2021-2022 Kentucky Department of Fish and Wildlife Resources Elk Report





| le of Contents | Page |
|--|------|
| Introduction | 1 |
| Elk in Kentucky | 1 |
| Elk Hunting Permits | 2–4 |
| General Quota Hunt Permits | |
| Youth Permits | 2 |
| Commission Permits | 2 |
| Landowner Permits | 2 |
| Voucher Cooperator Permits | |
| Elk Restoration Permits | 3 |
| Late Season Hunt Permits | 3 |
| Out of Zone Elk Permits | 4 |
| Quota Drawing Process and Statistics | 4-6 |
| How Permits Are Drawn | 4 |
| Odds | 5 |
| License and Permit Fees | 6 |
| General Information about the 2021-2022 Season | 6 |
| Season Dates | 6 |
| Bag Limits | 6 |
| Area Permit Allotment | 6 |
| 2021-2022 Harvest Results | 7-8 |
| Total Harvest by Year | 7 |
| Weapon Type Harvest Summary | 7 |
| Success Rates by Unit | 7 |
| Success Rates by Weapon Type | 8 |
| Age at Harvest/Death Data | 8 |
| Kentucky Top 10 Trophy Bulls | 9 |
| Changes for the 2021-2022 Elk Season | 9 |
| Disease Surveillance | 9-10 |
| Brainworm | 9 |
| Chronic Wasting Disease | 10 |
| Current Research | 10 |
| Education | 10 |
| Habitat | 11 |
| Contacts | 11 |

Introduction

The Elk Program is administered under the Wildlife Division of Kentucky Department of Fish and Wildlife Resources. The Department is an agency of the Kentucky Tourism, Arts & Heritage Cabinet. It is overseen by a nine-member commission who are nominated by Kentucky's sportsmen and sportswomen. The nominees chosen by the sportsmen and sportswomen are sent to the Governor, who appoints the Commission members for each district. The department employs about 450 full-time staff, which includes conservation officers, wildlife and fisheries biologists, conservation educators, information and technology staff, public relations and administrative professionals.

Kentucky Fish and Wildlife receives no money from the state's General Fund. Agency funding is provided through the sale of hunting and fishing licenses, boating registration fees, and federal grants based on the number of licenses sold in the state.

The Elk Program is tasked with managing the elk herd in the state to provide ample hunting opportunity while balancing the needs of consumptive and non-consumptive user groups. The Elk Program is made up of one program coordinator (John Hast) and three biologists. Dan Crank, Joe McDermott, and Mark Peterson are the three biologists currently on staff. Program staff are based out of headquarters in Frankfort as well as the elk zone in eastern Kentucky.

Elk In Kentucky

Elk are native to Kentucky and were present until the mid-1880's, when the population was eliminated due to habitat degradation and overhunting. This is why the Kentucky elk program is considered a restoration, not an introduction. Kentucky's present elk herd is a free ranging, wild herd established from 1,550 wild elk captured out-of-state and released into southeast Kentucky between December 1997 and March 2002. Contributing states included Utah, Kansas, Oregon, North Dakota, Arizona, New Mexico, with the majority of elk captured in Utah. Release sites were located in Harlan, Knott, Leslie, Letcher, Martin, Perry, and Pike counties. The elk restoration zone covers 16 counties in the southeast region of the state (approximately 4.1 million acres).

The current elk population is estimated at over 10,000 animals according to two different models (Life Table and Statistical Population Reconstruction). Kentucky has the highest elk population of any state east of the Mississippi River.

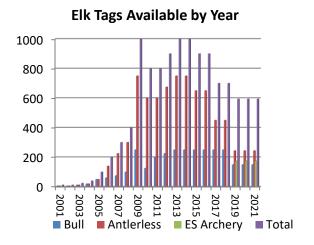
The first elk hunt was conducted in 2001. Six bulls and six cows were harvested, with all hunters filling their permit. The same number of permits was issued in 2002 and 2003. In 2004, the number of permits was increased to 40. Beginning that year, legal deer hunters were also allowed to harvest elk outside the elk zone in order to control populations, keeping elk numbers low in agricultural areas or poor elk habitat. The number of elk permits have fluctuated nearly every year since 2004, with a total of 594 permits available in 2021.

Elk Hunting Permits

General Quota Hunt Permits

The majority of Kentucky elk permits are issued by way of a computer-randomized drawing. Applicants must

apply online between January 1 and April 30 each year. They may apply for three permits from the three permit types (either sex archery/crossbow, bull firearm, or antlerless firearm), but no more than once for each type. Both resident and non-resident hunters may apply for the elk permit drawing. A maximum of 10 percent of the available permits may go to non-



resident applicants. During the month of May, applicants' names are drawn at random by a separate Kentucky government agency (the Commonwealth Office of Technology [COT]) and then randomly assigned a permit type based on their application choices. Hunters that are drawn for either an antlered or an antlerless permit are not eligible to apply for another permit for three years.

Youth Permits

Hunters that are 15 years of age or younger may apply for the youth-only drawing. There are currently 25 youth-only either-sex permits. Youth may also apply for the general drawing three times like any other applicant, giving them four chances overall. However, they are only eligible to draw one permit.

Commission Permits

Ten either-sex Commission permits were available for the 2021-2022 season. These permits are assigned each year by the Kentucky Fish and Wildlife Commission members to conservation groups. Those groups then auction or raffle the permits in order to raise money for conservation projects.

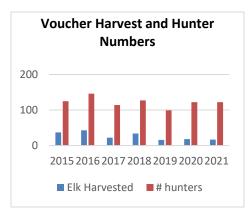
Landowner Access Permits

Kentucky Fish and Wildlife has a program that allows large land holders in the elk zone to enter their land into management agreements in order to provide hunters additional public access to huntable land. Landowners are issued an either-sex elk permit for every 5,000 acres enrolled in the public access program. The landowner may transfer or sell the permit to whomever they choose. Land enrolled in this program is open for public hunting under all statewide regulations, unless denoted otherwise. A total of 246,104

acres were enrolled at the start of the 2021-2022 season. A total of 45 permits were issued for the 2021-2022 season.

Voucher Cooperator Permits

Beginning in 2015, landowners with 100 acres or more could enter their property into a program called the Voucher Cooperator Elk Permit Program. The program links people who own or lease elk hunting land with hunters who have drawn an elk permit. Hunter access is accomplished by offering landowners/lessees an either-sex, transferable elk permit when they accumulate 10 points (each harvested elk equals 1 point regardless of sex). Hunters may apply to hunt one of these areas though an online system



after the area draw is complete. A total of 18 properties encompassing 91,134 acres have been entered since 2015. For 2021, there were spots available for 122 hunters on voucher properties, resulting in 17 elk being harvested. This program resulted in 2 permits being transferred to landowners for the 2021–2022 season.

Elk Restoration Permits

Beginning in 2017, landowners who allow trapping of elk for restoration purposes are eligible to gain points toward obtaining a transferrable either sex elk permit for use on their property or property they lease. They must accumulate 10 points to receive a permit (1 point for an elk regardless of sex). All trapping is performed during the winter months. One permit was issued for the 2021-2022 season.

Late Season Hunt Permits

The late season hunt was designed to remove elk in areas that have had elk damage concerns over a number of years. The dates of the hunt corresponded with the time of year when most damage occurred, which allowed hunters to target elk that were likely causing damage and to mitigate the burden to local landowners. Hunters were limited to small, specific Elk Management Units (EMU's) inside the elk zone and only applicants that lived inside the six counties within the two EMU's were eligible to be drawn in the late season hunt. In 2021, the Late Season hunt was discontinued due to low numbers of elk complaints in those EMU's.

Out of Zone Elk Permits

Elk may be taken from any county outside the 16 county Elk Restoration Zone by hunters who possess an annual Kentucky hunting license and an out-of-zone elk permit. Hunters must follow deer season and equipment regulations, but are not required to possess a deer permit. One elk was harvested out of zone in 2021.



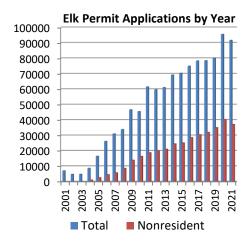
Quota Drawing Process and Statistics

How Permits Are Drawn

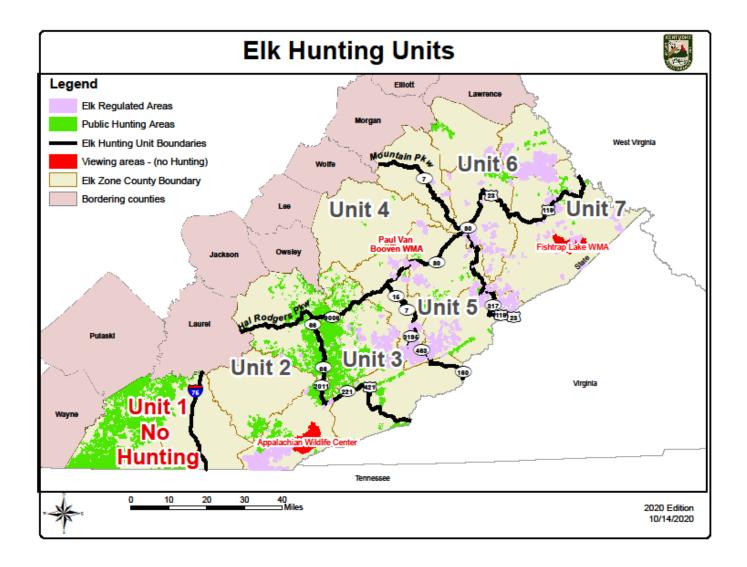
Elk applications go on sale January 1 of each year and can only be purchased online at fw.ky.gov. Hunters can apply for three different permit types. The application period ends at midnight on April 30. After the application period, a computer drawing conducted by the Commonwealth Office of Technology (COT) randomly selects the hunters from the pool of applicants and then a third-party auditor ensures the authenticity of the results.

Elk Unit Drawing

After receiving their elk permit, all hunters have the option to then apply for a particular Elk Hunting Unit and Regulated Area. Hunters may enter a party application (up to 3 people) when applying for an Elk Hunting Unit, but may not apply as a party for a Regulated Area. If drawn for a Regulated area, hunters are assigned to the Elk Hunting Unit that it is located in by default, and hunters have the ability to hunt that Regulated Area in addition to any other public or private land they have



permission to hunt within that Elk Hunting Unit. Regulated Areas may include Wildlife Management Areas, Hunter Access Areas, and Voucher Cooperator properties. Elk hunting on these areas is restricted by KDFWR and landowners to control hunting pressure and harvest on each individual property. After this drawing is held, hunters may move in or out of these regulated areas via an automated online system. Thirty properties totaling 220,878 acres were managed as Regulated Areas in 2021 which created spots for 200 hunters and resulted in 39 elk being harvested.



Odds

The odds of drawing a permit for the 2021-2022 season are shown in the table below. Odds are calculated based on how many applicants were in each permit type and the number of permits issued.

| Type | Resident Odds | Non-resident Odds |
|--------------------|---------------|-------------------|
| Bull Firearm | 1/175 | 1/1034 |
| Cow Firearm | 1/70 | 1/373 |
| Either Sex Archery | 1/88 | 1/715 |
| Either-sex – Youth | 1/54 | 1/266 |

License and Permit Fees

Residents

Elk Quota Hunt Application: \$10/application

Elk Permit: \$100 Bull, \$60 Antlerless General Resident Hunting License: \$27

Non-residents

Elk Quota Hunt Application: \$10/application

Elk Permit: \$550 Bull, \$400 Antlerless

General Non-resident Hunting License: \$150

General Information about the 2021-2022 Season

Season Dates

Either-sex archery and crossbow: Sept 11 - 24 and Dec 3 - 10, 2021.

Firearms Bull week 1: September 25 - September 29, 2021

Firearms Bull week 2: October 2 - 6, 2021

Firearms Cow week 1: November 27 – December 1, 2021 Firearms Cow week 2: December 25 – December 29, 2021

Bag Limits

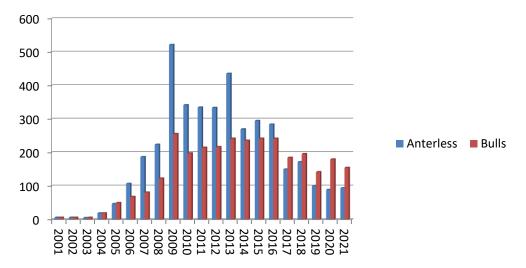
Elk hunters may take only one elk per year.

Unit Permit Allotment

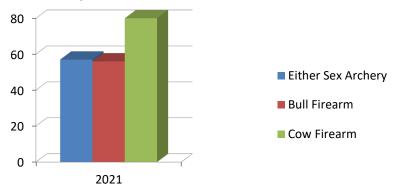
| | Unit 2 | Unit 3 | Unit 4 | Unit 5 | Unit 6 | Unit 7 | Total |
|------------------------|--------|--------|--------|--------|--------|--------|-------|
| Either Sex Archery | 30 | 38 | 39 | 23 | 25 | 20 | 175 |
| Bull Firearm Week 1 | 10 | 21 | 20 | 10 | 9 | 5 | 75 |
| Bull Firearm Week 2 | 10 | 21 | 20 | 10 | 9 | 5 | 75 |
| Cow Firearm Week 1 | 21 | 28 | 25 | 13 | 23 | 12 | 122 |
| Cow Firearm Week 2 | 21 | 28 | 25 | 13 | 23 | 12 | 122 |
| Youth | 2 | 4 | 5 | 5 | 5 | 4 | 25 |
| Total | 94 | 140 | 134 | 74 | 94 | 58 | 594 |

2021-2022 Harvest Results

Total Harvest by Year



Weapon Type Harvest Summary

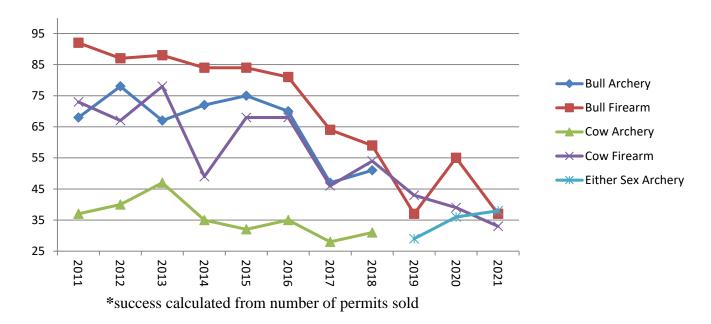


Success Rates by Unit*

| | Unit 2 | Unit 3 | Unit 4 | Unit 5 | Unit 6 | Unit 7 |
|-------------------|--------|--------|--------|--------|--------|--------|
| Either Sex | 33% | 47% | 30% | 32% | 39% | 44% |
| Archery | | | | | | |
| Bull Week 1 | 38% | 44% | 41% | 10% | 86% | 100% |
| Bull Week 2 | 56% | 40% | 25% | 44% | 33% | 80% |
| Cow Week 1 | 50% | 50% | 35% | 33% | 50% | 64% |
| Cow Week 2 | 38% | 39% | 42% | 40% | 21% | 50% |
| Youth | 100% | 50% | 75% | 0% | 60% | 50% |
| Overall | 42% | 45% | 36% | 30% | 43% | 58% |

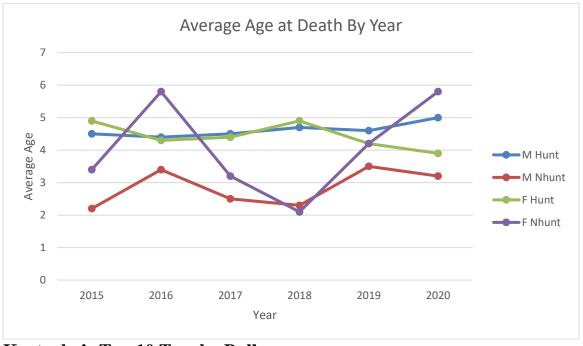
^{*}success rates calculated from number of permits sold

Overall Success Rates by Weapon Type*



Age at Harvest/Death Data

Starting in 2015, all hunters were asked to remove a tooth from their elk and return it in a postage-paid envelope for the purpose of determining the age of their elk. Program staff also collected teeth opportunistically. The chart below shows the average age at death for both hunted and non-hunted categories. Hunted elk samples were collected from hunters during the general elk hunting season. Non-hunted samples were collected from live captured elk or any elk that dies outside the hunting season (e.g., roadkills, euthanized, poached, etc.).



Kentucky's Top 10 Trophy Bulls

| SCORE | Hunter | County | Method | Year |
|----------|-----------------|---------|------------|------|
| *416 5/8 | Lisa Parsley | Martin | Found | 2016 |
| 392 3/8 | Todd Ayers | Pike | Archery | 2021 |
| *392 0/8 | Sam Billiter | Pike | Modern Gun | 2016 |
| *377 5/8 | David Giles | Knott | Modern Gun | 2015 |
| *373 4/8 | Anthony Brown | Letcher | Archery | 2015 |
| *372 6/8 | Terrell Royalty | Knott | Modern Gun | 2009 |
| 371 0/8 | Greg Neff | Bell | Modern Gun | 2007 |
| *369 5/8 | Bryan Barton | Bell | Modern Gun | 2016 |
| *368 4/8 | Bill Krider | Knott | Modern Gun | 2015 |
| *367 7/8 | Kelvin Jackson | Harlan | Modern Gun | 2008 |

* Indicates Non-typical

This list includes the 10 largest bull elk scored and reported to Kentucky Fish and Wildlife. The department is compiling a list of the top 100 elk taken in Kentucky. Please send copies of official (signed) score sheets to: Kentucky Trophy Elk List, KDFWR, 1 Sportsman's Lane, Frankfort, KY 40601. Emailed submissions to info.center@ky.gov also will be accepted.

Changes for the 2022-2023 Elk Season

The mandatory late season elk hunt has now been removed from regulation.

Disease Surveillance

Brainworm (Parelaphostrongylus tenuis)

Brainworm, or meningeal worm, is the common name for a parasite that affects elk and other deer species. White-tailed deer are carriers of the parasite, but have evolved resistance to the disease. The parasites are limited only to deer species; therefore there is no disease risk to most livestock. Brainworms are small parasitic worms that travel through the body and end up in the spinal cord or brain, where they cause damage to nervous tissue. Elk infected with the parasite may become emaciated, disoriented, and show abnormal behavior such as a loss of fear for humans. Most affected individuals ultimately die from complications caused by the disease. Approximately 4-6% of elk in Kentucky contract the parasite. Brainworm symptoms are similar to those caused by Chronic Wasting Disease (CWD), but the two are in no way related. Kentucky Fish and Wildlife biologists actively seek out animals showing brainworm symptoms and collect

biological samples for testing. If you see an elk that fits the description, please contact your local biologist. More information can also be found on our website: https://fw.ky.gov/Wildlife/Pages/Meningeal-Worm.aspx

Chronic Wasting Disease

Chronic Wasting Disease (CWD) is a disease of high concern to deer and elk across North America. It is caused by a certain type of protein (prion) and causes damage to brain tissue. Kentucky Fish and Wildlife has tested thousands of deer and elk statewide and have not detected the disease. More information can be found on our website: https://fw.ky.gov/Wildlife/Pages/Chronic-Wasting-Disease.aspx

Current Research

The elk program has contracted with the University of Kentucky to study elk survival rates across all sex and age classes as well as reproduction in female elk. Elk were captured in the mid-winter months from 2020 to 2022. All captured elk received a radio collar to monitor survival. All females deemed pregnant at capture also received a vaginal implant transmitter which will help researchers locate their calves in the spring. The information gained from this study is a necessary step in validating elk models, which helps to make more informed management decisions.

| Year | Number of Cows Caught & Collared | Number Calves Caught & Collared |
|------|-------------------------------------|------------------------------------|
| 2020 | 25 | 21 |
| 2021 | 33 | 24 |

Education

KY Elk University Training Module

An on-line elk hunt training is available through our website that covers topics ranging from pre-hunt preparation to the actual hunt and what to do after an elk is harvested (http://app.fw.ky.gov/elk101/default.aspx).

KDFWR Elk Hunting Webinar Series

https://www.youtube.com/playlist?list=PL6CXB-VLn6EPRg7ddQB_msKYH5SqX2Frb

2015-2030 Elk Management Plan

The transition from elk restoration to sustainable elk management has resulted in creating a comprehensive Kentucky Elk Management Plan. KDFWR had two goals in writing this Plan: we wished to provide an overview of past and current management of the Kentucky elk herd, and to provide a vision for future management of the herd. The result is the 2015-2030 Kentucky Elk Management Plan, which is available on our website (http://fw.ky.gov/Hunt/Documents/20152030ElkManagementPlan.pdf). A Plan of work that covers short term goals for the overall plan can be found here: https://fw.ky.gov/Hunt/Documents/Elk/ElkFinal2020-2024PlanOfWork.pdf.

Elk Info Page

Other information regarding Kentucky elk restoration and management can be found on our Elk Info Page at http://fw.ky.gov/Hunt/Pages/Elk.aspx

Habitat

One of the goals set forth in the KDFWR 2030 Elk Management Plan is to improve habitat in the elk zone. The decrease in surface mine activity in the elk zone has led to the loss of early successional

habitat and the increase of non-native species like *Elaeagnus umbellate* (Autumn olive). In an effort to increase early successional habitat, the elk program staff has been utilizing prescribed fire. Since 2018, 2767 acres have been burned. In 2021, KDFWR identified the elk management zone as an area of special interest and started the Eastern KY habitat initiative with the goal of burning 2000 acres each year. Although that

| Year | Number of Acres Burned | | |
|------|-----------------------------|--|--|
| 2018 | 372 | | |
| 2019 | 708 | | |
| 2020 | 0 due to Covid Restrictions | | |
| 2021 | 572 | | |
| 2022 | 1115 | | |

number was not met this year, KDFWR identified new properties to work on and outlined some key hurdles to address moving forward. As a Wildlife Division priority, Elk Program staff have enlisted other certified prescribed burn bosses and burn crews from across the state to meet this goal in the future.

Contacts

If you have questions about the elk herd or elk hunting opportunities, please visit the elk webpage at fw.ky.gov/Hunt/Pages/Elk-Hunting.aspx or call the Kentucky Fish and Wildlife Info Center at 1-800-858-1549 or contact one of the Elk Program Biologists listed below.

| Dan Crank | John Hast | Joe McDermott | Mark Peterson |
|------------------|------------------|----------------------|----------------------|
| 606-435-6225 | 502-892-4533 | 502-892-4432 | 606-877-8499 |
| Dan.crank@ky.gov | john.hast@ky.gov | joe.mcdermott@ky.gov | mark.peterson@ky.gov |

Approximately 95 percent of Kentucky land is privately owned. To successfully manage our wildlife resources, the Kentucky Fish and Wildlife 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. To contact your local wildlife biologist for assistance with wildlife management on your property see the map.

