animals to wildlife.

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KEY WORDS: *Mycoplasma ovipneumoniae*, bighorn sheep, mountain goats, Yukon, control order, respiratory transmission, surveillance
