

United States Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services

**Summary of the White-tailed Deer Count in the City of
Beachwood, Ohio
23 November 2021**

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The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) was requested to conduct a count of white-tailed deer (*Odocoileus virginianus*) within the City of Beachwood, Ohio. The objective of the count was to provide the City with an index of the deer population to assist with the City's assessment of white-tailed deer damage issues.

Study Area

The City of Beachwood, Ohio is located in northeast Cuyahoga County. Beachwood spans an area that is approximately 5.3 square miles in size. The City is largely comprised of residential and industrial properties. Green space is scattered throughout and consists mainly of a larger area of park/recreational land owned by the City.

Methods

Wildlife Services utilized two observers with handheld thermal imagers to identify and count deer along a pre-determined route. The route was created to cover as much of the City as possible and to minimize the possibility of counting deer more than once (Figure 1). The number of deer observed as well as their approximate locations were recorded on a map of the City.

Results

The deer count occurred on 23 November 2021 between 20:38 and 23:52. A total of 111 deer were observed. An underlying assumption for many survey techniques designed to estimate deer abundance is that deer are evenly distributed across the landscape. To that end, WS used Arc GIS to approximate the total area of the City that was observed from the route with the thermal imaging equipment. It is estimated that 75% of the available area in the City was included in the count. Wildlife Services concludes that this count yields a range estimate of 111-148 deer within the City of Beachwood at the time this count was conducted.

A total of 50 deer (45%) were counted north of Fairmount Boulevard. Eighteen deer (16%) were counted in the middle of the City, between Fairmount Boulevard and S. Woodland Road. The remaining 43 deer (39%) were observed south of S. Woodland Road. Wildlife Services did observe 10 deer outside of Beachwood's political boundary. Those deer were included in the count summary because of their proximity to the City. Figure 1 below contains a summary of the number and location of deer observed in the City of Beachwood during the WS deer count.

Discussion

Weather conditions during the survey were very favorable for deer movement. Deer were observed to be on their feet and actively feeding throughout the duration of the count. Deer that are active are more likely to be observed. There were a few areas in the City where visibility with the thermal imaging equipment was limited. It was difficult to observe the backyards located behind homes in the denser residential areas that were in the northwest portion of the City. Visibility was also limited along some of the larger industrial/undeveloped areas in the south. It should also be noted that due to restricted access, the survey did not include the area of

condos surrounding Village Lane in the northwest. The inability to adequately access or view these areas is reflected in the count range estimate above.

Recommendations

White-tailed deer population estimates/counts should be interpreted in context with other units of measure for deer damage, such as deer vehicle accident (DVA) records, deer carcass collections and property damage complaints. It is recommended that the City further evaluate DVA records, deer carcass collections and property damage complaints as population indices. These indices may be used to identify specific geographical areas within City that support higher than recommended numbers of deer or deer that may pose an elevated risk to public safety.

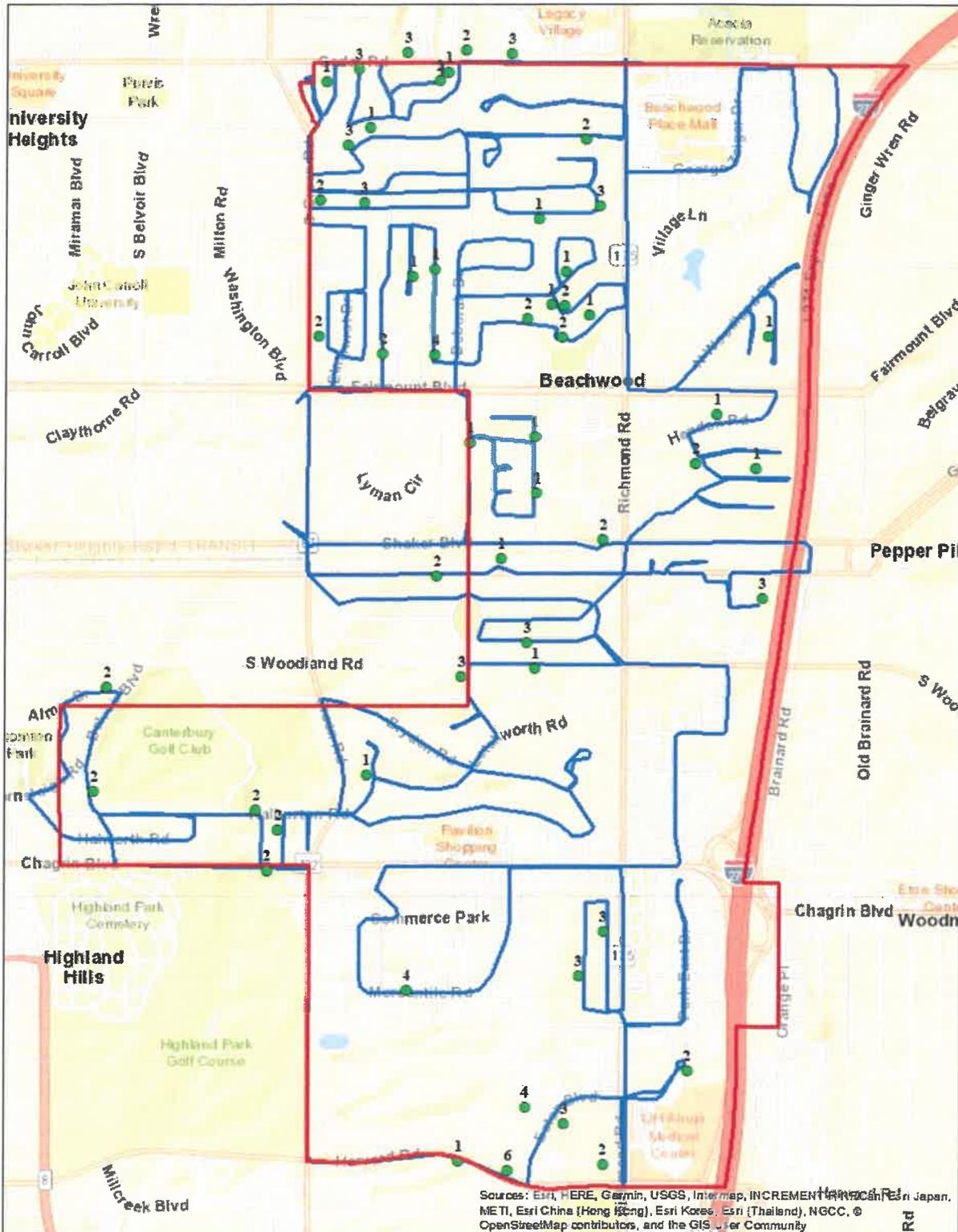


Figure 1. A map showing the survey route (blue) and the approximate location and number of white-tailed deer observed during the 23 November 2021 count in the City of Beachwood, Ohio.