

# Script for PowerPoint Presentation

Slide 1.

## Let's Look at Science!! According to Wildlife Biology:

- 1) Hunting cannot permanently reduce the size of a deer herd.
- 2) There are non-lethal cost-effective methods to reduce the size of a deer-herd.
- 3) Deer car collisions peak whenever hunting takes place
- 4) Science shows that deer density is not a cause of Lyme Disease
- 5) Bow hunting is least effective in deer-herd reduction and the most cruel form of hunting

There are many emotional issues on both sides; and we should not discount their importance in making policy. Feelings are important and deserve consideration. However let's not disregard the facts that science bring to bear on this issue. Wildlife biology established the five facts.

[Emphatically read points from the chart!!!!]

Slide 2-3:

## Wildlife Mismanagement

The Root of the Problem



Wildlife management as practiced by the game agencies in the all 50 states is geared to accommodate the demand for hunting. There are many stakeholders in the deer density of a region: farmers, orchard owners, wildlife watchers, drivers, gardeners, -- and hunters. The agencies accommodate primarily the hunters. In NY State, for example, the DEC maintains **210,000 acres** of "Wildlife Management Areas" whose stated purpose is to increase wildlife, including deer.

From the DEC website at:

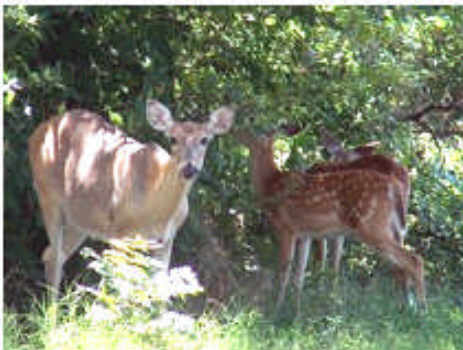
<http://www.dec.ny.gov/outdoor/8295.html>

"Wildlife Management Areas (WMAs) are lands owned by New York State under the control and management of the Department of Environmental Conservation's Division of Fish, Wildlife and Marine Resources. These lands have been acquired primarily for the production and use of wildlife."

Slide 4:

## Can Hunting Control Wildlife Populations?

Killing some deer increases the browse for the survivors

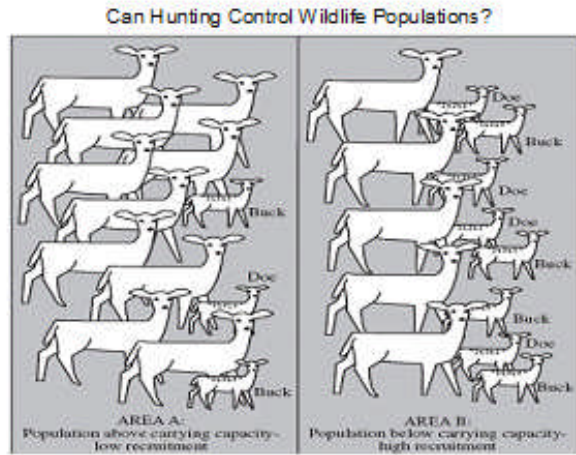


An abundance of browse increases the fecundity of does in several ways among them are:

- 1) Does will come into estrus more often
- 2) Chance of multiple birth increase from 18% to 43%
- 3) Yearling does will go into estrus

The main natural population control is the availability of browse. Hunting increases the available browse to the surviving members of the herd. An abundance of browse increases the fecundity of does in several ways, among them are: The doe will come into estrus more often. The chance of multiple births increases from 18% to a whopping 43%! Yearling does will go into estrus. This will result in a net increase of the size of the deer herd in the spring after the fawns are born.

Slide 5:



**Operative Deer Management Principle:**  
*The optimum sustained yield is that harvest level where the population is kept below carrying capacity.*

When deer populations are above carrying capacity, the number of fawns born per doe is reduced. This is dictated by available nutrition and stress.

When populations are kept below carrying capacity, available nutrition is increased and more fawns are born per doe.

In Area A, only three fawns per 10 does are born annually.

In Area B, more than twice as many fawns are born to five does each year.

Slide 6:

	Unhunted Herd		Hunted Herd	
<b>Year 1 before hunt</b>				
Bucks		200		80
Does		200		320
<b>Total</b>		<b>400</b>		<b>400</b>
<b>Year 1 after hunt</b>				
Bucks		200	25%	60
Does		200		320
<b>Total</b>		<b>400</b>		<b>380</b>
<b>Year 2 before hunt</b>				
Winter die off rate	25%		25%	
Bucks die off		50		15
Does die off		50		80
Multiple birth rate	18%		34%	
Bucks after die off		150		45
Mature Does after die off		120		192
Yearling Does after die off	20%	30	20%	48
Fawns born		142		322
<b>Total herd size</b>		<b>442</b>		<b>607</b>
Fawn die-off rate	30%		30%	
Fawn die-off		42		96
<b>Total herd size before hunt</b>		<b>399</b>		<b>510</b>
Rate of Increase		-0.22%		27.53%

A typical scenario of what happens in a hunted region as opposed to an unhunted region.

If the population of a region is artificially reduced below the biological carrying capacity the result is often a net increase in the herd size. A "bumper crop" of fawns will be born in the spring due to increased fertility of the does caused by an increase in browse.

This biological phenomenon is referred to as "compensatory rebound."

Slide 7

Wildlife Management to reduce deer populations (where needed) can be accomplished using **Immunocontraception** (The use of the body's natural immune defense mechanisms to provide protection against a pregnancy.)



Immunocontraception is a method used to reduce fawn-production by vaccinating some of the does with an agent that will temporarily prevent them from becoming pregnant. In combination with the normal die-off, this reduces the herd size without resorting to lethal methods. The most commonly considered and currently used immunocontraceptive products are PZP and GonaCon. PZP (Porcine Zona Pellucida Vaccine) is the original product, and is currently being further developed by Dr. Jay Kirkpatrick. It is produced and distributed by The Science and Conservation Center in Billings, MT

[click on the center to start the video-clip; click above on the heading to advance to the next slide]

Slide 8.

Lyme Disease -- What does Science Say?

Actually the deer ticks main host is the white footed mouse, and mice are everywhere. The infected tick bites mouse, then another deer tick bites the mouse and that's how the bacteria are spread.



...There was no apparent effect of the deer culling program on numbers of questing I. scapularis subadults in the culling areas, and the overall numbers of host-seeking ticks in the culling areas seemed to increase in the second year of the program. The Lyme disease incidence rate generated by both passive and active surveillance systems showed no clear trend among years, and it did not seem to vary with declining deer density. ....

Journal of Medical Entomology 44(5):752-757. 2007  
Robert A. Jordan, Terry L. Schulze, Margaret B. Jahn

A number of recent studies show that deer density has **NO** measurable effect on the number of blacklegged ticks nor on the incidence of Lyme disease in the area.

Deer culls are totally ineffective in reducing the number of blacklegged ticks.

Slide 9.

Car-Deer Collisions  
Caused by Hunting & Hunting Management



- > Erie Insurance operates in 11 states and the District of Columbia - Pennsylvania, Maryland, New York, Ohio, Virginia, West Virginia, Tennessee, Illinois, Wisconsin, North Carolina, and Indiana.
- > In Pa., the 2-week hunting season in late November and early December is also a time when a large number of deer claims occur, particularly on opening day (Monday after Thanksgiving) and the first Saturday of the season. In 2001, ERIE had 184 deer claims on opening day and 200 claims on the first Saturday of the season

Other negative social effects are also exacerbated by hunting and deer management to accommodate hunters.

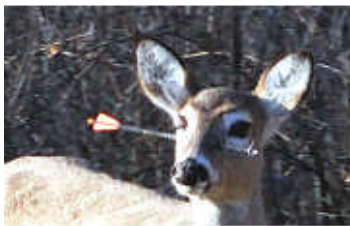
Insurance companies have found that hunting **DIRECTLY** relates to the number of claims due to deer-car collisions.

According to their records of accident claims, deer-car collisions **peak** during first day of hunting season and on the first weekend of hunting season.

Hunters sometimes make the point that the rut coincides with the hunting season - however the report of the Erie Insurance Co. clearly teases apart the effect of rut and hunting. In other words, hunting exacerbates deer-car collisions.

Slide 10.

Bow Hunting is the least effective and the cruelest form of hunting



The crippling rate for deer is 50%  
About half of the deer that are hit by arrows are never recovered. They die days, weeks or even months later from infections.

Who says so?  
The Departments of Natural Resources of Michigan, Minnesota and Missouri  
As well as scientific studies in:  
Alabama, Georgia, Indiana, Iowa, South Carolina, South Dakota, Texas, Vermont, Wisconsin and several other Midwestern states

Bow hunting is both ineffective and cruel. Studies by the DNR's of the biggest hunting states show again and again that the crippling rate of bow hunting is 50%. Half of the deer shot and hit with an arrow are never recovered.

Those deer die over the course of days, weeks or months from infections.

Deer with arrows embedded in them sometimes panic and run directly into traffic, crash through glass doors or windows in public buildings or private homes.

Slide 11

**Other Stakeholders in the use of public recreational areas are deprived of the opportunities to use them**

Wildlife watchers, hikers, bird-watchers comprise over 30% of the population



Hunters comprise less than 5% of the population



There are many other members of society who enjoy the recreational use of open land. Wildlife Watchers, bird-watchers, hikers – all are stakeholders and taxpayers who are precluded from using open land for their enjoyment while it is reserved for a small minority who destroy our wildlife.