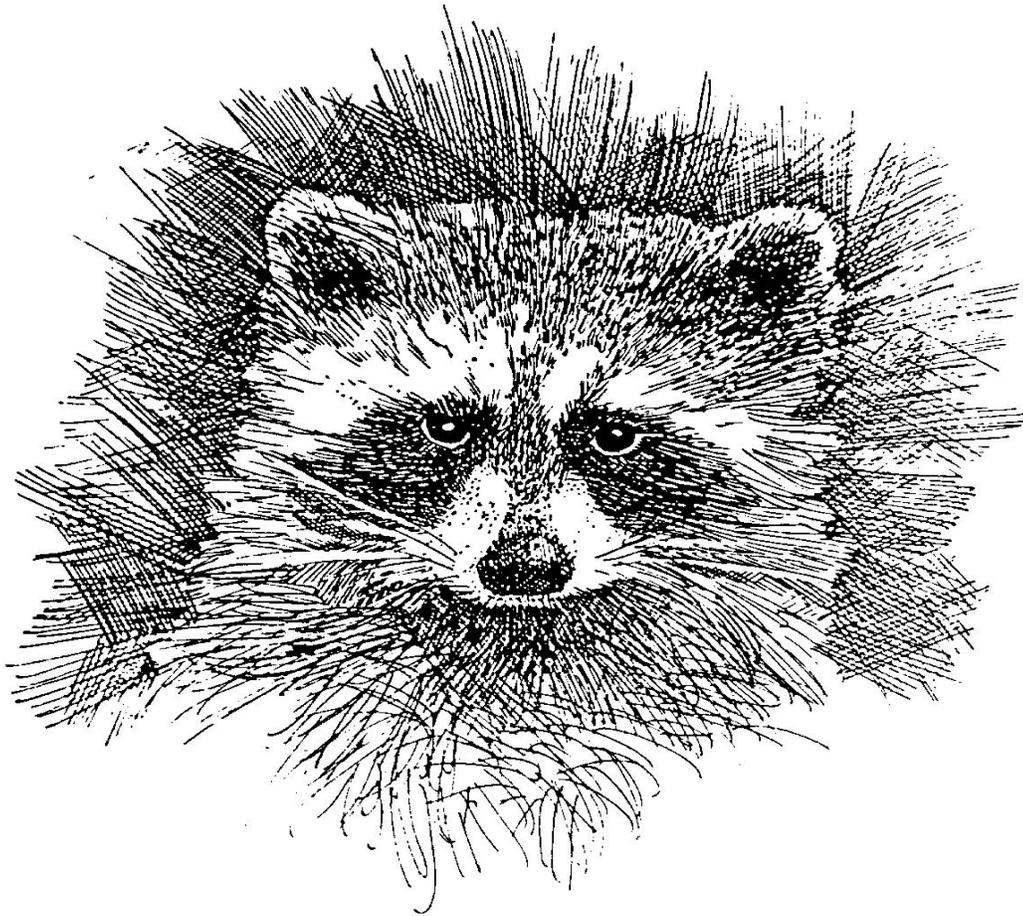


2007 WEST VIRGINIA MAST SURVEY AND HUNTING OUTLOOK



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Wildlife Resources Bulletin Number 07-4

WEST VIRGINIA DIVISION
OF NATURAL RESOURCES
WILDLIFE RESOURCES SECTION



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2007 MAST SURVEY

Jim Evans, Randy Tucker, William Igo, and Eric Richmond

The Division of Natural Resources (DNR) in cooperation with the Division of Forestry annually surveys the State to determine mast abundance of important trees and shrubs. Information on the quantity of wildlife food is provided to our cooperators, our hunters, and the news media.

Three hundred twenty six locations, covering all regions of West Virginia, were surveyed in 2007. Wildlife managers, foresters, wildlife biologists, retired wildlife managers and biologists, several conservation officers, one Natural Resources Commissioner, and a few selected other cooperators devoted their time to collect data. The survey would not be possible without the input of the above people. We sincerely thank everyone, and we extend our special thanks to retired persons and sportsmen that gave their time and effort without any monetary compensation. We seriously doubt that we could maintain good coverage of the state without their help and without the extra effort of those that conduct multiple surveys.

Many wildlife species are highly dependent on mast produced by our trees and shrubs. The amount of energy produced from mast is more important for survival of many wildlife species than forage from agriculture crops and herbaceous plants. Seeds and fruits from trees and shrubs are necessary for not only overwinter survival but also to assure wildlife is in good physical condition to reproduce. Because of the importance of mast conditions, biologists and wildlife managers are able to forecast black bear, squirrel, white-tailed deer, wild boar, and wild turkey population changes and harvests.

Compared to the 2006 survey, the majority of mast species declined considerably (Table 1). Only four species (chestnut oak, black cherry, grape, and sassafras) reported higher indices than those reported in 2006. The most noticeable decline occurred in soft mast species (apple down 70%, blackberry down 64%, and crabapple down 60%). The most appreciable increase occurred for black cherry (69%) and grape (35%). This year marks the second year of decline for several mast species.

Scrub, red, black, and scarlet oak (Table 1) were down slightly for the second consecutive year. In contrast from last year, black cherry had the greatest increase in abundance for any species. Unfortunately, beech, walnut, hickory, and white oak declined from the increase observed in 2006.

Compared to the 37-year average, the 2007 mast index for all species combined decreased substantially (Fig. 1). The dramatic drop was noticed for hard and soft mast species. Ten of the 18 species monitored decline 20% or more. Many observers reported that mast abundance was spotty throughout the regions. Only one species (chestnut oak) increased more than 20% statewide.

Indices for beech, walnut, and hickory were well below the 37-year average (Fig. 2). There was no appreciable difference in black/red oak index (up 1% from the 37-year average). Chestnut oak and scarlet oak indices were considerably higher (25% and 18%, respectively) than the 37-year average. Except for grape and black cherry, all soft mast species were below the 37-year average.

Although the decline in oak species was considerable from 2006, the index of all oaks combined remained above the 37-year average (Fig. 3). For the second consecutive year, all oak mast was good, but the white oak group fared better (Table 2). Black and red oak species essentially stayed the same, while scarlet oak increased considerably. Because of the irregular patterns of abundance we should be cautious when comparing these indices. Nevertheless, good acorn production is important because they are the most valuable mast species in West Virginia.

Although the largest gain in abundance from 2006 was reported for cherry, it was only 1% above the 37-year average. The increase in black cherry abundance observed from last year is significant because of its importance for grouse and turkeys. Yellow-poplar production is down considerably from last fall at 32% below the 37-year average.

The production of soft mast in our understory trees and shrubs were consistently lower than last year and the 37-year average. Compared to 2006, indices were higher for grape and sassafras, while blackberry, dogwood, greenbrier, and hawthorn decreased. Except for grape, all understory soft mast species declined well below the 37-year average.

As a rule higher mast indices were noted at lower elevations (<2500 ft.) statewide. Only chestnut oak, black/red oak, and scarlet oak had higher indices at higher elevations but again were spotty in occurrence.

When we started the mast survey in 1970, our main purpose was to use it to forecast squirrel populations and hunting outlook. Current mast conditions impact overwinter survival and reproductive success of many wildlife species. White oak and chestnut oak acorns will provide a staple food source for squirrels and compensate for the decrease in hickory nut production.

It is recommended that hunters review the regional trends in mast as shown in Tables 3 and 4 to learn of food conditions in their region of the state. There are always some regional differences. Readers not familiar with our regions should refer to Figure 4 to determine the ecological region where they hunt.

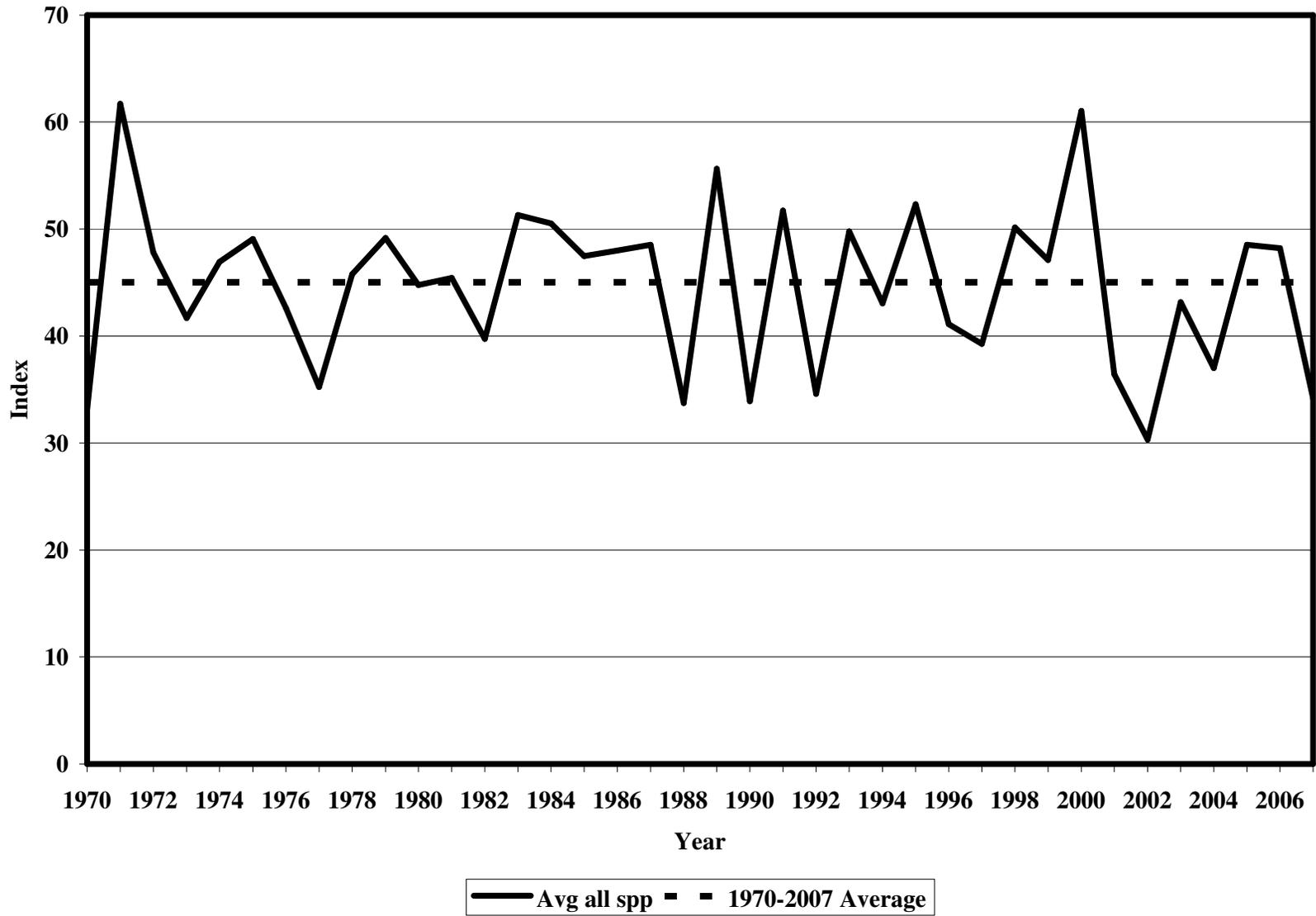


Figure 1. Indices of all mast species combined, 1970-2007.

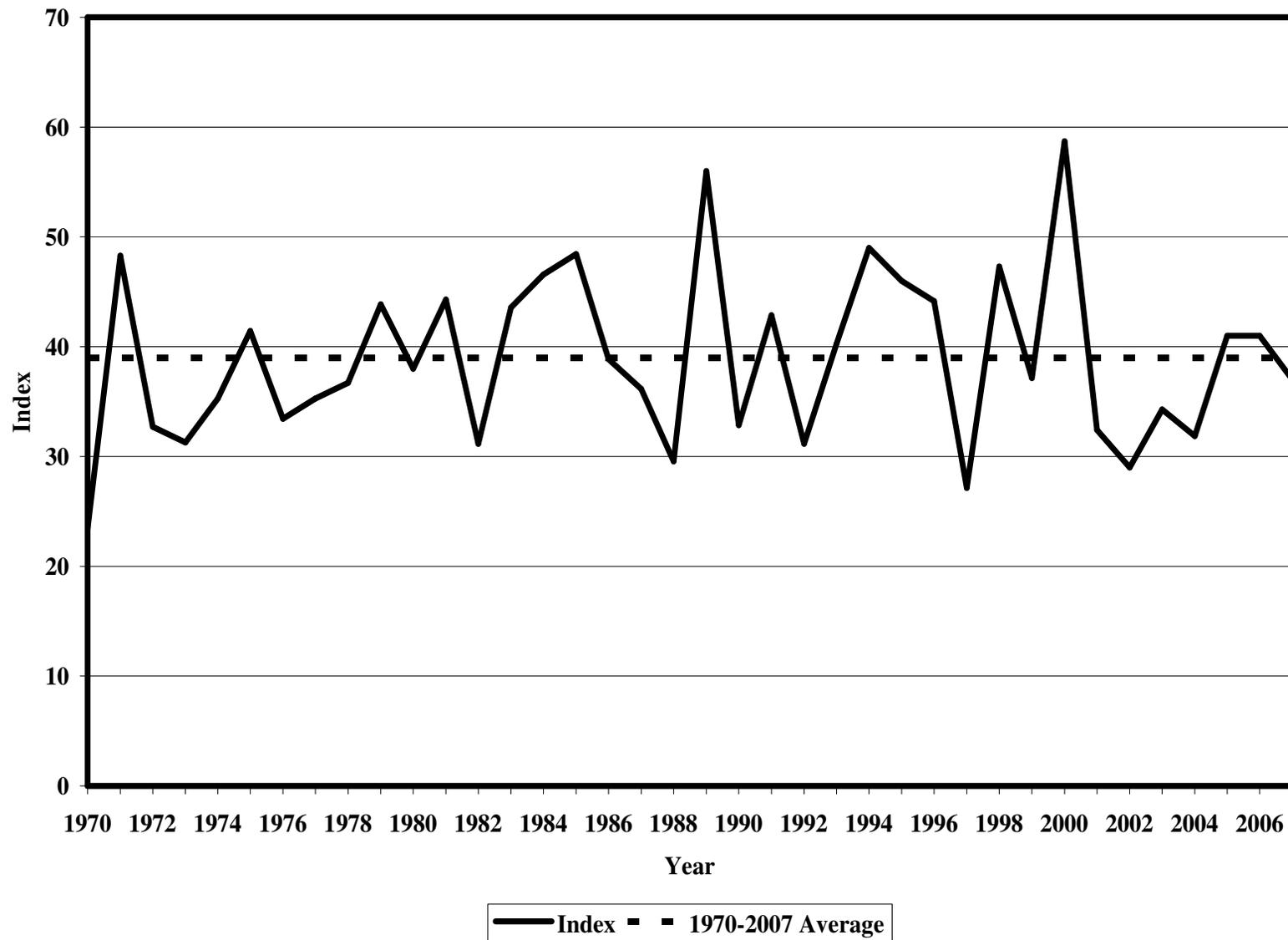


Figure 2. Indices of beech, hickory, oaks, and black cherry, 1970-2007.

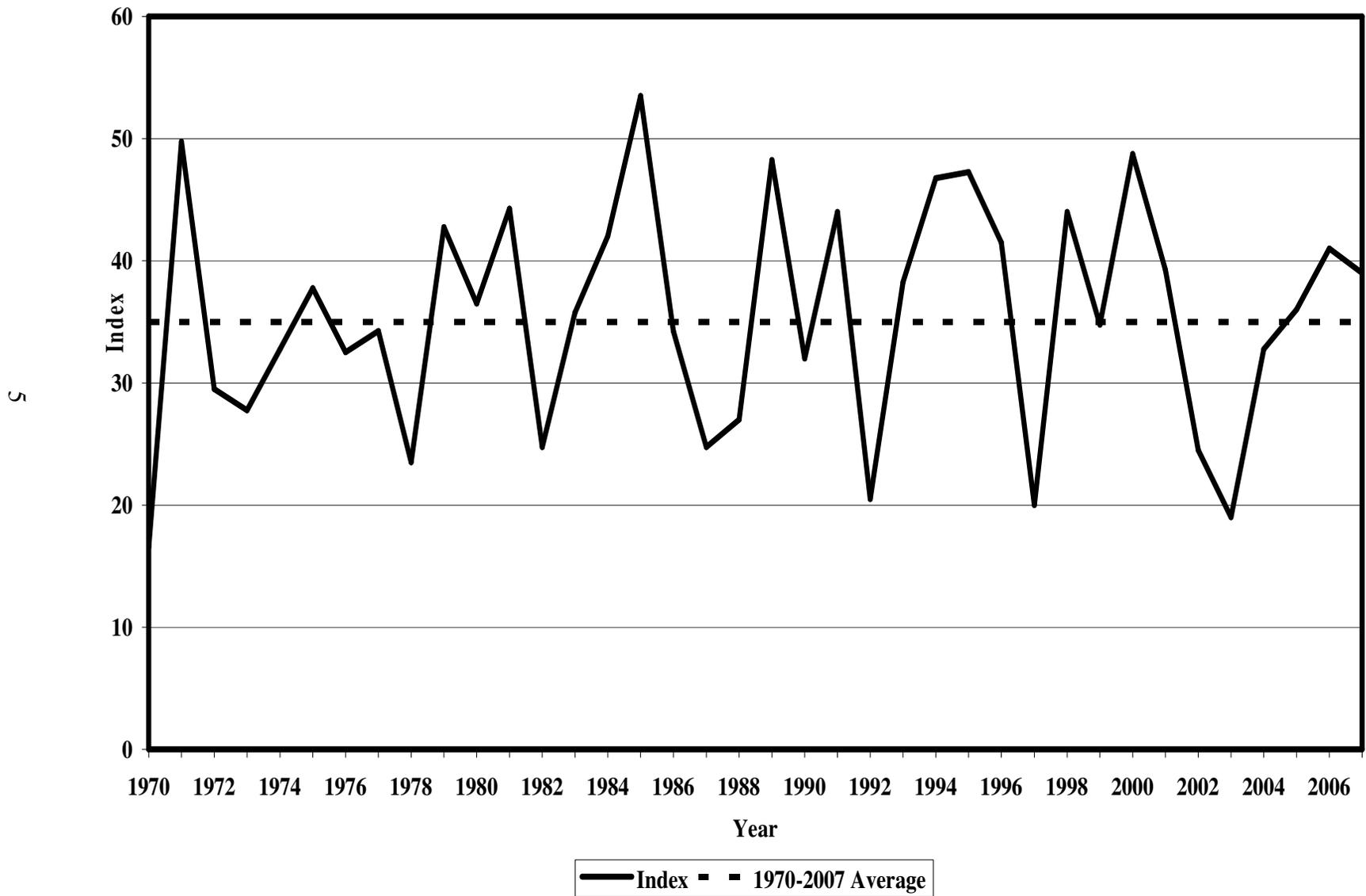


Figure 3. Index of oaks, 1970-2007.

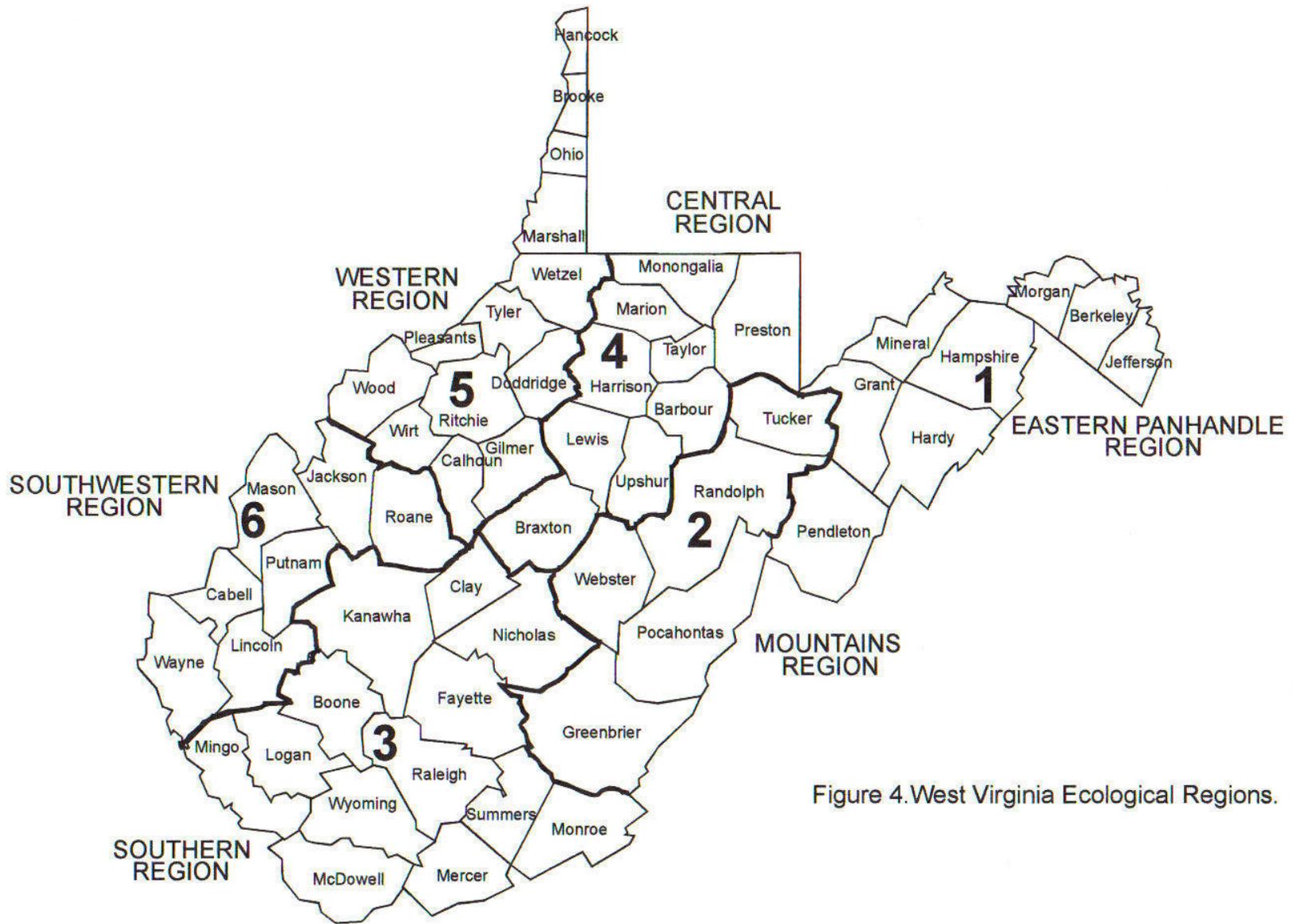


Figure 4. West Virginia Ecological Regions.

REGION 1 (EASTERN PANHANDLE)

Mast conditions in 2007 are down considerably from 2006 values for almost all mast species surveyed except hickory, chestnut oak, black cherry, scrub oak, grape, greenbrier, and sassafras. However, most of the hard mast species are well above the 37-year average with the exception of walnut which is down 30%. All oak species are above the 37-year average and the Eastern Panhandle has the best hickory in the state this year.

Mast from most understory trees and shrubs decreased 14% to 49% from last year. Hunters should note the large decrease in crabapple and apple this year. Of the understory shrubs and trees only hawthorne and greenbrier are above the 37-year average. Wild grape is 50% above the 37-year average and should be well used by turkey and grouse this year.

While mast production was somewhat lower than last year, acorn prevalence was well above the 37-year average. Black cherry was up considerably from last year and about average for the long term.

At lower elevations, most species produced more mast than at higher elevations for this region with the exceptions of the red and black oaks which were about the same. There was no noticeable difference in hickory and walnut crops but oaks seem to fair better at higher elevations. Soft mast was about the same at all elevations.

Look for good numbers of squirrels in this region next season.

REGION 2 (MOUNTAINS)

Every mast species, except chestnut oak, is below the 37-year average in this region. The beechnut crop in the Mountains is down from last year and below the long term average. Compared to last year, most of the oaks were down this year except for chestnut oak and red oak. Chestnut oak was the big winner for the Mountains with a mast index up 40% from last year. This will undoubtedly help compensate for the below average white oak production. Walnut and hickory were also below the 37-year average and last year's indices. Black cherry production declined (down 61%) again this year from a good crop two years ago.

Production of trees and shrubs in the understory were all below the 37-year average. Only sassafras produced better than last year. Grape was about the same as last year and well below the long term average.

Hard mast conditions at higher elevations were better than the overall level for the Mountains. Beech was a little better at higher elevations while hickories and walnut were about the same. Red oak, scarlet oak, and chestnut oak acorns were found in greater numbers at higher elevations. Black cherry production appeared better at lower elevations.

Based on mast conditions, squirrel populations should be lower in this region next year. Mast from chestnut oak will help compensate the decline in white, red, black, and scarlet oak.

REGION 3 (SOUTHERN)

Compared to last year, mast production in the Southern Region is down for all species except black cherry. Only chestnut oak and black cherry are above the 37-year average indices. There are big declines this year in production of beech, hickory, white oak, and scarlet oak. Black and red oak production is down 10% on both the long term average and when compared to last year. Walnut is down 39% from last year and slightly down from the long term average.

Understory trees and shrubs mast production for the Southern Region are much lower than last year. These declines come after a two year increase in mast production of these species. There is also a big decrease in apple and crabapple production with these two species down 71% and 72%. Blackberry production in this region is down 78% from the 37-year average and 85% when compared to last year. Apple and crabapple production were better at lower elevations.

Beech, walnut, and black cherry are better at lower elevations in this region while hickory, white oak, chestnut oak, scarlet oak, black oak, and red oak production is about the same at all elevations. Mast production in our understory trees and shrubs were essentially the same at high and low elevations. Blackberry production was poor at all elevations and probably resulted in a lot of human and bear encounters this summer as bears roamed to find non-traditional food sources.

REGION 4 (CENTRAL COUNTIES)

Beech, walnut, and hickory production are all down from the 37-year average. However, white oak and chestnut oak produced much better this year when compared to last year and are well above the 37-year average for these species. Black oak and red oak have less acorns this year than last, while scarlet oak acorn production is well above the long term average. Black cherry 'hit' well in the Central Region and is 13% above the 37-year average. And on the negative side yellow-poplar showed a significant decline in 'tulip' production.

Understory trees and shrub species generally followed the same trend as the rest of the state with rather poor production. Hawthorne, dogwood, blackberry, and greenbrier produced less than the 37-year average. Hunters should remember that grape production for 2007 is up 147% over last year. Both crabapple and apple are down about 50% from last year.

Beech, walnut, and hickory nut production was better at lower elevations than at higher elevations in this region. White oak and scarlet oak acorn production was about the same at all elevations, while red oak and chestnut oak production were better at lower elevations. Black cherry production was better at lower elevations as was sassafras, crabapple, and apple production. Other soft mast species produced about the same at all elevations.

REGION 5 (WESTERN)

Mast conditions in the western part of the state appear to be very good. A decline in beech, walnut, and hickory from 2006 is tempered by above average production in acorns this year. White oak, chestnut oak, black/red oak, and scarlet oak were all above the 37-year long term average production. Black cherry was 19% above the long term average and was a nice comeback from last year's poor production. Like last year, sassafras remained about 31% below average. This region probably has the best hard mast in the state.

Understory trees and shrubs were poorer than last year. Dogwood, blackberry, and greenbrier all declined in production this year. As in the rest of the state crabapple and apple again declined this year. Wild grape production was good in this region and made a nice 91% recovery in the mast index from last year.

Mast production was about the same at most elevations in this region. White, black, and red oaks should be found more abundantly in the higher elevations this year. At lower elevations look for better crops of black cherry, hawthorn, crabapple, apple, and greenbrier.

REGION 6 (SOUTHWESTERN)

The Southwestern Region joins the Southern and Mountains Regions in having a poor mast year. The southern regions are usually consistent mast producers from year to year. Beech, walnut, and hickory nut production is down in the southwest. There is also poor production from the white oak group with white oak and chestnut oak down 31% and 26% respectively from the 37-year average. However, since the white oak group 'hit' last year we would expect the red oak group to have a good year and we see this with black oak, red oak, and scarlet oak all above the long term average. Black cherry did well in this region with a 32% increase over the 37-year average. The main hard mast production in this region is the red oak group.

Understory mast trees and shrubs surveyed produced much poorer mast than last year. Crabapple and apple were down 43% and 39% from last year. Wild grape was 3% poorer than last year but still 37% above the long term average. Look for the grape to be heavily utilized in this region.

As in most of the state, this region produced better mast at lower elevations. Walnut, hickory, white oak, chestnut oak, and black cherry produced better at lower elevations. Scarlet oak produced better on the higher ridges. Dogwood, blackberry, greenbrier, and sassafras also produced better mast at lower elevations. Apple produced better in the valleys but crabapple was about the same at all elevations.

Table 1. 2007 statewide index compared to 2006 mast index.

Species	2006	2007	Percent Difference
Beech	48	25	-47
Walnut	40	28	-29
Hickory	49	33	-33
White Oak	42	34	-19
Chestnut Oak	37	39	5
Black or Red Oak	44	43	-4
Scarlet Oak	40	38	-5
Black Cherry	27	46	69
Grape	33	45	35
Scrub Oak	37	34	-8
Yellow poplar	60	31	-49
Hawthorn	53	35	-33
Crabapple	68	27	-60
Dogwood	58	40	-31
Blackberry	64	23	-64
Greenbrier	40	30	-23
Sassafras	29	30	3
Apple	73	22	-70
Other	74	46	-38

Table 2. 2007 statewide index compared to 37-year average mast index.

Species	37-year Average	2007	Percent Difference
Beech	38	25	-33
Walnut	37	28	-23
Hickory	47	33	-29
White Oak	36	34	-4
Chestnut Oak	31	39	25
Black or Red Oak	42	43	1
Scarlet Oak	32	38	18
Black Cherry	45	46	1
Grape	41	45	10
Scrub Oak	39	34	-14
Yellow poplar	45	31	-32
Hawthorn	48	35	-28
Crabapple	54	27	-50
Dogwood	49	40	-18
Blackberry	54	23	-57
Greenbrier	46	30	-34
Sassafras	41	30	-27
Apple	55	22	-61
Other	67	46	-32

Table 3. Percent difference in mast index by species between 2006 and 2007 by ecological region.

Species	Ecological Region					
	1	2	3	4	5	6
Beech	0	-19	-52	-73	-45	-35
Walnut	-22	-58	-39	-17	-8	-9
Hickory	81	-73	-41	-22	-22	-58
White Oak	-37	-63	-28	90	15	-54
Chestnut Oak	7	40	-17	66	0	-58
Black or Red Oak	-24	37	-10	-25	8	-1
Scarlet Oak	-22	0	-43	47	15	19
Black Cherry	55	-28	5	332	229	8
Grape	61	0	-10	147	91	-3
Scrub Oak	6	-13	-50	0	0	0
Yellow-poplar	-20	-71	-34	-50	-69	-43
Hawthorn	-14	-40	-75	8	-27	-38
Crabapple	-46	-70	-83	-59	-42	-43
Dogwood	-28	-15	-39	-22	-29	-50
Blackberry	-28	-60	-85	-46	-63	0
Greenbrier	63	-45	-25	-23	-29	-38
Sassafras	110	4	-26	1	0	-59
Apple	-49	-95	-79	-59	-61	-39
Other	-36	-51	-42	10	0	-73

Table 4. Percent difference in 2007 mast index by species from average of years (1973-2007) by ecological region.

Species	Ecological Region					
	1	2	3	4	5	6
Beech	0	-31	-44	-52	-29	-13
Walnut	-29	-19	-4	-19	-45	-25
Hickory	26	-58	-25	-35	-36	-51
White Oak	16	-53	-21	14	19	-31
Chestnut Oak	46	21	18	23	38	-26
Black or Red Oak	17	-25	-10	-33	40	15
Scarlet Oak	45	-38	-33	29	102	30
Black Cherry	-3	-61	9	13	19	32
Grape	50	-35	-8	10	19	37
Scrub Oak	-32	-1	-33	-5	0	0
Yellow-poplar	17	-64	-14	-41	-58	-25
Hawthorn	11	-40	-67	-19	12	-13
Crabapple	-27	-69	-72	-53	-12	-36
Dogwood	-21	-9	-26	-16	-5	-31
Blackberry	-29	-60	-78	-41	-47	-53
Greenbrier	34	-44	-31	-37	-25	-44
Sassafras	56	-36	-30	-14	-31	-62
Apple	-39	-93	-71	-49	-55	-9
Other	-23	-50	-40	-19	-11	-74

2007 WEST VIRGINIA HUNTING OUTLOOK

Jim Evans, Randy Tucker, William Igo, and Eric Richmond

Most of the information used for this hunting outlook are observations provided by field personnel of the Wildlife Resources and Law Enforcement Sections of the Division of Natural Resources (DNR), foresters from the Division of Forestry, retired DNR wildlife managers and biologists, and a few other cooperators. These individuals make the publication of our hunting outlook possible. Hunting predictions are also based on current and previous mast conditions from the yearly mast surveys. Mast often dictates survival and reproductive success of many wildlife species the following year. Brood reports of ruffed grouse and wild turkeys are used as major predictors of populations and harvests. Other important information incorporated to judge upcoming harvests and animal numbers include the Spring Gobbler Survey, Bowhunter Survey, Raccoon Field Trial Survey, nuisance complaints, adjustments to bag limits, permit allocations, and hunting season type and length.

Table 1 is a quick check chart of predicted statewide harvests of our major game species for 2007. Harvests of most game species will be higher or similar to the good harvests of 2006. Projected deer kills by season and region are shown in Table 2. Predicted fall wild turkey harvests are illustrated in Table 3. Hunting prospects on a regional basis are provided in Tables 4 through 8. This outlook is designed to forecast general prospects and is not intended to predict hunting conditions at specific locales. Particularly, with the good mast conditions in the northern and western counties and scattered mast conditions in the mountains and southern counties, hunters are encouraged to scout their favorite hunting spots to learn more about food and game conditions.

GRAY AND FOX SQUIRRELS

The factor influencing squirrel numbers more than any other is mast conditions from the previous year. The reason is that food conditions from the previous year have a major impact on overwinter squirrel survival and the number of litters produced by squirrels. Squirrels normally produce a summer litter, but the spring litter is very dependent on overwinter food availability. In 2006 the oak mast index was above normal and hickory and walnut production was good, so forecasters are predicting that **the squirrel population will be definitely higher this fall!**

This is the third year in a row with decent acorns, but hickory nuts are scattered this year. Squirrel populations should be recovering from lows of recent years so look for better overwinter survival and more squirrels in 2008. Walnuts did not produce statewide as well as in previous years. Walnuts are important to overwintering of fox squirrels, but abundant acorns and hickory nuts will keep the “old red squirrels” well fed.

This will be a bumper year in many places for squirrels. Look for good squirrel hunting throughout the northern and western counties, but in the southern and mountain regions limited mast production may cause good squirrel populations to move searching for food, so hunting could be a feast or famine proposition.

Squirrels will be “cutting” hickory nuts early so look for good hunting in the hickory groves if they produced in your area, especially in the Eastern Panhandle Region. Hunters also need to keep in mind that the second litter of squirrels is usually not available until after mid-October so those that hunt later in the season will benefit from the addition of juvenile squirrels to the population.

COTTONTAIL RABBITS

Bunny numbers statewide are like the mast in many areas—very spotty!! Drought conditions along the Ohio River during late spring and early summer adversely affected cottontail numbers. The eastern portions of the State saw good rainfall that resulted in heavy cover and lots of thumpers. Although late summer drought in the southeastern area may lower bunny populations some, **better rabbit hunting should occur as one proceeds east from the Ohio River.**

RACCOONS

This is a repeat of last years forecast—**similar to better hunting is forecast for 2007.** Last year, of 123 outlooks **none** predicted worse hunting. This year out of 114 hunting outlooks received from cooperators, only **one** forecast worse hunting.....and we’re not saying he was wrong! Although ‘coon numbers currently appear strong, poor mast conditions in certain portions of the State (Mountains, Southern and Southwestern Regions) could mean a challenge in those areas.

DEER

Several factors influence the forecasts of West Virginia’s deer harvest for 2007. Evaluations by field personnel, mast crop, and hunting regulation changes can impact the projected harvest. Considering all of these factors, **the total 2007 white-tailed deer harvest should be slightly higher than 2006 harvest levels.** After 4 consecutive years of a lower statewide buck firearms kill, the buck kill increased in 2006. Look for a slightly better harvest this year. The Eastern Panhandle, northern, and western regions had good acorn crops, so deer will be less available in field edges making archery season more challenging; our prognosticators are predicting lower archery harvests in these regions. In the Southern and Mountains Regions mast crops are less abundant and deer will be using the fields making them more vulnerable to hunting. However, the higher deer populations are in the northern and western regions which have the better mast conditions. Several counties have been closed to antlerless hunting or have reduced hunting opportunities and many of these counties are in the southern regions. Hunters should review the 2007-2008 Hunting and Trapping Regulations summary for detailed instructions concerning specific bag limits and season dates.

This year West Virginia has experienced an outbreak of Hemorrhagic Disease of deer. As of this date deer have been found dead in small areas of several counties and the Epizootic Hemorrhagic Disease, virus serotype 2 (EHDV-2), has been isolated from 4 counties. Although this disease usually does not have a major impact on the deer population, we are currently surveying the extent of the disease outbreak in the state. EHDV-2 may cause local reductions in the deer herd of usually 20% or less. The disease disappears with the first frost because the spread of the disease is dependent on small midges called culicoides which are killed by cold temperatures. EHDV-2 does not occur in West Virginia every year. EHDV-2 does not persist in deer that survive infection. Although hunters should never consume an obviously sick deer, EHDV-2 is not a reason for hunters to be concerned about consuming their deer. The disease is not contagious to humans or livestock. EHDV-2 is not related or connected to chronic wasting disease which now occurs in a small portion of Hampshire County.

BLACK BEAR

Predictions for the bruin harvest continue to be pretty accurate (in recent years we forecast a higher harvest for 2005, a new record kill of 1,634 occurred. For 2006 we predicted “harvests to be similar to the high kill last season”...”if either the bow kill or gun kill is slightly higher than 2005, a record Mountain State bruin harvest will occur”.....a record kill of 1,704 occurred). With poor mast conditions causing bears to enter dens early in the Mountains Region, the bastion of gun hunting, **overall harvest will be high, but probably won’t reach the 1,700 mark set last season.** There should be a good gun harvest in the November season in the southern counties and a very high statewide archery harvest, but this may not be enough to make up for the lower December gun kill.

WILD TURKEY

Wild turkey brood counts are currently running about 15% above last year’s production. The early brood season was characterized by a dryer than normal spring and as a result many broods were reported in June and July.

Brood counts are up in all regions of the state. The Western and Mountains Ecological regions have the best brood reports this year.

The traditional fall hunting counties in the Eastern Panhandle and Mountains have increased brood production. In the non-traditional fall counties only Hancock, Brooke, Ohio, Marshall, Monongalia, Wirt, Wood, Jackson, Mason, and Summers counties have a one-week season this fall. Additionally, white oak, chestnut oak, and red oak mast was good in the Eastern Panhandle and western counties and will make fall turkey flocks scattered and more difficult to hunt.

Considering all the information, the harvest likely will be higher than last year. Surveyors are equally split on predicting better hunting or similar hunting for 2007. The traditional fall counties in the mountains still have decent turkey populations and have good

broods this year. The number of non-traditional counties in the west with the one-week season has been expanded this fall and they will likely have decent harvests.

Fourteen traditional fall-hunted counties will be opened to a 4-week split fall season (Oct. 20 – Nov. 17). Preston County will be open Oct. 20 - Nov. 3. Ten counties (Hancock, Brooke, Ohio, Marshall, Monongalia, Wood, Wirt, Jackson, Mason, and Summers) will be open October 20- 27.

Hunters should read the 2007-2008 Hunting and Trapping Regulations Summary, which is available at local license agents and Division of Natural Resources (DNR) offices, to learn more about changes in wild turkey hunting regulations this year. The summary thoroughly explains changes in seasons and regulations.

RUFFED GROUSE

Sometimes the ol' crystal ball fogs a little and we foresee things wrongly. We predicted similar to slightly poorer harvests in 2006—ruffed grouse hunting cooperators recorded 1.2 flushes per hour, a 20% increase from 2005. With brood counts 44% higher than 2006, most cooperators are forecasting **better to similar hunting** for the 2007-2008 hunting period. Poor, spotty soft mast foods should also have birds in many areas concentrated. Hunters should again look for grape arbors that have “hit”, particularly late in the season.

WILD BOAR

Since the December gun season was eliminated in 2003, the boar harvest has been low. The season was eliminated to prevent overharvests and gradually increase the population. Populations have been expected to grow with better acorn production in 2005 and 2006. Scattered mast conditions will make preseason scouting a must for success during the firearm season that will occur October 22 – October 27. The peak leaf fall will cover fresh sign that will be concentrated in areas that did produce acorns. Hunters should harvest a few more pigs in 2007, but **both the archery and firearm harvests for boar is expected to remain low.** Most harvests in 2006 came from near the original wild boar release site at the head of Spruce Laurel Creek in Boone County.

Table 1. 2007 quick check chart of predicted statewide wildlife harvests.

Species	More	Similar	Lower
Gray & Fox Squirrels	X		
Cottontail Rabbits		X	
Ruffed Grouse	X		
Raccoon		X	
White-tailed Deer	X		
Wild Boar		X	
Wild Turkey	X		
Bear		X	

Table 2. 2007 quick check chart of deer harvest forecast by region and season.

Region	Season				
	Bow	Buck	Antlerless	Muzzleloader	Total Kill
1	Lower	Higher	Similar	Similar	Similar
2	Higher	Higher	Higher	Higher	Higher
3	Higher	Higher	Higher	Higher	Higher
4	Slightly Lower	Slightly Higher	Slightly Higher	Slightly Higher	Slightly Higher
5	Slightly Lower	Slightly Higher	Slightly Higher	Slightly Higher	Similar
6	Higher	Higher	Higher	Higher	Higher
Statewide	Slightly Higher	Higher	Higher	Higher	Slightly Higher

Table 3. 2007 quick check chart of wild turkey harvest forecast by region.

Region	Higher	Similar	Lower
1	X		
2	X		
3	X		
4	X		
5		X	
6	X		
Statewide	X		

ECOLOGICAL REGION 1

Table 4. Hunting prospects in Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, and Pendleton counties.

Game Species	2007 Outlook
Gray and Fox Squirrel	<p>This region has the best hickory nut production in the state and with a bumper crop of squirrels overwintering from two good mast years, look for excellent early season hunting in the hickory groves. Mast conditions in 2007 are poorer than last year; however, hard mast production is still considerably above the long term average except for walnut which is down 29% over the 37-year index. All oak mast species are above the long term index so there should be adequate mast to overwinter another good squirrel crop for 2008.</p> <p>Most counties reported better squirrel populations.</p>
Rabbits	<p>Rabbit numbers were up last year and it is predicted to be about the same this year.</p> <p>All counties reported numbers about the same as last year which was a good year for rabbits.</p>
Ruffed Grouse	<p>Soft mast is below average this year in the Eastern Panhandle. Brood reports are a little above average this year for the region. Low elevations appear to have better soft mast production this year. White oak is 16% above the long term index and will be important in overwintering better numbers of grouse. Look for about the same harvest this year in this region.</p>
Raccoon	<p>Surveyors are predicting about the same number of raccoons this year. Raccoons will be feeding on acorns.</p> <p>The best reports came from Mineral and Pendleton counties.</p>

Table 4. (Continued) Hunting prospects in Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, and Pendleton counties.

Game Species	2007 Outlook
Deer	<p>Most surveyors are predicting better deer hunting this year than last; however, good acorn production this year may again reduce bowhunting success by keeping deer out of the fields. Hunting forested areas, particularly oak stands, will be a good bet.</p> <p>Hunters should note that west of North Fork of the South Branch in Pendleton County is open to permit only hunting as is Grant County west of the top of New Creek Mountain. The bag limit of antlerless deer in Grant County west of the top of New Creek Mountain and Pendleton County west of the North Fork River is two, while in the permit hunt zones the bag limit is one. The remaining counties in the region are open to antlerless hunting with a bag limit of 4 on private land. Review the 2007-2008 Hunting and Trapping Regulations for specific details.</p>
Turkey	<p>Brood production in this region is up from 2006 while acorn production remains good. Good mast conditions will again lead to turkeys dispersed over a larger area. Surveyors have noted more turkeys than in 2006. Look for better turkey hunting this fall. Surveyors in Hardy and Pendleton counties were more optimistic about good turkey hunting this fall.</p> <p>All counties in this region except Jefferson are open to fall hunting.</p>
Black Bear	<p>Bear hunting during the archery season will again be more challenging with another good mast year dispersing the bruins. However, good mast may keep bears out of the dens longer giving gun hunters a better chance at bagging a bear.</p> <p>The majority of reporters believe there are more bears this year. Bear prognosticators in Pendleton County were again the most optimistic.</p>

ECOLOGICAL REGION 2

Table 5. Hunting prospects in Greenbrier, Pocahontas, Randolph, Tucker, and Webster counties.

Game Species	2007 Outlook
Gray and Fox Squirrels	<p>Hunters may want to hit the woods hard the first week of the season in this region. Foods are very spotty, and abundant squirrel numbers will have a lot of sites “cut out” early. If foods are still available –hunt the bottoms and creeks in the hickories, especially shagbarks. Acorn crops are almost nonexistent at low elevations. The opposite is true high—what little hickory there is should be cut out by season opening. However acorn crops are better on the ridges and that’s where the bushytails will be. As the year progresses many sites will be “eat out” and squirrels will be on the move and difficult to bag.</p> <p>Pocahontas, Randolph, and Webster have best reports.</p>
Rabbits	<p>Very good spring and early summer rains produced abundant ground vegetation and an abundance of bunnies. However, late drought conditions in Pocahontas and Greenbrier counties could reduce cover and cottontail numbers.</p> <p>Best reports come from Randolph, Tucker, Webster counties.</p>
Ruffed Grouse	<p>Brood counts are currently up more than a third from last year and cooperators predict better to similar hunting. Most soft mast foods have declined from last year, with the exception of grape. Locating grape clumps that have produced should yield some points and action, particularly late in the season.</p> <p>Greenbrier and Webster have the best surveys.</p>
Raccoon	<p>‘Coon numbers remain about the same as last year, but hunting should be more difficult because of poor, spotty food conditions. Masked bandits will be on the move; where you find ‘em one night, there may be nothing the next evening.</p> <p>Like grouse, the best surveys come from Greenbrier and Webster counties.</p>

Table 5. (Continued) Hunting prospects in Greenbrier, Pocahontas, Randolph, Tucker, and Webster counties.

Game Species	2007 Outlook
Deer	<p>Whitetail numbers are up and, with poor acorn crops, deer should be concentrated in and around fields. This should result in a greater deer harvest during both the archery and gun seasons. Since most fields are located at lower elevation, hunting should be best along bottoms.</p> <p><u>All</u> counties in the region have “best” surveys.</p>
Turkey	<p>Brood reports are presently up almost 40% in this mountain region, with good survival of poults. The fall harvest should be higher, particularly in the southern portions, where best surveys come from Greenbrier and Pocahontas counties. Again, food conditions will affect hunters’ success. Many turkeys should be still visiting fields and clearings searching for insects and seeds because of poor acorn production.</p>
Black Bear	<p>High rodent populations (squirrels, chipmunks, mice), which have resulted from previous good acorn and hickory nut production, should have most foods consumed by mid-October or early November. Without adequate food supplies, bears tend to go into den early. This results in a low gun harvest, but a good archery kill.</p> <p>Surveyor reports were quite mixed on forecasts, but the only “best” survey comes from Randolph County.</p>

ECOLOGICAL REGIONS 3 and 6

Table 6. Hunting prospects in Boone, Cabell, Clay, Fayette, Jackson, Kanawha, Lincoln, Logan, Mason, Mercer, Mingo, Monroe, McDowell, Nicholas, Putnam, Raleigh, Roane, Summers, Wayne, and Wyoming counties.

Game Species	2007 Outlook
Gray and Fox Squirrels	Cooperators forecast even better hunting than last year. Beech and hickory crops are significantly lower than the average and acorn production is widely scattered. Scouting to find red oak acorns will certainly aid in filling bag limits throughout the entire season.
Rabbits	Early reports of high bunny numbers were encouraging; however, drought conditions have reduced cover and reducing these high numbers. Surveyors still predict similar to better hunting throughout these regions.
Ruffed Grouse	Brood reports in these regions increased 175%. The sample size is low but the increase is BIG! Predictions of similar to better hunting is expected. Soft mast production is down (except for grapes) making this difficult terrain even more challenging, but the birds are there.
Raccoon	Almost all field personnel are predicting a better 'coon season. Consecutive high mast crops from 2005 and 2006 will have the "masked bandit" available in high numbers. Red and scarlet oaks produced the best in these regions with no significant difference between higher and lower elevations.
Deer	Good mast, mild winters, and conservative deer regulations in recent years have whitetail up in numbers throughout these regions. One surveyor states "Scouting will be very important this fall to find pockets of trees producing mast." Hunters are reminded to review the 2007-2008 hunting and Trapping Regulations summary for details on seasons in specific counties.

Table 6. (Continued) Hunting prospects in Boone, Cabell, Clay, Fayette, Jackson, Kanawha, Lincoln, Logan, Mason, Mercer, Mingo, Monroe, McDowell, Nicholas, Putnam, Raleigh, Roane, Summers, Wayne, and Wyoming counties.

Game Species	2007 Outlook
Turkey	<p>Brood counts were up 44% through July in the southern portions of these regions. Mason, Jackson, and Summers counties qualified for a one week fall season running October 20- 27. The traditional 4-week season (October 20-November 17) will occur in Monroe and Nicholas counties. Surveyors predict a better harvest in 2007.</p>
Black Bear	<p>As the bruins continue to expand their range and grow in numbers, predictions of a better harvest is obvious. Spotty hard mast conditions will aid in an increase in the archery and early gun harvests in Boone, Fayette, Kanawha, and Raleigh counties. Consult the 2007-2008 Hunting and Trapping Regulations for details.</p>
Wild Boar	<p>The hog harvest will again remain low but should experience a slight increase. Good mast conditions last year have aided in the production of more pigs into the population.</p> <p>Pre-season scouting will be even more important as pigs will be concentrated due to spotty mast conditions of this year. Hunters who find boar activity and mast before the leaf fall will greatly enhance their level of success when the gun season arrives on October 22.</p>

ECOLOGICAL REGION 4

Table 7. Hunting prospects in Barbour, Braxton, Harrison, Lewis, Marion, Monongalia, Preston, Taylor, and Upshur counties.

Game Species	2007 Outlook
Gray and Fox Squirrels	<p>Squirrels populations in this region are higher than last year. Look for hickory to be “cut out” before the opening of season. Squirrels will disperse to more abundant scarlet and chestnut oak.</p> <p>Best reports come from Braxton, Taylor, and Upshur counties.</p>
Rabbits	<p>Cottontail numbers are higher than last year. September rains will help maintain good cover and the bunny numbers.</p> <p>Best reports come from Barbour, Braxton, and Lewis counties.</p>
Ruffed Grouse	<p>Brood production is up in this region and similar to better hunting is predicted. Grapes were the most productive soft mast in this region along with hawthorn. Birds may be concentrated in the areas where these species are abundant.</p>
Raccoon	<p>The outlook for ringtails is promising for all counties in this region. Forecasts in Lewis and Preston are particularly good. Hunters can expect to get strikes at any location as food sources are evenly distributed.</p>

Table 7. (Continued) Hunting prospects in Barbour, Braxton, Harrison, Lewis, Marion, Monongalia, Preston, Taylor, and Upshur counties.

Game Species	2007 Outlook
Deer	<p>The deer harvest is predicted to be above that of 2006. Early season archers are advised to hunt deer around white oaks.</p> <p>Refer to 2007-2008 Hunting & Trapping Regulations for specific regulations on antlerless deer hunting opportunities.</p>
Turkey	<p>The turkey population is higher this year due to a good brood season. Counties in this region open to a fall season include Monongalia with a one week season (October 20-October 27) and Preston's two week season (October 20-November 3). Beech mast appears to be a failure so hunters should concentrate around black cherry and oaks.</p>
Black Bear	<p>Bear numbers continue to increase as the state animal expands its range.</p> <p>Braxton, Lewis, Marion, Monongalia, Upshur, and the western portion of Barbour County have a 4-week gun season without the use of dogs. Preston has a 4-week season where the use of dogs is permitted.</p>

ECOLOGICAL REGION 5

Table 8. Hunting prospects in Brooke, Calhoun, Doddridge, Gilmer, Hancock, Marshall, Ohio, Pleasants, Ritchie, Tyler, Wetzel, Wirt, and Wood counties.

Game Species	2007 Outlook
Gray and Fox Squirrels	Abundant mast conditions over the last two years has helped produce and overwinter bushytails. Reports indicate a “best” hunting situation for most counties in this region. Hunters should look in the oaks for shaky limbs as the hickory that produced should be “cut out” before season opening.
Rabbits	Cottontail numbers and the expected harvest should rival that of 2006. Best reports come from Ritchie, Hancock, Roane, and Wetzel counties.
Ruffed Grouse	Brood production is up 112% from that of last year. Grape and hawthorn production is above average for this region with best soft mast conditions occurring in the lower elevations.
Raccoon	Similar to better hunting in 2007 is predicted in all counties of this region. Like last year, acorn production is slightly better at higher elevations. When the soft mast is diminished down low, go high for late season success.

Table 8. (Continued) Hunting prospects in Brooke, Calhoun, Doddridge, Gilmer, Hancock, Marshall, Ohio, Pleasants, Ritchie, Tyler, Wetzel, Wirt, and Wood counties.

Game Species	2007 Outlook
Deer	<p>The overall deer harvest is predicted to be similar to better than that of 2006. Good mast conditions throughout the region means deer will be widely dispersed. Liberal antlerless regulations remain in place for many of these counties. Consult the 2007-2008 Hunting & Trapping Regulation for further details.</p> <p>Surveyors report “better than normal antler development.”</p>
Turkey	<p>Brood production is up 20% from last year and these flocks will be dispersed throughout the range creating a similar hunting condition to 2006. Brooke, Hancock, Marshall, Ohio, Wirt, and Wood counties will be open to a week long (October 20-27) fall season.</p>
Black Bear	<p>Reports indicate bears are occupying more of the range in this region. Available food supplies will have the bears dispersed, but look for the harvest to rise as the population grows.</p> <p>Archery season runs October 13 thru November 17. This region remains closed to a gun season.</p>

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**Mast
Survey**

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Bulletin 07-04



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