



**THE HUMANE SOCIETY
OF THE UNITED STATES**

Dec 20, 20112

C. Peter Magrath
Office of the President
Binghamton University
P.O. Box 6000
Binghamton, NY 13902-6000

SENT VIA EMAIL

Dear President Magrath,

On behalf of The Humane Society of the United States (HSUS) and our more than 800,000 New York members and supporters, I am writing to voice our firm opposition to the proposed plan to cull deer at the Nature Preserve.

While The HSUS is in agreement that there is a need to mitigate conflicts with deer and find ways to enhance native biodiversity -- we do not agree that the decision to cull or hunt deer at the Nature Preserve is justified nor will it achieve the University's goals.

Deer culls can be expensive and futile. If you look at places where large culls were done – such as Solon, Ohio or Greenwich, Connecticut, you'll find that despite the high proportion of deer taken out by sharp-shooters several years prior, deer numbers and complaints rose in successive years. For example, Solon spent almost a million dollars over a 4 year period to kill 1500 deer, to no avail. As stated in The Solon Patch, "While ending the program saved the city money, the deer herd rebounded."

Unless the University is willing to take unprecedented measures to drastically reduce deer habitat, the deer population will quickly recover from any hunting. The University is surrounded by forested habitat and deer---thus any voids created by hunting will soon be re-filled by other deer wandering into the same area.

The problem context:

The ability of deer to adapt to suburbanized landscapes and co-exist with people has created new challenges and conflicts, as are currently being experienced in upstate New York and elsewhere.

Yet Binghamton's forests, like much of the northeastern forested landscape, are subject to any number of direct and indirect influences that together have created the conditions that we see today. These influences run the gamut from acid rain, insect damage, disease, development, pollution, loss of soil fertility, herbivory, invasive and other competing

plant species, parasitic organisms, and landscape fragmentation, among other factors. New research is even showing the potentially huge but largely invisible impact of introduced, non-native earthworms as significant influences on forest ecology.

It is vital in addressing the issue of deer-human conflicts that we not use deer as scapegoats for larger and more systemic problems.

Are deer responsible for lack of regeneration and biodiversity loss?

While it is easy to point the finger at deer and blame them for our forest regeneration woes, the reality is that our ecosystem issues are fraught with complexity, and also subject to human aesthetic preferences which may or may not be grounded in any sort of biological reality. For example, we may *want to see* more biodiversity in certain areas because we are used to having seen it there in the past. Yet nature is not static. A condition in which a forest floor was carpeted with wild flowers can rapidly transition into another state as a result of forest succession. Certain plant species are shaded out as trees mature and the forest canopy closes. Later successional stages are, by their very nature, less diverse.

While we may want to see a certain flower grow somewhere doesn't mean it "should" be there. Take the case of certain trillium, which are often used as an indicator of high deer abundance. Some research shows that soil acidity is a much stronger determinant of where purple trillium and many important timber species (red oak, sugar maple, quaking aspen, etc) will grow, rather than deer density levels. (Penn State College of Agricultural Sciences News Release, May 17 2002).

The impact of deer on exotic and invasive species is another complex issue. Deer appear to control the spread of certain invasive plant species while helping to proliferate others. The lack of an understory in eastern hemlock forests is often attributed to deer, yet it is simply a characteristic of older hemlock stands that they be relatively depopulate of understory. The less visible yet catastrophic impact of the woolly adelgid is killing entire stands of hemlock and dramatically changing ecological conditions in the riparian areas these trees favor. How ecological processes are affected by deer browsing is not as simple as meets the eye.

We are not denying that deer can have a significant impact on our northeastern forests. Deer impacts can be very visible and deer browsing can unquestionably alter forest structure. However, the bottom line is that single species management has never been a viable way to manage a complex, multi-faceted problem. By intensively managing one component of a forest, the result may be unforeseen impacts on other components, such as the spread of certain invasive, non-native plant species. There simply has not been

enough time since the return of deer and forests both to greater abundance and health than in the past for us to understand (and properly plan for how to influence if necessary) the complex ecological associations involved.

The confounding effect of hunting

One of the main problems with trying to manage deer through any kind of hunting -- as repeatedly cited during a Smithsonian Institute conference on Deer Overabundance (McShea et. al 1997) -- is that deer are highly prolific, and their high reproductive rate can quickly compensate for declines in their population. Deer exhibit higher productivity (i.e. more twins and triplets are born, higher survival rates and earlier onset of sexual maturity) when there are fewer deer and more food is available. In other words, they "bounce back." This is why removal can have an oscillating effect, as demonstrated on Angel Island, where biannual removals over a 5 year period of 215 to 25 deer resulted in high rebound to about 250 deer (McCullough, in McShea 1997).

It is noteworthy that despite widespread use of controlled hunting as a management tool, the method has proven to be inadequate at preventing deer from overpopulating broad areas (Cote et al. 2004).

Any lethal control program must not only significantly reduce the deer herd but also sustain enough pressure to keep the population at a low level and prevent this bounce-back, AND prevent deer from the surrounding area from wandering in, all of which usually poses an insurmountable challenge. A one-time cull will not be your answer.

We encourage the University to not focus so much on the absolute number of deer desired, but rather, think in terms of what specific problem needs to be resolved and to set achievable and measurable goals to that end. Trying to keep deer at a certain number can be a futile, resource-draining battle, and diverts attention from more practical, cost-effective and long-lasting solutions.

Immunocontraception

To reduce deer numbers, surgical sterilization and immunocontraception options have proven to be viable options for some communities, and provide long lasting solutions by drastically lowering the number of fawns born in a given year. Population-level reduction has been seen in a short amount of time already, according to some studies. There is one contraceptive vaccine FDA-registered for use in deer currently (Gonacon) with another vaccine (PZP) available under an experimental basis.

Sterilization has been used successfully in some suburban communities like Highland Park, Illinois, and a full report is available from that municipality. The University would be well-advised to research some of these non-lethal options which may be considered expensive but serve to lower the overall population and remain highly effective for a long time (see attached fact sheet on Immunocontraception).

Problem mitigation

One of the most important tasks in designing a wildlife conflict mitigation plan is to:

- a) collect and compile data to indicate the magnitude and scope of the problem(s);
- b) clearly define what the problems are;
- c) set clear, achievable and measurable goals and a way to achieve them; and,
- d) create an ongoing monitoring program to assess the program's progress and level of goal achievement.


We argue that your institution has not fulfilled these goals. **Without substantiating the need for a hunt using solid data, and without baseline data to provide a starting point, how can university officials even know that a hunt is necessary or what it will achieve?**

In closing, the unforeseen consequences of allowing a deer cull or hunting can include many undesirable outcomes, such as public controversy plus a large outlay of taxpayer dollars likely to yield disappointing results.

The HSUS would be happy to consult with you on a more humane and effective plan for mitigating any real deer issues at Binghamton University. But at this point, we strongly urge you to cancel plans for a deer cull until such time that the need for any population reduction is substantiated by site-specific data and non-lethal alternatives have been objectively reviewed and considered.

Thank you for your consideration of our viewpoint.

Sincerely,



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RESOURCES

Cote, S.D.; T.P. Rooney, J.P. Temblay, C. Dussault, and D.M. Walter. 2004. Ecological impacts of deer overabundance. *Annual Review of Ecology, Evolution, and Systematics* 35:113-147.

McShea, W.J. H.B. Underwood, and J.H. Rappole, 1997. *The science of overabundance: Deer ecology and population management*. Washington D.C.: Smithsonian Institution Press.

Millburn Township, Deer Management Task Force, Report of August 2006.

Pedersen, M.A. S.M Berry, and J.C. Bossart, 1980. Wounding rates of white-tailed deer using modern archery equipment. *Proc. Annu. Conf. Southeast. Assoc. Fish and Wildl. Agencies* 62:31-34

Rutberg, A. and R. Naugle, 2008. Population-level effects of immunocontraception in white-tailed deer. *Wildlife Research* 35, p 494-501.