



## MEMORANDUM

**TO:** Paul Leonard, Manager, Upper Dublin Township  
Dave Madrak, Professional Standards Officer,  
Upper Dublin Township Police Department  
**FROM:** Carey Furlo, Wildlife Biologist, USDA APHIS Wildlife Services  
**SUBJECT:** Summary of Deer Removal Program  
**DATE:** 8 April 2019

At the request of Upper Dublin Township, USDA APHIS Wildlife Services (WS) conducted professional deer removal operations in the township in effort to help the township reach deer damage management goals. This memorandum summarizes actions implemented as a result of that request.

### METHODS

WS conducted one visit to the township, prior to removal operations, to review all potential properties to be included in the deer removal program. All potential properties were visited and evaluated for access, bait sites, and safe shooting areas. Bait sites were identified during the visit, and instruction was provided to township personnel on baiting.

WS conducted active removal operations on pre-determined dates agreed upon by WS and the township. Operations were performed by visiting all properties included in the program as much as possible on each scheduled night. The removal team consisted of two WS staff, and one Upper Dublin Township Police Officer. WS staff were positioned in the back of the truck. One acted as the observer and spotlight operator, and the other served as the primary shooter. Deer were observed for, and identified, with the aid of a forward looking infrared (FLIR) device on properties included in the program (hereafter referred to as "properties"). When deer were observed on properties, a determination was made by the WS staff on whether or not the deer in its present location was safe to remove. The deer was removed if in a safe location. If the deer was not in a safe location, WS attempted to reposition the vehicle in effort to make the shot safe. If the deer was in a location not safe, and the vehicle could not be repositioned to make it safe, no shot was attempted and the team moved onto other properties. Adult doe ( $\geq 1.5$  years old) were selected for removal first, when multiple deer were present on a property. Additional shots, when multiple deer were present, were taken based upon safety of the shot after the first shot. When adult buck were present on a property, and no other deer were observed, they were removed. When safe shots were present, WS utilized a rifle fitted with a sound suppression device, and a Nosler Ballistic Tip bullet designed for rapid expansion. The bullet design used transferred high amounts of kinetic energy to the deer when shot. Removed deer were tagged with Pennsylvania Game Commission supplied tags, were aged using the tooth wear and replacement method, and indices of tail fat were measured for each deer. Removed deer were transported to a pre-positioned refrigerated trailer, provided for by the township selected processor, in preparation for

processing for human consumption. All pertinent data was recorded on paper form, then transferred to a Microsoft Excel Database for analysis and generation of reports, figures, and tables. For the purposes of this memorandum, deer were classified by sex and age class. Age classes are 0.5, 1.5, or 2.5+.

## RESULTS

WS visited all potential properties on 8 February 2019. Properties included in the program were observed for bait locations to concentrate deer into safe shooting areas for removal operations. Township personnel marked the locations for subsequent baiting prior to operations. One private property was included in the program as the property was large in size, and offered numerous safe shooting positions, and was accessible by vehicle. One additional township property was added for 2019, all other township properties included during 2018 were included this year as well.

WS conducted operations on the nights of 27 and 28 February, and 18 and 19 March, 2019. Hours of operation started at 10:00 PM, and concluded at 5:00AM. Total hours of operation equaled 28 across all four nights. Weather conditions did not impact operations during 2019. Sixty-nine deer were removed during all nights, with an average of 2.5 deer removed per hour of operation. Several shots were passed upon as a result of concern for safety, as the deer were in locations that did not provide a safe shot, and the vehicle could not be re-positioned to allow for a safe shot.

Thirty-nine female (57%), and 29 male (43%) deer were removed. Age class of removed deer were spread; 0.5 year-old deer accounted for 39%, 2.5+ years-old deer accounted for 38%, and 1.5 years-old deer was 23% (Table 1, Figure 1). Female deer that were 1.5 years-old or older represented 48% of all deer removed, and 29% of the total were female that were 2.5+ years-old. Sixty-three percent of the male deer removed were 0.5 years-old. Deer were removed from 12 properties including 11 township properties, and one private property. Twenty-four deer were removed from the one private property, and 15 were removed from the newly added township property. Indices of tail fat were similar to the results observed on other projects in the area for deer removed during the same time period.

## DISCUSSION/RECCOMENDATIONS

The second year of deer sharpshooting was successful. To continue to be successful, I can offer the following recommendations moving forward.

- 1. Continue to track the number of deer related incidents and collisions.**  
The initial goal, as set by the township, was to reduce collisions with deer to 50% of the rate observed during 2016. Monitoring will track efficacy of the hunting and sharpshooting programs, and provide continued justification for both programs. Information on deer vehicle collisions (DVC's) for 2017 indicated the initial goal has been reached. There were 48 DVC's during 2017, which is a 50%

reduction from the 98 that occurred during 2016. During 2018, there were 40 DVC's recorded, a further reduction from 2017.

**2. Continue to expand the hunting program, and expand outreach efforts to large private property owners, and other township owned properties.**

Hunting is vital to reaching the goal of the township, and keeping it at or below goal. Adding new properties, as many as possible, will reach a broader area of the township, reduce deer numbers further in those areas, and have a larger impact township wide. Adding more properties will help to keep the DVC's at or below target levels. Initiate communications with landowners as they are identified throughout the year, as it may take several months for those landowners to decide upon enrolling their property into the program. During 2019 operations, two new properties (one township, one private) were added to the sharpshooting program. Those two properties accounted for 51% of the deer removed. As the hunting and sharpshooting continues, deer densities will be decreased in and around the vicinity of those properties. Without adding additional properties, the success of the program may be reduced.

**3. Early notification and execution of the Cooperative Service Agreement.**

Early notification and execution of the Cooperative Service Agreement would allow us to start as soon as possible after hunting ceases, and give us more flexibility with scheduling and working around weather events. Apply for the permit with the Pennsylvania Game Commission as soon as the decision is made to proceed. Late notification and delays in permitting reduce the available nights to schedule operations, and reduces flexibility for working around potential bad weather, as experienced during 2018. Notification no later than October 2019, for operations in 2020, would be most appropriate.

Sincerely,



Carey A. Furlo  
Wildlife Biologist  
USDA APHIS Wildlife Services-PA

cc: Jason Wood, Eastern District Supervisor, USDA APHIS Wildlife Services-PA

Table 1. Age and sex of deer removed in Upper Dublin Township during removal operations during February and March of 2019 by USDA APHIS Wildlife Services.

Age Class	Sex		Total
	Female	Male	
0.5	8	19	27
1.5	11	5	16
2.5+	20	6	26
<b>Total</b>	<b>39</b>	<b>30</b>	<b>69</b>

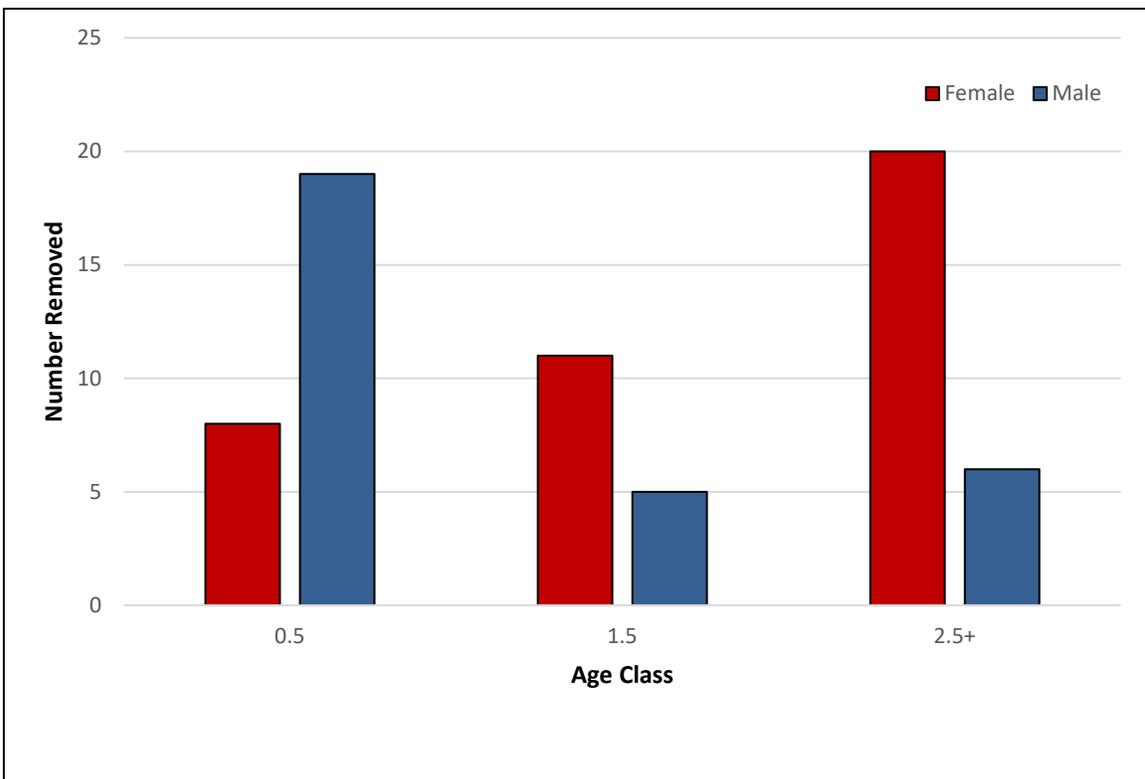


Figure 1. Age and sex of deer removed in Upper Dublin Township during removal operations during February and March of 2019 by USDA APHIS Wildlife Services.

