Deer and Deer Management in New York State

Frequently Asked Questions

About the New Process for Gathering Citizen Input

How was the sample of residents selected for the deer impacts survey?

We purchased a random sample of 1,000 listed household addresses in each of the three Wildlife Management Units (WMUs) within the Central Finger Lakes Management Unit (total sample 3,000).

Listed samples are created by compiling records from publically-available sources, primarily telephone directories. Listed samples do not include households that have unlisted telephone numbers. We used this sampling frame because it was the best available source of information with complete name and address information.

What makes the new system resistant to the problems that afflicted the old system?

We have worked hard to correct deficiencies that we identified in the old system. We have instituted an application process to select small group members, so we can select folks who are truly interested and committed to the process. We have done a broad mail survey of residents of the Central Finger Lakes aggregate to collect much more information on deer impacts than was done under the old system. We are also providing educational information on deer and deer management on a much broader scale (this webinar, for example). Unlike the old system, small group members will not be required to represent just one stake, but will consider all impacts and benefits of deer when deliberating with other members. The ecological ramifications of the small group output will also be formally considered by DEC when it comes time to incorporate the process outcome. And lastly, we will share the results of the process to the public much more broadly, via current electronic communication methods.

Is there any consideration given for size of urban, suburban and rural volumes in each WMU?

WMUs were designed primarily based on ecological features, and the process of forming WMU aggregates again used ecological data and deer harvest and biological data to group similar WMUs. WMU formation did not attempt to standardize the proportion of urban, suburban and rural lands within each WMU. Rather, some WMUs isolate large urban areas (e.g., WMU 1A is Nassau County, 2A is New York City, 4J surround Albany, 8C surrounds Rochester and 9C surrounds Buffalo) and some WMUs are predominantly suburban (e.g., WMU 3R includes most of Rockland County, 3S is Westchester County, 4B includes suburban areas near Albany and Schenectady).
Is there an assumption that the deer herd is too large to begin with?

No. Although we talk about deer “management” a lot in this webinar series, “management” does not always mean lowering populations. Management could just as easily be allowing populations to increase. Furthermore, it depends on the size of the area being considered, and where it is located. The larger the area, the more variation in deer numbers in any small component of that larger area. Deer populations should be assessed at the same geographic scale to which management is applied.

How long will the pilot program be in effect before an evaluation is conducted and the process is moved out to other WMU Aggregates?

The evaluation process will start immediately upon the conclusion of the public input process. It is really the process that will be evaluated. Our ability to bring about changes in deer populations as a result of the process outcome, and how long that will take to occur are separate issues.

IF WMUs were formed to identify their own population objectives, how does consolidating into the aggregates make this process more effective? Wouldn't it do the opposite?

We are not doing away with WMUs. We will still issue Deer Management Permits (doe tags) for hunters to use within specific WMUs, and we will continue to summarize annual harvest at the town, county and WMU scale. However, we are shifting the scale at which we collect and analyze data about deer herd composition, physical condition, and ecological impacts to improve our ability to draw statistically valid conclusions about trends over time and across regions of the state. Collecting public input on deer population size at the WMU Aggregate scale will also be more efficient in that only 25 processes need to be carried out over the course of our implementation schedule rather than 92. This saves staff time and resources.

What is the desired deer density for the three WMUs, i.e. deer/square mile in 7H, 8J, and 8S?

The previous Buck Take Objectives (BTOs) for the three WMUs were as follows: 7H: 1.9, 8J: 2.1, and 8S: 2.8. The BTO is the expected number of adult (1 ½ years and older) bucks in the harvest per square mile when the overall deer population is at the desired level. DEC uses the adult buck harvest density as one of our primary monitoring indices, based on the concept that trends in buck harvest density reflect trends in overall deer population abundance. Though prior objectives were different among the three component WMUs, current deer populations are quite similar. At the conclusion of this pilot citizen input process, we will use public feedback to develop a new target management direction (e.g., increase, decrease, or stable) for the deer population in the Central Finger Lakes Aggregate as a whole.
**About the Stakeholder Input Group (SIG)**

**Who can qualify to be part of the stakeholder input group (SIG)?**

We will be selecting approximately 12 individuals for the SIG who can reflect a variety of interests and characteristics of people living in the Central Finger Lakes WMU aggregate, such as folks who enjoy seeing deer, are concerned about Lyme disease, own forested land, hunt, farm, or simply spend a lot of time driving in areas with deer. The goal for composition of the SIG will be gathering a cross-section of informed, thoughtful people who reflect a broad scope of interests in deer and deer management. Individuals selected for the SIG need to be available on the primary dates for the 2 meetings (March 1st and March 15th) and the snow dates (March 3rd and March 17th,) from 7:00-9:00 pm. The location of the meetings has not yet been confirmed but will likely be in Ovid, NY. Statements of interest in participating need to be completed by February 5th. We will notify you about whether you are selected to participate in the pilot SIG by Tuesday, February 23rd. **To qualify for the Stakeholder Input Group you must attend both webinars or view them online before submitting your form.** Interested people may fill out a form at [https://cornell.qualtrics.com/jfe/form/SV_9KAUB5fhQFxmbLn](https://cornell.qualtrics.com/jfe/form/SV_9KAUB5fhQFxmbLn)

**Will the same SIG member be involved for only this year or for multiple years in the future?**

To assure for the broadest possible representation, it is intended for SIG members to only participate once per aggregate. This would not rule out their future participation if sufficient members could not be found, but it’s our intent to select different people each time a SIG is convened.

**Will the SIG be provided with actual data on deer impacts, i.e. to supplement the data on perceptions?**

Good question, and yes, we will supply the SIG with data on historical deer harvests in the aggregate, human demographics, land cover (habitat), geographic and climatologic data, and much other data to add to the survey data and their own experience so that may make informed decisions.

**Are the SIG groups going to have an actual impact on future deer season dates and deer bag limits?**

No. the task given the SIG is to evaluate and prioritize all available information on the deer populations in the aggregate, along with how deer impact and benefit people in the aggregate, then provide us with the direction they think is best for the deer population to go- up down or stable.

**What will happen with the information collected during the SIG process -- what influence will the group have?**

The SIG will be the primary conveyor of input to DEC regarding the social tolerance and desires for deer population size in the aggregate. DEC biologists will base final objectives for deer
population change on whether the SIG recommendation is compatible with existing levels of deer impacts on forests.

**How can you be confident that there will be consensus within the SIG and what if there is not?**

History has shown that our past groups such as this with similar tasks can usually come to agreement. In the rare case they cannot, DEC will assimilate all discussion and individual viewpoints and use this information to assist us in choosing a direction at which to manage the deer population in the aggregate.

**How do you prioritize impacts when areas are so diverse within the aggregate?**

There are many ways to go about prioritizing impacts, from methods that are quite structured to those that are more loosely defined. One of the primary jobs of the SIG will be to come to agreement on how fair prioritization will occur, and this discussion should take place prior to diving into the meat of their task. It is important that all SIG members “buy in” to how their decision processes will work.

**Are the SIG meetings open to the public and if not, how can people learn what was recommended?**

Although not designed to be public meetings per se, interested individuals are certainly welcome to observe the process, providing there is enough capacity at the meeting venue. One of the deficiencies we want to overcome with this process versus the old, however, is in the dissemination of results. The public will have ample opportunity to learn of the results of the process, as we want to share the outcome much more widely than before, taking advantage of multiple methods, including various electronic means.

**Deer Natural History**

**Do deer well developed color vision?**

Deer do not see colors as well as humans because they have fewer and less developed cone cells in their eyes. Deer have far more rods in their eyes than humans, however, and since rods are much more sensitive to light, deer see much better than humans in poor light. Deer do have color vision and although they lack the ability to see red and orange colors, they can see blue and green. This is why hunters wear blaze orange to alert other hunters to their presence, because it does not appear bright orange to the deer.

**Does the DEC consider food plots as supplemental feeding? Is there any disadvantage to planting food for deer?**

DEC doesn’t consider food plots to be baiting or illegal feeding. It’s illegal in NY to feed deer by putting out any material that attracts them, with some exceptions. One exception is agricultural crops or wildlife food plots. Another exception is the cutting of brush to make browse accessible to deer. More information can be found here: http://www.dec.ny.gov/animals/7197.html
There can be disadvantages to food plots depending on the habitat. They can artificially inflate the number of deer the land can support. Then if the plots are not maintained each year there may be a food shortage for deer. Food plots represent a small portion of habitat requirements for deer, it’s important to make sure the rest of the property is properly managed as well.

**How does the predation of fawns only slow growth but not reduce population size?**

Whitetail fawns are well camouflaged and nearly odorless. They are preyed upon opportunistically by predators. One of the reasons does all drop fawns in a synchronized manner in the spring is to overwhelm predators with prey items. If the fawns are all out on the landscape at once it’s impossible for every one of them to be discovered by a predator. It’s a common life strategy for a lot of prey species. Due to the high reproductive potential of deer, 50% of the population (adults included) needs to be removed each year to keep the population size stable. In most areas of the state, predators are not able to achieve this.

A recent study by Penn State (Vreeland et al. 2004) found that predator-caused fawn mortality accounted for 46% of all mortalities through the first 34 weeks of life. The fawn survival rates determined in this study in Pennsylvania were comparable to survival rates reported in northern portions of the whitetail range. They had no evidence to suggest these survival rates were preventing population growth because deer populations in PA were growing. We also know from recent research on coyote foraging ecology by SUNY-ESF that the effect of coyote predation on the overall deer population is minimal.

**As NY transitioned from a small amount of forest to now close to 64% the deer herd grew. With the increase in forest and now that the forest is maturing is the deer herd leveling off or still growing rapidly?**

This depends on what geographic scale is being considered. As stated previously, there will always be variations in deer numbers from one locale to the next. Talking about growth or reduction is fairly meaningless at a statewide level, when deer impacts and benefits are exhibited at a much smaller, local scale. New York generally is excellent deer habitat, but at any particular scale, populations might be expanding, diminishing, or stable.

The amount of available habitat depends on the land use and forestry practices in the area. Land use will determine the arrangement of the parcels of forested and open land and thus how much early successional (young forest and shrub) habitat is available to deer. For instance in designated wilderness areas with mature forests and a lot of canopy closure, deer populations have leveled because food resources are lower under these habitat conditions. In other areas of the state that are more in flux or have more edge habitat due to suburban sprawl or agriculture, we see deer herds increasing. It’s important to note that we see herd size increasing in some of these areas (e.g. suburbs) because not only is there good habitat, there is also limited access for hunters.
**Deer Management Options**

Will the new aggregate-level approach be the only scale at which deer management occurs in the state for NYS or will the DEC still issue permits for special problem areas?

No, we will not be doing everything at the aggregate scale. Special permits such as Deer Damage Permits and the Deer Management Assistance Program (DMAP) permits will always be issued and evaluated at a local scale. Additionally, hunters will still apply for and use Deer Management Permits (doe tags) at the WMU scale.

**What are the most effective deer repellents?**

There are many repellants that are effective at low deer densities, and there are several studies that have been done on the effectiveness of various products. From a cost-effectiveness standpoint, a simple mixture of rotten eggs in water has been shown to be one of the most effective solutions. It is also food safe, so you can use it on your home garden without worry.

**Why is surgical sterilization of bucks not an option for managing deer populations?**

In a polygamous species like deer, one buck will mate with many does. A buck removed from the population, or rendered infertile will just be replaced by another buck, and little difference in reproductive rate will be seen. Furthermore, bucks have much larger home ranges, and a sterilized buck may very well vacate the area, negating the benefit to the treatment area.

**How do you determine if a "community" is or is not on board with controlled hunting in an area?**

Oh you’ll know, as soon as a hunt is discussed or planned! Community deer issues are often complex and there will be many different mindsets as to how overabundant deer should be handled. It’s imperative that everyone’s voice be heard, and that the process for coming to a community decision be transparent and accepted. If anyone in the community feels like they’re being railroaded, or ignored, you will soon know.

**Do insurance companies have input into the size of deer herds?**

No.

**Is market hunting one of the options for management that would require additional legislative/regulatory action? Is it feasible?**

As concern for deer impacts has increased, particularly in urban and suburban areas, the notion of commercial sale of venison has recently been suggested by some stakeholders. However, the sale of venison is currently prohibited by New York State law. Certainly there is great need to identify new tactics to address deer populations in these challenging environments, and of foremost concern are the various local and state laws that limit deer hunting and constrain hunters from being effective in developed areas. Subsequently, it may be helpful to then consider regulations and potential incentives that encourage hunters to increase harvest of antlerless deer.
What has been the deer density in the Central Finger Lakes Wildlife Management Unit Aggregate areas in the last decade?

DEC doesn’t estimate deer densities, nor are they necessary for effective management. Rather, DEC uses the adult buck harvest density as one of our primary monitoring indices, based on the concept that trends in buck harvest density reflect trends in overall deer population abundance.

8J: Buck harvest in 8J ranged from 2.1 to 2.5 bucks per square mile from 2004 through 2009, then climbed steadily to 3.3 by 2013. It dropped back to 2.9 in 2014, the last year for which we have harvest information.

8S: Buck take in 8S declined from 3.0 per square mile in 2004 to 2.7 in 2007, then it rose to 3.4 by 2010, where it stayed for four years. It dropped to 2.9 in 2014.

7H: The buck take in 7H rose steadily from about 2.8 per square mile in 2004 to 4.4 in 2012, then dropped to 3.0 in 2014.

Are Focus Areas (e.g. Cayuga Heights) working as a management tool?

We are currently analyzing hunting logs and harvest reports from the first four years of the Tompkins County Deer Management Focus Area (DMFA) in order to evaluate the program as a management tool. From a regional permit-issuing perspective, we’ve seen some success with the program. Prior to the formation of the DMFA, a disproportionate number of Deer Damage Permits (DDPs) and Deer Management Assistance Program (DMAP) permits were issued to applicants in Tompkins County to help manage local deer populations. The number of DDPs and DMAP permits our regional office has issued has decreased since the creation of the DMFA.

What is DEC's optimal deer population per square mile?

The answer is, it depends. It depends on the quality of the habitat, it depends on social tolerances for the positives and negatives associated with deer. Our optimal deer density is one that is in balance with the ecosystem, human land uses, recreation and public safety, and this density varies across the state.

Are the deer being successfully reduced where the problems are most prevalent?

In most of the state, DMP issuance successfully manages deer populations through regulated hunting. There are some WMUs where the DMP quotas exceed the applicant base and we’re evaluating alternative approaches to increase the antlerless harvest in those units as laid out in our 5-year deer management plan.

Deer Impacts

What is the long term effect on the deer habitat and neighboring areas when orchards are fenced and the deer are pushed out?

By fencing an orchard you are removing one of the sources of food in the deer’s home range. If their habitat is intact, they will be able to make up for the loss of this food source with natural
forage. If the deer density is too high for healthy forest regeneration then that will have negative effects on their ability to find food in natural areas outside of the orchard.

Where was the study done that showed reduced songbird abundance correlated with increased deer densities?

Researchers at Allegheny National Forest in Pennsylvania established deer enclosures with varying densities of deer in the forest. Deer were enclosed in the study site for 10 years and then data were collected on songbird species presence and abundance. Songbird abundance, especially for those species that nest in the intermediate canopy layer. For more information, see deCalesta, D.S. 1994. Effects of White-tailed Deer on Songbirds within Managed Forests in Pennsylvania. The Journal of Wildlife Management (58)711-718.

What would the deer density have to be in relation to forest area to prevent regrowth damage (allow regrowth)?

The answer to this question is “it depends”. It depends on what alternative food resources are available nearby. Also, in areas with more fertile soils and faster plant growth, seedlings may be able to grow past the reach of deer fairly quickly. In such cases, deer densities could be higher and still allow for better seedling “regeneration” than areas with less fertile soils like the Catskills for instance. With heavy browsing by deer you may be able to regrow some species which are more “browse tolerant” (e.g. deer don’t like to eat them as much as other species), such as American beech, but other species like sugar maple and oaks will not be able to grow.

Are there any studies that have looked at the role of the mouse in Lyme disease compared to the role of deer?

Yes, there are a number of studies that have looked at the role of mice as hosts for the black-legged tick and reservoirs for Lyme disease. Mice play a key role in transmission of the disease. The relationship between Lyme disease, ticks and their hosts is a complex one. Consider reading Granter, S.R., A. Bernstein, and R.S. Ostfield 2014. Of Mice and Men: Lyme Disease and Biodiversity. Perspectives in Biology and Medicine (57)2: 198-207.