



Opinion
Billings Gazette

Brett French's recent article "*Study looks at why Montana's bighorn sheep are still plagued by die-offs*" helps bring public awareness to the domestic sheep to wild sheep disease issue, which remains the number one factor limiting bighorn sheep restoration west-wide. However, some statements in the article, and in particular a follow-on piece, titled "*Bighorn sheep transplants may be spreading pathogens*" posted on montanaoutdoor.com, incorrectly minimizes the scientific fact that these pathogens are not native to wild sheep.

Like Small Pox to which Native American's immune systems were completely naïve, bighorns have contracted these pathogens due to contact at some time with domestic sheep or goats or an infected bighorn that was previously infected by contact with domestic sheep or goats.

While decades ago some bighorns may have been translocated without pre-movement disease testing, today's standard wildlife agency protocols include checking both source and recipient herds for important pathogens. Contemporary research and widely-accepted science shows that non-endemic pathogens deadly to wild sheep were contracted **first** from contact with domestic sheep or goats.

Research has shown that there are multiple strains of these pathogens. While some may or may not prove deadly to wild sheep today, introduction of a new strain type via subsequent contact with domestic sheep or goats can trigger a deadly response and result in all-age die offs and little to no annual lamb survival in wild sheep. This is consistent with Dr. Garrott's remarks on flu – ability to cope with one strain does not mean one can cope with another.

A primary pathogen of concern carried by domestic sheep and goats and transferred by contact to wild sheep is *Mycoplasma ovipneumoniae* or *M.ovi*. *M.ovi* to wild sheep is HIV-like to humans; while it may not be deadly alone, it is the set-up agent that compromises the bighorn's (or person's) ability to fight off other pathogens or "bugs" that are deadly.

The montanaoutdoors.com title claiming that translocating infected wild sheep is a reason for low wild sheep numbers distracts from the fact that contact between wild sheep and domestic sheep (and/or goats) was the initial cause of the pathogen transfer.

Further, promoting a message of "Don't blame Ag" misses the mark that domestic sheep and goats **do** pose a threat to bighorn sheep. Professional wildlife managers, biologists, and wildlife veterinarians throughout the Western Association of Fish & Wildlife Agencies agree that this risk and threat is so real that the standing protocol for many western fish and game agencies is that when a wild sheep comes in contact with domestic sheep or goats on public or private land, managers kill the wild sheep.



Connectivity between bighorn populations is a double-edged sword, with genetic exchange on the positive side of the ledger, weighed against pathogen transfer and subsequent disease outbreaks on the negative side. Potential contact with domestic sheep and goats on private and/or public lands is one fundamental reason wild sheep professionals now manage for and deal with small, fragmented populations, as opposed to large, connected wild sheep populations.

In addition to minimizing risk of contact, both woolgrowers and wild sheep conservation advocates should be working to fund and find solutions to prevent disease transfer from domestic sheep and goats to wild sheep. To date, most of the funding burden for research and knowledge has come from wild sheep interests, not Ag - including Dr. Bob Garrott's current bighorn research, which is funded in large part by the Montana bighorn sheep tag sold annually by the Wild Sheep Foundation (WSF), plus direct grants from Montana WSF and WSF. Since 1986, WSF has directed \$6,630,000 to bighorn sheep restoration programs and research in our great state through the auction of this one tag annually. Plus, WSF has directed millions of dollars to disease research. By contrast, funding from domestic sheep interests has instead been directed to attempt to refute published science or lobby against bighorn restoration. It is high time that domestic sheep interests join wild sheep interests to fund solutions that benefit both wild and domestic sheep.

Until a proven method to remove endemic pathogens from domestic sheep/goats is developed, or a way to prevent transfer of those domestic sheep/goat-borne pathogens is found, separation of domestic sheep and goats from wild sheep is the only known and effective means of protecting wild sheep.

A handwritten signature in blue ink, appearing to read "Gray N. Thornton", is positioned above the typed name.

Gray N. Thornton,
President & CEO