THE HUMANE SOCIETY
OF THE UNITED STATES

To: Richard Royal, Chairman of the Board, JIA
Cc: Jones Hooks, Executive Director, JIA
Date: Sept 12, 2014
Re: Comments on Jekyll Island deer management

Dear Mr. Royal, Mr. Hooks, and members of the Jekyll Island Authority,

I am writing on behalf of the Humane Society of the United States (HSUS), the largest animal protection organization in the country.

We respectfully request that the Jekyll Island Authority reconsider the DMC's recommendation in support of a USDA-Wildlife Services' contract to cull deer on Jekyll Island. There are a number of pivotal reasons why moving ahead with a lethal control plan is both ill-advised and counter-productive.

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.

A number of towns in Eastern Long Island recently pulled out of a cull contract with USDA-WS due to the controversy and the expense, and one town, Easthampton, recently announced plans to move forward with a surgical sterilization program instead. http://www.newsday.com/long-island/towns/east-hampton-village-approves-plan-to-surgically-sterilize-female-deer-1.8616501

Accuracy of deer population estimates

Spotlight counts can be used to detect population *trends*, but they should never be used for calculating population density. (this is something USDA –WS acknowledges in its own stock EISs). We question the (widely varying) estimates given for the number of deer per square mile or island total. Deer tend to cluster in areas of prime forage and edge habitat, therefore looking at deer numbers on prime deer habitat such as a 700 acre golf course, and extrapolating that figure to the rest of the island, will give an inflated density estimate.

We also question claims about the need for deer reduction based on these density estimates. Furthermore, you can't set an "optimum" deer density if you don't have a valid starting point (the recommendation of 20-30 deer per square

mile is generic and not based on the habitat characteristics of the island's maritime forest) Faulty population estimates may also compromise goal-setting and monitoring efforts.

Why won't lethal control work?

Trying to manage deer impacts by culling is usually futile because deer can quickly compensate for declines in their population. They exhibit higher productivity (i.e. more twins and triplets are born, have higher survival rates, etc) as their numbers lessen and more food becomes available for the remaining deer. In other words, they "bounce back."

Thus if attempts are made to lower Jekyll Island's deer population through hunting, it will require continual and aggressive removals to maintain the deer at an artificially low level and prevent that population rebound. This is unlikely to be effective or cost effective.

Are deer responsible for ecological degradation?

It is vital in addressing the issue of forest regeneration and biodiversity that deer aren't used as scapegoats for larger and more systemic problems. Jekyll Island's maritime forest may be subject to many influences, such as increases in acid rain, insect damage, disease, drought, invasive plant spread, and parasitic organisms – along with low soil fertility and forage quality.

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. How ecological processes are affected by deer browsing is not as simple as what meets the eye.

Interestingly, research indicates that reducing deer numbers can have unintended negative consequences for biodiversity with respect to herptofauna (snakes, salamanders, amphibians) and many invertebrates (Greenwald et. al 2007).

There's no denying that deer can have a significant impact on forests. However, 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 can be unforeseen impacts on other components.

Is the science "in" on Jekyll Island re: ecological damage caused by deer?

First, it has not been established with scientific credibility what if any impact deer are having on the ecology of the island, or if and how such impacts should be managed. Instead, there seems to be reliance on insufficient local data and anecdotal assumptions about the landscape.

- A transect browse survey begun in 2013 is mentioned (June 2014 report to JIA Board) as indicating high deer browsing rates, yet this conclusion can't be properly evaluated given the lack of information about how deer use the island, trends over time, amount browsing in relation to available browse, species composition, and other influences such as the presence and spread of invasive plans, etc. The 2011 DNR transect survey provided a

snapshot in time and seemed to focus on areas where deer cluster (thus most likely presenting an inflated view of browsing pressure). Likewise, this survey did not contain the type of necessary information noted above.

- Interestingly, the fact that some oak is regenerating may indicate *lower* browsing pressure, since oak is a highly preferred browse species. It's worth noting that oak regeneration is a major issue in our North American forests due to a complexity of identified and unknown factors. Deer are by no means the only impediment to oak growth.

- Making conclusions about seeding growth at a foot or less, as done in the JIA report, does not indicate whether deer are impairing the forest's ability to regenerate. What matters is the amount of *horizontal cover at greater heights* since forests are self-thinning, regardless of the presence of deer.

- One year's worth of vegetative monitoring transect data is not enough to draw reliable conclusions about deer browsing impacts.

- The assertion that deer cull target and maintenance goals will be dependent on "*the survival and growth of certain at-risk plant species"* (JIA Summary document, July 2014) underscores the faulty assumption – that deer alone are responsible for the lack of growth of certain species.

- We also question assertions about deer impacts on plant regeneration as reported in the USDA-WS's May 2014 letter, such as *"Significant browsing pressure is apparent on deer preferred vegetation such as green briar, honeysuckle and muscadine vines. Very little to no hardwood regeneration was observed and browsing of non-preferred plants indicates a high deer density*." No data was presented, merely anecdotal observations which can't suffice for good science.

Highly problematic JI landscaping guidelines will *increase* deer numbers

It is rather astounding to see a number of invasive and deer-preferred plant species on the list of landscaping plants promoted in development of the island[1]. If forest protection, biodiversity enhancement and deterring deer browsing damage are the JIA's major goals, the Jekyll Island Design Review Group should not be promoting the establishment of the very species that are considered invasive and likely to out-complete, strangle or shade out native plants. For example, Japanese wisteria, privet and honeysuckle are prime examples of plants that have a deleterious impact on native plants and once established, are very difficult to remove.

[1] Referenced document: The Jekyll Island Design Guidelines - see Section III *Landscape Architecture*, B. *Native Plant Species with Ornamental Value*

The JIA would be well-advised to consult with its own state invasive plant list (http://www.invasive.org/species/list.cfm?id=17) before any landscaping plans are allowed move forward. Otherwise, the result will be deer drawn towards developed areas of the island and creating the very conflict conditions that the JIA is trying to avoid.

Are the island deer in poor health?

Claims have been made about deer being in poor health, based on the examination of 6 deer in both 1996 and 2013 and the conclusion that at current densities, the deer are malnourished. When deer are malnourished, their reproductive rate and fawn survival drops, and the overall population goes down. If the JI deer are compromised by the poor nutritional content of island vegetation, the result should be a natural drop in their population.

Yet, strangely, despite its desire for deer reduction, it appears that the DMC is hesitant to let nature take its course – instead cautioning how malnourished deer would be "at risk of increased physiological stress and mortality" (page 20, July 2013 Summary document).

Unless a solid science-based case can be made to the contrary, allowing deer numbers to respond to their nutritional surroundings is a better approach (and in keeping with the island's sanctuary mission) than triggering oscillations in deer size through continual culling.

Will killing deer control Lyme Disease?

The scientific literature makes it clear that killing deer won't control Lyme disease or risk to people, given that this is a multi-host disease, with small rodents being pivotal to its spread. This is why the Centers for Disease Control (CDC) and other health authorities don't recommend deer culling to control Lyme disease - because it doesn't work.

Is fertility control possible?

If deer numbers must be reduced, surgical sterilization and immuno-contraception are viable options for some communities. Both provide long lasting solutions by lowering the number of fawns born in a given year. The advantage of fertility control projects over culling is that you don't contend with that continual bounce-back in deer numbers. This option is particularly well-suited for island areas due to the lower immigration potential.

There is one contraceptive vaccine EPA-registered for use in deer currently (Gonacon) with another vaccine (PZP) soon to be registered yet available under an experimental use basis. In a recent study, PZP successfully lowered deer numbers on Fripp Island (South Carolina) by 50% over a 6 year period (see attached).

It is unclear why the Chief of Game Management for the DNR would rule out the use of fertility control methods or what "multiple criteria" such methods failed to meet (Draft Summery of Deer Management Recommendations, July 2014). The last criterion appears to indicate a bias towards a meat donation program (i.e. "Maximizes the beneficial use of any animals to be sustainably harvested as part of a prospective program") and therefore should not be applied to non-lethal options.

It's curious to read that fertility control options "*wouldn't be sustainable in terms of time or dollars*" --- yet no such concern was expressed about the cull options, particularly sharpshooting by USDA-WS, which would require both a continual commitment of time and a significant amount of dollars!

Closing

The HSUS is concerned that the Jekyll Island Authority may be moving ahead with a highly questionable deer cull plan without having done the necessary level of research to document the status of its plant community and the impact of deer upon it, and without giving due consideration to alternative approaches.

HSUS'S RECOMMENDATIONS

- The HSUS recommends that the USDA-WS cull contract be taken off the table, as it is premature and not substantiated with good science. The impact of deer upon the maritime forest flora and fauna needs to be evaluated with more rigorous research.

- We suggest a critical review of the Island's landscaping guidelines with an eye for how such landscaping is attracting deer to developed areas and serving to increase their numbers. The landscaping guidelines should include sections on deer-resistant flowers and ornamental and methods for protecting deer-preferred plant species.

- We urge the JIA to invest in non-lethal deer problem management, focusing on site-specific solutions for documented problems. Measurable goals should be set (based on good baseline data) and a solid monitoring system created so the results of any intervention can be assessed.

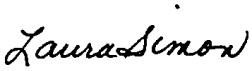
- If solid data underscores the need to reduce deer density, we highly recommend that fertility control options be reconsidered as they provide a much longer lasting, socially acceptable and humane solution – especially for island areas.

- At this time, the HSUS recommends allowing for the natural regulation of deer numbers, especially since it has not been shown that deer are negatively impacting the maritime forest.

The HSUS would be happy to assist the JIA with recommendations and resources for resolving Jekyll Island's deer issues. We do hope that, in the meantime, plans for a cull will be taken off the table.

I thank you for your consideration of our viewpoint.

Sincerely,



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