



Common Ground: Toward balance and stewardship

*Recommendations of the Joint City of Bloomington-Monroe County
Deer Task Force*

October 2012

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Toward Balance and Stewardship**

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Deer Task Force**

**Keith Clay
Stefano Fiorini
Bob Foyut
Judith Granbois
Josh Griffin
Sarah Hayes
Iris Kiesling
Thomas Moore
Laurie Ringquist
Dave Rollo
Susannah Smith-Burchell**

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EXECUTIVE SUMMARY

Not that long ago, one could take a hike in local woods and never see a deer. As scarce as deer were in the forest, they were virtually non-existent in neighborhoods. Today, things are different. Not only are deer abundant in local woods, but deer are ever more common in many neighborhoods.

The increased presence of deer in the woods and in residential areas is the direct result of human action. We have fragmented wildlife habitat, sprawled ourselves across the landscape, provided deer with ideal “edge” environment and eliminated virtually all deer predators. As a result, deer are abundant. In some areas, and to some residents, deer are overabundant. Deer are not to blame for this situation -- we are.

As humans have created the issue, how do we most responsibly address it? When it comes to managing community deer, there is no simple fix. The issue is complex and contentious. Deer are sentient beings who have significant reproductive capacity and whose numbers can grow quickly within a very small area. Humans are sentient beings who also have the capacity to overwhelm the landscape and who tend to have very strong, sometimes discordant, opinions about deer. Addressing concerns about deer requires humans to collectively ask hard questions that are ecological, cultural and moral in nature.

The Joint City of Bloomington-Monroe County Deer Task Force is a citizen group created by local government in response to petitions signed by over 500 residents calling for city and county government to “do something” about deer. It was also a response to concerns expressed by ecologists and concerned residents about deer damage in Griffy Woods.

The primary charge of this group is to provide local decision makers with guidance on how to deal with deer concerns in a community where sentiment is divided, concerns are localized, and public dollars scarce. Since September 2010, the Task Force has met to explore deer management approaches, educate and reach out to the community, assess community sentiment, review the science and consult with experts.

In its work, the Task Force was faced with two very different, but related, concerns: deer damage at Griffy Woods and deer in Bloomington neighborhoods. When it comes to deer at Griffy Woods, clear evidence points to ecosystem damage by deer – native tree seedlings are not regenerating; herbaceous plant species are severely compromised and possibly going locally extinct; invasive species are taking over some areas; the forest understory is unnaturally open; and understory-reliant birds and other animals are losing habitat.

When it comes to deer in neighborhoods, the analysis is not as clear cut. State biologists advise that Bloomington’s urban deer are not starving and are not close to reaching biological carrying capacity – the number of deer the suburban environment could support. Instead, biologists direct that deer abundance in neighborhoods is best indicated by “social carrying capacity,” defined as the level of deer-related interferences in human activities that residents find acceptable. The feedback received by the Task Force via e-mails, surveys and community outreach meetings, points out that many – but certainly not all –

residents have reached their carrying capacity for deer. Much of the resident concern with deer abundance is localized to the southeastern quadrant of the City. The Indiana Department of Natural Resources (IDNR) advises that neighborhoods should not be sanitized of deer simply because deer are an inconvenience to humans, nor should residents endure unreasonable property damage. Instead, there must be a careful balance among and between the needs of people, deer, other organisms and our shared environment.

The following recommendations are intended to foster a better balance. All recommendations were filtered through the lenses of humaneness, safety, cost and efficacy. These recommendations are integrated strategies and are intended to work in concert – each management strategy has its purpose and the Task Force recommends that the best deer management program is one in which all the proposed recommendations work together. However, we acknowledge that the administrative and political reality of the issue likely means that deer management strategies will proceed in a step-wise fashion.

SUMMARY RECOMMENDATIONS

1. Griffy Woods

The work of scientists at the IU Research and Teaching Preserve indicates that the deer population at the Griffy Woods is far higher than comparable forests in the region – as much as 13 times greater. Griffy's deer density appears to be detrimental to forest biodiversity and may be restructuring the overall forest community. Deer browsing at Griffy is compromising the survival of many herbaceous species and severely hampering the regeneration of many native tree seedlings. Tree seedlings represent the next generation of forest canopy trees. Browsing also encourages the establishment of invasive species. Excessive deer browsing poses the possibility of producing an "alternate stable state" - a condition in which a forest would never return to its natural state, even if browsing pressure were diminished by a permanent reduction of deer densities. Because of the clear evidence of environmental damage, we recommend the following:

- **Sharpshooting for immediate, substantial and humane reduction.** After consulting with ecologists, researchers and biologists from both the State and federal government, the Task Force recommends that deer should be managed through a local government-financed sharpshooting effort. To restore the ecological integrity of Griffy, a substantial number of deer need to be culled soon to avoid irreversible ecological damage. Sharpshooting is the most efficient way to cull the greatest number of deer in the most humane way possible. All deer culled in this effort should be donated to the local food bank. This effort is both an environmental and social service good.

Should sharpshooting not be feasible due to cost or other considerations, the Task Force recommends that a managed hunt is the second-best way to reduce the deer herd at Griffy. Whether reduced via sharpshooting or managed hunting, any deer effort at Griffy will require maintenance. It will be up to local government to decide whether to maintain the herd through sharpshooting, managed hunting or other means.

2. Neighborhood Deer

Neighborhood deer are different. Unlike their rural counterparts, urban and suburban deer have small home ranges, high survival rates and significant reproductive potential. Absent limiting factors, a suburban deer herd can double every three to four years within a relatively small geographic area. A typical suburban deer lives an average of 8-12 years. Long before an urban deer herd reaches biological carrying capacity, residents often reach their social carrying capacity for deer. The feedback received by the Task Force indicates that many residents have reached this point.

Instead of waiting for the deer herd to grow to a level at which virtually all residents perceive deer to be problematic and to a level at which deer begin to suffer from disease, starvation and more vehicle collisions, we should take preventive measures. The Task Force recommends that responsible measures be implemented now to limit herd growth and to limit the need to apply more wide-spread and costly deer management measures in the future.

For deer in urban and suburban environments, the Task Force recommends the following:

- **Prohibit the Feeding of Deer**

Many residents feed deer with the best intentions; however, feeding is not in the best interest of deer nor in the interest of neighborly relations. Improper diets provided during feeding can create health problems for deer and can increase the rate and spread of disease. While a city-wide feeding ban is necessary, alone it is not sufficient. Deer commonly browse on plants not intended as “deer food” and any ban on intentional feeding does little to deter deer from many neighborhoods.

- **Raise Fence Height Limits**

At present, city residents are allowed to construct fences up to eight feet in height in backyards and up to four feet in front yards and on corner lots. Biologists advise that an eight foot fence will exclude most deer, but a ten foot fence will exclude just about all deer. As most, but not all urban gardens are located in backyards, the Task Force recommends that fence height limits be raised to ten feet in backyards and be restored to the pre-2007 allowance of eight feet in front yards.

- **Deer and Development**

We might also mitigate deer damage through land use practices. For example, when a developer proposes to build a new project, the project is subject to layers of review to ensure the project’s environmental soundness. While features such as karst, stormwater, tree cover and erosion are part of the analysis, wildlife is not. It should be. Much development fragments wildlife habitat and proliferates “edge” environments. Deer thrive on the edge. By filtering a development proposal through the added lenses of wildlife displacement and habitat fragmentation, we have the opportunity to try to prevent deer-human conflicts before they occur. Similarly, we should consider the ways in which corridors might be used to better direct movement of deer around or through a community rather than dispersing deer throughout.

- **Urban Deer Zone -- City of Bloomington and Monroe County land immediately surrounding the City**

The State of Indiana created Urban Deer Zones (UDZs) in response to growing concerns of Indiana residents living in urban and suburban areas. The intent of a UDZ is to reduce the size of urban deer herds to better mirror the social carrying capacity of the community by extending the hunting season, increasing the bag limit and requiring that hunters take an antlerless deer before taking an antlered deer. By focusing primarily on female deer, this “Earn-a-Buck” requirement is an effective management tool to control and reduce deer numbers. UDZ status does not permit hunting where hunting is otherwise prohibited.

IDNR has advised that the area appropriate for a local UDZ may include the City of Bloomington plus Monroe County land immediately surrounding Bloomington. IDNR will not approve UDZ designation for the county only, absent inclusion of the city. The Task Force recommends that local officials seek UDZ designation for the city and applicable areas of the county, but that any hunting within city limits be strictly regulated and limited to five contiguous acres of greenspace. The boundaries of the UDZ would be defined by roads, geographic indicators and other easily-identified markers. The following describes how a UDZ would work in the county and how it would work in the city.

Monroe County

Both bow-and-arrow and firearm hunting are allowed in Monroe County, outside the City of Bloomington’s corporate boundaries. Most county land is decidedly more rural than land within the city and hunting has been practiced for many years. To strengthen bow hunting efforts in the county, the Task Force recommends that local officials seek UDZ status for appropriate areas of Monroe County. IDNR has advised that the whole of Monroe County is not suitable for UDZ designation as much of the county is state-owned land or otherwise rural; however, if paired with UDZ designation for the city, IDNR may approve a request for UDZ status for the concentric area of Monroe County land surrounding the corporate boundaries of Bloomington. Such designation of county land could lower deer densities and potentially prevent immigration of deer into more urban areas.

City of Bloomington

At present, it is illegal to discharge a firearm within city limits, but there is no prohibition on the discharge of a bow and arrow on private property. Therefore, city residents may currently bow hunt on private property without further city regulation, provided these residents obtain a hunting license and follow all State requirements. Some residents are already hunting, or allowing hunting, on their properties. We anticipate that even more may do so as they become frustrated with deer.

The absence of rules governing bow and arrow discharge is most likely a historical artifact, rather than an intentional silence. While a number of communities successfully implement urban deer hunts in areas of human habitation, in some

areas of Bloomington, it's just not suitable. First, many of the neighborhoods experiencing the greatest concern with deer abundance are densely settled and keeping hunting at an adequate distance from occupied structures, from roadways, sidewalks, trails and other public ways, makes hunting in neighborhoods problematic. Secondly, in dense, core neighborhoods, lots are small and yards back up to yards. Hunting in this sort of environment would almost guarantee that the practice would be very visible and that a deer shot in one yard may expire in another, causing tension among neighbors. Hunting in these urban situations raises more problems than it solves, and, as some have observed, is just not in the spirit of Bloomington's community character.

However, hunting is an age-old, cost-effective way to reduce and maintain deer herds at sustainable levels. Therefore, the Task Force recommends that the option of hunting in densely-settled neighborhoods should be taken off the table, and the practice limited to five or more contiguous acres of greenspace where rigorous hunter proficiency and safety guidelines would be required. In this context, greenspace is operationalized using the City of Bloomington Environmental Commission's definition: a permeable surface (forested, shrub/grass covered areas, parks, golf courses, cemeteries and agricultural land) more than ten feet from any human-made development such as roads, parking lots and buildings.

- **Localized Management for Pocket Deer**

- Allow for Trap and Kill Management Using Automatic Notification and Stress Level Monitoring*

Deer tucked away in many neighborhoods have ample food, water and cover, and little reason to migrate out of residential areas. Any hunting allowance on five or more acres of greenspace will not address most of the pocket deer living in Bloomington neighborhoods. On the advice of State and federal biologists, neither hunting nor sharpshooting is suitable for neighborhoods experiencing the greatest deer pressure. Instead, the safest form of lethal management is a trap and kill effort.

The Task Force specifically recommends a form of trap and kill that employs an automatic notification system whereby biologists are notified as soon as a deer is trapped. Automatic notification is intended to minimize the amount of time a deer is trapped, thereby reducing stress to the deer. Deer are able to endure short-term stress and urban deer are acclimated to the presence of the fences and less likely to perceive the trap as anomalous. Deer would be baited for a few weeks leading up to the implementation of the project. Acclimated to both the cage and the food source, deer are less likely to perceive the closing of the trap as an "event" and less likely to be stressed by closure. Death would be administered via gunshot. To ensure that deer stress and suffering are minimized, biologists conducting the project would be measuring cortisol (stress) levels of deer throughout the process. If biologists determine that cortisol levels are rising as the project is conducted, the project would stop. This technique requires an adequate earthen backstop, and not all properties will be suitable for the effort

Deer do not recognize human-created boundaries, such as property lines. Meaningful and effective deer management must occur on a larger scale. Therefore, IDNR will not approve this technique as an effort by, and on behalf of, an individual property owner with a small parcel. Instead, request for this management technique must derive from a larger management unit, such as a large landowner, a homeowners' association, a neighborhood association, a business park or government. Because not everyone experiences deer to be problematic, the cost of this effort should be borne by residents perceiving deer to be a problem. Neighbors could pool funds.

- **Sharpshooting in appropriate greenspaces**

Another way to realize a quick reduction in the deer herd proximate to neighborhoods is to conduct a sharpshooting effort on greenspaces near neighborhoods to prevent immigration into neighborhoods. Sites are to be determined by the entity requesting the permit in association with the agency performing the sharpshooting. Sharpshooting requires a permit from the IDNR. The Task Force recommends that authorization for sharpshooting should also require permission from the City. Again, the IDNR will not approve this technique as an effort by, and on behalf of, an individual property owner with a small parcel. Instead, request for this management technique must derive from a larger management unit, such as a large landowner, a homeowners' association, a neighborhood association, a business park or government. Cost is to be borne by residents perceiving deer to be a problem.

3. Measurement and Monitoring

There is still much the community has to learn about deer. By resolution, the Task Force will sunset once it submits its recommendations to State and local government. However, deer are here to stay, and the "deer issue" is not going away anytime soon. We offer a number of suggestions for monitoring the deer herd and for administering any deer management strategies local government wishes to adopt. Recommendations for monitoring include, but are not limited to: establishment of a Deer Management Team, tracking deer-vehicle collisions regularly and in a way that accounts for traffic volume; establishing a deer complaint system; engaging citizen scientists to help participate in regular "e-deer" counts similar to the way bird watchers register their sightings; conducting pellet counts and monitoring urban vegetation.

4. Education

While the Task Force has reached out to the community to inform them of issues of deer feeding, fawns, driving tips, deer behavior and other topics, the public should continually be informed about these issues. Additionally, any deer management plans implemented by local government will require clear communication with and to the public. For these reasons, the Task Force provides a proposed outreach and communication plan.

5. Role of Citizens

It's not just up to government to solve issues of local deer concern. Citizens have a part to play too. There are many measures residents can take to mitigate deer damage and neighbor conflict. We can stop intentionally feeding deer; it harms deer more than it helps them. We can make an effort to plant more deer-resistant plants. Toward that end, the Task Force has worked with the IDNR to develop a [custom list of largely native plants that resist deer browsing](#). We can fence our gardens and use repellants. We can be especially cautious when driving during rut and at dawn and dusk, when deer are on the move. We can all take steps to learn more about deer nature and work to better understand which concerns are imagined (such as unprovoked aggression) and which are real.



Both humans and deer are components of a larger biotic system whose health depends on balance. By fragmenting the landscape and disrupting trophic levels, humans have upset this balance. The recommendations offered by the Task Force are informed by science, public opinion and deer welfare and are motivated by an intent to effect better stewardship of a landscape that includes deer, people, plants and other elements of our shared life. This report recommends that lethal means be introduced where predation has long been absent in an effort to restore ecosystem balance at Griffy Woods, to better manage conflict with deer in neighborhoods, and to prevent the deer herd from growing.

Our community has a strong commitment to nurturing environmental integrity, fostering humane relationships with all animals and cultivating the common good. It is also a community where residents actively work to re-imagine and re-define their relationship with nature. The “deer issue” gives us an opportunity to responsibly re-define this relationship further. As the community conversation about how to best live with deer evolves, let's approach this discussion as we approach many other issues of community concern – with reason and with compassion for each other and the natural world of which we are a part.