

Transmission of *Pasteurella haemolytica* between domestic sheep and a free-ranging bighorn ewe.

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Abstract: A Nevada study involving transmission of *Pasteurella (Mannheimia) haemolytica* between a flock of domestic sheep (*Ovis aries*) and a free-ranging bighorn sheep (*Ovis canadensis*) is presented. An adult ewe (EarTag #135) was one of 20 bighorn sheep captured, sampled, and transplanted on January 10, 1994 from Hart Mountain, Oregon to the Trout Creek Mountains in Nevada. Five months later, this bighorn ewe (ET #135) was documented to have been in contact with 23 domestic rams for a period of less than 24 hours. Bighorn ewe (ET #135) was captured within 17 hours of documented contact with 23 domestic rams, sampled and removed from the wild on May 5, 1994. Five days later, on May 10, 1994, bighorn ewe (ET #135) died of pneumonia; post-mortem tissue and swab samples were obtained. On May 17, 1994, twelve days after bighorn ewe (ET #135) was removed from co-mingling with 23 domestic rams, nasal and pharyngeal swab samples were obtained from all 23 domestic rams. All *Pasteurella haemolytica* isolates cultured from Hart Mountain-transplanted bighorns, those collected from bighorn ewe (ET #135) at the time of re-capture and post-mortem examination, and those from 23 domestic rams, were serotyped and evaluated biochemically. *Pasteurella spp.* isolates collected from bighorn ewe (ET #135) during the initial transplant/sampling did not contain any of the same isolates found after contact with the domestic rams. After contact, identical isolates of *P. haemolytica* were recovered from post-mortem samples of both bighorn ewe (ET #135) and the domestic rams, indicating transmission of *Pasteurella* species occurred between domestic and bighorn sheep on the range. Similar incidences of documented transmission under free-ranging conditions have also been reported. (V. Coggins, Proceedings of the NWSGC 13th Biennial Symposium: 165-174.)

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