

FATAL PASTEURELLA HEMOLYTICA PNEUMONIA IN BIGHORN SHEEP FOLLOWING DIRECT CONTACT WITH NORMAL DOMESTIC SHEEP - AN EXPERIMENTAL STUDY.

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Abstract: Six Rocky Mountain bighorn sheep (Ovis canadensis canadensis) were raised in captivity from birth (n = 5) or taken from the wild as a lamb (n = 1). After the bighorns were in captivity for over a year, 6 clinically normal domestic sheep were placed in the same 2 ha pen with the bighorns. Nasal swabs from all animals were collected at the time the domestic sheep were introduced. Pasteurella haemolytica was isolated from swabs from 4 to 6 domestics and 0 to 6 bighorns. All six bighorns died of acute hemorrhagic pneumonia following exposure to domestic sheep. Deaths in bighorns occurred on days 4, 27, 27, 29, 36 or 71 after initial exposure to domestic sheep. Pasteurella haemolytica was isolated from all bighorns at the time of death. None of the domestic sheep were clinically ill during the experiment. At the end of the experiment, 3 of 6 domestic sheep were euthanized, and at necropsy, P. haemolytica was isolated from 2 of the 3 domestics. The most common serotypes in bighorns and domestics were P. haemolytica T-3 and A-2. Other serotypes isolated included A-1, A-9, and A-11 in bighorns and domestics.

Based on this experiment and other reports, domestic sheep and bighorn sheep should not be held in proximity because of the fatal consequence in bighorns.