

Deer Herd Management Strategy for Bar Harbor, Maine

Background/History

The Bar Harbor Deer Herd Control Task Force (hereafter: the task force) first met in February 2013, after being convened by the Town Council in response to concerns of residents over deer numbers. The task force consists of representatives from Acadia National Park, law enforcement, Maine Department of Inland Fisheries and Wildlife, the Bar Harbor Conservation Commission, Kebo Valley Golf Club and three members of the public. The first aim of the task force was to gather information on deer and deer-related issues in Bar Harbor. Our findings were presented to the Town Council in an interim report on May 14, 2013. This report, additional information, and the proceedings of the task force can be found on the town website (<http://www.barharbormaine.gov/279/Deer-Herd-Control>).

Our initial findings are summarized as follows: There are no current estimates of deer densities in Bar Harbor or on MDI; although browsing data from Acadia National Park and the general health of the deer do not suggest that they are above their ecological carrying capacity (the population the habitat can sustainably support). However, deer may be nearing or above their social carrying capacity (the population people can tolerate living with). Of particular concern were car deer accidents (steadily increasing, and roughly 2.5 times higher now than in the 1990s or early 2000s), property damage (quantifiable only anecdotally and by an increase in the number of nuisance depredation permits requested over the past three years), and the incidence of Lyme disease (a greater than four-fold increase since 2006).

Since the social carrying capacity is a subjective measure determined by public sentiment, the next aim of the task force was to assess public attitudes on deer. This was done by a survey mailed to the Bar Harbor property tax mailing list. Of the roughly 2700 surveys mailed out, over 1300 were returned. A majority (56.3%) of respondents answered “Yes” to the question, “Do you believe that the current deer population in the Town of Bar Harbor presents a problem, and that management alternatives should be explored by the Deer Herd Control Task Force, with recommendation to be presented to the Town Council subject to approval by the Town?” The detailed results of this survey can also be found on the town website.

In response to this majority opinion, the task force has since been working with representatives from the Maine Department of Inland Fisheries and Wildlife (MDIFW) to devise a deer management strategy.

The process for enacting a change in deer management

Deer are a public resource managed in the State of Maine by the Maine Department of Inland Fisheries and Wildlife, which must approve any implementation of changes in deer management practices. To gain MDIFW approval, a town must demonstrate that there is substantial agreement that deer are a problem (demonstrated by the survey results of October 2013). The town must then work with MDIFW to develop a management strategy appropriate for the setting (the phase we have just completed). The management

strategy must have substantial public support (to be demonstrated by a vote on the November 2014 ballot). If substantial support is demonstrated, the town council may then petition the Commissioner of MDIFW to enact the approved management plan. MDIFW would have final authority on the approval.

Summary of strategies deemed unfeasible or cost prohibitive

A number of strategies for deer management were considered and were deemed unfeasible.

- **Trap-and-relocate:** Trapping live deer and relocating them to new habitats is expensive (>\$1000/head), has a high mortality rate from stress (>50%), and must be done continuously to control deer numbers. This combination of factors makes it unfeasible and unacceptable to MDIFW.
- **Contraception:** This strategy involves darting does with contraceptives and is also expensive (hundreds of dollars per head), is not proven effective in a habitat as large and fluid as Bar Harbor, and must also be implemented on an ongoing basis (annually or every other year), again making it unfeasible and unacceptable to MDIFW.
- **Sharp shooter lethal removal:** The use of professional sharp shooters to cull deer can be very effective, but is expensive (>\$600/head) and must be implemented repeatedly if reduced population levels are to be maintained. Conservatively, in Bar Harbor this would cost close to \$100,000.
- **Deer deterrents:** The use of fencing, chemical deterrents, and plantings that are not attractive to deer can be effective on a limited scale and are encouraged, but typically these do not address the core issue of deer numbers and simply shift the impact of deer to surrounding habitats.
- **Insecticide application:** Devices consisting of a feed station hemmed by insecticide applicators can be used to reduce tick numbers on deer and the incidence of Lyme disease. These devices are also expensive (\$425 each, 2007 prices), require up to one ton of feed per year each, are maintenance intensive and may require a pesticide applicators license to operate. Furthermore, these devices may help address Lyme disease, but do not impact other issues such as property damage or car-deer accidents.

Summary of the proposed strategy

Approaches that have proven to be safe, effective, and affordable in other communities involve deer reduction through hunting. Maine has four deer seasons: the special archery season, the expanded archery season, the firearms deer season, and the muzzleloader deer season. The task force felt that the wholesale adoption of these seasons would be problematic and unpopular with residents. Conversely, the adoption of only the most conservative of these seasons (the special archery season, a four week archery-only season in October with a one deer bag limit) would be ineffective in reducing the population. We have therefore settled on an intermediate approach, which involves greater restrictions on participation and greater oversight of the process than a regular deer season, but which can still achieve our management objectives.

We propose a two-stage strategy modeled from successful efforts in other off shore communities in Maine and adopted by MDIFW, as well as successful suburban deer management efforts in states such as Connecticut. This consists of a short-term intensive effort to reduce deer numbers, followed by a long-term management strategy to maintain the population at those lower levels. The short-term strategy consists of a special deer reduction program that would be outside of the normal Maine deer hunting seasons and be sanctioned under the authority of the Commissioner of MDIFW. This effort will be highly regulated, monitored, and restricted in participation, as detailed below. In the long term, the reduced population of deer in Bar Harbor will be maintained at lower levels using archery-only methods under state regulation. Firearms hunting of deer, including muzzleloading firearms, are allowed during the short-term program described below, but are not part of the long-term strategy. It should be noted that all forms of hunting that are legal in the State of Maine are currently allowed in Bar Harbor under statewide regulations, with the exception of deer hunting.

Short-term Deer Population Reduction Program

The goal of the short-term effort is to be maximally effective in reducing deer numbers while maintaining public safety and local and landowner control of the process. This effort will take the form of a special deer reduction program under the direction and authority of MDIFW. This program will be implemented once per year for at least two years, assessed at that time for its success and effectiveness, and potentially continued for one to two additional years.

Timing. We propose a 2-4 week season in late December and/or January. The dates are deliberately non-specific at this time so that we can make arrangements with partners such as College of the Atlantic for the collection of biological data on the deer harvested and so that we can modify the process in the second and/or subsequent years. For example, the season could be lengthened or shortened in the second year depending on the level of success in the first year. Dates will be set well in advance and the public will be notified of the final season each year.

Hunting Methods. Archery and firearms. All hunting must be conducted from a fixed station (blind) or elevated platform (stand). **Each landowner may specify and restrict methods to those that may be safely implemented on their property, provided those methods are legal methods of take for deer in the state of Maine.** The safe implementation of this special deer reduction program, including the location of stands and the conduct of participants, is the responsibility of the individual, permitted landowner.

Note, if the discharge of a firearm, the projectile path of that firearm, or the intended target of that firearm are within 100 yards of a dwelling or structure, even if not on the same property, written permission of the owner of the dwelling or structure is required by state law.

Criteria for participation.

Hunters. Only property owners of Bar Harbor, to include the property owner and immediate family members resident in the same household, and/or two designees per property, are allowed to participate. Non-resident property owners may participate and can assign two designees, but that property owner must be present locally during the time of participation by any authorized designee on that property to proceed. Property owners may hunt on their own property and designees are limited to hunting on the property(s) for which they are designated (property owners may also be designees on other properties). The responsible party for any given property and the actions of the designees on that property is the property owner.

All participants must register in advance for the deer reduction program and be vetted by the town and MDIFW, after which they will be given specific authorization.

All lands within the boundaries of Acadia National Park and within the town proper of Bar Harbor (as defined by the zone prohibiting the discharge of firearms: code Chapter 81-2A, Beginning at a point at low water mark due east of the intersection of Main Street and Schooner Head Road, thence following in a direct line to the intersection of Main Street and Schooner Head Road, thence following Main Street to the intersection of Main Street and Cromwell Harbor Road, thence following Cromwell Harbor Road to the intersection of Eagle Lake Road, thence following Eagle Lake Road to the intersection of Cleftstone Road, thence northerly following Cleftstone Road and the easterly boundary line of Acadia National Park to Duck Brook, thence following Duck Brook easterly to the high water mark of Frenchman's Bay) **are closed to hunting by all methods.**

All participants must possess valid, current, and appropriate hunting licenses, as required by the State of Maine, and must follow all Maine general hunting laws (with exceptions noted below).

Regulations. Unless otherwise provided, general hunting regulations will apply to this deer reduction program. An exception is that attractants may be used on properties authorized for participation in this program. One of the focuses of this program will be to identify participating property owners in areas of high deer densities and deer related vehicle collisions. The use of attractants can increase effectiveness in these areas. If permitted, those properties deploying attractants would be pre-registered with MDIFW and be subject to monitoring requirements and inspections.

Donations to Hunters for the Hungry. Hunters for the Hungry is a state run program that assists in the collection of unwanted venison from hunters, pays for its processing, and coordinates distribution of the meat to local food pantries. Hunters for the Hungry is willing to work with Bar Harbor in the special deer reduction program and a mandatory donation component is under consideration.

Violations. Anyone not hunting under the MDIFW provisions/permits and Town of Bar Harbor criteria would be in violation, would be terminated from participation in the special deer reduction program, and would be subject to appropriate legal action.

Number of deer per hunter. The number of deer to be taken is not restricted in order to maximize the short-term reduction effort. Given that only half of the area of Bar Harbor is open to hunting (see below), and that Bar Harbor is only one community on Mount Desert Island, there is essentially no chance of locally eliminating deer through this short-term reduction effort. Instead, the challenge will be to effectively reduce the deer population to levels that minimize issues of public concern. Given the substantial areas of refugia and with the goal of reducing the deer population as soon as is practical, we will not restrict the number of deer that can be taken during the short-term reduction effort.

Available land. Depending on voluntary property owner participation, mapping results indicate 13,646 acres could potentially be open to hunting, whereas 13,308 acres within Acadia National Park and the town proper of Bar Harbor would not be open.

Community Safety. Bar Harbor residents would be fully informed about all aspects of the hunt through public information meetings and publications. The town proper (see picture above) is not open to either the short term or long term management options.

Tagging station. There would be a tagging station during the special deer reduction program, location to be determined. All deer taken would need to be registered at the tagging station within 16 hours of harvest.

Biological analysis. In collaboration with COA, MDIFW and ANP, tagging station staff would take deer measurements and extract teeth. These data would be analyzed by MDIFW to ascertain the composition and condition of the deer herd.

Meat Processing. Participants are allowed to keep a limited number of deer for personal use. The remainder, or deer not wanted by hunters will be donated to Hungry for the Hungry, who have agreed to participate and will arrange and pay for processing of venison and distribution to local food pantries.

Long-term Deer Population Maintenance Effort

MDIFW requires a long-term management plan to provide a commitment and means to maintain deer at compatible levels (estimated by indices described below). The long-term strategy is the implementation of the regular Maine archery deer hunting season(s). Maine has two archery deer seasons, the special archery season (one deer, either sex, four week open season in October), and the expanded archery season (only special zones open, additional harvest tags available, mid-Sept. to mid-Dec.).

Given the population density of Bar Harbor, a continuing firearms deer season would not be popular. An archery season provides a low impact, low visibility, extremely safe method of maintaining a reduced deer population. MDIFW would require that a long-

term plan comply with statewide seasons and regulations, albeit a subset of those seasons. The special archery season is the most conservative management tool and would be implemented to maintain the population at lower levels. Property owner permission for access to private land for hunting is always recommended by MDIFW. A system for property owners to register their land as open to future archery hunting with conditions (open, by permission only, not open), which is modeled after similar programs in Bucksport and Castine, is being developed.

Measures of success

Social. The task force will maintain records of hunter participation, landowner satisfaction and the public's reaction to safety issues via public meetings and our email address (bhdeertaskforce@gmail.com).

Empirical. Working with MDIFW and other agencies, the task force will keep record of and coordinate the collection of several categories of data:

- Deer harvest and biological data from tagging and registration.
- Deer population indices. Efforts are underway to coordinate surveys of deer numbers/densities in a collaboration between COA/ANP/Maine Coast Heritage Trust/MDIFW. A target density of 10-15 deer per square mile is considered effective for reducing tick numbers and should also reduce car/deer accidents and property damage.
- Tick numbers. The Vector-borne Disease Laboratory at the Maine Medical Center, in collaboration with ANP and COA, will monitor tick numbers beginning in 2014.
- Tick-borne disease. Working with the Maine Centers for Disease Control, the task force will monitor the incidence of Lyme disease and other tick-borne diseases.

Vehicle accidents. Working with the Bar Harbor Police Department, the task force will monitor trends in the incidence and location of deer-related road accidents.

Conclusion:

The proposed deer management plan was developed in partnership with Maine Department of Inland Fisheries and Wildlife after a majority of Bar Harbor property owners responding to a survey indicated that they felt the current deer population was a problem.

The plan includes a short-term strategy to initially reduce deer numbers, and a long-term strategy to maintain the desired lower population levels. The short-term plan involves a special deer reduction program that is designed to be maximally effective, while maintaining the greatest amount of oversight and local/landowner control of the process. Participation is limited and public safety is an overarching objective. A long-term plan for an archery deer season will be used to maintain reduced and healthy populations.

Scientifically based measures of success are being implemented by partners in this process to establish deer population trends, as well as tick counts, Lyme disease

incidence, and car/deer accidents. Taken together, this strategy accomplishes the goal of reducing deer numbers using inexpensive approaches that are proven to be effective, while maintaining public safety and local control of activities. Details remain to be finalized in this plan, such as the final dates for the short-term deer reduction program, establishing indices of deer density, the location and staffing of a registration and check station, and whether and how to implement a mandatory donation component. The task force is working on these issues with various partners in this process, and in some cases, flexibility is needed so that modifications may be made based on success and assessment of initial efforts. However, the proposed short-term and long-term strategies are the essential components of this plan and are agreed upon by the task force. The Deer Herd Control Task Force endorses this plan and encourages its adoption by the Town Council so that it may be considered for public discussion and possible approval on the November ballot. Such approval would authorize the Town Council to petition MDIFW for a change in the deer management practices in Bar Harbor.

Respectfully submitted by the Bar Harbor Deer Herd Control Task Force,
Robert Kelley, Chair
Robert Jordan, Vice-Chair
Robert Burgess, Secretary
Bruce Connery, Acadia National Park
Thomas Schaeffer and Lisa Bates, Maine Dept. Inland Fisheries and Wildlife
Jesse Wheeler, Bar Harbor Conservation Commission
Lt. James Pinkham, Bar Harbor Police Department
Chuck Starr, Kebo Valley Golf Club