

STATE OF THE HERD
THE 2025 DEER REPORT

Introduction

Welcome to the first annual Deer Report, a recap of the previous year's deer season and commentary on hot topics in deer management in the Old Dominion. While DWR publishes annual harvest numbers, the Deer Report dives deeper into the numbers and other topics that all deer enthusiasts will find interesting.

In this issue:

2024-2025 Deer Harvest Summary

Current deer population status

Disease Updates

Management Spotlight – Bedford County

2024-2025 Deer Harvest Summary

During the 2024–25 deer hunting season, hunters reported harvesting 205,759 deer in Virginia, down just 0.4% from the 206,586 deer taken during the same time frame the previous season. This year's total included 101,238 antlered bucks, 665 bucks that had shed their antlers, 13,019 button bucks, and 90,837 does (44.1%). The youth and apprentice deer-hunting weekend resulted in a harvest of 2,443 deer. The 2024–25 deer harvest was up approximately 4% from the last ten-year average of 198,398 (Figure 2). These data do not include deer taken on out-of-season deer kill permits or those deer hit and killed by vehicles. The special late antlerless seasons (including urban archery) added 2,613 antlerless deer to the total harvest, bringing the final total to 208,372 (44.6 female, Figure 1).

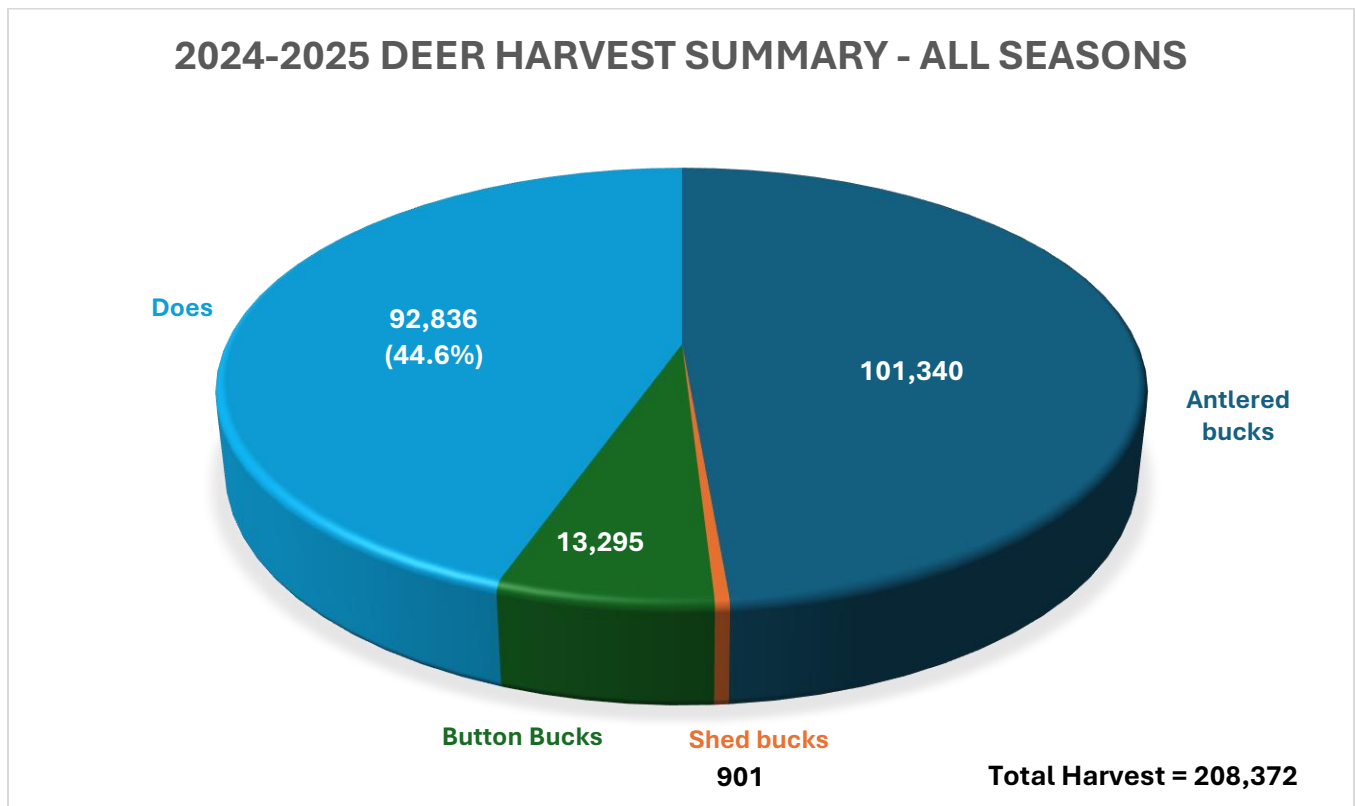


Figure 1. 2024-2025 deer season harvest summary. These totals include the September antlerless only firearms and urban archery seasons (late seasons and kill permit totals are not included in this summary). The late seasons added 2,613 antlerless deer to the final total.

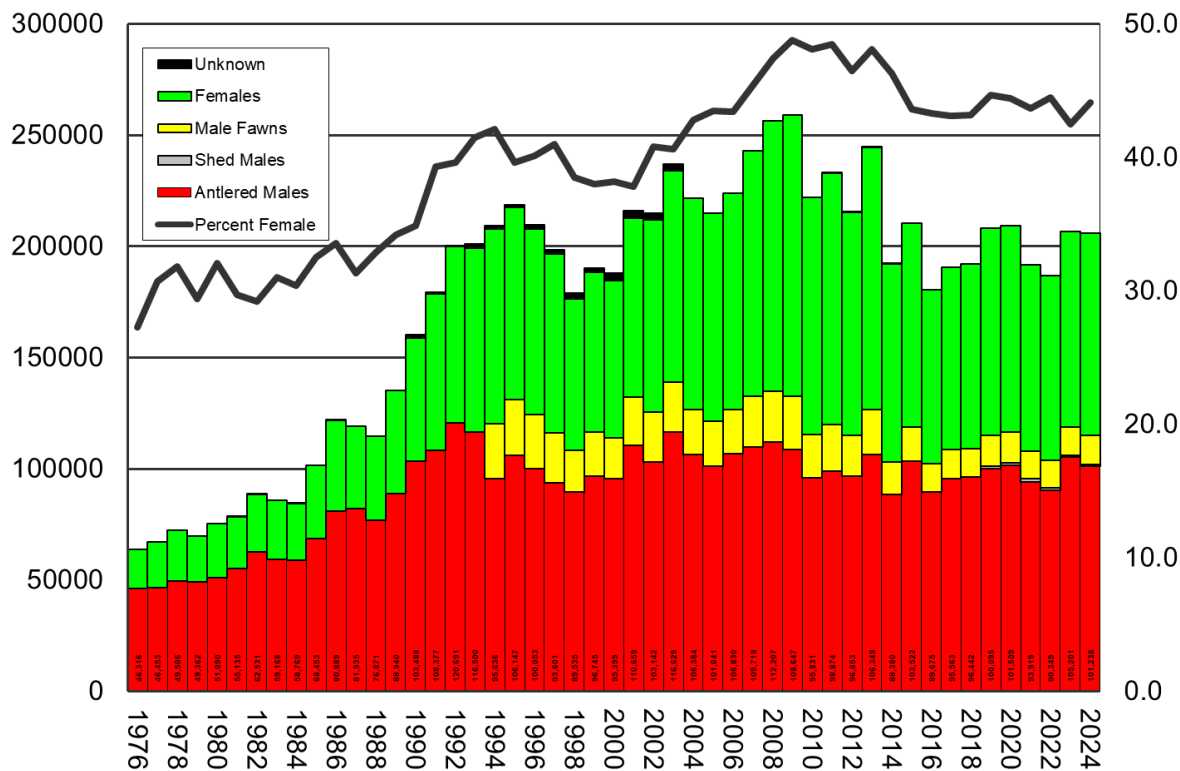


Figure 2. Annual statewide deer harvest by sex and percent females in the harvest, 1976-2024.

Archery hunters took 14% of the total deer harvest while muzzleloading deer hunters and firearms hunters took 24% and 62% of the total harvest, respectively (Figure 3). In counties where dogs could be used to hunt deer, 52% of deer were harvested with the aid of dogs during the general firearms season. Across all seasons in the counties where dogs are legal to hunt deer, dog hunters accounted for 36% of the total deer kill. Kill totals for each county are found in Table 1.



Figure 3. Deer Kill by weapon type for the 2024-2025 deer hunting season.

Table 1. 2024-2025 Virginia Deer Kill by County

County	Antlered Males	Shed Males	Male Fawns	Females	Percent Female	Total Harvest
Accomack	1207	8	279	1749	53.9%	3243
Albemarle	1775	13	199	2028	50.5%	4015
Alleghany	1031	0	31	315	22.9%	1377
Amelia	1232	10	222	1207	45.2%	2671
Amherst	1695	13	167	1441	43.5%	3316
Appomattox	744	4	91	488	36.8%	1327
Augusta	2911	7	269	2539	44.3%	5726
Bath	1053	2	34	494	31.2%	1583
Bedford	3356	14	413	3933	51.0%	7716
Bland	827	3	58	476	34.9%	1364
Botetourt	1552	3	130	1323	44.0%	3008
Brunswick	1219	11	237	1036	41.4%	2503
Buchanan	874	0	11	182	17.1%	1067
Buckingham	1380	9	141	753	33.0%	2283
Campbell	1450	3	189	1180	41.8%	2822
Caroline	1222	25	271	1322	46.5%	2840
Carroll	1499	6	123	1312	44.6%	2940
Charles City	520	6	112	555	46.5%	1193
Charlotte	1023	6	145	692	37.1%	1866
Chesapeake	238	0	43	200	41.6%	481
Chesterfield	715	4	102	580	41.4%	1401
Clarke	644	8	72	753	51.0%	1477
Craig	999	4	65	588	35.5%	1656
Culpeper	1192	10	162	1466	51.8%	2830
Cumberland	1093	7	154	928	42.5%	2182
Dickenson	733	1	9	292	28.2%	1035
Dinwiddie	971	12	245	1043	45.9%	2271
Essex	565	13	190	831	52.0%	1599
Fairfax	475	1	66	553	50.5%	1095
Fauquier	2067	15	282	2437	50.8%	4801
Floyd	1337	13	107	1318	47.5%	2775
Fluvanna	841	8	87	614	39.6%	1550
Franklin	1981	7	192	1902	46.6%	4082
Frederick	1203	6	118	1240	48.3%	2567
Giles	1035	3	93	843	42.7%	1974
Gloucester	447	14	137	523	46.7%	1121
Goochland	792	7	110	645	41.5%	1554
Grayson	1477	5	127	1434	47.1%	3043
Greene	472	2	65	435	44.7%	974
Greensville	767	6	186	907	48.6%	1866
Halifax	1946	13	240	1553	41.4%	3752
Hanover	815	13	236	1254	54.1%	2318
Henrico	303	1	42	319	48.0%	665
Henry	1004	4	33	436	29.5%	1477
Highland	1069	3	55	563	33.3%	1690
Isle of Wight	961	16	253	1226	49.9%	2456
James City	337	2	50	405	51.0%	794
King & Queen	798	11	289	1126	50.6%	2224
King George	429	8	73	349	40.6%	859
King William	714	8	156	822	48.4%	1700
Lancaster	407	9	114	530	50.0%	1060
Lee	846	0	25	323	27.1%	1194
Loudoun	1678	12	237	2165	52.9%	4092
Louisa	1234	13	217	999	40.6%	2463
Lunenburg	868	3	125	638	39.0%	1634
Madison	836	7	140	1004	50.5%	1987
Mathews	213	4	43	254	49.4%	514
Mecklenburg	1272	3	169	1012	41.2%	2456
Middlesex	288	2	72	298	45.2%	660
Montgomery	1347	2	118	1279	46.6%	2746
Nelson	1431	6	95	638	29.4%	2170
New Kent	528	11	116	511	43.8%	1166
Northampton	498	2	111	599	49.5%	1210
Northumberland	484	7	107	599	50.0%	1197
Nottoway	887	6	166	904	46.1%	1963
Orange	835	6	142	1094	52.7%	2077
Page	905	4	67	660	40.3%	1636
Patrick	1004	2	43	392	27.2%	1441
Pittsylvania	2661	15	244	1956	40.1%	4876
Powhatan	903	4	124	867	45.7%	1898
Prince Edward	890	5	82	577	37.1%	1554
Prince George	687	8	166	1019	54.2%	1880
Prince William	494	2	38	482	47.4%	1016
Pulaski	1006	2	94	954	46.4%	2056
Rappahannock	795	14	113	995	51.9%	1917
Richmond	472	10	160	696	52.0%	1338
Roanoke	721	1	66	641	44.9%	1429
Rockbridge	1651	1	105	970	35.6%	2727
Rockingham	2485	3	188	1722	39.2%	4398
Russell	1244	4	56	616	32.1%	1920
Scott	1521	5	72	823	34.0%	2421

County	Antlered Males	Shed Males	Male Fawns	Females	Percent Female	Total Harvest
Shenandoah	1412	4	120	1377	47.3%	2913
Smyth	1066	3	64	588	34.2%	1721
Southampton	1855	40	583	2574	51.0%	5052
Spotsylvania	793	7	135	682	42.2%	1617
Stafford	441	6	61	465	47.8%	973
Suffolk	741	8	144	891	49.9%	1784
Surry	925	11	222	1221	51.3%	2379
Sussex	1431	23	406	1807	49.3%	3667
Tazewell	1210	2	56	585	31.6%	1853
Virginia Beach	108	0	13	79	39.5%	200
Warren	618	3	57	575	45.9%	1253
Washington	1529	3	42	654	29.4%	2228
Westmoreland	555	9	167	679	48.2%	1410
Wise	925	0	27	280	22.7%	1232
Wythe	1242	2	91	1247	48.3%	2582
York	306	3	55	306	45.7%	670
TOTALS	101,238	665	13,019	90,837	44.1%	205,759

Virginia deer hunters have been more selective in their harvests in recent years, and are more selective than ever. Over the past decade, hunters are taking more bucks than does (Figure 4), and a similar trend is seen nationwide (Figure 5). This does not bode well for meeting population objectives throughout much of the state, nor elsewhere in the country. In addition to selecting bucks over does, hunters are selecting for bigger bucks as well. The percentage of bucks taken that have 8 points or more is climbing on both private and public lands, and surpassed 50% on private land this past hunting season (Figure 6).

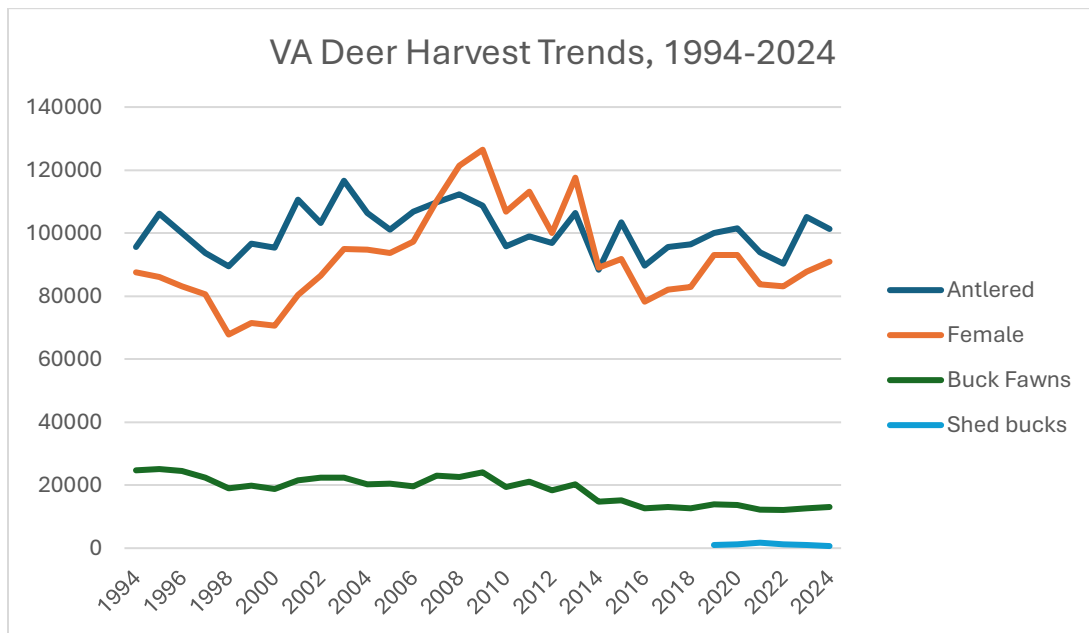


Figure 4. Trends in antlered buck, doe, button buck, and shed buck harvests in Virginia. Aggressive doe harvest regulations helped stabilize deer herds in the early 2000s, but buck harvest has surpassed doe harvest since 2014.

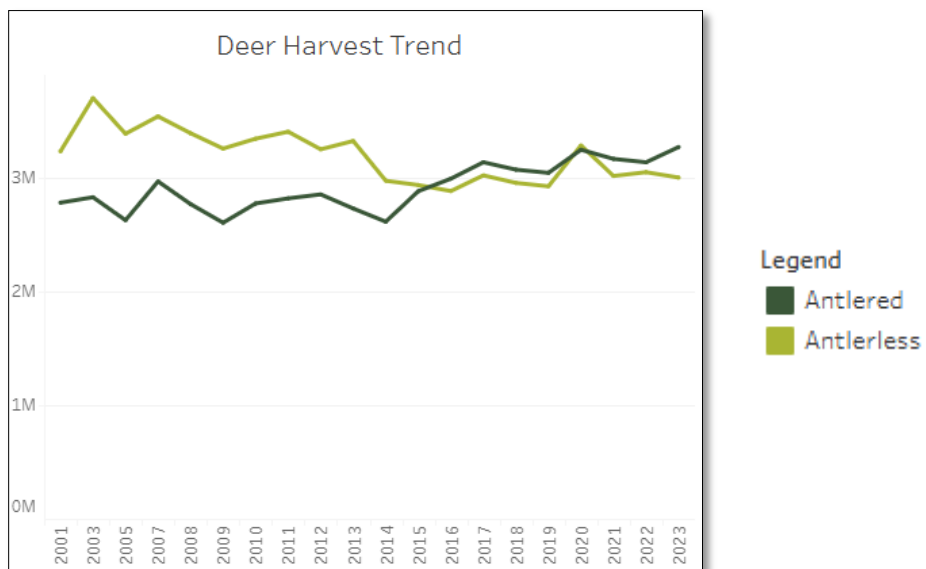


Figure 5. The national trend of antlered and antlerless harvest is similar to that in VA. Graph from the National Deer Association's Interactive Deer Report (<https://deerassociation.com/interactive-deer-report/>)

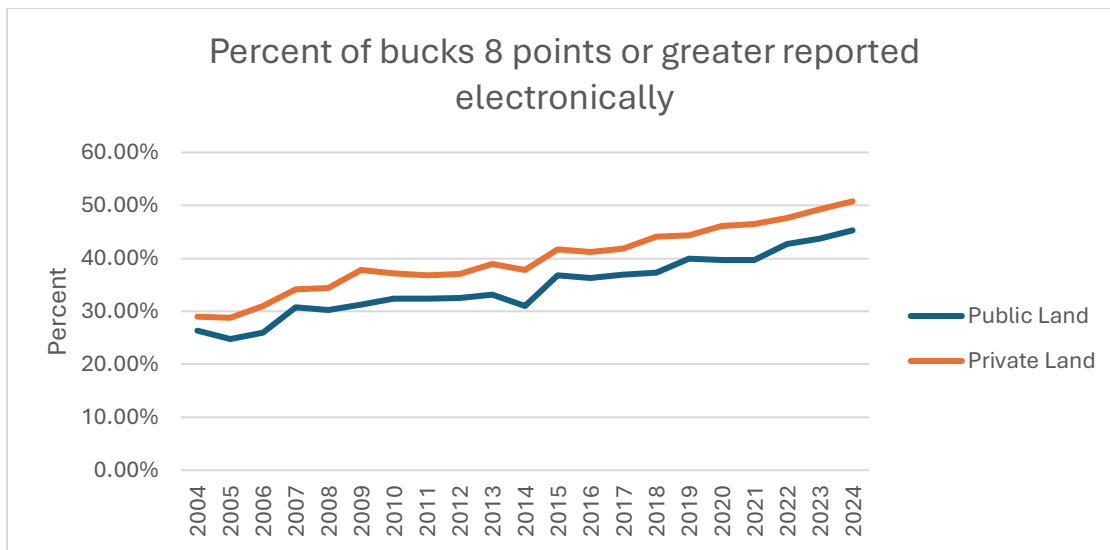


Figure 6. The percentage of bucks, reported electronically, having 8 points or more since 2004 on both public and private land. Electronic reporting became mandatory in 2021. 50% of the bucks reported on private land had 8 or more points.

Note in Figure 4 that lower doe harvest in the late 90s was due to conservative either-sex regulations at the time. In the early 2000s, either-sex regulations became more liberal to address overabundant deer populations, and hunters responded. However, antlerless harvest was still lagging in many area, so in 2008, the Earn-a-buck regulation was introduced. Also notice the big dip in 2014 for both buck and doe harvest—this was a big year for hemorrhagic disease (HD) across the state. Either-sex days were reduced in the areas that were hit the hardest by HD, and populations have rebounded and then some. Since then, buck harvest has remained above doe harvest despite liberal either-sex regulations throughout much of the state.

Figure 7 shows the current relative abundance map for deer on private lands. The Deer Population Index (DPI) Virginia uses is calculated as the number of antlered bucks taken per square mile of deer habitat in each county. A study conducted in collaboration with Virginia Tech in 2014 helped develop a scale of DPI values that correspond to various levels of relative abundance of deer (very low, low, moderate, moderate to high, high). Through a stakeholder-driven process in the last Deer Management Plan, each county was assigned an objective based on societal tolerance for deer (termed “cultural carrying capacity” or CCC). Figure 7 depicts the current status, objective, and management goal (decrease, increase, or stabilize) for each county. We are trying to decrease deer abundance in nearly half of the counties in the state. One assumption of the DPI is that hunters shoot the first buck they see, which clearly isn’t the case nowadays—this means that our method of monitoring relative abundance is likely underestimating herds relative to CCC. We look to improve our methods of monitoring deer abundance through the next Deer Plan revision process. Regardless, the trend remains—deer herds are above objective on private lands throughout much of the state and probably in more areas than the index currently suggests.

Current Private Land Deer Population Management Approach

2025 Private land

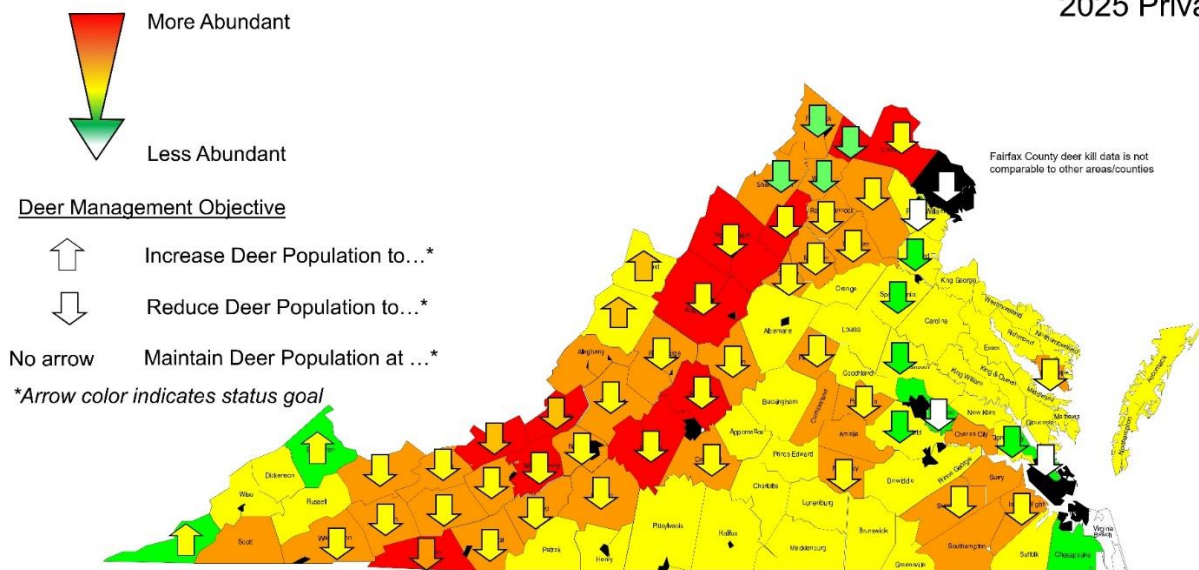


Figure 7. County deer relative abundance map showing current status, objective, and management approach for private lands as of the end of the 2024-2025 hunting season.

Meeting population objectives on private land is becoming increasingly difficult as Virginia continues to urbanize (Figure 8) and hunter numbers continue to decline (Figure 9).

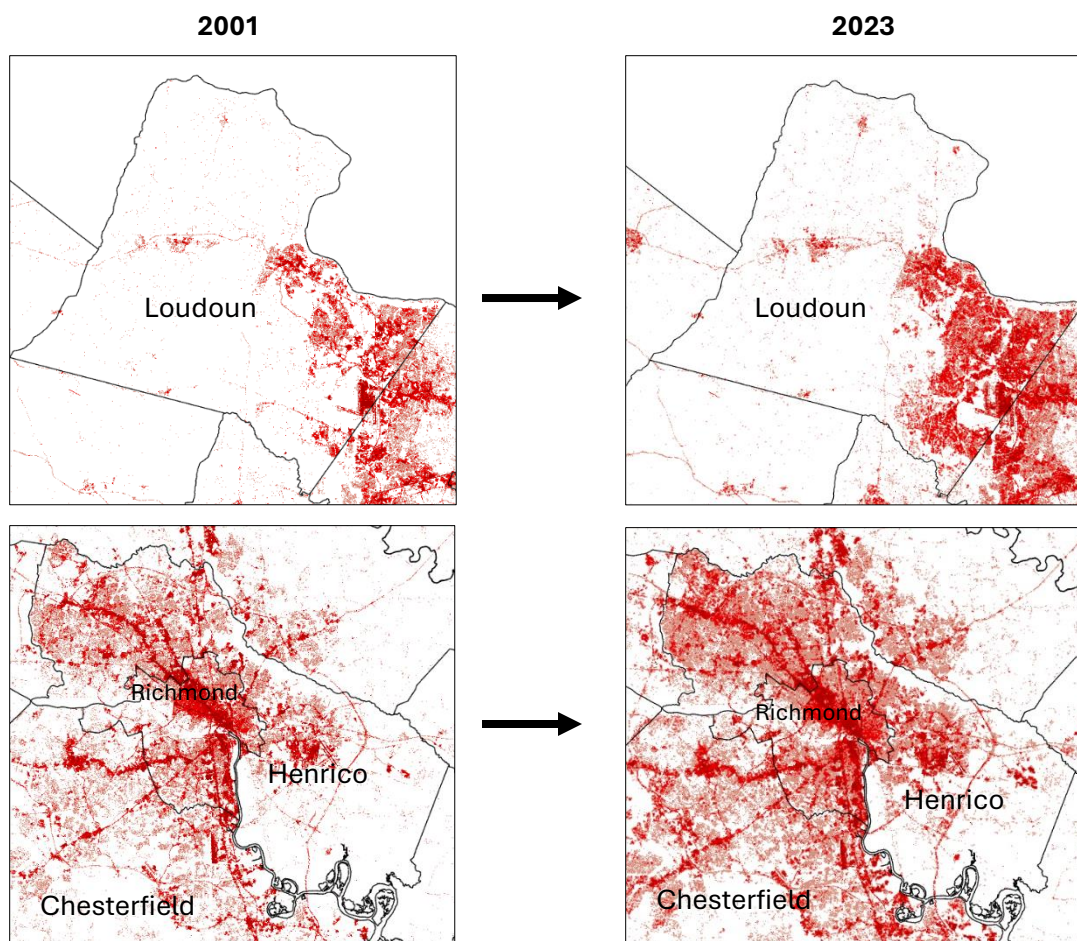


Figure 8. Development changes in Loudoun (top) and the Henrico, Chesterfield, and Richmond area (bottom) from 2001 to 2023. Red shading indicates land covered in development. Data acquired from the National Land Cover Database (NLCD).

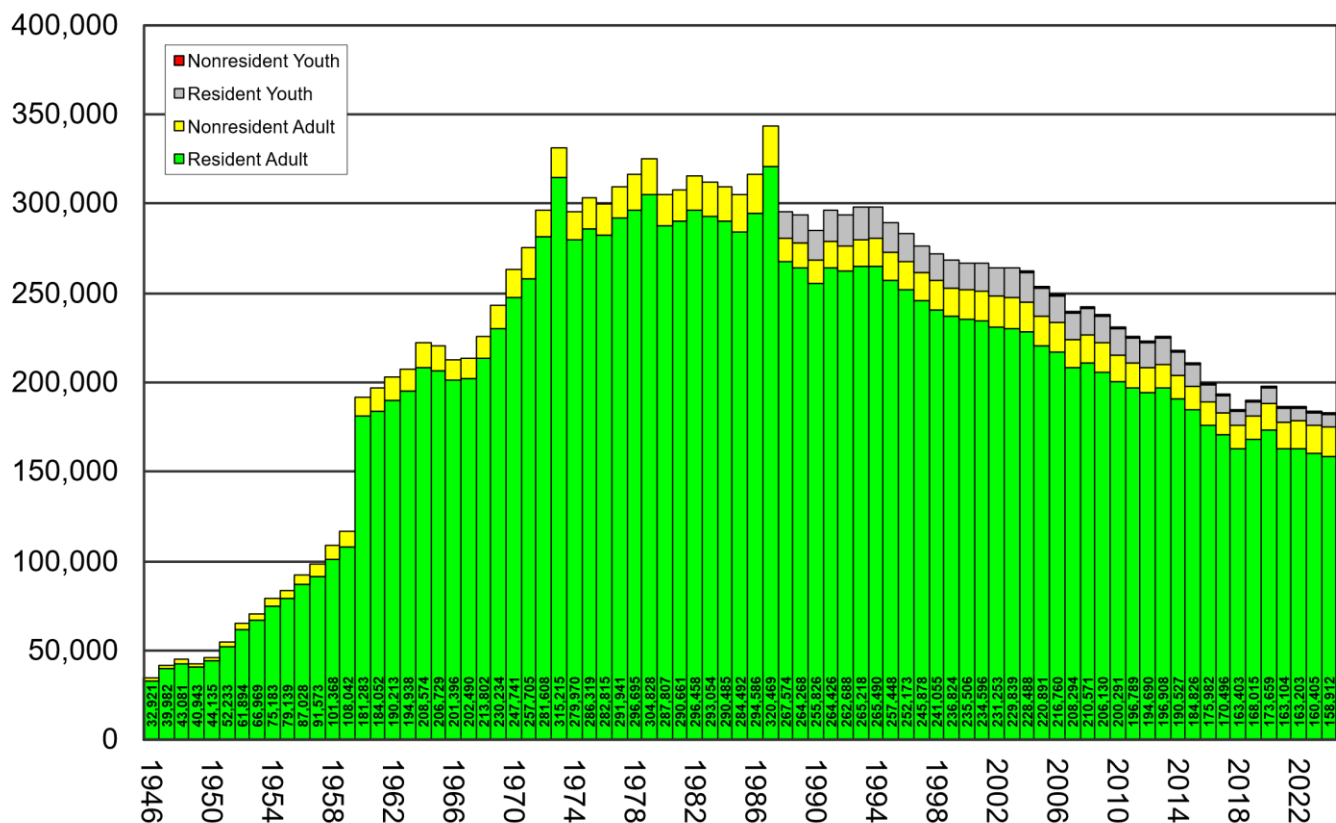


Figure 9. Virginia deer license sales from 1946 to present. Virginia saw a peak of over 340,000 deer licenses sold in 1987. There were 183,021 licensed deer hunters in the 2024-2025 season. The “COVID bump” in 2020 was short-lived.

Deer Kill per square mile of deer habitat 2025

Figure 10 shows the total deer killed per square mile of deer habitat in each county. Bedford County leads the state at nearly 11 deer killed per square mile! Despite such heavy harvest, Bedford still has a tremendous number of deer, showing just how productive the county is and how prolific deer can be.

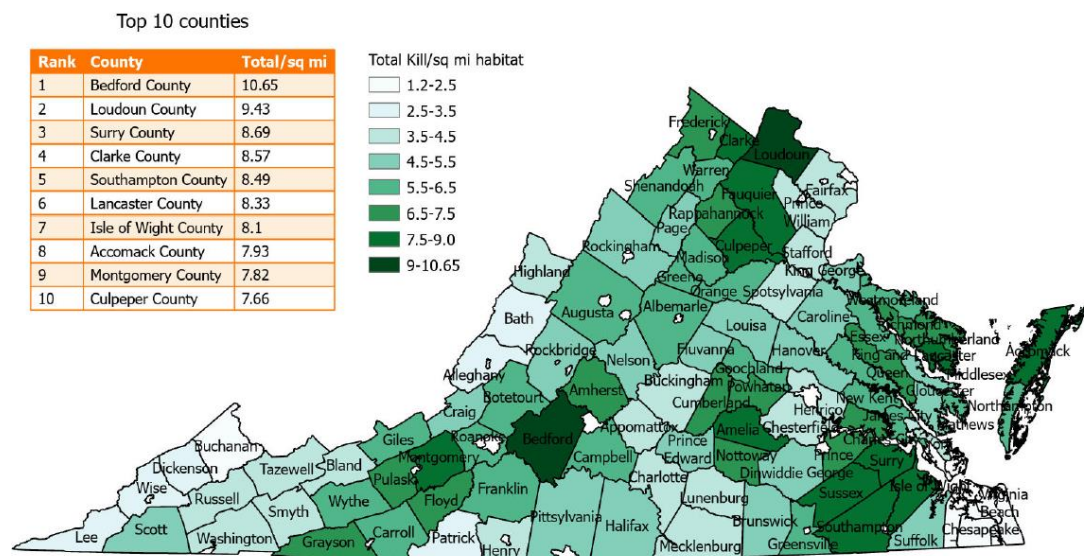


Figure 10. Map of deer harvest per square mile of habitat. Darker shades reflect higher “harvest intensity.” The top 10 counties are also listed. Despite having the top two harvest intensities, Bedford and Loudoun are still well above objective.

Disease Updates

Hemorrhagic Disease

Hemorrhagic disease (HD) is a viral disease that's transmitted by biting midges (sometimes called "no-see-ums"). These midges prefer to breed in mud flats that are often created at the edge of ponds and streams as they dry up during a hot, dry period in late summer. When a deer becomes infected with the HD virus, it will often develop an incredibly high fever, causing it to seek water to cool itself. Not all deer will die from an infection, and some herds have developed varying levels of immunity to the disease. Those deer that do die often die within days of being infected. HD will often occur as a localized outbreak where many deer may be found dead in or around water in good body condition.

2024 was another active year for HD, especially west of the Blue Ridge (WBR). The Shenandoah Valley experienced another significant drought last summer, and we saw an increase in HD as a result. We confirmed HD outbreaks in Albemarle, Alleghany, Augusta, Botetourt, Frederick, Page, and Rockingham. Historically, HD occurs less frequently WBR due to cooler temperatures and typically more rainfall. Also, hard freezes kill midges so earlier frosts have usually put a damper on HD activity WBR. However, as our climate gets warmer and we experience more droughts, HD activity has been increasing recently WBR as well as in other northeastern states where HD has been less common or nonexistent. The good news is that even herds that have been hit hard by HD can rebound within a couple of years barring any HD activity in subsequent years. DWR tracks HD activity through citizen observations, reports from the Wildlife Conflict Helpline, and hoof data from DMAP cooperators (Figure 8).

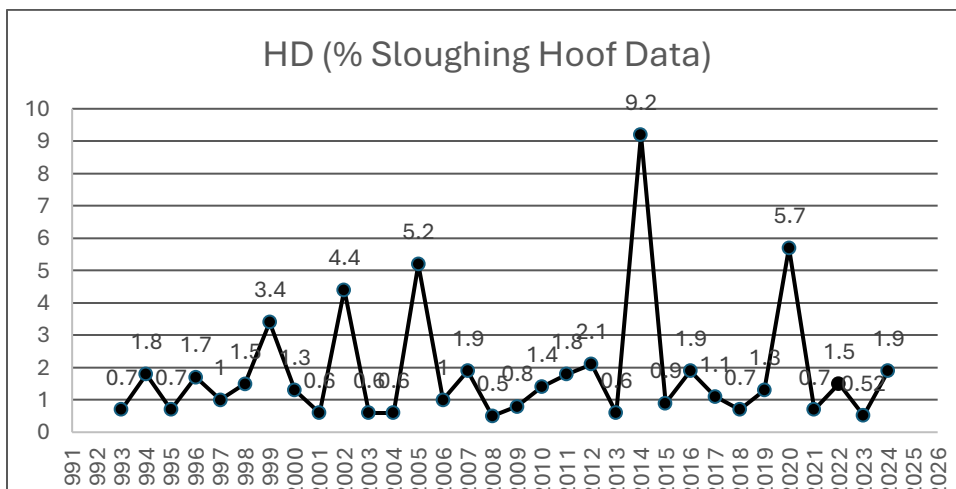


Figure 8. Percentage of deer harvested by DMAP cooperators that had splitting or sloughing hooves. The high fever caused by HD interrupts hoof growth, causing splitting or sloughing hooves. These observations help track HD activity across the state. Note the huge spike in 2014.

Chronic Wasting Disease

Chronic Wasting Disease (CWD) is a disease like no other. CWD is not caused by any sort of a virus or bacteria, but a protein called a prion. There are normal prions in the body, but the CWD prion is misfolded and causes other prions to misfold. CWD belongs to a group of diseases known as Transmissible Spongiform Encephalopathies (TSEs), which literally translates to a disease that creates holes in brain tissue and can be passed from one individual to another. Other TSEs include Bovine Spongiform Encephalopathy (BSE, or "Mad Cow Disease"), Scrapie (occurs in sheep and goats), and Creutzfeldt-Jakob Disease (CJD, occurs in humans). CWD is known only to infect members of the deer family (cervids), including white-tailed deer, mule deer, elk, moose, and reindeer. The prions create holes in the brain and other tissues in the central nervous system that ultimately affect the animal's ability to function, causing it to starve or "waste away" (hence the name Wasting Disease). While the origin of CWD is unknown, it is possible that CWD either mutated from scrapie in sheep that shared pastures or captive facilities with mule deer along the front range of the Rocky Mountains or that it is a spontaneous TSE. CWD is the most significant wildlife disease of our time. It is always fatal to deer and there is no cure or vaccine.

It is believed that the main route of CWD transmission is through the ingestion of prions, although fawns can also get the disease *in utero* from the mother if she's infected during pregnancy. A deer infected with CWD will at some point begin shedding CWD prions in saliva, urine, and feces. It is unknown at what stage of infection that deer begin shedding the infectious prions, but the incubation period for CWD (the time it takes from the exposure to CWD prions to the onset of clinical disease) is quite long. In experimental settings, minimum incubation was about 15 months and average time from infection to death was about 23 months in mule deer. The maximum course of disease is unknown, but can exceed 25 months in experimentally infected deer. Prions have no genetic material, are highly resistant to heat and disinfectants, and remain infectious in the environment for prolonged periods.

Once an animal reaches the clinical stage of the disease and develops neurological symptoms, it may still take a while for the animal to die. It is in the very late stages of the disease when one may see the so-called “zombie deer,” as the media tends to describe them—staggering, slobbering bags of bones that are unaware of their surroundings. Because of the long incubation period and the time it takes for deer to show visible symptoms, infected deer can shed prions and potentially spread the disease for over a year while appearing perfectly healthy. In fact, when hunters receive a call from us notifying them their deer tested positive, they are usually surprised because their deer showed no signs of disease. Additionally, many of our positives come from bucks taken to a cooperating taxidermist, and these are typically big, handsome deer—not some “zombie.” Many times, infected deer may die of other causes before they succumb to the disease itself, such as predation, pneumonia, or getting hit by a vehicle due to their neurological deficits.

In the 2024-2025 season, we surpassed 100 positive detections, the highest total of any year since the disease was first detected in Frederick County in 2009.



The Roanoke County positive before being dispatched. Photo by Mark Edwards.

CWD sampling effort and positives for the 2024-2025 season.

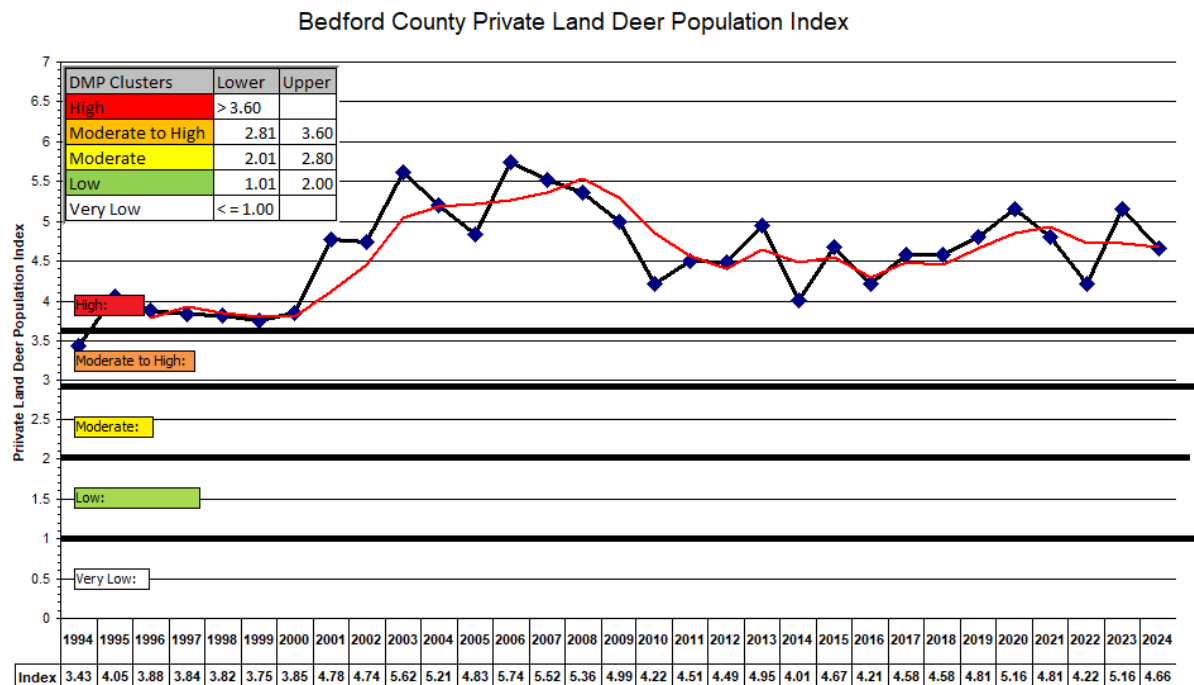
DMA	Counties in DMA	Total deer tested	CWD detections	Location of detections
1	Clarke, Frederick, Shenandoah, Warren	611	79	Clarke (9) Frederick (53) Shenandoah (12) Warren (5)
2	Arlington, Culpeper, Fairfax, Fauquier, Loudoun, Madison, Orange, Page, Prince William, Rappahannock	2959	17	Culpeper (2) Fauquier (3) Loudoun (7) Madison (3) Prince William (1)* Rappahannock (1)
3	Carrol, Floyd, Franklin, Pulaski, Roanoke, Wythe	2123	13	Floyd (5) Montgomery (7) Roanoke (1)*
4	Bland, Smyth, Tazewell	146	0	
Non-DMA statewide		2262	0	

* Denotes first positive detection in the county. The first positive detection in Prince William was found after a culling effort at Manassas Battlefield Park in winter 2025. The Roanoke County positive was a 6.5 year-old buck that was showing late-stage symptoms of CWD and was dispatched by a local Animal Control officer.

Management Spotlight: Bedford County

In “Management Spotlight,” I will plan to highlight a unique region or situation relative to deer management in Virginia that I feel is worth sharing. In this inaugural edition of the Deer Report, I’ve selected Bedford County.

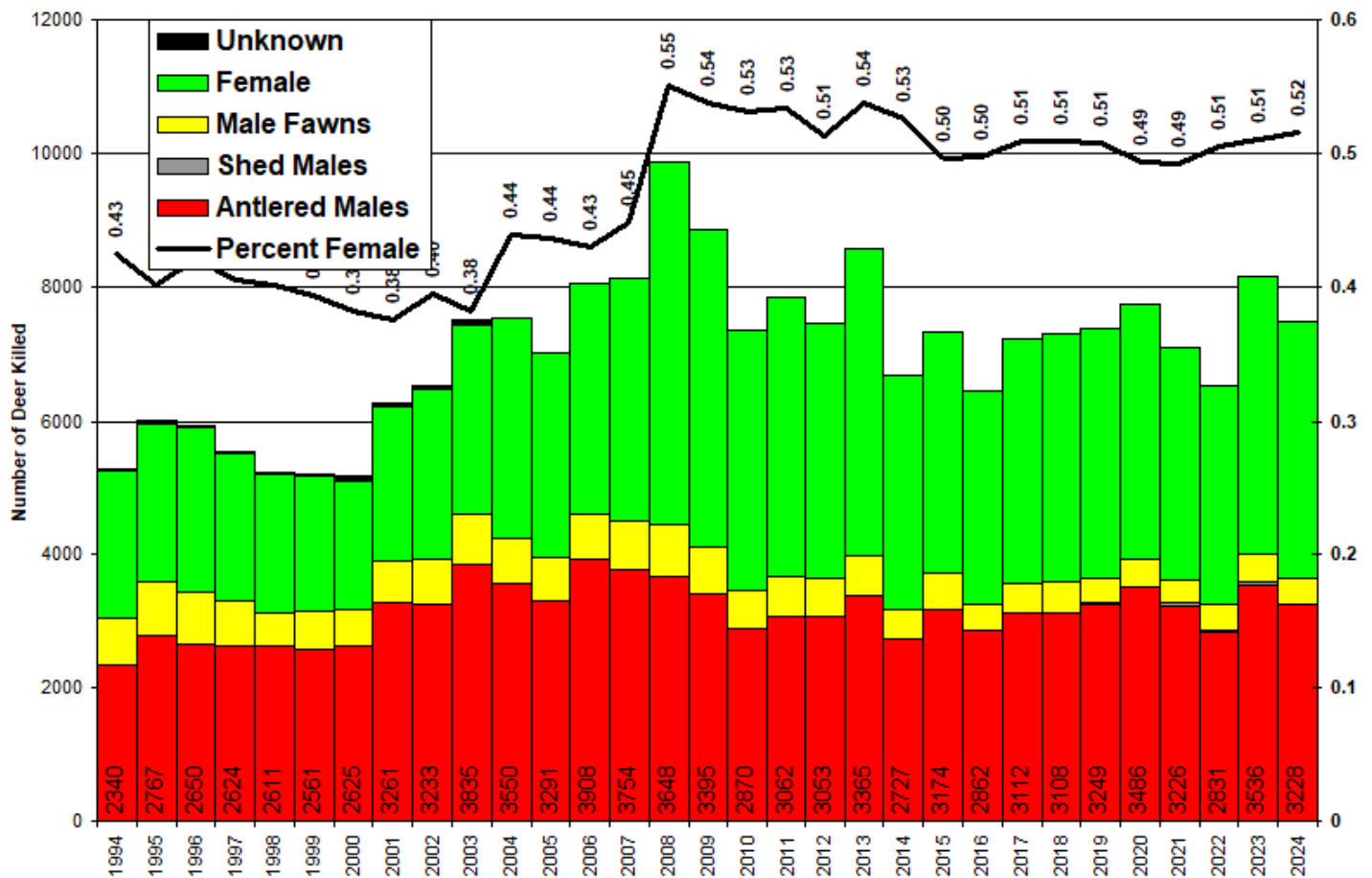
It’s difficult to pick one thing to focus on with Bedford, which is partly why I wanted to highlight it here; it has a lot of things going on. First and foremost, Bedford is what I call a “deer factory.” At over 760 square miles in size and being 95% deer habitat, there’s certainly plenty of space for deer to call home. On top of the amount of habitat, a lot of it is high quality, meaning does can pump out lots of fawns and bucks can produce impressive sets of antlers. Bedford consistently yields the highest total of deer killed per square mile of deer habitat in the state (as high as 11 deer killed per square mile!). While it may sound like a deer manager’s paradise, these figures come with their share of baggage as well. Bedford consistently leads the state in the number of deer-vehicle collisions, its deer population has historically been well above objectives set forth in the state Deer Management Plan (see population index graph below), and agricultural producers deal with extensive crop damage each year.



The population index used by DWR to monitor population trends in each county is the 3-year average of the total number of antlered bucks killed per square mile of deer habitat (red line). A cultural carrying capacity (CCC) study completed by VA Tech in 2014 helped develop the upper and lower bounds of each population index category (very low, low, moderate, moderate to high, and high) for the 2015 Deer Management Plan. DWR’s objective in Bedford has been to reduce herds since the Deer Plan was revised in 2006.

Bedford County first went full season either-sex in 1991—between 1987 and 1991, one could only take a doe with a firearm the last 6 days of the firearms season, and from 1980-1986, it was only the last 3 days. In 2008, DWR unveiled the earn-a-buck (EAB) regulation, under which a hunter is required to take at least 1 doe before taking their second buck, and at least 2 does prior to taking their 3rd buck. Bedford was one of the first 8 counties where DWR implemented EAB in an effort to try to increase antlerless (female) harvest to reduce deer populations. The goal was to increase the percentage of females in the harvest to 50% or more in order to drive the population trend downward. EAB yielded an immediate bump in percent females reported in the harvest, and the population index began to turn. Over time, the percentage of females in the harvest has dropped and the population index began to climb again. In 2023, DWR added the early (September) and late (January) antlerless only firearms seasons to try to right the ship. In 2025, the firearms season was extended from 4 to 7 weeks.

Bedford County Private Land Deer Kill 1994 to Present



While DWR's deer management staff can try to influence the doe kill by increasing opportunity (season length) and implementing regulations aimed at requiring hunters to kill does (EAB), it's up to the hunters to pull the trigger. Nearly every state that manages white-tailed deer is currently facing the issue of hunters' reluctance to shoot does, and Virginia is certainly one of those states. To help influence doe harvest at the local level, a group of Bedford County landowners, farmers, and administrators partnered with Virginia Hunters for the Hungry and 3 local deer processors to initiate the "Bedford County Deer Management Project Raffle." Several donors and sponsors chipped in to provide 5 prizes for the drawing. To be eligible, a hunter had to donate a deer (taken in Bedford) to one of the 3 participating processors, and they received 1 raffle ticket for each deer that was donated. This effort yielded 1,107 deer being donated in 2024/2025 in Bedford County (an 80% increase from the previous year), and 30,537 pounds of venison (75% increase from previous year). Percent females in the harvest on private land went up one percentage point from the previous year over the same time period. Hunters donated approximately 14% of the total county harvest to Hunters for the Hungry! This program was a win for all involved—increased doe harvest was achieved, more venison was distributed to those in need, and 5 lucky hunters got some great prizes.