

Deer Overpopulation



WWW.GTRLC.ORG

Deer – Background and History

- Many factors affect deer populations
 - Land use change deforestation/re-forestation, fragmentation/edge increase
 - Hunting regulations/harvest
 - Weather, climate changes
 - Variability in food sources
 - Disease
- Populations are variable across the country, within regions of a state, and even within a county.
- There is disagreement on what the population should be, that it is increasing/declining, how to best manage deer, and for whom the deer should be managed.

Overpopulation Concerns

- Problems Associated with overpopulation
 - Stress, disease, parasites
 - Those that spread between deer only
 - Those that can affect humans
 - TB
 - Lyme disease (via ticks)
 - Car vehicle accidents
 - Over-browse and selective browse
 - Conflict with farmers and other land managers
 - Habitat destruction and overall loss of productivity
 - Loss of species diversity



Deer – The Challenge

The **carrying capacity** of a biological species in an environment is the maximum population size of the species that the environment can sustain indefinitely, given the food, habitat, water, and other necessities available in the environment.

https://en.wikipedia.org/wiki/Carrying_capacity

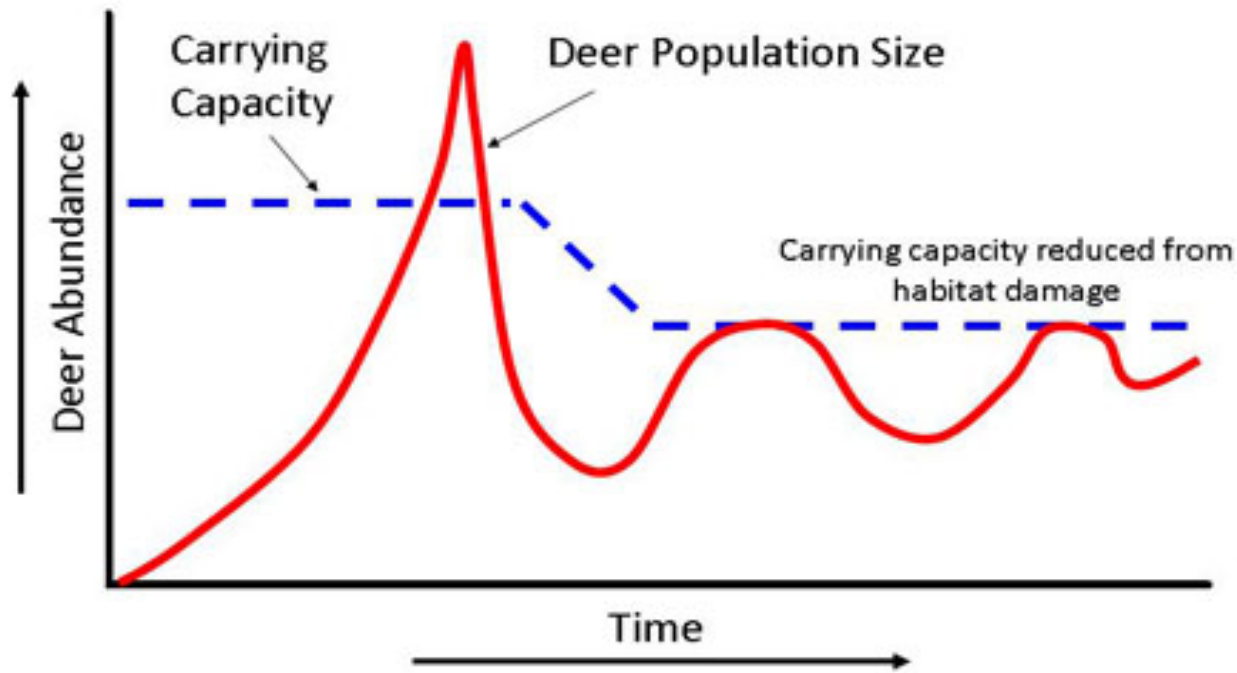
How do you define appropriate carrying capacity?

- Biological Carrying Capacity?
- Ecosystem Carrying Capacity?
- Social Carrying Capacity?



Deer – The Challenge

Unrestricted deer population growth may diminish the habitat's carrying capacity



10

Mississippi State University

<http://www.msdeerlab.com/carryingcapacity.asp>

Deer – The Challenge

How do you explain why a Conservancy wants fewer deer and that hunting is the best solution?

How many deer is too many?

Too few?

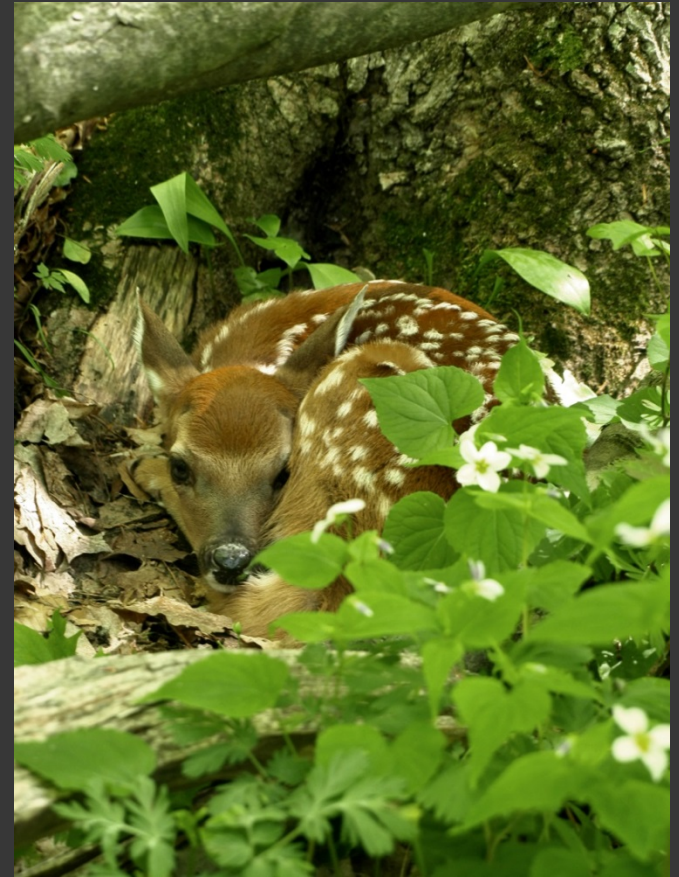


Photo by Nate Richardson



Deer – Some Solutions

- Support local, regional, and state-wide management efforts to maintain healthy populations that are consistent with your management goals.
- Encourage recreational deer hunting (especially bow hunting)
- Staff hunting or selected hunters (sharp-shooters)
- Seek management assistance permits in order to harvest additional does.
- Partner with neighbors
- Exclosure fencing
 - Identify and research browse impacts
 - Prevent browse

Oh deer! Poor yew!



June 12, 2003



September 16, 2009

Location 3, N 44°32.435' W086°13.470'

Deer Management – Arcadia Dunes

- Encouraged deer hunting
 - Website info
 - Provide maps
 - Signs on the property
- Worked with adjacent farmers
- Worked with Department of Natural Resources Biologist and other experts to document damage
- Included deer management considerations in forestry plan and overall property management plan
- Considering a deer exclosure project

Deer Management – Arcadia Dunes

Hunting Considerations

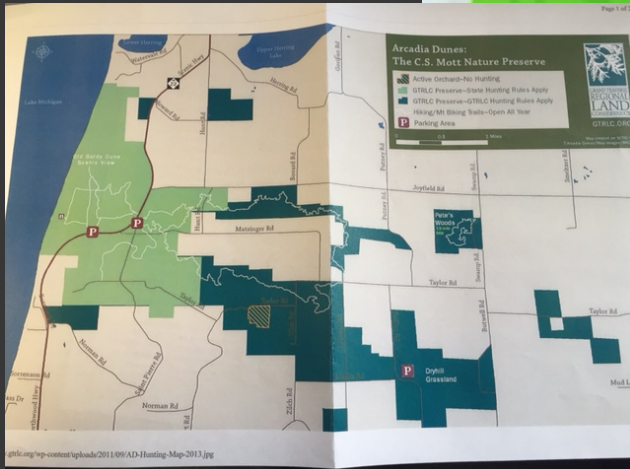
Remember, the Preserves are private land and when visiting you are a guest of the Conservancy. Please respect all forms of wildlife, your fellow sportsmen, and others that visit and enjoy the Conservancy's preserves. These preserves are multi-use areas open to the public on a year-round basis for such activities as hiking, nature study, bird watching, and cross-country skiing. Please keep this in mind at all times when hunting the Conservancy's preserves.

Hunting Rules, Regulations and Seasons

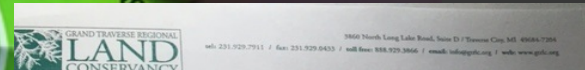
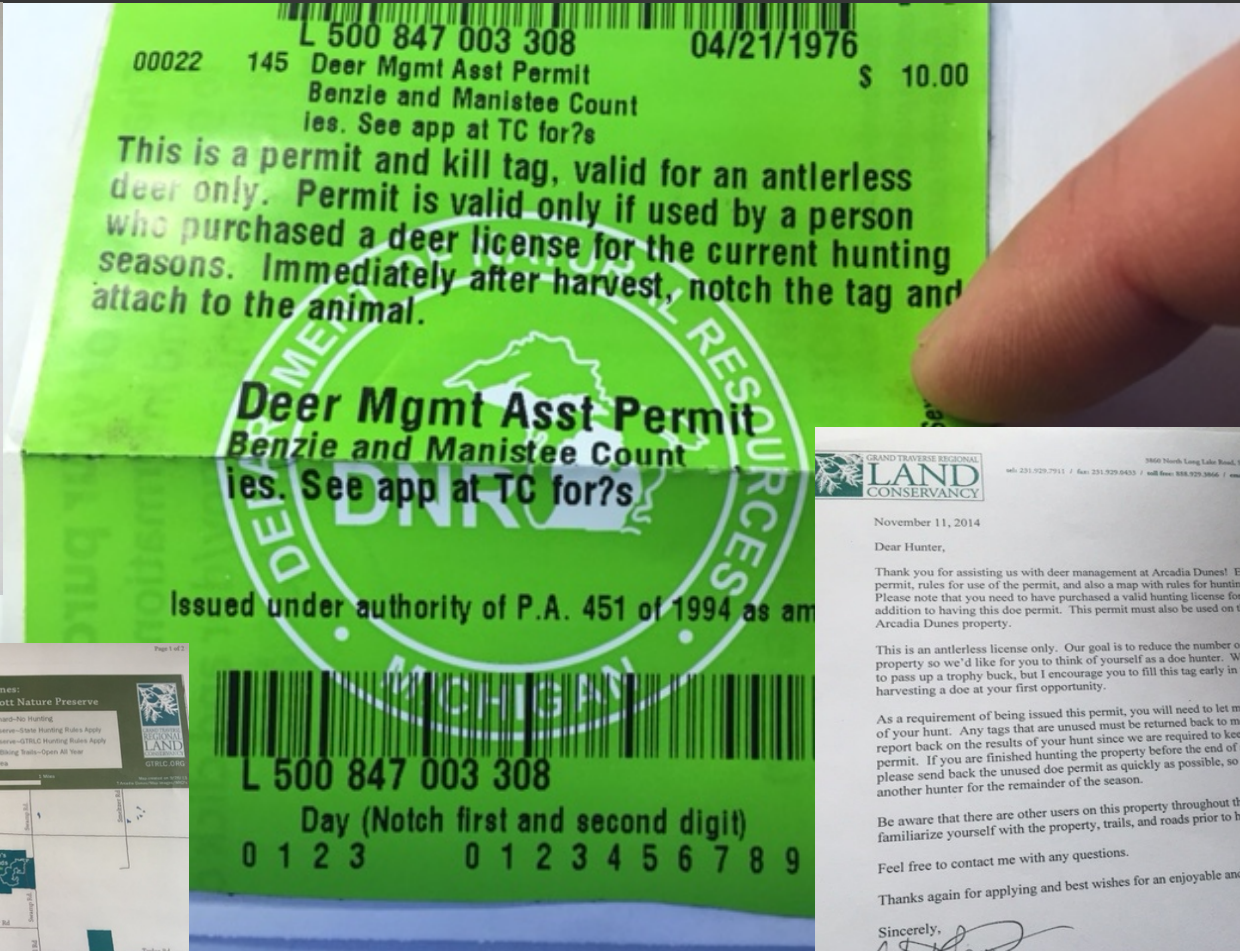
The GTRLC has Preserve Specific Rules for hunting and trapping (see Preserve Hunting List for details). Beyond those rules set forth by the GTRLC, the rules, regulations and seasons established by the Michigan Department of Natural Resources broadly apply. All persons hunting, fishing or trapping on GTRLC properties are liable to prosecution for noncompliance to the rules and regulations stated by the Michigan Department of Natural Resources. MDNR Conservation Officers are requested by the GTRLC to patrol its Preserves. Michigan Conservation Officers are fully commissioned Peace Officers and are empowered to arrest for all violations of Michigan's laws. The CO's primary duties are enforcement of natural resource and environmental protection laws. MDNR rules and regulations can be found at: www.michigan.gov/dnr.

Rules Applicable to GTRLC Preserves where Hunting is Allowed:

- Hunters are responsible to know all rules that are specific to the preserve they are hunting upon. Some preserves have restricted hunting.
- The Conservancy reserves the right to deny or revoke hunting permission at its sole discretion.
- Unless otherwise noted below (Preserve Specific "Permitted Seasons"), rules regulating hunting on Conservancy Preserves open to hunting are the same as those set forth by the MDNR.
- Permanent deer blinds, tree stands, or duck blinds are prohibited on all Conservancy Preserves. Screw-in steps and other devices that penetrate the bark of a tree are prohibited. Portable stands must be labeled with the owner's name and address such that it is easily visible from below at ground level. Stands can not be installed prior to September 1 and must be removed by the day following the close of the last deer season.



gtrlc.org/wp-content/uploads/2011/09/AD-Hunting-Map-2013.jpg



November 11, 2014

Dear Hunter,

Thank you for assisting us with deer management at Arcadia Dunes! Enclosed is the doe permit, rules for use of the permit, and also a map with rules for hunting on our property. Please note that you need to have purchased a valid hunting license for the season in addition to having this doe permit. This permit must also be used on the Conservancy's Arcadia Dunes property.

This is an antlerless license only. Our goal is to reduce the number of does on the property so we'd like for you to think of yourself as a doe hunter. We don't expect you to pass up a trophy buck, but I encourage you to fill this tag early in the season by harvesting a doe at your first opportunity.

As a requirement of being issued this permit, you will need to let me know the outcome of your hunt. Any tags that are unused must be returned back to me. Also, you need to report back on the results of your hunt since we are required to keep a record of each permit. If you are finished hunting the property before the end of all applicable seasons, please send back the unused doe permit as quickly as possible, so that we can reissue to another hunter for the remainder of the season.

Be aware that there are other users on this property throughout the year and you'll need to familiarize yourself with the property, trails, and roads prior to hunting.

Feel free to contact me with any questions.

Thanks again for applying and best wishes for an enjoyable and successful hunt.

Sincerely,

Vic Lane
 Grand Traverse Regional Land Conservancy

Deer Management – Arcadia Dunes

- Harvest of male deer does not significantly affect population trends
- Doe harvest directly affects the breeding population



Arcadia Dunes - Results

Are we making an impact?

Is it worth the effort?

- No observable signs of vegetation recovery yet
- Difficult to assess results
- Estimate 2-3 more years
- 40 hours/year!

Year	Permits issued	Permits filled	Permit Cost
2012	20	6	\$300
2013	20	14	\$300
2014	50	34	\$750
2015	50	29	\$500
Total	140	83	\$1,850

Lessons Learned

- Managing deer is hard work! It takes time and costs money.
- Communicate thoughtfully with staff, partners, hunters and other users.
- Hunting hours and local knowledge = increased harvest
- Each property is different. Available tools and partners vary. Managed each accordingly.
- There is inconsistency in how DMAPs are issued regionally and likely even more variation between states