

May 16, 2002

TESTIMONY TO THE U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON RESOURCES

From: Charles H. Southwick, M.S., Ph.D.
Professor Emeritus, Environmental, Population and Organismic Biology
University of Colorado
Former Professor of Pathobiology
Johns Hopkins University, Baltimore, MD

**ELEVEN PRIMARY CONSIDERATIONS FOR CHRONIC WASTING DISEASE
MANAGEMENT:**

1. Present and recent control strategies of mass culling do not seem to be working. The disease has spread despite extensive slaughter of both captive and wild deer and elk.
2. In several cases, the spread of the disease has been associated with increased culling. Large-scale killing may contribute to spread by: (a) increasing movements and dispersal of deer and elk, (b) massive destruction of healthy stock (often 99% of those killed), some of which probably hold the key to genetic resistance that can lead us up and out of this costly and dangerous epizootic.
3. Current culling methods have employed open transportation of heads and carcasses which can spread contamination, and disposal in landfills which can contaminate soil for at least three years. High temperature incineration must be employed, and more care in collection and transportation.
4. Better methods of detection and surveillance must be developed. It is greatly preferable to employ live testing such as tonsillar biopsies, even though this is more expensive and requires more diligent personnel. Other live tests, such as urinalysis, should be urgently developed.
5. In our own study area of mule deer just west of Boulder, Colorado, the Colorado Division of Wildlife tested a dead deer 6 years ago which was CWD +. (They did not inform us until March of 2002). Nonetheless, this deer population has thrived in the six years since then. Fawn production has been very good, fawn survival and winter survival have been excellent. This indicates either very low transmission in natural habitats (as opposed to captivity), or else it indicates individuals or herds with natural genetic resistance.
6. There are acute shortages of research on such basic topics as transmission and infectivity rates in natural populations, genetic resistance in individuals in the PrP gene locus, and in cross-species infectivity.

7. Captive herds and Game farms have been the major sources of CWD. It is essential that they be controlled more carefully, all animals tested, all interstate shipments stopped, and all captive stock subject to intense surveillance. Unless CWD can be eradicated from game ranches, this industry should be closed down.

8. Eradication of CWD is not a feasible goal in wild populations. As in the cases of Lyme disease, Hanta virus, rabies, and virtually all other zoonotic infections, we cannot eradicate the infectious agent in natural populations. The best we can achieve is control. The goal for CWD control in natural cervid populations is a prevalence or incidence of less than 1 percent.

9. CWD must be treated as a national and international problem of great urgency. Nationwide monitoring, control, and research programs must be instituted immediately. International cooperation is necessary.

10. An international conference combining experts in wildlife ecology, prion disease specialists, and public health scientists should be convened as soon as possible to determine the best courses of action.

11. Expenditures now on research, increased surveillance by live testing, and a national/international conference of appropriate scientists can save potential losses of billions of dollars in future years.

Follow up address:

Dr. Charles Southwick
Department of Environmental, Population and Organismic (EPO) Biology
CU Box 334
University of Colorado
Boulder, CO 80309
Phone: 303-492-5468