

**USDA APHIS WILDLIFE SERVICES
ACTIVITIES SUMMARY REPORT
2006 WHITE-TAILED DEER MANAGEMENT PROGRAM
TOWNSHIP OF UPPER ST. CLAIR
PREPARED BY
USDA APHIS WILDLIFE SERVICES
(July 2006)**

USDA APHIS Wildlife Services (WS) was requested by the Township of Upper St. Clair (TOWNSHIP) to conduct white-tailed deer culling throughout the TOWNSHIP and on designated private properties. An operational control program was implemented in 2005 and continued in 2006 to reduce deer densities. The objective of this culling effort is to manage the deer population at or near recommended levels according to the Pennsylvania Game Commission (PGC). In addition, removal operations were conducted to decrease the vehicle/deer collisions throughout the TOWNSHIP, but especially along the State Route 19 corridor (SR 19). WS conducted operations under a PGC Special Use Permit (NO 136-2005) issued to the TOWNSHIP to remove no more than 200 deer total from within the TOWNSHIP limits. The following report includes program methodology, results, analysis, and recommendations.

WHITE-TAILED DEER MANAGEMENT METHODS

WS conducted deer removal activities according to the work plan established in the Cooperative Service Agreement with a collaborative effort of the TOWNSHIP and PGC. Removal operations consisted of seven nights of activity throughout the TOWNSHIP from January 9th – March 21st, 2006 (Table 1). Deer were removed from stationary locations, elevated stands, and mobile units. Bait sites were strategically placed to draw deer out of dense cover and to position them for safe shooting. Shooting was conducted with suppressed rifles of two different calibers (.223 and .243).

Deer observed were removed on a first opportunity basis provided safe shots could be taken. Adult does were targeted first when more than one deer was observed in a safe shooting location. Antlered deer were not specifically targeted for removal; however several injured deer and those requested by PGC were harvested.

Data collected from harvested deer was recorded on data sheets. Data collected included: (1) date; (2) time; (3) location (Chart 1); (4) relative age (Chart 2); (5) gender (Chart 3), (6) tag number and; (7) final disposition.

Forward Looking Infrared (FLIR) technology was used during removal operations as well as night vision and spotlights with red filters. WS utilized a hand-held FLIR unit to locate and observe deer in complete darkness. These capabilities also further enhanced WS'

ability to ensure safe removal operations by detecting human activity on TOWNSHIP property from greater distances after hours. The actual deer culling is conducted with the aid of a spotlight for the safety of WS' employees as well as TOWNSHIP residents.

RESULTS

WS removed a total of 146 deer from within the TOWNSHIP. Of those 146 deer, 50 were juveniles and 96 were adults. The majority of deer were harvested before reporting time frame for the PGC fetus study. Deer culled during the 2006 within the TOWNSHIP effort were not utilized for this study; however, Wildlife Services personnel removed 123 fetuses from harvested does (Chart 4).

Several areas were identified by the TOWNSHIP as priority locations due to their proximity to SR 19. The areas of special concern were Gilfillan Park, the 3-hole golf course/tennis bubbles, Township Pump Station, Boyce ball field, and several private properties which were strategically located near SR 19. WS was able to remove 56 deer (40%) from those locations alone.

WS noted several interesting observations regarding herd health. Overall, culled deer appeared to have prime over-wintering weight and thick coats. During the seven nights, WS removed 7 deer with broken legs and obvious signs of vehicle collisions; 4 males and 3 females. Several deer had multiple fractures and were extremely thin due to their injuries. WS removed all of the injured deer observed. WS also observed at least one albino deer and at least 10 mature bucks of at least 8 points or greater; these bucks were not harvested as part of this project.

The majority of venison from culled deer was distributed at soap kitchens and shelters in South Western Pennsylvania. The Pennsylvania Game Commission also helped distribute venison to families in need. Ten deer were retained by the Pennsylvania Game Commission. Overall, 4,410 pounds of venison was distributed to needy citizens in South Western Pennsylvania.

ANALYSIS

During 2006, Wildlife Services removed 37 percent more adult females than in 2005 which resulted in 32 percent more fetuses. WS intentionally targets adult females first when safe shooting opportunities are available. Additionally, the 2006 culling effort yielded 20 percent more deer being harvested versus 2005. The increase in efficiency is largely due to an expanded baiting program and more private properties being enrolled in the culling program.

A comprehensive and extensive analysis of the current problems associated with deer within the TOWNSHIP has been conducted by the TOWNSHIP over the course of many years. The full impact of deer culling operations on the number of deer/vehicle collisions may take several years to be fully realized; however, the upward trend from 2000-2004 seems

to have been halted (Chart 5). The removal of 263 deer during the past few winters in addition to hunting and vehicle collisions is a dramatic reduction for a 10 mi² urban area. Although immigration and emigration of deer occurs continuously, there is preliminary evidence to demonstrate the effectiveness of culling. Continued culling activities utilizing sharp shooting and hunting will be necessary in future years to ensure the long-term reduction of the number of deer/vehicle collisions.

It is extremely difficult to determine the exact population size within the TOWNSHIP without extensive scientific research. However, based on an analysis of deer accident statistics provided by the TOWNSHIP coupled with deer removal efforts, WS can say with reasonable certainty that original population estimates (infrared sensor census) of 155-250 animals with the TOWNSHIP were conservatively low (Executive Report on Deer Management, USCT 2004). During the past 18 months (January 2005-June 2006), 215 deer were killed by vehicles, 37 deer were harvested by archery hunters, and 146 deer were harvested by WS. Nearly 400 deer have been removed from the TOWNSHIP in the past 18 months. Additionally, WS observed greater than 25 deer on private property during more than one removal operation, suggesting that population estimates of 600 deer (most recent estimates provided by the TOWNSHIP) are realistic. As the culling program continues the overall population should be reduced, but of special concerns are the areas directly adjacent to SR19.

RECOMMENDATIONS

WS recommends a continuing deer removal program each year to establish and maintain deer densities near or at 8-10 deer per square mile. Removal efforts will most likely require a minimum of ten nights, targeting at least 80 deer. However, the number of nights allocated to culling should incorporate the following factors: (1) nightly mobile unit observations of deer sightings; (2) weather events; (3) vehicle/deer collision rates and; (4) impacts of over-abundant deer on local environments.

WS recommends that the TOWNSHIP consider conducting a deer survey following the 2007 deer culling program. Relative deer density information is a critical component to determining the overall effectiveness of deer culling operations. This information should be used in conjunction with field observations and collision data to evaluate the current program. As a result of these surveys, the culling program should be modified (if necessary) to achieve the desired deer density throughout the TOWNSHIP.

ACKNOWLEDGEMENTS

Wildlife Service would especially like to thank Walter Jarosh for his commitment to and cooperation with this project. Walter's professionalism and attention to detail were essential to the safe and efficient removal of deer within the TOWNSHIP. The long hours Walter spent baiting numerous sites played a key role in the increased efficiency and success of the culling program during 2006.

Wildlife Services would also like to thank our private cooperators, Mark Mansfield, and the entire Upper St. Clair police department for their outstanding contributions to a safe and efficient culling program. We also need to thank the local Wildlife Conservation Officer, Gary Fajak and his deputies for their support of the removal operations. They should be commended for their willingness to support the culling program and helping the TOWNSHIP resolve its over-abundant deer problem.

Chart 1. Distribution of deer harvested by USDA APHIS Wildlife Services in the Township of Upper St. Clair, Pittsburgh, PA during the 2006 deer culling program.

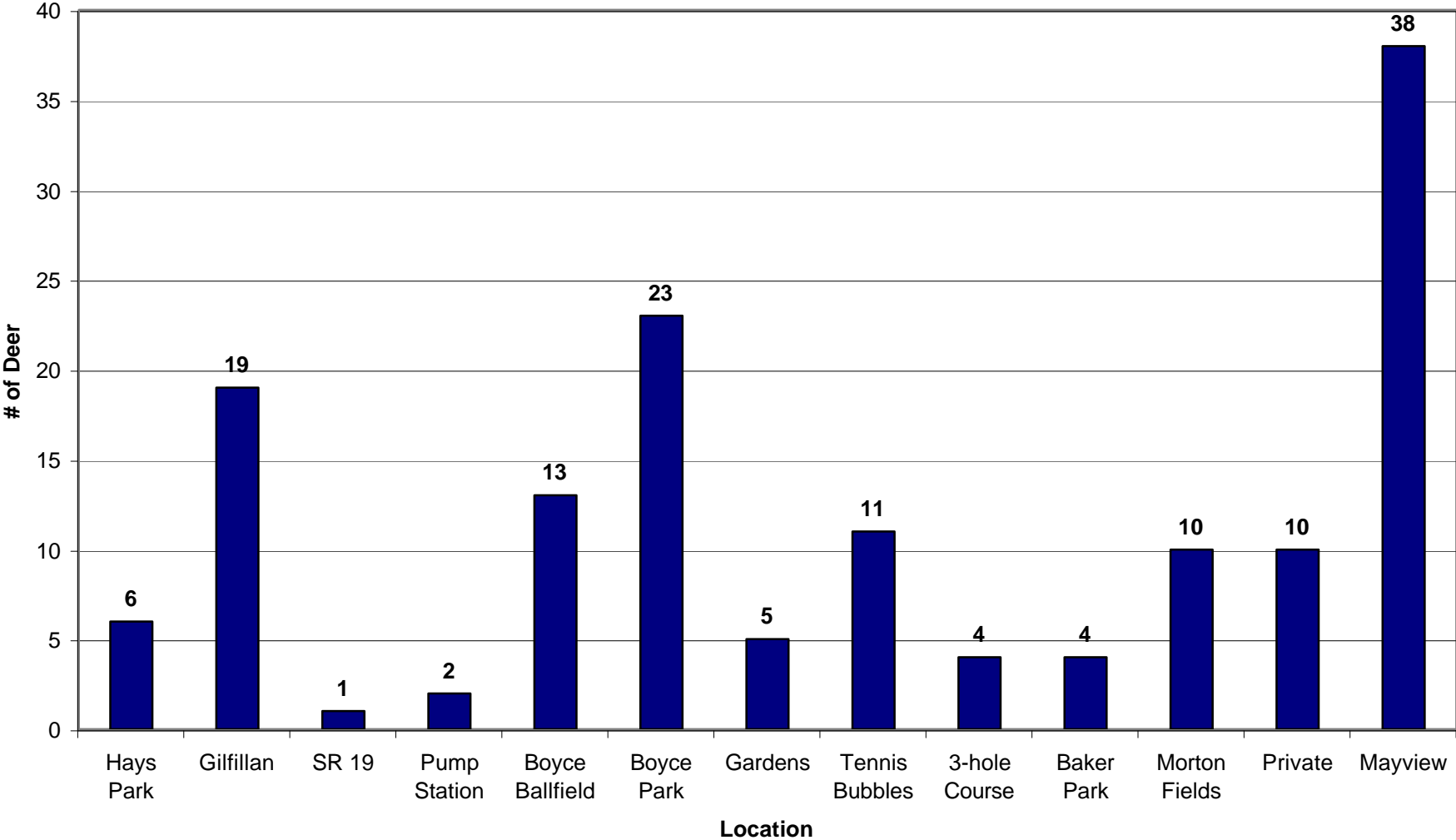


Chart 2. Relative age of deer harvested by USDA APHIS Wildlife Services in the Township of Upper St. Clair, Pittsburgh, PA during the 2005 and 2006 deer culling program.

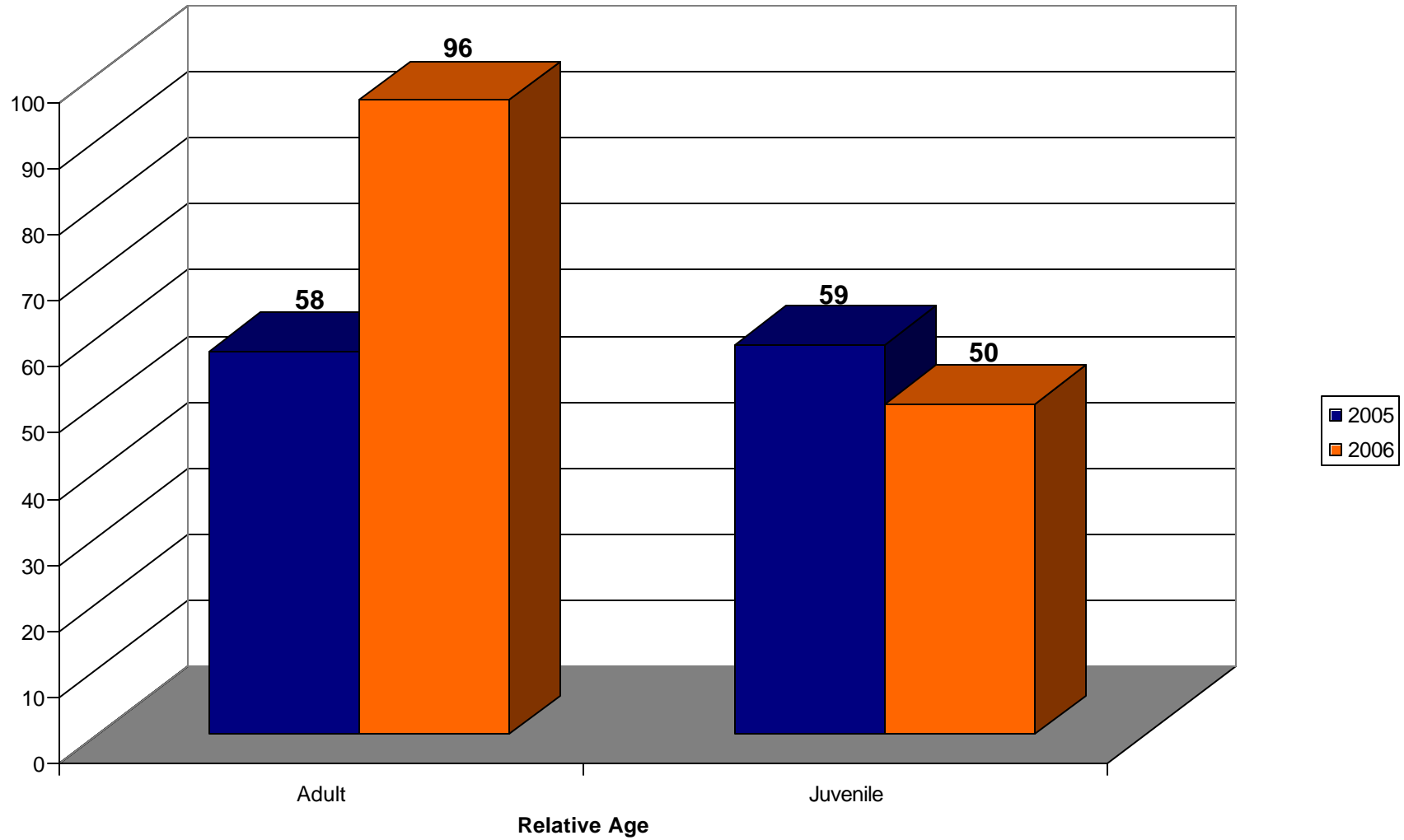


Chart 3. Sex distribution of deer harvested by USDA APHIS Wildlife Services in the Township of Upper St. Clair, Pittsburgh, PA during the 2006 deer culling program.

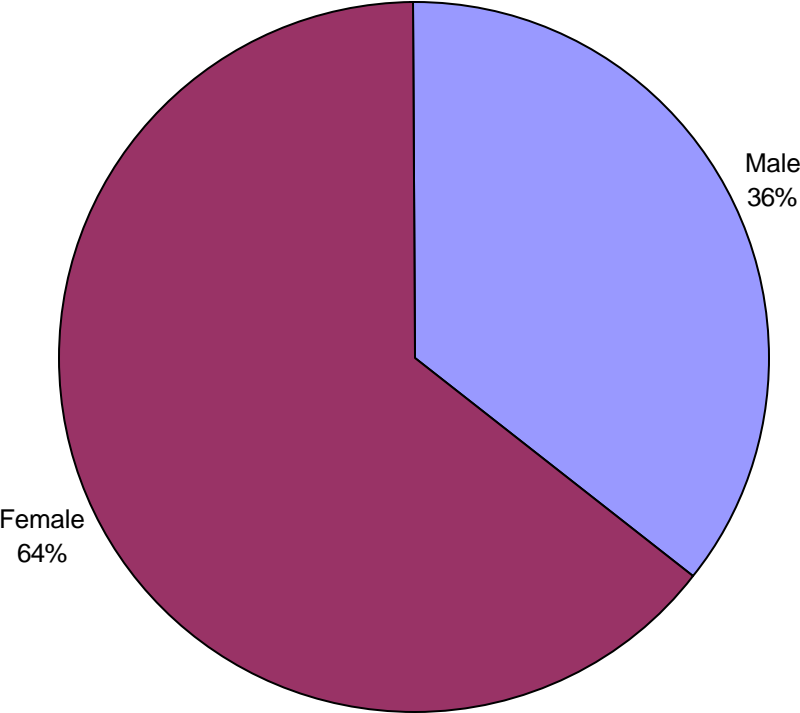


Chart 4. Number of fetuses removed from harvested does by USDA APHIS Wildlife Services in the Township of Upper St. Clair, Pittsburgh, PA during the 2005 and 2006 deer culling program.

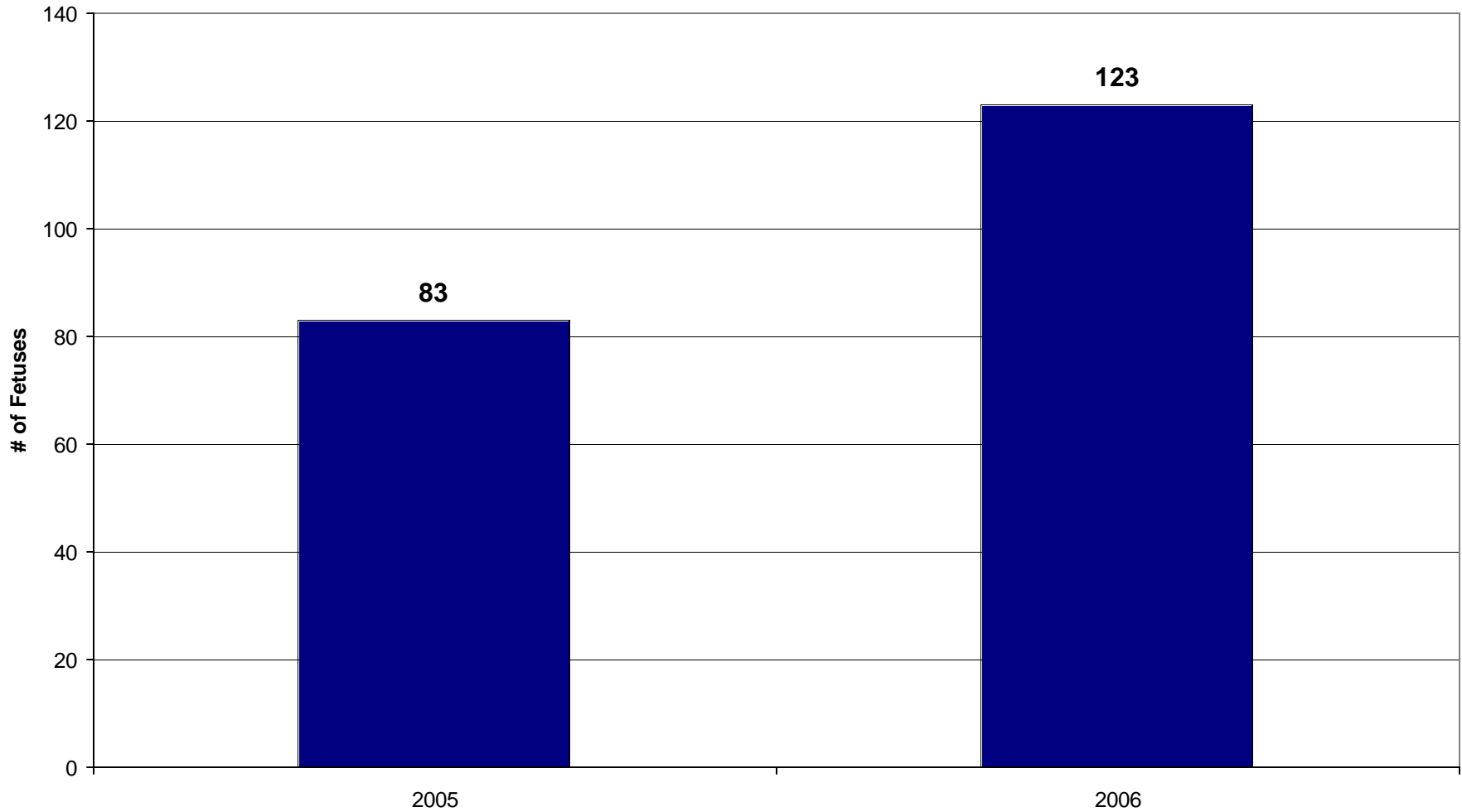


Chart 5. Number of Reported Deer/Vehicle Collisions in the Township of Upper St. Clair, Pittsburgh, PA from 2000-2005.

