

2009-10 RUFFED GROUSE POPULATION STATUS REPORT



KENTUCKY DEPARTMENT OF FISH AND WILDLIFE RESOURCES

**Prepared by:
Ben Robinson
Wildlife Biologist**



Kentucky
UNBRIDLED SPIRIT™

METHODS

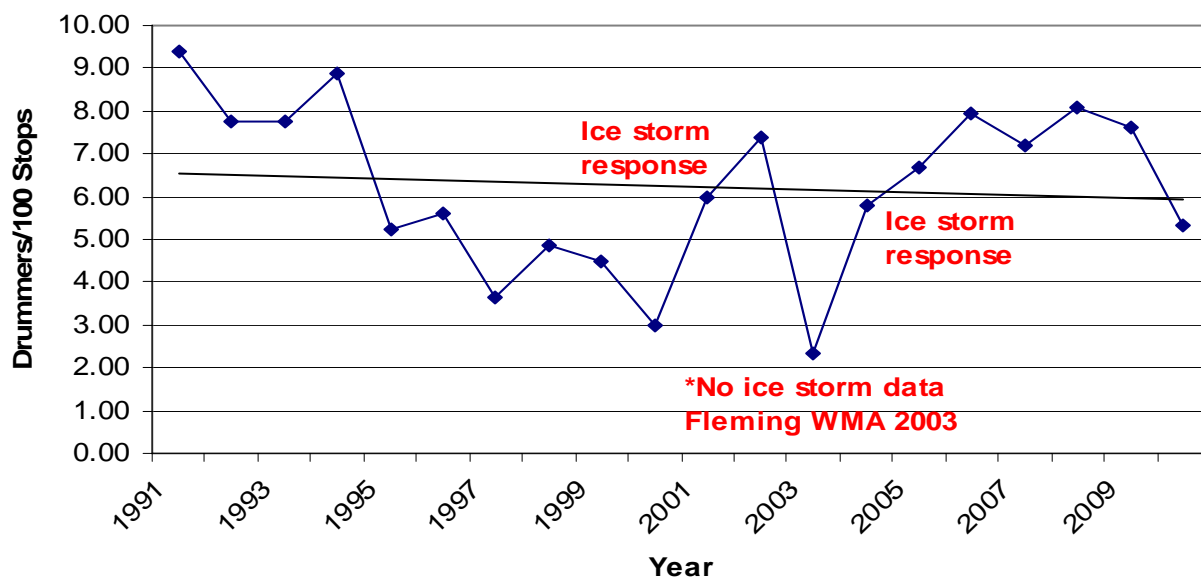
Historically, the Ruffed Grouse Population Status Report has been a compilation of 3 surveys that the Kentucky Department of Fish and Wildlife Resources (KDFWR) conducts annually to track the status of Kentucky's grouse population. First, a drumming survey utilizes KDFWR biologists to conduct 15-stop driving routes during the month of April to listen for and record the number of grouse drumming at each stop. Second, the Grouse Hunter Log Survey summarizes hunting activity and success of hunters across the state. Combining the information we receive from those 2 surveys, we can create population trends from flush and harvest data and track hunter effort and success. The Grouse Wing Survey was the third survey used to provide information about the age and sex ratio of the harvest; however, it was discontinued in 2007 because the data obtained was far less useful than the data provided by the hunter cooperators survey.

Kentucky's 2009-10 ruffed grouse hunting season began Nov. 1, 2009 and ended Feb. 28, 2010. Hunters were able to pursue grouse in 53 eastern Kentucky counties. An early grouse season was open on 7 wildlife management areas (WMA) from Oct. 1 to Dec. 31, 2009 (90 days). Those WMAs included Beaver Creek, Big South Fork National River and Recreation Area, Cane Creek, Clay, Dix River, Fleming, and Lake Cumberland.

GROUSE POPULATION STATUS

Drumming Survey – The number of drummers heard this year was down when compared to the last several years (Figure 1). The overall trend has been declining since the survey began nearly 20 years ago, most likely due to changes in grouse habitat. Many survey stops were once characterized by dense understories, but over time, they have developed into more mature stands of timber. This year's average of 5.33 drummers/100 stops is slightly lower than the 20 year average of 6.25.

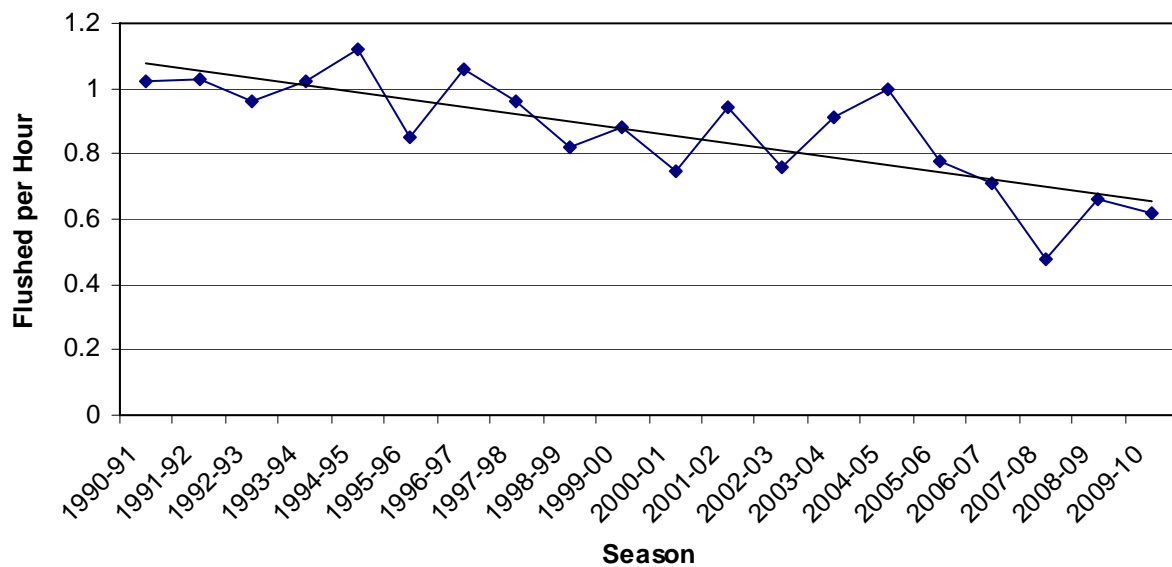
Figure 1: Individual displaying grouse from Grouse Drumming Survey in Kentucky, 1991-2010



Increases in drumming that occurred between 2000-2002 and 2003-2006 were likely the result of ice storm damage. Weather events such as ice storms or tornados open the forest canopy which results in a dense understory creating good grouse habitat.

Flush Rate – The flush rate for the 2009-10 season was similar to the previous year (Figure 2). The 2009-10 flush rate of 0.62 birds per hour was below the long-term average of 0.87 birds per hour. The overall trend of the grouse population based on flush rates is slowly decreasing. Flush rate data is the most reliable indicator of the grouse population if sample sizes are adequate. **In order to obtain a more accurate estimate, we need to recruit more hunter cooperators!**

Figure 2: Flush Rates From Grouse Hunter Logs in Kentucky; 1990-2010



HUNT AND HARVEST DYNAMICS

Hunt Characteristics - Hunters reported data from 200 hunts in 2009-10. The typical hunt was 3.2 hours long consisting of roughly 2 hunters. Dogs were used on 95% of all hunts with an average of 1.8 dogs/hunt. Hunting parties harvested 0.30 grouse/hunt. Hunting effort increased as the season advanced (Figure 3). Flush and harvest rates remained fairly constant throughout the season (Figure 4).

Figure 3: Average Number of Hunts per Available Day; 2009-10

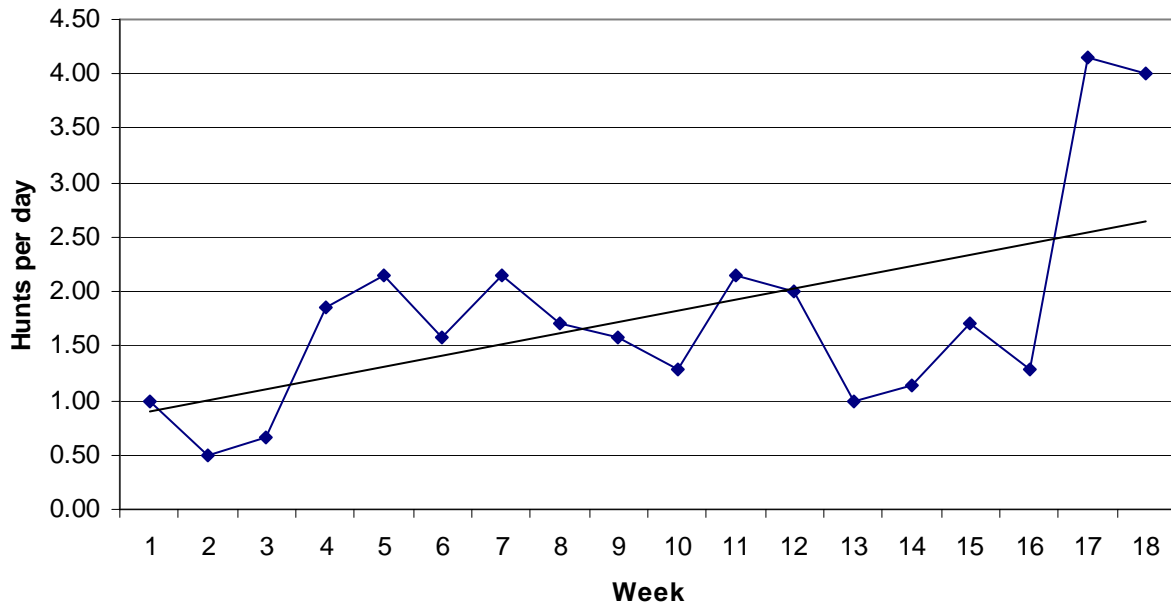
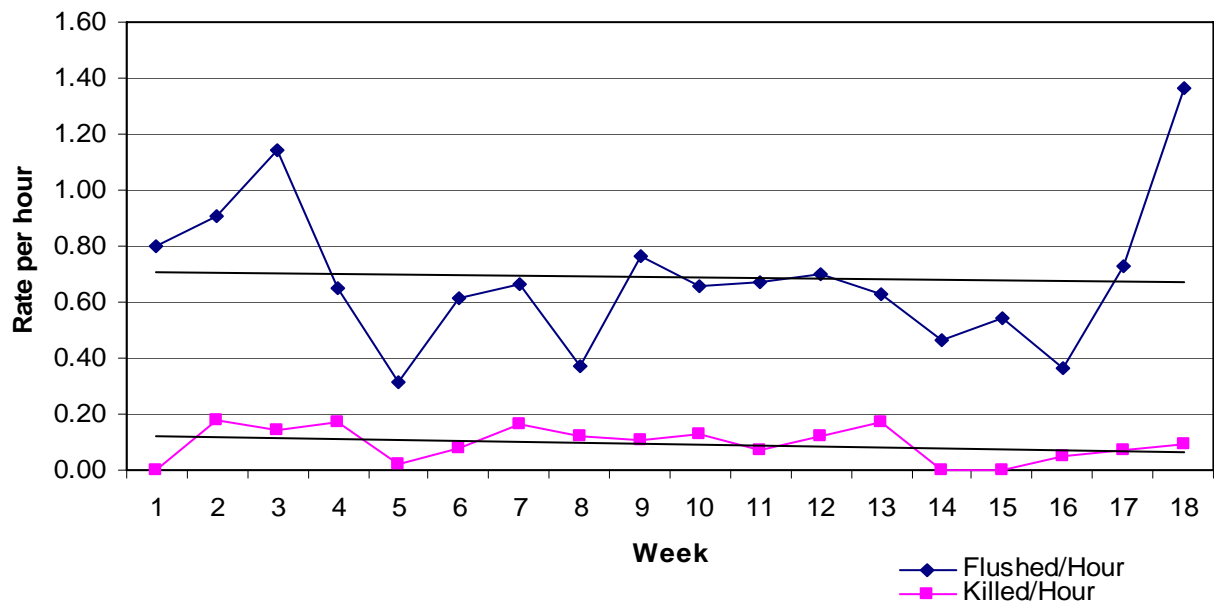


Figure 4: Flush and Harvest Rates from Grouse Hunter Logs in KY; 2009-10



OUTLOOK FOR THE 2010-11 GROUSE HUNTING SEASON

Kentucky grouse hunters should expect the upcoming season to be similar to last year. The 2009 mast crop was below average, leaving less food throughout the winter months. Research has shown that the productivity of hens is linked to the fall mast crop. Healthy hens lay better eggs and are better able to raise a brood. Simply put, less mast and other food equals fewer birds.

Hunters should target areas that may have experienced extensive storm damage within the last several years, such as ice or high wind. Areas that have seen a timber harvest within the last 3-10 years are also good places to seek out for grouse. As always, there will be local areas where grouse are plentiful, and areas where grouse are scarce. Get outside and scout to find the best areas in your neck of the woods!

ADDITIONAL HELP IS NEEDED

Grouse hunters can improve the survey information used to track Kentucky's grouse population by recruiting new participants. **More survey participants are needed!** Please prompt your friends and neighbors to track their hunts and pass that information on to KDFWR. Forms are available from the Department by calling (1-800-858-1549) or by visiting the Department website: fw.ky.gov/smallgamelogs.asp. We remain pleased with the Hunter Log Cooperator Survey and hope to see it expand with every passing season. The KDFWR Wildlife Division sincerely thanks the grouse hunters who have participated in the grouse surveys for many years. Your dedication makes this report possible and helps track grouse populations across the state.

Good luck and have a safe and productive season!

Appendix A. Kentucky Ruffed Grouse Drumming Survey Results (Drummers heard from a station on both survey days assumed the same.)

Route	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
NORTHEAST REGION																					
Bracken County	0	1	0	0	.	.	.	.	2	1	0	2	0	0	1	1	1	0	0	0
Grayson Lake WMA	3	3	1	6	7	1	0	1	1	0	4	1	0	1	5	2	2	0	3	0	
Fleming WMA	7	4	0	1	0	2	3	2	2	3	4	5	.	1	.	10	7	16	12	9	
Paintsville Lake WMA	2	8	8	6	1	2	3	1	1	2	5	2	0	1	0	0	3	0	2	0	
Yatesville Lake WMA	5	4	6	7	2	3	0	2	1	0	1	1	1	5	5	4	0	2	0	1	
Clay WMA	2	3	3	2	3	2	1	5	.	4	2	.	.	.	.	1	0	1	2	1
Fishtrap Lake WMA	1	1	12	8	4	7	4	6	4	2	6	6	.	3	.	1	.	1	.	.	
N. Grouse Demo Area	4	2	2	1	1	1	0	0	0	0	2	2	2	4	5	5	4	9	7	3	
SOUTHEAST REGION																					
Beech Creek	.	.	.	.	0	0	0	.	1	1	1	0	1	2	0	0	0	0	0	0
Mill Creek WMA	2	3	1	2	3	2	1	1	3	3	3	3	0	2	2	2	3	3	2	3	
War Fork	3	2	0	4	2	1	2	2	3	2	3	4	1	2	2	2	4	2	1	3	
Cane Creek	0	2	1	0	0	1	1	1	4	1	3	3	2	2	1	2	2	0	0	0	
Redbird WMA (Crest Trail)	16	.	7	11	9	3	.	2	3	1	5	9	.	.	2	.	0	.	.	1	
Pine Mountain WMA	4	2	2	2	1	5	2	1	1	0	2	.	.	2	.	.	.	.	.	.
South Fork	2	1	2	2	3	1	1	2	0	0	0	0	0	0	0	1	0	0	0	0	
Buck Knob	1	1	1	0	0	1	2	1	1	0	0	0	1	0	0	0	0	0	0	0	
Blue Diamond Coal	.	.	.	.	.	.	.	.	4	2	3	4	.	0	.	.	.	.	.	.
Tunnel Ridge	3	6	3	4	0	5	3	0	0	0	0	0	0	1	.	.	2	.	.	.	
Stephens Knob	3	3
Total	55	43	49	56	36	37	23	27	31	22	44	42	8	26	23	31	28	34	32	24	
Stops	585	555	630	630	690	660	630	555	690	735	735	570	345	450	345	390	390	420	420	450	
Drummers/100 Stops	9.40	7.75	7.78	8.89	5.22	5.61	3.65	4.86	4.49	2.99	5.99	7.37	2.32	5.78	6.67	7.95	7.18	8.10	7.62	5.33	
*Drummers heard on consecutive days at same station assumed to be the same individual																					