



Wild Lands Advocate 14(3): 25 - 26, June 2006

New Studies Show Culling Deer Won't Stop Chronic Wasting Disease

By Vivian Pharis

The Alberta government plans to continue to cull wild deer along the Alberta-Saskatchewan border in an attempt to control the spread of chronic wasting disease (CWD) by keeping deer populations low. Sustainable Resource Development Minister David Coumts says we must continue to do whatever is required to control the spread of CWD in wild deer. So SRD should take note of new research showing that culling deer to prevent spread of the disease does not work, that prions can remain in the soil and infect healthy animals, and that transmission to humans is within the realm of possibility.

Culling Deer a Failure

Using both hunters and government staff and calling it an "aggressive response," Alberta has killed 1,688 deer since September 2005 in the CWD-infected wilds near Empress on the Saskatchewan border. Nine new cases of CWD were found, totaling 13 for this first year of wild game infection. Culling, using hunters as well as staff, is to continue in Alberta as the control strategy despite new findings out of Colorado regarding its ineffectiveness.

Colorado is now heavily infected with CWD in its wild deer and has been culling for years to no avail. Last year it chose eight control infected areas and eight infected areas to measure the effectiveness of culling in reducing CWD prevalence. There was no discernible difference between the two groups of areas, according to Colorado's Division of Wildlife field coordinator, Fred Quartarone. Why?

Soil-Adhering Prions a Cause?

New research coming out of the University of Wisconsin, reported April 2006 in *PloS Pathogens* (www.plospathogens.org), indicates that prions, the tiny infective agents for CWD, may enter soil from diseased live animals or decomposing remains and may be preserved in soils, particularly clay soils. Their adhesion to clay particles appears to be so tight that they may be maintained in surface soils, unable to percolate into deeper soils. Here on the surface they are most available to re-infect as deer graze.

The Alberta government doesn't seem too concerned about this sort of research. According to SRD spokesperson Dave Ealey, "Given the exceedingly low percentage of deer that were found to be infected, the risk of any residual contamination remaining in the field from field-dressed deer is considered to be exceedingly remote."

How Long Do Prions Last in Soil?

Previous research presented June 2004 from Colorado in the journal *Emerging Infectious Diseases* (www.cdc.gov/eid) points out that BSE prions that infect cattle and humans appear to be transmitted only in contaminated feed. On the other hand, CWD prions seem to be transmitted not by feed but by live contact, contact with infected carcasses, and contaminated soils.

How long prions remain viable in soils remains under investigation, but earlier studies indicate that deer can become infected from previously contaminated pastures that have been left fallow for two to three years. The Colorado study indicates that "carcasses of deer succumbing to CWD also likely harbor





considerable infectivity” because as the disease progresses, prions become more prevalent in nerve and lymph tissue.

Warnings to Alberta Unheeded

AWA wrote of its concerns to the Alberta government about the dangers of using hunters in its CWD control efforts. We warned that field dressing could lead to soil contamination. We warned that control efforts should be carried out by trained professionals and that entire carcasses should be removed. Hunters could not be relied upon to undertake this important work, much less to properly protect themselves. Research cited above confirms our fears. Alberta does not even issue hunters the precaution that Colorado does – to wear rubber gloves when field dressing and processing animals from known CWD infection areas.

Human Susceptibility to CWD – Is AWA Fear Mongering?

One study reported in 2000 in *EMBO Journal* (Vol. 19, No. 17) demonstrates a molecular barrier that the authors thought should preclude CWD transmission to humans. However, another study from the Centre for Disease Control and Prevention, Atlanta Georgia, June 2004 (www.cdc.gov/eid) raises questions about CWD's ability to jump the species barrier and possibly infect humans.

The authors speculate that because BSE was able to jump from cattle to various mammals including humans, as CWD becomes more prevalent in our environment, there may be increasing opportunities for it to jump species. Indeed, it is a surprise to scientists that one moose has now been found with CWD in Colorado. These authors also caution hunters to wear rubber gloves when handling carcasses.

The Specter of TB Rises Again

This time it's in Ontario, on the largest game farm in the province. However, all of us will pay for the eradication and cleanup because, like CWD, TB is a disease under federal jurisdiction. Already over \$100 million has been spent to clean up CWD- and TB-infected game farms, mostly in Alberta and Saskatchewan. Now we will all pay again, this time to slaughter and clean up after a large herd of elk, red deer, bison, and llamas.

The infected farm had previously been in trouble for allowing the hunting of penned elk. Enforcement officers laid 31 charges against Todd Grignon of Universal Game Farms near Coldwater in 2001. Although he was acquitted of all but one charge, Ontario outlawed enclosure hunting after this case.

