

## 2013-2014 Kentucky Department of Fish and Wildlife Resources White-tailed Deer Report



Photo courtesy of Joe Lacefield, KDFWR Private Lands Biologist



Kentucky Department of Fish and Wildlife Resources

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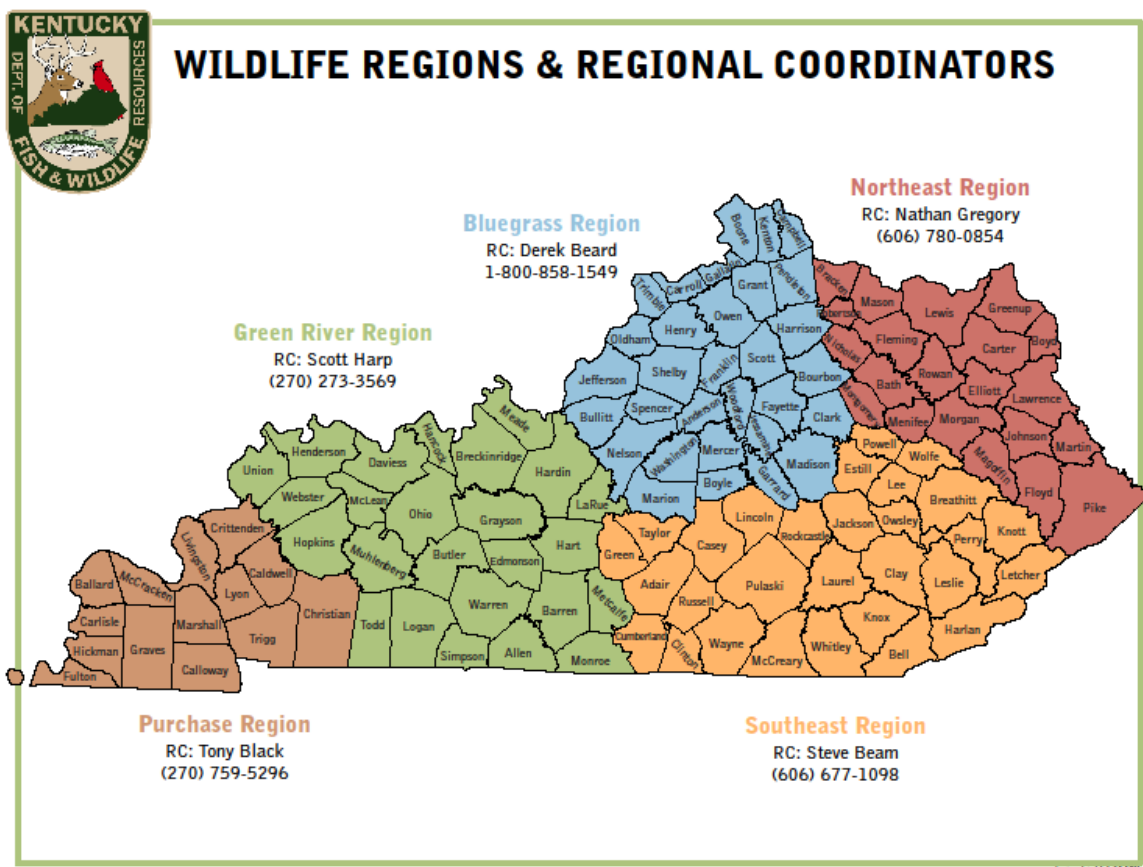
**Introduction**

The Deer Program is administered under the Wildlife Division of Kentucky Department of Fish and Wildlife Resources (KDFWR). The KDFWR 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. Commission members are 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, and customer service and administrative professionals.

KDFWR receives no money from the state’s General Fund. Funding is provided by the sale of hunting and fishing licensees, 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-tail 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 made up of 1 program coordinator, currently vacant, and two biologists, Gabe Jenkins and David Yancy. The Deer Program staff is based out of the headquarters office in Frankfort.

The Wildlife Division is broken up into 5 wildlife regions across the state. For reporting purposes all information in this report will be discussed using the 5 regions or at the specific county level.



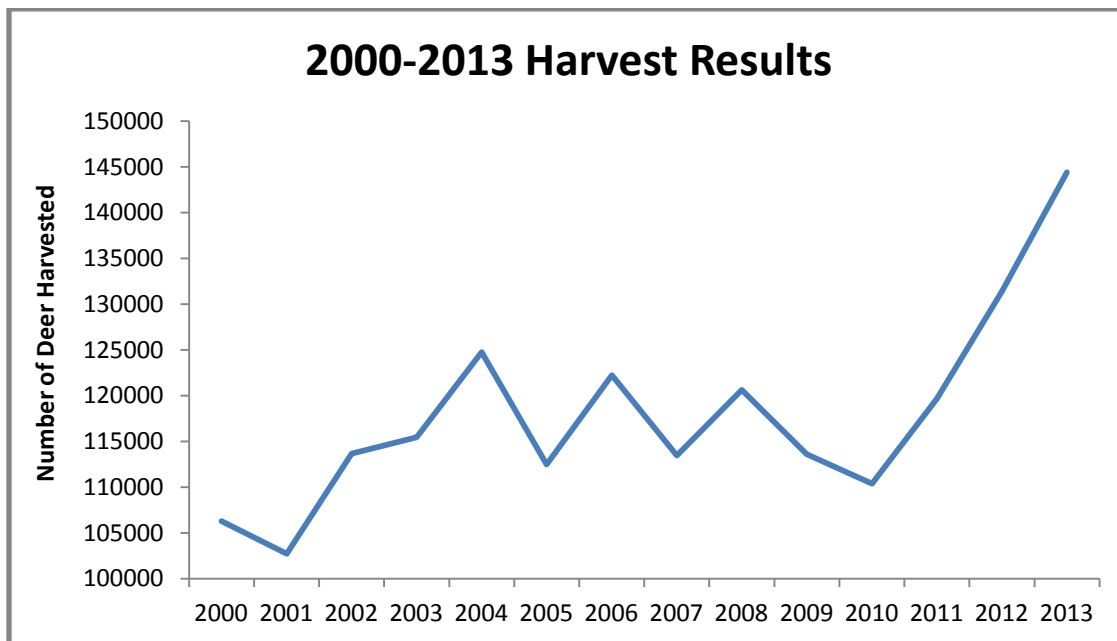
**Population Status**

Over the last decade deer management techniques have varied greatly across the state. Parts of the state such as the Bluegrass and Purchase regions have seen liberalization to the bag limit in an attempt to lower the deer population. Areas in the Southeast and Green River regions have seen a reduction in bag limits to accommodate for declining deer densities. In 2007, the state experienced the most wide spread Epizootic Hemorrhagic Disease (EHD) outbreak on record. All regions of the state were impacted, with some seemingly affected worse than others. Post the 2007 outbreak, deer hunting zones were restricted in some counties to reduce harvest in order to allow the herd to rebound. Current county population estimates in the counties that had their zone changed have rebounded and are at population levels equal to or higher than levels prior to the outbreak.

The overall herd estimate shows a stable to slightly decreasing trend. The current statewide estimate is 821,731 deer statewide, post 2013 hunting season, which is a 4% decrease from 2012. The estimate is generated from harvest and age structure data. Age structure data is collected by KDFWR staff and telecheck records are used for harvest data in the model.

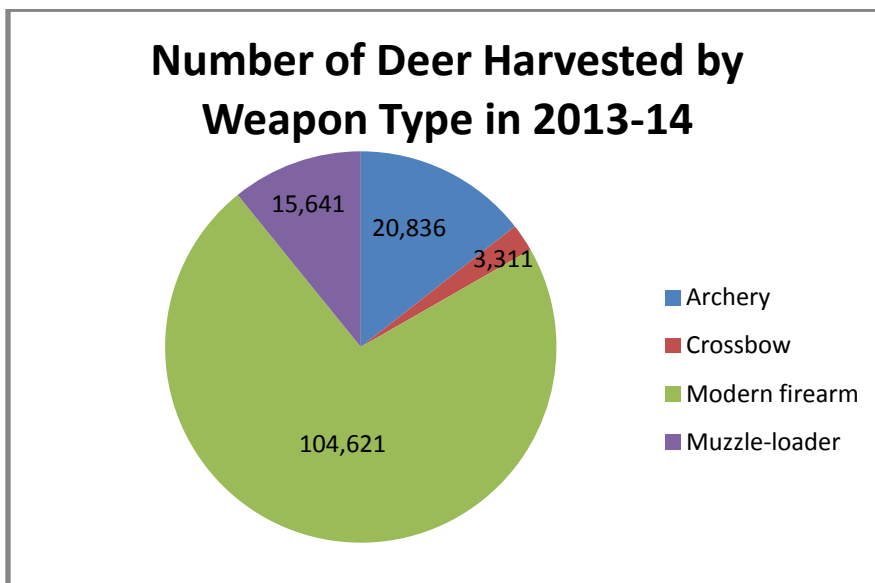
**2013-2014 Harvest Results**

The 2013-14 deer harvest was one for the ages with a record harvest of 144,409. It was the highest on record, beating the current harvest record (131,395 in 2013) by 13,000 deer. It was a 10% increase from 2012-13 season and was a 20.7% increase from the 2010-11 season. Factors that contributed to the increased harvest were a poor acorn crop, an increase of approximately 9,000 deer permits, and optimal hunting weather during the major hunting timeframes.



**Weapon Type Harvest Summary**

There were no major changes in the percentage of the harvest by weapon type compared to last season. Seventy-two percent of the overall harvest was taken during the modern firearm season. The increased harvest was reflected in all weapon types equally across the season.

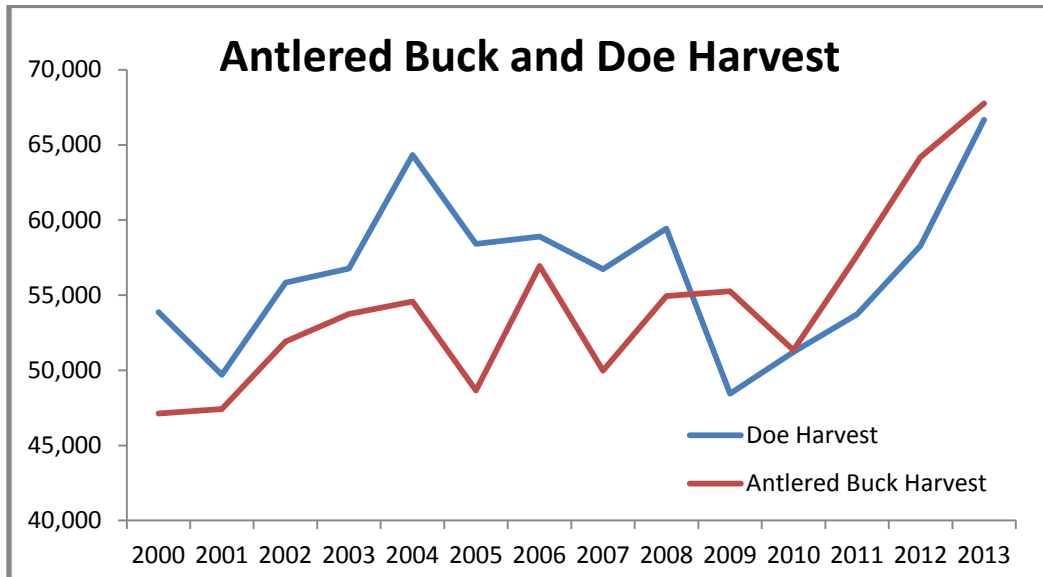


By weapon type, crossbow hunters saw the biggest percentage change, with a 33% increase in the crossbow harvest. Crossbow harvest has been increasing steadily over the last few years, indicating greater acceptance of using crossbows for deer hunting.

Weapon Type	Female	Male	Total	% Change
Archery	13,058	7,778	20,836	11%
Crossbow	2071	1240	3,311	33%
Modern firearm	42,171	62,450	104,621	9%
Muzzle-loader	9,388	6,253	15,641	7%
<b>Total</b>	<b>66,688</b>	<b>77,721</b>	<b>144,409</b>	<b>10%</b>

Hunters appear to have a limit on the number of deer they are willing or able to harvest. The majority of successful deer hunters (81%) only harvest one deer. Of the total successful hunters in the 2013-14 season (106,225 hunters) the average hunter harvested 1.4 deer. The 1.4 deer harvested per successful hunter was a slight increase from last season, however this rate usually does not fluctuate between deer zone and the season year.

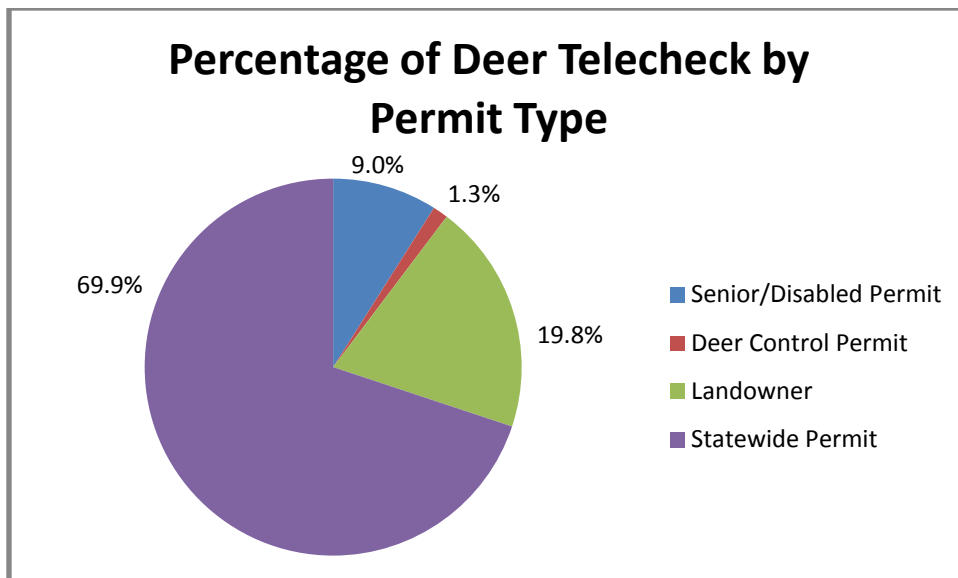
Even though the average hunter only harvests 1.4 deer, the successful hunters do an excellent job balancing the buck to doe numbers in the harvest. Doe harvest numbers can fluctuate greatly in a county or region due to harvest restrictions by zones.



**Monthly Harvest Rates**

September and November both saw record harvests of 5,838 and 105,667 respectively. This is the third year in a row that the September harvest was a record and second year in a row for November. Cooler conditions in September and optimal weather conditions for the modern gun season in November drove the record harvest. October’s harvest was up from 15,465 in 2012 to 17,553 in 2013. January’s conditions were cold and harsh, but the month still had the 3<sup>rd</sup> highest harvest on record at 2,455.

**Harvest Results by Permit Type**



**Boone and Crockett Entries**

A total of 54 record book entries (34 typical and 20 non-typical) were submitted to KDFWR in 2013. The 53 entries came from 41 of Kentucky's 120 counties. All regions of the state were represented with the highest number (3) coming from Lewis and Casey Counties.

Typical Score	Name	County	Equipment
184 5/8	Kenneth K. Zimmerman	Casey	Modern gun
183	James Irvine	Pulaski	Muzzleloader
181 1/8	Greg Reinhardt	Bracken	Modern gun
179 3/8	Jean L. Marquis	Oldham	Modern gun
176 5/8	Amanda Hombirg	Scott	Muzzleloader
172 7/8	Sarah Fitzpatrick	Lincoln	Modern gun
172 3/4	Jeff A. Osborne	Owen	Modern gun
172 5/8	Gabe Jenkins	Crittenden	Modern gun
172 1/8	Jason Burkley	Jessamine	Archery
170 3/4	Vernon Shuler	Mason	Modern gun
170	Nicholas Brown	Campbell	Archery
169 1/4	Bradley J. Mills	Ohio	Archery
168	Steven A. Howard	Lewis	Modern gun
167 1/8	Roy Jones	Clinton	Modern gun
166 3/4	Joshua Johnson	Casey	Modern gun
166 1/2	Oakley C. Allen	Lee	Archery
165 7/8	Terry Haney	Trigg	Modern gun
165	Aaron G. Jones	Shelby	Modern gun
164 3/4	Anthony Bright	Taylor	Modern gun
164 3/8	Jason Stanford	Shelby	Archery
164 1/8	Joe Dan Thompson	Casey	Archery
163 3/4	Dave Delaney	Logan	Modern gun
163 1/2	Robbie Ammons	Hardin	Archery
163 3/8	Johnathon E. Cox	Greenup	Modern gun
162 3/4	Tommy Stewart	Fulton	Modern gun
162 3/8	Keith Baker	Henry	Modern gun
162 1/8	Daniel Gardner	Campbell	Modern gun
161 7/8	Nick De Wet	Bath	Modern gun
161	Timothy Brock	Boone	Archery
160 3/4	Chris Cook	Pulaski	Modern gun
160 3/8	Eli Brock	Trimble	Found
160 3/8	Rodney J. Young	Franklin	Modern gun
160 1/4	Billy Young	Ohio	Modern gun
160 1/8	Tyler Fulton	Lyon	Archery

Non-typical Score	Name	County	Equipment
223 1/4	Phillip K. Robertson	Todd	Modern gun
221 7/8	David Howard	Todd	Archery
219 7/8	Junior Key	Monroe	Modern gun
217 1/8	Gerald Jenkins	Warren	Modern gun
215 1/2	Larry Mangin	Meade	Modern gun
210 1/2	Danny Moore	Bullitt	Modern gun
198 3/4	Albert L. King, Jr.	Henderson	Muzzleloader
198 5/8	Christopher Y. Graves	Fleming	Modern gun
195 3/4	Dennis Nickell	Fleming	Modern gun
195 1/8	Mark Hounshell	Lewis	Modern gun
193 1/8	Keith Major	Hardin	Modern gun
192 3/8	Steve Nix	Crittenden	Modern gun
191 3/4	Mary Lou Pollett	Jefferson	Found
189 3/8	Bradford L. Southwood	Wayne	Archery
188 5/8	Roger Poe Jr.	Robertson	Muzzleloader
188	Dustin R. Shaffer	Carter	Modern gun
186 1/8	Chad A. Clark	Lewis	Modern gun
185 5/8	John T. Wilson	Christian	Modern gun
185 3/8	Leslie Hull	Mason	Modern gun
185 3/8	Richard L. West	Butler	Muzzleloader

The submission of 54 entries ranks as the 5<sup>th</sup> best year on record for the state. 2011 was the best year ever with 78 entries. In 2011, Kentucky had the most record book entries than any other state. Below are the top 10 years for Boone and Crockett entries for the state.

Rank	Entries	Year	Rank	Entries	Year
<b>1</b>	78	2011	<b>6</b>	49	2006
<b>2</b>	57	2010	<b>7</b>	47	2009
<b>3</b>	56	2004	<b>8</b>	47	2007
<b>4</b>	56	2003	<b>9</b>	43	2000
<b>5</b>	54	2013	<b>10</b>	42	2012

### Quota Hunt Results

There are 31 KDFWR quota hunts in the state along with 3 quota hunts on military installations (Ft. Knox, Bluegrass Army Depot, and Ft. Campbell). Any resident or nonresident hunter may apply for a deer quota hunt in the state. Only the persons successfully drawn for quota hunts may hunt. The application period for KDFWR deer quota hunts is the month of September. Applicants can apply online at [fw.ky.gov](http://fw.ky.gov) or call 1-877-598-2401. 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 isn't 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 with one call. If any one of the group’s Social Security numbers is drawn, the others in the group are automatically drawn, too.

For the 31 KDFWR quota hunts held in 2013, there were 3,982 spots available for quota hunts across the states. There are quota hunts for any resident or nonresident hunters, mobility impaired hunters, archery/crossbow hunters, and youth hunters. Some quota hunts are for antlerless deer, some areas have a 15 in minimum spread restriction on bucks and some quota hunts only allow 1 deer to be taken per hunt. Each of the five wildlife regions across the state have deer quotas. For the 2013 Report, quota hunts in the Southeast and Northeast Regions will be highlighted.

**Southeast Region**

The Southeast Region has 3 KDFWR areas that have quota hunts (Green River Lake WMA and State Park, Mill Creek WMA, and Beaver Creek WMA). Below is a summary of the quota hunts in the Bluegrass Region.

**Green River Lake WMA and State Park-** by Brian Gray, KDFWR Southeast Region Public Lands Biologist

During the first full weekend in November the KDFWR offer public opportunities for hunting whitetail deer with a firearm on the 20,000 acre Green River Lake WMA. Terrain varies from flat bottomlands interspersed with 1100 acres of crop fields and bottomland forest that range from thickets to mature hardwoods. The area adjacent to the lake is relatively steep and dominated by upland hardwoods. Good access to the WMA is provided by various county roads or by using a boat on the lake. The WMA has a 15 in outside antler restriction for all deer hunting, and the only gun hunting is during a 2-day quota hunt the first weekend of November. The WMA is open to archery hunting in conjunction with the statewide season (except quota hunt).

Two quota hunts are offered on Green River Lake WMA during November, one is open for everyone with up to 400 hunters drawn and the second is open only to mobility impaired hunters with 15 slots available on a 500 acre area; the mobility impaired hunt usually has more slots available than applicants. Generally about 330 people show up for the 2 hunts combined, though in 2013 only 286 hunters checked-in.

In cooperation with KDFWR, Green River Lake State Park also offers 2 archery only quota hunts in December. These hunts are the 2<sup>nd</sup> and 3<sup>rd</sup> weekends in December and are 4 day hunts which begin on Thursday. These hunts do not require a check-in but any deer harvested must be telechecked. Fifty-five slots are available for each hunt.

Hunt	Participants	Hours Hunted	Deer Seen	Bucks Seen	Deer Harvest
WMA	286	3396	1183	246	62
Mobility Impaired	10	117	83	10	1
State Park	no data	no data	no data	no data	19



**Mill Creek WMA-** by Becky Littleton, KDFWR Southeast Region Public Lands Biologist

The 13,009-acre Mill Creek WMA is located in Jackson County and is part of the Daniel Boone National Forest. The terrain is steep and mountainous with narrow ridge tops. The area is over 95% forested with 30 acres of wildlife openings that are maintained in grass and clover.

Mill Creek WMA is open under statewide archery season. Deer firearm season is restricted to a 2-day quota hunt offered during the first weekend of November. Hunters are limited to one deer of either sex during the quota hunt.

The 2013 Mill Creek quota deer hunt was held November 2-3, with 275 of the 351 drawn hunters (78%) checking in to hunt. Hunters reported a total of 3,015 hours hunted (11 hours/hunter) with 236 (35 antlered) deer seen. A total of 16 deer were harvested (3 antlered, 13 antlerless). Mill Creek WMA doesn't usually produce trophy deer, but we generally see something interesting every year.

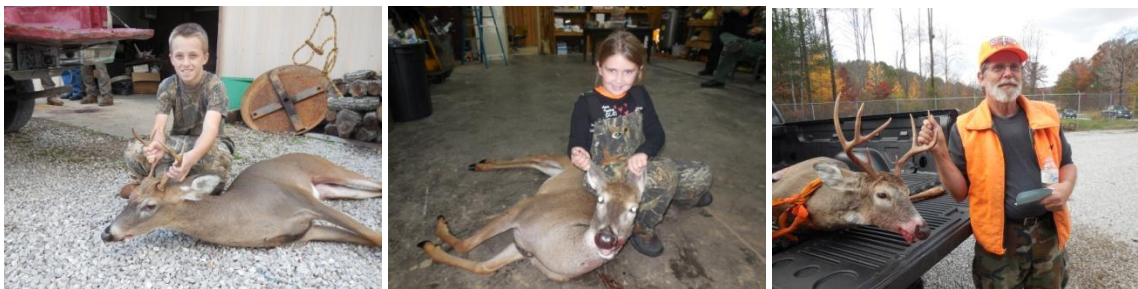


**Beaver Creek WMA-** by Becky Littleton, KDFWR Southeast Region Public Lands Biologist

The 17,753-acre Beaver Creek WMA is located in northern McCreary County and is part of the Daniel Boone National Forest. The terrain is steep with narrow ridge tops surrounding the Beaver Creek Wilderness area. The area is over 90% forested with 150 acres of wildlife openings that are maintained in small grains and clover.

Beaver Creek WMA is open under statewide archery season. Deer firearm season is restricted to a 2-day quota hunt offered during the first weekend of November. From 2004 through 2012, the area was under Quality Deer Management (QDM) regulations, requiring a minimum outside antler spread of 15 in for all antlered deer harvested. This restriction was removed for the 2013 season. Because the deer density is below the desired level, harvest for the 2014 quota hunt will be limited to one antlered deer.

The 2013 Beaver Creek quota deer hunt was held November 2-3, with 254 of the 332 drawn hunters (77%) checking in to hunt. Hunters reported a total of 2,780 hours hunted (11 hours/hunter) with 218 (71 antlered) deer seen. A total of 27 deer were harvested (16 antlered, 11 antlerless). No deer with an outside antler spread of 15 in or more were harvested.

**Northeast Region**

The Northeast Region has 3 KDFWR managed areas that have quota hunts (Fishtrap Lake WMA, Clay WMA, and Paintsville Lake WMA). Below is a summary of the quota hunts in the Northeast Region.

**Fishtrap Lake WMA-** by Rick Maruro and Herbie Adams, KDFWR Northeast Region Public Lands Biologist and WMA Foreman.

The Fishtrap Lake WMA, located in Pike County in far eastern Kentucky, offers one of the most unique deer quota hunts in the state due to its extreme terrain and heavily forested habitat. Eighty-five percent of the 13,135 acre WMA is wooded, and elevation ranges from 749–1,989 ft. the topography is characterized by steep ridges, deep hollows, and narrow ridge-tops and bottomland along creeks. Portions of the WMA which were previously mined consist of rolling slopes, grass, and shrubland. Some managed wildlife openings also occur within creek bottoms.

The rugged and varied habitat of the WMA supports a deer herd which is both abundant (but not overly so) and of good quality. Approximately 30% of the hunters that participated in the annual quota hunt in recent years have harvested a deer (reference the following table). The harvest is typically comprised of about 50% antlered and 50% antlerless deer. Likewise, during the last five years 33% of the antlered bucks taken had antler spreads  $\geq 15$  in, including almost 50% of the antlered deer taken last year. Although antler restrictions are not in effect on Fishtrap

WMA, restricted gun hunting (limited to the quota hunt and statewide youth hunts) and challenging terrain allow a good proportion of bucks to reach older age classes. In fact, the success rate on Fishtrap for bucks with antler spreads  $\geq 15$  in is comparable to many WMAs with antler restrictions.

The Fishtrap Lake WMA quota hunt occurs annually the weekend before Thanksgiving. Any weapons legal for taking deer in Kentucky, including firearms, are legal. The limit is one deer, either sex, and all hunters must check in and out of the hunt. In recent years about 70% of the hunters that applied have been drawn for one of the 200 available openings for the hunt.

If you want to diversify your deer hunting experience on an area with both good deer numbers and quality, Fishtrap WMA should be a prime candidate to consider. Although many WMA gates will be opened for the hunt to improve access, it is a good idea for hunters wishing to challenge themselves by walking very far away from roads to be in good physical condition, and to have a good plan for getting their deer out (e.g. buddies, game cart, etc.) if successful.

Year	# Hunters	Deer Harvested	Antlered Deer Harvested	Deer Harvested > 15in spread	Deer Harvested per Hunter	Deer Seen per Hunter
2013	157	52	19	9	0.33	3.37
5 yr average	153	45	20	7	0.28	2.82

**Clay WMA-** by Nathan Gregory, KDFWR Northeast Region Coordinator

Clay WMA is approximately 7,387 acres located in Nicholas, Fleming and Bath Counties. The quota hunt is held on the first weekend of November with 167 people getting drawn for the hunt. The terrain is, mixed upland forest ranging in age from mid-succession to mature hardwoods, with rolling hills and some bottomlands along the Licking River. There are interspersed fields scattered throughout the WMA and subtracts. The counties encompassing Clay WMA are labeled as zone 2 for deer hunting, allowing individuals drawn for the quota hunt to harvest up to 4 deer. Only 1 harvested deer may be a buck and hunters are required to use statewide tags. Clay WMA has an abundance of deer, and this quota hunt allows a hunter to use all 4 tags. Beyond the 2 day quota hunt individuals are limited to 1 deer per day on the WMA.

In 2009 a herd health check was completed and confirmed that deer numbers needed to be reduced in order to maintain a balanced and healthy deer population. That same year a preference point system was introduced for the quota hunt and is still used today. For every female deer a person harvests during the quota hunt they receive a preference point which improves the hunter’s chances of being drawn for quota hunts in future years.

In 2013 there were 56 deer harvested which was down from 80 deer harvested in 2012; these numbers usually fluctuate annually due to weather conditions during the hunt weekend. Fifty-four percent (30) of harvested deer were not antlered and 46% (26) were antlered, and of the 26 antlered deer harvested 19 individuals were 2.5 years or older.



Total Hunters Drawn	Total Hunters Checked In	Estimated Hunting Hours	Total Deer Observed	Overall Success Rate
167	137	1914	671	41%



**Paintsville Lake WMA-** by Rick Maruro and Rusty Hamilton, KDFWR Northeast Region Public Lands Biologist and WMA Foreman.

Paintsville Lake WMA is located in Johnson and Morgan Counties and consists of 11,221 acres (95% forested); giving hunters plenty of room to explore and roam. Since its inception in 1989 the Paintsville Lake WMA quota hunt has represented a good hunting opportunity because deer are abundant and in good condition. Many bucks on Paintsville Lake WMA survive to older age classes and the sex ratio of the herd is fairly balanced. This is due to limited gun hunting pressure on bucks (permitted only during the quota hunt and statewide youth hunts) which allows them to reach older ages, and to either sex hunting for all deer hunts on the WMA. During good mast years acorns and beechnuts are a prime food for deer in the fall, and wooded tracts producing these nuts are a good place for hunters to focus their attention. In poor mast years, deer activity in the fall will generally be centered on scattered food plots and wildlife openings in creek bottoms and upland flats. Accessing hunting areas by boat is a prime method to reach isolated portions of the WMA.

The Paintsville Lake WMA deer quota hunt occurs annually the first weekend in November. The limit for the hunt is two deer but no more than one may be antlered. Antlered deer must have an outside spread of 15 in or more to be legally taken. Hunters are required to check-in and out during the quota hunt. In recent years about 88% of the applicants have been successfully drawn for one of the 300 available openings. The following table summarizes hunter participation and success in the Paintsville quota hunt during the past five years:

Number of Hunters	Deer Harvested	Antlered Deer Harvested <sup>1</sup>	Deer Harvested per Hunter	Deer Seen per Hunter	Antlered Deer Seen per Hunter	Antlerless to Antlered Deer Ratio <sup>2</sup>
236	36	9	0.15	2.95	0.62	3.61

<sup>1</sup>All antlered deer harvested had 15 in+ outside antler spreads due to quota hunt regulations. <sup>2</sup>Calculated from the number of deer reported seen by quota hunters during check-out.



## Disease Surveillance

### Hemorrhagic Disease (HD)

Hemorrhagic disease (HD), a vector-borne disease of white-tailed deer is caused by two related orbiviruses, epizootic hemorrhagic disease virus (EHDV) and bluetongue virus (BTV). Hemorrhagic disease 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. These insects are active in the late summer and early fall. HD outbreaks are often associated with drought. Once there has been a hard freeze the midges die off for the winter, eliminating new cases of HD.

HD is reported in deer from at least a few counties nearly every year in Kentucky, although outbreaks can be considerably large and widespread. The 2007 outbreak of HD in wild deer was the most widespread outbreak reported in the past 30 years. Over 4,000 suspected cases were reported in Kentucky. When possible, KDFWR will test animals that have died of apparent EHD.

Five deer were clinically diagnosed as EHDV positive in 2013. Of those 5, 2 were from Woodford County, 2 from Butler County and 1 from Henderson County.



General Information about the 2013-14 Season

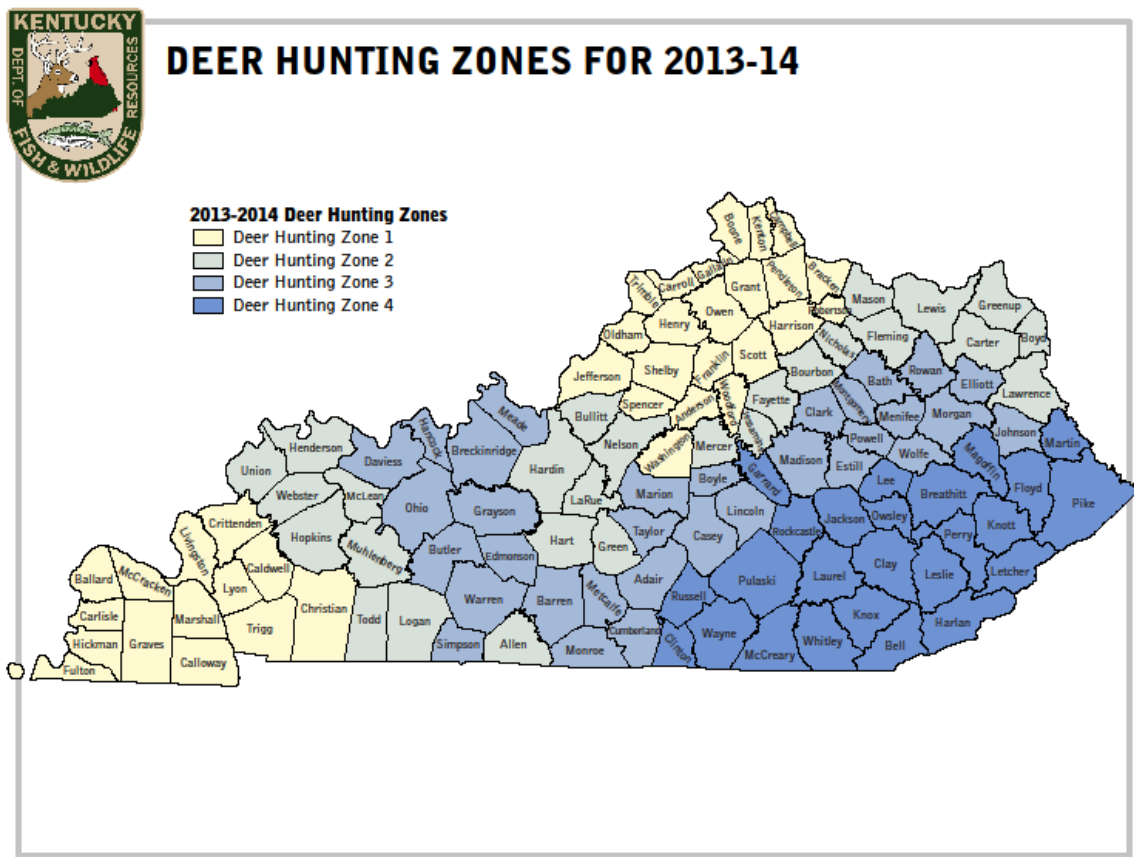
License and Permit Fees

License	Resident	Nonresident
Annual Hunting License	\$20	\$130
Senior/Disabled License	\$5	N/A
Sportsman's License	\$95	N/A
Jr. Sportsman's License	\$25	\$25
Statewide Deer Permit	\$30	\$60
Bonus Antlerless Permit	\$15	\$15
Jr. Deer Permit	\$10	\$10

Season Dates

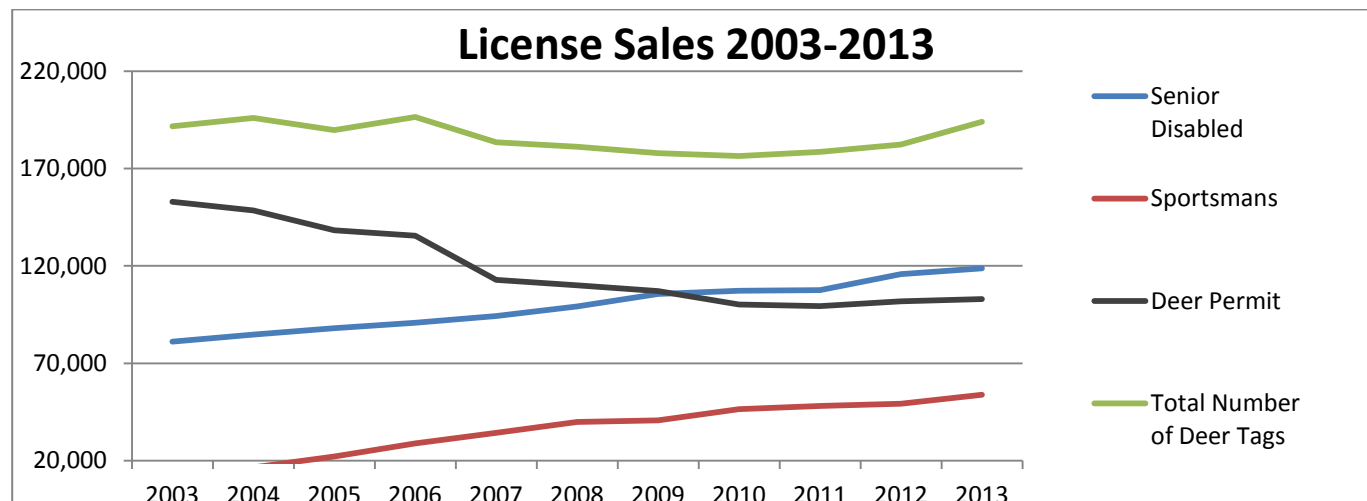
	Statewide	Zone 1	Zone 2	Zone 3	Zone 4
Modern Firearm		Nov 09-24	Nov 09-24	Nov 09-18	Nov 09-18
Archery		Sept 7- Jan 20	Sept 7- Jan 20	Sept 7- Jan 20	Sept 7- Jan 20
Early Crossbow		Oct 1-20	Oct 1-20	Oct 1-20	Oct 1-20
Late Crossbow		Nov 09-Dec 31	Nov 09-Dec 31	Nov 09-Dec 31	Nov 09-Dec 31
Early Muzzleloader		Oct 19-20	Oct 19-20	Oct 19-20	Oct 19-20
Late Muzzleloader		Dec 14-22	Dec 14-22	Dec 14-22	Dec 14-22
Youth-Only Firearms	Oct 12-13				
Free Youth Weekend	Dec 28-29				
Antlered Bag Limit	1				
Antlerless Bag Limit	Based upon zone	Unlimited	Up to 4	Up to 4, only 2 deer with a firearm	Up to 4. Only 2 deer with a firearm, antlerless deer can only be killed with a firearm during the last 3 days of the late muzzleloader

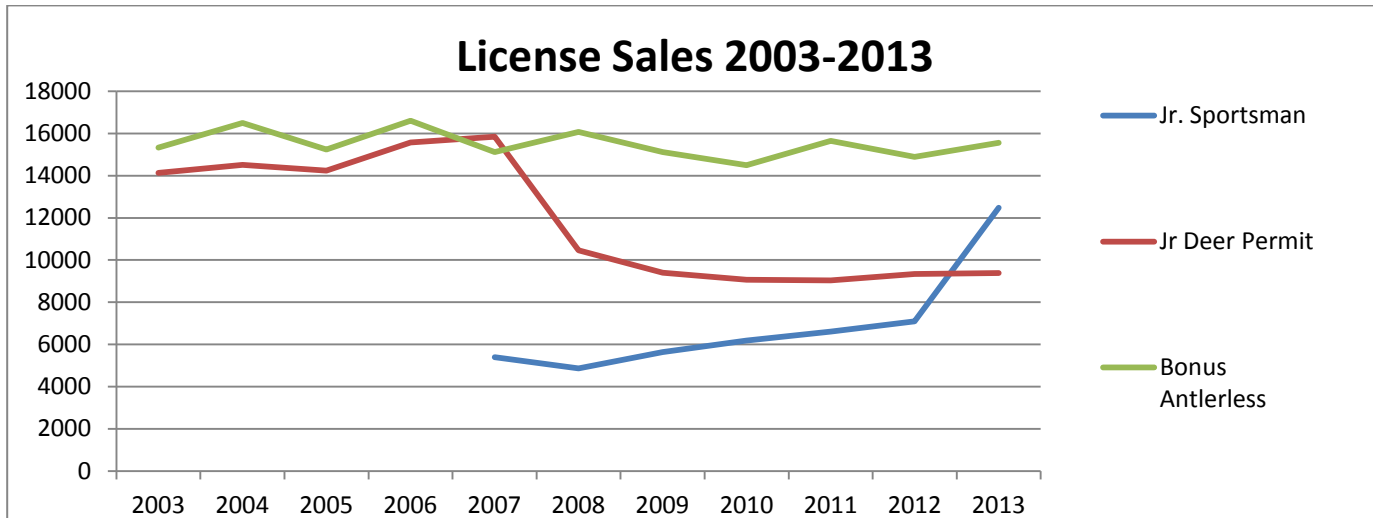




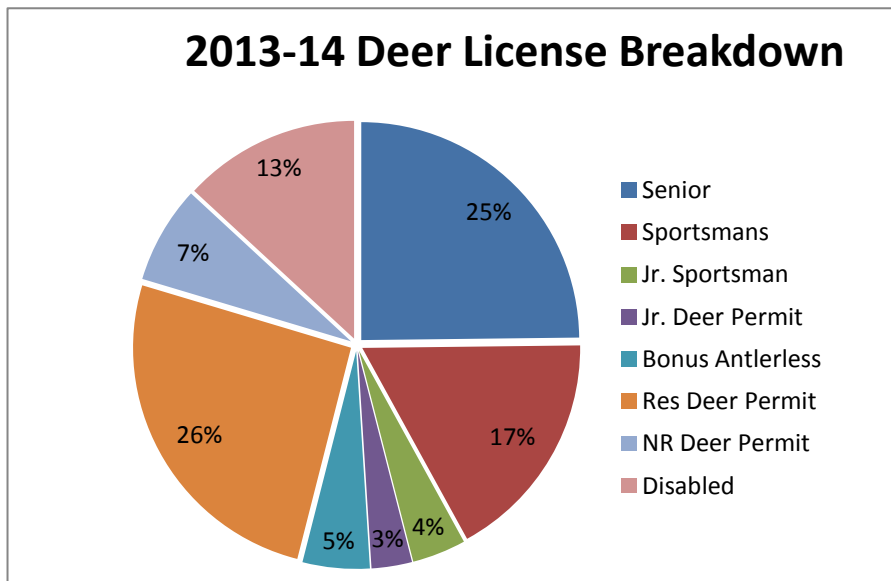
**License Sales**

In recent years the number of deer permits sold has declined slightly. When including the license bundles (Sportsman’s, Jr. Sportsman’s, Jr. Deer Permit, Resident and Non-Resident Deer Permit, and Bonus Antlerless Permit) in the total deer permit numbers a positive license sales growth is reported. Deer license sales increased by 6% from the 2012-13 season. KDFWR put an emphasis on Jr. Sportsman’s Licenses in 2013-14 and that effort was reflected in the overall sales of those licenses.





Upon further examining license sales, the majority of deer permits are purchased by resident deer hunters (26%), followed closely by Senior (25%) and Sportsman License (17%) buyers. Over the last few years there was a steady increase in the number of senior licenses sold and a slow decrease in resident deer permit sales. The overall number of deer hunters is stable to slightly increasing. However, the number of Senior licenses is increasing by nearly 3,000 yearly, indicating that a majority of Kentucky deer hunters are reaching the age of 65 (i.e., the age at which you can purchase as Senior License).



## Current Research

### Population Dynamics of Adult Female White-tailed Deer in Southeast Kentucky

Caleb Haymes, John Cox Ph.D., University of Kentucky,

Gabe Jenkins, Will Bowling, KDFWR

The white-tailed deer (*Odocoileus virginianus*) is a highly regarded game species throughout North America. Early in the 20<sup>th</sup> century, the deer population in the state of Kentucky was believed to number at 2600 individuals. After almost 90 years, 50 of which contained active restoration efforts, the deer herd now exceeds 750,000 individuals statewide. Although most of the state contains healthy numbers of deer, many counties in southeastern Kentucky are thought to have stable, low density populations.

Research will focus on adult does in Clay County, KY, in efforts to identify survival, cause-specific mortality, fecundity, and birth rate of this important reproductive demographic group in an area of relatively low deer density. Does will be captured and immobilized using clover traps, drop-nets, and free-range darting, then fitted with a very high frequency (VHF) radio-transmitter collar. Pregnancy and number of fetuses will be determined using an ultrasound, and a vaginal implant transmitter (VIT) will be inserted in pregnant does to facilitate location of birth-site locations and fawns for another research study (see below). Adult does will be monitored twice weekly for mortality for 18-24 months. These data should inform state wildlife managers about regional deer population dynamics in southeastern Kentucky, which will be helpful for the refinement of population models and overall management of this important game species.



### Survival, Cause-Specific Mortality, and Recruitment of White-tailed Deer Neonates in Southeastern Kentucky

Joe McDermott, Dr. John Cox - University of Kentucky

Gabe Jenkins, Will Bowling - KDFWR

An extensive trapping and relocation project that ended in 1999 revealed that white-tailed deer populations in southeastern Kentucky were in decline while populations in the rest of the state were stable or increasing. Because the factors influencing this decline in southeastern Kentucky are unknown, the goal of this research project is to determine the recruitment rate, or the rate at which juveniles survive to adulthood and consequently become part of the breeding population, of deer populations through estimates of survival and cause-specific mortality of fawns. Understanding cause-specific mortality and survival of fawns is important when preparing deer population models that inform management decisions.

To address this regional deer issue we will capture and collar fawns during the months of May and June in Clay and Leslie Counties using vaginal implant transmitters (VITs). VITs are inserted into does captured during a complimentary mortality survey occurring in the same region (see above study). Fawns will also be found using thermal imaging cameras. Once captured, fawns will be fitted with an expandable neonate collar that will allow us to monitor the animals until death or one year of age.



These data will allow us to assess survival, cause-specific mortality, and recruitment. Our findings should help inform wildlife managers about regional deer population dynamics and potential management responses.

### **Changes for the 2014-2015 Deer Season**

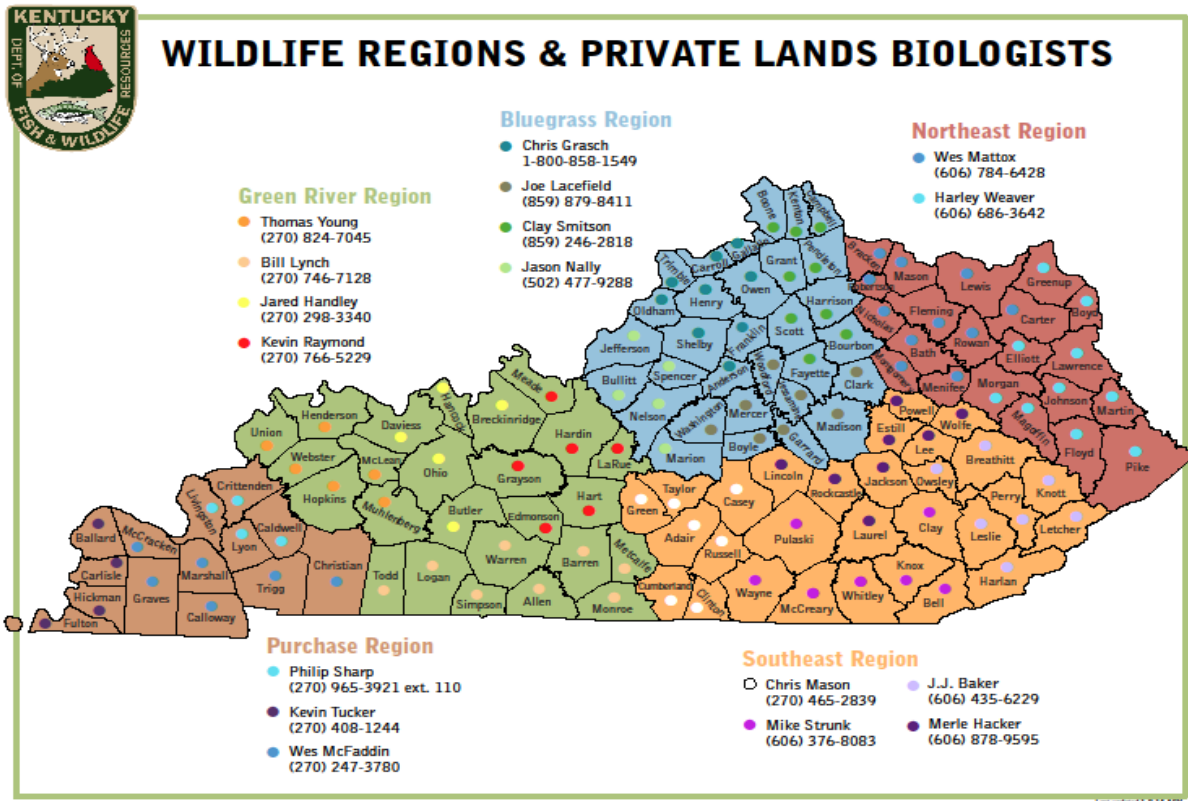
Menifee County will be changed from a zone 3 to a zone 4. Curtis Gates Lloyd WMA and John C. Williams WMA will be open for the youth only firearms season under statewide regulations. A quota firearms hunt will be held December 6-7 on Dewey Lake WMA and there will be a 1 deer limit during the quota hunt. The 15 in outside spread antler restriction has been removed from Yellowbank WMA and Paul Van Booven WMA. The modern gun quota hunt on Beaver Creek WMA will only be for antlered deer only. The quota hunt on Big Rivers WMA will start on the first Saturday in November.

Date changes only reflect the calendar shift from 2013 to 2014.

**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.

To contact your local wildlife biologist for assistance with wildlife management on your property see the map below.



The Department of Fish and Wildlife Resources is funded through the sale of hunting and fishing licenses. It receives no general fund tax dollars.