PRELIMINARY EVALUATION OF TRACE ELEMENT LEVELS AND PATHOGEN EXPOSURE IN HELLS CANYON BIGHORN SHEEP

E. FRANCES. CASSIRER, Idaho Department of Fish and Game, 1540 Warner Ave., Lewiston, ID, USA 83501

MARK DREW, Idaho Department of Fish and Game, Wildlife Health Lab, 16569 S. 10th Ave., Caldwell, ID, USA 83605

VICTOR L. COGGINS, Oregon Department of Fish and Wildlife, 65495 Alder Slope Rd., Enterprise, OR, USA 97828

PAT FOWLER, Washington Department of Fish and Wildlife, 8702 N. Division Street, Spokane, WA, USA 99218

Abstract: What are "normal" levels for trace elements in wild sheep? What is the relationship between trace element levels, exposure to respiratory pathogens, and demography in bighorn sheep? Antibody titers to respiratory diseases, blood and liver selenium and trace mineral levels of bighorn sheep captured or recovered in 6 Hells Canyon herds 1997-2000 are compared to herd demographic parameters including lamb:ewe ratios and rate of increase. Pathogen exposure and trace element levels observed in sheep in Hells Canyon are also compared to those observed in bighorn sheep in other areas.