

2021-2022 Kentucky White-tailed Deer Harvest and Population Report

Kentucky Department of Fish and Wildlife Resources



Photo Credit: Joe Lacefield, Regional Biologist



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Introduction

The Deer Program is administered under the Wildlife Division of Kentucky Department of Fish and Wildlife Resources (KDFWR). It is overseen by a nine-member commission who are nominated by Kentucky’s sportsmen and sportswomen and appointed by the Governor. The department employs about 450 full-time staff, which includes conservation officers, wildlife and fisheries biologists, conservation educators, and information and technology, public relations, customer service and administrative professionals.

KDFWR funding is provided primarily by the sale of hunting and fishing licenses, boating registration fees and federal funds, including grants based on the number of licenses sold in the state.

The Deer Program is tasked with managing the white-tailed deer herd in the state to provide ample hunting opportunity while balancing the needs of consumptive and non-consumptive user groups. The Deer Program is comprised of one Program Coordinator, Noelle Thompson and two Deer Program Biologists, David Yancy and Kyle Sams. Deer Program staff are based out of the KDFWR Headquarters in Frankfort.

Deer in Kentucky

Deer are native to Kentucky and were present since Dr. Thomas Walker first reported in 1750 that the deer are “plentiful”. However, due to unregulated harvest, the deer population began to decline rapidly in subsequent years. In 1946, the Division of Game and Fish initiated a three-pronged white-tailed deer project to facilitate the restoration of this important species. Components of this project consisted of refuge establishment, trapping and translocation of live deer, and habitat improvement work. Active restoration efforts concluded in March of 1999. After 52 years of trapping and translocation, 10,096 white-tailed deer had been stocked around the state. Kentucky now has a high-quality deer population and ranks in the top five for all time Boone & Crockett buck production.

General Information about the 2021-22 Season

License and Permit Fees

| License | Resident | Nonresident |
|----------------------------------|----------|-------------|
| Annual Hunting License | \$27 | \$140 |
| Senior/Disabled License | \$12 | N/A |
| Sportsman’s License | \$95 | N/A |
| Youth Sportsman’s License | \$30 | N/A |
| Statewide Deer Permit | \$35 | \$120 |
| Bonus Antlerless Permit | \$15 | \$15 |
| Youth Deer Permit | \$10 | \$15 |

Season Dates and Bag Limits

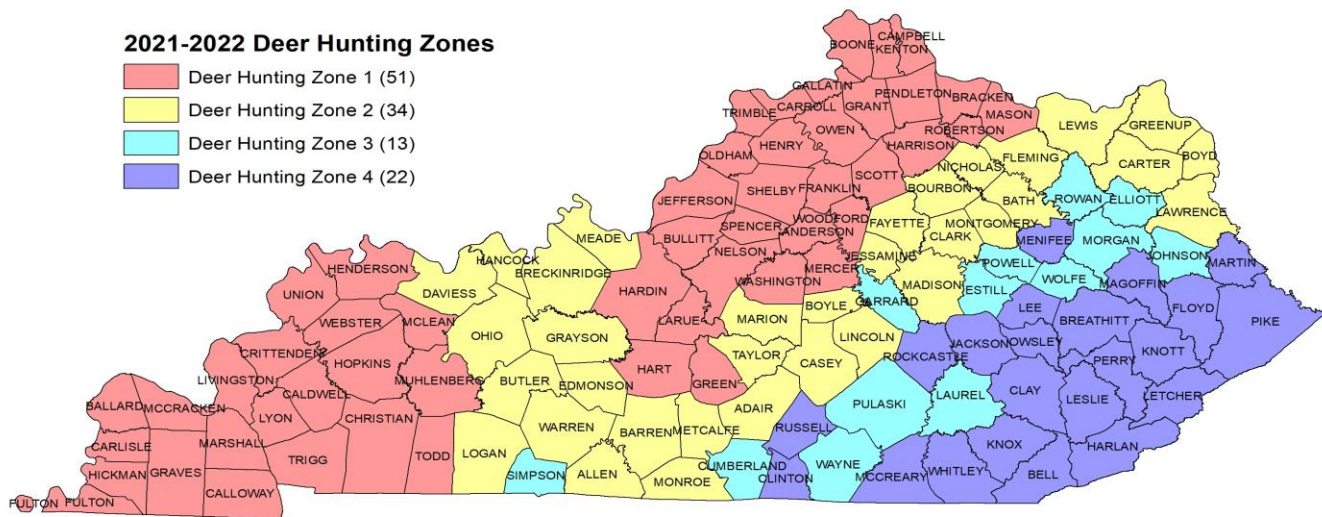
| | Statewide | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|-----------------------------|------------------|---------------|---------------|-------------------------------------|---|
| Modern Firearm | Nov 13 – Nov 29 | | | | |
| Archery | Sept 4 - Jan 17 | | | | |
| Crossbow | Sept 18- Jan 17 | | | | |
| Early Muzzleloader | Oct 16-17 | | | | |
| Late Muzzleloader | Dec 11-19 | | | | |
| Youth-Only Firearm | Oct 9-10 | | | | |
| Free Youth Weekend | Jan 1-2 | | | | |
| Antlered Bag Limit | 1 | | | | |
| Antlerless Bag Limit | Based upon zone | Unlimited | Up to 4 | Up to 4, only 1 deer with a firearm | Only 1 antlerless deer may be harvested during archery season, crossbow season, youth gun season, or the last three days of the late muzzleloader season. |



DEER HUNTING ZONES FOR 2021-22

2021-2022 Deer Hunting Zones

- Deer Hunting Zone 1 (51)
- Deer Hunting Zone 2 (34)
- Deer Hunting Zone 3 (13)
- Deer Hunting Zone 4 (22)



Changes for the 2021-22 Season

- No zone changes occurred for the 2021-22 deer season. See disease section for emergency regulation changes pertaining to CWD surveillance which took place during the 2021-22 deer season.

Population Status

Overall, the statewide deer population estimate shows a stable to slightly decreasing trend. The 2021 statewide estimate was 919,308 deer at the start of the 2021-22 hunting season, which is 1% decrease from 2020-21 (933,089). However, the 2021 population estimate was less than 1% below the 10-year average (919,346). This population estimate is generated from harvest and age structure data, which is collected through tele-check reports and by KDFWR staff.

Deer management techniques have varied greatly across the state over the last decade. Of the 120 counties in Kentucky 51 are designated as zone 1, 34 as zone 2, 13 as zone 3, and 22 as zone 4. Zone 1 counties have the highest deer densities in the state, are considered reduction zones, and have an unlimited bag limit on antlerless deer. At the other end of the spectrum are zone 4 counties where the deer densities are the lowest and antlerless take is very limited. Zone 2 and 3 counties are at or near population goals.

Statewide and county deer population trends are important; however, it is also important to acknowledge that deer populations can vary considerably within a region and even within a county. Regional and local diversity in deer numbers can be a result of differences in land cover and use, harvest regulations, hunter objectives and density, and disease events. Therefore, statewide and county information should be considered as a starting point when evaluating deer populations within a localized area.

2021-22 Total Harvest Summary

The total number of deer harvested during the 2021-22 deer season (**Figure 1**) was 132,328, which is the ninth highest harvest on record. We observed a 6.6% decrease from the 2020-21 season (141,620) and the 2021-22 season was 5.6% below the 10-year average (140,129). The 2021-22 deer season experienced highs and lows like many deer seasons do. However, during the months of October and December we observed several days of warmer than normal weather with some extreme weather events which contributed to low harvest during those months. Conversely, January saw the highest harvest on record (3,788).

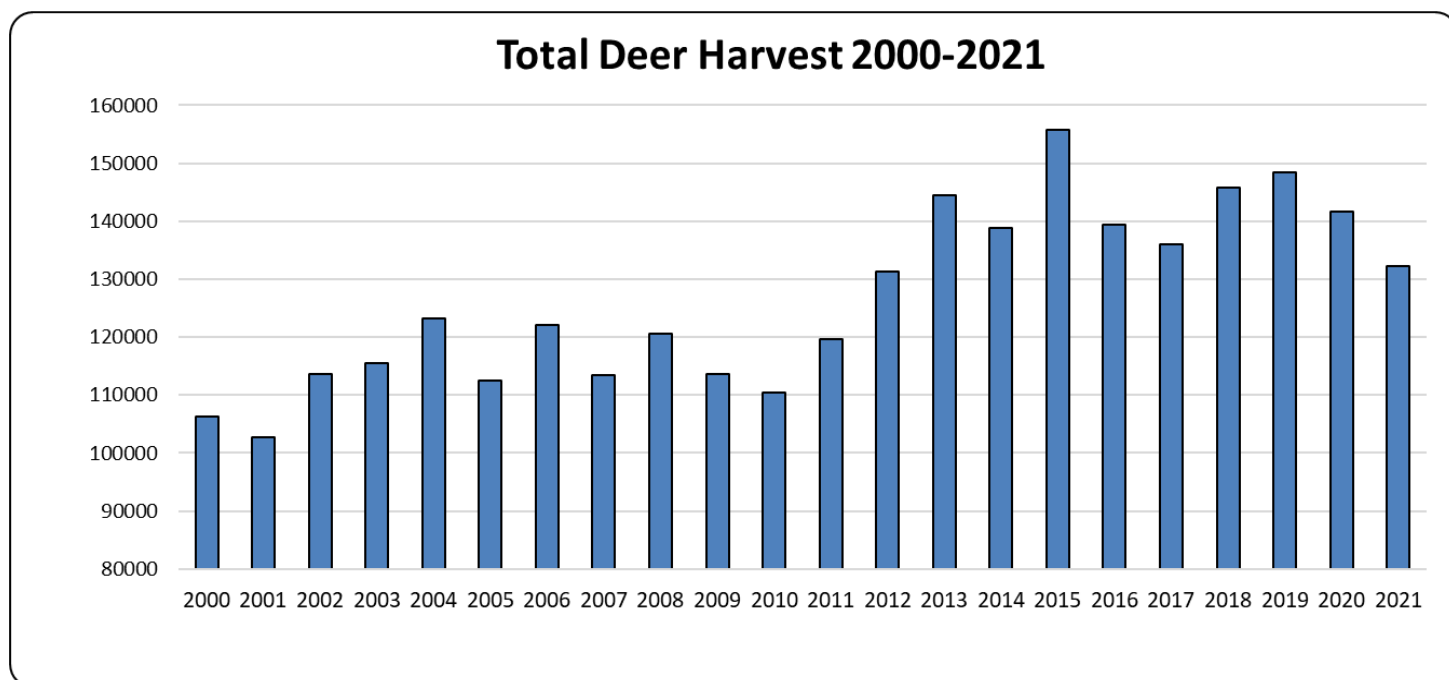


Figure 1

Antlered Buck Harvest

The total antlered deer harvest (**Figure 2**) was 68,035 during the 2021-22 season, which is 1.8% below the five-year average, but the sixth highest antlered buck harvest on record. When comparing antlered deer harvested per square mile of habitat, Anderson County (4.5 antlered deer/sq. mi.) harvested the most antlered bucks with Pendleton County (4.4 antlered deer/sq. mi.) coming in second, and Bracken County (4.3 antlered deer/sq. mi.) coming in third. Fayette County (0.6 antlered deer/sq. mi.) harvested the fewest antlered bucks per square mile during the 2021-22 season.

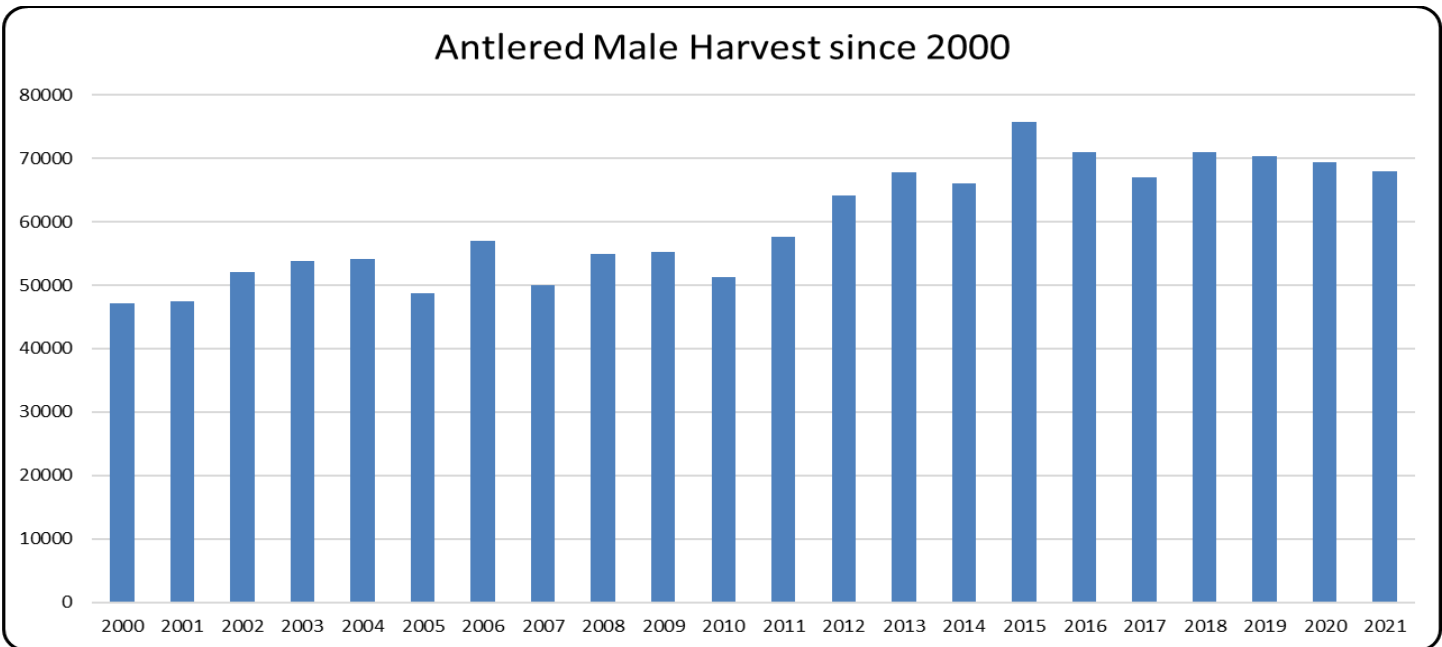


Figure 2

Female Harvest

The total number of female deer harvested (**Figure 3**) during the 2021-22 season was 57,126 which is 10.1% below the five-year average, but an 11.6% decrease from the 2020-21 season (65,599). However, the percentage of female deer harvested has been relatively stable over the last decade (**Figure 6**). When comparing female deer harvested per square mile of habitat, Pendleton County (4.7 female deer/sq. mi.) harvested the most female deer followed by Bracken County (4.5 female deer/sq. mi.) and Anderson County (4.3 female deer/sq. mi.). Fayette County (0.3 female deer/sq. mi.) harvested the fewest female deer per square mile during the 2021-22 season.

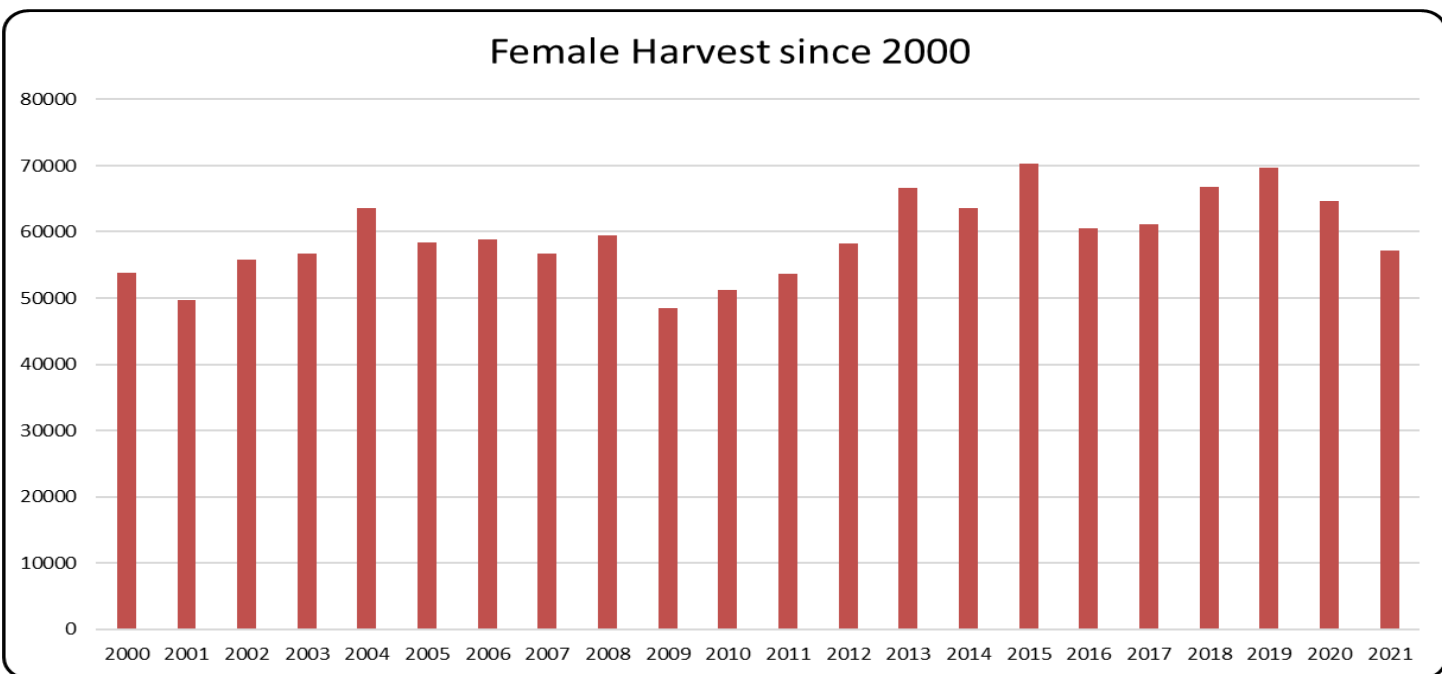


Figure 3

Male Fawn Harvest

The total male fawn harvest (**Figure 4**) was 7,161 during the 2021-22 season which is 5.6% below the five-year average, a 5.5% decrease from the 2020-21 season (7,580). When comparing male fawn deer harvested per square mile of habitat, Spencer County (0.71 male fawns/sq. mi.) harvested the most male fawns with Pendleton County (0.66 male fawns/sq. mi.) coming in second, and Campbell County (0.64 male fawns/sq. mi.) coming in third. Menifee County was the only county where no male fawns were harvested during the 2021-22 season.

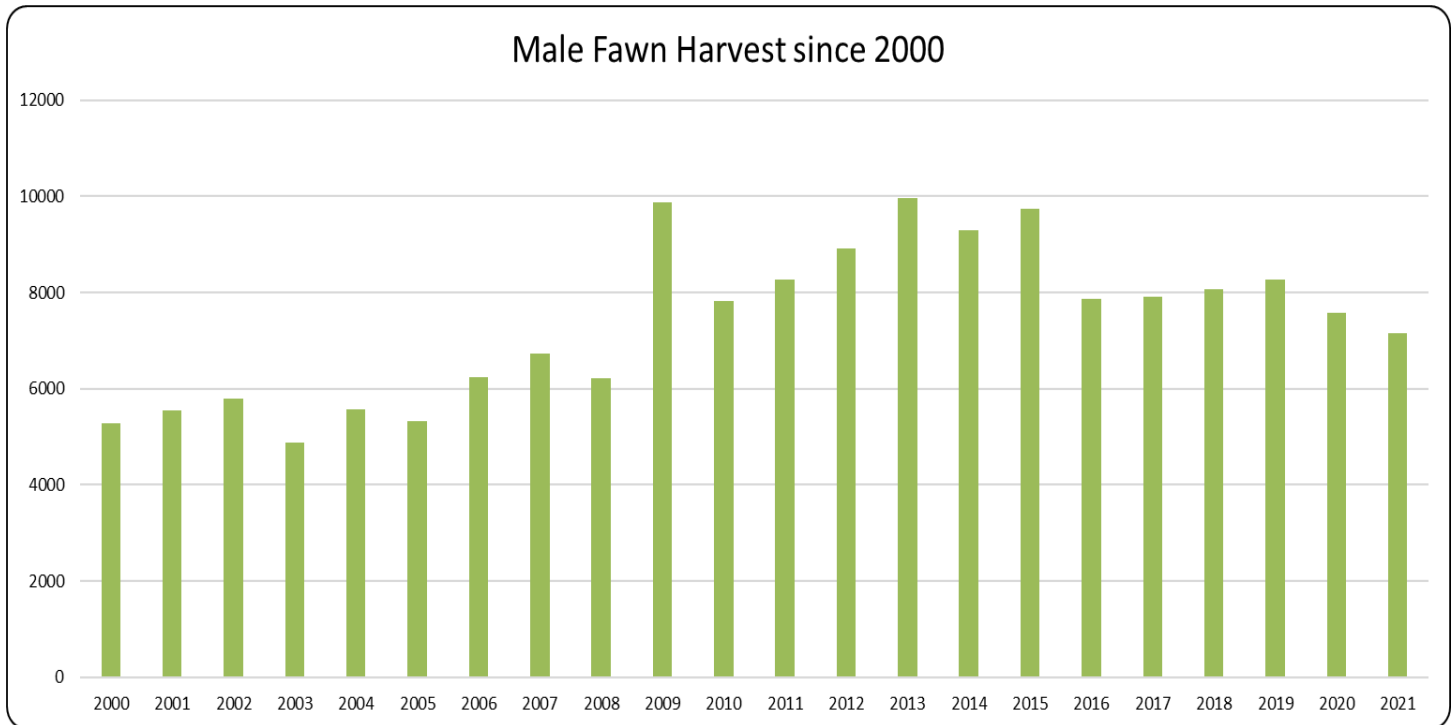


Figure 4

Male Age Class Breakdown

Deer hunters have been asked to include whether the outside spread of their antlered deer is greater or less than 11 inches when checking their deer since 2016. Male fawn information was already being collected, but yearling and adult male information was needed to better understand the distribution of the carrying age classes of males within the total harvest (**Figure 5**). In addition to providing this information to hunters, these data strengthen our population model and improves trend data used to manage deer populations. Hunters do a great job of letting younger age class males walk in hopes of seeing them reach their antler potential in older age classes.

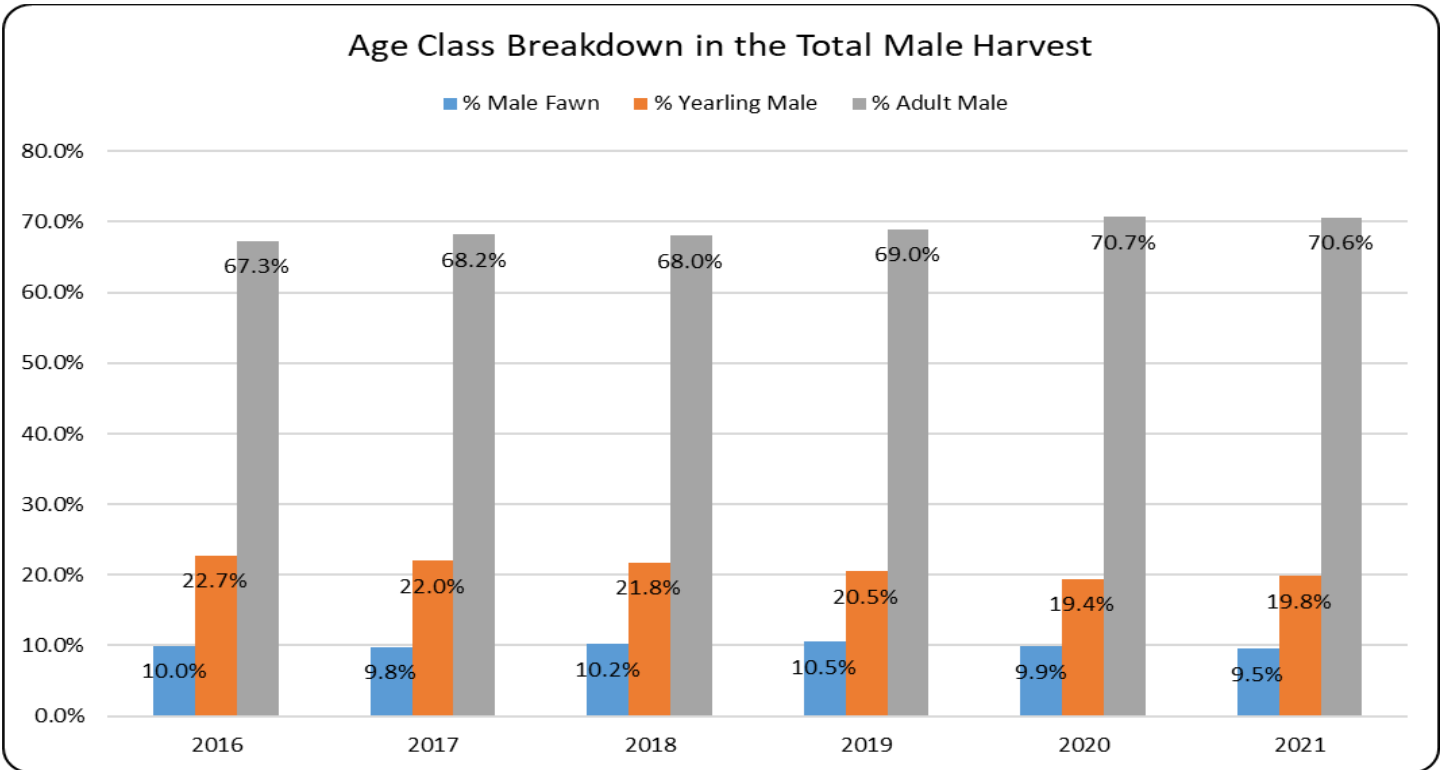


Figure 5

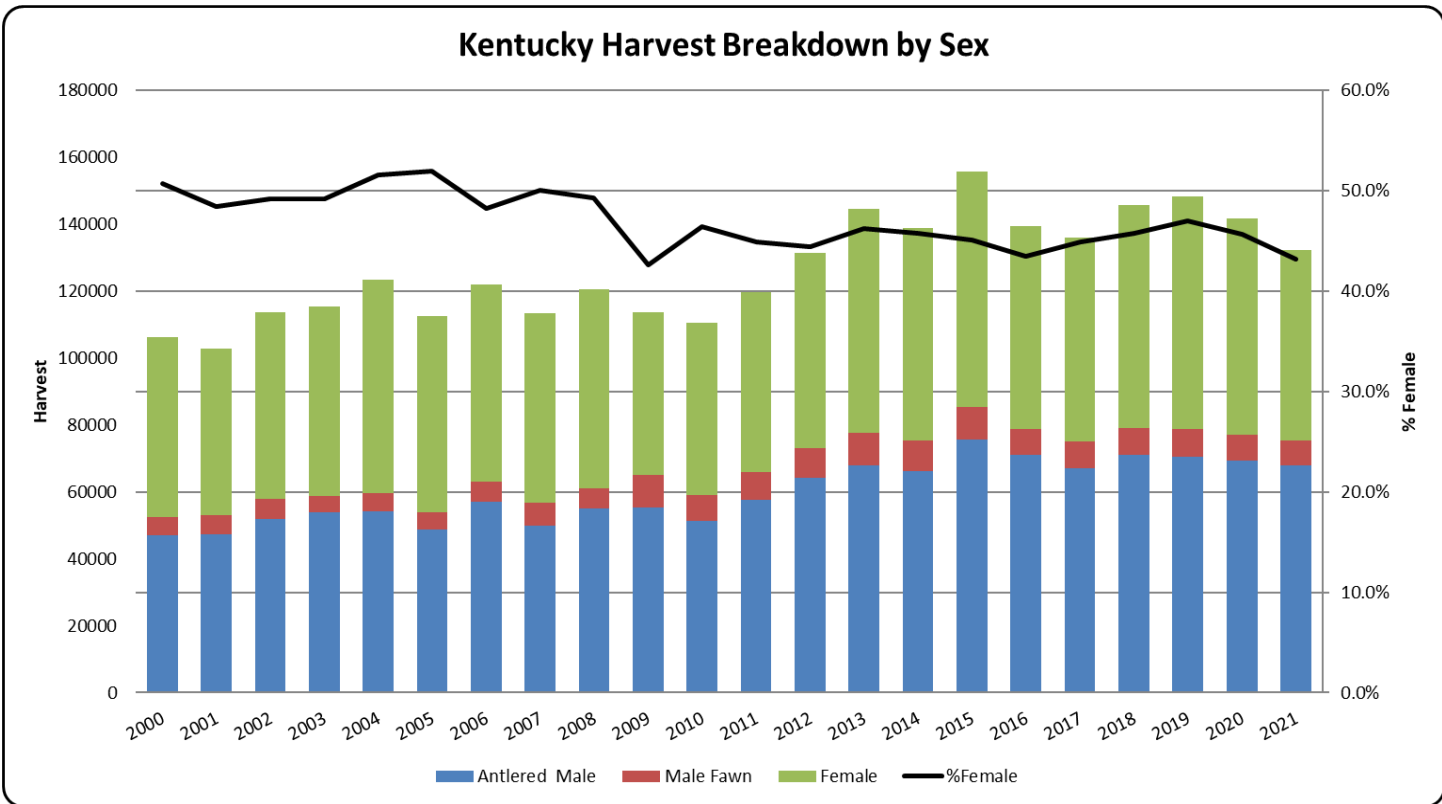


Figure 6

Weapon Type Harvest Summary

| Weapon | Female | Male Fawn | Male | Total |
|---------------|---------------|------------------|---------------|----------------|
| Archery | 7,872 | 668 | 6,329 | 14,869 |
| Crossbow | 6,175 | 673 | 5,354 | 12,202 |
| Firearm | 37,959 | 5,246 | 53,165 | 96,370 |
| Muzzle-loader | 5,484 | 574 | 3,187 | 9,245 |
| Total | 57,490 | 7,161 | 68,035 | 132,328 |

Table 1

Despite a statewide bag limit that allows hunters to shoot more than one deer per year statewide, there appears to be a limit on the number of deer that hunters are willing to, or able to harvest, as 76.8% (76,056) of all successful hunters only harvest one deer. A smaller percentage of successful hunters (23.2%) harvested two or more deer. Of the 99,032 total successful hunters in the 2021-22 season, the average hunter harvested 1.34 deer, which was a slight increase from last season. However, this rate usually does not fluctuate statewide between years and has remained stable over time.

There were significant changes in the percentage of the 2021-22 harvest by weapon type (**Table 1**) compared to the 2020-21 season. The archery harvest was 11% of the total harvest, decreased 17.3% when compared to the 2020-21 season (17,989), and was 17.7% below the five-year average. The muzzleloader harvest was 7% of the total harvest, decreased 28.1% from the 2020-21 season, and was 25.3% below the five-year average. Crossbows represented 9% of the 2021-22 total deer harvest, which decreased 7.4% from the 2020-21 season and was 68.6% above the five-year average. Interestingly, more antlerless deer (14,047) were taken with crossbows and archery equipment than antlered males (13,024). The modern gun harvest (96,370) saw a 1.6% decrease from the 2020-21 season (97,607) and was 8% below the five-year average (104,338). Seventy-three percent of the overall harvest occurred during modern gun season (**Figure 7**), which is when the majority of Kentucky deer hunters go afield. On average, 15% of the total harvest occurs on the opening day of modern gun season (**Table 2**).

2021-22 Modern Gun Season Harvest

| Date | Day | Deer | % of Modern Gun Season Total | % of Total 2021 Harvest |
|--------|-----|--------|------------------------------|-------------------------|
| 13-Nov | Sat | 20,254 | 21% | 15% |
| 14-Nov | Sun | 12,121 | 13% | 9% |
| 15-Nov | Mon | 7,577 | 8% | 6% |
| 16-Nov | Tue | 5,377 | 6% | 4% |
| 17-Nov | Wed | 3,010 | 3% | 2% |
| 18-Nov | Thu | 3,615 | 4% | 3% |
| 19-Nov | Fri | 5,825 | 6% | 4% |
| 20-Nov | Sat | 9,322 | 10% | 7% |
| 21-Nov | Sun | 3,457 | 4% | 3% |
| 22-Nov | Mon | 3,082 | 3% | 2% |
| 23-Nov | Tue | 3,072 | 3% | 2% |
| 24-Nov | Wed | 2,997 | 3% | 2% |
| 25-Nov | Thu | 1,509 | 2% | 1% |
| 26-Nov | Fri | 4,028 | 4% | 3% |
| 27-Nov | Sat | 5,362 | 6% | 4% |
| 28-Nov | Sun | 4,553 | 5% | 3% |
| Total | | 95,161 | | |

Table 2

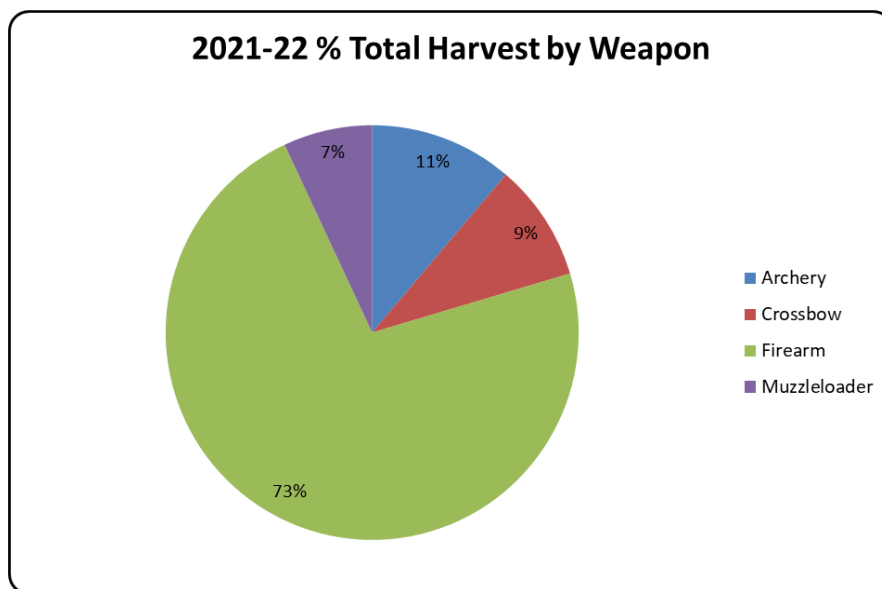


Figure 7

Monthly Harvest Results

The 6,063 deer harvested in September is the fourth highest harvest on record for that month. Fifty-three percent of the 6,063 deer taken in September were female. The 2021-22 September harvest was 5% above the 10-year average (5,765). October’s harvest of 12,278 deer saw the fewest number of deer harvested since 2000. The 2021-22 season’s October harvest is 23% below the 10-year average (15,888). October hunters saw warmer than normal weather condition which may be a contributing factor in the low

harvest numbers. Hunters harvested 102,730 deer during November, most of which occurred during the statewide modern gun season. This ranks as the seventh highest November harvest on record. December hunters saw extreme weather conditions throughout the state and as a result harvest number were low with 7,350 deer reported, a 39% decrease from the 10-year average (12,059). January’s harvest (3,788) was 46% above the 10-year average (2,592), which was the highest harvest on record for the month of January. Above average weather conditions likely increased human activity afield.

2021-22 Harvest Results by Permit Type

The percentage of deer tele-checked by permit type (**Figure 8**) has remained stable over the years. However, with the increasing number of senior/disabled licenses sold, we would expect to see the senior/disabled harvest increase and the statewide permit harvest to decrease over time. Landowners are not required to purchase a hunting license or deer permit if they are hunting deer on their own property but are still required to tele-check any harvested deer. Deer control tags are used to mitigate deer damage issues and have remained stable over the past six years.

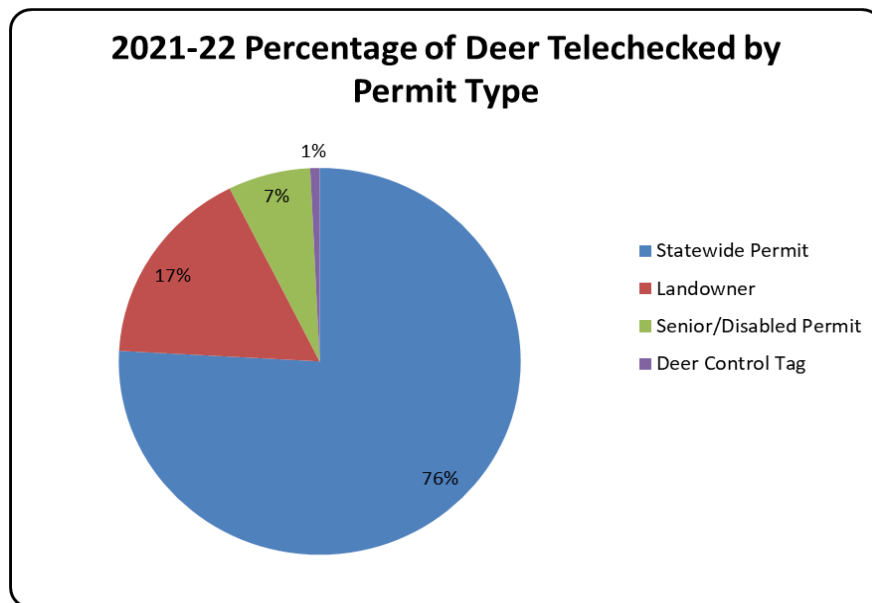


Figure 8

Public Land Deer Harvest

KDFWR owns, leases, or manages more than 124 Wildlife Management Area’s (WMA), Hunting Access Areas (HAA), and Outdoor Recreation Areas (ORC) across the state for public use. Exceptions exist on some properties, but the majority of Kentucky’s public areas are open to public hunting through quota hunts or under statewide regulations. The public areas are separated between five wildlife regions and are managed by regional staff in the Wildlife Division. Over the last decade, the number of deer harvested on public land in Kentucky has been stable to increasing with the exception of the Southeast Region (**Figure 9**) where the harvest was stable to slightly decreasing. Deer numbers in the southeast region are on the rebound from the 2017 HD outbreak because KDFWR reduced the antlerless bag limit to one deer via archery/crossbow season or the last three days of late muzzleloader season. However, because southeastern Kentucky is predominately forested, population growth is expected to be slower in this less-productive mast-driven area.

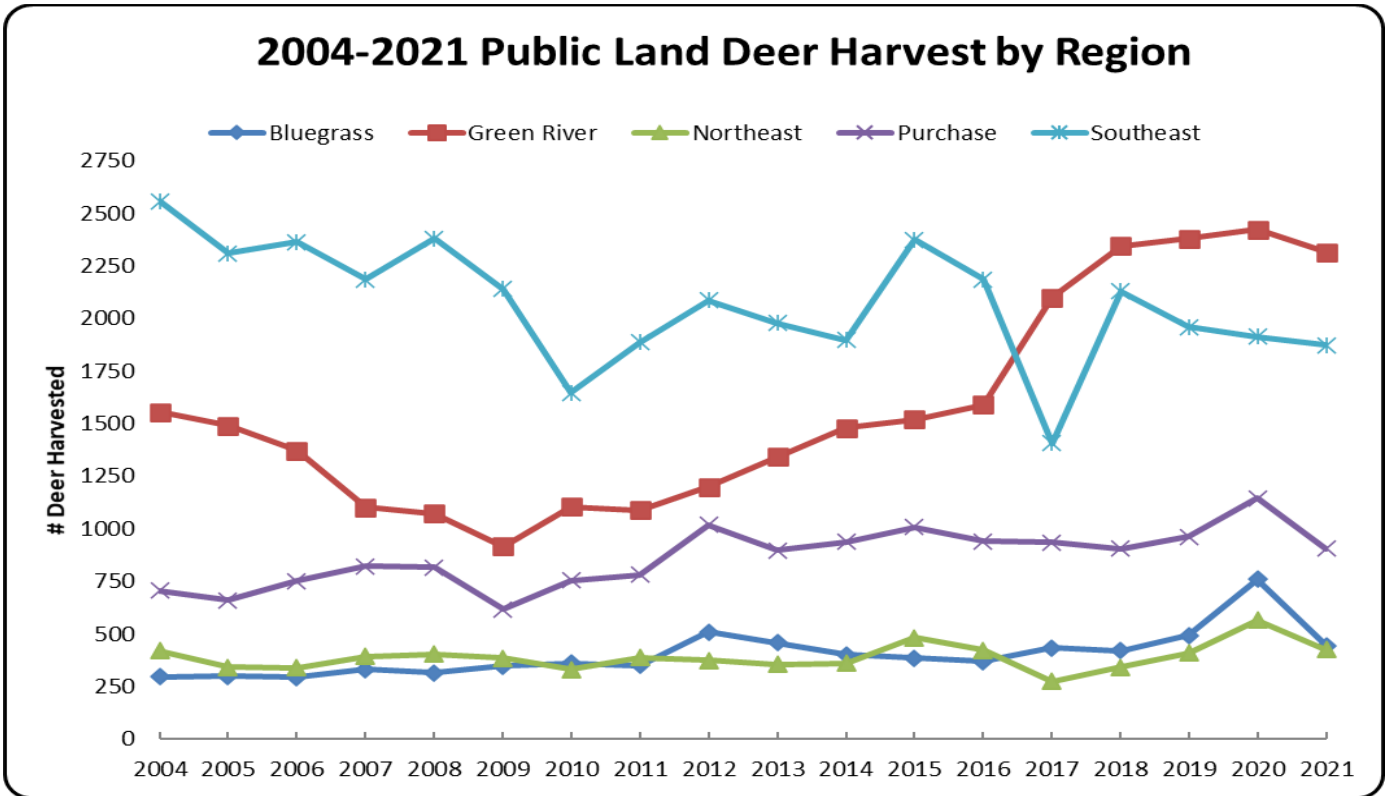


Figure 9

Public Land Harvest by Wildlife Region and County Info

| Acres of Public Hunting Areas by Wildlife Region | |
|--|---------------------------|
| Wildlife Region | Public Land Hunting Acres |
| Bluegrass | 70,142 |
| Green River | 169,663 |
| Northeast | 314,303 |
| Purchase | 211,852 |
| Southeast | 869,560 |

Available Public Land and Public Land Deer Harvest 2021-22

| Wildlife Region | County | Number of Public Hunting Areas | Public Land Hunting Acres | Square Miles of Public Land | 2021 Public Land Deer Harvest | Public Land Deer Harvested per Square Mile of Public Land |
|-----------------|------------|--------------------------------|---------------------------|-----------------------------|-------------------------------|---|
| Bluegrass | Anderson | 1 | 1,983 | 3.1 | 27 | 8.7 |
| Bluegrass | Boone | 1 | 635 | 1.0 | 19 | 19.2 |
| Bluegrass | Bourbon | 0 | - | - | - | - |
| Bluegrass | Boyle | 0 | - | - | - | - |
| Bluegrass | Bullitt | 3 | 37,623 | 58.8 | 117 | 2.0 |
| Bluegrass | Campbell | 0 | - | - | - | - |
| Bluegrass | Carroll | 0 | - | - | - | - |
| Bluegrass | Clark | 1 | 1 | 0.001 | - | - |
| Bluegrass | Fayette | 0 | - | - | - | - |
| Bluegrass | Franklin | 2 | 840 | 1.3 | 9 | 6.9 |
| Bluegrass | Gallatin | 1 | 398 | 0.6 | 5 | 8.0 |
| Bluegrass | Garrard | 0 | - | - | - | - |
| Bluegrass | Grant | 2 | 1,106 | 1.7 | 15 | 8.7 |
| Bluegrass | Harrison | 1 | 746 | 1.2 | 10 | 8.6 |
| Bluegrass | Henry | 1 | 2,317 | 3.6 | 37 | 10.2 |
| Bluegrass | Jefferson | 0 | - | - | - | - |
| Bluegrass | Jessamine | 0 | - | - | - | - |
| Bluegrass | Kenton | 1 | 258 | 0.40 | 7 | 17.4 |
| Bluegrass | Madison | 2 | 1,848 | 2.9 | 37 | 12.8 |
| Bluegrass | Marion | 1 | 1,341 | 2.1 | 12 | 5.7 |
| Bluegrass | Mercer | 0 | - | - | - | - |
| Bluegrass | Nelson | 3 | 2,071 | 3.2 | 33 | 10.2 |
| Bluegrass | Oldham | 0 | - | - | - | - |
| Bluegrass | Owen | 4 | 7,311 | 11.4 | 39 | 3.4 |
| Bluegrass | Pendleton | 1 | 479 | 0.7 | 8 | 10.7 |
| Bluegrass | Scott | 2 | 2,498 | 3.9 | 36 | 9.2 |
| Bluegrass | Shelby | 0 | - | - | - | - |
| Bluegrass | Spencer | 2 | 8,689 | 13.6 | 118 | 8.7 |
| Bluegrass | Trimble | 0 | - | - | - | - |
| Bluegrass | Washington | 0 | - | - | - | - |
| Bluegrass | Woodford | 0 | - | - | - | - |

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| Wildlife Region | County | Number of Public Hunting Areas | Public Land Hunting Acres | Square Miles of Public Land | 2021 Public Land Deer Harvest | Public Land Deer Harvested per Square Mile of Public Land |
|-----------------|--------------|--------------------------------|---------------------------|-----------------------------|-------------------------------|---|
| Green River | Allen | 1 | 3,284 | 5.1 | 51 | 9.9 |
| Green River | Barren | 1 | 5,450 | 8.5 | 80 | 9.4 |
| Green River | Breckinridge | 2 | 9,332 | 14.6 | 102 | 7.0 |
| Green River | Butler | 0 | - | - | - | - |
| Green River | Daviess | 0 | - | - | - | - |
| Green River | Edmonson | 1 | 1,695 | 2.6 | 23 | 8.7 |
| Green River | Grayson | 2 | 4,561 | 7.1 | 34 | 4.8 |
| Green River | Hancock | 0 | - | - | - | - |
| Green River | Hardin | 3 | 58,825 | 91.9 | 514 | 5.6 |
| Green River | Hart | 1 | 1,713 | 2.7 | 25 | 9.3 |
| Green River | Henderson | 2 | 8,228 | 12.9 | 142 | 11.0 |
| Green River | Hopkins | 4 | 8,276 | 12.9 | 56 | 4.3 |
| Green River | Larue | 1 | 2,108 | 3.3 | 17 | 5.2 |
| Green River | Logan | 0 | - | - | - | - |
| Green River | McLean | 0 | - | - | - | - |
| Green River | Meade | 2 | 16,545 | 25.9 | 115 | 4.4 |
| Green River | Metcalfe | 1 | 1,449 | 2.3 | 13 | 5.7 |
| Green River | Monroe | 0 | - | - | - | - |
| Green River | Muhlenberg | 2 | 20,308 | 31.7 | 549 | 17.3 |
| Green River | Ohio | 2 | 15,856 | 24.8 | 239 | 9.6 |
| Green River | Simpson | 0 | - | - | - | - |
| Green River | Todd | 0 | - | - | - | - |
| Green River | Union | 3 | 11,974 | 18.7 | 190 | 10.2 |
| Green River | Warren | 0 | - | - | - | - |
| Green River | Webster | 1 | 60 | 0.09 | 4 | 42.8 |

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| Wildlife Region | County | Number of Public Hunting Areas | Public Land Hunting Acres | Square Miles of Public Land | 2021 Public Land Deer Harvest | Public Land Deer Harvested per Square Mile of Public Land |
|-----------------|------------|--------------------------------|---------------------------|-----------------------------|-------------------------------|---|
| Northeast | Bath | 10 | 20,422 | 31.9 | 39 | 1.2 |
| Northeast | Boyd | 0 | - | - | - | - |
| Northeast | Bracken | 0 | - | - | - | - |
| Northeast | Carter | 3 | 7,236 | 11.3 | 54 | 4.8 |
| Northeast | Elliott | 2 | 3,217 | 5.0 | 15 | 3.0 |
| Northeast | Fleming | 4 | 3,995 | 6.2 | 59 | 9.5 |
| Northeast | Floyd | 11 | 24,979 | 39.0 | 21 | 0.5 |
| Northeast | Greenup | 2 | 3,366 | 5.3 | 15 | 2.9 |
| Northeast | Johnson | 3 | 9,833 | 15.4 | 16 | 1.0 |
| Northeast | Lawrence | 2 | 15,200 | 23.7 | 71 | 3.0 |
| Northeast | Lewis | 3 | 1,161 | 1.8 | 4 | 2.2 |
| Northeast | Magoffin | 1 | 1,422 | 2.2 | 11 | 5.0 |
| Northeast | Martin | 5 | 38,502 | 60.2 | 29 | 0.5 |
| Northeast | Mason | 1 | 982 | 1.5 | 29 | 18.9 |
| Northeast | Menifee | 2 | 46,777 | 73.1 | 19 | 0.3 |
| Northeast | Montgomery | 0 | - | - | - | - |
| Northeast | Morgan | 2 | 18,260 | 28.5 | 16 | 0.6 |
| Northeast | Nicholas | 2 | 6,776 | 10.6 | 69 | 6.5 |
| Northeast | Pike | 12 | 47,965 | 74.9 | 39 | 0.5 |
| Northeast | Robertson | 1 | 452 | 0.7 | 0 | 0.0 |
| Northeast | Rowan | 6 | 63,759 | 99.6 | 101 | 1.0 |

| Wildlife Region | County | Number of Public Hunting Areas | Public Land Hunting Acres | Square Miles of Public Land | 2021 Public Land Deer Harvest | Public Land Deer Harvested per Square Mile of Public Land |
|-----------------|------------|--------------------------------|---------------------------|-----------------------------|-------------------------------|---|
| Purchase | Ballard | 4 | 16,864 | 26.4 | 62 | 2.4 |
| Purchase | Caldwell | 2 | 3,549 | 5.5 | 26 | 4.7 |
| Purchase | Calloway | 3 | 3,325 | 5.2 | 34 | 6.5 |
| Purchase | Carlisle | 4 | 4,831 | 7.5 | 29 | 3.8 |
| Purchase | Christian | 2 | 13,332 | 20.8 | 44 | 2.1 |
| Purchase | Crittenden | 1 | 5,088 | 7.9 | 77 | 9.7 |
| Purchase | Fulton | 2 | 4,101 | 6.4 | 6 | 0.9 |
| Purchase | Graves | 2 | 1,970 | 3.1 | 21 | 6.8 |
| Purchase | Hickman | 2 | 2,526 | 3.9 | 22 | 5.6 |
| Purchase | Livingston | 2 | 3,695 | 5.8 | 69 | 12.0 |
| Purchase | Lyon | 2 | 42,172 | 65.9 | 155 | 2.4 |
| Purchase | Marshall | 3 | 8,619 | 13.5 | 108 | 8.0 |
| Purchase | McCracken | 2 | 9,514 | 14.9 | 78 | 5.2 |
| Purchase | Trigg | 4 | 92,266 | 144.2 | 248 | 1.7 |

| Wildlife Region | County | Number of Public Hunting Areas | Public Land Hunting Acres | Square Miles of Public Land | 2021 Public Land Deer Harvest | Public Land Deer Harvested per Square Mile of Public Land |
|-----------------|------------|--------------------------------|---------------------------|-----------------------------|-------------------------------|---|
| Southeast | Adair | 3 | 13,104 | 20.5 | 71 | 3.5 |
| Southeast | Bell | 12 | 69,382 | 108.4 | 147 | 1.4 |
| Southeast | Breathitt | 4 | 4,035 | 6.3 | 10 | 1.6 |
| Southeast | Casey | 0 | - | - | - | - |
| Southeast | Clay | 9 | 83,363 | 130.3 | 119 | 0.9 |
| Southeast | Clinton | 3 | 8,555 | 13.4 | 15 | 1.1 |
| Southeast | Cumberland | 6 | 6,318 | 9.9 | 29 | 2.9 |
| Southeast | Estill | 4 | 5,707 | 8.9 | 22 | 2.5 |
| Southeast | Green | 0 | - | - | - | - |
| Southeast | Harlan | 16 | 21,181 | 33.1 | 91 | 2.7 |
| Southeast | Jackson | 2 | 59,264 | 92.6 | 78 | 0.8 |
| Southeast | Knott | 4 | 10,335 | 16.1 | 41 | 2.5 |
| Southeast | Knox | 6 | 11,988 | 18.7 | 15 | 0.8 |
| Southeast | Laurel | 4 | 63,374 | 99.0 | 177 | 1.8 |
| Southeast | Lee | 5 | 11,898 | 18.6 | 11 | 0.6 |
| Southeast | Leslie | 22 | 96,893 | 151.4 | 108 | 0.7 |
| Southeast | Letcher | 6 | 21,271 | 33.2 | 37 | 1.1 |
| Southeast | Lincoln | 2 | 1,197 | 1.9 | 24 | 12.8 |
| Southeast | McCreary | 11 | 174,250 | 272.3 | 124 | 0.5 |
| Southeast | Owsley | 1 | 16,670 | 26.0 | 21 | 0.8 |
| Southeast | Perry | 5 | 6,160 | 9.6 | 76 | 7.9 |
| Southeast | Powell | 2 | 16,302 | 25.5 | 20 | 0.8 |
| Southeast | Pulaski | 10 | 51,475 | 80.4 | 217 | 2.7 |
| Southeast | Rockcastle | 1 | 16,950 | 26.5 | 16 | 0.6 |
| Southeast | Russell | 2 | 12,916 | 20.2 | 33 | 1.6 |
| Southeast | Taylor | 4 | 10,173 | 15.9 | 60 | 3.8 |
| Southeast | Wayne | 3 | 13,782 | 21.5 | 37 | 1.7 |
| Southeast | Whitley | 2 | 46,377 | 72.5 | 74 | 1.0 |
| Southeast | Wolfe | 1 | 16,639 | 26.0 | 17 | 0.7 |

Deer Quota Hunts

KDFWR offers 38 deer quota hunts on Kentucky WMAs. Any resident or nonresident hunter may apply for a deer quota hunt in Kentucky, but only the persons successfully drawn for quota hunts may hunt. The application period for KDFWR deer quota hunts is the month of September when applicants can apply online at fw.ky.gov. Applicants will be given the option to pick a first and second hunt choice, but may be drawn to participate in only one quota hunt. The non-refundable fee is \$3 per hunter to apply. Each hunter who applies correctly, but is not selected, will receive a preference point that increases the odds of being drawn the next year. Unselected hunters who do not apply the following year will lose all previously credited preference points. Applicants are selected based on individual preference points. Up to five people can apply together, but individuals within the group will have their preference points averaged (total number of points divided by total number of applicants). However, there is a 10% maximum allowance on non-residents to be drawn for each quota hunt. If any one of the group's Social Security numbers is drawn, the others in the group are automatically drawn. The exception applies to hunt parties that have one or more non-resident applicants and where the quota hunt may have already reached the 10% maximum limit of non-resident hunters. If this is the case, then no member of that party will be drawn.

7,467 hunters applied for the 4,077 available spots at the 38 KDFWR deer quota hunts held in the 2021-22 season. Fifty-five percent of applicants were drawn for a Kentucky quota deer hunt but drawing

success varied from 15% to 100% depending on the property. There are quota hunts for general hunters (i.e., residents or non-residents with a statewide license), mobility impaired hunters, archery/crossbow hunters, and youth hunters. Each of the five wildlife regions across the state have deer quota hunts.

Habitat Management

The Department began planning for the implementation of a new initiative known as the East Kentucky Habitat Initiative (EKHI). This initiative would utilize prescribed fire to help reduce exotic and invasive species from overtaking our open areas. Specifically, KDFWR would focus efforts on large blocks of reclaimed mine areas on public and private lands where autumn olive has begun to completely overtake the grassland community. In addition, prescribed fire would be utilized in the adjacent woodlands to reduce non-desirables and promote oak regeneration. These habitat practices would benefit many species, including deer, by allowing a more diverse grassland and forb community to flourish, thus providing a higher quality forage and bedding and fawning cover for deer in these areas. More than 1,000 acres were burned during the winter/spring of 2022.

Damage Issues

An overpopulation of deer can have a negative impact on the environment and humans alike. Overabundant deer populations may result in agricultural and landscape damage, be detrimental to forest health and regeneration, pose safety risks due to deer-vehicle collisions, and serve as vectors for the transmission of diseases. State, local and private groups all have a role in helping to manage the state's deer population. The primary tool for deer management in Kentucky is hunting, but hunting within the season framework alone may not be enough to curtail the issues that some stakeholders experience. Deer populations have the ability to outgrow what their habitat can reasonably sustain, or surpass what is known as the environmental carrying capacity. However, a much less understood issue in modern deer management is social carrying capacity, which is essentially the number or density of deer that is socially acceptable. KDFWR staff can offer their assistance once this threshold has been reached in an area (see Contacts map on page 23). The local Biologist or Conservation Officer will schedule an on-site visit to document the damage and provide technical guidance on potential solutions. Technical guidance can be offered in many ways; however, the best damage mitigation strategy is a dedicated, long-term hunting regiment. In addition to hunting, assistance from KDFWR may come in the form of Deer Control Tags (DCTs), Deer Destruction Permits, and the use of KRS 150.170 (Tables 3-4).

| Deer Control Tags Used in 2021 | | | |
|---------------------------------------|---------------------|-------------------|---------------|
| Region | DCT's Issued | DCT's Used | % Used |
| BG | 1396 | 207 | 8% |
| GR | 804 | 365 | 16% |
| NE | 87 | 44 | 11% |
| PR | 506 | 100 | 8% |
| SE | 1155 | 290 | 15% |
| Total | 3948 | 1006 | 25% |

Table 3

| Destruction Permit Use from 2021 | | |
|----------------------------------|----------------------------|--------------------------|
| Region | Destruction Permits Issued | Destruction Permits Used |
| BG | 1000 | 175 |
| GR | 135 | 0 |
| NE | 2 | 0 |
| PR | 115 | 5 |
| SE | 26 | 0 |
| Total | 1278 | 180 |

Table 4

Disease Surveillance

Hemorrhagic Disease (HD)

Hemorrhagic disease (HD), which is a vector-borne disease of white-tailed deer, is caused by two related orbiviruses: epizootic hemorrhagic disease virus (EHDV) and bluetongue virus (BTV). HD viruses are considered the most important viral agents affecting deer populations in the United States. The virus is transmitted from animal to animal through the bite of an infected midge which is active in the late summer and early fall. Severe outbreaks are often associated with drought conditions because drought creates an increased amount of breeding habitat for the midges. The midges die off for the year after a hard freeze, eliminating new cases of HD.

HD is reported in localized areas from at least a few counties nearly every year in Kentucky, although outbreaks can be considerably large and widespread. In 2017, a large HD outbreak occurred in the eastern portion of Kentucky. Many of those areas continue to experience lower deer numbers primarily due to the habitat type in east Kentucky being predominately forested, where deer populations exhibit a much slower growth rate. In 2021, KDFWR biologists had 50 suspected HD deer reported throughout the state. When possible, KDFWR will test animals that have died of apparent HD. Only six deer from west Kentucky were clinically diagnosed to be HD positive (Livingston, Marshall, McCracken counties).

While HD does cause mortality among white-tailed deer, there are also animals that survive and produce protective antibodies, which can be passed to offspring. This is an important distinction when discussing this disease compared to chronic wasting disease, which is always fatal and has not been detected in Kentucky.

Chronic Wasting Disease (CWD)

CWD is a fatal, neurological disease in white-tailed deer, mule deer, elk, moose, and caribou. It causes a characteristic spongy degeneration of the brains of infected animals resulting in emaciation, abnormal behavior, loss of bodily functions, and ultimately death. CWD is categorized as a transmissible spongiform encephalopathy (TSE), a group that includes “mad cow” disease in cattle, Creutzfeldt-Jakob disease in humans, and scrapie in sheep and goats. CWD has been detected in 30 states, 4 Canadian provinces, Norway, Finland, Sweden, and South Korea. Six states that border Kentucky have CWD present (West Virginia, Virginia, Missouri, Ohio, Illinois, and Tennessee). CWD has not been detected in Kentucky.

KDFWR adopted a CWD monitoring plan in 2002 to detect CWD should it arrive in Kentucky. That plan is a three-part monitoring program to test: 1) a random sampling of hunter-harvested deer, 2) target or suspect animals (i.e., animals that appear ill), and 3) a year-round random sample of roadkill deer. KDFWR works closely with hunters, taxidermists, meat processors, and others to sample and test for CWD. Most

samples are taken from hunter-harvested deer. In 2006, KDFWR adopted a contingency plan to deal with CWD if it was ever found in Kentucky. Since 2002, more than 42,800 deer and 860 elk have been tested for the disease and CWD has yet to be detected in Kentucky.

2021 CWD Response

Prior to the start of the 2021-2022 deer hunting season, the Tennessee Wildlife Resource Agency (TWRA) reported the discovery of a CWD positive deer eight miles from the southern border of Calloway County, KY. Due to the CWD positive deer being within 15 miles of the Kentucky border, the Department initiated the beginning steps of the CWD Response Plan. The response plan would dramatically increase the CWD sampling efforts within the surveillance zone (Figure 10, Calloway, Fulton, Graves, Hickman, and Marshall counties). During the 2021-22 statewide CWD sampling effort, a total of 7,547 deer and 55 elk were submitted for CWD testing, and CWD was not detected. Of the 7,547 deer that were submitted, 4,347 deer were tested from within the surveillance zone.

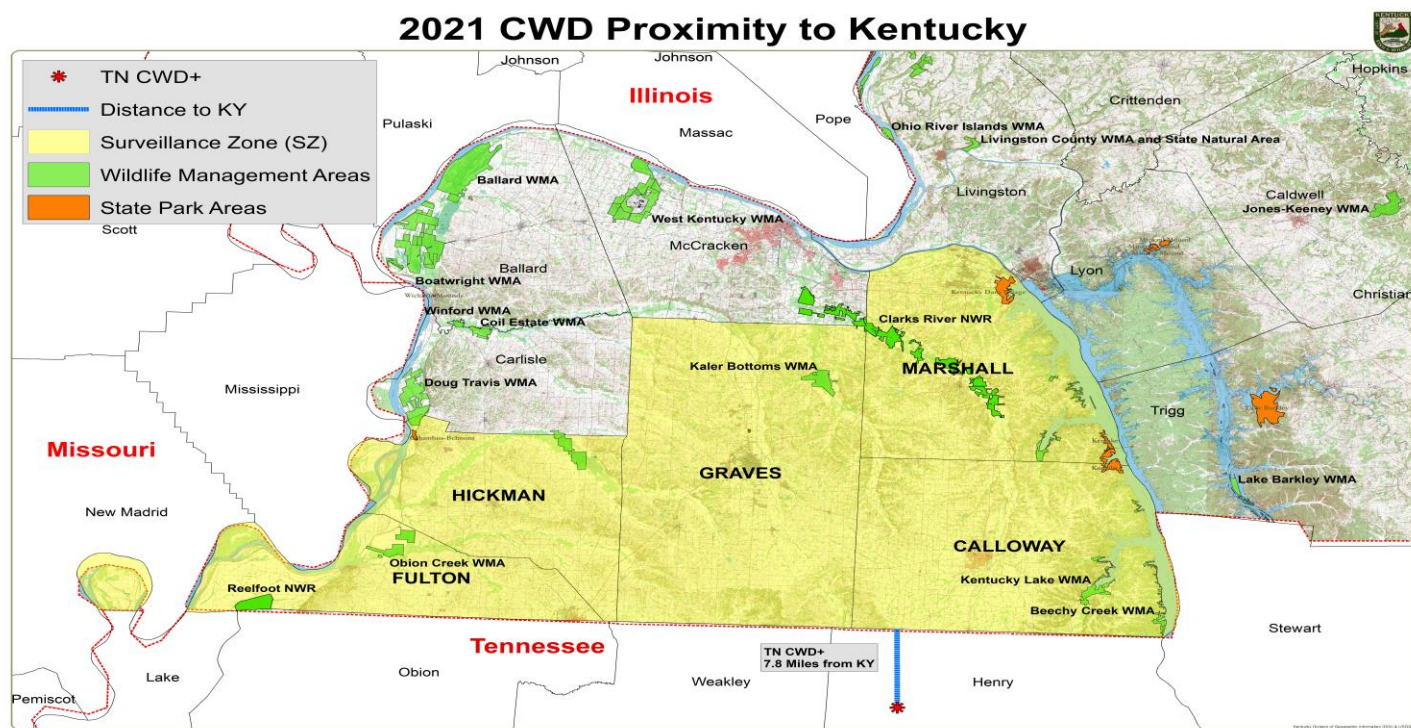


Figure 10

CWD Emergency Regulations

Due to the discovery of CWD in close proximity to the Kentucky border the following regulations were placed into effect for the surveillance zone (Figure 10, Calloway, Fulton, Graves, Hickman, and Marshall counties) for the 2021-2022 deer season. The purpose of these emergency regulations is to provide the Department the ability to conservatively manage and prevent CWD from entering the state of Kentucky for as long as possible. In addition, by requiring the mandatory checking of harvested deer, the Department can utilize the data collected to inform and guide future deer management decisions.

- No baiting or wildlife feeding
 - Prohibited:
 - Feeders holding or distributing foods or attractants for wildlife ingestion
 - Grain, salt or mineral shall not be used

- Allowed:
 - Normal agricultural practices (including mineral blocks in active cattle pastures)
 - Food plots for wildlife
 - Hanging bird feeders used within the curtilage of the home
 - Scents and deer urine-based products
- Mandatory deer check stations
 - During the 2021-22 mandatory check there were 17 check stations
- Carcass tag requirement for all cervids moving through the surveillance zone
- Carcass transportation restrictions
 - Prohibited: Entire carcasses, uncleaned skulls, spines, or bone-in quarters of deer harvested within the 5-county surveillance zone may not be taken outside of the zone, unless in transit to a Kentucky Fish and Wildlife-authorized CWD check station.
 - Allowed: De-boned meat, antlers, antlers attached to a clean skull plate, a clean skull, clean teeth, hides, and finished taxidermy products may be taken out of the surveillance zone. Carcasses of deer or elk harvested elsewhere in Kentucky may be transported into the surveillance zone.

Carcass Importation Law

In reference to 301 KAR 2:095: a person shall not import a cervid carcass or carcass parts that has any part of the spinal column or head. A person importing a legally taken cervid carcass or carcass parts may possess the items listed below:

- Antlers
- Antlers attached to a clean skull plate
- A clean skull
- Clean upper canine teeth
- Finished taxidermy products
- The hide
- Quartered or debone meat

The Kentucky Department of Fish and Wildlife Resources encourages hunters who encounter deer acting strangely or that look sick to contact Kyle Sams, kyle.sams@ky.gov; 502-892-4523.

Deer Permit Sales

In recent years, the number of deer permits sold has been declining (**Figure 11-12**). In line with this trend, in the 2021-22 season (80,622) there was a decrease in deer permits sold compared to the 2020-21 season (84,386). When looking at the long-term outlook on deer hunting in Kentucky, the 2021-22 season is 16% below the 10-year average (96,077). When including the license bundles (Sportsman's, Jr. Sportsman's, Jr. Deer Permit, Resident and Non-Resident Deer Permit, and Additional Deer Permit) in the total deer permit numbers, the 2021-22 season (282,175) is 5% below the 10-year average (297,025). No information is available regarding how many landowners hunted deer, as they are not required to purchase a permit if hunting on their own property. However, deer harvested by private landowners on their own property make up about 15-20% of the total harvest annually.

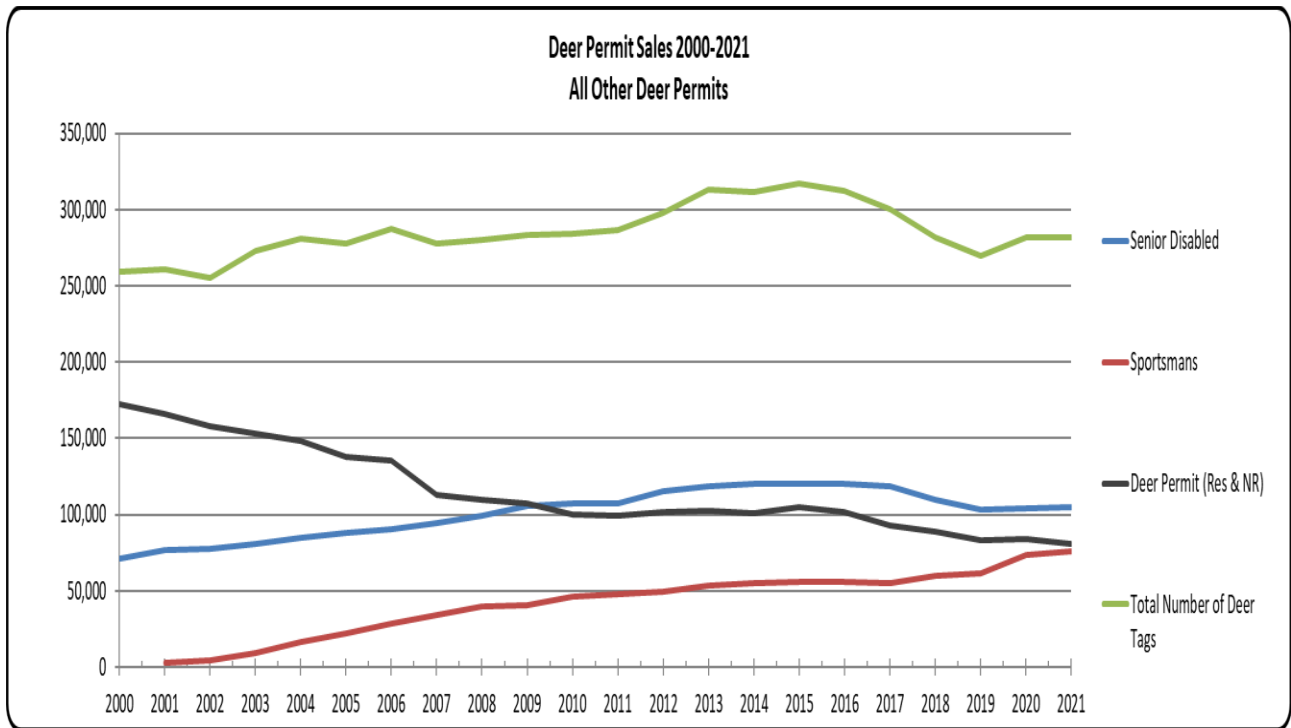


Figure 11

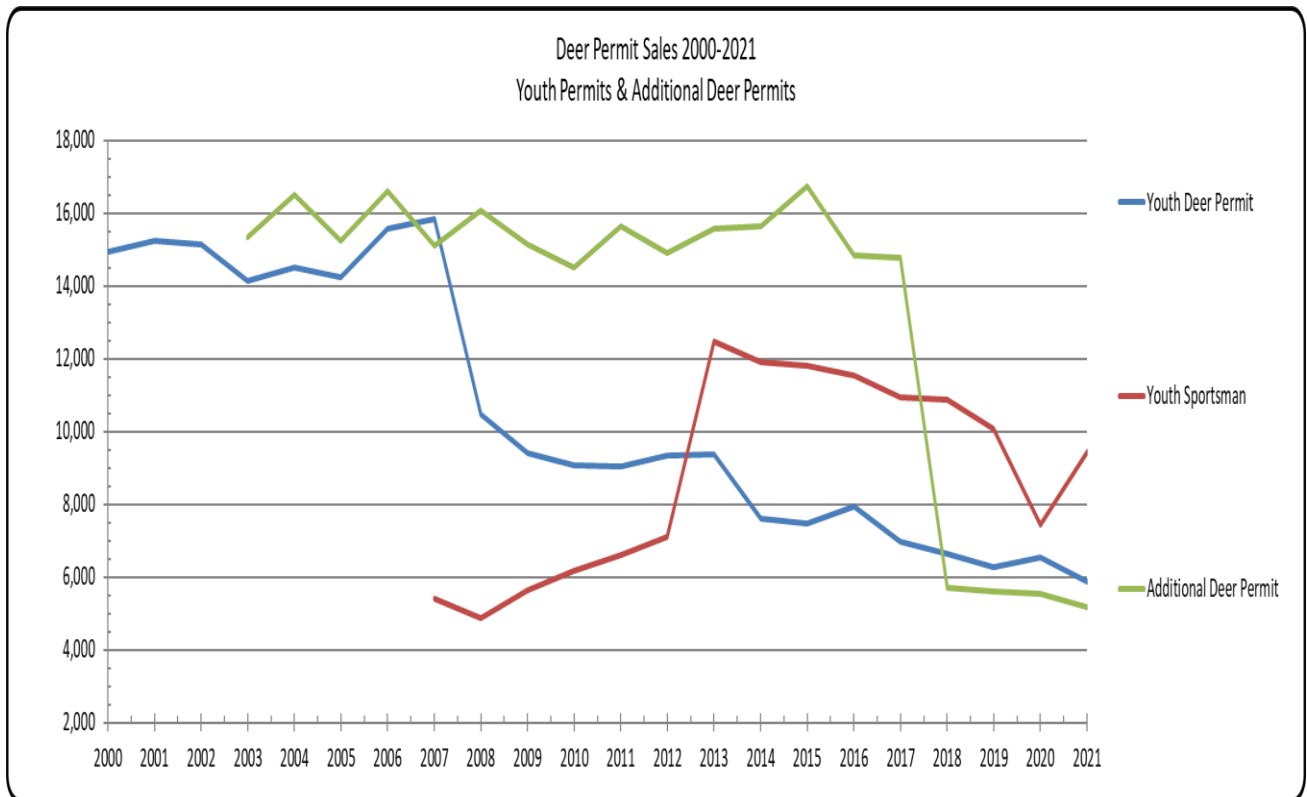


Figure 12, note – the drop in the additional deer permit sales from 2017 to 2018 was due to the increase in the statewide deer permit from 2 to 4 deer.

Upon further examination of license sales (**Figure 13**), the majority of deer permits are purchased by senior/disabled hunters (37%) followed closely by Sportsman License (27%) and resident deer permit buyers

(18%). Although senior/disabled permit holder make up the majority of deer permits purchased, only 7% of the total deer harvest is made by senior/disabled hunters. This is likely because most senior/disabled permit holders are primarily purchasing this license type to fish and choose not to hunt deer or are not deer hunters.

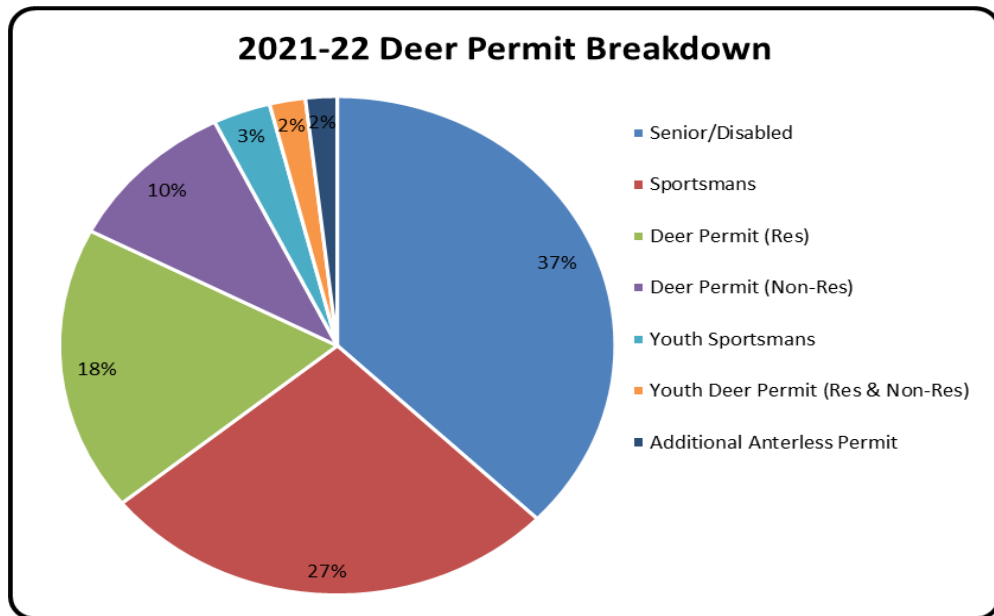


Figure 13

Contacts

Approximately 95% of Kentucky is privately owned. To successfully manage our wildlife resources, the KDFWR works cooperatively with Kentucky’s private landowners. One of the essential ingredients in conserving Kentucky’s wildlife resources is habitat improvement. Wildlife biologists are available to work with interested individuals or groups on properties that they own or have management rights on.

Refer to the map below to contact your local wildlife biologist for assistance with wildlife management on your property.

