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5/14/02

# White-tailed Deer Management in Cleveland Metroparks

## Summary of Culling Program Winter 2001-2002



**Cleveland  
Metroparks**

Division of Natural Resources  
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April 2002

## Executive Summary

In the 1990s, overabundant white-tailed deer populations were beginning to have ecological and other implications for Cleveland Metroparks and surrounding private and public lands. In 1998, after consultation and discussion with agency- and university-based deer biologists, surrounding municipalities, and other stakeholders, Cleveland Metroparks initiated a lethal deer-culling program aimed at reducing growing deer herds. This report summarizes the culling effort of Cleveland Metroparks, and the demographic characteristics of deer harvested, in winter 2001-2002.

Lethal management of the deer population was carried out over the span of 61 days, between 18 November 2001 and 17 January 2002. Culling took place on 17 nights in four reservations using teams of Cleveland Metroparks' sharpshooters and Natural Resources biologists. The Ohio Division of Wildlife authorized removal of 190 deer.

A total of 173 deer were removed from the park system, 91.1% of the overall goal for 2001-2002. Ninety-five percent of shots successfully killed deer; the other 5% either were clean misses or slightly grazed the targeted deer. Cleveland Metroparks staff verified by tracking that, with once exception, no injured deer was left in the field. A single, wounded deer was not relocated after intensive searches.

Cleveland Metroparks staff field dressed the deer at a central processing facility, and transported the carcasses to a certified meat processing plant. A total of 9,045 lbs of ground venison was donated to the Cleveland Foodbank in winter 2001-2002.

A total of 124 females (71.7%) and 49 males (28.3%) were harvested. Nearly 80% of the male deer taken were antlerless. Approximately 45% of the female deer harvested were <2 years old, compared to only 11% of deer older than 4 years. This age distribution -- skewed towards younger animals -- indicates a population with growth potential.

Weights of harvested deer ranged between 70 lbs and 210 lbs, averaging 120 lbs. Overall, females (127 lbs) weighed more than males (104 lbs), but when age differences between sexes were statistically controlled, males weighed significantly more than females. Both sexes tended to increase in weight to at least 4 years.

No significant differences existed in female weights across parks, even when controlling for differences in age.

Deer weights for both males and females were expected to decrease over the winter because of depletion of food supplies. However, few patterns of weight loss were observed overall, or for males or females of any age class. Results suggest that the deer population inhabiting Cleveland Metroparks was not nutritionally stressed during the relatively mild winter of 2001-2002.

Overall, each female carried an average of 1.45 fetuses. Fifty-five percent of all females carried twins, 16% had singletons, and 7% carried triplets. In general, reproductive output was lowest for female fawns, rising rapidly for yearlings approaching 2 years old, and then leveling off with older age groups.

Differences in fetus length for females of different ages suggest that either fetuses of older females grew at a faster rate than those of younger females or that younger females conceived over a more variable time period compared to that of older females.

Overall, no significant differences were detected in the ratio of male (52.7%) to female (47.3%) fawns. However, Hinckley Reservation had significantly more male fawns and North Chagrin Reservation more female fawns than expected.