Deer Culling on Mount Bolus Published by Chapel Hill Citizen on Sep 28, 2009

Background (Preamble):

Damage from overpopulation of deer on Mt Bolus is extensive. Decades-old trees and shrubs are being destroyed. Azaleas, liriope, hosta, most flower are long gone, as well as all vegetable gardens. Herds of deer, as many as 15 at one time, are roaming the yards bordering on the large woods and OWASA easement down in the creek bed behind the homes on the north side of Mt Bolus.

With a high reproduction rate (doubling in 2-3 years), the number of deer could be approaching 100 in the next year or two. There are no predators and no way for these captive deer to escape from in-town Chapel Hill. Deer don't hibernate, so this winter they will keep searching for any greenery they can find.

We have a growing sick and desperately hungry deer population. One neighbor discovered a dead deer on her property and had to hire someone at \$150 to remove the decaying carcass. Health risks are increasing, not only for the deer but for residents, from piles of excrement, ticks, and the real threat of Lyme disease. There is also the potential for car accidents and harm to passengers if the herds continue to search longer hours and wider areas.

Much research in NC and other states has been done on this problem. Copies and website addresses are attached. Mount Bolus residents are ready to assist however we can.

Petition Text:

We, the undersigned residents of Mount Bolus, call on the Chapel Hill Town Council to take all measures as soon as possible to reduce the number of deer in the Mount Bolus neighborhood. In the process we ask that no harm be done to people or property, and that such culling be done in the most swift and humane way possible.

Bow hunting is seen as an effective and less dangerous method of hunting, and we would support bringing in professional bow hunters to work under control of the local or state authorities (see attached bio of a local professional and experienced archer).

Finally we would ask that the meat taken be used not only by the hunters and the neighbors, but also by the needy community.

#	Title	FirstName	Surname	Email	Address	Comment	Date
25	N/G	jean	bernholz	jeanbernholz@bellsouth.net	1 sycamore drive	N/G	Oct 09, 2009
24	N/G	mohan	chilukuri	mchilu@aol.com	15, mount bolus road	N/G	Oct 05, 2009
23	N/G	Robert	Venuti	rvenuti@nc.rr.com	6 Mt. Bolus Rd	N/G	Oct 05, 2009
22	N/G	Robert	Sandefur	rsandefur@nc.rr.com	6 Mt. Bolus Rd	N/G	Oct 05, 2009
21	N/G	Jonathan	Riehl	jonathan_riehl@hotmail.com	2 Mt. Bolus Rd.	N/G	Oct 04, 2009
20	N/G	frank	fischer	rabfisch@nc.rr.com	10 mt bolus rd	N/G	Oct 03, 2009
19	N/G	Charles	Kahn	kahnac@aol.com	25 B Mt. Bolus Rd.	N/G	Oct 02, 2009
18	N/G	Annette	Kahn	kahnac@aol.com	25 B Mt. Bolus Rd.	N/G	Oct 02, 2009
17	N/G	Patricia	Fischer	pzfisch@gmail.com	10 Mount Bolus Road	N/G	Oct 02, 2009
16	N/G	Susan	Swafford	sswafford@nc.rr.com	25 Mount Bolus Road	N/G	Oct 02, 2009

Signatures 25

				, 11	,		
15	N/G	Andrew	Lazarus	alazarus@nc.rr.com	312 Cedar St	N/G	Oct 02, 2009
14	N/G	Judy	Weseman	jweseman@mindspring.com	104 Cedar St.	The deer population has grown large enough to present a public safety hazard on both our neighborhood roads and on the adjacent MLK Rd.	Oct 02, 2009
13	N/G	Marcy	Lansman	mlansman@mindspring.com	12 Mt. Bolus Rd.	N/G	Oct 02, 2009
12	N/G	Elaine	MArcus	efmarcus@nc.rr.com	205 Mt. Bolus Rd.	N/G	Oct 02, 2009
11	Ň/G	Charles	Carver	ccarver@charlescarvercpa.com	29 Mt Bolus	Please help reduce the deer population in our area.	Oct 02, 2009
10	N/G	Mary and Jonathan	Howes	howesmary@aol.com	N/G	N/G	Oct 02, 2009
9	N/G	Jui-Lan	Su	su007@mindspring.com	N/G	N/G	Oct 02, 2009
8	N/G	Mike	Su	su007@mindspring.com	N/G	N/G	Oct 02, 2009
7	N/G	Theodora	Lovejoy	tlovejoy@bellsouth.net	N/G	N/G	Oct 02, 2009
6	N/G	Jenny	Wears	jwears@nc.rr.com	28 Mt Bolus Rd	please do not let these animals suffer we need to lower their numbers for all concerned.	Oct 02, 2009
5	N/G	Jesse	WHite	jwhite@unc.edu	38 Mt. Bolus Road	The deer	Oct 02, 2009
4	N/G	Bill	Fick	cockeyedpress@earthlink.net	N/G	N/G	Oct 01, 2009
3	N/G	Callie	Warner	calliedesign@gmail.com	N/G	N/G	Oct 01, 2009
2	N/G	Cissy (Mary)	Pearse	marypearse1@yahoo.com	7 Mt. Bolus Rd	N/G	Oct 01, 2009
1	N/G	Judith	Bergman	jubgmn@gmail.com	11 Mount Bolus Road	N/G	Sep 29, 2009

* N/C - field not collected by the author

* N/G - not given by the signer

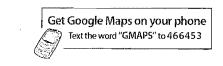
* S/C/P - State, County or Province

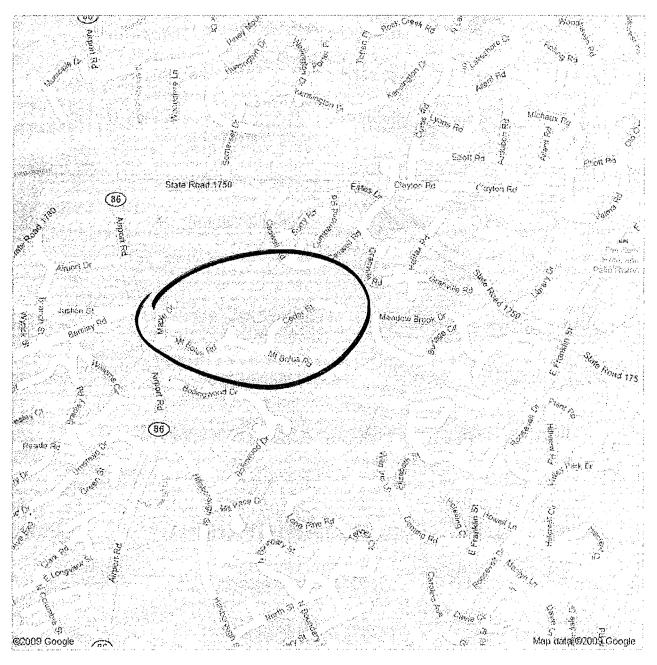
* Names in green have elected to be viewed as 'anonymous' in the public signature list

* 'View' links in red indicate that signer(s) do not want public display of their comment

24 Virginia Benson 310 Codar St 94.2-1070 #27 Alan Shapiro 24B MA. Balus Rak 967-0545

Google maps Address Chapel Hill, NC





Chapel Hill, NC

Link: <http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=chapel+hill&sll=48.209206,16.372778 &sspn=0.413662,0.883026&ie=UTF8&ll=35.92951,-79.045858&spn=0.015707,0.027595&t=h&z=15> - Show quoted text -

Deer Culling on Mount Bolus Road

Petition with 27 signatures and map

UNC Highway Safety Research Center 2007 Deer-Motor Vehicle Crash Data for NC Counties

442 deer-vehicle crashes in Orange County

Executive Summary from Police Chief Brian Curran 53 deer-vehicle crashes in Chapel Hill in 2007

Information on Robert Reda, local licensed and experienced bowhunter

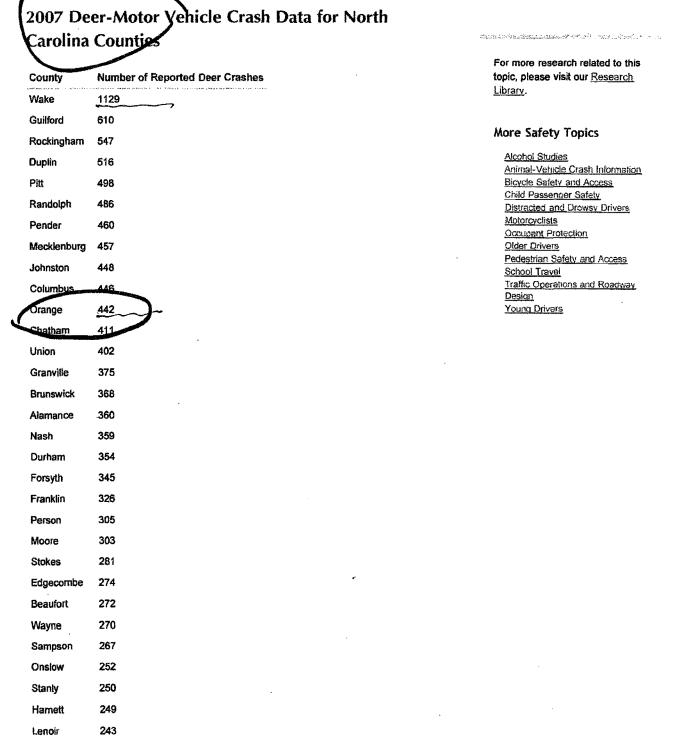
Articles from N&O and CHN Fear the Deer, They Can Kill You State Affirms Lyme Disease Danger Smithfield Police Plan Deer Hunt Hunters to Return to Duke Forest

Facts About Deer and Deer Management and 7 pages from Managing White-tail Deer in Suburban Environments Connecticut Wildlife

Urban Deer Management Wisconsin



ome > Safety Information > Annuel-Vehicle Crash Information > 2007 Deer-Motor Vehicle Crash Data



http://www.hsrc.unc.edu/safety_info/animal_vehicle/nc_deer_2007.cfm

EXECUTIVE SUMMARY Meeting Date: 10/12/2009 AGENDA #6b

Title of Agenda Item: Deer Population.

Council Goal 4: Maintain and Improve Community Facilities and Services

Background: On March 8, 2009, a petition was submitted concerning the deer population in Chapel Hill. Specific problems associated with deer in an urban area were discussed, including damage to gardens and expensive landscaping plants. Deer have also been associated with automobile accidents resulting in extensive property damage. The police department will continue to monitor vehicle deer accident data and design a public awareness campaign for motorists. This campaign will be made available on the Town's website and will recommend tips on how residents can keep deer out of their yards.

Fiscal Note: No fiscal impact anticipated.

Recommendations: That the Council take no action.

ATTACHMENTS:

Viewing attachments may require Adobe Acrobat. Memorandum Deer Population Petition

MEMORANDUM

TO: Roger L. Stancil, Town Manager FROM: Brian J. Curran, Chief of Police Kevin Gunter, Lieutenant SUBJECT: Deer Population DATE: October 12, 2009

PURPOSE

On March 18, 2009 a petition was brought before the Chapel Hill Town Council regarding the town's deer population and possible measures for controlling herd populations. The purpose of this memorandum is to provide information that addresses concerns brought forward regarding the deer population within Chapel Hill.

BACKGROUND

The problem of increasing deer population is occurring in many areas of the country. Deer in an urban area are generally considered a nuisance when they are eating gardens or expensive landscaping plants. Deer have also been associated with automobile accidents, property damage and personal injury to drivers. The N.C. Wildlife Resource Commission recommends the use of regulated and controlled hunts to effectively and efficiently reduce and maintain deer populations in balance with cultural and habitat carrying capacities.

DISCUSSION

An Urban Archery Season was initiated 2 years ago as a potential solution to the deer nuisance problem. Created and managed by the N.C. Wildlife Resources Commission, the program is offered to municipalities as another option for addressing an overabundance of deer. Cities and towns are required to submit a letter of intent to participate to the Wildlife Resources Commission by April 1 of each year. Each municipality can establish its own guidelines and administer the hunt as it deems appropriate. The 2010 season begins January 9 and runs through February 13. To date, 16 municipalities have adopted the season, the nearest being Pittsboro. In 2008, 83 deer were killed during the special urban hunts and the majority of the deer were killed in Elkin in northwestern N.C.

Concerns about urban deer hunting have been raised by town officials and others considering the implementation of such a program. Those include the costs of managing the program, enforcement, and safety of residents located in the specified areas. All of the municipalities currently participating in the program have considerably less population within their town limits than Chapel Hill. One municipality reported having multiple complaints from property owners concerning unauthorized people trespassing and hunting outside specified areas. Following up on these types of complaints could quickly deplete current police resources. Enforcement of this program is the sole responsibility of the local jurisdiction.

Additional concerns have been expressed over the number of deer vehicle accidents reported annually. The following illustrates vehicular deer accidents and the reduction in reported accidents from 2007 to the present in Chapel Hill.

In 2007, there were a total of 53 deer vehicle accidents reported.
In 2008, there were a total of 43 deer vehicle accidents reported.
To date in 2009, there have been a total of 19 deer vehicle accidents reported.
In addition to urban hunting programs, questions have been raised concerning deer contraceptive or sterilization measures. According to George Strader, District Biologist with the N.C. Wildlife commission, these measures are strictly in the experimental stages and have not been approved for use in North Carolina.

RECOMMENDATION

That the Council take no action.

The Police Department will continue to monitor vehicle deer accident data and design a public awareness campaign for motorists. This campaign would be made available on the Town's website and in addition, would recommend tips on how residents can keep deer out of their yards.

ATTACHMENTS

1. Deer Population Petition (p. 3). ी जोहरे हैं।

For ange UNC Highway Highway مرار مرار

442 in

Robert A Reda Jr.

Personal Information

- Married to Susan Elkins Reda with four grown children.
- 56 years old.
- Live in the county just outside of the Chapel Hill city limits. Previously lived in Chandlers Green, Chapel Hill.
- Employed by AT&T for 21 years.
- · Chapel Hill Planning Board member from 1997-2002.
- · Ran for Chapel Hill Town Council in 2000.
- · Have been on the Board of Directors of Habitat for Humanity of Orange County for 6 years, the last year as President of the Board.

Personal Hunting Information

- I grew up in Westchester county NY, and have hunted with archery equipment since high school when
 several of my friends and I were introduced to bowhunting by our football coach.
- I have taken over 75 deer with the bow.
- Most of the hunting that I have done over the years has been in suburban settings. Either in, or within 2-3 miles of a town or village. The longest shot I have ever taken at a deer was 32 yards, and it was a successful shot.
- Several years ago when OWASA was deliberating about how they were going to fulfill an agreement with the Army Corp of Engineers to allow hunting on their land, I approached the OWASA Board with the idea of allowing bowhunting only, managed by North Carolina Wildlife Resource Commission. This was the policy that they adopted, and has now been in place for 3 years.
- Member of North Carolina Bowhunters Association, and member of the Broken Arrow Archery Club of Chapel Hill.
- Successfully have taken and completed the International Bowhunter Education Program (IBEP), including the optional shooting certification course.

General Bowhunting Information

- Bowhunting is safe most shots are taken from a tree stand at deer closer than 20 yards. Even if the deer is missed, the arrow immediately buries into the ground.
- Bowhunting is quiet unless you are within 15-20 yards of the archer, you would not even know that a shot has been taken.
- Bowhunting is an effective way to harvest deer most bowhunters truly enjoy shooting, and practice year round to hone their skills. They are very dedicated to only taking shots that will result in clean quick kills. Most deer shot with an arrow will expire within seconds, and usually run less than 50 yards.
- The North Carolina Wildlife Resource Commission has instituted an "Urban Archery Season". This is a special season held during January and February to assist in controlling the deer population in towns and cities. Only archery equipment can be used. Municipalities that want to participate in this season must register with NCWRC by April 1st the year prior to when they want to participate. For the 2010 season there are 16 municipalities participating in this season. These include Pittsboro, Smithfield, and Kannapolis.

Personal and bowhunting references can be provided.

18

su for a

une unversity policy. His seat is not on the ballot.

Jim Goodmon, president and chief executive officer of Raleigh's Capitol Broadcasting Co., which owns the television station WRAL, was among several who said that,

SEE ELECTION, PAGE 7B

WATCH FOR DEER

you see deer or deer-crossing

Watch for eyes reflecting in

Remember deer travel in

Don't trust "deer whistles" or

herds. If one crosses the road, oth-

other devices that claim to pre-

Don't swerve to avoid an ani-

mal. You could lose control or

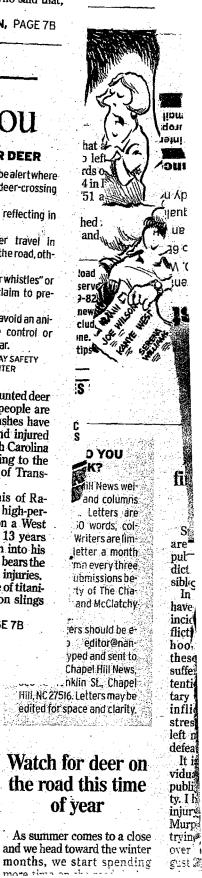
SOURCE: UNC HIGHWAY SAFETY

RESEARCH CENTER

Slowdown and be alert where

ONLINE

1 Eunice Bro mn at chape!



a dr no part in said Keith spokesman. Wolfses that typically carry to football games are a tered by the student govrnment association, direc-

DEER

CONTINUED FROM PAGE 18

holding his eyeballs in place,"

said his wife, Karen. Half of all deer crashes are reported during October through December, most between dusk and dawn. Experts say hunting and mating seasons help explain the heavy concentration in the fall. But deer can be reckless pedestrians in broad daylight, any time of the year.

Deborah McRae of Wake Forest was driving on N.C. 98 in northern Wake County at 9:30 a.m. Wednesday when a deer hit the front right side of her Escalade. The deer was killed, and the car repairs will cost \$6.800.

in. As she sat in a friend's car on the roadside, McRae saw more deer streaming back wd. and forth across the highway. lop-Suzanne Porter was pulling away from a stoplight on Fordnyham Boulevard in Chapel Hill on a sunny Saturday in May, is a + just before noon, when drivers



\$81,800 to 18 lo zations.

The foundation is one of the u this place. Its generous giving al. worthy organizations to do important work to im-

prove the community. The recipients of this round are: The Art Therapy Institute, Carolina Football Development League, Chapel Hill Philharmonia, Coalition for Alcohol- and Drug-Free Teenagers, El Centro Lati-

no, EmPOWERment, Executive Service Corps of the Greater Triangle, Human Rights Center of Chapel Hill, Long Leaf Opera, Make-A-Wish Foundation of Eastern North Carolina, Marion Cheek Jackson Center for Saving and Making History, Mental Health Association in Orange County, Orange County Partnership to End Homelessness, Preservation Society of Chanol Hill Designet Com-

several towns in Wake and Johnston counties tt today's election, if necessary

ermen

n Commissioners

iool Board

5.

dl

St

ov

W

Sa

ast

ve-

nd

a

te

Fear the deer – they can kill you

signs.

your headlights.

ers may follow.

vent deer crashes.

strike an oncoming car.

Watch out for white-tailed deer when you drive. They're pretty, they're brazen, and they're clueless.

Deer have become a real danger on North Carolina roads. Last year, drivers reported a record 19,693 collisions with

deer, about 9.2 percent of all crashes statewide, the UNC Highway Safety Research Center says. Even care-

ful drivers are caught by surprise when deer

blunder across the road. Driving east on U.S. 64 near Jordan Lake one night, Bob Lohr kept an eye on several deer in the westbound lanes.

There must have been a deer in the median that I didn't see until it was in front of my car," said Lohr, who lives in West Raleigh. "Never had time to hit the brakes."

His Nissan wagon was totaled. The radiator was bent into a U-shape. Luckily, Lohr was not injured.

> alize that humans aren't simply here as an observer of nature but rather an active participant in it.

By allowing hunters to harvest a subset of the deer in Duke Forest, the forest becomes a more "sustainable" ecosystem for the remaining herd, and the meat that is taken provides valuable, nutritious food for the families of the hunters. In the 2008-2009 hunting season, over 175,000 deer were killed by buntars in



Bruce Siceloff

Crashes kill uncounted deer each year - and people are hurt, too. Deer crashes have killed 18 people and injured 3,218 more in North Carolina since 2006, according to the state Department of Transportation.

Larry Van Voorhis of Raleigh was teaching high-performance driving on a West Virginia race track 13 years ago when a deer ran into his speeding car. He still bears the effects of his serious injuries.

He now has a face of titanium plates and Teflon slings

SEE DEER, PAGE 7B

ability educator, sne snoulu re-



Smithfield police plan deer hunt

Officers expect to kill dozens

BY COLIN CAMPBELL STAFF WRITER

SMITHFIELD - Police are finalizing plans for another officers-only deer hunt on the south end of town - an unusual program that for years has drawn praise and criticism from residents.

While the hunt yielded six to eight deer last year, the department is hoping to kill at least 30 this hunting season on the grounds of the county's sewage-treatment plant.

"We're going to be a little more aggressive than we were last year," said Lt. Keith Pow-ell, a Smithfield detective.

A number of South Smithfield residents turned out in support of the plan at a Town Council meeting this month. They say deer have become pests in their neighborhood, eating gardens and spreading deer ticks that can carry Lyme disease and other illnesses. Wildlife experts say deer are very adaptable animals that can thrive in suburban and small town settings that offer both shelter and plenty of forage. Joe Folta, a wildlife biolo-

gist with the N.C. Wildlife Commission, said the local deer population has grown beyond what a residential neighborhood can handle.

Folta said hunting the deer is the best solution, though homeowners can also use fencing, motion-activated water sprinklers and scent deterrents to keep the animals off their property. The state wildlife commission set up a special urban archery-only season for towns to allow their residents to hunt deer, but Smithfield's plan to use four or five police officers hunting with shotguns and archery equipment is a different approach. It's not what we had in

mind." Folla said of the Smith Tell strates

Hanting grounds

The same cause as yes set enete part where the CONTRACTOR AND A DOCTORS 1122 the second second second second

'They're pretty high-paid policemen. They should be fighting crime instead of being paid to go hunting.'

JIM WILSON

PROPERTY OWNER WHO WOULD LIKE TO BE PERMITTED TO HUNT DEER ON HIS 90 ACRES

lies who request it or a charity like Hunters for the Hungry.

While all who spoke at the Town Council meeting-supported the plan, not all South Smithfield residents agree with it.

Jim Wilson, who owns 90 acres, wants the town to let him hunt deer on his property. He sees that as a more efficient and cost-effective way to deal with the problem.

"They're pretty high-paid policemen," Wilson said. They should be fighting crime instead of being paid to go hunting."

Cost isn't yet calculated

Powell, the police lieutenant, said the department doesn't yet know the exact cost of the program. But Whitley said allowing residents to hunt carries major liability issues, and archery hunts are less effective because of the short range of bows and arrows - he blamed last year's low number of kills on officers not using shotguns.

In other towns with deerhunting programs, Wilson would have a shot, but not with a gam Pittsboro is starting its bunting program this winter and allowing qualified menters to use bows and arrows during the town's urban amhery season in January and February.

For the Pittsboro program. minters must get permission from the property owner, and they must pass an archery

19

that the ticks are spreiding the dis

e-time with a



Forest, the season closes Dec. 18th.

through Friday and access points are

well posted and flagged to deter visi-

tors from entering during the times

Hunters are in the Forest Monday

"The deer population reached an unhealthy number," said Marissa Hartzler, Program Coordinator of the Office of Duke Forest. "And our research students and scientist would have had difficulty carrying forth eventments in the Duke

1

r

đ

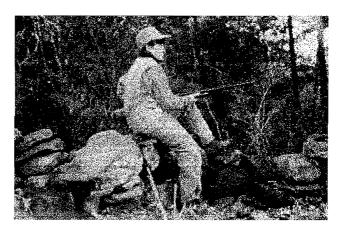
1

Э

http://www.ct.gov/dep/lib/dep/wildlife/pdf_files/game/urbandeer07.pdf

Facts About Deer and Deer Management

- In a healthy population, most female deer can breed as fawns (6-7 months of age) and produce young at 1 year of age.
- On average, healthy adult does produce 2 fawns annually.
- Deer can live up to 18 years of age.



Hunting is the most cost-effective management tool used by all state wildlife agencies to manage free-ranging deer populations.

- Deer populations can double in size every 2-3 years.
- Deer eat about 5-10 pounds of food daily.
- Motor vehicles kill a minimum of 18,000 deer a year in Connecticut.
- Deer home ranges are relatively small in urban areas (100-300 acres).
- Since 1996, over 26,000 cases of Lyme disease were reported in Connecticut.
- High rates of Lyme disease are correlated with high deer populations.
- Current birth control practices are costly and ineffective in controlling freeranging deer populations over a large area.
- Fencing and repellents are limited in application, costly, and have varying degrees of effectiveness.
- Sharpshooting has been effective on a small scale, but is costly. In Connecticut, sharpshooting can only be conducted by municipalities, homeowner associations, and non-profit land holding organizations experiencing significant impacts from deer and requires a permit from the DEP.
- Hunters can assist landowners at no cost.
- Landowners who allow the use of their property without fee are protected from liability.
- Hunters can impact the deer herd at a local level, and sustained hunting can regulate population growth.
- Hunting in Connecticut deer management zones 11 and 12 (Figure 3) is permitted from 15 September - 31 January. Unlimited antlerless deer tags are available, hunting over bait is allowed, and hunters can earn a buck tag for every 3 antlerless deer harvested.
- There is no minimum acreage required to hunt with a shotgun or bow and arrow.
- Written landowner permission is required for all hunters on private land.

Hanaging Urban Dear in Connections

- Deer hunters can not carry a loaded firearm within 500 feet of an occupied dwelling
- Homeowners can waive the 500-foot restriction for firearms hunting.
- No minimum distance from an occupied dwelling is required for bowhunters.
- Landowners can impose additional hunting restrictions on their property.
- Controlled hunts have safely and effectively reduced deer populations in urban and suburban areas in Connecticut.
- Hunting is safe, effective, practical, and the most efficient management tool available today.
- All deer management programs require long-term maintenance.
- Typically, the removal of 1 adult doe during the hunting season equates to 3 less deer the following spring (adult does typically produce twins the following spring).
- Town ordinances cannot prohibit or regulate the legal act of hunting on private or state land.

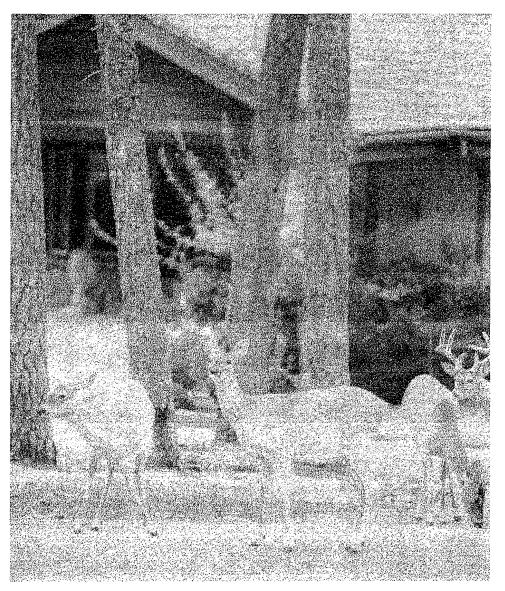


Managing Urban Scer in Connecticut

CT DEP - WILDENFE 25

Managing White-Tailed Deer in Suburban Environments A Technical Guide

Anthony J. DeNicola, Kurt C. VerCauteren, Paul D. Curtis, and Scott E. Hygnstrom



A publication of Cornell Cooperative Extension, the Wildlife Society– Wildlife Damage Management Working Group, and the Northeast Wildlife Damage Research and Outreach Cooperative



agricultural activities and land-use practices of humans. Suburban areas provide high-quality foods in the form of gardens, ornamental plantings, and fertilized lawns (Swihart et al. 1995), while nearby woodlands offer daytime refugia. Swihart et al. (1995) found plant species richness to be higher in residential areas than in wooded habitats. Suburban areas are often free of hunting and natural predation. Further, suburban residents sometimes feed deer and other wildlife (Figure 4), restricting deer movements and enhancing their reproduction and survival.

Since the 1930s, white-tailed deer densities have increased and their range has expanded (Halls 1984) due to human-induced landscape changes. Deer densities are often highest in locations with suitable habitat where hunting is not permitted. Such sites could include the suburban-rural fringe of metropolitan areas that contain a mix of wooded habitat and agricultural fields, parks or nature reserves, and corporate complexes.

Reproduction

Mating behavior (rutting) occurs primarily from mid-October through December in most of the whitetailed deer's range. Female white-tailed deer generally breed for the first time when they are yearlings (14 to 18 months in age). In areas with good forage, sixmonth-old fawns may breed, but older females will produce more offspring (Nixon et al. 1991). Yearling does typically produce one fawn, whereas adults (2.5 years in age or older) commonly produce twins or sometimes triplets, when conditions are favorable (Verme and Ullrey 1984).

Fawns are born mid-May through July and spend the first few weeks of their life hiding. They begin to follow their mothers within a few weeks (Marchinton and Hirth 1984). At birth fawns have spotted pelage that blends with the patterns of sun and shade. This spotted fur is replaced with a gray-brown winter coat during August and September.

Deer have a high reproductive potential and populations can increase quickly. In the fenced George Reserve in Michigan, McCullough (1979, 1984) documented an introduced population of six deer growing to an estimated 222 deer in seven years. Reproductive output is associated with deer population density. In general as deer populations increase, the quantity and quality of forage available decreases and reproductive output declines. This densitydependent effect is related to deer condition and is called biological carrying capacity.

Biological Carrying Capacity

The number of deer that can be sustained in a given area of land is a function of food resources and the availability of winter cover. Biological Carrying Capacity (BCC) is defined as the number of deer that a parcel can support over an extended period of time (Ellingwood and Caturano 1988). When deer numbers approach BCC, habitat quality decreases and physical condition of the herd declines (Swihart et al. 1998). Biologists use indices of deer health and population density to assess the status of a herd relative to BCC. When overbrowsing persists, a long-term reduction in BCC can occur. Neither herd health nor habitat quality will improve unless deer densities are reduced. Such circumstances enhance the likelihood of winter mortality due to poor nutrition and/or disease (Eve 1981).

Home Range and Movements

An individual deer must be able to fulfill its requisites of life (i.e., food, water, shelter, mating) within its home range. Deer become very familiar with their home range, which enhances survival, and consequently they seldom leave it. Males generally have larger home ranges than females, and often expand their ranges during the rut or breeding season (Michael 1965; Nelson and Mcch 1981, 1984; Root et al. 1988). Home range sizes vary considerably based on the variety and arrangement of habitat types and climate (Wigley et al. 1980, Williamson and Hirth 1985, Dusek et al. 1988). Female deer have relatively compact home ranges and move little between seasons if there is enough habitat diversity to fulfill their needs, especially in suburban environments (Cornicelli 1992, Bertrand et al. 1996, Kilpatrick and Spohr 2000). Conversely, less diverse habitats and more severe winter weather increases the likelihood of larger home ranges and associated movements.

Deer can be classified into three types based on movement behavior: (1) residents, (2) emigrants, and (3) migrants. Residents have an established home range that they seldom leave, and if forced from their home range, they usually return within a few days. Emigrants, or dispersers, leave their natal home range to establish another core area of activity elsewhere. Migrants move away from an area and then return to

 \mathcal{L}_{C}

Regulations Regarding White-Tailed Deer

Deer are protected by game regulations in all states and provinces. Hunters legally harvest deer during designated seasons, usually in fall. The length and timing of seasons may change on an annual basis. State or provincial natural resources departments can provide details on hunting seasons. In cases with severe, persistent property damage or public safety concerns, some states may issue special permits that allow shooting or removal of deer during times other than regulated hunting seasons. Any management or research that involves handling of deer requires permission (i.e., a written permit) from the state or provincial wildlife agency. Some states provide technical assistance and/or direct compensation for deer damage. Products, laws, and registrations change, so check with local wildlife authorities about compliance before taking any action that may harm deer.

> ^يم ير ^{يو}م من رسيد

Human Dimensions and Deer Management

Suburban areas, by definition, contain relatively high densities of people. Frequently they also contain locally overabundant wildlife populations that create wildlife-human conflicts. Deer-human "problems" are socially defined and vary among different stakeholder groups (Decker and Gavin 1987). Public attitudes regarding deer problems differ according to personal beliefs (Purdy and Decker 1989, Curtis et al. 1997) and may vary depending on whether stakeholders hold individual animal or population-level perspectives.

Most people enjoy viewing deer, and seldom do communities want to entirely eliminate a local herd. Tolerances for deer, however, are quite variable depending on personal preferences, past experiences, ones' ecological perspective, and land-use priorities (Decker and Purdy 1988, Loker et al. 1999). Differing public views complicate decision making and establishment of deer management goals. In some cases, it may not be possible to achieve community consensus for a single deer management approach. Action may still be required, however, to reduce deerrelated conflicts, and the best outcome may be to achieve consent for management from key stakeholder groups (Curtis and Hauber 1997).

Deer management is often undertaken to satisfy diverse human needs and interests. Solving deer conflicts may involve changing stakeholder attitudes or behaviors (Decker et al. 1996), as well as modifying deer behaviors or reducing herd size. A communication plan may be needed to educate suburban landowners about the range of deer management options (Stout et al. 1997). Policy education and development of community capacity to make informed deer management decisions is an important goal for wildlife management agencies (Curtis 1995).

Curtis et al. (1995) recommended using a community-based task force with the guidance of a professional facilitator. Stakeholders should be involved in several steps of the decision-making process and management action, including:

- · setting goals and objectives,
- determining appropriate management techniques,
- communicating findings/conclusions to the community,

- · evaluating program results, and
- revising goals and objectives as part of an adaptive management program.

Depending on the social and political climate in a given area, the most practical management option for reducing deer conflicts may not have community acceptance or the support of elected officials. For example, in a specific situation professional wildlife managers may recommend lethal means to reduce deer numbers. Some residents, however, may be opposed to killing deer and even the concept of wildlife management. In such situations, a citizen task force with representative stakeholders from the local community may help reduce conflicts and find acceptable deer management approaches (Curtis et al. 1995, Curtis and Hauber 1997). Implementing task forces can be very time-consuming and may exceed the resources available to some wildlife agencies. Kilpatrick and Walter (1997) suggested using a community vote to speed implementation of deer manage-. ment actions. This approach also has limitations, as minority stakeholder groups may use the legal system to stop proposed actions.

Citizen task forces have been used to reduce deer problems in several communities. This approach requires that all interested stakeholders participate in the development of management plans. Wildlife agency staff may provide technical support or, in some cases, serve as stakeholders in the process. Task forces typically review pertinent deer biology, examine management options, select appropriate management techniques that are both biologically feasible and socially acceptable, identify sources of staff and funding to implement management activities, and coordinate dissemination of information to the community and media. It is important for task force members to understand that state or provincial permits will be needed for any action that requires handling of deer. Based on past experiences, the primary factors that have resulted in viable management recommendations with broad community support include:

- relevant stakeholder representation,
- an external, trained facilitator,
- accurate and complete biological data,

- a survey of community attitudes or other similar social information, and
- technical support from wildlife management agencies.

Wildlife agency personnel who are working with task forces must be knowledgeable about deer biology and the pros and cons of various management optious. Wildlife professionals must be credible and objective and avoid confusing personal values with biological recommendations (Decket et al. 1991). When confronted or challenged (Figure 5), agency staff should avoid arguments, be good listeners, maintain objectivity, be well informed, and explain management options in understandable terminology. Lawenforcement personnel who participate in deer conflicts should encourage a calm exchange of ideas.

During the late 1990s, public involvement in deer management decisions evolved beyond citizen task forces and similar transactional approaches (Chase et al. 2000, Curtis et al. 2000a). Communities are now sharing not only the decision-making authority, but also the cost and responsibility for deer management with state and local government agencies under a variety of co-management scenarios. The community scale is appropriate as deer impacts are often recognized by neighborhood groups, and the need for management becomes a local issue. In addition, the success or failure of management actions can be perceived most readily by stakeholders at the community level. Outcomes of co-management are usually perceived as more appropriate, efficient, and equitable than more authoritative wildlife management approaches. Although co-management requires substantial time and effort, this strategy may result in greater stakeholder investment in and satisfaction with deer management.



Figure 5. Animal activist groups may oppose controlled hunts, sharp-shooting programs, and other lethal forms of deer removal.

Developing an Integrated Management Strategy

No single technique or strategy is universally appropriate. Complexities of suburban deer issues and the current limitations of available techniques make quick-fix solutions unlikely. Resolving conflicts associated with suburban deer often requires an integrated management program. Short-term strategies can relieve immediate problems, while long-term approaches will maintain deer populations at target levels. Combining two or more methods may improve results and increase the acceptability of the program for a wider range of stakeholders. An example of a combined approach might be the use of fencing and repellents in concert with selective lethal control.

Important considerations in the evaluation of management techniques include:

- time(s) of year when deer-related conflicts occur,
- available control options given the behavior and biology of the deer and the characteristics of the area(s) involved,
- probable effectiveness and duration of the techniques,
- acceptability, cost, and legality of control methods, and
- community support for taking action.

The community should determine measurable objectives (e.g., number of deer or level of damage that is acceptable) before any management action is taken. Population objectives for the deer herd and control methods should be publicized before implementation to minimize social conflicts. Key stakeholder groups should have participated in the decision-making process and can assist agency staff with community education. Presentations for civic groups and local schools are a good way to disseminate facts and science-related information. Press releases to local news outlets also can maximize media support and help ensure that important data are made available to the community. Call-in radio shows are cost-effective and useful for widespread dissemination of information (Colvin et al. 1983).

Field personnel who implement control techniques should be able to explain community concerns and management goals. Agency staff must realize that multiple wildlife acceptance capacities exist among various stakeholder groups (Decker and Purdy 1988), and strong differences of opinion are unlikely to be resolved while management activities are taking place. Field coordinators should notify local law enforcement agencies of their activities, and staff should keep all necessary permits ready for presentation if requested.

Management programs should be monitored to assess their impacts. Baseline data (i.e., roadkill reports, vegetation impacts, homeowner complaints) will be required to determine accurately the effects of any management action and to evaluate program effectiveness. Keep in mind that the objective of most management programs is the reduction of conflicts to an acceptable level, not the complete elimination of either the problems or the deer herd.

The impacts of a management program on deer abundance can be evaluated based on aerial surveys, spotlight surveys, transect counts, harvest data, trends in herd health, browse surveys, pellet-group counts, deer damage surveys, or any combination of the above (Bookhout 1996). Cultural impacts can be measured by the frequency of deer-vehicle collisions, reductions in browsing damage, and fewer deer complaints.

(())

Summary

White-tailed deer occur across much of the United States and provide many desirable recreational and aesthetic benefits. Deer are extremely adaptable and will readily use the food and cover that abounds in suburban landscapes. The number of conflicts between deer and people has increased dramatically in the past 25 years. It is rarely desirable or possible to eliminate all deer from an area. Instead, management programs strive to reduce deer numbers and related problems to a level that a community can tolerate. Conflicts with deer or other wildlife are socially defined and may include nuisance situations and actual or perceived threats to human health and safety. Managing deer problems may involve changing stakeholder attitudes or behavior, as well as modifying deer behavior or directly reducing herd size. Many communities experience difficulty in determining an appropriate herd size and/or an acceptable level of deer conflicts. It is critical to clearly define deer management goals and to determine measurable response variables prior to implementing a deer management program so that the outcomes can be evaluated critically.

Quick-fix solutions seldom reduce problems, and an integrated approach combining several techniques is usually the key to successful deer management programs. Concerns should be addressed at both sitespecific and landscape levels. Frightening techniques and/or repellents generally provide short-term relief from deer conflicts on individual properties. Physical barriers (fences) are generally designed for long-term protection, however, they are relatively expensive and visually obtrusive. Long-term solutions often require some form of population management to stabilize or reduce deer numbers.

Problems with suburban deer are likely to increase over time. Because of the low mortality rate for adult deer and favorable habitat conditions for reproduction, suburban deer herds can double in size every two to five years. Some techniques (e.g., frightening devices) that were effective for low to moderate population levels tend to fail as densities increase and deer become more accustomed to human activity.

Communities often debate the merits of lethal versus nonlethal strategies for managing deer conflicts. Although nonlethal control methods can reduce problems at a specific site, they seldom resolve communitywide conflicts. When civic leaders discuss lethal methods such as controlled hunting programs, sharpshooting, or trap-and-kill options, they frequently experience strong resistance from animal activist groups. To develop an effective, long-term management program, community leaders must implement a public education program, facilitate a fair and inclusive decisionmaking process, and produce clearly defined goals and objectives.

Currently, no federally registered drugs are commercially available for controlling fertility of white-tailed deer. Experimental products are being evaluated and may become available in the future. Contraceptive agents may eventually be useful for small isolated sites, however, community-wide applications of these materials will likely be difficult and expensive.

Overabundant suburban deer populations present a tremendous management challenge for state, provincial, and federal wildlife agencies and local communities. Capable, credible, and professional wildlife agency staff are required to balance the biological and social dimensions of deer management issues. In addition, educators, trained facilitators, and community leaders should participate in wildlife management teams to identify and implement innovative deer management solutions that have broad-based community support.



Urban Deer Management

Management Techniques

Stevens Point, Wisconsin

Home

Basic Deer Biology

Management Techniques

Deer Damage Cost Analyses

Stevens Point Deer Management Committee Update

The Deer in Schmeeckle Reserve

Contact Us

Management Technique	Description	Humaneness	Cost	Effectiveness
Contraception .	Giving fertility control products to limit the number of deer fawns born each year	Very humane; no pain or discomfort of any kind	Very expensive; most communities cannot afford this method	Not very effective; researchers have not had good results in testing this method
Bow Hunting- Professional	Deer are removed by professional archers hired by the city of Stevens Point	Humane: deer is killed quickly. Can become inhumane if a poor shot is taken	Fairly expensive: archers may charge up to \$200 per deer	Fairly effective; deer can become wary and it may be time consuming to remove enough
Bow Hunting- Recreational	Deer are removed by recreational bow hunters (community members)that draw for tags	Humane: deer is killed quickly. Can become inhumane if a poor shot is taken	Very cheap; local residents pay the city for tags instead of the city paying archers	Fairly effective; deer can become wary and it may be time consuming to remove enough
Rifle Hunting	Deer are removed by professional sharpshooters hunting over set bait piles	Very humane; deer is dispatched quickly and without pain	Fairly expensive: sharpshooters may charge up to \$200 per deer	Very effective; this method removes the most deer in the shortest amount of time
Trapping & Relocation	Deer are trapped in the city and then released in rural areas	Not very humane; deer suffer from stress of relocation and may die anyway	Very expensive; relocating deer takes a serious effort to transport a live deer	Not very effective; most deer die from stress or move back into the city



Judith Bergman <jubgmn@gmail.com>

(no subject) 1 message

Judith Bergman <jubgmn@gmail.com> To: Judy <jubgmn@gmail.com> Sat, Oct 10, 2009 at 3:44 PM

News and Observer, September 24, 2009 SMITHFIELD POLICE PLAN DEER HUNT

SMITHFIELD -- Police are finalizing plans for <u>another officers-only deer hunt</u> on the south end of town -- an unusual program that for years has drawn praise and criticism from residents. While the hunt yielded six to eight deer last year, the department is hoping to kill at least 30 this hunting season on the grounds of the county's sewage-treatment plant. "We're going to be a little <u>more aggressive than we were last year</u>," said Lt. Keith Powell, a Smithfield detective.

A number of South Smithfield residents turned out in support of the plan at a Town Council meeting this month. They say deer have become pests in their neighborhood, eating gardens and spreading deer ticks that can carry Lyme disease and other illnesses. Wildlife experts say deer are very adaptable animals that can thrive in suburban and small town settings that offer both shelter and plenty of forage.

Joe Folta, a wildlife biologist with the N.C. Wildlife Commission, said the local deer population has grown beyond what a residential neighborhood can handle.

Folta said <u>hunting the deer is the best solution</u>, though homeowners can also use fencing, motion-activated water sprinklers and scent deterrents to keep the animals off their property. The state wildlife commission set up a special urban archery-only season for towns to allow their residents to hunt deer, but Smithfield's plan to use four or five police officers hunting with shotguns and archery equipment is a different approach. "It's not what we had in mind," Folta said of the Smithfield program.

The town chose the sewage treatment plant because only county employees have access to it, deer frequent the area, and the nearest houses are hundreds of yards away. Detective Greg Whitley, who has a degree in fish and wildlife management, will head the hunt and said the plan ensures the safety of residents

"The issue of any errant rounds with these gentlemen is somewhat of a moot point," he said of his fellow officers.

Most of the Smithfield hunts will likely take place in October and November, when deer are most active, but police may also take advantage of the state's urban archery season,

which runs for five weeks after the regular hunt season, which ends Jan. 1 in the eastern and central portions of the state. <u>The meat from the hunt will go to the hunters' families</u>, local families who request it or a charity like Hunters for the Hungry.

While all who spoke at the Town Council meeting supported the plan, not all South Smithfield residents agree with it. Jim Wilson, who owns 90 acres, wants the town to let him hunt deer on his property. He sees that as a more efficient and cost-effective way to deal with the problem. "They're pretty high-paid policemen," Wilson said. "They should be fighting crime instead of being paid to go hunting."

Powell, the police lieutenant, said the department <u>doesn't yet know the exact cost of the</u> program. But Whitley said allowing residents to hunt carries major liability issues, and archery hunts are less effective because of the short range of bows and arrows -- he blamed last year's low number of kills on officers not using shotguns.

In other towns with deer-hunting programs, Wilson would have a shot, but not with a gun. Pittsboro is starting its hunting program this winter and allowing qualified hunters to use bows and arrows during the town's urban archery season in January and February. For the Pittsboro program, hunters must get permission from the property owner, and they must pass an archery skills test, shoot from a stand 10 feet above ground and get a permit from the town. Hunters must be at least 50 to 100 yards from occupied dwellings, parks or roads. "I think it's incredibly restrictive," Town Manager Bill Terry said, noting that it ensures there won't be any stray arrows flying through the Food Lion parking lot.

Smithfield and Pittsboro are among 16 towns in North Carolina with the state's permission to hunt during the urban deer season.

"We'd like to see many more municipalities get involved in the program," said Folta, the state wildlife biologist.

colin.campbell@newsobserver.com or 919-836-5768