Transmission of Goat Lungworms (*Muellerius capillaris*) from Domestic Goats to Bighorn Sheep

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Abstract: Four domestic goats (Capra hircus) passing first-stage larvae of the lungworm Muellerius capillaris were co-pastured with 7 Rocky Mountain bighorn sheep (Ovis canadensis) not passing larvae. Goats and bighorn sheep were co-pastured on a 0.8-ha pasture for 11 months from May 2003 to April 2004. During the experiment, 2 bighorn sheep died from pneumonia caused by Mannheimia haemolytica Biotype A, serotype 2. The remaining 5 bighorns and the 4 domestic goats remained healthy during the experiment. Muellerius larvae were detected from all domestic goats on a monthly basis throughout the experiment, and from all 5 surviving bighorn sheep 5 mo after the copasturing began. Larvae were detected in low numbers from all bighorns every month thereafter for the 5 mo the goats were in the enclosure and for more than 1 yr after the goats were removed. Six bighorn sheep in 2 similar enclosures without goats did not pass Muellerius larvae during the experimental period. Muellerius capillaris from domestic goats is capable of infecting bighorn sheep when animals are co-pastured on common range.

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Key words: Bighorn sheep, domestic goat, lungworms, *Muellerius capillaris*, *Ovis canadensis*, parasite transfer.

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