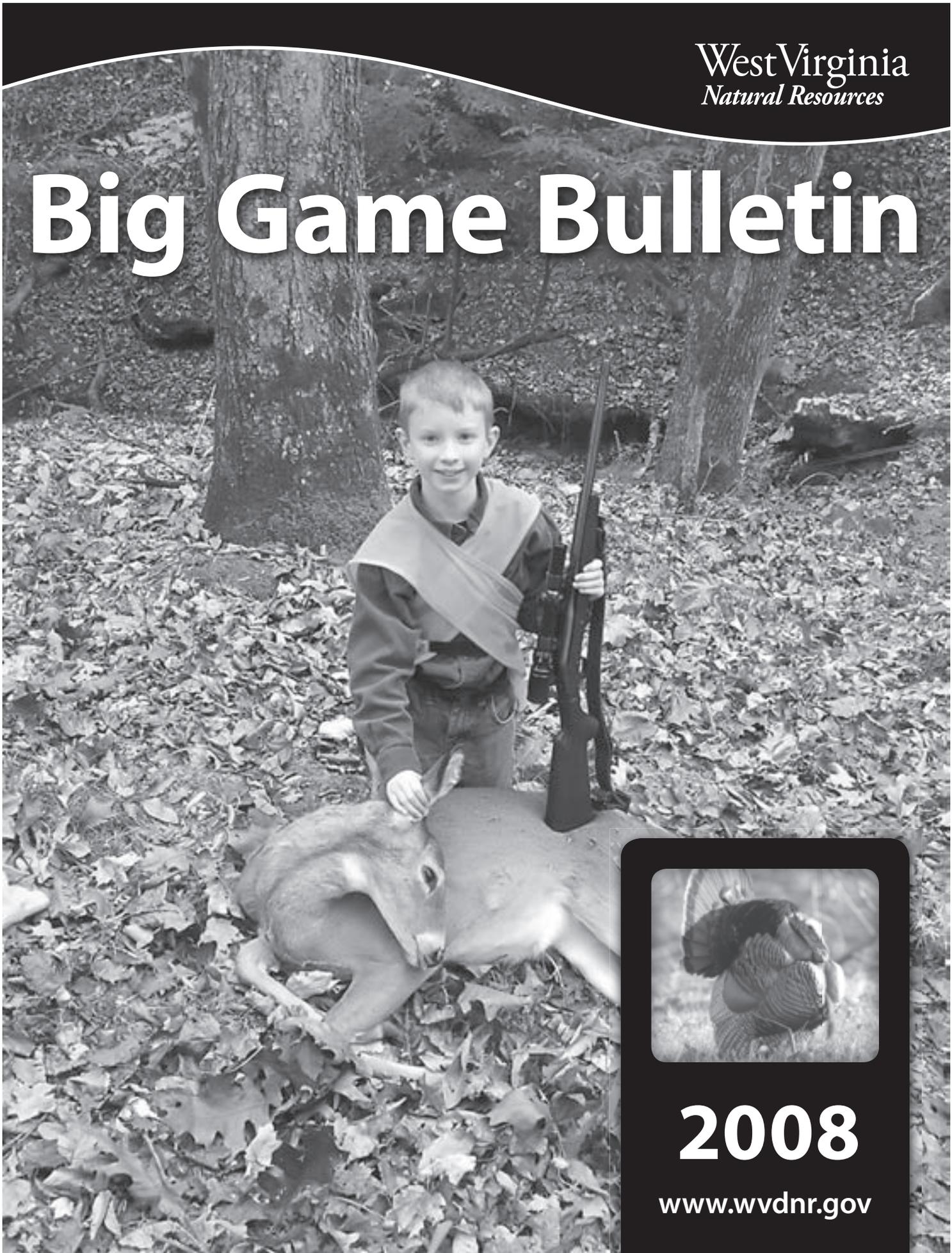


West Virginia
Natural Resources

Big Game Bulletin



2008

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WILDLIFE RESOURCES SECTION BULLETIN 09-01

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BLACK BEAR

by
Christopher W. Ryan

Season Results and Highlights

Hunters harvested a record 2,069 black bears in West Virginia during the combined archery and firearms seasons (Tables 1 and 2). This is the first time the kill topped 2,000 and is a 14% increase over the previous record established last year (Figure 1). Numerous factors contributed to this record bear harvest. The tremendous bear population in West Virginia allows for a variety of different hunting opportunities. In addition, the expansion and increase in the bear population has led to the extension of hunting seasons designed to keep counties in line with their management objectives. With the cooperation of hunters, wildlife managers can attempt to maintain and/or adjust bear populations to desired management levels by implementing appropriate hunting regulations.

Gun hunters took 1,590 (937M: 653F) bears during the combined firearms seasons in 2008. Hunters killed 670 (348M: 322F) in the new September season, 109 (69M: 40F) during the concurrent buck gun season, and 811 (520M: 291F) during the traditional December season (Tables 1 and 2). Hunters took 479 (292M: 187F) during the traditional archery season (Tables 1 and 2).

The new September season was designed to harvest additional female bears normally not available in December because they have already gone to den. Since the removal of most early gun seasons in the late 1970's and early 1980's, the bear population and harvest have continued to grow at a conservative estimate of at least 7% per year. Eleven counties in the traditional mountain range and four counties in southern West Virginia that were above their management objectives were open for six and nine day seasons in September, respectively. In addition, the statewide bag limit was increased to two bears provided that at least one bear be harvested in the four southern counties. The additional female harvest should help to bring most counties back in line with their management objectives; however, the total population effect will not be known until age data is available in late 2009. Early hunting seasons will be necessary in the future to help stabilize the female population, which is ultimately one of the main factors controlling the bear population. Without early hunting seasons the bear population would continue to grow at an exponential growth rate until reaching biological carrying capacity. Biological carrying capacity in black bears is unrealistic in today's world because the population would first reach cultural carrying capacity (e.g., the number of bears the public will tolerate).

The top five counties during each of the respective seasons were: Archery season: Randolph (56), Nicholas (37), Preston (36), Webster (32), and McDowell (24); September season: Pendleton (72), Randolph (66), Hardy (62), Pocahontas (60), and Greenbrier (52); Concurrent buck gun season: Kanawha (32), Raleigh (27), Boone (25), Fayette (24), and Monongalia (1); December gun season: Pocahontas (128), Greenbrier (105), Pendleton (102), Randolph (76), and Webster (68).

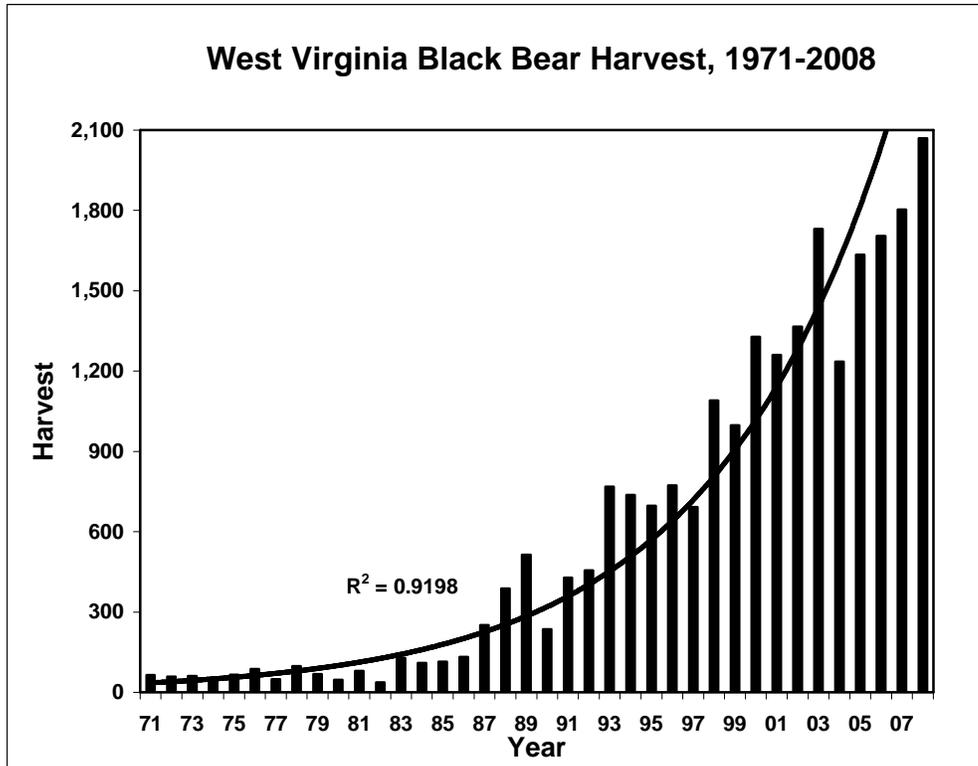


Figure 1. West Virginia black bear harvest, 1971 - 2008.

Non-hunting Mortalities

Eighty-one bears were killed on highways, died as a result of illegal or marauder activities, or succumbed from other non-hunting causes (electrocution, accidental poisoning, etc.). This is down dramatically from the 228 non-hunting mortalities recorded in 2007 (Table 3). There were 38 deaths from vehicles in 2008 compared to 62 in 2007. The number of illegal and miscellaneous deaths was down from four to three and seven to six from 2007 to 2008, respectively. The largest decrease in non-hunting deaths was in bears killed for nuisance activity, which was down from 155 in 2007 to 34 in 2008. The combined seasonal and nonseasonal deaths (2,150) is the largest recorded in West Virginia (Table 4).

Damage Payments and Nuisance Complaints

All hunters who pursue bears are required to buy bear damage stamps (Class DS). Funds derived from stamp sales are deposited in a special bear damage account to reimburse property owners for real and personal property damage caused by bears.

The number of bear damage claims was down 36% from 221 in 2007 to 142 in 2008 (Table 5). Total payments of \$92,837 were 51% lower than the \$188,004 paid out in 2007. Claims were reported in 32 counties in 2008 and 29 counties in 2007.

There were 45 claims for bees (compared to 68 in 2007), 25 for livestock (33 in 2007), 18 for corn (45 in 2007), and 54 (75 in 2007) miscellaneous claims. Greenbrier County had the

greatest dollar amount in compensations at \$16,770 and Nicholas County was second with \$9,199. The five counties with the most claims were Pendleton, Randolph, Greenbrier, Hardy, and Preston.

West Virginia Division of Natural Resources (DNR) employees received 1,142 nuisance bear calls in 2008 compared to the record 1,598 in 2007. The top counties with most complaints were Kanawha (76), Raleigh (74), Braxton (70), Nicholas (65), Hardy (60), and Pocahontas (60).

Tooth Collections

Age data from the 2007 tooth samples have been received and hunters have been notified of their bear's age. Hunters submitted 985 useable teeth (correct tooth, identification matched check tags, etc.) for age consideration. One (0 M: 1F) was a cub (cubs are legal if they weigh 100 pounds), 31% (249M: 56F) were yearlings, 29% (204M: 83F) were 2-year olds, 13% (78M: 48F) were 3-year olds, and the remaining 27% (101M: 165F) were 4-years old or older.

Reproductive Tract Collections

Black bears have one of the lowest reproductive rates of any land mammal in North America. Population dynamics research projects have shown that litter size, adult female survival, and interbirth interval are the three key factors that influence black bear populations. Managers adjust harvest regulations to manipulate adult female survival; however, they are unable to control reproductive rates (litter size, interbirth interval, cub survival, etc.). To help monitor these reproductive rates, wildlife managers and biologists have been collecting female reproductive tracts to estimate litter size in respective areas.

Managers collected 27 reproductive tracts with 17 supplying useful information in 2007. Reproductive tract data lags one year behind because researchers are waiting on age data. Information from reproductive tracts obtained in 2008 cannot be fully analyzed until ages are determined.

Twelve of the 17 females had corpora lutea present. Six females that would have been three years old had an average of 1.8 corpora lutea present and six females ≥ 4 years old had an average of 2.5 corpora lutea present. Four females had an average of 2.5 placental scars present which indicated that they had given birth in 2007. One 2-year old female did not have corpora lutea or placental scars present.

Monitoring and Research Study

The Black Bear Monitoring and Research Project was initiated in 1999 to gather demographic information from bears in Boone, Fayette, Kanawha, and Raleigh counties and to learn more about bears captured as a result of nuisance behavior. The study plays an important role in modifications of bear seasons. A northern study area primarily centered in Randolph and Tucker counties was added in 2004 to reexamine demographic parameters of the bear population from data previously collected in the 1970s and 1980s. One of the primary goals of this project is to identify the most cost effective way for the DNR to effectively manage

the bear population. Data from this project has been analyzed in the past year and the write up should be done by September 2009 with recommendations for further monitoring.

Wildlife managers have handled 714 adult bears 1,416 times on the southern study area since 1999. Bears handled during nuisance complaints were given orange ear tags so that they could be easily identified; whereas, bears caught specifically on research trap lines for the purpose of marking additional bears were tagged with black ear tags. In the southern study area, 102 (33M: 69F) bears were tagged in 2008 or were still wearing their radio transmitters from previous years. Eighty-seven (22M: 65F) bears were in the 4-county study area and considered available for harvest. Most of the additional bears outside the study area were trapped and relocated as part of normal DNR activities. Forty-eight females were equipped with working radio transmitters at the start of the 2008 hunting season.

Four of 65 (6%) females and four of 22 males (18%) available for direct harvest in the southern study area were reported dead during fall 2008. There were an additional five male bears and two female bears harvested from previous years. Six bears died during the September season, five were harvested with bows, one was killed in December, and three were harvested in unknown seasons. An additional eight bears from previous years were destroyed for repeated nuisance behavior.

Wildlife managers have handled a total of 1,386 adult bears 2,926 times on the northern study area since the project began. These data include the historical data that began in the early 1970's. In 2008, wildlife managers in Districts 1 and 3 marked 97 (33M: 64F) bears to gather demographic data on the bear population in our traditional counties. Ninety (28M: 62F) bears were available for harvest inside the study area. Thirty-six female bears were equipped with radio transmitters at the start of hunting season. One (5%) male and five (9%) females available for direct harvest died after September 1. Of known tagged deaths, 10 bears were harvested during the September season, one in the archery season, two in December, and three in unknown seasons. In addition, two radio-collared females died of unknown causes during that time. Two tagged males were destroyed for repeated nuisance behavior in 2008.

Wildlife managers handled 30 newborn cubs (17M: 13F: 0U) in 13 litters ($\bar{x} = 2.3$) during 2008 on the southern area. DNR personnel observed 312 (154M: 131F: 27U) cubs during winter den checks during the study period. Mean total litter size was 2.66 cubs (range 1-5, $n = 117$). One hundred twenty-seven of 131 (97%) available females produced cubs. Sample sizes differed because managers heard cubs at some dens but did not get a reliable cub count. Wildlife managers also observed 28 yearlings with 14 sows ($\bar{x} = 2.0$) during 2008 winter den checks. However, these data must be looked at with extreme caution because it is very difficult for managers to get accurate counts on the number of yearlings present due to the fact that the bears on the southern study are less likely to den. Therefore, these should be considered minimum yearling counts. In addition, a number of bears that were expected to be with yearlings did not den, other bears were in inaccessible mine breaks, or trees that were not safe to climb.

On the northern study area wildlife managers worked 10 dens with 21 (8M: 6F: 7U) newborn cubs ($\bar{x} = 2.1$) during 2008. Wildlife managers also worked two dens of 4-year old females that have not had their first litter, one den of a 28-year old female that has stopped having cubs, one den of a female (her tooth is at the lab for age analysis) that was available to reproduce but did not, and one female that had cubs in 2007 but alone in her 2008 den.

Managers worked 14 dens with 34 yearlings present ($\bar{x} = 2.4$) and were able to capture and tag 22 yearlings. Wildlife managers have worked a total of 52 dens containing 129 cubs ($\bar{x} = 2.48$) since 2004.

In addition to the population monitoring and research project, the DNR has cooperated in a project at Virginia Tech to evaluate the retention time of telazol in black bears. It was discovered that telazol metabolizes sooner in black bears than original estimates, allowing biologists to immobilize nuisance and research bears closer to hunting season openings. This project was published in the February 2009 issue of the *Journal of Wildlife Management*.

The DNR has also conducted two important surveys that pertain to bear management. The first survey focused on residents' opinions of black bear populations and hunting in different regions of the state and on a statewide basis. We also conducted a survey of bear hunters to determine hunting pressure, primary methods of hunting, the economic impact of bear hunting, and to evaluate the effectiveness of early hunting seasons. These projects were completed in 2008 and have recently been submitted for publication in 2009 or 2010. One of the highlights garnered from these studies is the significant impact (\$51 million!) bear hunting adds to the West Virginia economy.

One of the new, exciting aspects of the bear project started in August 2007 with the purchase of 23 GPS (Global Positioning System) radio collars for our southern study area. Wildlife managers and biologists in Districts 4 and 5 were able to capture 49 black bears in 10 days and place 21 GPS collars on female bears. They also placed the remaining two collars and two from harvested bears on additional bears during the 2008 den season. The collars are designed with a VHF radio beacon (the method typically used to track bears), a GPS unit to record locations, and a drop-off device. The GPS unit is set to record one location every 19 hours from January 1 through April 30, and one location every four hours from May 1 through December 31. A built-in computer system records the locations along with air temperature, activity patterns, and other important data. The drop-off unit, counting on an internal clock, is designed to break apart in 100 weeks if the collar is not removed by managers, thus ensuring that the data will be collected if the managers were unable to change the collar in the winter den. Wildlife Resources Section personnel hope that the data from these collars will help supply information on home ranges, habitat selection, and activity patterns of female bears. In addition, the project was designed to evaluate movements of bears in hunted versus non-hunted areas. Wildlife managers will be removing the GPS transmitters in the 2009 den season and data analysis will be done later this year.

The West Virginia Black Bear Monitoring and Research Project graciously accepted a donation from the West Virginia Trophy Hunters Association to purchase additional radio collars in 2008. Their support of our natural resources and projects help to demonstrate the cooperation between the WVDNR and multiple groups. We thank them for their continued support.

Table 1. West Virginia 2008 black bear harvest by season and county.

County	Bow			September			Concurrent Buck Gun			December Gun			TOTAL
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Barbour	7	10	17	6	5	11	0	0	0	1	3	4	32
Brooke	0	0	0	0	0	0	0	0	0	0	0	0	0
Hancock	0	0	0	0	0	0	0	0	0	0	0	0	0
Harrison	2	0	2	0	0	0	0	0	0	0	0	0	2
Marion	0	0	0	0	0	0	0	0	0	0	0	0	0
Marshall	0	0	0	0	0	0	0	0	0	0	0	0	0
Monongalia	5	2	7	0	0	0	1	0	1	1	0	1	9
Ohio	0	0	0	0	0	0	0	0	0	0	0	0	0
Preston	20	16	36	26	20	46	0	0	0	10	9	19	101
Taylor	1	0	1	0	0	0	0	0	0	1	0	1	2
Tucker	11	11	22	21	14	35	0	0	0	24	15	39	96
Wetzel	1	0	1	0	0	0	0	0	0	0	0	0	1
District I Subtotal	47	39	86	53	39	92	1	0	1	37	27	64	243
Berkeley	5	0	5	0	0	0	0	0	0	0	1	1	6
Grant	6	4	10	19	12	31	0	0	0	12	12	24	65
Hampshire	5	5	10	0	0	0	0	0	0	2	3	5	15
Hardy	11	8	19	34	28	62	0	0	0	27	18	45	126
Jefferson	0	0	0	0	0	0	0	0	0	0	1	1	1
Mineral	1	4	5	0	0	0	0	0	0	4	3	7	12
Morgan	2	1	3	0	0	0	0	0	0	0	0	0	3
Pendleton	9	5	14	36	36	72	0	0	0	70	32	102	188
Dist. II Subtotal	39	27	66	89	76	165	0	0	0	115	70	185	416
Braxton	6	3	9	0	0	0	0	0	0	11	10	21	30
Clay	4	6	10	0	0	0	0	0	0	12	3	15	25
Lewis	1	0	1	0	0	0	0	0	0	0	0	0	1
Nicholas	27	10	37	8	13	21	0	0	0	37	13	50	108
Pocahontas	6	3	9	15	45	60	0	0	0	85	43	128	197
Randolph	25	31	56	32	34	66	0	0	0	52	24	76	198
Upshur	5	1	6	0	0	0	0	0	0	10	8	18	24
Webster	20	12	32	20	22	42	0	0	0	45	23	68	142
Dist. III Subtotal	94	66	160	75	114	189	0	0	0	252	124	376	725
Fayette	8	9	17	26	15	41	17	7	24	11	8	19	101
Greenbrier	21	2	23	34	18	52	0	0	0	65	40	105	180
McDowell	12	12	24	0	0	0	0	0	0	1	2	3	27
Mercer	8	2	10	0	0	0	0	0	0	1	0	1	11
Monroe	5	0	5	0	0	0	0	0	0	7	2	9	14
Raleigh	17	4	21	28	21	49	12	15	27	8	4	12	109
Summers	2	0	2	0	0	0	0	0	0	1	0	1	3
Wyoming	9	6	15	0	0	0	0	0	0	5	2	7	22
Dist. IV Subtotal	82	35	117	88	54	142	29	22	51	99	58	157	467
Boone	8	5	13	24	18	42	16	9	25	7	7	14	94
Cabell	0	0	0	0	0	0	0	0	0	0	0	0	0
Kanawha	10	8	18	19	21	40	23	9	32	6	4	10	100
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	0
Logan	3	7	10	0	0	0	0	0	0	3	0	3	13
Mason	0	0	0	0	0	0	0	0	0	0	0	0	0
Mingo	6	0	6	0	0	0	0	0	0	0	0	0	6
Putnam	0	0	0	0	0	0	0	0	0	0	0	0	0
Wayne	1	0	1	0	0	0	0	0	0	0	0	0	1
Dist. V Subtotal	28	20	48	43	39	82	39	18	57	16	11	27	214
Calhoun	1	0	1	0	0	0	0	0	0	1	0	1	2
Doddridge	0	0	0	0	0	0	0	0	0	0	0	0	0
Gilmer	1	0	1	0	0	0	0	0	0	0	1	1	2
Jackson	0	0	0	0	0	0	0	0	0	0	0	0	0
Pleasants	0	0	0	0	0	0	0	0	0	0	0	0	0
Ritchie	0	0	0	0	0	0	0	0	0	0	0	0	0
Roane	0	0	0	0	0	0	0	0	0	0	0	0	0
Tyler	0	0	0	0	0	0	0	0	0	0	0	0	0
Wirt	0	0	0	0	0	0	0	0	0	0	0	0	0
Wood	0	0	0	0	0	0	0	0	0	0	0	0	0
Dist. VI Subtotal	2	0	2	0	0	0	0	0	0	1	1	2	4
State Total	292	187	479	348	322	670	69	40	109	520	291	811	2,069

Table 2. Sex ratios of harvested black bears during West Virginia hunting seasons, 1964-2008.

Year	Bow or gun season		Bow season and/or Early Nov. gun season		Late Nov. or December gun season		Annual Kill		Total*
	Late September		Nov. gun season		gun season		Kill		
	Male	Female	Male	Female	Male	Female	Male	Female	
1964-1978 Total	0	0	318	345	178	71	496	416	912
Sex Ratios	0	0	48%	52%	71%	29%	54%	46%	
1979	0	0	0	0	50	18	50	18	68
1980	0	0	2	2	34	9	36	11	47
1981	0	0	3	2	59	16	62	18	80
1982	0	0	11	5	16	4	27	9	36
1983	0	0	11	6	78	34	89	40	129
1984	0	0	8	8	51	43	59	51	110
1985	0	0	14	7	68	24	82	31	113
1986	0	0	31	14	61	26	92	40	132
1987	0	0	40	14	146	51	186	65	251
1988	0	0	21	16	198	165	219	181	400
1989	0	0	81	96	198	135	279	231	510
1990	0	0	41	20	114	60	155	80	235
1991	0	0	72	57	186	111	258	168	426
1992	0	0	112	89	169	85	281	174	455
1993	0	0	141	96	340	190	481	286	767
1994	0	0	111	73	290	258	401	331	732
1995	0	0	152	75	310	153	462	228	690
1996	0	0	114	101	355	198	469	299	768
1997	0	0	225	198	178	85	403	283	686
1998	0	0	167	97	481	337	648	434	1,082
1999	0	0	256	168	369	201	625	369	994
2000	0	0	196	102	655	364	851	466	1,317
2001	0	0	302	165	482	301	784	466	1,250
2002	0	0	540	321	327	169	867	490	1,357
2003	0	0	605	422	450	222	1,055	644	1,699
2004	0	0	319	219	479	218	798	437	1,235
2005	0	0	432	285	616	301	1,048	586	1,634
2006	0	0	399	266	727	312	1,126	578	1,704
2007	0	0	521	328	637	318	1,158	646	1,804
2008	348	322	292	187	589	331	1,229	840	2,069
30-Year Total	348	322	5,219	3,439	8,713	4,739	14,280	8,500	22,780
Average Sex Ratios	52%	48%	60%	40%	65%	35%	63%	37%	
2008 Sex Ratios	52%	48%	61%	39%	64%	36%	59%	41%	

*Represents bears of known sex and not the total harvest in each year.

Table 3. West Virginia 2008 nonseasonal black bear mortalities by county and type.

County	Roadkills	Illegal	Marauders	Misc.	Total
Barbour	1	0	0	0	1
Brooke	1	0	0	0	1
Hancock	0	0	0	0	0
Harrison	1	0	0	0	1
Marion	0	0	0	0	0
Marshall	0	0	0	0	0
Monongalia	0	0	0	0	0
Ohio	0	0	0	0	0
Preston	1	0	0	0	1
Taylor	0	0	0	0	0
Tucker	2	1	1	0	4
Wetzel	0	0	0	0	0
Dist. I Subtotal	6	1	1	0	8
Berkeley	0	0	1	0	1
Grant	2	0	0	0	2
Hampshire	1	0	0	0	1
Hardy	3	0	4	0	7
Jefferson	0	0	0	0	0
Mineral	2	0	0	0	2
Morgan	1	0	0	0	1
Pendleton	2	0	0	0	2
Dist. II Subtotal	11	0	5	0	16
Braxton	5	0	0	1	6
Clay	0	0	6	0	6
Lewis	0	0	0	0	0
Nicholas	8	0	4	1	13
Pocahontas	2	0	2	1	5
Randolph	4	0	3	2	9
Upshur	0	0	0	0	0
Webster	1	0	0	0	1
Dist. III Subtotal	20	0	15	5	40
Fayette	0	0	2	0	2
Greenbrier	0	0	2	0	2
McDowell	0	0	0	0	0
Mercer	0	0	1	0	1
Monroe	0	0	0	0	0
Raleigh	0	0	3	0	3
Summers	0	0	0	0	0
Wyoming	0	0	1	0	1
Dist. IV Subtotal	0	0	9	0	9
Boone	0	0	1	0	1
Cabell	0	0	0	0	0
Kanawha	0	0	2	1	3
Lincoln	0	0	0	0	0
Logan	0	1	1	0	2
Mason	0	0	0	0	0
Mingo	1	0	0	0	1
Putnam	0	0	0	0	0
Wayne	0	0	0	0	0
Dist. V Subtotal	1	1	4	1	7
Calhoun	0	0	0	0	0
Doddridge	0	0	0	0	0
Gilmer	0	0	0	0	0
Jackson	0	1	0	0	1
Pleasants	0	0	0	0	0
Ritchie	0	0	0	0	0
Roane	0	0	0	0	0
Tyler	0	0	0	0	0
Wirt	0	0	0	0	0
Wood	0	0	0	0	0
Dist. VI Subtotal	0	1	0	0	1
Unknown	0	0	0	0	0
State Total	38	3	34	6	81

Table 4. Number of black bears killed each year in West Virginia and cause of death.

Year	Hunting Season		Illegal Kill	Road Kill	Marauders	Others	Total
	Bow	Gun					
70's Subtotal	14	523	70's Average Annual Bag: Bow 2; Gun 65				
1980	4	43	9	5	11	3	75
1981	5	75	15	2	5	0	102
1982	17	20	17	8	17	5	84
1983	17	112	15	6	7	7	164
1984	16	94	14	7	9	7	147
1985	22	92	12	9	11	13	159
1986	44	88	8	18	18	3	179
1987	55	197	12	10	15	13	302
1988	38	350	20	25	23	24	480
1989	43	471	14	14	15	15	572
80's Subtotal	261	1,542	80's Average Annual Bag: Bow 26; Gun 154				
1990	61	174	14	23	13	10	295
1991	131	297	18	21	13	2	482
1992	201	254	17	48	18	8	546
1993	239	529	24	40	4	6	842
1994	185	550	10	31	5	5	786
1995	227	470	14	37	6	8	762
1996	214	558	6	23	15	7	823
1997	420	272	13	58	30	10	803
1998	265	825	12	30	8	6	1,146
1999	420	577	9	24	8	15	1,053
90's Subtotal	2,363	4,506	90's Average Annual Bag: Bow 236; Gun 450				
2000	305	1,023	6	16	8	4	1,362
2001	475	785	18	43	22	1	1,344
2002	726	670	14	82	28	10	1,530
2003	774	958	17	87	61	7	1,904
2004	374	861	7	55	22	11	1,330
2005	585	1,076	15	62	18	10	1,766
2006	516	1,188	8	61	36	10	1,819
2007	728	1,076	4	62	155	7	2,032
2008	479	1,590	3	38	34	6	2,150
00's Subtotal	4,962	9,227	00's Average Annual Bag: Bow 551; Gun 1,025.				

- November Gun Seasons held in 1989, and 2002 - 2008 in certain counties.
- September Season held in 2008 in certain counties.
- Check tags without season (<0.05%) marked were assumed gun kills for this table.

Table 5. Black bear damage claims paid and payments by county in West Virginia, 2004-2008.

County	2004		2005		2006		2007		2008	
	Claims	Payments	Claims	Payments	Claims	Payments	Claims	Payments	Claims	Payments
Barbour	4	\$2,129	2	\$1,439	1	\$398	4	\$1,745	3	\$1,607
Berkeley	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Boone	3	\$434	9	\$2,264	2	\$372	15	\$29,749	6	\$5,319
Braxton	0	\$0	3	\$3,080	4	\$3,430	3	\$559	8	\$3,139
Brooke	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Cabell	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Calhoun	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Clay	0	\$0	3	\$1,472	2	\$227	6	\$2,637	5	\$2,322
Doddridge	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Fayette	4	\$1,973	6	\$2,543	4	\$2,929	8	\$3,965	4	\$1,105
Gilmer	0	\$0	0	\$0	0	\$0	0	\$0	1	\$397
Grant	0	\$0	6	\$1,429	2	\$608	4	\$2,250	6	\$4,570
Greenbrier	22	\$12,300	20	\$20,075	12	\$19,468	19	\$42,704	9	\$16,770
Hampshire	1	\$127	0	\$0	3	\$825	5	\$3,857	2	\$1,575
Hancock	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Hardy	5	\$2,500	5	\$1,357	6	\$3,860	9	\$15,767	9	\$9,060
Harrison	1	\$258	0	\$0	0	\$0	0	\$0	0	\$0
Jackson	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Jefferson	0	\$0	0	\$0	0	\$0	1	\$138	0	\$0
Kanawha	1	\$4,090	6	\$7,207	1	\$413	6	\$2,444	3	\$2,691
Lewis	1	\$49	0	\$0	2	\$124	0	\$0	4	\$1,329
Lincoln	1	\$1,800	1	\$137	0	\$0	2	\$2,574	0	\$0
Logan	0	\$0	3	\$776	1	\$85	3	\$745	5	\$1,694
Marion	0	\$0	0	\$0	2	\$803	0	\$0	2	\$218
Marshall	0	\$0	0	\$0	1	\$753	0	\$0	1	\$776
Mason	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
McDowell	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Mercer	1	\$1,040	7	\$2,504	3	\$842	3	\$2,847	0	\$0
Mineral	1	\$79	1	\$101	1	\$840	0	\$0	2	\$1,327
Mingo	1	\$505	3	\$992	3	\$657	1	\$164	2	\$1,292
Monongalia	0	\$0	1	\$254	0	\$0	1	\$113	5	\$2,114
Monroe	1	\$338	2	\$2,224	4	\$5,688	2	\$630	1	\$177
Morgan	1	\$830	0	\$0	0	\$0	0	\$0	0	\$0
Nicholas	7	\$7,017	10	\$4,939	11	\$2,915	18	\$5,287	6	\$9,199
Ohio	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Pendleton	15	\$4,307	16	\$5,314	5	\$1,446	22	\$14,581	12	\$5,115
Pleasants	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Pocahontas	15	\$7,667	11	\$7,102	11	\$8,480	26	\$14,305	4	\$2,050
Preston	3	\$3,170	11	\$2,950	13	\$13,178	8	\$6,157	9	\$5,857
Putnam	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Raleigh	2	\$552	9	\$4,040	2	\$379	3	\$1,087	6	\$3,000
Randolph	34	\$12,282	52	\$28,682	23	\$15,324	20	\$17,363	10	\$3,077
Ritchie	0	\$0	0	\$0	0	\$0	0	\$0	1	\$125
Roane	0	\$0	0	\$0	0	\$0	1	\$138	0	\$0
Summers	2	\$1,421	0	\$0	0	\$0	0	\$0	1	\$399
Taylor	0	\$0	1	\$1,318	1	\$154	1	\$324	1	\$203
Tucker	2	\$940	3	\$2,434	11	\$6,655	16	\$10,850	5	\$4,437
Tyler	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Upshur	6	\$730	1	\$110	2	\$550	0	\$0	2	\$258
Wayne	0	\$0	1	\$2,168	1	\$2,168	1	\$106	0	\$0
Webster	1	\$355	5	\$1,359	10	\$3,318	6	\$1,127	6	\$1,530
Wetzel	0	\$0	3	\$887	0	\$0	0	\$0	0	\$0
Wirt	1	\$199	0	\$0	0	\$0	0	\$0	0	\$0
Wood	0	\$0	0	\$0	0	\$0	0	\$0	1	\$105
Wyoming	4	\$2,602	0	\$0	1	\$1,200	7	\$3,791	0	\$0
Total	140	\$69,694	201	\$109,157	145	\$98,089	221	\$188,004	142	\$92,837

WILD TURKEY

by
William K. Igo

Spring Harvest

The 2008 spring gobbler harvest was 9,929 (Table 1). The total was less than 1% lower than the kill in 2007 (9,965). Based on slightly better productivity in 2006, biologists had predicted a similar to slightly higher spring harvest compared to the take in 2006 (11,735). Very wet, windy conditions on opening day and for most of the first week greatly depressed the kill; it was surprising to many hunters and biologists that the harvest was even similar to last year.

The top five counties in terms of harvest were Mason (394), Preston (371), Wood (315), Jackson (310), and Greenbrier (292). District 1 in northcentral West Virginia led all Districts with a kill of 2,189, followed by District 6 (1,934). The harvests in District 3 and District 4 were similar to last year. The kill was down 11% in District 2, and 5% higher in District 5. Table 2 depicts the harvest by public wildlife management areas (WMA's). The top areas were Cranberry (32), Potomac (31), Wardensville (26), Beech Fork (26), R.D. Bailey (26), and Neola (26).

Indicative of the foul weather, the opening day of the regular spring season accounted for only 13% of the total spring kill, much lower than the 20% opening day harvest in 2007. The second day harvest made up 9% of the total kill (11% last year), with a slightly higher take on the third day (better weather?). The harvest then declined each day, with spikes of higher kills each Saturday. The first Saturday of the regular season showed a kill of 864 birds, still about 9% of the harvest. During 2008, the first week accounted for 56% of the total kill, essentially the same as 2007 (Table 3).

The spring gobbler youth hunt, which occurred the Saturday preceding the regular Monday opening, yielded a harvest of 385 toms. This youth hunt kill was the highest since this special season was initiated in 2005.

Fall Harvest

A total of 26 counties were open during the fall 2008 season. The kill of 1,206 was down 21% from the 2007 fall harvest of 1,511 (Table 4). Top counties were Randolph with a take of 115, Mason (101), Preston (89), Greenbrier (84), Grant (74), Hardy (74), and Pocahontas (74). The traditional fall-hunted counties with their four-week season (except Preston with two weeks) accounted for 73% of the total fall kill. The harvest by WMA's (Table 5) made up 16% of the fall harvest, similar to the take in 2007. Top WMA's were Wardensville (22), Bluestone (20), Little River (20), Cornstalk (13), and Rimel (13).

There were 224 turkeys (19%) checked on the opening Saturday of the fall season. The opening week accounted for 42% of the total harvest (similar to the 40% in 2007). The last week of the season made up 12% of the kill, also similar to 2007 (Table 6).

The combined spring and fall harvests in 2008 was 11,135—this ranks 19th in total wild turkey kill since 1966 (Table 7). The 2008 tally was only 3% lower than last year. The total spring harvest of bearded turkeys since 1966 (287,093) is 61% more than the number of wild turkeys killed in the fall during the same period (112,914).

Surveys

Spring Gobbler Survey

The Wildlife Resources Section and the West Virginia Chapter of the National Wild Turkey Federation (NWTFF) conduct an annual survey of spring gobbler hunters. This survey is conducted entirely by volunteer sportsmen that donate their time and effort to gather information to help the DNR manage wild turkeys in the State. The West Virginia Chapter sends survey forms to its members, and the Wildlife Resources Section of the DNR compiles the data from these and other participants. A report is written and distributed free of charge to cooperators.

During 2008, results were compiled from 202 hunters. Cooperators took 1,747 hunting trips and heard 3,097 gobblers. The gobbling rate (45 gobblers heard per 100 hours) was 6% lower (Fig. 1) than 2007 (48), and down 17% from the 26-year average (54).

The survey showed that the best gobbling in 2008 was in the Western and Southwestern regions of the state. The survey also provides DNR biologists important data not only on wild turkeys but also ruffed grouse, coyote, overwinter losses of wild turkeys and white-tailed deer, and much other information. Survey data may provide accurate population trend information on white-tailed deer. The survey is also an important forum for hunters to express their opinions and ideas.

Hunters desiring a copy of the annual report are required to participate in the survey. Spring gobbler hunters wanting to help are encouraged to contact Tammie Thompson, West Virginia Division of Natural Resources, PO Box 67, Elkins, WV 26241, phone 304-637-0245. Those wishing to participate will be sent necessary forms and a questionnaire prior to the spring hunting season. The survey is simple to conduct and a hunter does not have to harvest a gobbler to provide useful data. Most of the information collected deals with what a hunter hears, sees, or has an opinion on.

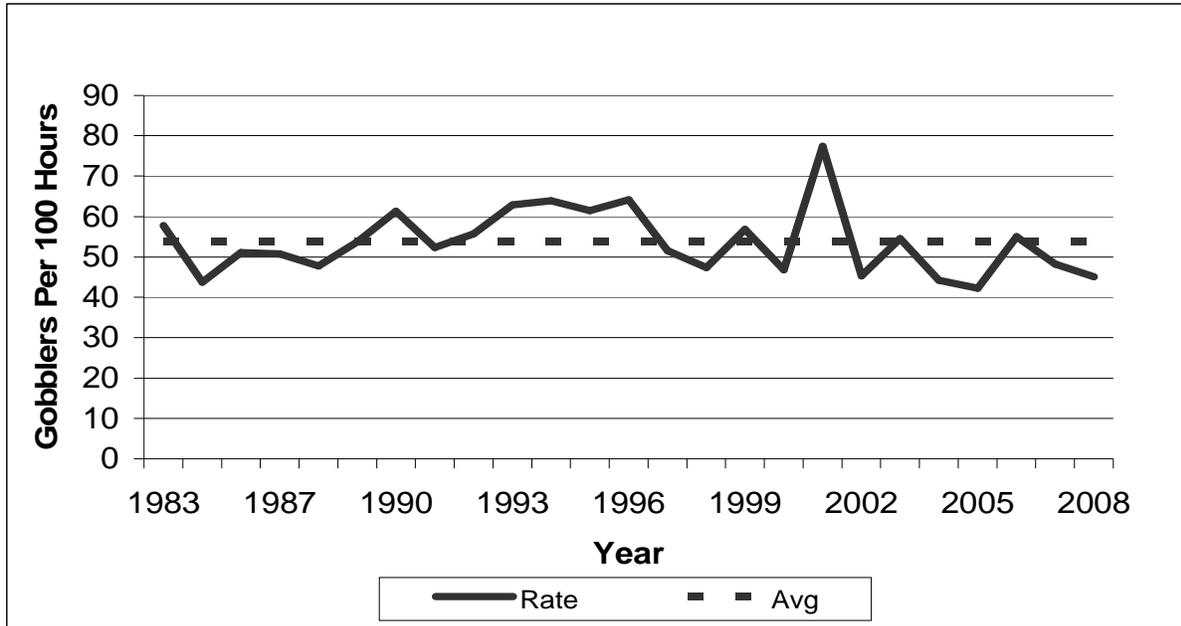


Figure 1. Gobblers heard per 100 hours by cooperators in West Virginia from 1983- 2008.

Bowhunter Survey

This survey not only monitors white-tailed deer, it is also valuable in determining population and harvest trends of other wildlife species, including wild turkey. Due to timing of season and analysis of data, results from the Bowhunter Survey lag one year behind other surveys. Turkey sightings by bowhunter cooperators during the fall of 2007 decreased 15% from 2006. The rate of 29 turkeys seen per 100 hours of bowhunting was 51% lower than our record rate (59 per 100 hours in 1999), and 28% below our long term average (40). The decrease in turkeys observed by bowhunters in 2007 (by 15% over 2006), is in contradiction with brood reports for those years – a 5% increase in broods was recorded in 2007 over that reported in 2006. A likely explanation in this discrepancy was the abundance of acorns in 2007, which probably resulted in flocks well dispersed and in remote areas, away from typical bowhunting sites. This would show the effects and importance of food abundance, particularly oak crops, on harvests.

Brood Survey

Brood reports from field personnel help determine turkey population levels prior to fall and spring hunting seasons. It is a fairly accurate predictor of the spring gobbler harvest two years in advance of a season. A slight increase in the hatch in 2006 meant a few more two-year old birds for 2008. However, the 2008 spring kill was lower than predicted – probably due to cold, rainy, and windy conditions during the opening week of the season. This shows the impact weather can have on game harvests.

Since the 2007 brood count was 7% higher than the 2006 count (and there should also be a good carryover of gobblers from 2008), we predict a higher spring harvest for 2009 – weather permitting! The turkey brood picture for 2008 (299 broods) was similar to 2007 (313 broods), and also similar to the 5-year average (303). Therefore, we forecast a similar gobbler harvest for the spring of 2010.

Summer brood counts have correctly forecasted fall harvests about two-thirds of the years since 1968. The number of fall counties eligible for fall hunting, regional wild food supplies, and brood success in fall hunt counties are other factors that are considered in fall kill predictions. The 2008 fall harvest was down 63% in the Mountains region (primarily Districts 3 and 4), but essentially was similar to the 2007 kill in the Eastern Panhandle (District 2). Based on poorer poult production in traditional fall hunt counties and widespread food sources, biologists had predicted a lower fall kill.

Mast Survey

Surveys for abundance of wild foods have been conducted since 1970 by Wildlife and Law Enforcement Sections of the Division of Natural Resources and the Division of Forestry. Foods of 18 tree and shrub species that are important wildlife mast are monitored. The combined average of all mast species in 2008 increased substantially from 2007, and was also up from the long term average. Most of this increase came from abundant food production from soft mast species, particularly hawthorn and crabapple. Greenbrier and grape were essentially the same as 2007. Acorn yield declined from last year's survey, and involved all oak species. A big increase was observed in beechnut production, and even black cherry, which had a big yield in 2007, was up in 2008. Observers noted that black and red oak production and black cherry crops fared better at higher elevations. Best acorn and beech production occurred in the Southern and Southwestern regions of the State, while the Eastern Panhandle and Mountains areas had best black cherry output.

Gobbler Survival Study

There was no trapping during the start of the fourth year of the gobbler survival study. Forty-six adult toms were being tracked on April 1, 2008, which averages 68 gobblers annually for the four-year period. Between April 1 and prior to the first day of spring gobbler season (April 26), eight birds were lost: one to avian predation, two to mammalian predation, one to unknown predation, one lost contact, and three illegal kills.

Of the remaining 38 birds entering the spring season, six were legally checked, one died from avian predation, one died from mammalian predation, and three were illegally killed. The harvest rate for the fourth year of the study was 15.8%. Following is a breakdown by study area.

WV1: (Traditional fall hunt counties – Goal: 30 birds). The study area had 20 adult birds being tracked on April 1, 2008. Three birds were lost prior to the spring season, with 17 adults going into the season. Three were legally checked (harvest rate of 17.6%). The 4-year average harvest rate in this area is 13.5%.

WV2: (Non-Fall Counties – Goal: 45 birds). The study area had 26 adult birds on April 1, 2008. Five birds were lost prior to hunting season, and of the remaining 21 birds, three birds were legally checked in (14.3% harvest rate). The 4-year average harvest rate in this area is 19.3%.

Statewide, data for four spring seasons show 272 birds entering the gobbler season. Forty-five birds have been legally checked with a harvest rate of 16.5%. The average harvest rate for juveniles is 7.5% (6 of 80 jakes); the harvest rate for adults is 20.1% (39 of 194). A harvest rate of 25% for adults occurred in 2005, with a rate of 21% in 2006, 19% in 2007, and 15.8% in 2008. The legal check-in for jakes was 5.3% in 2005, 6.7% in 2006, and 11.1% in 2007. No jakes were available for harvest in 2008. Annual harvest rates for both age classes combined have ranged from 14.9% to 18.4%. The illegal spring harvest during the season has averaged 2.6%, and the maximum potential crippling loss has averaged 3.3%. There have been two legal fall kills (both in 2007) during five fall seasons, with 123 birds available for harvest. This averages to 1.6% harvest rate for the fall hunting period. Total maximum kill (spring harvest, 16.5% + fall harvest, 1.6% + all illegals, 8.5% + maximum potential crippling loss, 3.3%) averaged 29.9% per year during the 4-year study period.

This is the final year of the spring gobbler survival study. Current birds were tracked to the end of November (2008) to gather as much survival data as possible. The completion of the gobbler survival study and the old hen mortality study has given us valuable data for the management of the wild turkey in West Virginia. We wish to thank the West Virginia Chapter of the National Wild Turkey Federation for their financial assistance and cooperation with this project. We also acknowledge the dedication of our wildlife managers and biologists who worked on this project.

Hunting mortality of radio instrumented gobblers during four spring hunting seasons in West Virginia.

Year	Number Radioed Birds	Legal Spring Harvest	Illegal Spring Harvest (During Season)	Other Illegal Kills	Maximum Potential Crippling Loss	Total Kill Legal, Illegal, Max Crippling Loss)
2005	74	11 (14.9%)	1 (1.4%)	2 (2.7%)	1 (1.4%)	15 (20.3%)
2006	76	14 (18.4%)	2 (2.6%)	3 (3.9%)	4 (5.3%)	23 (30.3%)
2007	84	14 (16.7%)	1 (1.2%)	6 (7.1%)	2 (2.4%)	23 (27.4%)
2008	38	6 (15.8%)	3 (7.9%)	5 (13.2%)	2 (5.3%)	16 (42.1%)
Total	272	45 (16.5%)	7 (2.6%)	16 (5.9%)	9 (3.3%)	77 (28.3%)
4-Year Average	68	11.2 (16.5%)	1.8 (2.6%)	4.0 (5.9%)	2.2 (3.3%)	19.2 (28.3%)

2009 Hunting Regulations

The youth spring season hunt will open Saturday, April 25, prior to the regular Monday season opening on April 27. This will be the fifth year for the youth hunt—current regulations specify that **youngsters eight through 14 years of age will be able to participate in the youth hunt when accompanied by a licensed adult who must be at least 21 years old.** The adult cannot carry a gun, and must stay close enough to render advice. The bag limit is one and only shotguns using 4, 5, or 6 shot are legal. The regular spring gobbler season lasts four weeks, ending on May 23.

The 2009 fall hunting season will open October 24. The season will close October 31 in counties open to the one-week season (these counties determined by the 2009 spring harvests), November 7 in Preston County, and November 21 in the traditional fall hunt counties that are open to four weeks of hunting. Hunters should review the “Hunting and Trapping Regulations Summary”, which should be available in July, 2009, for counties eligible for the one-week fall season and other details on spring and fall turkey season.

Table 1. Spring harvest of wild turkeys in West Virginia, 2004-2008.

County	2004	2005	2006	2007	2008
Barbour	188	200	176	177	224
Brooke	144	119	121	101	79
Hancock	182	131	137	117	71
Harrison	277	270	254	237	291
Marion	190	166	190	201	178
Marshall	278	264	306	279	222
Monongalia	292	235	310	260	247
Ohio	116	109	137	77	53
Preston	348	375	400	330	371
Taylor	116	102	101	84	115
Tucker	53	88	98	83	85
Wetzel	200	244	200	204	253
Dist. I Subtotal	2,384	2,303	2,430	2,150	2,189
Berkeley	74	83	107	71	70
Grant	138	108	130	144	115
Hampshire	200	192	220	163	165
Hardy	217	127	226	156	141
Jefferson	40	43	51	46	34
Mineral	86	108	135	114	107
Morgan	61	85	116	87	88
Pendleton	124	108	136	140	101
Dist. II Subtotal	940	854	1,121	921	821
Braxton	227	234	282	211	199
Clay	83	74	82	80	77
Lewis	279	268	258	245	243
Nicholas	181	175	226	188	210
Pocahontas	74	97	128	127	102
Randolph	165	132	176	170	163
Upshur	225	206	258	212	288
Webster	96	68	108	98	98
Dist. III Subtotal	1,330	1,254	1,518	1,331	1,380
Fayette	271	264	261	231	279
Greenbrier	239	276	298	264	292
McDowell	214	182	270	214	250
Mercer	294	389	311	269	253
Monroe	167	217	200	170	142
Raleigh	299	328	264	282	221
Summers	316	387	287	284	258
Wyoming	166	172	243	197	209
Dist. IV Subtotal	1,966	2,215	2,134	1,911	1,904
Boone	189	141	159	132	118
Cabell	141	152	146	125	138
Kanawha	260	297	263	254	247
Lincoln	208	227	223	172	188
Logan	159	155	169	112	157
Mason	400	451	493	407	394
Mingo	81	92	100	80	82
Putnam	211	233	246	178	232
Wayne	198	244	207	164	145
Dist. V Subtotal	1,847	1,992	2,006	1,624	1,701
Calhoun	183	164	193	150	141
Doddridge	191	214	199	117	144
Gilmer	186	183	195	150	139
Jackson	250	333	353	332	310
Pleasants	89	90	97	59	89
Ritchie	291	341	317	244	208
Roane	294	297	293	268	229
Tyler	178	199	198	155	174
Wirt	215	234	272	216	185
Wood	229	284	409	337	315
Dist. VI Subtotal	2,106	2,339	2,526	2,028	1,934
State Total	10,573	10,957	11,735	9,965	9,929

Table 2. Spring turkey harvest by locality in West Virginia, 2004-2008.

Land Type	Locality	2004	2005	2006	2007	2008
Monongahela NF	Beaver Dam	4	3	7	17	8
	Blackwater	12	40	25	14	18
	Cheat	11	6	9	11	8
	Cranberry	26	15	20	31	32
	Little River	17	12	26	30	14
	Neola	21	24	42	26	26
	Otter Creek	14	12	14	16	19
	Potomac	39	27	41	42	31
	Rimel	14	21	25	31	15
Tea Creek	5	3	18	14	19	
Monongahela NF Total		163	163	227	232	190
George Washington NF	Shenandoah	20	15	16	18	9
	Wardensville	46	29	49	42	26
George Washington NF Total		66	44	65	60	35
Jefferson NF		2	3	5	2	5
Jefferson NF Total		2	3	5	2	5
National River		10	18	10	14	25
National River Total		10	18	10	14	25
State Land	Allegheny	2	5	4	2	3
	Amherst/Plymouth	8	13	8	16	19
	Anawalt	2	5	4	2	5
	Bear Rocks	0	2	1	0	0
	Becky Creek	0	0	0	0	1
	Beech Fork	19	17	17	17	26
	Berwind	11	2	0	5	11
	Beury Mtn	3	1	5	0	4
	Big Ugly	1	1	1	0	1
	Bluestone	44	38	41	43	25
	Burnsville	14	11	26	19	13
	Cabwaylingo Sf	7	3	4	3	4
	Calvin Price Sf	1	4	2	3	2
	Camp Creek Sf	4	3	7	1	2
	Castleman	0	0	0	0	2
	Castleman Run	2	5	4	4	0
	Center Branch	0	2	0	1	2
	Conaway Run	3	1	0	0	1
	Coopers Rock Sf	9	6	8	12	5
	Cornstalk	13	17	19	15	15
	Cross Creek	0	0	0	8	6
	East Lynn	9	14	6	3	6
	Elk Creek	0	0	0	0	1
	Elk River	14	15	17	16	12
	Fork Creek	8	1	3	2	4
	Frozen Camp	1	2	3	4	5
	Greenbrier Sf	3	2	4	1	3
	Handley	1	0	0	1	0
	Hilbert	0	1	0	0	0
	Hillcrest	25	26	19	10	7
Horse Creek	3	0	5	1	3	
Hughes River	8	13	19	9	5	

Table 2. Continued.

Land Type	Locality	2004	2005	2006	2007	2008
State Land	Huttonsville	0	0	0	0	2
	Kanawha Sf	10	10	8	11	5
	Kumbrabow Sf	5	1	8	3	10
	Laurel Lake	5	8	4	1	4
	Lewis Wetzel	9	8	9	4	7
	Little Indian Creek	0	0	0	0	2
	McClintic	20	17	25	11	17
	Mill Creek	0	0	0	0	1
	Morris Creek	0	2	0	3	2
	Nathaniel Mnt	3	3	4	3	4
	Panther Sf	10	7	14	16	12
	Pedlar	0	0	0	0	1
	Pleasants Creek	6	0	3	2	2
	Plum Orchard	3	4	1	6	5
	Pruntytown	1	2	2	1	1
	R D Bailey	15	12	24	24	26
	Ritchie Mines	7	5	7	1	4
	Seneca Sf	1	5	5	6	0
	Shannondale	3	6	3	6	1
	Short Mnt	9	5	4	6	4
	Sleepy Creek	22	13	34	18	13
	Snake Hill	8	1	5	0	0
	South Branch	0	0	1	0	0
	Stonecoal	6	4	3	5	2
	Stonewall Jackson	24	20	26	21	20
	Summersville	5	5	3	7	6
	Sutton Res	1	0	1	0	0
	Tate Lohr	0	0	1	0	0
	The Jug	7	15	2	5	8
	Thorn Creek	0	0	1	0	0
	Tug Fork	0	0	0	0	4
	Underwood	2	1	0	0	1
	Upper Mud River	0	1	2	0	5
	Wallback	3	4	1	6	4
Widmyer	0	2	1	0	0	
State Land Total		400	371	429	364	366
Private Land		9,920	10,351	10,985	9,293	9,308
Unknown		12	7	14	0	0
State Total		10,573	10,957	11,735	9,965	9,929

Table 3. Spring wild turkey harvest in West Virginia by week of season, 2007-2008.

Week of Season	2007		2008	
	N	%	N	%
Youth	298	3%	385	4%
Week 1	5,761	58%	5,590	56%
Week 2	1,885	19%	1,963	20%
Week 3	1,148	12%	1,116	11%
Week 4	789	8%	799	8%
Unknown	84	1%	76	1%
Grand Total	9,965	100%	9,929	100%

Table 4. Fall harvest of wild turkeys in West Virginia, 2004-2008.

County	2004	2005	2006	2007	2008
Brooke	12	10	5	8	12
Hancock	12	7	7	10	9
Harrison	0	0	0	0	34
Marshall	35	0	20	18	9
Monongalia	0	0	0	19	30
Ohio	17	15	10	14	0
Preston	125	107	137	90	89
Tucker	41	30	27	29	31
Dist I Subtotal	242	169	206	188	214
Berkeley	42	13	24	23	31
Grant	73	59	59	63	74
Hampshire	135	74	68	57	61
Hardy	120	68	63	78	74
Mineral	62	34	59	32	38
Morgan	31	24	31	34	26
Pendleton	45	52	55	60	47
Dist II Subtotal	508	324	359	347	351
Nicholas	106	82	67	103	39
Pocahontas	49	75	69	107	74
Randolph	69	73	98	96	115
Upshur	0	0	0	0	35
Webster	55	43	48	52	36
Dist III Subtotal	279	273	282	358	299
Greenbrier	165	108	139	171	84
Monroe	163	86	102	142	60
Summers	0	51	0	118	35
Dist IV Subtotal	328	245	241	431	179
Mason	0	74	0	67	101
Dist V Subtotal	0	74	0	67	101
Jackson	0	0	0	39	0
Pleasants	0	0	0	0	4
Wirt	0	45	37	38	30
Wood	0	0	60	43	28
Dist VI Subtotal	0	45	97	120	62
Unknown	0	0	1	0	0
State Total	1,357	1,130	1,186	1,511	1,206

Table 5. Fall turkey harvest by locality in West Virginia, 2004-2008.

Land Type	Locality	2004	2005	2006	2007	2008
Monongahela NF	Beaver Dam	1	5	3	5	6
	Blackwater	15	10	11	11	8
	Cheat	2	6	9	6	2
	Cranberry	10	14	6	10	12
	Little River	9	13	21	28	20
	Neola	26	12	24	18	12
	Otter Creek	3	5	2	2	4
	Potomac	7	14	6	11	5
	Rimel	11	15	19	22	13
	Tea Creek	4	8	5	0	6
Monongahela NF Total		88	102	106	113	88
George Washington NF	Shenandoah	9	12	15	8	11
	Wardensville	24	8	27	23	22
George Washington NF Total		33	20	42	31	33
Jefferson NF	Potts Creek	4	4	2	0	2
Jefferson NF Total		4	4	2	0	2
State Land	Allegheny	1	2	4	1	0
	Bear Rocks	0	7	0	0	0
	Becky Creek	0	0	1	0	0
	Bluestone	9	27	1	37	20
	Calvin Price Sf	1	2	2	4	0
	Castleman Run	1	1	0	0	0
	Coopers Rock Sf	1	0	0	1	0
	Cornstalk	0	2	0	8	13
	Cross Creek	0	0	0	1	3
	Fort Mill Ridge	0	0	0	0	1
	Greenbrier Sf	2	3	4	3	1
	Hillcrest	0	0	0	2	1
	Hughes River	0	2	4	2	1
	Kumbrabow Sf	0	0	1	0	5
	Little Indian Creek	0	0	0	0	1
	McClintic	0	4	0	5	5
	Nathaniel Mnt	0	1	0	0	1
	Seneca Sf	6	5	2	6	3
	Short Mnt	3	6	6	4	1
	Sleepy Creek	11	2	4	3	11
	South Branch	0	0	0	1	0
	Summersville	0	8	2	3	1
	Underwood	0	0	1	0	0
Widmyer	0	1	0	1	0	
State Land Total		35	73	32	82	68
Private Land		1,197	930	1,004	1,285	1,015
Unknown		0	1	0	0	0
State Total		1,357	1,130	1,186	1,511	1,206

Table 6. Fall wild turkey harvest in West Virginia by week of season, 2007-2008.

Week of Season	2007		2008	
	N	%	N	%
Opening Day	317	21%	224	19%
Week 1	607	40%	507	42%
Week 2	217	14%	175	15%
Week 3	165	11%	131	11%
Week 4	191	13%	145	12%
Unknown	14	1%	24	2%
Grand Total	1,511	100%	1,206	100%

Table 7. Total spring and fall wild turkey harvest, West Virginia, 1966-2008.

Year	Spring	Fall	Total	Rank
1966	12	1,334	1,346	42
1967	42	989	1,031	43
1968	134	1,697	1,831	41
1969	243	3,430	3,673	31
1970	370	3,020	3,390	34
1971	421	2,374	2,795	38
1972	589	2,353	2,942	37
1973	554	3,038	3,592	32
1974	596	2,158	2,754	39
1975	585	2,827	3,412	33
1976	721	1,860	2,581	40
1977	719	2,998	3,717	30
1978	566	2,803	3,369	35
1979	873	2,421	3,294	36
1980	1,459	3,696	5,155	27
1981	1,970	3,135	5,105	28
1982	2,458	5,684	8,142	23
1983	2,627	2,224	4,851	29
1984	3,387	2,414	5,801	26
1985	4,215	2,343	6,558	25
1986	4,774	3,130	7,904	24
1987	5,665	4,114	9,779	20
1988	6,526	2,939	9,465	21
1989	7,245	2,204	9,449	22
1990	9,152	3,504	12,656	15
1991	10,097	3,690	13,787	13
1992	11,299	3,518	14,817	8
1993	13,428	3,536	16,964	6
1994	15,501	3,351	18,852	4
1995	16,770	3,211	19,981	2
1996	16,618	2,870	19,488	3
1997	14,021	3,385	17,406	5
1998	12,467	1,678	14,145	11
1999	11,241	2,901	14,142	12
2000	12,794	1,541	14,335	10
2001	17,875	3,505	21,380	1
2002	13,385	2,808	16,193	7
2003	12,535	1,841	14,376	9
2004	10,573	1,357	11,930	17
2005	10,957	1,130	12,087	16
2006	11,735	1,186	12,921	14
2007	9,965	1,511	11,476	14
2008	9,929	1,206	11,135	19
Total	287,093	112,914	400,007	

WILD BOAR

by
Gary H. Sharp

Hunters killed 14 boar during the 2008 season. This is down from the harvest of 22 in 2007. Firearms hunters took nine (five in Logan County and four in Boone County) and archers killed five (two in Logan County and three in Boone County). Wyoming and Raleigh counties had no reported kills. The bulk of the harvest came from near the original release site in the Spruce-Laurel Fork of the Little Coal River. Wildlife and Law Enforcement personnel patrolling during the firearms season observed lower hunting pressure than in previous years, a likely contributor to the low harvest.

Boar were introduced in 1971 to supplement big game populations and did well enough to accommodate a hunting season in 1979. Harvests have ranged from three that year to 158 in 1995. The decline in the population since the late 90's led to the removal of the December season in 2003. The single October firearms season is designed to reduce the harvest and allow numbers to improve and move into unoccupied habitats. Traditionally, hunters have been less successful during October when weather conditions are warm and dry and leaf fall makes boar sign more difficult to find.

Biologists do not believe that boar hunting contributed to the population decline. Hunting seasons have been short and hunter participation restricted by permits. The main reason for fewer animals in Boone, Logan, Raleigh, and Wyoming counties is loss of habitat resulting in poor reproduction and survival. Impacts from mining and logging operations continue to decrease the mature oak-hickory forest favored by boar.

There is concern among some sportsmen about the current status of the boar population and the strategy for increasing numbers. The justification for releasing boar (suppressed deer and other big game populations) does not exist today. Administrators in the late 1960's were resolved to the belief that southern West Virginia would never have adequate big game populations; had they had more foreknowledge, the exotic wild boar would not have been released. Currently, we have good white-tailed deer, black bear, and wild turkey populations, and competition from these species may be an additional factor in declining boar numbers.

Wildlife personnel will continue to monitor the wild boar population. It is anticipated the current conservative season will continue until boar numbers improve.

Table 1. Wild boar harvests in West Virginia, 1979-2008.

Year	Gun	Gun Kill		Archery Kill	Total Kill
	Permits Available	Early Season*	December		
1979	200	3	0	0	3
1980	600	9	0	1	10
1981	1,200	31	0	2	33
1982	1,500	69	0	3	72
1983	1,500	50	0	4	54
1984	3,000	76	0	5	81
1985	3,000	52	0	6	58
1986	4,000	29	0	6	35
1987	5,000	63	0	11	74
1988	5,000	29	0	5	34
1989	6,000	29	79	8	116
1990	6,000	16	62	8	86
1991	6,000	20	38	1	59
1992	6,000	39	72	19	130
1993	6,000	13	61	8	82
1994	6,000	21	53	12	86
1995	6,000	34	105	19	158
1996	6,000	51	56	32	139
1997	6,000	43	61	37	141
1998	6,000	16	30	12	58
1999	6,000	19	56	21	96
2000	6,000	7	36	3	46
2001	4,000	11	14	18	43
2002	4,000	3	26	9	38
2003	Permit Not Required	3	0	2	5
2004	Permit Not Required	3	0	4	7
2005	Permit Not Required	10	0	2	12
2006	Permit Not Required	10	0	4	14
2007	Permit Not Required	7	0	15	22
2008	Permit Not Required	9	0	5	14
Total		775	749	282	1,806

*Early Season: Held in late October or early November.

WHITE-TAILED DEER

by
James M. Crum

Deer Harvest 2008

The following Tables 1 through 9 contain the 2008 white-tailed deer hunter harvest information for each of West Virginia's 55 counties and the various public lands scattered across the state. In 2008, deer hunters harvested a total of 163,603 deer in the combined deer seasons. This is a 12% increase from the 2007 harvest and 1.5% more than the previous five-year harvest average of 161,248. The combined deer season harvest for 2008 is the 15th largest total deer harvest on record for West Virginia. The 2008 total deer harvest represents one deer killed for every 90 acres of deer habitat in the state (Table 9), and a 16.5% harvest decrease from that of 10 years ago. From 1945 through 2008, a total of 5,210,483 deer have been recorded as harvested in West Virginia (Fig.1). Fifty-four percent (2,834,478) of the total recorded deer harvest of the past 63 years has occurred in the last 15 years.

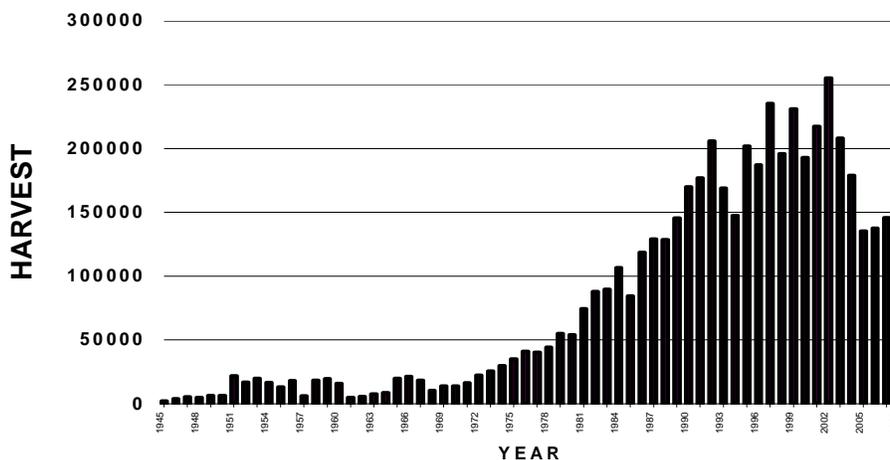


Figure 1. White-tailed deer harvest in West Virginia from 1945-2008.

In 2008, the traditional bucks-only firearm season harvest of antlered bucks was 67,365, an increase of less than 1% from the 2007 harvest (Table 1). This is 3% more than the five-year average harvest of 65,446, and ranks 18th among all past years.

The 2008 antlerless season deer harvest increased by 29% from 2007 and was down 46% from the record harvest of 104,199 recorded in 2002. A total of 56,221 antlerless deer (Table 5) were taken in an antlerless season where hunter opportunity was increased in nine counties and portions of six counties from that of 2007. The antlerless season was open in 2008 for 22 days on private land in 38 counties and portions of six more counties. In 11 counties and portions of six more, the season was closed. Of the counties open for antlerless deer hunting to resident and nonresident hunters, 21 counties and portions of one had a bag limit of four antlerless deer, 11 counties and portions of two more counties had a bag limit of two antlerless deer, and six counties and portions three counties had a one deer antlerless bag limit. No

counties in 2008 were limited to resident hunters who had to apply for limited permits. The antlerless season was closed on the vast majority of National Forest land (Table 6) and open for 20 days on State owned or leased Wildlife Management Areas (WMA's). Qualifying youth and Class Q License (physically challenged) holders had an additional three-day antlerless-only season on private land in counties having a firearms deer hunting season and 49 WMA's. The 2008 special split deer season for youth and Class Q hunters was the second year for the season to be open on private land in all 51 counties open to a deer firearms season. The 2008 antlerless season harvest was 15th highest on record, and 4.2% less than the five-year average antlerless harvest of 58,664. As in 2007, the 2008 maximum season bag limit for antlerless deer season was four deer.

In the 2008 archery season, a harvest of 31,408 was recorded. This was an increase of 14.5% from the 2007 archery season. This year's archery harvest was fifth highest on record and 20% above the five-year average of 26,141 (Table 3).

The 2008 muzzleloader season harvest was 8,609, an increase of 12% from 2007. This is 22% below the five-year average harvest of 10,997, and the 16th highest harvest recorded for this season (Table 7). The increase in the 2008 muzzleloader season can be attributed to the expansion of opportunity for hunters to take a deer of either sex in an additional two counties and portions of one county more than in 2007. However, the number of counties where only an antlered buck could be taken as the second muzzleloader deer increased in 2008 by six counties.

In 2008, hunting on Sunday was permissible in West Virginia for the eighth year since 1956. In 2001, all counties were open to hunting on Sunday. In 2002, a total of 20 counties were open to hunting on Sunday. From 2003 through 2008, there were 14 counties open to hunting on Sunday. These 14 counties had seven additional days available for deer hunting. All seven days were open for archery hunters who recorded taking 568 deer on Sundays, or 1.8% of the total 2008 archery harvest. One Sunday was open for firearms deer hunting (the Sunday after Thanksgiving November 30th), and 178 deer were recorded as harvested.

In the 2008 deer season, of the 51 counties open to the two-week bucks-only season, the desired buck harvest per square mile was exceeded in 11 counties, indicating the deer population needs to be reduced in a minimum of 12% of the deer habitat in the state. Of the remaining 40 counties, 13 were lower than the desired harvest and 27 were within one buck per square mile of the desired buck harvest for the county. In contrast to 2007, five counties (5% of deer habitat in the state) were above the desired buck harvest per square mile. Of the remaining 46 counties, 12 were lower than the desired harvest and 34 were within one buck per square mile of the desired buck harvest for the county. The reduction of past antlerless deer harvests has increased the number of counties in 2008 that exceed the desired buck harvest per square mile.

The harvest of antlerless deer is the key to healthier, heavier, and more productive deer herds. This is because there are natural limits to the number of deer the land can support. When these natural limits are exceeded, deer body weights, reproductive rates, antler development, and herd health declines, including an increased likelihood that deer will die over winter. If deer exceed natural limits long enough, habitat quality is reduced which produces a long-term reduction in the natural limit of deer the land can support. To avoid these problems a minimum of 70 females for every 100 bucks is generally required just to stabilize a deer herd. If a decrease in the herd is warranted, the percentage of females needs to be above 40%. Prior to the 2000 deer season, West Virginia's deer herd was on track for a better healthier herd.

Decreases in antlerless harvest (Fig. 2) in the 2000 and 2001 deer seasons temporarily slowed progress toward a better deer herd but, with landowners and hunters in the 2002 through 2004 deer season recognizing the need to harvest antlerless deer, the pace toward a better deer herd quickened. From the 2002 through 2004 deer seasons, the recorded antlerless deer harvest exceeded the traditional firearm antlered buck harvest. The percentage of does in the statewide harvest exceeded 40% for the 2002 through 2004 seasons even though the total harvest in 2003 and 2004 declined. In 2005, the reductions in hunter opportunity to harvest antlerless deer resulted in a lower total deer harvest and a reduction of the percentage of female deer in the harvest, but the percentage was still 40%. In 2006, the antlered deer harvest rebounded somewhat, but with further reductions in the opportunity to harvest antlerless deer, the percentage of female deer in the harvest was well below the 40% mark. This allowed the deer herd to increase in 2007. The percentage of female deer in the harvest in 2007 increased over that of 2006 but was still below the 40% mark, and the deer harvest in 2008 increased. The percentage of female deer in the 2008 harvest increased to the 40% level and should slow the deer herd growth in 2009.

Over the last 16 years the yearly average number of antlered bucks harvested during all deer seasons has been four antlered bucks per square mile of deer habitat in West Virginia. Hunters and landowners must continually assess their expectations of the proper number of deer sightings versus the visible impacts deer have on vegetation, and manage the state's deer herd by participating and encouraging antlerless deer harvest where needed to benefit not only the deer herd, but all wildlife dependent on our state's woodland habitat.

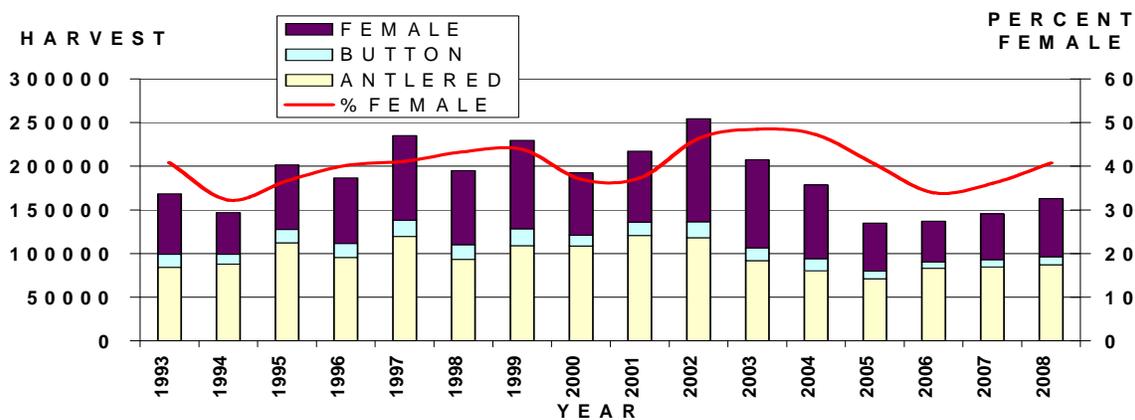


Figure 2. Deer harvested by sex in West Virginia from 1993-2008.

Special Deer Management Areas

Hunters took 404 deer in the special urban deer season in 2008. This special archery deer-hunting season is available to incorporated cities and homeowner associations, which may open 14 days prior to the opening of archery season and close December 31. During this special season, two deer may be taken which do not count toward the regular archery deer season bag limit. In 2008, six cities (Barboursville, Bethlehem, Charleston, Ronceverte, Weirton, and Wheeling) reported harvesting 305 deer, which are included in Tables 1, 3, 5, 8, and 9. In addition, 99 deer were harvested during urban deer archery hunts conducted by four homeowner associations. This is the fifth year that homeowner associations have taken advantage of the special urban archery deer season to address deer population management. The Whiting's Neck Farm Estate was the first homeowner's association to use this special archery season. They have continued to use this season to safely and economically manage deer numbers for the past five years. For information regarding implementing a special season contact your local city government or homeowner's association.

In the special split Youth and Class Q deer season, a total of 3,669 antlerless deer were harvested and are included in antlerless deer harvest tables 5, 6, 8, and 9. This season was open on private land in any county open to a firearms deer season, 47 DNR WMA's, and two State Forests on November 1, 2008, and again December 22 and 23, 2008. This was the 11th year this special season was held. To participate, hunters had to hold a Class Q license or be a youth between eight and 14 years of age on the day of the season. Youths must be accompanied by a licensed adult at least 21 years of age. The daily bag limit was one antlerless deer, which did not count against the hunter's annual antlerless deer season bag limit. Youth and Class Q hunters harvested 2,880 deer on November 1st and an additional 256 and 533 deer on December 22nd and 23rd, respectively. The harvest for the 2008 special Youth and Class Q deer season increased 21% from 2007. This increase in total season harvest can probably be attributed to an increase in participation. The harvest for the second and third days of the season was also up 21% from the reported harvest in 2007.

All hunting was stopped on West Virginia State Parks in the fall of 1959, until the year 2001. On November 5, 2001, Blennerhassett Island State Park became the first West Virginia State Park in 42 years to be open for deer hunting and the first in 49 years to be open for firearms deer hunting. The controlled deer hunt on Blennerhassett Island State Park in 2001 harvested 185 deer; 2002 deer hunters harvested 87 deer; the harvest was 50 deer in 2007. Stonewall Jackson Resort State Park became the second West Virginia State Park in recent times to open for deer hunting on November 17, 18, and 19, 2008. Seventy deer were harvested on the park during this controlled deer hunt. It is anticipated that more state parks will conduct controlled deer hunts in the fall of 2009. Deer are a keystone species in West Virginia's natural world and proper stewardship of our State's flora and fauna require that deer management be addressed on all lands.

Nonseasonal Mortalities

Nonseasonal mortalities are those deer deaths that are not associated with the harvest of deer by hunters. Figure 3 depicts nonseasonal deer mortalities that are associated with human/deer conflicts (i.e., vehicle collisions and crop damage). The public, DNR Conservation Officers, and DNR Wildlife Resources personnel routinely report nonseasonal mortalities. The WV Department of Transportation, Division of

Highways (DOH) -Traffic Engineering Division, provides monthly summaries of vehicle killed deer that are encountered by DOH personnel. DNR Conservation Officers provide wildlife damage investigation reports from which the number of deer killed for crop damage is obtained.

The reported nonseasonal mortalities from vehicle collisions and crop damage increased 9% from 23,280 in 2007 to 25,362 in 2008. Deer killed on crop damage permits decreased in DNR District 4 and increased in DNR Districts 1, 2, 3, 5, and 6. Overall, deer killed through the crop damage permit system increased from 4,047 in 2007 to 4,735 in 2008 (17%). Reported vehicle kills increased statewide by 7% in 2008. Percent change by DNR Districts 1, 2, 3, 4, 5, and 6 were 4.1%, 13.9%, 17.3%, 0.7%, -1.5% and 7.5%, respectively.

The occurrence of deer reportedly killed by collisions with vehicles and deer reported as killed for crop damage follow similar trends. Although other factors such as deer food supply (such as acorns), number and average speed of vehicles, and crop growing conditions like drought influence these trends, a major factor is deer population (Fig. 3).

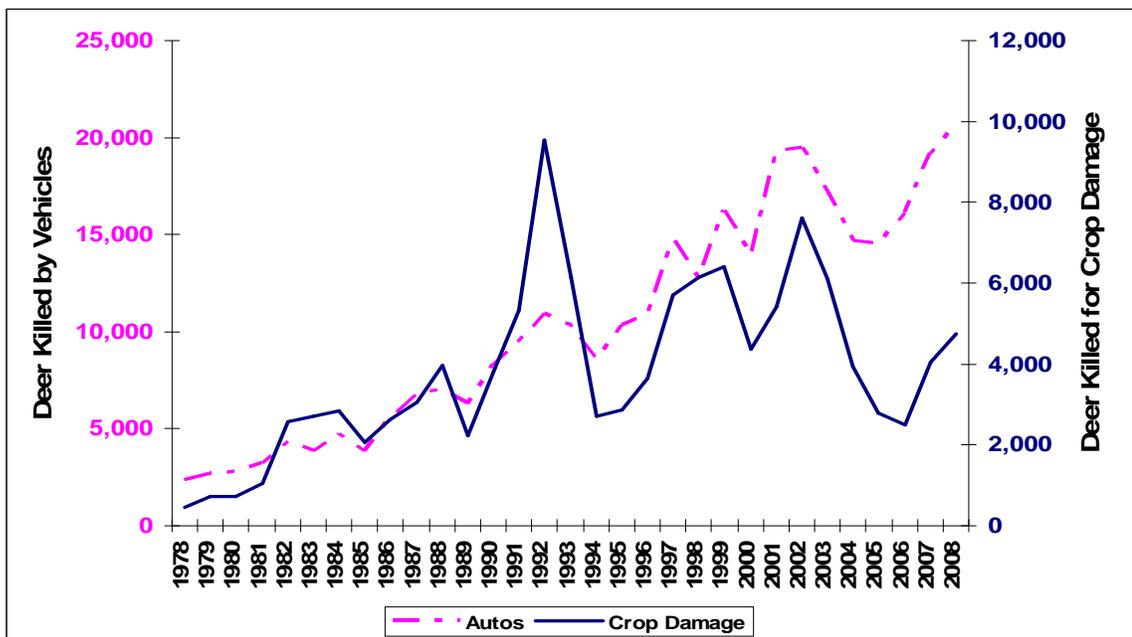


Figure 3. Vehicle and crop damage kills in West Virginia from 1978-2008.

Deer Hunting Outlook

For the 2009 antlerless deer season, the DNR proposes that 39 counties and portions of six additional counties be open to antlerless deer Class N hunting. The DNR proposes on private land in these counties there be a 21-day split antlerless season, 12 days of which would be concurrent with the traditional bucks-only deer season. Private land in these counties would open from November 23 through December 12, and open again December 29 through December 31. Public land in these counties would be open for antlerless deer Class N hunting only from November 25 through December 12, and December 29 through December 31, except all National Forest land in Monroe County would be closed to antlerless hunting, as well as Wallback WMA in Roane, Clay, and Kanawha counties. The antlerless deer Class N season is proposed to be closed in 10 counties and portions of seven counties, including all National Forest lands in Greenbrier, Nicholas, Pocahontas, Randolph, and Webster counties. Hunters would need to apply for limited permits to hunt during the antlerless deer Class N season on six Wildlife Management Areas. Twenty-six counties and a portion of Kanawha County are proposed to have an antlerless deer Class N season with a bag limit of four antlerless deer, seven counties and portions of Greenbrier and Mercer counties are proposed to have a bag limit of two antlerless deer. Five counties, portions of Clay, Fayette, Greenbrier, Randolph, and Wayne counties, and 34 WMA's are proposed to have a bag limit of one antlerless deer during the antlerless deer Class N season.

During the 2009 muzzleloader deer season the DNR proposes that, in counties with an antlerless deer Class N season bag limit of two or more, hunters would be able to take two deer of either sex during the muzzleloader season, provided the second muzzleloader deer is taken on an additional muzzleloader deer stamp (RM for residents and RMM for nonresident hunters). In counties with a one antlerless deer Class N season bag limit, hunters in the 2009 muzzleloader season could take one deer of either sex but the second muzzleloader season deer taken on the RM or RMM additional muzzleloader deer stamp could only be an antlered deer, provided the hunter has not filled the maximum annual bag limit (excluding special urban archery hunts) of three antlered bucks. Antlerless deer will not be allowed to be taken on an unfilled RG or RGG additional deer license during the 2009 antlerless deer Class N season or muzzleloader season. Thus, the maximum total season deer bag limit that can be taken on antlerless Class N licenses in 2009 is four.

Again, as in 2008, a split three-day Special Youth and Class Q antlerless deer season is proposed to be held on October 31st and December 26th and 28th on private land and 47 wildlife management areas and two State Forests in 51 counties. Like last year the proposed 2009 Special Youth and Class Q antlerless deer season **would not** be limited to those counties open to antlerless (Class N) deer hunting, but the season would be open in the 51 counties that are open to a firearms deer season. Therefore, this season **would be closed** in Logan, Mingo, McDowell, or Wyoming counties. In addition, all National Forest lands, six State Forests, and 27 wildlife management areas **would be closed** to this season.

Please refer to the 2009 Hunting and Trapping Regulations summary for further details on all deer hunting seasons because the above proposed seasons and bag limits have not been approved by the Natural Resources Commission at this time. White-tailed deer hunting season regulations for 2009 will be published and available to hunters in July of 2009. This newsprint-like pamphlet contains complete information on gun, archery, muzzleloading, and antlerless deer hunting, plus other hunting regulations on turkey, bear, boar, and small game. Hunters will be able to obtain a copy from any DNR office or any business that sells West Virginia hunting licenses or visiting the Wildlife Resources Section web site at www.wvdnr.gov.

Retention of the DNR's regulatory authority over individuals possessing live deer in pens is important in protecting our state's valuable wildlife resources and associated recreation. The principal threat of transferring authority to another agency stems from the commerce of live animals that lack any federally approved biologics commonly used by domestic livestock for disease prevention and control. This gamble with animal health by the small elk and deer farming industry jeopardizes the hunting heritage of an estimated 11 million elk and deer hunters nationwide as well as the \$27.9 billion annual economic impact associated with deer hunting. In addition, these initiatives by agricultural interests go against the basic tenets that wildlife species are not to be privately owned commodities for commercial sale. These misguided attempts are a direct threat to the four principles that have made our state's and national wildlife management programs so successful -- public ownership of wildlife; elimination of markets in the meat, parts, and products of game mammals and birds; allocation of the material benefits of wildlife by law, not by the marketplace, birthright, land ownership, or social position; and prohibition of frivolous killing of wildlife.

In 2007 epizootic hemorrhagic disease virus subtype two (EHDV-2) was isolated from dead deer in portions of 35 WV counties. This year hemorrhagic disease in white-tailed deer was not isolated from deer in West Virginia. The term hemorrhagic disease describes a viral infection of white-tailed deer with either of two orbiviruses, epizootic hemorrhagic disease (EHD) virus or bluetongue (BT) virus. Both EHD and BT can cause high death losses in wild deer populations and the clinical manifestations of infection with either virus are indistinguishable. Thus virus isolation is necessary to distinguish between the two. Both EHD and BT viruses are transmitted by biting midges of the genus *Culicoides* which are widespread in the United States. Hemorrhagic disease occurs annually in the United States. In West Virginia the disease occurs sporadically every 5 to 10 years. When outbreaks occur, clinical disease is severe and mortality is high, whereas in the southern United States the disease occurs annually and results in mild or unapparent disease. Since nearly all ungulates (hoofed animals) can be infected with EHDV, the isolation of a new EHDV serotype from penned white-tailed deer in 2006, again in the Midwest in 2007, and this year in Texas, raises concern for the introduction of a new EHDV and/or new disease vectors to our West Virginia free ranging white-tailed deer. The translocation of a deer and co-mingling of captive native and exotic ungulates is a recipe for a disease problem. Couple this with the fact that the movement of live animals from distant places is a translocation of a biological package which includes known and unknown diseases and pests, then the chances for an

unwanted organism to be introduced into West Virginia is increased. There are too many examples of introductions that have caused disastrous results for responsible persons not to take heed and reflect on the costs and benefits of commercializing captive wildlife. This is another reason why West Virginia DNR must retain authority over penned white-tailed deer. Cooperation with West Virginia and United States Departments of Agriculture is essential to protecting not only our wildlife resources but domestic animal and human health as well.

Efforts to control the spread of chronic wasting disease (CWD) in free-ranging deer in Hampshire County by DNR, landowners, and hunters are ongoing. In the 2008 deer seasons, samples from 1,355 hunter-harvested deer brought to game checking stations in Hampshire County and one station in northern Hardy County were tested for CWD. Five samples were found to have the abnormal proteins associated with CWD. CWD has now been detected in a total of 37 deer in Hampshire County: two vehicle-killed deer, four deer collected by DNR in 2005, five deer collected by DNR in 2006, one hunter-harvested deer during the 2006 deer season, three deer collected by DNR in 2007, six hunter-harvested deer during the 2007 deer season, 11 deer collected by DNR in 2008, and five hunter-harvested deer during the 2008 deer season. Over 3,500 samples collected by the DNR elsewhere in the state since 2002, primarily from vehicle collisions, have not detected the abnormal protein of CWD in any county other than Hampshire. For more information on CWD and the current status of the disease in Hampshire County, West Virginia contact any DNR office or visit the Wildlife Resources web site www.wvdnr.gov.

Table 1. West Virginia antlered buck harvest, 2004-2008.

County	2004	2005	2006	2007	2008
Barbour	1,311	1,138	1,527	1,380	1,413
Brooke	538	477	479	386	427
Hancock	462	452	447	361	357
Harrison	1,650	1,494	1,810	1,508	1,680
Marion	1,446	1,119	1,443	1,114	1,489
Marshall	1,719	1,593	1,648	1,126	1,339
Monongalia	1,808	1,683	1,953	1,474	1,927
Ohio	527	473	505	438	485
Preston	2,041	2,254	2,616	2,309	2,618
Taylor	802	683	903	724	808
Tucker	626	733	1,020	974	951
Wetzel	1,952	1,672	1,926	1,767	2,210
Dist. I Subtotal	14,882	13,771	16,277	13,561	15,704
Berkeley	836	869	924	973	855
Grant	1,352	1,472	1,544	1,733	1,531
Hampshire	2,233	2,019	1,949	2,223	2,153
Hardy	2,117	1,961	2,178	2,111	2,046
Jefferson	685	651	713	657	605
Mineral	1,312	1,255	1,388	1,420	1,383
Morgan	680	802	845	953	806
Pendleton	1,443	1,484	1,850	1,698	1,416
Dist. II Subtotal	10,658	10,513	11,391	11,768	10,795
Braxton	1,539	1,244	1,308	2,005	1,731
Clay	472	370	399	551	540
Lewis	1,838	1,485	1,778	1,952	2,027
Nicholas	1,091	1,009	991	1,216	1,082
Pocahontas	1,057	1,167	1,410	1,277	1,223
Randolph	1,357	1,447	1,862	1,968	2,126
Upshur	1,312	1,164	1,432	1,517	1,536
Webster	800	753	796	929	887
Dist. III Subtotal	9,466	8,639	9,976	11,415	11,152
Fayette	812	728	873	1,101	905
Greenbrier	1,840	1,763	2,143	2,204	1,925
Mercer	509	451	662	820	537
Monroe	1,472	1,308	1,886	2,150	1,431
Raleigh	602	502	651	842	577
Summers	807	730	944	1,282	932
Dist. IV Subtotal	6,042	5,482	7,159	8,399	6,307
Boone	584	454	495	676	577
Cabell	773	577	683	947	787
Kanawha	1,077	877	1,025	1,395	1,259
Lincoln	944	596	832	1,126	983
Mason	2,295	2,146	2,067	2,154	1,892
Putnam	1,206	993	1,051	1,401	1,311
Wayne	875	627	837	898	768
Dist. V Subtotal	7,754	6,270	6,990	8,597	7,577
Calhoun	1,125	859	1,039	1,163	1,252
Doddridge	1,396	1,033	1,328	1,227	1,605
Gilmer	1,229	981	1,182	1,401	1,585
Jackson	2,289	2,074	2,122	2,081	1,948
Pleasants	574	452	588	398	630
Ritchie	2,000	1,495	2,147	1,564	2,369
Roane	1,909	1,616	1,691	1,873	2,010
Tyler	1,470	1,139	1,429	1,125	1,590
Wirt	1,234	928	919	1,006	1,186
Wood	1,845	1,649	1,877	1,635	1,655
Dist. VI Subtotal	15,071	12,226	14,322	13,473	15,830
State Total	63,873	56,901	66,115	67,213	67,365

Table 2. Antlered buck gun harvest by locality in West Virginia, 2004-2008.

Area	Locality	2004	2005	2006	2007	2008
Monongahela NF	Beaver Dam	32	51	72	64	79
	Blackwater	117	204	196	164	179
	Cheat	91	111	133	111	93
	Cranberry	181	168	172	185	135
	Little River	178	255	304	274	237
	Neola	168	188	208	127	146
	Otter Creek	97	108	113	127	116
	Potomac	324	322	453	432	327
	Rimel	132	143	177	92	134
	Tea Creek	55	72	77	96	70
Monongahela NF Total		1,375	1,622	1,905	1,672	1,516
George Washington NF	Cove Creek	0	1	0	0	0
	Shenandoah	97	143	157	60	56
	Wardensville	279	272	291	278	226
	Wilson Cove	4	0	0	0	1
George Washington NF Total		380	416	448	338	283
Jefferson NF	Potts Creek	34	37	107	68	51
Jefferson NF Total		34	37	107	68	51
State Land	Allegheny	3	7	8	17	15
	Amherst/Plymouth	7	10	17	29	19
	Bear Rocks	3	3	7	2	0
	Becky Creek	0	0	0	2	11
	Beech Fork	25	22	7	20	9
	Beury Mtn	4	2	4	14	13
	Big Ditch	2	2	1	0	2
	Big Ugly	4	2	4	17	15
	Blennerhassett	0	0	0	5	0
	Bluestone	41	65	15	22	17
	Briery Mnt	1	0	0	2	0
	Burches Run	0	0	0	1	0
	Burnsville	72	52	2	25	22
	Cabwaylingo Sf	2	2	6	2	3
	Calvin Price Sf	15	11	23	8	14
	Camp Creek Sf	15	14	21	4	15
	Castleman Run	11	6	14	10	6
	Center Branch	0	4	8	4	13
	Conaway Run	4	6	8	5	6
	Coopers Rock Sf	68	95	12	31	28
	Cornstalk	106	95	96	112	73
	Cotton Hill	0	0	0	5	0
	Cross Creek	31	19	20	27	20
	Dunkards Fork	1	0	3	0	1
	East Lynn	11	15	26	27	29
	Edwards Run	4	2	1	0	1
	Elk Fork	0	0	0	1	0
	Elk River	41	43	48	106	63
	Fork Creek	16	18	18	24	2
	Fort Mill Ridge	1	0	1	2	2

Table 2. Continued.

Area	Locality	2004	2005	2006	2007	2008
State Land	Frozen Camp	2	28	24	21	10
	Green Bottom	0	1	1	4	6
	Greenbrier Sf	10	14	16	7	7
	Handley	2	3	1	2	6
	Hillcrest	10	0	0	0	5
	Hughes River	50	48	54	13	50
	Huttonsville	14	0	7	5	7
	Kanawha Sf	6	9	19	14	10
	Kumbrabow Sf	11	6	9	9	18
	Lantz Farm	0	0	0	1	0
	Lewis Wetzel	92	70	80	108	117
	Little Indian Cr	0	0	0	0	1
	McClintic	14	20	6	16	4
	Meadow River	2	4	2	2	0
	Mill Creek	0	2	2	0	3
	Moncove	0	1	9	12	7
	Morris Creek	0	0	10	17	4
	Nathaniel Mnt	39	36	46	52	54
	New River Gorge	16	35	26	56	20
	Pedlar	0	2	5	3	4
	Pleasants Creek	6	8	17	5	11
	Plum Orchard	6	0	5	5	10
	Pruntytown	16	16	10	7	7
	Ritchie Mines	9	10	15	9	14
	Seneca Sf	26	41	36	22	39
	Shannondale	30	15	25	31	27
	Short Mnt	49	56	72	61	52
	Sleepy Creek	115	119	204	202	190
	Smoke Camp	0	0	0	4	0
	Snake Hill	6	4	9	13	12
	South Branch	2	0	1	2	0
	Stonecoal	17	9	19	19	18
	Stonewall Jck	126	106	130	174	157
	Stumptown	0	2	5	8	2
	Summersville	20	13	17	23	8
	Sutton Res	0	1	8	4	8
	Tate Lohr	0	1	0	1	1
	The Jug	35	25	16	25	31
	Thorn Creek	0	1	1	0	0
	Underwood	18	20	14	11	3
	Upper Mud River	7	3	3	2	2
Wallback	2	8	6	5	9	
Widmyer	1	0	1	1	0	
Woodrum	0	1	0	1	0	
State Land Total		1,247	1,233	1,301	1,501	1,333
Private Land		60,831	53,593	62,329	63,585	64,182
Unknown		6	0	25	49	0
State Total		63,873	56,901	66,115	67,213	67,365

Table 3. West Virginia white-tailed deer archery harvest, 2004-2008.

County	2004	2005	2006	2007	2008
Barbour	525	394	520	556	678
Brooke	357	315	330	257	299
Hancock	459	409	381	284	402
Harrison	527	507	504	475	563
Marion	521	430	494	396	670
Marshall	506	454	435	303	449
Monongalia	709	686	715	625	870
Ohio	273	257	263	203	222
Preston	1,075	1,012	1,230	1,171	1,473
Taylor	264	233	276	257	375
Tucker	428	355	495	482	597
Wetzel	431	318	358	317	525
Dist. I Subtotal	6,075	5,370	6,001	5,326	7,123
Berkeley	399	406	382	375	465
Grant	471	388	422	461	535
Hampshire	350	312	254	278	400
Hardy	457	394	419	465	479
Jefferson	353	380	362	344	385
Mineral	340	290	333	342	378
Morgan	163	149	180	255	264
Pendleton	371	315	438	482	413
Dist. II Subtotal	2,904	2,634	2,790	3,002	3,319
Braxton	546	396	421	595	736
Clay	278	212	229	262	329
Lewis	524	470	458	488	588
Nicholas	833	660	809	862	864
Pocahontas	353	284	393	455	396
Randolph	864	660	1,002	998	1,286
Upshur	571	476	536	604	710
Webster	604	399	494	548	650
Dist. III Subtotal	4,573	3,557	4,342	4,812	5,559
Fayette	616	464	656	830	723
Greenbrier	722	614	800	929	777
McDowell	692	480	642	944	739
Mercer	451	353	483	646	575
Monroe	505	451	558	702	641
Raleigh	537	467	640	786	664
Summers	411	411	490	636	620
Wyoming	493	377	611	884	747
Dist. IV Subtotal	4,427	3,617	4,880	6,357	5,486
Boone	294	215	276	288	381
Cabell	326	277	310	364	444
Kanawha	716	566	579	750	919
Lincoln	389	246	300	304	428
Logan	541	396	491	668	714
Mason	767	780	774	818	861
Mingo	292	177	273	286	343
Putnam	550	449	485	560	611
Wayne	348	267	298	296	366
Dist. V Subtotal	4,223	3,373	3,786	4,334	5,067
Calhoun	344	208	248	273	384
Doddridge	249	218	235	239	278
Gilmer	264	212	226	251	420
Jackson	677	630	560	651	751
Pleasants	102	91	114	88	139
Ritchie	479	430	477	385	601
Roane	541	433	440	476	661
Tyler	397	310	310	264	421
Wirt	341	273	291	343	433
Wood	631	593	601	639	766
Dist. VI Subtotal	4,025	3,398	3,502	3,609	4,854
State Total	26,227	21,949	25,301	27,440	31,408

Table 4. Deer archery harvest by locality in West Virginia, 2004-2008.

Area	Locality	2004	2005	2006	2007	2008
Monongahela NF	Beaver Dam	40	34	43	37	38
	Blackwater	80	96	74	89	99
	Cheat	54	49	58	36	55
	Cranberry	106	61	93	96	90
	Little River	70	63	103	91	106
	Neola	28	14	30	45	27
	Otter Creek	43	29	33	27	63
	Potomac	127	124	124	170	148
	Rimel	16	18	17	26	17
Tea Creek	22	18	13	11	13	
Monongahela NF Total		586	506	588	628	656
George Washington NF	Shenandoah	24	25	33	26	20
	Wardensville	48	58	48	42	49
George Washington NF Total		72	83	81	68	69
Jefferson NF		11	14	11	7	6
Jefferson NF Total		11	14	11	7	6
State Land	Allegheny	1	1	5	1	2
	Amherst/plymouth	3	7	0	11	6
	Anawalt	1	1	1	1	0
	Bear Rocks	3	0	3	2	2
	Becky Creek	0	2	0	0	5
	Beech Fork	3	8	6	3	13
	Berwind	10	9	23	8	3
	Beury Mtn	1	8	9	20	13
	Big Ditch	0	0	0	0	2
	Big Ugly	1	2	0	3	5
	Bluestone	55	87	62	67	60
	Briery Mnt	0	0	1	2	1
	Burches Run	0	1	0	0	1
	Burnsville	30	30	20	43	49
	Cabwaylingo Sf	2	0	3	0	0
	Calvin Price Sf	0	2	2	2	0
	Camp Creek Sf	6	3	4	4	6
	Castleman Run	4	1	1	3	8
	Center Branch	1	3	4	2	1
	Conaway Run	2	0	3	0	0
	Coopers Rock Sf	33	31	8	18	19
	Cornstalk	29	35	51	59	48
	Cotton Hill	0	0	0	3	0
	Cross Creek	9	7	3	13	4
	Dunkards Fork	1	0	0	0	0
	East Lynn	2	3	3	11	3
	Edwards Run	1	2	0	2	1
	Elk Creek	0	0	0	0	8
	Elk Fork	0	0	0	1	0
	Elk River	18	20	30	31	32
	Fork Creek	5	3	2	15	0
	Fort Mill Ridge	0	0	0	0	1
	Frozen Camp	13	2	5	10	0
Graystone	0	0	0	0	69	

Table 4. Continued.

Area	Locality	2004	2005	2006	2007	2008
State Land	Green Bottom	1	4	2	5	1
	Greenbrier Sf	2	0	7	5	1
	Greystone	0	0	0	0	10
	Handley	2	1	3	4	2
	Hillcrest	39	22	20	9	15
	Horse Crk	1	1	3	5	8
	Hughes River	6	22	14	10	10
	Huttonsville	4	2	0	2	2
	Kanawha Sf	6	5	5	8	5
	Kumbrabow Sf	6	3	4	7	0
	Lantz Farm	0	1	0	0	0
	Laurel Lake	19	5	4	5	13
	Lewis Wetzel	13	5	6	7	10
	Little Indian Cr	0	0	0	0	1
	Mcclintic	23	26	14	24	8
	Meadow River	0	2	5	6	4
	Mill Creek	0	0	0	2	0
	Moncove	0	1	2	0	1
	Morris Creek	0	1	3	6	3
	Mount Wood Park	0	0	0	0	14
	Nathaniel Mnt	2	2	1	3	1
	New River Gorge	17	12	18	26	15
	Panther Sf	8	11	16	23	25
	Pedlar	0	1	2	5	5
	Pleasants Creek	3	7	6	13	16
	Plum Orchard	0	8	2	6	9
	Prunytown	3	4	2	1	1
	R D Bailey	42	54	91	133	117
	Ritchie Mines	2	2	1	3	0
	Ronceverte	0	0	0	0	2
	Seneca Sf	4	6	5	4	11
	Shannondale	28	21	14	24	23
	Short Mnt	9	6	7	12	6
	Sleepy Creek	21	31	28	35	25
	Smoke Camp	0	0	0	1	0
	Snake Hill	8	3	6	3	6
	South Branch	0	1	0	2	5
	Stonecoal	0	5	4	4	4
	Stonewall Jck	63	64	41	40	60
	Stonewall Resort	0	0	0	0	3
	Stumptown	0	2	0	0	0
	Summersville	15	9	13	20	14
	Sutton Res	1	7	1	0	1
	Tate Lohr	0	0	1	0	0
	Teter Creek	0	0	0	0	2
The Jug	11	17	5	0	0	
Tug Fork	0	0	14	11	7	
Underwood	0	4	3	2	1	
Upper Mud River	0	1	5	3	4	
Wallback	0	6	12	10	1	
Whitings Neck	0	0	0	0	11	
Widmyer	0	0	1	2	0	
Woodrum	0	1	0	0	0	
State Land Total		593	654	640	826	845
Private Land		24,959	20,692	23,962	25,898	29,832
Unknown		6	0	19	13	0
State Total		26,227	21,949	25,301	27,440	31,408

Table 5. West Virginia antlerless harvest, 2004-2008.

County	2004	2005	2006	2007	2008
Barbour	1,693	1,025	1,127	1,361	1,733
Brooke	699	764	613	609	560
Hancock	653	675	533	477	444
Harrison	2,098	1,858	2,055	1,632	1,919
Marion	1,731	1,367	1,464	863	1,538
Marshall	1,658	1,794	1,540	1,069	1,208
Monongalia	2,138	2,063	1,827	1,243	1,712
Ohio	625	724	602	471	443
Preston	2,825	1,820	1,956	2,178	2,832
Taylor	959	763	933	735	889
Tucker	562	0	0	257	702
Wetzel	2,323	1,734	1,680	1,336	1,872
Dist. I Subtotal	17,964	14,587	14,330	12,231	15,852
Berkeley	790	815	651	659	775
Grant	1,458	846	565	739	1,116
Hampshire	2,265	1,651	1,369	1,503	1,850
Hardy	2,221	1,610	1,513	1,395	1,694
Jefferson	601	619	565	469	565
Mineral	1,312	1,277	1,213	1,128	1,171
Morgan	772	738	598	612	793
Pendleton	1,223	198	303	789	979
Dist. II Subtotal	10,642	7,754	6,777	7,294	8,943
Braxton	2,604	421	0	478	1,556
Clay	190	0	0	25	44
Lewis	2,555	2,371	1,660	1,470	2,132
Nicholas	543	0	0	131	179
Pocahontas	874	0	0	59	81
Randolph	1,494	0	0	171	292
Upshur	2,107	1,197	638	1,397	1,485
Webster	344	0	0	86	134
Dist. III Subtotal	10,711	3,989	2,298	3,817	5,903
Fayette	922	0	0	340	856
Greenbrier	2,455	489	0	1,337	1,273
Mercer	650	0	0	661	441
Monroe	1,973	1,071	521	1,865	1,487
Raleigh	617	0	1	49	296
Summers	1,029	276	112	275	1,039
Dist. IV Subtotal	7,646	1,836	634	4,527	5,392
Boone	269	0	0	22	25
Cabell	809	502	196	417	627
Kanawha	758	210	213	510	718
Lincoln	1,038	141	0	25	60
Mason	2,506	2,719	2,262	2,191	2,390
Putnam	1,403	1,146	738	802	1,382
Wayne	823	132	155	289	313
Dist. V Subtotal	7,606	4,850	3,564	4,256	5,515
Calhoun	1,369	780	735	683	918
Doddridge	1,895	1,237	912	729	1,113
Gilmer	1,620	895	359	741	1,447
Jackson	2,599	2,534	2,259	2,053	2,104
Pleasants	635	547	585	332	461
Ritchie	2,539	2,086	1,466	1,505	2,087
Roane	2,568	1,885	656	1,337	1,587
Tyler	1,942	1,372	1,459	1,119	1,566
Wirt	1,807	941	1,265	1,113	1,225
Wood	2,319	2,154	2,020	1,889	2,108
Dist. VI Subtotal	19,293	14,431	11,716	11,501	14,616
State Total	73,862	47,447	39,319	43,626	56,221

Table 6. Antlerless harvest by locality in West Virginia, 2004-2008.

Area	Locality	2004	2005	2006	2007	2008
Monongahela NF	Beaver Dam	14	0	0	0	0
	Blackwater	56	12	10	18	114
	Cheat	27	0	0	1	1
	Cranberry	32	1	0	0	2
	Little River	23	0	0	0	2
	Neola	24	0	0	4	1
	Otter Creek	35	0	0	1	33
	Potomac	69	28	35	46	160
	Rimel	7	0	0	1	1
Tea Creek	11	0	0	0	0	
Monongahela NF Total		298	41	45	71	314
George Washington NF	Shenandoah	13	2	3	10	41
	Wardensville	58	82	44	36	83
George Washington NF Total		71	84	47	46	124
Jefferson NF	Potts Creek	24	14	2	3	8
Jefferson NF Total		24	14	2	3	8
State Land	Allegheny	3	2	2	4	3
	Amherst/Plymouth	5	3	0	8	13
	Andrew Rowan	0	1	0	0	0
	Bear Rocks	2	0	1	1	0
	Becky Creek	0	0	0	3	3
	Beech Fork	15	11	4	15	21
	Beury Mtn	7	0	0	3	37
	Big Ditch	1	0	0	0	0
	Big Ugly	0	1	0	2	2
	Blennerhassett	0	0	0	45	0
	Bluestone	54	36	113	188	145
	Briery Mnt	2	1	0	0	5
	Burches Run	0	0	0	1	0
	Burnsville	61	0	0	20	28
	Cabwaylingo Sf	0	0	0	0	1
	Camp Creek Sf	2	0	0	4	2
	Castleman Run	4	12	4	17	4
	Center Branch	1	2	9	4	12
	Conaway Run	3	4	7	2	3
	Coopers Rock Sf	37	46	30	21	55
	Cornstalk	31	27	51	33	127
	Cross Creek	9	7	8	10	8
	Dunkards Fork	0	0	0	0	1
	East Lynn	4	1	1	4	1
	Edwards Run	1	2	0	1	3
	Elk Fork	0	2	2	0	0
	Elk River	18	0	0	0	1
	Fork Creek	9	0	0	0	0
	Fort Mill Ridge	1	1	0	1	1
	Frozen Camp	15	22	38	24	43
	Green Bottom	3	1	0	2	0
	Greenbrier Sf	7	0	0	2	0
	Handley	2	0	0	0	0
Hillcrest	11	17	9	9	4	

Table 6. Continued.

Area	Locality	2004	2005	2006	2007	2008
State Land	Hughes River	93	78	32	20	61
	Huttonsville	7	0	0	2	0
	Kanawha Sf	0	0	0	1	0
	Kumbrabow Sf	2	0	0	0	0
	Lewis Wetzel	100	81	17	14	50
	Little Indian Cr	0	0	0	0	1
	McClintic	77	123	31	30	49
	Meadow River	1	4	0	10	15
	Mill Creek	0	1	0	0	0
	Moncove	0	0	1	5	5
	Morris Creek	0	0	0	1	0
	Nathaniel Mnt	3	5	5	8	8
	New River Gorge	1	0	0	0	24
	Pedlar	0	3	4	4	4
	Pleasants Creek	6	12	11	8	8
	Plum Orchard	0	0	0	3	1
	Pruntytown	6	10	7	4	7
	Ritchie Mines	3	5	7	1	6
	Seneca Sf	1	0	0	0	0
	Shannondale	6	2	13	18	27
	Short Mnt	12	14	33	29	42
	Sleepy Creek	25	41	38	32	108
	Snake Hill	1	1	3	0	3
	South Branch	0	2	2	0	3
	Stonecoal	16	15	16	15	16
	Stonewall Jck	112	135	140	127	84
	Stonewall Resort	0	0	0	0	67
	Stumptown	2	10	3	0	16
	Sutton Res	2	1	5	0	2
	Tate Lohr	0	0	0	1	4
	Teter Creek	3	0	1	1	0
	The Jug	10	12	14	5	15
	Underwood	1	1	16	2	4
	Upper Mud River	5	0	0	0	0
Widmyer	0	0	0	0	1	
Woodrum	0	0	1	1	0	
State Land Total		803	755	679	766	1,154
Private Land		72,661	46,553	38,532	42,724	54,621
Unknown		5	0	14	16	0
State Total		73,862	47,447	39,319	43,626	56,221

Table 7. Muzzleloader harvests in West Virginia, 2004-2008.

County	2004	2005	2006	2007	2008
Barbour	333	201	221	220	256
Brooke	122	93	62	53	63
Hancock	149	166	91	69	100
Harrison	395	286	216	210	241
Marion	308	197	143	79	179
Marshall	277	362	179	161	208
Monongalia	415	324	251	173	195
Ohio	117	123	74	71	66
Preston	512	354	330	321	323
Taylor	175	136	107	90	105
Tucker	269	23	25	208	159
Wetzel	524	248	204	191	246
Dist. I Subtotal	3,596	2,513	1,903	1,846	2,141
Berkeley	143	162	107	102	91
Grant	352	209	219	240	231
Hampshire	348	266	129	185	216
Hardy	367	262	228	213	196
Jefferson	131	97	90	93	78
Mineral	162	190	121	137	149
Morgan	109	95	83	87	111
Pendleton	232	163	192	205	164
Dist. II Subtotal	1,844	1,444	1,169	1,262	1,236
Braxton	567	463	39	403	541
Clay	94	12	4	20	7
Lewis	497	412	390	356	399
Nicholas	572	37	34	39	33
Pocahontas	243	34	44	32	19
Randolph	545	34	39	46	36
Upshur	338	221	257	274	233
Webster	361	13	15	22	9
Dist. III Subtotal	3,217	1,226	822	1,192	1,277
Fayette	319	20	25	275	181
Greenbrier	534	335	76	293	216
Mercer	147	21	25	114	78
Monroe	273	211	289	320	189
Raleigh	141	19	22	32	91
Summers	212	196	36	52	167
Dist. IV Subtotal	1,626	802	473	1,086	922
Boone	130	15	9	20	21
Cabell	148	104	82	102	93
Kanawha	179	133	90	137	119
Lincoln	176	98	20	18	38
Mason	454	477	288	258	321
Putnam	202	192	112	146	160
Wayne	164	72	66	67	73
Dist. V Subtotal	1,453	1,091	667	748	825
Calhoun	243	109	144	117	165
Doddridge	333	163	158	96	180
Gilmer	270	167	211	124	271
Jackson	439	344	279	252	285
Pleasants	102	69	64	46	54
Ritchie	476	243	268	195	301
Roane	404	211	186	233	277
Tyler	385	203	158	124	202
Wirt	291	186	154	135	210
Wood	425	293	230	202	263
Dist. VI Subtotal	3,368	1,988	1,852	1,524	2,208
State Total	15,104	9,064	6,886	7,658	8,609

Table 8. Deer mortality by type of season in West Virginia, 2008.

County	Buck Gun	Antlerless	Bow	Muzzleloader	Total
Barbour	1,413	1,733	678	256	4,080
Brooke	427	560	299	63	1,349
Hancock	357	444	402	100	1,303
Harrison	1,680	1,919	563	241	4,403
Marion	1,489	1,538	670	179	3,876
Marshall	1,339	1,208	449	208	3,204
Monongalia	1,927	1,712	870	195	4,704
Ohio	485	443	222	66	1,216
Preston	2,618	2,832	1,473	323	7,246
Taylor	808	889	375	105	2,177
Tucker	951	702	597	159	2,409
Wetzel	2,210	1,872	525	246	4,853
Dist. I Subtotal	15,704	15,852	7,123	2,141	40,820
Berkeley	855	775	465	91	2,186
Grant	1,531	1,116	535	231	3,413
Hampshire	2,153	1,850	400	216	4,619
Hardy	2,046	1,694	479	196	4,415
Jefferson	605	565	385	78	1,633
Mineral	1,383	1,171	378	149	3,081
Morgan	806	793	264	111	1,974
Pendleton	1,416	979	413	164	2,972
Dist. II Subtotal	10,795	8,943	3,319	1,236	24,293
Braxton	1,731	1,556	736	541	4,564
Clay	540	44	329	7	920
Lewis	2,027	2,132	588	399	5,146
Nicholas	1,082	179	864	33	2,158
Pocahontas	1,223	81	396	19	1,719
Randolph	2,126	292	1,286	36	3,740
Upshur	1,536	1,485	710	233	3,964
Webster	887	134	650	9	1,680
Dist. III Subtotal	11,152	5,903	5,559	1,277	23,891
Fayette	905	856	723	181	2,665
Greenbrier	1,925	1,273	777	216	4,191
McDowell	0	0	739	0	739
Mercer	537	441	575	78	1,631
Monroe	1,431	1,487	641	189	3,748
Raleigh	577	296	664	91	1,628
Summers	932	1,039	620	167	2,758
Wyoming	0	0	747	0	747
Dist. IV Subtotal	6,307	5,392	5,486	922	18,107
Boone	577	25	381	21	1,004
Cabell	787	627	444	93	1,951
Kanawha	1,259	718	919	119	3,015
Lincoln	983	60	428	38	1,509
Logan	0	0	714	0	714
Mason	1,892	2,390	861	321	5,464
Mingo	0	0	343	0	343
Putnam	1,311	1,382	611	160	3,464
Wayne	768	313	366	73	1,520
Dist. V Subtotal	7,577	5,515	5,067	825	18,984
Calhoun	1,252	918	384	165	2,719
Doddridge	1,605	1,113	278	180	3,176
Gilmer	1,585	1,447	420	271	3,723
Jackson	1,948	2,104	751	285	5,088
Pleasants	630	461	139	54	1,284
Ritchie	2,369	2,087	601	301	5,358
Roane	2,010	1,587	661	277	4,535
Tyler	1,590	1,566	421	202	3,779
Wirt	1,186	1,225	433	210	3,054
Wood	1,655	2,108	766	263	4,792
Dist. VI Subtotal	15,830	14,616	4,854	2,208	37,508
State Total	67,365	56,221	31,408	8,609	163,603

Table 9. West Virginia 2008 deer kill per square mile of habitat by season (calculated using deer habitat open by county for season, all season kill based on total deer harvest).

County	Area	Buck Gun	Antlerless	Muzzleloader	Archery	Total
Barbour	324	4.36	5.35	0.79	2.09	12.59
Brooke	76	5.62	7.37	0.83	3.93	17.75
Hancock	61	5.85	7.28	1.64	6.59	21.36
Harrison	390	4.31	4.92	0.62	1.44	11.29
Marion	273	5.45	5.63	0.66	2.45	14.20
Marshall	270	4.96	4.47	0.77	1.66	11.87
Monongalia	312	6.18	5.49	0.63	2.79	15.08
Ohio	83	5.84	5.34	0.80	2.67	14.65
Preston	612	4.28	4.63	0.53	2.41	11.84
Taylor	157	5.15	5.66	0.67	2.39	13.87
Tucker	412	2.31	1.70	0.39	1.45	5.85
Wetzel	353	6.26	5.30	0.70	1.49	13.75
Dist. I Subtotal	3,323	4.73	4.77	0.64	2.14	12.28
Berkeley	294	2.91	2.64	0.31	1.58	7.44
Grant	474	3.23	2.35	0.49	1.13	7.20
Hampshire	621	3.47	2.98	0.35	0.64	7.44
Hardy	567	3.61	2.99	0.35	0.84	7.79
Jefferson	192	3.15	2.94	0.41	2.01	8.51
Mineral	318	4.35	3.68	0.47	1.19	9.69
Morgan	222	3.63	3.57	0.50	1.19	8.89
Pendleton	689	2.06	1.42	0.24	0.60	4.31
Dist. II Subtotal	3,377	3.20	2.65	0.37	0.98	7.19
Braxton	499	3.47	3.12	1.08	1.47	9.15
Clay	336	1.61	0.00	0.02	0.98	2.74
Lewis	381	5.32	5.60	1.05	1.54	13.51
Nicholas	616	1.76	0.00	0.05	1.40	3.50
Pocahontas	930	1.32	0.00	0.02	0.43	1.85
Randolph	1,015	2.09	0.00	0.04	1.27	3.68
Upshur	340	4.52	4.37	0.69	2.09	11.66
Webster	544	1.63	0.00	0.02	1.19	3.09
Dist. III Subtotal	4,661	2.39	4.84	0.27	1.19	5.13
Fayette	594	1.52	2.79	0.30	1.22	4.49
Greenbrier	986	1.95	3.36	0.22	0.79	4.25
McDowell	486	0.00	0.00	0.00	1.52	1.52
Mercer	367	1.46	4.01	0.21	1.57	4.44
Monroe	466	3.07	3.43	0.41	1.38	8.04
Raleigh	548	1.05	1.76	0.17	1.21	2.97
Summers	344	2.71	3.02	0.49	1.80	8.02
Wyoming	495	0.00	0.00	0.00	1.51	1.51
Dist. IV Subtotal	4,286	1.47	3.10	0.22	1.28	4.22
Boone	490	1.18	0.00	0.04	0.78	2.05
Cabell	247	3.19	2.54	0.38	1.80	7.90
Kanawha	804	1.57	2.76	0.15	1.14	3.75
Lincoln	424	2.32	0.00	0.09	1.01	3.56
Logan	444	0.00	0.00	0.00	1.61	1.61
Mason	407	4.65	5.87	0.79	2.12	13.43
Mingo	403	0.00	0.00	0.00	0.85	0.85
Putnam	331	3.96	4.18	0.48	1.85	10.47
Wayne	499	1.54	1.46	0.15	0.73	3.05
Dist. V Subtotal	4,049	1.87	3.78	0.20	1.25	4.69
Calhoun	277	4.52	3.31	0.60	1.39	9.82
Doddridge	310	5.18	3.59	0.58	0.90	10.25
Gilmer	333	4.76	4.35	0.81	1.26	11.18
Jackson	452	4.31	4.65	0.63	1.66	11.26
Pleasants	119	5.29	3.87	0.45	1.17	10.79
Ritchie	439	5.40	4.75	0.69	1.37	12.21
Roane	476	4.22	3.33	0.58	1.39	9.53
Tyler	246	6.46	6.37	0.82	1.71	15.36
Wirt	232	5.11	5.28	0.91	1.87	13.16
Wood	309	5.36	6.82	0.85	2.48	15.51
Dist. VI Subtotal	3,193	4.96	4.58	0.69	1.52	11.75
State Total	22,889	2.94	3.93	0.38	1.37	7.15

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