

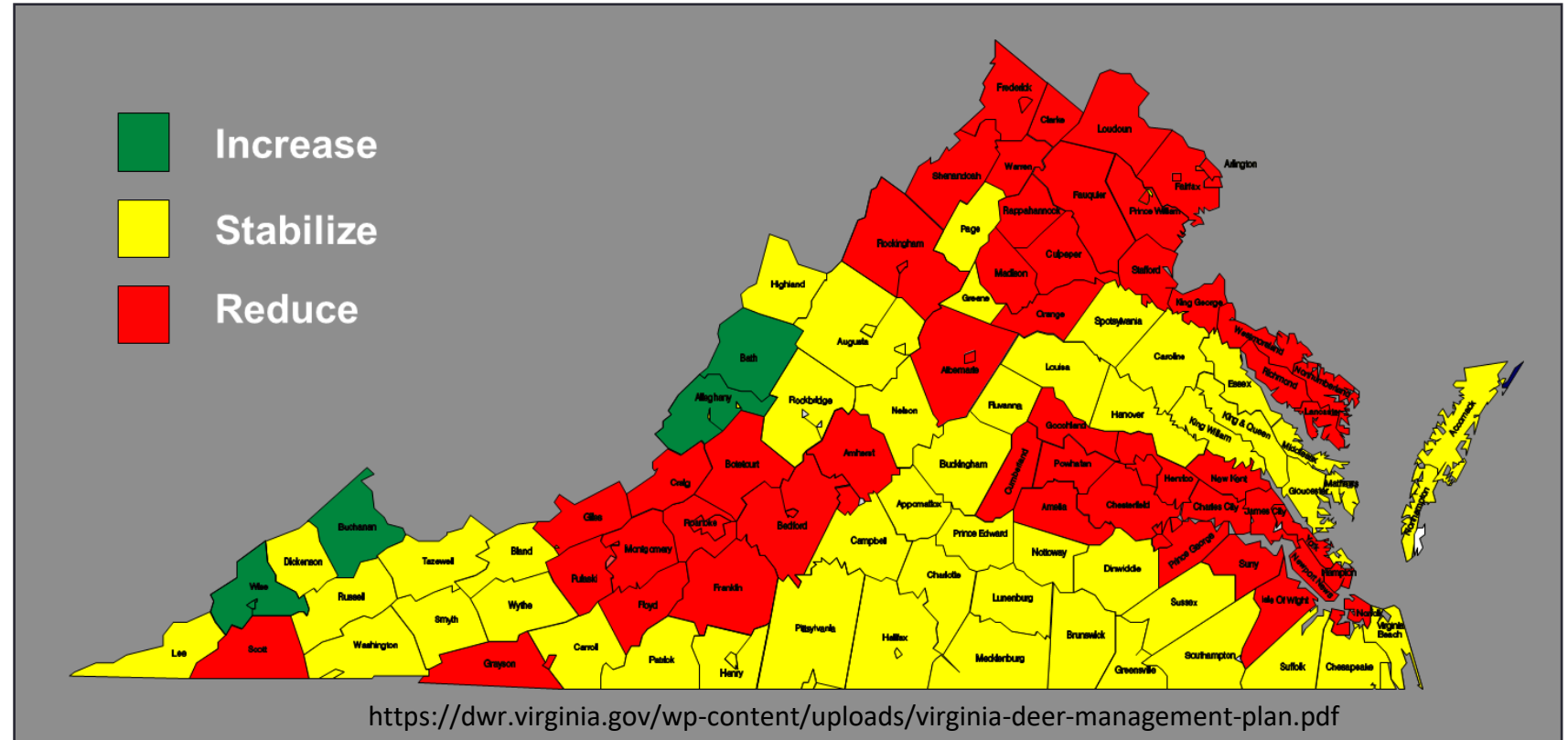
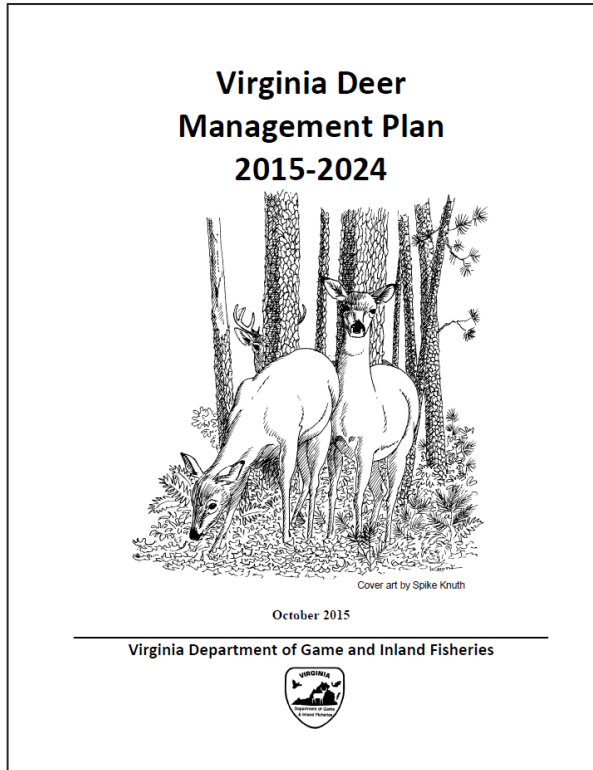
FAIRFAX COUNTY DEER MANAGEMENT PROGRAM



Environmental Quality Advisory Council Meeting
December 8, 2021

Katherine Edwards, Ph.D., Certified Wildlife Biologist®
Wildlife Management Specialist
Fairfax County Police Department, Animal Services Division





Population Goal: Manage local deer populations to balance the varied needs and reasonable expectations of a diverse human community (cultural carrying capacity), the requirements of a biologically diverse ecosystem, and the anticipated future social/ecosystem demands. Hunting is the preferred population management method, where appropriate and feasible.

Fairfax County Deer Management Program

- Approved by the Fairfax County Board of Supervisors in 1998
- Implemented by the Fairfax County Police Department in collaboration with the Fairfax County Park Authority, NOVA Parks, and other stakeholders
- Safety Concerns
- Health Concerns (public health and herd health)
- Ecological Damage

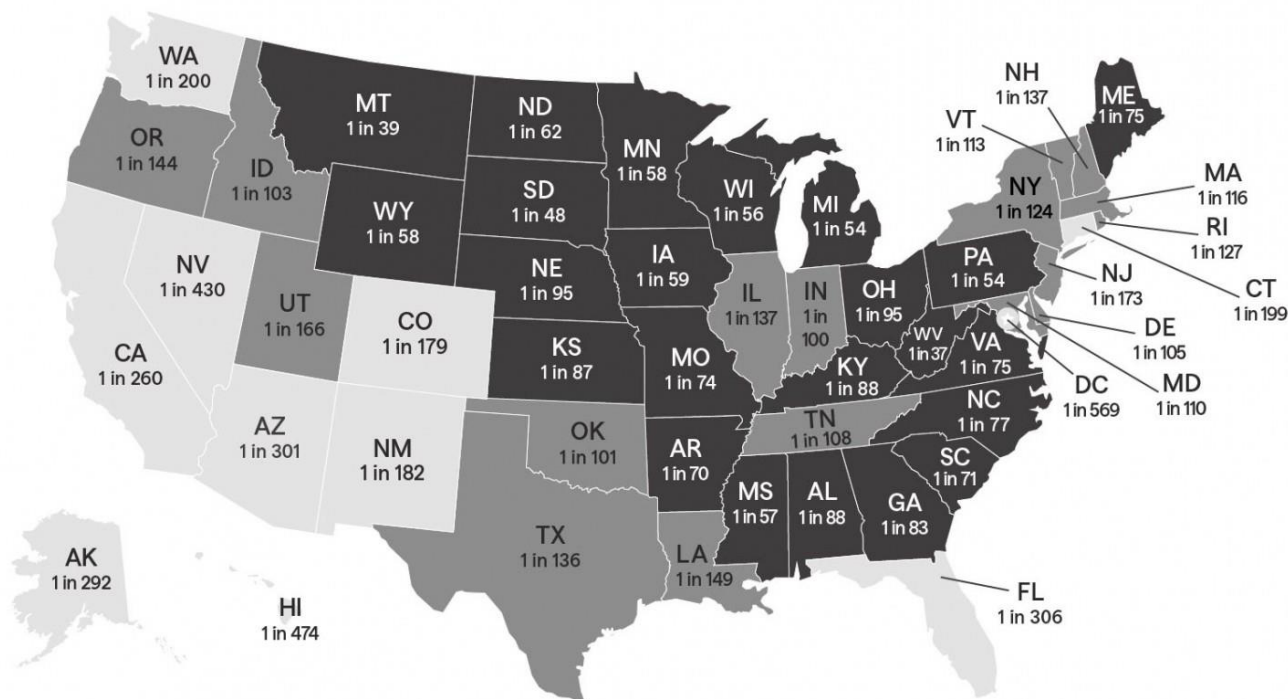


Fairfax County Deer Management Program

- Based on best practices for deer management, deer census data, environmental impact studies, and peer-reviewed scientific literature
- Utilizes *state-approved* deer population control methods:
 - Archery hunting
 - Managed firearms hunts
 - Sharpshooting
- Consult with private/public property owners on mitigation techniques:
 - Humane Exclusion, Repellency and Habitat Modification
- Monitoring: deer-vehicle collisions, browse impacts, deer density camera surveys, hunter harvests, observations, and hunt metrics, residential complaints, disease surveillance

Animal-Vehicle Collisions

2020-21 Animal Collision Likelihood by State



July 1, 2020 through June 30, 2021

High Risk States Medium Risk States Low Risk States



Virginia



Virginia is a high-risk state for animal collisions.

2020-2021 Likelihood of Collision with Animals

1 in 75

2020-2021 State Ranking

15

Deer-Vehicle Collisions

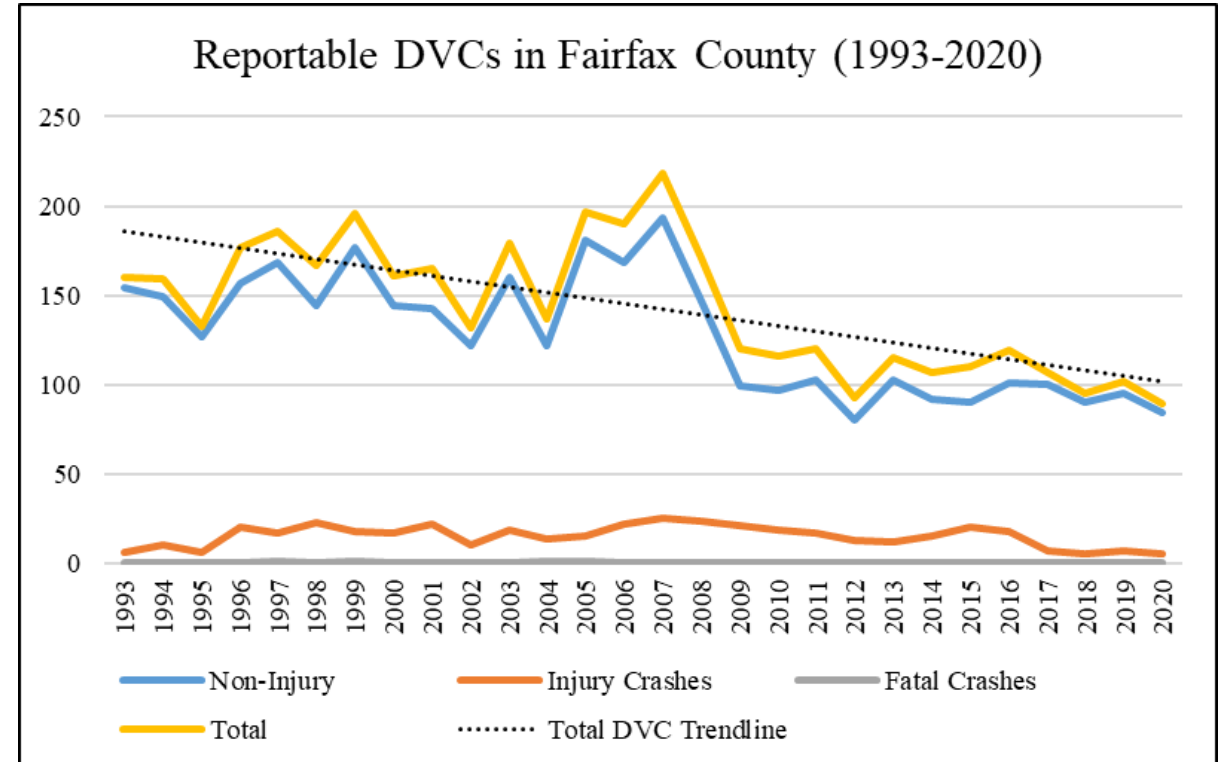
- Deer-vehicle collisions are the primary cause of deer deaths in suburban areas without other lethal control.
- Reportable crashes (TREDS)
 - Not all crashes are “reportable”
 - Includes crashes that result in injury, fatality, or property damage >\$1,500
- Insurance companies
 - Data not accessible to county staff
 - Statewide numbers are available to VDOT but insurance companies do not provide location data for crashes
- VDOT work orders for carcass pickup
- Not all collisions result in deer dying on or near the roadway – some survive or may expire elsewhere

Deer-Vehicle Collisions

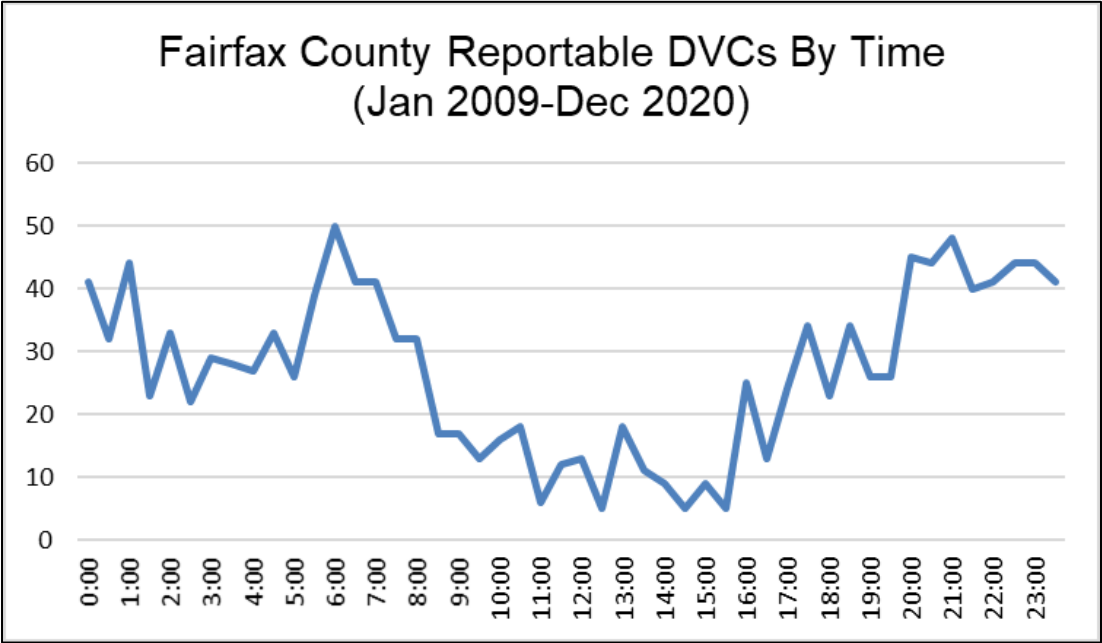
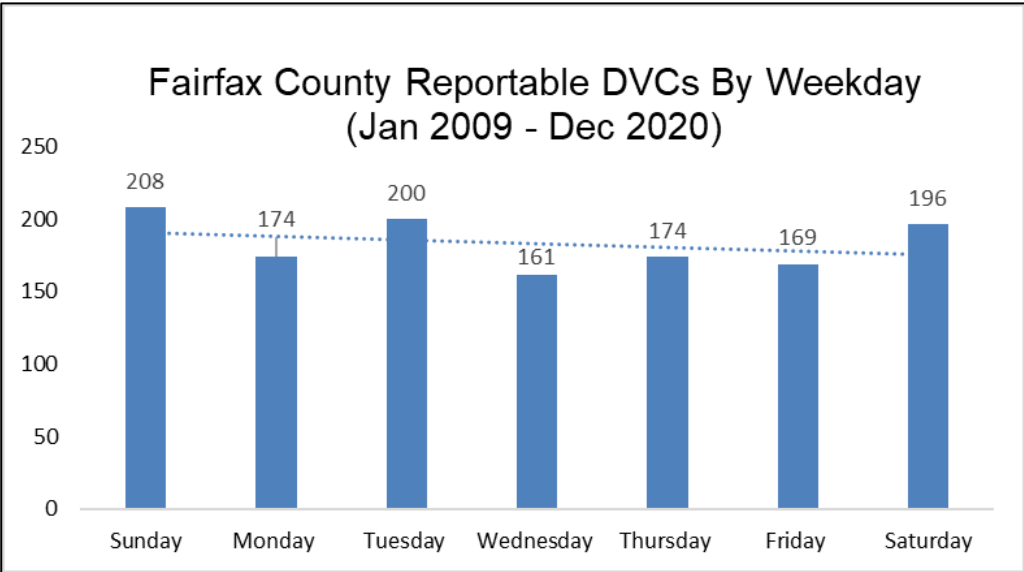
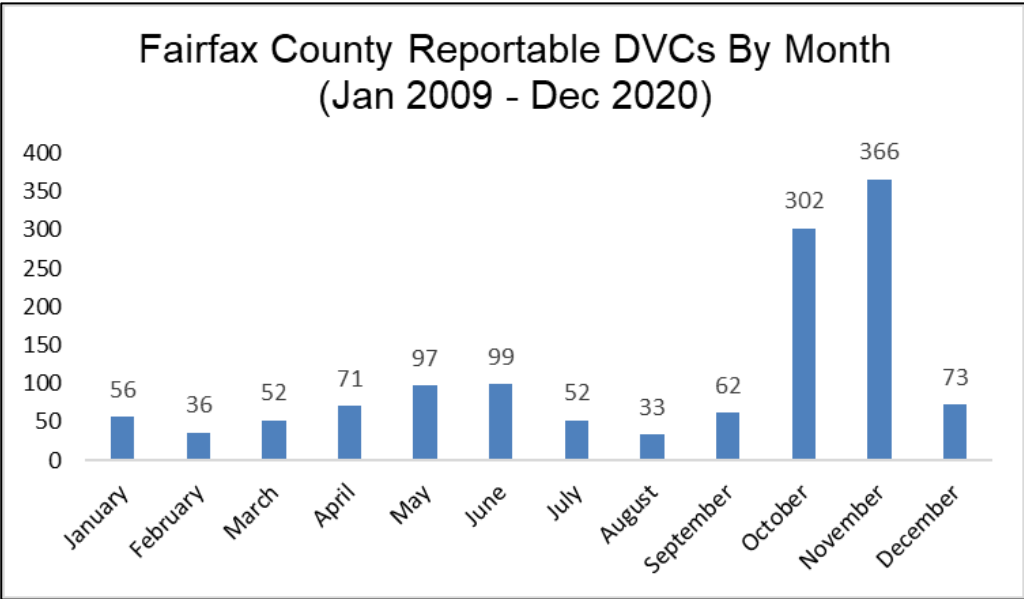
Fairfax County Reportable Deer-Vehicle Collisions

Year	Non-Injury	Injury Crashes	Fatal Crashes	Total
1993	154	6	0	160
1994	149	10	0	159
1995	127	6	0	133
1996	157	20	0	177
1997	168	17	1	186
1998	144	23	0	167
1999	177	18	1	196
2000	144	17	0	161
2001	143	22	0	165
2002	122	10	0	132
2003	160	19	0	179
2004	122	14	1	137
2005	181	15	1	197
2006	168	22	0	190
2007	193	25	0	218
2008	147	24	0	171
2009	99	21	0	120
2010	97	19	0	116
2011	103	17	0	120
2012	80	13	0	93
2013	103	12	0	115
2014	92	15	0	107
2015	90	20	0	110
2016	101	18	0	119
2017	100	7	0	107
2018	90	5	0	95
2019	95	7	0	102
2020	84	5	0	89

Reportable Deer-Vehicle Collisions
Fairfax County (TREDS data)

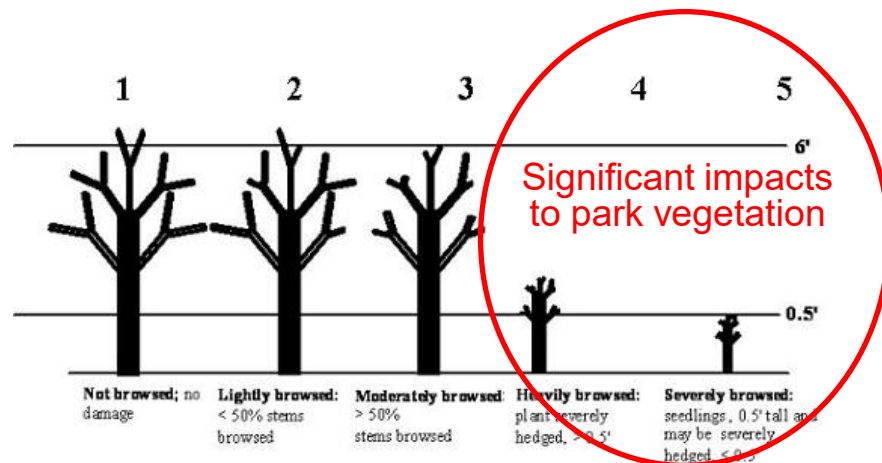


Deer-Vehicle Collisions



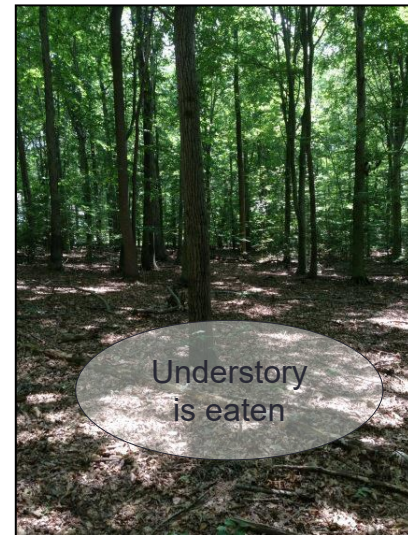
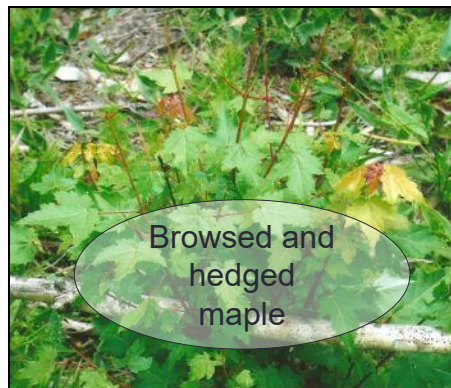
Reportable Deer-Vehicle Collisions
Fairfax County (TREDS data)

Browse Surveys



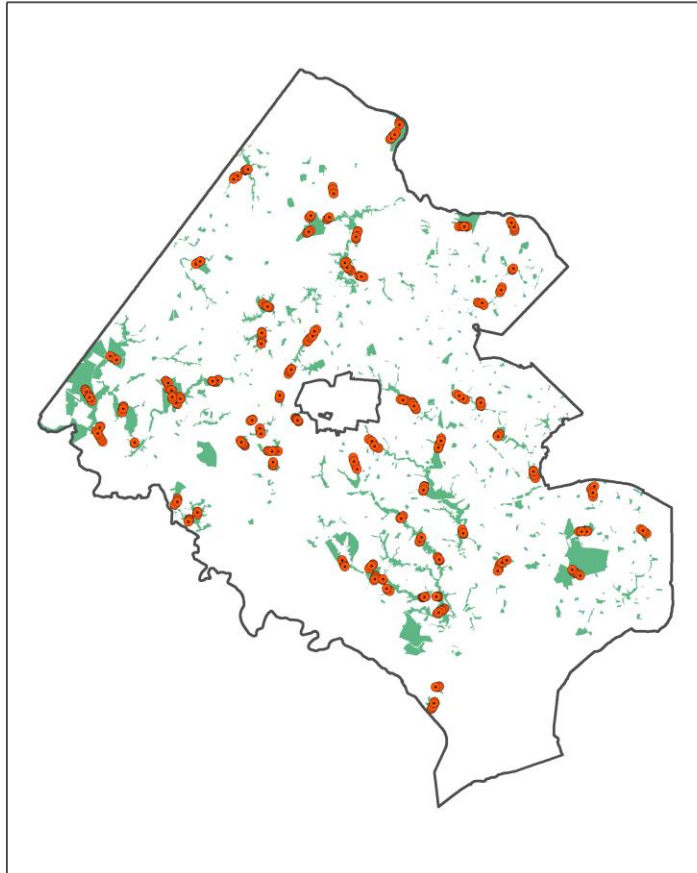
Seedlings > 0.5' provide best evidence of browsing damage. Under severe deer browsing, seedlings may never exceed 0.5' tall and will be severely hedged*: deer browsing keeps them suppressed below 0.5'. Small, current year seedlings may never grow above 0.5' under severe deer browsing.

* Severely hedged = seedling browsed repeatedly over years; all stems short, thick, with "bonsai" appearance.



Browse Surveys

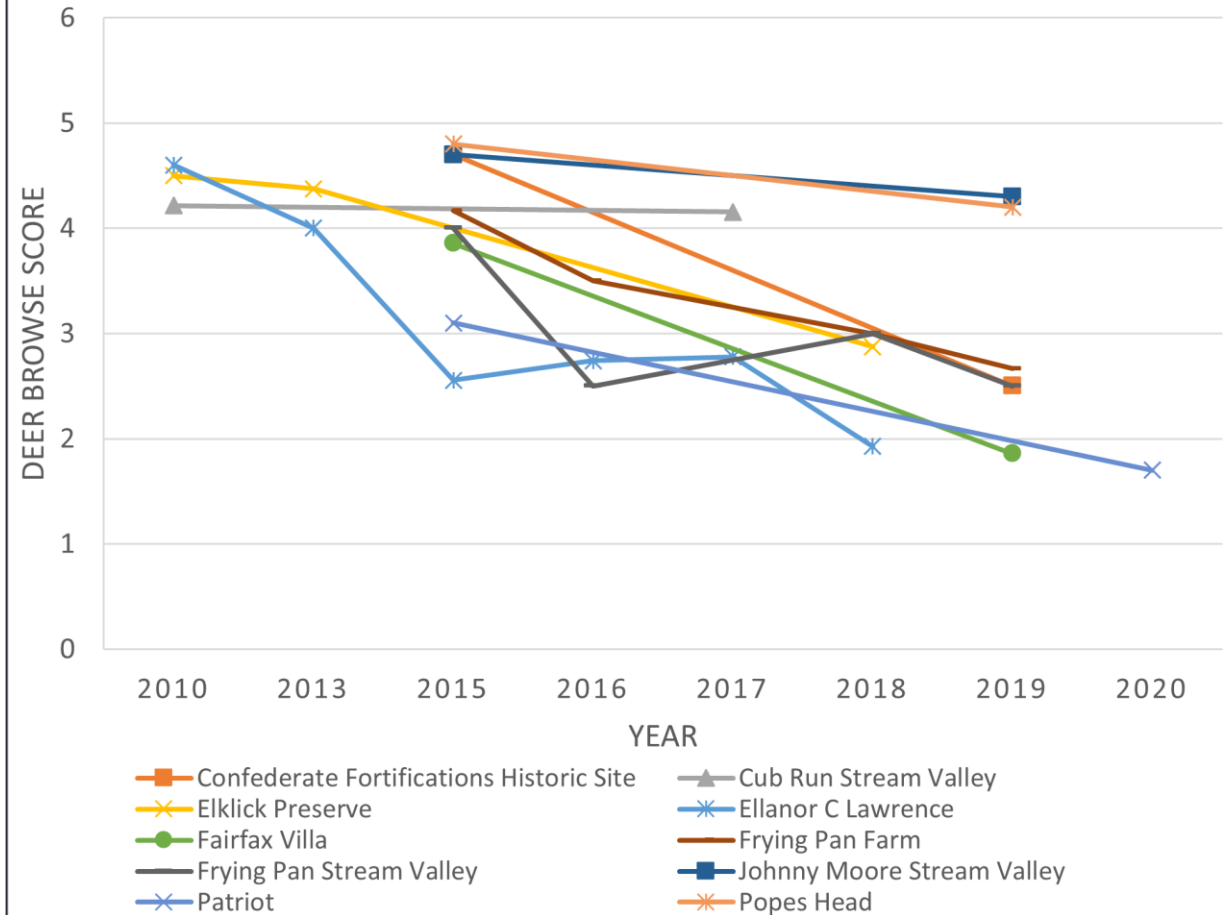
Fairfax County Deer Management Program
Browse Impact Plots



0 3.75 7.5 15 Miles



AVERAGE SCORE OF DEER BROWSE PLOTS (2010 - 2020)



Camera Surveys

- Standardized approach based on Jacobson et al. (1997) using infrared-triggered cameras to estimate deer at a bait station.
- Restrictions on time of year that camera surveys can be conducted.
 - Surveys should be conducted post-fawning season but prior to antler drop (May to January)
 - State regulations now prohibit feeding deer year-round in Fairfax County (requires special approval from DWR to conduct baited survey)
- Allows consistency in sampling and comparison among parks over time to establish trends.
 - Does not represent a complete census or exact number of deer.
 - Not used to set bag limits in individual parks.

Camera Surveys



Jacobson, H.A., J.C. Kroll, R.W. Browning, B.H. Koerth, and M.H. Conway. 1997. Infrared-triggered cameras for censusing white-tailed deer. *Wildlife Society Bulletin* 1997, 25(2):547-556.



Fairfax County Deer Management Program

FY 2021 Summary Statistics

Archery Program Locations	Archery Harvest: Doe	Archery Harvest: BB ^a	Archery Harvest: Antlered Buck	Archery Harvest: Antlerless Buck	Archery Harvest Total
Accotink Stream Valley Cluster	40	10	11	0	61
Bull Run Marina Cluster	7	4	4	0	15
Bull Run Regional Park Cluster	30	3	11	0	44
Clifton Cluster	15	3	8	0	26
Colvin Run Cluster	24	6	10	0	40
Cub Run Cluster	49	11	24	0	84
Elklick Cluster	36	3	18	0	57
Fairfax Station Cluster	22	2	6	0	30
Fountainhead Cluster	20	4	6	0	30
Great Falls Cluster	47	7	13	1	68
Huntley Meadows Cluster	41	5	11	0	57
Lake Accotink Cluster	10	5	3	0	18
Laurel Hill Cluster	51	7	21	1	80
Pohick Stream Valley Cluster	24	0	6	0	30
Reston Cluster	39	2	21	1	63
South Run Cluster	14	2	6	0	22
Sugarland Cluster	37	10	14	0	61
Vienna Cluster	24	4	9	0	37
Archery Sex Ratio & Yearly Total	530	88	202	3	823

Sharpshooting Operation Locations	Sharp-shooting Harvest: Doe	Sharp-shooting Harvest: BB ^a	Sharp-shooting Harvest: Antlered Buck	Sharp-shooting Harvest: Antlerless Buck	Sharp-shooting Harvest Total
Annandale Community Park	4	1	6	1	12
Bren Mar Park/Turkeycock Run Stream Valley	1	1	2	1	5
Chapel Road Park	2	1	0	0	3
Frying Pan Farm Park	4	2	4	0	10
Green Spring Gardens	1	0	0	0	1
Huntley Meadows Park	16	3	4	2	25
Sharpshooting Sex Ratio & Yearly Total	28	8	16	4	56

^aButton buck

FY21 Deer Management Program Non-Recovery Total: 8.44%

Fairfax County Deer Management Program FY 2021 Summary Statistics

Harvest Method	Harvest	Percent Total Harvest
Archery	823	93.63%
Sharpshooting	56	6.37%
<i>FY21 Total Program Harvest</i>	879	100.00%

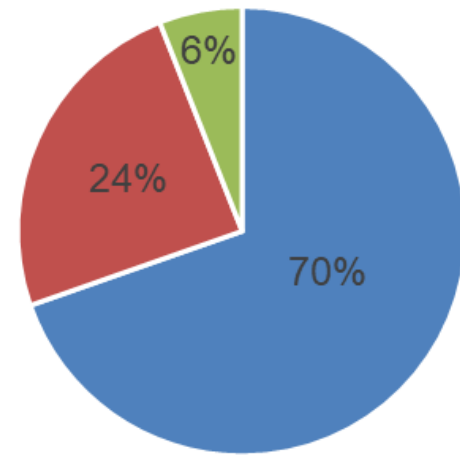
Sex Ratio Percentage by Harvest Method	Doe	BB ^a	Antlered Buck	Antlerless Buck
Archery	64.40%	10.69%	24.54%	0.36%
Sharpshooting	50.00%	14.29%	28.57%	7.14%
<i>Sex Ratio Percentage (Total Harvests)</i>	63.48%	10.92%	24.80%	0.80%

^aButton buck

Antlerless vs. Antlered Deer Totals	Harvest - Antlerless	Harvest - Antlered	Total Harvest	Antlerless Percentage
Archery	621	202	823	75.46%
Sharpshooting	40	16	56	71.43%

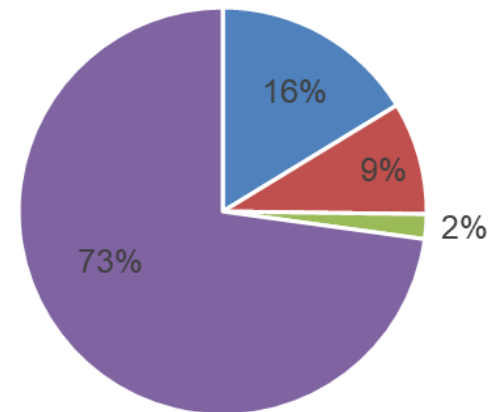
Fairfax County Deer Management Program FY 2021 Summary Statistics (Archery)

Park Visitations by Hunters



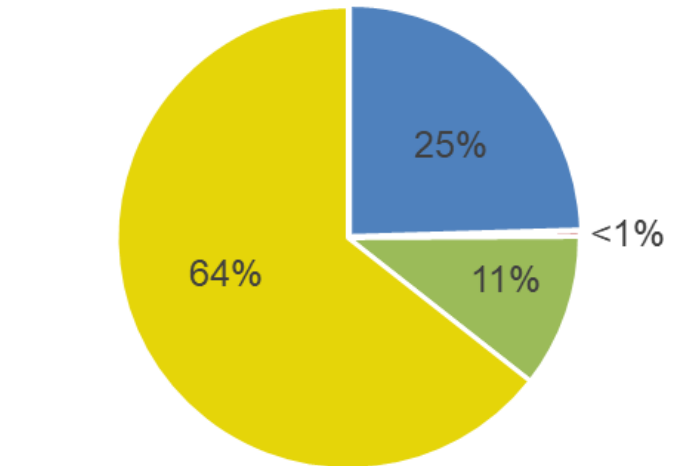
- Hunting - No Harvest
- Non-Hunting
- Hunting - Deer Harvested

Disposition of Harvested Deer



- Family/Friend
- Hunters for the Hungry
- Park Neighbor
- Personal

Harvest by Type of Deer



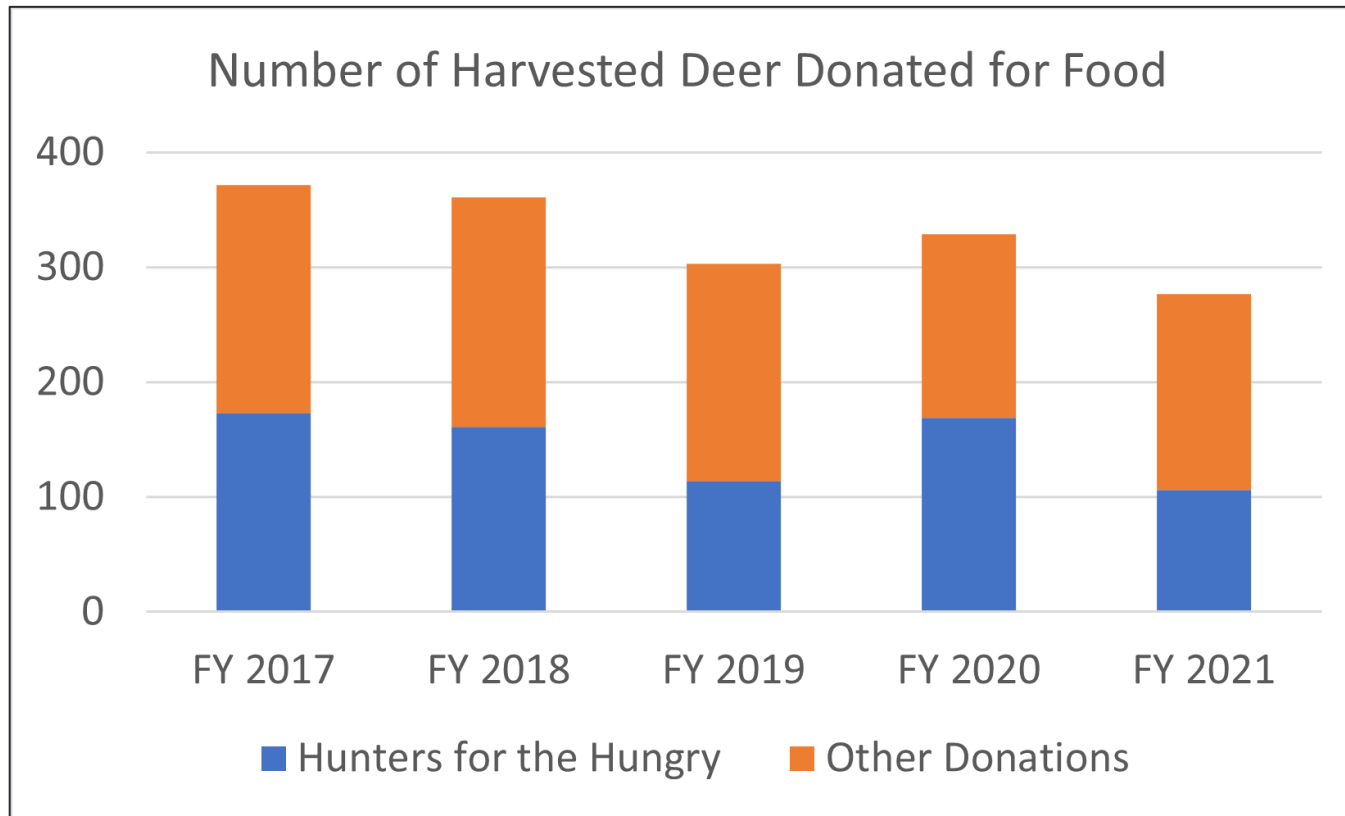
- Antlered Buck
- Antlerless Buck
- Button Buck
- Doe

Fairfax County Deer Management Program Archery Program Comparison (FY 2015-2021)

Fiscal Year	2015	2016	2017	2018	2019	2020	2021
Total Hunters	568	594	627	588	578	596	605
Total Hunter Hours	31,329	37,071	44,881	43,688	42,735	40,105	47,413
Average Hours Per Hunter	55	62	71	74	74	67	78
Deer Harvested	916	1,052	1,092	1,041	854	868	823
% Female Deer Harvested	75.2%	70.5%	65.3%	65.2%	68%	64%	64%
Average Hours Per Deer Harvest	34	29	41	38	45	42	50
Total Archery Clusters	24	22	18	18	18	18	18
Total Parks	56	81	97	98	99	102	104
Total Acres	13,680	16,084	19,125	19,359	19,385	19,931	21,013
Deer per square mile harvest	43	42	37	34	28	28	25

Fairfax County Deer Management Program

Venison Donations (FY 2017-2021)

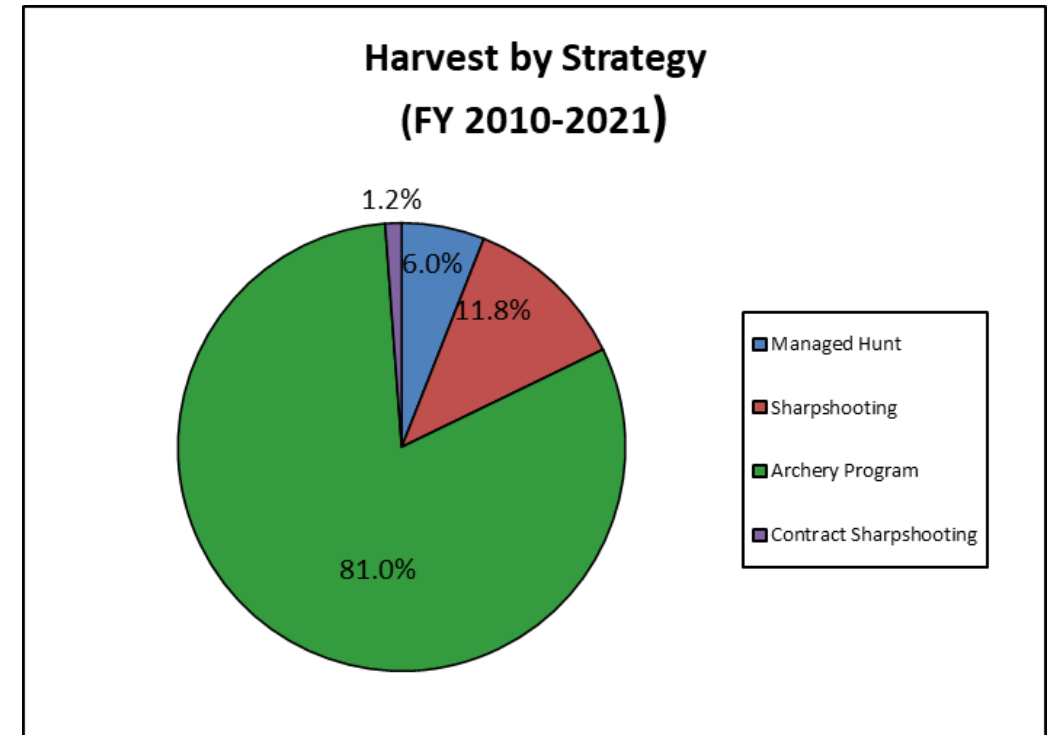
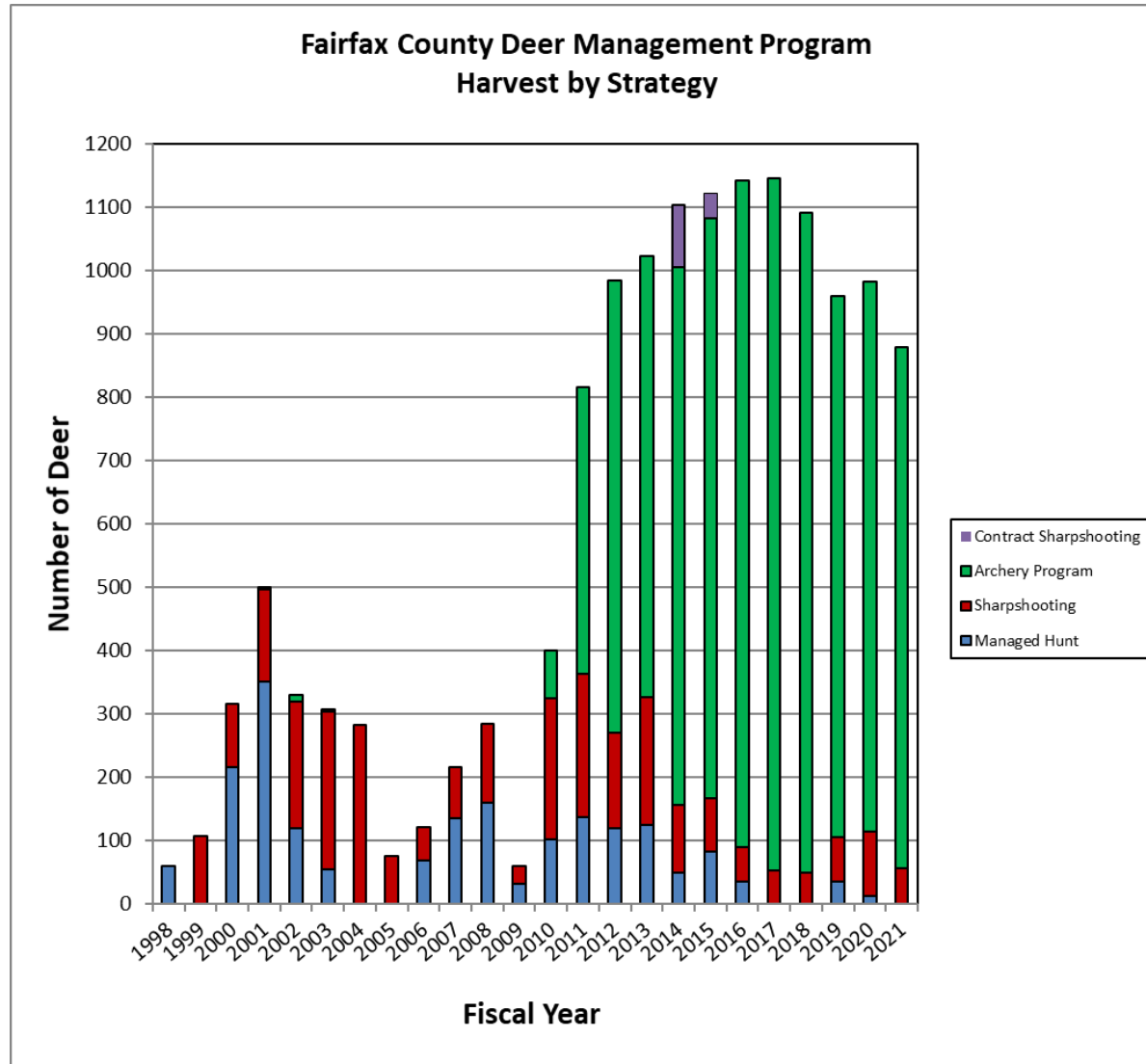


Fiscal Year	Deer Donated	Estimated Pounds of Venison Donated*
2017	372	11,160
2018	361	10,830
2019	303	9,090
2020	329	9,870
2021	277	8,310

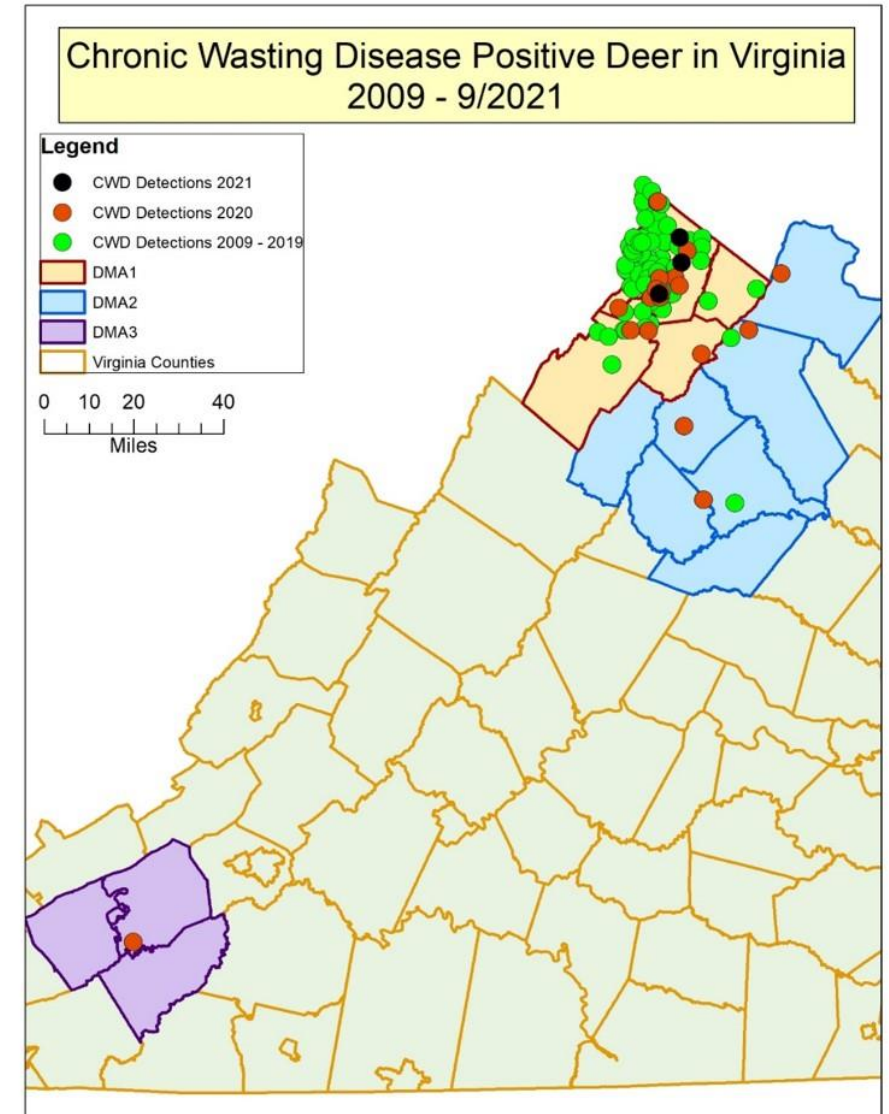
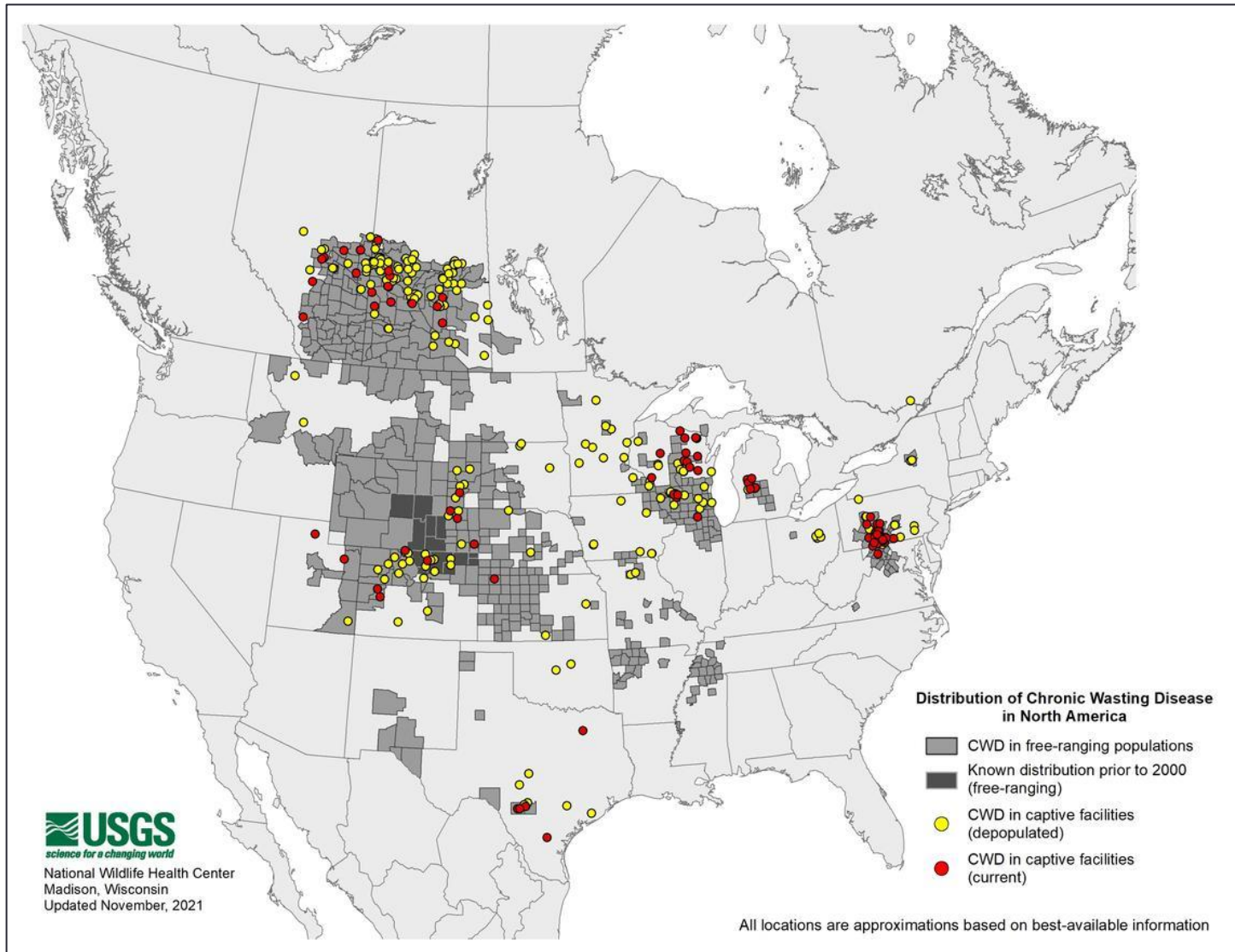
5-Year Total Deer Donations = 1,642 deer
Estimated 49,260 lbs. of donated venison*

*Conservative estimate based on 30 lbs. of venison per deer harvested

Program Harvest Totals (FY 1998-2021)

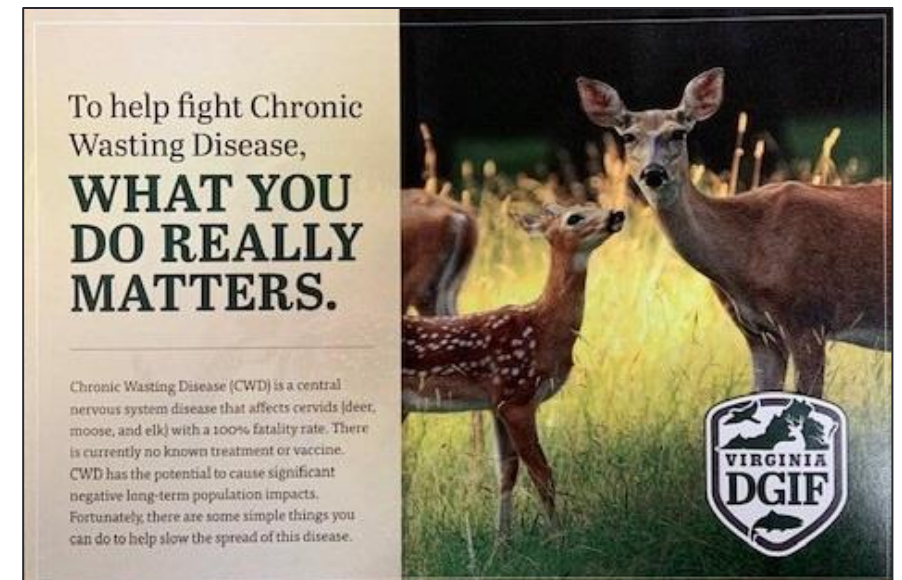


Deer Herd Health - Chronic Wasting Disease



CWD Surveillance

- Staff are conducting sampling of white-tailed deer for CWD surveillance from hunter-harvested deer and sharpshooting operations.
- Staff were trained by personnel with the Virginia Department of Wildlife Resources (DWR) and follow state agency guidelines for the sampling of deer and testing for CWD.
- Medial retropharyngeal lymph node samples are collected from yearling and adult deer (no fawns tested).
- Samples are submitted to the Wisconsin Veterinary Diagnostics Laboratory for CWD testing.
- All results to date have been “CWD Not Detected.”
- All test results are reported to the DWR State Wildlife Veterinarian and Wildlife Disease Biologist.



CWD Surveillance

FY 2020 (2019-2020 deer season)

- 99 deer sampled from 21 parks
- 48 does and 51 bucks

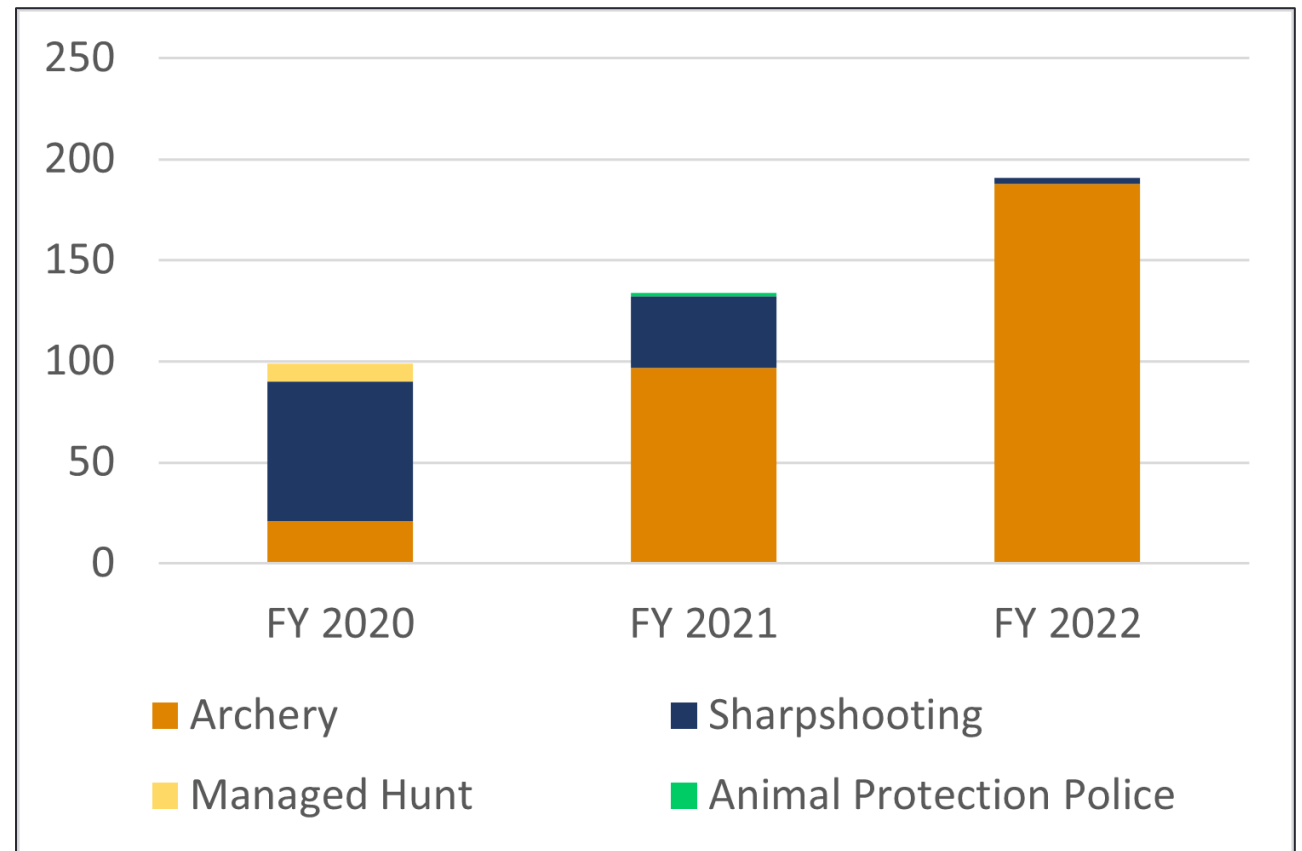
FY 2021 (2020-2021 deer season)

- 132 deer sampled from 55 parks, plus 2 deer dispatched by Animal Protection Police
- 74 does and 60 bucks

FY 2022 (2021-2022 deer season)

- 191 deer sampled from 68 parks as of December 1, 2021 (sampling will continue through March 2022)
- 99 does and 92 bucks

Number of Deer Tested for CWD Surveillance through Fairfax County Deer Management Program



Year-Round Deer Feeding Ban

- Feeding of deer in Fairfax County is now prohibited year-round in accordance with state wildlife regulation (4VAC15-40-285. Unauthorized feeding of cervids.)
- Feeding of deer is prohibited in any county designated by the DWR within 25 miles of a confirmed detection of Chronic Wasting Disease. Although CWD has not been detected in Fairfax County at this time, the year-round feeding ban was extended to Fairfax County due to the proximity of CWD-positive deer confirmed within Fauquier and Loudoun counties.
- The feeding ban restricts the placement or distribution of any food, salt, mineral or similar substances for any purpose if the placement of these materials results in the attraction of and/or feeding of deer. This does not restrict bona fide agronomic plantings (including wildlife food plots), bona fide distribution of food to livestock or wildlife management activities conducted or authorized by the Virginia Department of Wildlife Resources. The feeding ban applies to both public lands and private properties within the Commonwealth.

FAIRFAX COUNTY DEER MANAGEMENT CONTACTS AND RESOURCES

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Animal Protection Police
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Fairfax County Animal Protection Police 703-691-2131

Deer Management Program website:

<https://www.fairfaxcounty.gov/wildlife/deer-management-program>