

**Michigan Department of Natural Resources  
Preliminary Report on Sterilization of Game in Michigan  
2018 Public Act 390 Section 40114(9)**

**Executive Summary**

One permit has been issued for the sterilization of game in Michigan since 2017. The City of Ann Arbor (City) contracted with White Buffalo, Inc. (WBI), a nationally recognized expert in wildlife-conflict abatement and urban deer management, to examine the effectiveness of surgical sterilization and sharpshooting as a combined approach to control urban deer populations. The Department of Natural Resources (DNR) issued a permit to WBI for this 5-year study where field work and data collection is scheduled to be completed in 2021. The initial permit authorized up to 80 female white-tailed deer to be sterilized over the course of the research project. This number was not amended in future years and no more than 80 deer could have been sterilized throughout the duration of the project. The number of deer authorized for sharpshooting varied year to year. In the first year, 100 deer were authorized for removal. In subsequent years, 250 deer were authorized for removal in 2018, 150 deer in 2019, and 150 deer in 2020. As there is still a remaining season of field activities and data collection, a final report evaluating the effectiveness of the combined approach by WBI has not been completed. Consequently, the DNR is not prepared to make any recommendations for legislation at this time, including whether and how sterilization of deer should be authorized as a manner of taking game. Such recommendations are deferred until a final report is compiled and analyzed by DNR staff that will occur by March 31, 2022.

**Overview**

In November 2016, the Ann Arbor City Council approved Ann Arbor's deer management program, consisting of three primary components: 1) sterilization of deer by removing ovaries and returning deer to where they were darted, 2) lethal removal by sharpshooting on public lands and private lands deemed safe and with appropriate consent, and 3) providing educational materials to the community on how to live with deer, evaluating the city's fencing ordinance, etc.

The City contracted with White Buffalo, Inc, a 501 (c)(3) organization dedicated to the conservation of native species and ecosystems with extensive experience in a variety of deer management techniques. The proposal adopted by the City was to incorporate both lethal and non-lethal methods simultaneously that were safe, supported by residents, and resulted in reduced impacts of deer on vegetation and vehicle collisions. Per an extensive literature review, the novel approach, incorporating ovariectomies which prevents continued estrous cycles that are typically seen with alternative sterilization techniques (ex. tubal ligation) combined with extensive sharpshooting activities, had not been examined previously.

Activities began in January 2017 under scrutiny from residents, conservation organizations, and the media. That year, 96 deer were culled between January 30-February 6, with 54 does sterilized from January 22-29. Public Act 390 of 2018

prohibits the DNR from issuing deer sterilization permits until 2022. This act eliminated the possibility of additional non-lethal management in Ann Arbor as the existing permit only authorized the sterilization of 80 deer. The goal of the sterilization program was to sterilize a high percentage of does in the area, rather than a total number of individuals. In certain locations, lethal removal is unavailable (ex. presence of school owned properties) due to firearm discharge restrictions.

In subsequent years, the number of deer sterilized per year decreased as the total number of deer sterilized under the initial permit approached eighty. The number of deer to be culled varied from 150-250, with a maximum number removed of 115 in 2018 (Table 1). No safety issues occurred during the removal or capture process for deer in Ann Arbor during the four-year study period.

**Preliminary Results**

WBI estimated a population decline from February 2017 to March 2020 from 94 to 50 deer within their study areas, a total decline of 47% (DeNicola 2020). Additionally, WBI estimates effectively sterilizing between 88% and 97% of does each year over the four-year period (DeNicola 2020). WBI estimates sterilization costs over these four years at \$159,800, while estimating sharpshooting cost at \$255,800 (DeNicola 2020). Information on community support, deer-vehicle collision trends, and vegetative response were not available while developing this preliminary report.

**DNR Recommendations**

Although the observed declines in deer surveys from the study are worth noting, there is still another field season of sharpshooting and data collection to occur. Consequently, the final report from WBI evaluating the combined approach has yet to be developed. Without analyses of the complete data, the DNR is not yet able to evaluate how much of this decline may be attributable to the combined sharpshooting and sterilization efforts and how much may be attributable to other factors. The DNR would need to review this final report, along with complimentary data and perceptions from the community and community leaders, before recommending legislation or details on incorporating sterilization as a management option for white-tailed deer in the future.

Table 1. Number of deer sterilized and removed from Ann Arbor, Michigan, 2017-2020.

Year	Number of Deer Sterilized	Number of Deer Culled
2017	54	96
2018	18	115
2019	6	112
2020	0	109
Total:	78	432

## **References**

DeNicola, A.D. 2020. Year four summary report: 2019-2020 Deer Research Program. Ann Arbor, Michigan. <https://www.a2gov.org/departments/community-services/PublishingImages/Pages/2020-Program/Final%20Combined%20Report%20Year%204%202020%20Ann%20Arbor.pdf>