

## **A Pneumonia Epizootic in Bighorn Sheep in the South Okanagan Region of British Columbia**

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**Abstract:** Pneumonia is considered the most important disease of bighorn sheep (*Ovis canadensis*), with *Pasteurella multocida*, *P. trehalosi* (*P. hemolytica* type T), and *Mannheimia hemolytica* being the most commonly reported organisms. Contact between domestic and wild sheep has resulted in pathogen transfer producing significant mortality of bighorn sheep. In 1999, contact with domestic sheep in the South Okanagan region of British Columbia preceded the first recorded all-age dieoff in bighorn sheep in the region. Almost every risk factor identified in the literature as a stressor to bighorn sheep was present at the time of the outbreak, including *Pasteurella multocida* and *Mycoplasma* spp. Public concern, local interest, and agency management responses were rapid and extensive. A workshop to develop a Recovery Plan for the metapopulation was attended by local, national, and international representatives. Although cause and effect was not confirmed, a high priority recommendation from the workshop was to reduce the potential for future wild and domestic sheep contact. A project was initiated to collaborate with and inform local producers of wild sheep health and the potential risks of contact with domestic sheep. Guidelines were developed for the management of domestic sheep near critical bighorn sheep habitat with goals to prevent or reduce contact. Follow-up investigation suggests many herds are recovering.

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**Key words:** Bighorn sheep, British Columbia, domestic sheep, management, *Ovis canadensis*, pneumonia.

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