

**CHRONIC WASTING DISEASE IN COLORADO: 2010–2011 SURVEILLANCE UPDATE**  
*Colorado Division of Parks & Wildlife*  
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Chronic wasting disease (CWD), a naturally-occurring prion disease of North American cervids has been endemic in free-ranging cervid populations in northcentral Colorado and southeastern Wyoming since at least the early 1980s, and has been detected in a number of other states and provinces more recently. Surveys conducted since the early 1990s have shown that CWD is widely distributed in Colorado. As of July 2011, at least one case of CWD has been detected in 24 of 55 deer (*Odocoileus* spp.) data analysis units (DAUs), 14 of 46 elk (*Cervus elaphus nelsoni*) DAUs, and 2 of 5 moose (*Alces alces*) DAUs. Within affected DAUs, prevalence estimated from 2010–11 harvest survey data ranged from <1–25% among male mule deer, <1–17% among male elk, and <1% among moose; most current prevalence estimates have wide confidence intervals because sample sizes in many sampled DAUs are small. Prevalence appears to be stable or increasing among harvested male mule deer in two DAUs monitored since 1996 (Figure). A more extensive analysis of temporal trends in CWD prevalence in select DAUs is ongoing. Maps showing estimated prevalence by DAU are posted on the Colorado Division of Parks and Wildlife’s web site (<http://wildlife.state.co.us/Hunting/BigGame/CWD/>).

Although most of the small changes in the known distribution of CWD in Colorado probably have been due to detection of previously unidentified foci rather than true geographic spread, some natural spread undoubtedly is occurring. The true distribution of CWD in Colorado remains somewhat unclear, however, because surveillance data from many DAUs in the southern part of the state are insufficient to assure that CWD is truly absent from those areas. A weighted surveillance approach (Walsh & Miller 2010, *J Wildl Dis* 46: 118–135) that incorporates the relative epidemiological “value” of submitted samples to better estimate the uncertainty in CWD detection efforts will be incorporated into a revised surveillance database currently under development in Colorado.

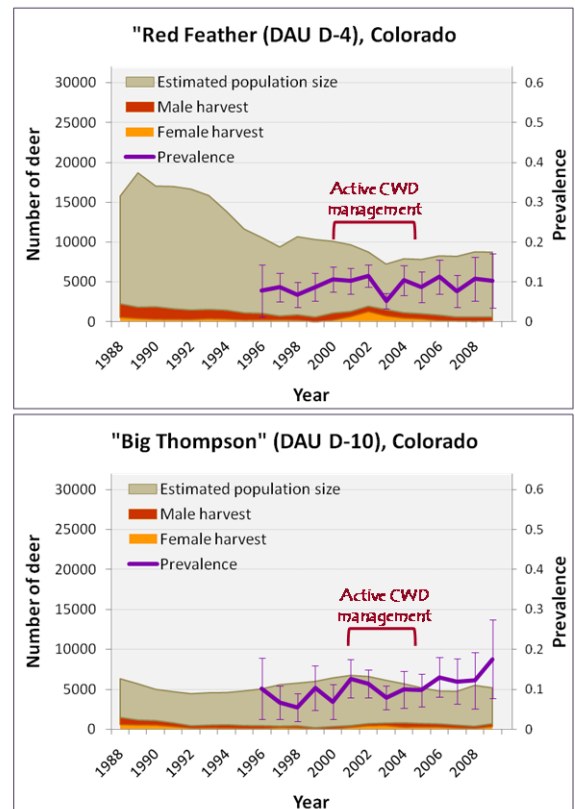


Figure. Chronic wasting disease prevalence and mule deer population trends in two northcentral Colorado data analysis units.

The number of deer and elk heads submitted by Colorado hunters for CWD testing has declined by almost 90% since 2002: submissions through May 2011 included only 2,876 heads submitted statewide by hunters during the 2010-11 big game seasons. The Division continues working to reduce expenditures on CWD testing services and to develop a long-range plan for CWD monitoring in the absence of annual federal grants that have been supporting these activities. If goals for deer, elk, and moose management in Colorado include long-term monitoring of trends in CWD prevalence and distribution, then alternatives to reliance on voluntary, harvest-based CWD surveillance approaches will need to be developed.