~ COALITION FOR RESPONSIBLE DEER MANAGEMENT ~

The Coalition for Responsible Deer Management is a group of organizations and individuals who have joined to urge public officials in Baltimore County to address deer overpopulation.

Facts About Deer

➔ Deer cause dangerous and expensive deer-vehicle collisions.

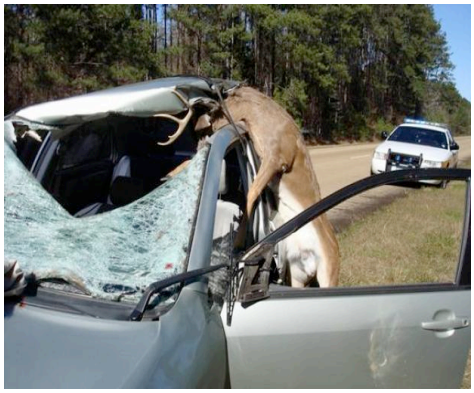


Photo: Field & Stream Magazine website.

As reported to the Baltimore County Council, 8,432 deer collided with vehicles from 2003 through June 2008. And this number only includes deer retrieved by State and County employees, at taxpayer expense.[1]

State Farm includes Maryland as a "high-risk" state, with approximately 27,000 deer-vehicle collisions in each of the last 7 years.[2] The Insurance Information Institute estimates over 1.6 million deer-vehicle collisions in the US each year, resulting in 150 occupant deaths and tens of thousands of human injuries. Costs: over $3.6 billion in vehicle damage and $1 billion in medical payments. The average claim for a deer-vehicle collision is $3,000.[3]

➔ Deer threaten public health by spreading Lyme disease.

Photo: "Bull's-eye rash" from Lyme infection suffered by a Baltimore County resident.

Lyme disease is transmitted primarily by deer ticks. This serious disease can cause flu-like symptoms, joint pain, and neurological problems.[4]

There were 414 reported cases of Lyme disease in Baltimore County in 2009. But the Center for Disease Control estimates that actual cases are 6-12 times more than reported. This would imply 2500-5000 cases in the County.[5]

➔ Deer ruin residential and commercial landscaping.

Photos by Rob Gibbs

Conversion of forested and agricultural lands to suburban housing improves habitat for deer. As a result, many homeowners and landscapers find it virtually impossible to maintain landscape plants or flower and vegetable gardens without expensive fencing. Total costs of deer damage to shrubs and plantings from only the 145 households in the Loch Raven Watershed over five years was $330,945.[6]

➔ Deer damage agricultural crops.

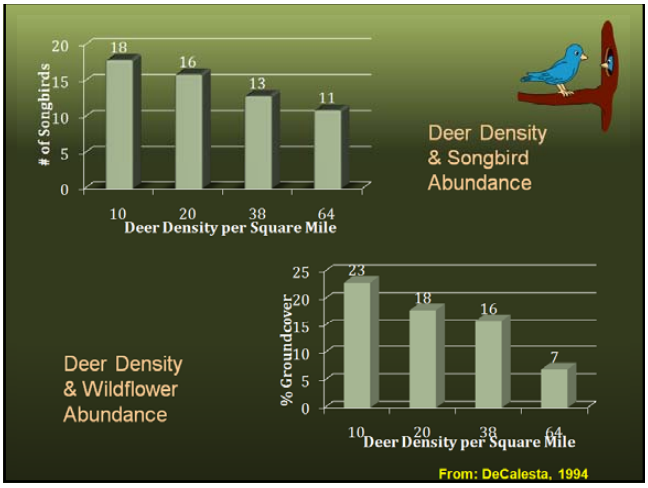
Maryland farmers lose millions of dollars of grains and other crops to deer each year, and spend additional money on deer control. [7] Also, otherwise valuable cropland is taken out of production because extensive deer foraging makes it uneconomical to plant. The Maryland Farm Bureau advocates increased managed hunting to control deer, which are "of major concern" to farmers.[8]

➔ Deer hinder forest re-growth and reduce ecological diversity.

This photo shows the devastation caused by deer in the forest at Oregon Ridge Park. On the left is an area from which deer were excluded by tall fencing. The understory contains a healthy mix of sapling trees, shrubs, and herbaceous plants. On the right is the forest as it exists in most of the park. As those mature trees die, they will not be replaced. And this damaged forest supports only a small fraction of the plants and animals that thrived here before the deer population exploded.

It is common today to see forests where essentially all native vegetation, from the ground to as high as the deer can reach, has been removed. **A forest without an understory is a dying forest**. Trees will not be replaced as they die because deer consume seeds (such as acorns), seedlings, and saplings.

Birds and other wildlife that depend on habitats on the ground and in young trees and shrubs have fewer places to nest, to reproduce, to feed, and to seek shelter.[9]



These graphs show how deer density reduces populations of wildflowers and mid-canopy nesting birds.[10]

The average deer density in Baltimore County is "off the charts" – at 81 deer per square mile or more.

Deer foster the spread of **non-native invasive plants** because they strongly prefer to eat the native plants with which they co-evolved. Non-native vines such as Oriental Bittersweet and English Ivy overtop and kill trees. On the ground, plants like Asian Stiltgrass and Garlic Mustard prevent the growth of native wildflowers and other plants.

➔ Why has the deer population grown so much?

Deer evolved with natural predators — such as wolves and mountain lions. Humans have hunted deer for tens of thousands of years. These controls are no longer in place. Suburban areas provide more food and cover for deer than woods alone, while at the same time reducing the area that is suitable for hunting. In addition, deer management policies in the past were often geared to increasing deer herds.

➔ How dense is the current deer population compared to a sustainable level?

The most reliable evidence of deer over-population is easily visible in damage on roads, gardens, and woods. Indirect measures in the spring of 2008 by the Baltimore County Department of Environmental Protection and Resource Management recorded average deer density in the County at 81 deer per square mile. A study published in 2009 estimated 95 deer per square mile. Thus the deer population in the 599 square miles of the County is approximately 48,000 – 57,000. Note that the density figures are average for the whole County. Deer density can be much higher in parks. [11]

The deer density that can be considered sustainable depends on specific conditions in the habitat. Numbers ranging from less than 9 up to 20 deer per square mile have been proposed.[12] But under any measure, deer populations like those in Baltimore County are not sustainable because they are not allowing the forests to renew.

At current population levels, deer are destroying Baltimore County forests. They deprive other animals and plants of the essentials for survival — and damage human health and property.

➔ Why is hunting the most effective method for managing deer populations?

Other methods are expensive and don't work well. Attempts to reduce deer population by reducing doe fertility are prohibitively expensive and cause stress to individual deer. Hormonal birth control costs $1000 per doe and only lasts a year in most cases.[13] A surgical spaying program for deer in Loch Raven Reservoir reportedly cost $50,000 for only 32 deer.[14]

Deer control methods like fencing and the use of repellents are only effective (if at all) to discourage deer from entering a particular, relatively small, area. Individual property owners can try using plants that are less palatable to deer. However, so-called deer resistant plants are often non-native and don't support birds, butterflies and other wildlife. Also, those methods are not feasible on a large scale and do not reduce deer population. Thus they do not address the loss of our biologically diverse forests or the hazards of disease and accidents.

Park agencies in three urbanized Maryland counties — Howard, Anne Arundel and Montgomery — have deer management programs. Baltimore County has permitted managed hunts in Loch Raven and Prettyboy Reservoirs, and the County Council recently approved controlled deer hunting by professional 'deer cooperators' in county parks.

The Oregon Ridge Park Forest Assessment and Management Plan said it plainly: [15]

"Deer control, to be effective, should be in the form of hunting."

It's time to manage the deer population on county-owned lands.

[1] County Council Update by Council Chairman, Kevin Kamenetz, reported in *The Advocate*, March 2009, page 4.

[2] http://www.statefarm.com/about/media/media_releases/20090928.asp; Maryland Annual Deer Report 2009-10, MD Dept of Natural Resources.

[3] http://www.iii.org/press_releases/warning-to-motorists-fall-is-peak-season-for-deer-vehicle-collisions.html.

[4] http://www.mayoclinic.com/health/lyme-disease/DS00116/DSECTION=symptoms.

[5] Center For Disease Control Morbidity and Mortality Weekly Report, May 7, 2004/53(17); 365-369.

[6] Watershed Protection Coalition, Inc. survey, as reported to County Executive James Smith, November 25, 2003.

[7] United States Department of Agriculture News Release, March 25, 2009,

http://www.mdfarmbureau.com/Files/Government%20Affaris/WildlifeRelease2008.pdf.

[8] Maryland Farm Bureau Policy Statement. http://www.mdfarmbureau.com/Files/PDFs/MFBPolicy2010.pdf.

[9] Jonathan Kays, Extension Specialist, Natural Resources, UMD Extension Service and George Timko, Deer Biologist, MD Division of Natural Resources, *Managing Deer Damage in the Landscape*, Webinar, January 14, 2010.

[10] Ibid. See also, "Effect of White-tailed Deer on Songbirds within Managed Forests in Pennsylvania," David S. DeCalesta. J. Wildl. Manage. 58(4):711-718.

[11] Gilgenast et al., *A Study of the Deer Population in Baltimore County - Interim Report*, March 2009, page 11.

[12] 2007-2017 Land Management Plan for the Quabbin Reservoir Watershed System. September 2007.

Mass. Dep't of Conservation and Recr., Div. of Water Supply Protection, Office of Watershed Mgmt. (4-18 deer per sq mi); David S. deCalesta, *Kinzua Quality Deer Cooperative Report 20*09 (9 or fewer deer per sq mi); *Forest Health Assessment and Forest Management Plan for Oregon Ridge Park* April 2007 (more than 20 deer per square mile restrict regeneration and diversity of trees and shrubs, while even 10 deer per square mile can limit full understory regeneration).

[13] Presentation by Ronald S. Healey of Animal Plant Health Inspection Service – USDA, November 2010. See also, *The state of "Deer Contraception"*: January 2010 Update, Fairfield County Municipal Deer Management Alliance, http://www.deeralliance.com/node/33.

[14] "Loch Raven Area Becomes Test Site for Deer Spaying," Baltimore Sun, February 13, 2010, page 13.

[15] *Forest Health Assessment and Forest Management Plan for Oregon Ridge Park*, April 2007, page 72