

Alberta's CHRONIC WASTING DISEASE MANAGEMENT PROGRAMS 2006: previous response and upcoming surveillance

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on behalf of Alberta's CWD team

Chronic wasting disease (CWD) is a chronic degenerative and ultimately fatal disease of cervids (primarily deer and elk). It has the potential to eliminate local cervid populations and is considered a significant threat to deer populations in Alberta. Through CWD surveillance and management activities previous to 2006, two geographical areas were identified as potentially high risk for CWD incursion into Alberta: the Dilberry Lake Provincial Park area south of Chauvin (in WMU 234), and the region around the confluence of the Red Deer and South Saskatchewan Rivers (in WMUs 150 & 151). At the end of 2005, four CWD-positive mule deer were identified in Alberta, all from the latter region (see map).

January to March 2006:

An International Expert Panel¹, convened in 2004 to examine the epidemiology and risks of CWD to cervids, concluded that CWD is likely not native to cervid populations in Canada and that there are no natural barriers to further spread of the disease in affected areas. In light of these findings, and the potential for CWD to negatively affect cervid populations, the Fish and Wildlife Division of Alberta Sustainable Resources Development made it a priority to prevent or limit the spread of CWD into the province. Toward this objective, the Division implemented a CWD response program from mid-January to mid-March 2006. The specific goals of the program were to limit disease transmission by reducing deer densities in the vicinity of CWD-positive deer, and to determine the extent of the disease distribution by conducting surveillance upstream on the South Saskatchewan and Red Deer rivers.

Intensive herd reduction was conducted in three local areas, all within approximately 10 km of previous cases of CWD in wild deer in Alberta or Saskatchewan: Red Deer River (RDR), South Saskatchewan River (SSR), and Dilberry Lake Provincial Park (DLPP). These areas involve small portions of the eastern end of Wildlife Management Units 151, 150, and 234, respectively. In herd reduction areas, staff were instructed to shoot any deer that could be safely shot and recovered, regardless of species, sex, or age. Aerial surveys were conducted before and after each delivery to determine deer distributions and the changes in deer numbers.

Enhanced surveillance for CWD was conducted upstream from the RDR and SSR herd reduction areas (west to Highway 886 in the former, and west to CFB-Suffield in the latter). The goal was to collect and test 250 adult deer from each of these areas.

The field response program relied on Fish and Wildlife staff to shoot deer, collect heads for CWD testing, collect reproductive samples, salvage hides, and salvage usable meat. In addition, incisor bars were collected for aging purposes and tissues samples for genetic analyses. Staff from Saskatchewan Environment participated in disease control activities within the Saskatchewan portions of the 10km circles. All deer were processed in Oyen by Fish and Wildlife staff. Most of the heads were tested by Alberta Agriculture, Food and Rural Development in Edmonton. A few were tested by Prairie Diagnostics in Saskatoon.

Hides were provided to the Oyen Rod and Gun club for fund-raising programs. Antlers were provided to the provincial hunter education programs for teaching purposes. Salvaged meat from CWD-negative

¹ <http://wildlife1.usask.ca/ccwhc2003/publications/>

deer was distributed through normal Fish and Wildlife channels. Guiding principles for the program were safety of staff and the public in conjunction with effective and efficient shooting of deer with minimal disturbance to landholders and local residents.

In total, 1688 deer (1475 mule deer, 213 white-tailed deer) were collected between January 23 and March 11, 2006. Collection activities in the herd reduction areas yielded 1,022 deer from the RDR / SSR areas (884 MD and 138 WTD) and 40 from the Dilberry area (27 MD and 13 WTD). Collections during the enhanced surveillance programs yielded 361 deer from the upstream Red Deer River area (319 MD and 42 WTD) and 265 deer from the South Saskatchewan River area (245 MD and 20 WTD). With the exception of one serious vehicle accident, all safety, surveillance, and initial herd reduction goals were achieved successfully.

The program reduced local herds in the vicinity of infected deer but did not significantly affect the overall deer populations within the WMUs. For 2006, estimated spring populations were 2,800 MD and 3,000 WTD in WMU 151 [2765 km²], and 650 MD and 330 WTD in WMU 150 [1841 km²]. Summer recruitment (i.e., fawns) will increase these estimates by ~30% prior to the 2006 hunting seasons.

During the winter program, nine CWD-positive deer were collected in Alberta and two in Saskatchewan. All positive deer were mule deer in the early stages of infection and were collected within Range 1 W4 (that is, within 10 km of the border). No infected deer were found in the upstream surveillance samples.

Considerable public information was provided locally throughout the winter programs, particularly in Empress and Chauvin. Additional information was provided to primary wildlife stakeholders including the Alberta Fish and Game Association, Alberta Professional Outfitters Society, Alberta Chapter of The Wildlife Society, as well as Alberta Agriculture. Ongoing CWD public advisory committees were established at Chauvin and Empress.

Total direct costs of the winter CWD program were in the range of \$470,000. Primary costs were associated with staff expenses and overtime as well as field equipment and supplies. Diagnostic costs were provided in-kind by Alberta Agriculture, Food and Rural Development.

September 2006 to January 2007:

For the fall hunting seasons this year, the provincial CWD management program includes increased surveillance along the Alberta/Saskatchewan border and significantly increased hunting opportunities within identified areas of disease risk. The goal of the surveillance is to define the distribution of CWD, while the increased hunting will help the ongoing effort to reduce deer populations and limit further spread of the disease.

Since 1998 the CWD surveillance program in Alberta relies each fall on hunters submitting heads of hunter-killed deer in areas of concern. For 2006 the program is focused along the Alberta/Saskatchewan border and has been expanded to include **mandatory submission of heads from all deer shot in WMUs 150, 151, 234, 256, and 500.** In addition, in order to detect any potential spread beyond these units, **voluntary submission of heads of adult (non-fawn) deer shot in WMUs 148, 144, 152, 162, 200, 202, 203, 232, 238, and 236 is requested.**

Heads should be frozen and submitted at any Fish and Wildlife office of Alberta Sustainable Resource Development during business hours or at one of the 24-hour drop-off freezers scattered throughout the target areas (see attached map). Detailed freezer location information is available from Fish and Wildlife offices or on our web pages at www.srd.gov.ab.ca/fw/diseases/CWD/index.html. Hunters will be notified

of CWD test results within 6 weeks. A new labelling system provides a unique identification number for each head submitted. Labels and instructions are available when you turn in a head for testing at Fish and Wildlife offices or at the 24-hour freezer locations.

Along with the head, please provide the following information:

- Hunter wildlife identification number (WIN), name, address, and phone number
- Species of animal (mule deer or white-tailed deer)
- Date animal was harvested
- Location – **WMU** and GPS or section, township and range
- Sex of animal, and approximate age of deer (yearling or adult)

New for 2006, three **Chronic Wasting Disease Control Areas** provide increased deer hunting opportunities to help reduce deer populations in areas of potential disease risk. The areas are:

WMU 234 – only the portion of WMU 234 within ranges 1 and 2

WMU 151 – only the portion of WMU 151 within ranges 1 and 2

WMU 150 – only the portion of WMU 150 within ranges 1 to 3

In the Control Areas, licences for resident hunters are available through the under-subscribed licence system. In addition, landowners in the Control Areas or their immediate family can apply for these licences through their local Fish and Wildlife offices — similar to existing landowner licence approvals.

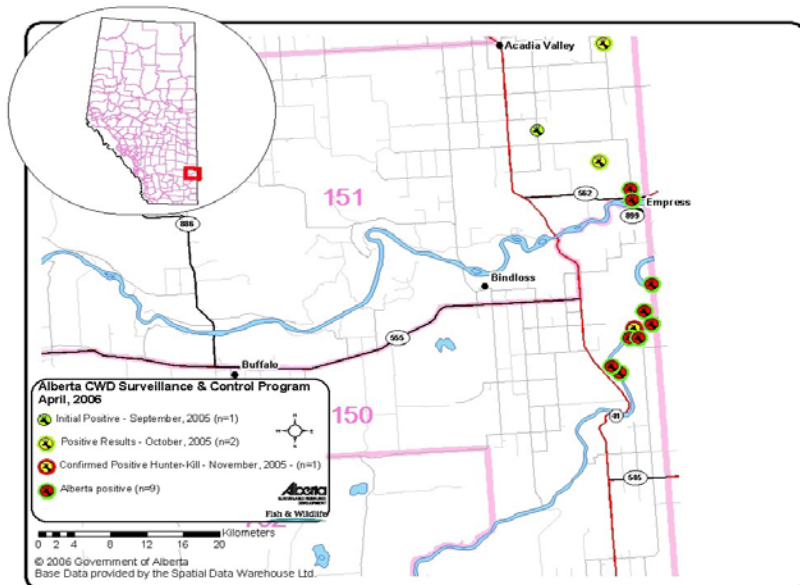
Three tags are issued with each CWD quota licence. The first two tags are valid for 2 antlerless deer (either mule deer or white-tailed deer). The third tag can be used on any deer, but is not valid until the heads from the first two deer have been submitted to a Fish and Wildlife office. Licences cost \$9.00 plus GST.

WMU 234 CWD control area:

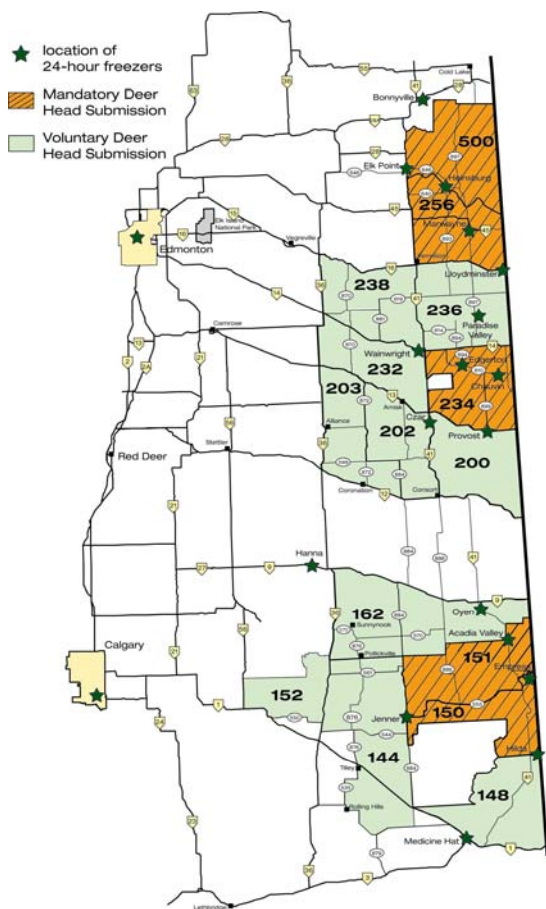
Archery season Sept. 6 - Oct. 31.
Rifle season Nov. 1 - Dec. 20.
Landowner season Nov. 1 – Jan. 15.

WMU 150 & 151 CWD control areas*:

Archery season Sept. 6 – Oct. 31.
Rifle season Nov. 1 – Dec. 20.
Landowner season Nov. 1 - Jan. 15.
*season open Monday to Saturday



Chronic Wasting Disease in wild deer in Alberta, April 2006. Total of 13 cases.



2006 CWD surveillance areas.