

# Chronic Wasting Disease



## RECENT TRENDS & IMPLICATIONS IN COLORADO

Maintaining wildlife health is a fundamental component of sound wildlife management and is regarded as a high priority in Colorado. Colorado Parks and Wildlife is dedicated to delivering a coordinated and systematic approach for monitoring, investigating, reporting, and – where feasible – controlling health problems in free-ranging wildlife.

**C**hronic wasting disease (CWD) is well-established in deer, elk, and moose herds throughout much of Colorado. As of January 2018, 31 of 55 deer data analysis units (DAUs), 14 of 43 elk DAUs, and 2 of 9 moose DAUs have become infected. This prion disease also has been reported in deer, elk, moose, and reindeer (caribou) in 27 other states and provinces, in South Korea, and most recently in Norway.

The rate of CWD infection (or “prevalence”) appears to be rising in many affected Colorado herds. However, trends have become difficult to track in the last 10 years because too few hunters voluntarily submit samples for testing. As a result, our current prevalence estimates for many herds are imprecise and perhaps somewhat biased. In 2017, CPW resumed mandatory harvest submissions in select DAUs. Sample sizes in the targeted DAUs increased 10-fold, yielding better data to inform herd management planning.

Reliable CWD prevalence estimates and trend assessments are needed to inform deer and elk conservation in Colorado. A growing body of data suggests that unchecked CWD epidemics impair the long-term performance of affected populations. Infection shortens the lifespan of deer and elk. On average, animals also become infected at a younger age as epidemics mount. If infection rates become too high, CWD can affect a herd’s ability to sustain itself.

Observed patterns in Colorado suggest cause for both hope and concern. Prevalence in the Red Feather/Poudre Canyon deer herd (D-04) has declined in the decade since CPW applied focal culling and increased harvest in the early 2000s (Figure). Relatively aggressive buck and doe harvest may be helping to suppress prevalence in the Middle Park deer herd (D-09; Figure). In contrast, prevalence in the White River deer herd (D-07) appears to have markedly increased since 2002 (Figure). Management experiments (e.g., buck:doe ratio manipulations, shift in harvest pressure across seasons) – ideally done in coordination with other

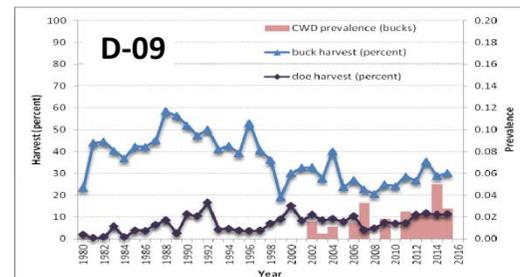
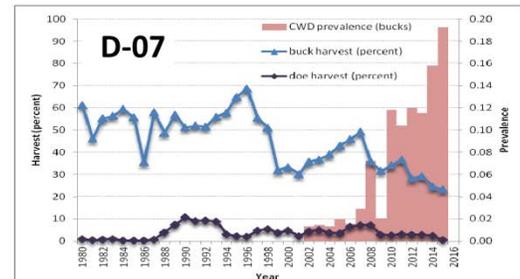
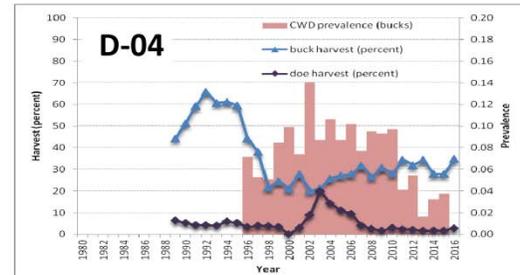


Figure. Chronic wasting disease harvest and prevalence trends in three Colorado mule deer DAUs illustrate patterns and potential relationships between harvest and disease dynamics. A sustained control program was applied to DAU D-04 during 2000–2005. Harvest rates are expressed as the percentage of estimated bucks and does harvested annually. Prevalence estimated from harvest submissions.

jurisdictions –should be considered in some future DAU plans to help identify and evaluate effective strategies for controlling CWD.

For further reading:

Western Association of Fish and Wildlife Agencies. 2017. Recommendations for Adaptive Management of Chronic Wasting Disease in the West. WAFWA Wildlife Health Committee and Mule Deer Working Group. Edmonton, Alberta, Canada and Fort Collins, Colorado, USA. [http://www.wafwa.org/Documents%20and%20Settings/37/Site%20Documents/Committees/Wildlife%20Health/docs/CWDAdaptiveManagementRecommendations\\_WAFWAfinal\\_approved010618.pdf](http://www.wafwa.org/Documents%20and%20Settings/37/Site%20Documents/Committees/Wildlife%20Health/docs/CWDAdaptiveManagementRecommendations_WAFWAfinal_approved010618.pdf)