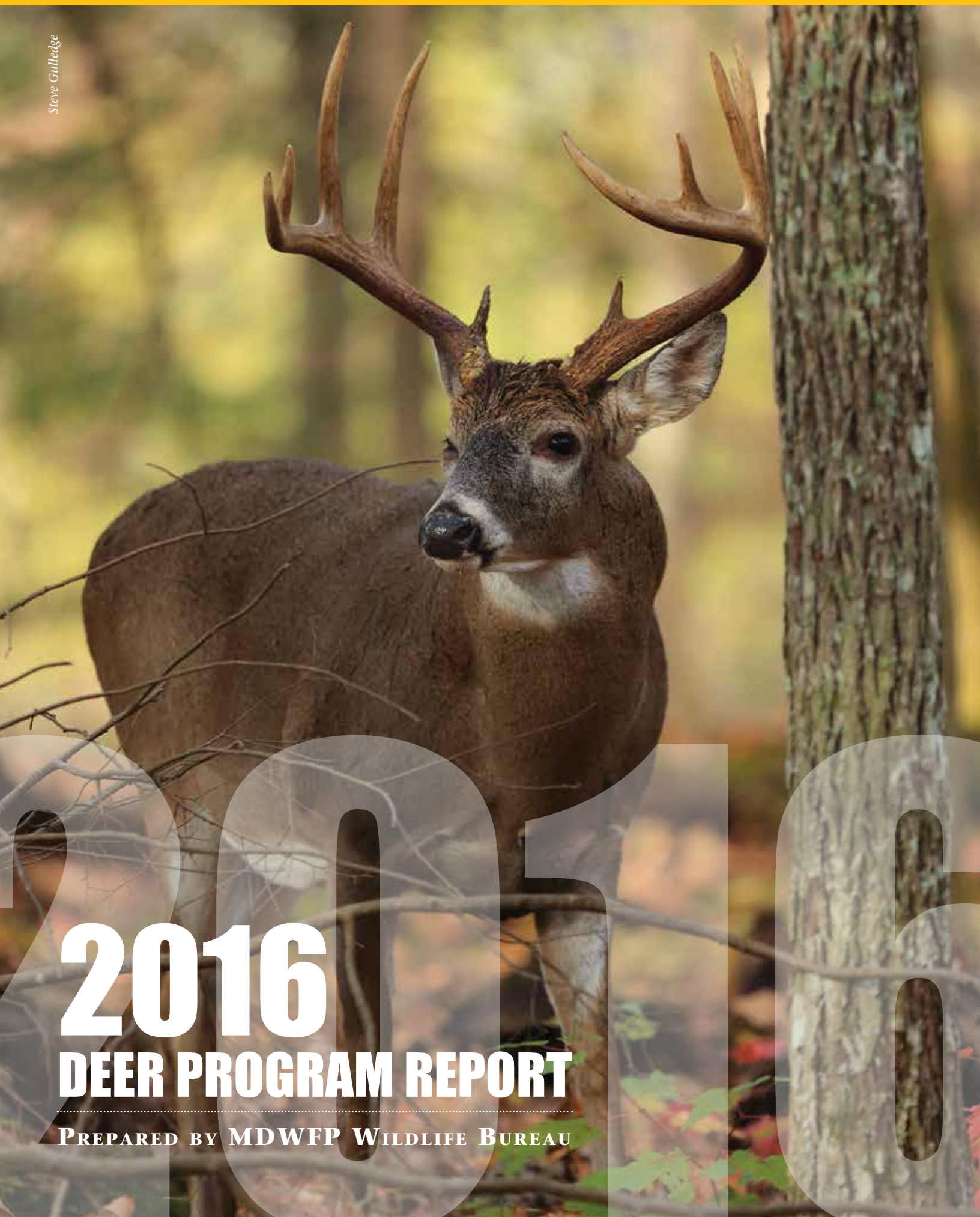
MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES, AND PARKS



Steve Gulledge

2016
DEER PROGRAM REPORT

PREPARED BY MDWFP WILDLIFE BUREAU

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Paul Brown

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Acknowledgements

Numerous people are responsible for the information presented in this report. The vision and work of Mississippi Game and Fish Commission patriarchs like Fannye Cook and Bill Turcotte initiated plans in the 1930s that ultimately provided Mississippi Sportsmen with the deer population we enjoy today.

Leaf River Refuge Manager Quinton Breland, Upper Sardis Refuge Manager Garald Mize and other dedicated Commission employees protected, trapped, and relocated hundreds of deer throughout the state during the days of Mississippi's deer restoration. In addition, game wardens of the deer restoration era protected a growing deer population through the early period of wildlife conservation. During this time in the history of Mississippi's Wildlife Management Agency, game wardens provided their own gun and vehicle. Mobile communication with other officers was little more than a futuristic dream. Wildlife enforcement, or the game warden that interfered with the "jacklighting" of deer and illegal harvest of game, was not a welcome sight to some hunters at that time. Refuge managers and game wardens of the restoration era are pioneers of the deer population restoration success of today.

Today the conservation officer is considered differently. Most men and women who enjoy the bountiful wildlife that exist today regard the conservation officer as a partner in wildlife conservation. As those who are responsible for the deer populations we treasure are remembered, the conservation officers of today should not be forgotten.

The Mississippi Legislature is also to be thanked for their historic and sustained funding of this agency. Since the establishment of the Game and Fish Commission in the days of the Great Depression, the Mississippi Legislature has funded efforts necessary for the wildlife conservation success story of the white-tailed deer.

The Commission on Wildlife, Fisheries, and Parks and the Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) Executive Committee is to be commended for the foresight and vision to allow the Wildlife Bureau the ability to assemble a team of dedicated biologists.

Mississippi landowners have made deer in the Magnolia State a reality. Without landowner desire to have deer, most agency efforts would have proved ineffective. Those of us who hunt, study, or admire the white-tailed deer truly thank you.

This report would not have been possible without the efforts and cooperation of the MDWFP Wildlife Bureau technical staff and field personnel. An extra-special appreciation is extended to Linda Taylor for assistance with many aspects of producing and mailing this report and to Brian Byrd who was responsible for the report layout and design. A special thanks to Rick Dillard who coordinates the Magnolia Records Program on his own time. Also, a special thanks to Ashley Gary and to all the other biologists who had a part in developing this report. Finally, a very special thank you to Jason Price for assistance with generating reports and the development of the XNet analysis program.

Additionally, Mississippi's deer hunters deserve special recognition. Your data collection efforts, concern, and support for white-tailed deer are vital to the success of the White-tailed Deer Program.

Look for this information on www.mdwfp.com/deer. If you have any questions, feel free to contact us.

FEDERAL AID IN WILDLIFE RESTORATION

A PITTMAN-ROBERTSON FUNDED PROJECT

This report is produced by the Technical Guidance Project, Statewide Wildlife Development Project and Statewide Wildlife Investigations Project and is primarily funded by Federal Aid in Wildlife Restoration.

The first Deer Management Assistance Program (DMAP) report was completed in 1982. The DMAP report evolved into the Mississippi Deer Program Report in 1992. Since its inception, the purpose of this report was to consolidate all deer-related information obtained by the Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) personnel. Compilation of these data provides managers the opportunity to analyze trends in deer harvest and physiological condition. In the future, managers will have a chronicled reference to more effectively critique effects of changes in season framework, hunter success, and climatic conditions on the deer population.

Decision makers such as the Mississippi Legislature and the Mississippi Commission on Wildlife, Fisheries, and Parks have served the sportsmen of the state well. Deer harvest and management opportunities exist today that were considered far-fetched thirty years ago.

Deer hunting regulations are subject to change each year and often do. However, this year's regulations did not change significantly from 2014–2015.

Annual surveys are used to monitor trends in hunter harvest and effort in Mississippi. This year the survey format remained unchanged from the 2014–2015 hunting season. The current harvest survey was conducted by Responsive Management in a phone survey format. This method provided harvest estimates much earlier than the previous surveys. Hopefully, MDWFP can continue to use more progressive survey methods to acquire harvest estimates much sooner.

The MDWFP began using a computer summary program (XtraNet) to enter and analyze all DMAP and WMA data in 2004–2005. Data from 2001–2015 was analyzed using XtraNet, while data prior to 2001 was analyzed using DeerTrax. This may be the cause for differences in some numbers between 2000 and 2001. Statewide compiled DMAP summary tables and graphs include harvest reports from WMAs that collect deer harvest data. Soil region summary tables only include data from private lands on DMAP to give managers a better representation of expectations for their property.

Sample methods were unchanged for the following data sets:

- Hunter effort and harvest information collected on state-operated WMAs
- Employee observations of deer mortality due to motor vehicle collisions
- Enforcement Bureau monitoring of deer hunting-related citations
- CWD monitoring and data collection
- Deer research projects conducted in cooperation with Mississippi State University Forest and Wildlife Research Center

Department wildlife biologists continued to inform and educate sportsmen relative to deer management needs and issues. Our goals are to provide insight into current deer management needs while providing the leadership to identify and guide future issues. In addition, public presentations were made to hunting, civic, and conservation groups throughout the state. This report captures a portion of the informational and educational efforts.

Wildlife Management Areas 2015–2016

A summary of Wildlife Management Area (WMA) deer harvest and hunter activity is presented in **Figure 1**. The majority of data was collected from self-service permit stations located on each WMA. Mandatory deer check-in and harvest reporting is required from all hunters on most WMAs. The data collected is used in making management recommendations for each WMA.

Throughout the year, conservation officers monitor hunter compliance with completing and returning daily use permit cards on WMAs. Differences in compliance rates among WMAs are seen each year. These differences are mainly due to the degree of hunter acceptance of the check-in system. Some conservation officers assigned to WMAs have more aggressively informed hunters of the importance of accurate check-in data than those on other areas. Also, some conservation officers have enforced the mandatory check-in regulation more diligently. The size and control of hunter access of a WMA also affects compliance rates.

Some WMAs provide more restrictive hunting opportunities due to size, habitat type, and management objectives. Location and soil region in which a WMA occurs impact deer productivity. Because of these factors, as well as other unique differences among WMAs, caution should be exercised in comparing data between WMAs (**Table 2**).

Reported hunter man-days for the 2015–2016 season decreased by 5,525 man-days compared to the previous season. Total reported harvest decreased by 76 deer compared to the previous season (**Figure 1**). Average success rate across WMAs increased slightly compared to the previous season with an average of 48 man-days per deer harvested.

Beginning with the 2007–2008 season, most WMAs had a minimum inside spread antler restriction in addition to a minimum main beam length restriction. A legal buck must meet either the minimum inside spread or the minimum main beam length. During the 2011–2012 season, antler criteria on most WMAs were decreased to the state legal antler criteria for that associated region. During the 2014–2015 season, antler criteria on many WMAs reverted to the antler criteria that had been in effect on that WMA during the 2007–2008 season. For more information on the WMA antler regulation changes, see the antler restrictions section on page **38**. See **Table 1** to determine the antler criteria for each WMA.

The MDWFP has recognized the need to change management strategies on our WMAs by becoming more proactive in managing upland pine, mixed pine-hardwood, and bottomland hardwood forests. Management prescriptions will include more aggressive timber harvests and prescribed fire application. Timber harvests will be necessary to open the canopy to allow sunlight to reach the forest floor and encourage the growth of desirable plants, nesting cover, and hardwood regeneration. Prescribed fire will be applied to control undesirable plants, promote early successional growth, and create a desired understory plant structure that provides high quality forage and habitat for a multitude of forest dwelling species.

Figure 1 **Wildlife Management Area Reported Deer Harvest and Hunter Man-days**

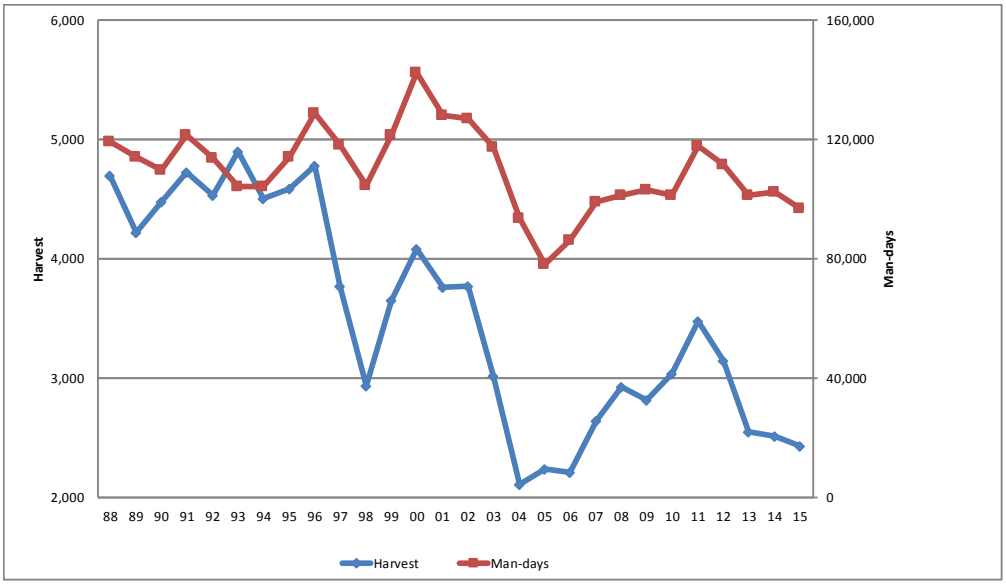


Table 1 **Wildlife Management Area Antler Criteria**

Wildlife Management Area	2015-2016 Antler Criteria
Bienville	12/15
Black Prairie	15/18
Calhoun County	10/13
Canal/John Bell	12/15
Canemount	16/20
Caney Creek	12/15
Caston Creek	10/13
Charlie Capps	N/A
Chickasaw	10/13
Chickasawhay	10/13
Choctaw	10/13
Copiah County	12/15
Divide Section	10/13
Charles Ray Nix	15/18
Graham Lake	10/13
Great River Rd	15/18
Howard Miller	N/A
Hell Creek	10/13
Indianola	N/A
John Starr	10/13
Lake George	15/18
Leaf River	10/13
Leroy Percy	12/15
Little Biloxi	10/13
Mahannah	16/20
Malmaison	15/18
Marion County	12/15
Mason Creek	10/13
Muscadine	N/A
Nanih Waiya	10/13
Natchez State Park	12/15
Okatibbee	10/13
O'Keefe	16/20
Old River	10/13
Pascagoula	10/13
Pearl River	10/13
Red Creek	10/13
Sandy Creek	10/13
Sardis Waterfowl	Hardened Antler Above Hairline
Shipland	15/18
Sky Lake	12/15
Stoneville	12/15
Sunflower	15/18
Tallahala	12/15
Theodore A. Mars Jr	Hardened Antler Above Hairline
Trim Cane	10/13
Tuscumbia	10/13
Twin Oaks	16/20
Upper Sardis	10/13
Ward Bayou	10/13
Wolf River	10/13
Yockanookany	12/15

*1st number indicates Inside Spread

*2nd number indicates Main Beam Length

Table 2 Wildlife Management Area Harvest Information for the 2015-2016 Season

Wildlife Management Area	Acreage	Total Harvest	Acres/ Deer	Buck Harvest	Acres/ Buck	Doe Harvest	Acres/ Doe	Total Man-days	Man-days/ Deer	Man-days/ Acre
Bienville	26,136	114	229	56	467	58	451	2,920	26	0.11
Black Prairie	6,001	72	83	18	333	54	111	549	8	0.09
Calhoun County	9,130	66	138	36	254	30	304	1,618	25	0.18
Canal Section	27,500	45	611	24	1,146	21	1,310	4,894	109	0.18
Canemount	3,500	93	38	39	90	54	65	680	7	0.19
Caney Creek	28,000	61	459	31	903	30	933	3,258	53	0.12
Caston Creek	27,785	58	479	39	712	19	1,462	4,078	70	0.15
Charles Ray Nix	4,000	90	44	36	111	54	74	832	9	0.21
Chickasaw	27,259	83	328	41	665	42	649	4,763	57	0.17
Chickasawhay	30,000	60	500	30	1,000	30	1,000	3,038	51	0.10
Choctaw	24,314	89	273	30	810	59	412	2,749	31	0.11
Copiah County	6,583	73	90	35	188	38	173	2,526	35	0.38
Divide Section	15,337	24	639	11	1,394	13	1,180	2,208	92	0.14
Great River Road	1,000	16	63	10	100	6	167	55	3	0.06
Hell Creek	2,284	8	286	1	2,284	7	326	105	13	0.05
John Bell Williams	2,930	7	419	4	733	3	977	411	59	0.14
John Starr	8,244	49	168	27	305	22	375	1,309	27	0.16
Lake George	8,383	80	105	49	171	31	270	2,843	36	0.34
Leaf River	41,411	206	201	126	329	80	518	8,204	40	0.20
Leroy Percy	1,642	8	205	2	821	6	274	355	44	0.22
Little Biloxi	14,540	43	338	23	632	20	727	3,863	90	0.27
Mahannah	12,675	146	87	61	208	85	149	1,569	11	0.12
Malmaison	9,696	54	180	12	808	42	231	1,549	29	0.16
Marion County	7,125	50	143	17	419	33	216	2,098	42	0.29
Mason Creek	28,000	23	1,217	18	1,556	5	5,600	1,849	80	0.07
Nanih Waiya	8,040	41	196	18	447	23	350	1,041	25	0.13
Natchez State Park	2,261	22	103	12	188	10	226	357	16	0.16
Okatibbee	6,883	9	765	5	1,377	4	1,721	645	72	0.09
O'Keefe	5,648	47	120	30	188	17	332	1,526	32	0.27
Old River	13,000	31	419	18	722	13	1,000	1,767	57	0.14
Pascagoula River	37,415	72	520	41	913	31	1,207	4,647	65	0.12
Pearl River	6,925	24	289	8	866	16	433	987	41	0.14
Red Creek	22,954	7	3,279	1	22,954	6	3,826	1,474	211	0.06
Sandy Creek	16,407	50	328	33	497	17	965	3,857	77	0.24
Sardis Waterfowl	2,480	30	83	12	207	18	138	81	3	0.03
Shipland	3,642	13	280	6	607	7	520	769	59	0.21
Sky Lake	4,306	21	205	8	538	13	0	201	10	0.05
Stoneville	2,500	7	357	4	625	3	833	687	98	0.27
Sunflower	58,480	170	344	82	713	88	665	6,830	40	0.12
Tallahala	28,120	47	598	26	1,082	21	1,339	2,937	62	0.10
Theodore A. Mars Jr.	900	0	0	0	NA	0	0	56	NA	0.06
Trim Cane	891	4	223	3	297	1	297	15	4	0.02
Tuscumbia	2,436	9	271	4	609	5	487	318	35	0.13
Twin Oaks	5,675	45	126	10	568	35	162	575	13	0.10
Upper Sardis	42,274	102	414	39	1,084	63	671	5,726	56	0.14
Ward Bayou	13,234	10	1,323	1	13,234	9	1,470	1,568	157	0.12
Wolf River	10,881	48	227	24	453	24	453	2,093	44	0.19
Yockanookany	2,379	7	340	2	1,190	5	476	261	37	0.11
TOTAL	**671,206**	**2,434**		**1,163**		**1,271**		**96,741**		
AVERAGE	**13,983**	**51**	**378**	**24**	**1,400**	**26**	**740**	**2,015**	**48**	**0.15**

Bienville WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	119	135	220	194	4,424
2012–2013	110	114	238	229	4,079
2013–2014	77	73	339	358	3,340
2014–2015	64	65	408	402	3,279
2015–2016	56	58	467	451	2,920

Bienville WMA is 26,136 acres within the Bienville National Forest located north of Morton. This is the second season that bucks legal for harvest must have an inside spread of at least 12 inches or one main beam length of at least 15 inches. For the three seasons prior to 2014–2015, bucks legal for harvest must have had an inside spread of at least 10 inches or one main beam length of at least 13 inches. Hunters requested for the minimum antler criteria to be increased for the 2014–2015 season. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	0	30	18	4	53
Does	3	12	12	17	12	56

Habitat conditions on Bienville WMA have improved over the years due to management for the red-cockaded woodpecker, which is an endangered species that resides on the WMA.

The average inside spread on 3.5 year old bucks was 13.8 inches. The average main beam length on 3.5 year old bucks was 17.0 inches.

Fifty-two percent of the does harvested were 3.5+ years old. This could suggest that the deer herd is increasing. Body weights were slightly below average this season, likely caused by a poor acorn crop in this area of the state.

Black Prairie WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	9	30	630	189	293
2012–2013	30	37	189	153	405
2013–2014	28	49	203	116	302
2014–2015	19	36	299	158	425
2015–2016	18	54	333	111	549

Black Prairie WMA is a 6,001-acre area located in Lowndes County near Brooksville. The WMA is located within the Blackland Prairie soil region and is owned and managed by the MDWFP.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	4	8	1	0	14
Does	3	6	21	16	6	52

Black Prairie offers an October/early November gun hunt by special permit only. This hunt has provided very high success rates during the past several years. Hunters who check in a legal doe during their permitted hunt have the opportunity to harvest one legal buck during their hunt or during a special December bucks only hunt. Archery and youth gun is open to the public during a late January hunt. This is the fifth year legal bucks are those with an inside spread of at least 15 inches or main beam length of at least 18 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

The average inside spread for 2.5 year old bucks was 10.6 inches while average main beam length was 14.6 inches.

Forty-two percent of does harvested were 3.5+ years old, which is a slight increase from the previous two seasons.

There has been an increase in habitat improvements on the area as well as an increase in number of acres prescribed burned over the last six years. Work is also being done to remove invasive fescue and Johnson grass to promote more desirable plants.

Calhoun County WMA
Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012*	47	60	194	152	1,622
2012–2013	31	50	352	218	1,189
2013–2014	36	27	294	338	1,715
2014–2015	12	16	761	571	976
2015–2016	36	30	254	304	1,618

** WMA DMAP acreage decreased from 9,888 to 9,130.*

Calhoun County WMA is a 9,130-acre area located approximately eight miles northwest of Calhoun City in Calhoun County. The area is owned by Quitman Timber, LLC and managed by the MDWFP. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal. There are archery, gun, and primitive weapon seasons on Calhoun County WMA. Deer hunting with dogs during the appropriate season is allowed on the area.

Hunters reported 36 bucks and 30 does harvested during the 2015–2016 season. Total harvest increased 58% from the previous

year. Hunter effort increased by 40%. The average inside spread on 3.5 year old bucks was 14.2 inches. The average main beam length on 3.5 year old bucks was 16.1 inches.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	8	4	5	2	20
Does	1	7	6	3	6	23

Thirty-nine percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.

Habitat conditions on Calhoun County WMA are fair to good. Annual timber harvest on the WMA provide patches of browse and cover. Crops are grown in adjacent river valleys and provide additional forage for the local herd.

Canal Section WMA
Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	40	38	688	724	5,391
2012–2013	31	33	933	877	5,836
2013–2014	30	17	917	1,618	5,575
2014–2015	21	12	1,309	2,291	5,492
2015–2016	24	21	1,146	1,310	4,894

Canal Section WMA is 27,500-acre area located approximately one mile west of Fulton in Itawamba, Monroe, Prentiss, and Tishomingo Counties. The area is owned by the U.S. Army Corps of Engineers and managed by the MDWFP. Archery, gun, and primitive weapon seasons are available on the area. Antler criteria for legal bucks increased at the start of the 2014–2015 season. Now, bucks legal for harvest must have an inside spread of at least 12 inches or one main beam length of at least 15 inches. For hunters less than 16 years of age, any antlered buck is legal.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	1	6	9	17
Does	0	2	1	0	9	12

Hunters reported 24 bucks and 21 does harvested in the 2015–2016 season. Total harvest increased 27% from the previous year. Hunter effort decreased by 11%.

The average inside spread on 3.5 year old bucks was 12.8 inches. The average main beam length on 3.5 year old bucks was 14.9 inches.

Seventy-five percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.

Habitat conditions on Canal Section WMA continue to improve with increased burning, invasive vegetation, and animal control. These activities provide more browse and cover for the local herd.

Canemount WMA
Written by: Joshua Moree

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	79	59	44	59	881
2012–2013	29	50	121	70	778
2013–2014	24	44	146	80	778
2014–2015	39	54	90	65	680
2015–2016	24	21	1,146	1,310	4,894

Canemount WMA is comprised of approximately 3,500 acres located in the loess bluffs of Claiborne County near the Mississippi River. The WMA was purchased by MDWFP in 2012. Deer hunting is allowed only through a special permit drawing. There are archery, youth gun, primitive weapon, and gun hunts available. Legal bucks are those with an inside spread of at least 16 inches or one main beam length of at least 20 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	6	0	8	24	39
Does	2	8	7	11	21	49

There were 39 bucks and 54 does reported harvested in the 2015–2016 season. This resulted in a 37% increase in total harvest. Hunter effort decreased 13%.

Eleven of the bucks with harvest data did not meet the antler criteria for Canemount WMA. The average inside spread for 3.5 year old bucks was 15.7 inches and the average main beam length was 18.4 inches.

Sixty-five percent of the does with harvest data were 3.5 years old or older. The harvest numbers differ from the age distribution totals because all deer reported harvested did not have biological data submitted.

Caney Creek WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	64	59	438	475	3,827
2012–2013	45	63	622	444	4,032
2013–2014	43	38	651	736	3,627
2014–2015	54	37	519	757	3,674
2015–2016	31	30	903	933	3,258

Caney Creek WMA is 28,000 acres within the Bienville National Forest located near Forest. This is the second season bucks legal for harvest must have an inside spread of at least 12 inches or one main beam length of at least 15 inches. For the three seasons prior to 2014–2015, bucks legal for harvest must have had an inside spread of at least 10 inches or one main beam length of at least 13 inches. Hunters requested for the minimum antler criteria to be increased. For hunters less than 16 years of age, any antlered buck is a legal buck. Deer harvest numbers consisted of 31 bucks and 30 does.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	19	6	3	29
Does	4	2	7	2	14	29

The average inside spread on 3.5 year old bucks was 15.5 inches while average main beam length was 18.4 inches.
Fifty-five percent of the does harvested were 3.5+ years old, which is slightly higher when compared to the previous three seasons. This could suggest that the deer herd is beginning to increase.

The U.S. Forest Service conducted timber harvest operations on Caney Creek WMA and continue spring prescribed burns, which should increase available browse for deer and other wildlife.

Caston Creek WMA
Written by: Joshua Moree

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	29	13	958	2,137	3,297
2012–2013	35	8	794	3,473	3,513
2013–2014	38	9	731	3,087	3,191
2014–2015	47	6	591	4,631	2,977
2015–2016	39	19	712	1,462	4,078

Caston Creek WMA consists of 27,785 acres located within the Homochitto National Forest near Meadville, in Franklin and Amite counties. The area is owned by the U.S. Forest Service (USFS) and is managed under their multiple-use concept. The USFS and MDWFP operate Caston Creek WMA under a memorandum of understanding between the two agencies. Legal bucks are defined as those with an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, outside of gun seasons with dogs, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	0	5	5	10
Does	0	1	0	1	3	5

There were 39 bucks and 19 does reported harvested in the 2015–2016 season. This resulted in a 9% increase in total harvest. Hunter effort increased 37%.

One hundred percent of the bucks with harvest data met the antler criteria for Caston Creek WMA. The average inside spread for 3.5 year old bucks was 12.3 inches and average main beam length was 14.9 inches.

Eighty percent of the does with harvest data were 3.5 years old or older. The harvest numbers differ from the age distribution totals because all deer reported harvested did not have biological data submitted.

Charles Ray Nix WMA
Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	43	40	93	100	1,317
2012–2013	42	47	95	85	1,335
2013–2014	30	37	133	108	866
2014–2015	22	40	182	100	1,028
2015–2016	36	54	111	74	832

Charles Ray Nix WMA is a 4,000-acre area located approximately five miles west of Sardis in Panola County. The area is owned and managed by the MDWFP. Antler criteria for legal bucks increased at the start of the 2014–2015 season. Now, bucks legal for harvest must have an inside spread of at least 15 inches or one main beam length of at least 18 inches. For hunters less than 16 years of age, any antlered buck is legal. Charles Ray Nix WMA offers open archery and primitive weapon draw hunts. Gun hunting opportunity is also available for youth deer hunters.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	8	2	1	9	16	36
Does	8	9	5	11	21	54

Hunters reported 36 bucks and 54 does harvested in the 2015–2016 season. Total harvest increased 27% from the previous year. Hunter effort decreased by 19%.

The average inside spread on 3.5 year old bucks was 14.3 inches. The average main beam length on 3.5 year old bucks was 18.4 inches. Fifty-nine percent of the does harvested were 3.5+ years old.

Habitat quality on Charles Ray Nix WMA is generally good. The use of prescribed fire in area forests, old fields, and different timber management practices provide abundant browse and cover for deer.

Chickasaw WMA

Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	71	67	394	418	6,700
2012–2013	33	55	848	509	6,168
2013–2014	45	50	622	560	5,072
2014–2015	41	39	683	718	3,000
2015–2016	41	42	683	667	4,763

Chickasaw WMA is a 27,259-acre area located approximately 10 miles north of Houston in Chickasaw County. The area is owned by the U.S. Forest Service (USFS) and is within the Tombigbee National Forest. The USFS and the MDWFP operate Chickasaw WMA under a memorandum of understanding. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal. There are archery, gun, and primitive weapon seasons on Chickasaw WMA. Deer hunting with dogs during the appropriate season is allowed on a portion of the area.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	13	13	3	4	34
Does	4	15	4	1	13	37

Deer harvest resulted in 41 bucks and 42 does. Total harvest increased 4% from the previous year. Hunter effort increased by 37%.

The average inside spread on 3.5 year old bucks was 13.5 inches. The average main beam length on 3.5 year old bucks was 16.1 inches.

Thirty-eight percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.

Habitat conditions on Chickasaw WMA are marginal. Acorns are the main winter food source for deer on the area and acorn production dictates body conditions. Patches of thinned timber provide some cover and browse.

Chickasawhay WMA

Written by: Nathan Blount

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	49	24	612	1,250	4,306
2012–2013	23	12	1,304	2,500	3,751
2013–2014	29	18	1,034	1,667	3,585
2014–2015	31	15	968	2,000	3,577
2015–2016	30	30	1,000	1,000	3,038

Chickasawhay WMA is approximately 30,000acres located in Jones County, south of Laurel. The WMA lies within the Chickasawhay Ranger District of the Desoto National Forest. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal. Deer hunting with dogs is not allowed.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	3	1	6	20	30
Does	2	3	2	6	14	27

Deer harvest resulted in 30 bucks and 30 does. Total harvest increased 30% from the previous year and hunter effort decreased by 15%. Man-days were the lowest since the 2008–2009 season.

Habitat conditions on Chickasawhay WMA have improved in recent years due to management of two non-game species, the endangered red-cockaded woodpecker and the threatened gopher tortoise. Management practices include prescribed fire, timber harvest, and mid-story control.

The average inside spread on 3.5 year old bucks was 10.5 inches. The average main beam length on 3.5 year old bucks was 13.7 inches.

Seventy-four percent of the does harvested were 3.5+ years old. This suggests that the deer herd is increasing.

Choctaw WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	52	45	468	540	2,646
2012–2013	40	70	608	347	2,706
2013–2014	43	49	565	496	2,772
2014–2015	37	40	657	608	2,565
2015–2016	30	59	810	412	2,749

Choctaw WMA is 24,314 acres located within the Tombigbee National Forest near Ackerman in Choctaw County. Choctaw WMA is owned by the U.S. Forest Service and managed by the MDWFP.

Legal bucks are those with an inside spread of at least 10 inches or main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	2	0	9	6	5	22
Does	9	8	9	7	20	53

The average inside spread for 3.5 year old bucks was 11.2 inches, while average main beam length was 13.0 inches. Fifty-one percent of the does harvested were 3.5+ years old, which is above average compared to the past few seasons.

Prescribed burning is conducted annually by the U.S Forest Service which helps improve wildlife habitat, however there is a significant amount of canopy closure which prohibits sunlight from reaching the forest floor resulting in poor browse conditions.

Copiah County WMA
Written by: Joshua Moree

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	82	65	80	101	4,007
2012–2013	56	48	118	137	3,110
2013–2014	55	62	120	106	3,056
2014–2015	54	53	122	124	2,601
2015–2016	35	38	188	173	2,526

Copiah County WMA is a 6,583-acre tract located west of Hazlehurst. The WMA is owned by MDWFP. The WMA consists primarily of pine and mixed pine/hardwood stands. Various timber stands on the WMA were thinned in 2014 and 2015. Periodic prescribed fire is used to promote desirable herbaceous vegetation on the WMA. Numerous permanent openings throughout the WMA are maintained with native vegetation and supplemental plantings. Legal bucks are those with an inside spread of at least 12 inches or one main beam length of at least 15 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	7	7	9	6	30
Does	2	10	6	7	11	36

There were 35 bucks and 38 does reported harvested in the 2015–2016 season. This resulted in a 32% decrease in total harvest. Hunter effort decreased 3%.

Ten of the bucks with harvest data did not meet the antler criteria for Copiah County WMA. The average inside spread for 3.5 year old bucks was 13.3 inches and the average main beam length was 17.1 inches.

Fifty percent of the does with harvest data were 3.5 years old or older. The harvest numbers differ from the age distribution totals because all deer reported harvested did not have biological data submitted.

Divide Section WMA
Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	16	16	956	956	2,594
2012–2013	17	25	900	612	2,728
2013–2014	8	15	1,912	1,020	2,378
2014–2015	7	9	2,186	1,700	2,320
2015–2016	11	13	1,394	1,180	2,208

Divide Section WMA is a 15,337-acre area located approximately six miles west of Iuka in Tishomingo County. The area is owned by the U.S. Army Corps of Engineers and managed by the MDWFP. Archery, gun, and primitive weapon seasons are available on the area. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	0	1	2	3
Does	0	1	3	0	2	6

Hunters reported 11 bucks and 13 does harvested in the 2015–2016 season. Total harvest increased 33% from the previous year. Hunter effort decreased by 5%.

The inside spread on the 3.5 year old buck was 15.5 inches. The main beam length on the 3.5 year old buck was 20.2 inches.

Thirty-three percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because some harvest data was destroyed.

Habitat conditions on Divide Section WMA are fair. Controlled burning and invasive vegetation control help provide browse and cover in old fields and forests.

Great River Road WMA
Written by: Caleb Hinton

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2015–2016	10	6	100	167	55

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	3	3	4	10
Does	0	0	3	3	0	6

Great River Road WMA is a 1,000-acre parcel located in Bolivar County within the former Great River Road State Park. Great River Road WMA is located in the batture, which is the land located between the Mississippi River and the main line Mississippi River levee. Great River Road WMA is the only WMA in the north delta located in the batture and consists primarily of bottomland hardwoods.

Deer hunting is restricted to archery and primitive weapon seasons on Great River Road WMA. Legal bucks are those with an inside spread of at least 15 inches or one main beam length of at least 18 inches. However, for the 2016–2017 season, legal bucks will be those with an inside spread of 16 inches or one main beam length of at least 20 inches. For hunters less than 16 years of age, any antlered buck is legal.

In the 2015–2016 season there were 10 bucks and 6 does harvested. All bucks from which we received harvest data met the minimum antler criteria. The average spread on 3.5 year old bucks and older was 17 inches and average main beam length was 21.2 inches. Fifty percent of does harvested were 3.5 years old or older and 70% of bucks harvested were 3.5 years old or older.

Hell Creek WMA
Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	7	18	326	127	233
2012–2013	8	19	286	120	258
2013–2014	2	9	1,142	254	157
2014–2015	3	16	761	143	218
2015–2016	1	7	2,284	326	105

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	0	0	1	1
Does	0	2	0	2	3	7

Hell Creek WMA is a 2,284-acre area located seven miles north of New Albany in Union County. The area is owned and managed by the MDWFP. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. There are archery and gun seasons on Hell Creek WMA. Hell Creek offers gun draw hunts for deer during October. For hunters less than 16 years of age, any antlered buck is legal.

Hunters reported one buck and seven does harvested in the 2015–2016 season. Total harvest decreased 58% from the previous year. Hunter effort decreased by 52%.

No 3.5 year old bucks were reportedly harvested this past season. The inside spread for the reported 5.5 year old buck was 16.5 inches. The average main beam length for the same buck was 20.9 inches.

Seventy-one percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.

Habitat conditions on Hell Creek WMA are good. Controlled burns, timber stand improvements, and fall disking maintain cover within small woodlots, old fields, and natural vegetation buffers around agricultural fields. Soybeans are farmed within many of the larger fields on the area and provide ample summer forage.

John Bell Williams WMA
Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	3	3	977	977	580
2012–2013	1	1	2,930	2,930	456
2013–2014	3	3	977	977	628
2014–2015	1	2	2,930	1,465	450
2015–2016	4	3	732	977	411

John Bell Williams WMA is a 2,930-acre area located approximately 16 miles southeast of Booneville in Prentiss County. The area is owned by the Tennessee Tombigbee Water Management District and managed by the MDWFP. Antler criteria for legal bucks increased at the start of the 2014–2015 season. Now, bucks legal for harvest must have an inside spread of at least 12 inches or one main beam length of at least 15 inches. There are archery, gun, and primitive weapon seasons on John Bell Williams WMA. For hunters less than 16 years of age, any antlered buck is legal.

Hunters reported 4 bucks and 3 does harvested in the 2015–2016 season. Total harvest increased 57% from the previous year. Hunter effort decreased by 9%

No 3.5 year old bucks were reportedly harvested this past season. The average inside spread for 5.5 year old bucks was 13.3 inches. The average main beam length for 5.5 year old bucks was 18.6 inches.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	0	0	2	3
Does	0	0	1	0	2	3

Sixty-seven percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.

Habitat conditions on John Bell Williams WMA changed dramatically when a tornado destroyed 500 acres of timber on April 28, 2014. Acorn production will decrease dramatically within the affected area, but important browse and cover should continue to be abundant within the affected area until the forest canopy closes.

John Starr Forest WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	39	25	211	330	1,232
2012–2013	27	24	305	344	1,146
2013–2014	23	24	358	344	1,351
2014–2015	16	10	515	824	1,282
2015–2016	27	22	305	375	1,309

John Starr Forest WMA is 8,244 acres located near Starkville in Oktibbeha and Winston counties. The WMA is owned by Mississippi State University and managed by the MDWFP.

Legal bucks are those with an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	1	9	7	5	23
Does	3	5	3	1	3	15

Total harvest increased from the previous season and is now back to average harvest numbers for this WMA. The average inside spread for 3.5 year old bucks was 13.7 inches while average main beam length was 14.2 inches. Twenty-seven percent of does harvested were 3.5+ years old which is about average for this WMA.

Lake George WMA
Written by: Jamie Holt

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	32	36	250	222	2,038
2012–2013	30	46	267	174	2,587
2013–2014	38	30	211	267	2,515
2014–2015	42	46	190	174	2,186
2015–2016	49	31	163	258	2,843

Lake George WMA is an 8,383-acre tract owned by the U. S. Army Corps of Engineers and managed by the MDWFP. It is located near Holly Bluff in Yazoo County. This area consists primarily of 20 year old replanted bottomland hardwood timber. Legal bucks are those with an inside spread of at least 15 inches or one main beam length of at least 18 inches. For hunters less than 16 years of age, any antlered buck is legal. Archery, gun, and primitive weapon seasons are available on the area.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	11	5	8	22	47
Does	7	6	6	3	9	31

In the 2015–2016 season there were 49 bucks and 31 does reported harvested. This resulted in a 9% decrease in total harvest. Hunter effort increased 23%.

For 3.5 year old bucks, the average main beam length was 17.8 inches and the average inside spread was 14.8 inches. The percent of harvested does that were 3.5 or older was 39%.

The flood events of the 2015–2016 deer season did have some impacts on Lake George WMA and the area fell within the region of closures that took effect the last month of deer season. The average number of man-days during the month of January over the last five years is 78 and the average harvest during this time is 15 deer. These statistics account for the decrease in harvest seen from the 2014–2015 season to the 2015–2016 season and also suggest that hunter effort on Lake George WMA may have been an even greater increase over the 2014–2015 season.

Leaf River WMA
Written by: Nathan Blount

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	113	77	366	538	7,552
2012–2013	98	70	423	592	7,368
2013–2014	111	66	373	627	7,595
2014–2015	139	76	298	545	8,535
2015–2016	126	80	329	518	8,204

Leaf River WMA is 41,411 acres within the Desoto National Forest in Perry County, northeast of Wiggins. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck, except during gun season with dogs, when a legal buck is a buck with an inside spread of at least 10 inches or one main beam length of at least 13 inches.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	4	8	48	32	19	111
Does	5	17	9	15	30	76

Deer harvest resulted in 126 bucks and 80 does. Total harvest decreased 4% from the previous year and hunter effort decreased by 4%.

Habitat conditions on Leaf River WMA have improved in recent years due to management of the endangered red-cockaded woodpecker. Management practices include prescribed fire, mid-story removal, and eradication of invasive plant species.

The average inside spread on 3.5 year old bucks was 11.4 inches. The average main beam length on 3.5 year old bucks was 14.4 inches. Fifty-nine percent of the does harvested were 3.5+ years old. This could suggest that the deer herd is increasing

Leroy Percy WMA
Written by: Caleb Hinton

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	5	4	328	411	400
2012–2013	3	5	547	328	415
2013–2014	3	3	733	733	486
2014–2015	9	4	182	411	405
2015–2016	2	6	821	274	355

Leroy Percy WMA is a 1,642-acre tract located about 5 miles west of Hollandale on MS Hwy 12. Deer seasons, other than youth season, are restricted to archery and primitive weapons only. Legal bucks are those with an inside spread of at least 12 inches or one main beam length of at least 15 inches. For hunters less than 15 years of age, any antlered buck is legal.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	1	1	0	2
Does	1	1	1	2	1	6

In the 2015–2016 season there were 2 bucks and 6 does harvested. This resulted in a 38% decrease in total harvest and we also had a 12% decrease in hunter effort. Both bucks harvested did meet antler criteria. Fifty percent of does harvested were 3.5 years old or older and 50% of bucks harvested were 3.5 years old or older.

Little Biloxi WMA
Written by: Nathan Blount

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	17	22	806	623	2,618
2012–2013	13	10	1,054	1,370	3,594
2013–2014	12	22	1,142	623	3,404
2014–2015	22	32	623	428	3,800
2015–2016	23	20	632	727	3,863

Little Biloxi WMA is a 14,540-acre tract located in Stone and Harrison Counties, south of Wiggins. The WMA is located on Desoto National Forest and on lands owned by Weyerhaeuser Company. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal. Deer hunting with dogs is not allowed.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	4	10	3	1	19
Does	1	6	6	2	4	19

Deer harvest resulted in 23 bucks and 20 does. Total harvest decreased 20% from the previous year and hunter effort increased by 2%. Man-days were at a decade high.

Habitat conditions on Little Biloxi WMA have improved recently due to timber thinning on the Weyerhaeuser portion of the WMA. A prescribed burning regimen on the National Forest section has also helped to improve habitat on the WMA.

The average inside spread on 3.5 year old bucks was 16.7 inches. The average main beam length on 3.5 year old bucks was 18.3 inches. These averages are far above the Lower Coastal Plain and long term Little Biloxi WMA averages. This can be attributed to a small sample size (three) consisting of exceptional bucks.

Thirty-two percent of the does harvested were 3.5+ years old. This could suggest that the deer herd is stable.

Mahannah WMA
Written by: Jamie Holt

Mahannah WMA is 12,675 acres located approximately 12 miles north of Vicksburg. The area is owned by the U.S. Army Corps of Engineers and managed by the MDWFP. Deer hunting is allowed by draw hunt only, except for the January archery hunt, which is open to the public. Archery, gun, and primitive weapon seasons are available on the area. Legal bucks are those with a minimum 16 inch inside spread or a minimum 20 inch main beam length. For hunters less than 16 years of age, any antlered buck is legal. Also, hunters could obtain a tag that would allow them to harvest a buck with at least one unforked antler and 14 were reported as being used.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	91	155	138	81	2,487
2012–2013	107	166	118	76	2,374
2013–2014	43	106	293	119	1,769
2014–2015	90	131	140	96	2,019
2015–2016	61	85	207	148	1,569

In the 2015–2016 season, there were 61 bucks and 85 does reported harvested. This resulted in a 34% decrease in total harvest. Hunter effort decreased 22%.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	2	14	7	16	22	61
Does	2	31	22	20	26	85

For 3.5 year old bucks, the average main beam length was 18.3 inches and the average inside spread was 15.4 inches. The percent of harvested does that were 3.5 years old or older was 46%.

During the summer of 2015, Mahannah WMA was subjected to an extended period of drought followed by a persistent high water event that receded in August. The dry period affected the entire WMA while the flood event only had heavy impacts outside the main levee of the area. At the end of December 2015, the Mississippi river began to rise above flood stage levels. This also affected the Steele Bayou Backwater system which began to rise as well. During this high water event, thousands of acres of habitat was inundated, displacing wildlife of all species. In accordance with MS Admin Code 40 Part 4 Rule 1.5, Mahannah WMA as well as much of the Delta region was closed and by executive order remained closed through the duration of deer season. While the flood event did have heavy impacts on Mahannah WMA, all of the regular season draw hunts had already taken place. This flood event removed approximately one month during the open archery deer season on the WMA. Over the past five years, the January archery hunt accounts for an average of 452 man-days and an average harvest rate of 19 deer. These statistics account for most, if not all, of the decrease seen in both hunter effort and total harvest. The doe harvest in the 2015–2016 season was low before the season closure occurred. All of these factors compiled with unseasonably warm weather and overall adverse weather conditions during the months of October–November likely had a large impact on both hunter effort and hunter success.

Malmaison WMA
Written by: Caleb Hinton

Malmaison WMA is 9,696 acres of bottomland and upland hardwoods located eight miles west of Grenada. The area is owned and managed by the MDWFP. Deer hunting is allowed using archery equipment, primitive weapons, and guns during respective seasons. A special deer season for youth is offered.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	23	56	476	196	1,595
2012–2013	34	53	285	183	1,922
2013–2014	17	47	588	213	1,525
2014–2015	22	70	440	139	1,878
2015–2016	12	42	808	231	1,549

Legal bucks are those with a minimum inside spread of 15 inches or one main beam length of 18 inches. For hunters less than 16 years of age, any antlered buck is legal. During the 2015–2016 season, 12 bucks and 42 does were harvested. This resulted in a 52% decrease in total harvest, while hunter effort decreased 19%. The average inside spread for 3.5 years and older bucks was 16.6 inches and the average main beam length was 19.75 inches. Fifty eight percent of the bucks and 33% of the does harvested this year were 3.5 years or older.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	4	6	1	12
Does	5	12	11	7	7	42

Marion County WMA
Written by: Joshua Moree

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	73	44	98	162	2,295
2012–2013	43	37	166	193	2,398
2013–2014	42	44	170	162	2,347
2014–2015	44	41	162	174	2,379
2015–2016	17	33	419	216	2,098

Marion County WMA is a 7,125-acre tract located southeast of Columbia. The WMA is owned by MDWFP. The WMA consists primarily of longleaf pine stands and mixed pine/hardwood stands along the creeks and drains. Periodic prescribed fire is used to promote desirable herbaceous vegetation on the WMA. Numerous permanent openings throughout the WMA are maintained with native vegetation and supplemental plantings. Legal bucks are those with an inside spread of at least 12 inches or one main beam length of at least 15 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	3	1	8	4	17
Does	5	4	3	7	14	33

There were 17 bucks and 33 does reported harvested in the 2015–2016 season. This resulted in a 41% decrease in total harvest. Hunter effort decreased 12%.

Six of the bucks with harvest data did not meet the antler criteria for Marion County WMA. The average inside spread for 3.5 year old bucks was 13.5 inches and the average main beam length was 15.7 inches. Sixty-four percent of the does with harvest data were 3.5 years old or older.

Mason Creek WMA
Written by: Nathan Blount

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	22	2	1,273	14,000	2,259
2012–2013	17	6	1,647	4,667	1,877
2013–2014	20	1	1,400	28,000	1,917
2014–2015	18	7	1,556	4,000	1,881
2015–2016	18	5	1,556	5,600	1,849

Mason Creek WMA is an approximately 28,000-acre tract located in Greene County, east of Richton. The WMA is located within the Chickasawhay Ranger District of Desoto National Forest. Legal bucks are those with an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck, except during gun season with dogs, when a legal buck is a buck with an inside spread of at least 10 inches or one main beam length of at least 13 inches.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	1	6	10	18
Does	0	1	2	2	0	5

Deer harvest resulted in 18 bucks and 5 does. Total harvest decreased 8% from the previous year and hunter effort decreased by 2%. Man-days were at a five-year low.

Habitat conditions on Mason Creek WMA have improved in recent years due to timber thinning, prescribed fire, and the maintenance of wildlife openings.

The average inside spread on 3.5 year old bucks was 10.9 inches. The average main beam length on 3.5 year old bucks was 14.5 inches.

Forty percent of the does harvested were 3.5+ years old which could suggest that the deer herd is increasing. However an increase in sample size is needed to make a more accurate determination on population trends.

Nanih Waiya WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	17	41	473	196	1,377
2012–2013	17	33	473	244	1,577
2013–2014	15	21	536	383	1,132
2014–2015	10	33	804	244	1,206
2015–2016	18	23	447	350	1,041

Nanih Waiya WMA consists of 8,040 acres along the Pearl River located near Philadelphia in Neshoba County. The area is owned by the U.S. Army Corps of Engineers and is managed by the MDWFP for wildlife mitigation purposes. This bottomland hardwood WMA offers archery and primitive weapon hunting opportunity for deer. Legal bucks for harvest are those with an inside spread of at least 10 inches or having one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	4	9	3	0	16
Does	2	10	4	2	3	21

The average inside spread and main beam length for 3.5 year old bucks harvested on the WMA this season was 13.8 inches and 15.6 inches, respectively. Twenty four percent of the does harvested were 3.5 years old or older. This percentage is average compared to last season but slightly lower that previous years. This could indicate that the deer population on this WMA is

holding at a steady level. Deer hunting pressure and success on the WMA is highly dependent upon the water level of the Pearl River.

Natchez State Park
Written by: Joshua Moree

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	46	38	65	79	1,193
2012–2013	30	30	100	100	978
2013–2014	22	19	136	158	662
2014–2015	16	15	188	200	717
2015–2016	12	10	188	226	357

Natchez State Park is an approximately 3,000-acre tract located in Adams County near Natchez. The park is owned by MDWFP. Approximately 2,300 acres of the park are open to limited deer hunting. Hunters are allowed only by special permit through a random drawing held each fall. Youth gun, handicapped gun, archery, and muzzleloader hunts are available. Only Mississippi residents may apply for the youth gun, archery, and muzzleloader hunts. Legal bucks are those with an inside spread of at least 12 inches or one main beam length of at least 15 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	4	0	1	7	12
Does	0	5	0	1	3	9

There were 12 bucks and 10 does reported harvested in the 2015–2016 season. This resulted in a 29% decrease in total harvest. Hunter effort decreased 50%.

Four of the bucks with harvest data did not meet the antler criteria for Natchez State Park. The average inside spread for 3.5 year old bucks was 14.3 inches and average main beam length was 14.9 inches.

Forty-four percent of the does with harvest data were 3.5 years old or older. The harvest numbers differ from the age distribution totals because all deer reported harvested did not have biological data submitted.

Okatibbee WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	9	12	765	574	743
2012–2013	10	13	688	529	550
2013–2014	2	4	3,442	1,721	508
2014–2015	3	5	2,294	1,377	601
2015–2016	5	4	1,377	1,721	645

Okatibbee WMA consists of 6,883 acres located near Collinsville in Lauderdale County. This area is owned by the U.S. Army Corps of Engineers and managed by the MDWFP for wildlife mitigation purposes. Seasons available for hunting deer on the WMA include archery, primitive weapon, and gun, with gun being limited to shotguns with slugs only. Deer hunting on the WMA is still hunting only. Legal bucks for harvest are those with an inside spread of at least 10 inches or having one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	2	2	0	4
Does	1	0	0	0	0	1

The average inside spread for the two 3.5 year old bucks harvested was 15.0 inches, while the average main beam length was 17.6 inches. Due to the small sample size, no conclusions can be made to determine population growth from the percentage of 3.5+ year old does.

O'Keefe WMA
Written by: Caleb Hinton

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	56	35	101	161	1,702
2012–2013	37	35	153	161	1,960
2013–2014	24	18	235	314	1,346
2014–2015	35	22	161	257	1,164
2015–2016	30	17	188	332	1,526

O'Keefe WMA is 5,648 acres of bottomland hardwoods and fields located eight miles south of Marks. The area is owned and managed by the MDWFP. Deer hunting is allowed using archery gear, primitive weapons, and guns during respective seasons. A special deer season for youth is offered.

Legal bucks are those with an inside spread of at least 16 inches or one main beam length of at least 20 inches. Also, hunters could obtain a tag that would allow them to harvest one buck of choice. Hunters 16 years of age or younger may harvest any antlered buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	7	14	6	3	30
Does	0	3	8	4	2	17

During the 2015–2016 season, there were 30 bucks and 17 does harvested. This resulted in a 19% decrease in total harvest, but hunter effort increased 27%. The average inside spread for 3.5 years and older bucks was 16.75 inches and average main beam length was 20.8 inches. Thirty five percent of does and 30% of bucks harvested were 3.5 years old or older.

Old River WMA
Written by: Joshua Moree

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	48	31	271	419	2,550
2012–2013	19	18	684	722	1,811
2013–2014	17	19	765	684	2,258
2014–2015	14	18	929	722	2,212
2015–2016	18	13	722	1,000	1,767

Old River WMA is an approximately 13,000-acre tract of bottomland hardwoods located in Pearl River County near Poplarville. The WMA is owned by MDWFP. The WMA is closed to deer hunting when the Pearl River gauge at Bogalusa, LA reads 18 feet or higher. Due to significant rains, the WMA was closed for a large portion of the 2015–2016 season. Legal bucks are those with an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	4	1	3	9	17
Does	0	2	0	7	3	12

There were 18 bucks and 13 does reported harvested in the 2015–2016 season. This resulted in a 3% decrease in total harvest. Hunter effort decreased 20%.

Four of the bucks with harvest data did not meet the antler criteria for Old River WMA. The average inside spread for 3.5 year old bucks was 12.3 inches and average main beam length was 15.5 inches.

Eighty-three percent of the does with harvest data were 3.5 years old or older. The harvest numbers differ from the age distribution totals because all deer reported harvested did not have biological data submitted.

Pascagoula River WMA
Written by: Nathan Blount

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	44	30	841	1,233	12,733
2012–2013	17	10	2,176	3,700	6,710
2013–2014	41	34	902	1,088	5,597
2014–2015	24	26	1,542	1,423	6,077
2015–2016	41	31	913	1,207	4,647

Pascagoula River WMA is a 37,415-acre tract of bottomland hardwood forest that stretches along the Pascagoula River in George and Jackson Counties. The nearest towns are Lucedale and Hurley, which both lie east of the WMA. The WMA is owned by the MDWFP. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck, except during gun season with dogs, when a legal buck is a buck with an inside spread of at least 10 inches or one main beam length of at least 13 inches.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	25	11	2	39
Does	5	1	3	7	11	27

Deer harvest resulted in 41 bucks and 31 does. Total harvest increased 44% from the previous year while hunter effort decreased by 24%. Man-days were the lowest since the 2007–2008 season. The decrease in man-days can be attributed to high water levels which were an issue throughout deer season.

Habitat conditions on Pascagoula River WMA are improving due to aggressive control of invasive plant species, reclamation of wildlife openings, and the use of prescribed fire where applicable.

The average inside spread on 3.5 year old bucks was 11.1 inches. The average main beam length on 3.5 year old bucks was 14.6 inches. Sixty-seven percent of the does harvested were 3.5+ years old. This could suggest that the deer herd is increasing.

Pearl River WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	15	14	462	495	1,531
2012–2013	9	12	769	577	1,114
2013–2014	8	18	866	385	1,400
2014–2015	10	20	693	346	1,150
2015–2016	8	16	866	433	987

Pearl River WMA is located six miles southeast of Canton and 20 miles northeast of Jackson in Madison County. The area is adjacent to the northwest portion of the Ross Barnett Reservoir. It consists of approximately 6,925 acres owned by the Pearl River Valley Water Supply District. The MDWFP implements hunting regulations, provides habitat management recommendations through consultation on forest management plans and provides law enforcement support for resource protection. Legal bucks are those with a minimum 10 inch inside spread or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	2	2	1	2	8
Does	3	2	5	1	4	15

The average inside spread on 2.5 year old bucks was 12.5 inches and average main beam length was 14.2 inches. Thirty-three percent of the does harvested were 3.5+ years old.

Red Creek WMA
Written by: Nathan Blount

Red Creek WMA is 22,954 acres located within the Desoto National Forest in Stone, George, and Jackson Counties, southeast of Wiggins. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal. Deer hunting with dogs is not allowed.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	15	8	1,533	2,875	2,102
2012–2013	2	3	11,500	7,667	1,729
2013–2014	3	2	7,667	11,500	1,423
2014–2015	1	3	23,000	7,667	1,402
2015–2016	1	6	23,000	3,833	1,474

Deer harvest resulted in 1 buck and 6 does. Total harvest increased 75% from the previous year and hunter effort increased by 5%.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	0	0	0	0
Does	0	0	1	0	0	1

Habitat conditions on Red Creek WMA are improved with a prescribed fire regimen.

Hunter compliance is low on Red Creek WMA and no buck data was collected this season. The long-term average inside spread on 3.5 year old bucks is 12.7 inches with an average main beam length of 15.3 inches.

Data was only collected from one 2.5 year old doe. An increase in sample size is needed to make a determination on population trends.

Sandy Creek WMA
Written by: Joshua Moree

Sandy Creek WMA is a 16,407-acre tract located within the Homochitto National Forest near Natchez, in Adams and Franklin Counties. The area is owned by the U.S. Forest Service (USFS) and is managed under their multiple-use concept. The USFS and MDWFP operate Sandy Creek WMA under a memorandum of understanding between the two agencies. Legal bucks are those with an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck. Deer hunting with dogs is not allowed.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	82	22	200	746	4,050
2012–2013	52	30	316	547	3,635
2013–2014	60	24	273	684	3,581
2014–2015	57	35	288	469	3,478
2015–2016	33	17	497	965	3,857

There were 33 bucks and 17 does reported harvested in the 2015–2016 season. This resulted in a 46% decrease in total harvest. Hunter effort increased 11%.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	8	6	6	21
Does	0	1	0	9	6	16

One of the bucks with harvest data did not meet the antler criteria for Sandy Creek WMA. The average inside spread for 3.5 year old bucks was 12.6 inches and average main beam length was 15.7 inches.

Ninety-four percent of the does with harvest data were 3.5 years old or older. The harvest numbers differ from the age distribution totals because all deer reported harvested did not have biological data submitted.

Sardis Waterfowl WMA
Written by: Brad Holder

Sardis Waterfowl WMA is a 2,480-acre area located approximately eight miles north of Oxford in Lafayette County. The area is owned by the U.S. Army Corps of Engineers and managed by the MDWFP. The area offers four weekends of deer draw hunts for youth hunters each season. Sardis Waterfowl WMA's youth hunts provide young hunters a unique opportunity to hunt an unpressured, high-density deer herd. Any buck is a legal buck.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	12	13	207	191	127
2012–2013	12	13	232	214	103
2013–2014	15	23	165	108	95
2014–2015	10	10	248	248	102
2015–2016	12	8	206	310	81

Hunters reported 12 bucks and 8 does harvested in the 2015-2016 season. Total harvest was the same as the previous year. Hunter effort decreased by 21%.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	4	1	3	1	9
Does	0	1	1	1	4	7

The average inside spread on 3.5 year old bucks was 12.2 inches. The average main beam length for 3.5 year old bucks was 11.1 inches. Main beams were reportedly broken for one or two harvested 3.5 year old bucks and decreased the reported average beam length.

Seventy-eight percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.

Habitat conditions on Sardis Waterfowl WMA are fair. Old fields and portions of forest are burned periodically to maintain browse and cover. In September 2015, approximately 100 acres of old fields were treated with herbicides to remove invasive vegetation and improve habitat.

Shipland WMA
Written by: Jamie Holt

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	16	6	228	607	811
2012–2013	12	13	304	280	702
2013–2014	13	11	280	331	818
2014–2015	14	11	260	331	867
2015–2016	6	7	607	520	769

Shipland WMA consists of 3,642 acres located within the batture soil region. The west boundary is the Mississippi River. The WMA consists of bottomland hardwood and an approximately 100-acre sand field. Timber thinning in the past has greatly increased the browse and escape cover on the WMA. Only primitive weapons and archery equipment are allowed for deer hunting. Legal bucks are those with an inside spread of at least 15 inches or one main beam length of at least 18 inches. Hunters less than 16 years of age are allowed to hunt with a gun during the January youth season. For youth hunters, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	1	0	1	3	6
Does	2	0	0	2	2	6

During the 2015–2016 season, there were six bucks and seven does reported harvested. This resulted in a 48% decrease in total harvest. Hunter effort decreased 11%.

For 3.5 year old bucks, the average main beam length was 16.6 inches and the average inside spread was 15.5 inches. Sixty seven percent of harvested does were 3.5 years old or older.

Hunter effort and total harvest numbers for the 2015–2016 season were both affected by season closures of the region. At the end of December 2015, the Mississippi river began to rise above flood stage levels. During this high water event, thousands of acres of habitat was inundated, displacing wildlife of all species. In accordance with MS Admin Code 40 Part 4 Rule 1.5; much of the delta region was closed and by executive order remained closed through the duration of deer season. Deer hunting was closed most of January. The average number of man-days for the month of January for the past five years is 50, and the average harvest rate is 1 deer. Therefore, this flood event did have a large impact on hunter effort and accounts for much of the observed decrease. However,this does not support that the flood event and season closure had any impact on hunter success during this time of season. Unseasonable weather and high water events during the late summer pushed deer out of their normal habitat, which likely had more effect on the harvest rates at Shipland WMA than the late season flood and season closure.

Sky Lake WMA
Written by: Caleb Hinton

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	10	11	431	391	194
2012–2013	11	0	391	0	259
2013–2014	12	10	359	431	218
2014–2015	1	3	4,306	1,435	184
2015–2016	8	13	538	331	201

Sky Lake Wildlife Management Area (WMA) is a 4,306 acre parcel located in Humphreys and Leflore Counties, between Belzoni and Itta Bena on Highway 7. The MDWFP owns 737 acres and the U.S. Army Corps of Engineers own 3,569 acres of the WMA. The 3,569 acres were acquired by the Corps of Engineers for mitigation purposes of the Upper Yazoo and Upper Steele Bayou Projects and is managed by the MDWFP under a memorandum of understanding. This area is dominated by regenerated bottomland hardwood forest with abundant browse and escape cover.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	5	1	1	8
Does	0	4	1	2	6	13

Legal bucks are those with an inside spread of at least 12 inches or one main beam length of at least 15 inches. For hunters less than 16 years of age, any antlered buck is legal. Deer hunting on Sky Lake WMA is by draw hunt only and is restricted to archery and primitive weapons only.
During the 2015–2016 season, there were eight bucks and 13 does harvested. This resulted in an 81% increase in total harvest, while hunter effort increased 9%. All bucks with reported harvest data met the minimum antler criteria except one buck killed by a youth hunter. The average inside spread on 3.5 year old bucks and older was 15.1 inches and average main beam length was 19.3 inches. Sixty two percent of does harvested and 25% of bucks harvested were 3.5 years old or older.

Stoneville WMA
Written by: Caleb Hinton

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	10	6	250	417	1,621
2012–2013	11	17	227	147	1,054
2013–2014	9	16	250	96	1,141
2014–2015	6	10	417	250	1,221
2015–2016	4	3	625	833	687

Stoneville WMA is a 2,500 acre parcel located in Washington County approximately five miles north of Leland. Stoneville WMA is owned by Mississippi State University and is located on the Mississippi State University Delta Branch Experiment Station in Stoneville. The MDWFP implements regulations necessary for managed public hunting and provides law enforcement support for resource protection.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	3	0	0	4
Does	0	1	1	1	0	3

Deer hunting is restricted to archery and primitive weapon seasons on Stoneville WMA. Legal bucks are those with an inside spread of at least 12 inches or one main beam length of at least 15 inches. For hunters less than 16 years of age, any antlered buck is legal.

During the 2015–2016 season, there were four bucks and three does harvested. This resulted in a 56% decrease in total harvest, while hunter effort decreased 44%. All bucks harvested did meet antler criteria but all were 2.5 years old or younger. One doe was 3.5 years old or older.

Sunflower WMA
Written by: Jamie Holt

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	116	136	517	441	7,761
2012–2013	106	136	566	441	9,284
2013–2014	130	103	462	583	8,518
2014–2015	100	113	600	531	10,325
2015–2016	82	88	713	665	6,830

Sunflower WMA is a 58,480 acre area located approximately eight miles east of Rolling Fork in Sharkey County. The area is owned by the U.S. Forest Service (USFS) and is the Delta National Forest, which is managed under their multiple-use concept. The USFS and the MDWFP operate Sunflower WMA under a memorandum of understanding between the two agencies. Legal bucks are those with an inside spread of at least 15 inches or one main beam length of at least 18 inches. For hunters less than 16 years of age, any antlered buck was legal. There are archery, gun, and primitive weapon seasons on Sunflower WMA.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	11	8	14	42	76
Does	11	17	12	12	32	84

During the 2015–2016 season, there were 82 bucks and 88 does reported harvested. This resulted in a 20% decrease in total harvest. Hunter effort decreased 33%.

For 3.5 year old bucks, the average main beam length was 16.5 inches and the average inside spread was 14.1 inches. Fifty three percent of the harvested does were 3.5 or older.

Hunter effort and total harvest numbers for the 2015–2016 season were both affected by season closures of the region. At the end of December 2015, the Mississippi River began to rise above flood stage levels. This also affected the Steele Bayou Backwater system which began to rise as well. During this high water event, thousands of acres of habitat was inundated, displacing wildlife of all species. In accordance with MS Admin Code 40 Part 4 Rule 1.5, much of the delta region was closed and by executive order remained closed through the duration of deer season. Most of January was closed to deer hunting. Over the past four years, the month of January accounted for an average of 2,288 man-days and an average harvest rate of 46 deer. These statistics account for all of the decrease in harvest and much of the decrease in hunter effort.

Tallahala WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	77	84	365	335	2,699
2012–2013	57	75	493	375	3,329
2013–2014	37	36	760	781	3,197
2014–2015	29	34	970	827	3,371
2015–2016	26	21	1,082	1,339	2,937

Tallahala WMA is 28,120 acres within the Bienville National Forest located near Montrose. This is the second season that bucks legal for harvest must have an inside spread of at least 12 inches or one main beam length of at least 15 inches. For the three seasons prior to 2014–2015, bucks legal for harvest must have had an inside spread of at least 10 inches or one main beam length of at least 13 inches. Hunters requested for the minimum antler criteria to be increased.

The U.S. Forest Service continues to conduct spring prescribed burns and timber management on the WMA. This will enhance browse production.

The average inside spread on 3.5 year old bucks was 13.9 inches and minimum main beam length was 17.2 inches. Forty-seven percent of the does harvested were 3.5+ years old. This percentage has been slightly higher for two seasons which could suggest that population size is increasing.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	1	1	6	9	3	20
Does	3	5	2	2	7	19

Theodore A. Mars Jr. WMA

Written by: Joshua Moree

Theodore A. Mars Jr. WMA is a 900-acre tract located south of Poplarville in Pearl River County. The WMA is owned by MDWFP. The WMA consists of upland pine stands with scattered hardwood bottoms.

Deer hunting on Theodore A. Mars Jr. WMA is limited to youth hunters. No deer were reported harvested for the 2015–2016 season. Hunter effort increased 87%.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	0	1	N/A	900	16
2012–2013	0	0	N/A	N/A	70
2013–2014	0	1	N/A	900	49
2014–2015	0	0	N/A	N/A	30
2015–2016	0	0	N/A	N/A	56

Trim Cane WMA

Written by: Amy C. Blaylock

Trim Cane WMA is an 891-acre tract located in Oktibbeha County about four miles north of Starkville. The area has been developed primarily for waterfowl hunting. Due to the small size of the area, deer hunting is restricted to wheelchair bound and youth hunters using a random drawing for special permits. Four wheelchair accessible shooting houses are placed on winter food plots across the area. Hunting is limited to eight Saturday afternoon hunts, where four hunters are drawn per day.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	0	0	0	0	0
2012–2013	3	3	297	297	18
2013–2014	1	0	891	NA	6
2014–2015	2	1	446	891	7
2015–2016	3	1	297	891	15

Legal bucks are those with an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	2	0	0	1	3
Does	0	0	1	0	0	1

Tuscumbia WMA

Written by: Brad Holder

Tuscumbia WMA is a 2,436-acre area located approximately three miles west of Corinth in Alcorn County. The area is owned and managed by the MDWFP. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. There are archery, gun, and primitive weapon seasons on Tuscumbia WMA. For hunters less than 16 years of age, any antlered buck is legal.

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	1	9	2,436	271	255
2012–2013	4	8	609	304	292
2013–2014	4	5	609	487	214
2014–2015	4	7	609	348	249
2015–2016	4	5	609	609	318

Hunters reported 4 bucks and 5 does harvested in the 2015–2016 season. Total harvest decreased 27% from the previous year. Hunter effort increased by 22%.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	0	0	0	1
Does	0	0	0	2	3	5

All does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.

Much of the habitat on Tuscumbia WMA cannot be managed for deer. This is primarily a wetland area and prone to frequent flooding. Management focuses on wintering waterfowl.

Twin Oaks WMA
Written by: Jamie Holt

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	23	86	252	67	899
2012–2013	20	65	290	89	972
2013–2014	5	35	1160	166	668
2014–2015	7	36	829	161	594
2015–2016	10	35	580	166	575

Twin Oaks WMA is 5,675 acres of bottomland hardwood forest located five miles southeast of Rolling Fork. The area is owned by the U.S. Army Corps of Engineers and managed by the MDWFP. Deer hunting is allowed only by special permit through a random drawing, except for the January archery hunt, which is open to the public. Legal bucks are those with an inside spread of at least 16 inches or one main beam length of at least 20 inches. For hunters less than 16 years of age, any antlered buck is legal. Only primitive weapons and archery equipment are allowed for deer hunting. Also, hunters could obtain a tag that would allow them to harvest a buck with at least one unforked antler, and five were reported as being used.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	3	5	0	2	0	10
Does	1	9	5	3	17	35

During the 2015–2016 season, there were 10 bucks and 35 does reported harvested. This resulted in a 4% increase in total harvest. Hunter effort decreased 3%.

For 3.5 year old bucks, the average main beam length was 18.0 inches and the average inside spread was 15.3 inches. Fifty eight percent of harvested does were 3.5 or older.

While the flood events of the 2015–2016 deer season did have some impacts on Twin Oaks WMA, and the WMA fell within the region of closures that took effect the last month of deer season. Being a draw only area from October through December, all of the draw hunts occurred before the season closure. The only season affected was the late season archery hunt. The average number of man-days during the month of January over the last five years is 60 and the average harvest during this time is 1 deer. These statistics account for the decrease in hunter effort seen from the 2014–2015 season, and support that most of the harvest on the WMA occurs during the draw hunts. While the total harvest for Twin Oaks WMA is up, there were very few older age class bucks harvested. These numbers have declined to less than five bucks harvested each year over the past four years. Mature deer that meet and exceed the antler criteria have been observed late season on the area by the biologists and managers. However, the low harvest causes suspicions of seasonal movement patterns of older bucks in and around the WMA.

Upper Sardis WMA
Written by: Brad Holder

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	44	69	977	623	7,639
2012–2013	59	48	729	896	6,691
2013–2014	53	60	811	717	5,593
2014–2015	47	55	915	782	4,997
2015–2016	39	63	1,084	671	5,726

Upper Sardis WMA is a 42,274-acre tract located approximately ten miles east of Oxford in Lafayette County. The northern portion of the area along the Tallahatchie River Canal is owned by the U.S. Army Corps of Engineers (USACE). The rest of the area is owned by the U.S. Forest Service (USFS), and is within the Holly Springs National Forest. The USACE, USFS, and the MDWFP operate Upper Sardis WMA under a memorandum of understanding. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is legal. There are archery, gun, and primitive weapon seasons on Upper Sardis WMA.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	0	8	15	24
Does	4	2	1	7	27	41

Hunters reported 39 bucks and 63 does harvested during the 2015–2016 season. Total harvest was the same as the previous year. Hunter effort increased by 13%.

The average inside spread on 3.5 year old bucks was 11.6 inches. The average main beam length on 3.5 year old bucks was 15.9 inches.

Eighty-three percent of the does harvested were 3.5+ years old. The harvest numbers differ from the age distribution totals because all deer reportedly harvested did not have harvest data turned in.
Habitat conditions on Upper Sardis WMA are marginal. Acorns are the main winter food source for deer on the area and acorn production dictates body conditions. Patches of thinned timber and areas damaged by tornadoes in 2008 and 2012 provide some cover and browse.

Ward Bayou WMA
Written by: Nathan Blount

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	5	9	2,647	1,470	2,902
2012–2013	9	5	1,470	2,647	2,050
2013–2014	7	8	1,891	1,654	1,671
2014–2015	11	12	1,203	1,103	2,239
2015–2016	1	9	13,234	1,470	1,568

Ward Bayou WMA is a 13,234-acre tract located in Jackson County, northeast of Vancleave. The WMA is owned by the U.S. Army Corps of Engineers and managed cooperatively with the MDWFP. The majority of the WMA is comprised of bottomland hardwood and wetland habitat. Bucks legal for harvest must have an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck, except during gun season with dogs, when a legal buck is a buck with an inside spread of at least 10 inches or one main beam length of at least 13 inches.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	1	0	0	1
Does	0	4	1	1	3	9

Deer harvest resulted in one buck and nine does. Total harvest decreased 57% from the previous year and hunter effort decreased by 30%. Harvest and man-days were the lowest since the 2009–2010 season. The decrease in man-days can be attributed to high water levels which were an issue throughout deer season.

Habitat conditions on Ward Bayou WMA have been improved in recent years through management for the threatened gopher tortoise. Management practices include pre-commercial thinning of longleaf pines, prescribed fire, and control of invasive plant species.

Data from one 3.5 year old buck was collected this season. The buck had an inside spread of 10.8 inches with an average main beam length of 14.5 inches. The long-term average inside spread on 3.5 year old bucks is 13 inches with an average main beam length of 15.3 inches.

Forty-four percent of the does harvested were 3.5+ years old. This could suggest that the deer herd is stable.

Wolf River WMA
Written by: Joshua Moree

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	29	32	345	313	2,347
2012–2013	35	23	286	435	2,491
2013–2014	33	20	303	500	2,148
2014–2015	26	16	385	625	2,116
2015–2016	24	24	453	453	2,093

Wolf River WMA consists of approximately 10,881 acres located in Lamar and Pearl River Counties near Poplarville. The WMA is leased by MDWFP from Weyerhaeuser Company, and consists of various aged pine plantations interspersed with minor stream bottoms. Legal bucks are those with an inside spread of at least 10 inches or one main beam length of at least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	1	7	9	6	23
Does	0	4	1	6	13	24

There were 24 bucks and 24 does reported harvested in the 2015–2016 season. This resulted in a 14% increase in total harvest. Hunter effort decreased 1%.

Two of the bucks with harvest data did not meet the antler criteria for Wolf River WMA. The average inside spread for 3.5 year old bucks was 12 inches and the average main beam length was 15.2 inches. Seventy nine percent of the does with harvest data were 3.5 years old or older. The harvest numbers differ from the age distribution totals because all deer reported harvested did not have biological data submitted.

Yockanookany WMA
Written by: Amy C. Blaylock

Season	Harvest		Acres/Harvest		Man-days
	Bucks	Does	Bucks	Does	
2011–2012	5	4	476	595	190
2012–2013	3	8	793	297	228
2013–2014	9	5	264	476	210
2014–2015	1	2	2,379	1,190	180
2015–2016	2	5	1,190	476	261

Yockanookany WMA is 2,379 acres located in Attala County along the Yockanookany River approximately 12 miles east of Kosciusko. Archery and primitive weapon opportunities are by draw only.

The Yockanookany River system is prone to frequent flooding and limits hunter access. Yockanookany WMA is predominantly forested with stands of bottomland hardwoods.

This is the second season that legal bucks are those with an inside spread of at least 12 inches or one main beam length of at least 15 inches. Prior to 2014–2015, legal bucks were those with an inside spread of at least 10 inches or one main beam length of at

least 13 inches. For hunters less than 16 years of age, any antlered buck is a legal buck.

The inside spread for the 3.5 year old buck harvested was 14.5 inches while average main beam length was 15.9 inches. Because of the low sample size, no determinations can be made determining the population level.

Buck and Doe Age Distribution						
Age	0.5	1.5	2.5	3.5	4.5+	Total
Bucks	0	0	0	1	1	2
Does	2	0	0	1	1	4

Future plans are to enhance the habitat by creating more openings, improving accessibility, and conducting timber thinnings to allow more sunlight to reach the forest floor.

Paul Brown


Steve Gulledge

The spring of 2015 was characterized by frequent rainfall across most of the state. However, as fall approached, rainfall drastically decreased in most areas. June through September of 2015 were exceptionally dry with drought conditions lasting on into October and November. This drought impacted the deer herd on several fronts. The natural vegetation was unable to keep up with deer browse pressure and even declined in quality as the nutrient rich new growth dried up in the summer sun. Plants were also no longer able to provide the high moisture content needed during doe gestational periods.

September is the most popular, but not always the best, time to plant fall food plots. Several hunters who planted in September 2015 had to replant due to the dry conditions throughout most of the state. Many food plots that were planted in September or early October laid dormant for the first half of the season until enough rain fell to facilitate growth.

Temperatures during October, November, and December were 10 degrees above average. The combined average temperatures from October through January were the 4th warmest on record.

The acorn crop was decent and persisted throughout the first half of the deer season. Food plot use increased as acorn availability decreased.

Herd health did see some declines. Deer body weights experienced up to a 10% decrease in some regions due to the drought. Many DMAP clubs saw lactation rates remain about the same, while some reported a small decrease from the 2014-2015 season. Deer harvest objectives and recommendations proved to be difficult for some clubs to meet.

In summary, the 2015-2016 season was impacted by drought conditions, warm temperatures, and abundant acorns early in the season. Deer observations decreased and lower hunter success was reported across the state.

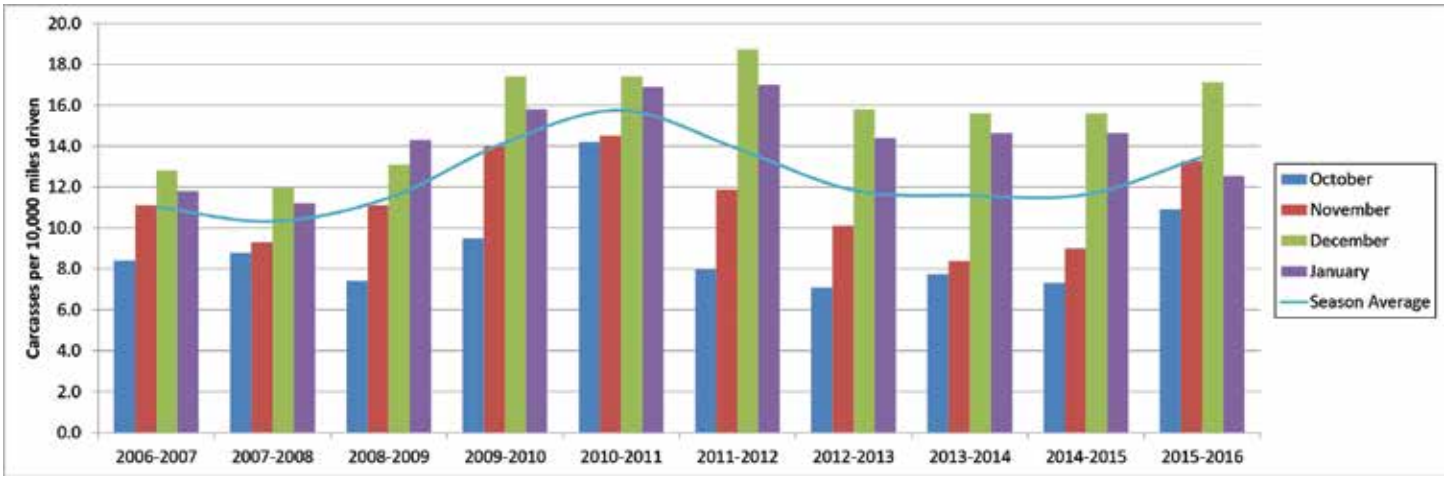

Steve Gulledge

Since 1997, MDWFP personnel have monitored statewide deer road kill in an effort to gain trend information about population levels and to compare rates over time. All MDWFP personnel record the county and deer sex (where possible) for all deer carcasses observed on or adjacent to roads during regular travel from October 1–January 31. The cause of death of these animals is assumed to be a vehicle collision. Personnel also report mileage driven each month. Data are reported as numbers of carcasses observed per 10,000 miles driven.

Figure 2 shows the number of carcasses observed per 10,000 miles driven by month as well as by season average from the 2006–2007 season through the 2015–2016 season. The precision and accuracy of this method of data collection have not been critically evaluated. Furthermore, we acknowledge some critical assumptions, such as the number of vehicles traveling state highways and MDWFP observers or the rate of carcass collection by MDOT road crews remain similar across regions and years, are not easily verified. Therefore, any inferences or interpretation of these data should be approached cautiously. However, every effort has been made to standardize sampling protocol.

Although road kill observation data has limitations, these data may be useful as an index of fluctuations or trends over time. Based on data in **Figure 2**, observations of road kill carcasses showed a slightly increasing trend during the

Figure 2 **Statewide Averages (Deer/10,000 Miles Driven)**



2015–2016 deer season when compared to the previous three seasons. While this increasing trend may simply be a result of variability in data collection, it may also indicate some recovery in the deer population following high instances of Hemorrhagic Disease in 2007 and 2012. Additionally, as may be expected, deer-vehicle collisions were higher in December, during peak breeding season for much of the state.

MDWFP also collects road-kill data from State Farm Insurance Company. According to State Farm's estimates there were 22,733 projected deer-vehicle collisions in Mississippi during 2015–2016, which is a 1% increase from 22,373 projected in 2014–2015. The 2015–2016 deer-vehicle collision numbers represent a 9% increase from the 20,156 collisions estimated in 2010–2011. This estimate supports the increasing trend from MDWFP personnel's road-kill observations. Analysis of road kill and deer-vehicle collision data suggests the statewide deer density in Mississippi is stable or slowly expanding.

Observed road kill has fluctuated greatly since MDWFP began collecting data in 1997. We observed a steady increase in carcasses observed per 10,000 miles driven from 1997 until observations peaked during the 2010–2011 season. Since that time, road kill observations have decreased until this season when observations appeared to increase again. The MDWFP is working with DMAP cooperators and other partners to assess and manage the statewide deer herd. Hopefully new technologies can help us refine these methods and continue our mission to conserve and enhance Mississippi's wildlife resources.

Table 3 **Statewide Averages (Deer/10,000 Miles Driven)**

Month	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
October	7.2	6.7	6.3	5.9	6.6	6.5	8.4	8.8	7.4	9.5	14.2	8.0	7.1	7.7	7.3	10.9
November	6.4	6.4	8.1	8.6	7.3	9.2	11.1	9.3	11.1	14.0	14.5	11.9	10.1	8.4	9.0	13.3
December	6.8	7.6	5.9	10.4	10.1	13.0	12.8	12.0	13.1	17.4	17.4	18.7	15.8	15.6	15.6	17.1
January	7.6	8.1	8.3	8.3	9.5	11.2	11.8	11.2	14.3	15.8	16.9	17.0	14.4	14.6	14.6	12.5
Season Average	7.0	7.2	7.1	8.3	8.4	10.0	11.0	10.3	11.5	14.2	15.8	13.9	11.9	11.6	11.6	13.5

Bronson Strickland, Steve Demarais, and John Gruchy

The 21st Century has shuffled in a wave of technological advancements that many of us could have never dreamed of as kids. Mobile technology, particularly smartphones, has improved our communication, navigation, and safety by an order of magnitude. We have extended this technology into wildlife management, resulting in improved hunting opportunities and more timely information on which to make management decisions.

Mobile apps appeared less than a decade ago, but now there is a mind-boggling array from which to choose. For hunters, the right app can aid with decisions about when and where to hunt to maximize opportunities under today's time constraints. For hunting clubs and landowners, the right app can help with hunter, deer, and property management. Finally, for state wildlife agencies, the right app can collect hunt data to more effectively and efficiently manage deer at county or larger scales.

Our new app "Deer Hunt" is designed to address all of these needs in a single package for deer hunters and managers, and best of all, it is free to download and use. Individual and property information is password protected, so your information cannot be seen by anyone you do not approve.

By downloading and using Deer Hunt, hunters collect their own data during the hunting season and examine it in real time, allowing them to make decisions about when and where to hunt, learn about deer behavior, and remain safe in the field. For example, a hunter can assess how the current weather conditions affect each stand. The app produces a "snort zone" based on wind direction, so you can determine if the expected deer movement is upwind or downwind from your stand. Hunters can also keep track of the number of fawns, does, and bucks of various ages observed while hunting. Use all of this information in reports to refine your hunting strategy.

With Deer Hunt, friends, family, and hunting club members can be part of a unique group, where each member has a unique username and password. Group members can see which stands are occupied without going to a central location, but they can also monitor their hunting buddies if they do not show up back at camp when expected, which is a great safety feature.

Deer Hunt makes this easier than ever, with observations uploaded after each hunt. Reports show sex ratios and fawn recruitment for the property, and agency biologists can estimate it for the county or region. Furthermore, they do not have to wait until after the season to receive the data. Hunters can also record other wildlife species, like turkey, feral hogs, and predators. The more hunters that use Deer Hunt, the more powerful this mobile app is as a management tool.

Deer Hunt was developed as a tool for hunters and wildlife managers by the Mississippi State University Deer Lab and the Mississippi State University Extension Service, in cooperation with Mississippi Department of Wildlife, Fisheries, and Parks. This mobile app can be downloaded at www.msudeerlab.com free of charge. Funding has been provided by MDWFP using Federal Aid for Wildlife Restoration funds.

Chronic Wasting Disease

Pictured above: A deer from Wisconsin with CWD

Chronic wasting disease (CWD) is a progressively degenerative fatal disease that attacks the central nervous system of members of the deer family. To date, it has been diagnosed in elk, mule deer, black-tailed deer, white-tailed deer, and moose. CWD is one of a group of diseases known as transmissible spongiform encephalopathies (TSEs). These diseases are characterized as transmissible because they can be transmitted from an infected animal to a noninfected animal. They are further classified as spongiform due to the "spongy-like" areas which form in the brain of the infected animal, hence the encephalopathy portion of the name.

The scientific community generally accepts that the infectious agents of CWD are prions. Prions are abnormal proteins that seem to have the ability to alter the structure of normal proteins found in the body of the animal they enter. Logical natural methods of prion transmission include, but may not be limited to, secretions and excretions from infected animals. A study conducted at Colorado State University found that CWD can be transmitted experimentally from saliva and blood. Also, human activity contributes to environmental prion contamination. Prions are hideously durable and impervious to most disinfectants and natural conditions, remaining in the environment for years.

Animals suffering from CWD typically behave abnormally by separating themselves from their usual social group. They often stand alone, with a drooped posture, and may not respond to human presence. As the disease progresses, they will appear very skinny on close examination and will salivate, drink, and urinate excessively.

Currently due to the loss of federal funding for CWD testing, the MDWFP is only sampling target deer, road kills, and deer harvested during herd health evaluations (HHEs). A total of 114 samples were collected from free-ranging white-tailed deer in Mississippi during the 2015–2016 sampling period. All free range samples were submitted to the Colorado State University Veterinary Diagnostic Laboratory. Evidence of CWD was not detected in any of the tested samples.

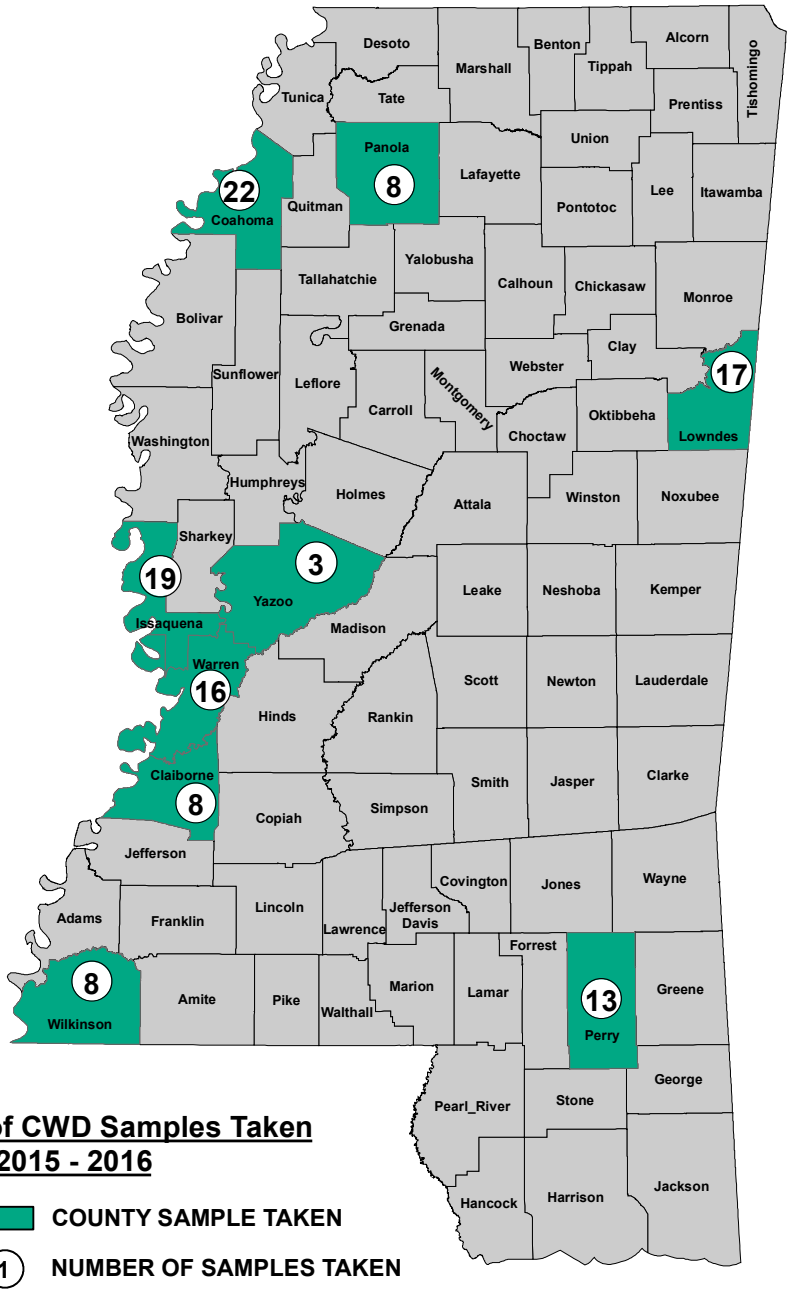
Additionally, 183 samples were taken from white-tailed deer within high-fenced enclosures and submitted to the National Veterinary Services Laboratories for testing. Evidence of CWD was not detected in any of the enclosure samples. See page 37 for more information regarding CWD surveillance for high-fenced enclosures.

The MDWFP, in cooperation with the Mississippi Board of Animal Health and the U.S. Department of Agriculture/Veterinary Services will continue target animal surveillance. A target profile animal is any adult cervid that is emaciated and shows some neurological disorder. These target animals should be reported to the local county conservation officer, who has been trained to properly handle them and coordinate their transport to the appropriate laboratory for CWD testing. Most deer exhibiting symptoms of CWD are actually suffering from other conditions or diseases common to white-tailed deer in Mississippi. Malnutrition, hemorrhagic disease, brain abscesses, and other conditions may cause some of the same symptoms. However, due to the seriousness of CWD and the importance of early detection and control, it is necessary to test target animals for infection. The ability to diagnose disease is dependent on quick reporting because deer carcasses deteriorate rapidly in Mississippi's climate.

Hunters who wish to take additional steps to avoid potential unnecessary contact with prions or environmental contamination can do the following:

- Avoid shooting, handling, or consuming any animal that appears sick. Contact the MDWFP at 601-432-2199 if you see or harvest an animal that appears sick.
- Wear latex gloves when field dressing or processing deer.
- Avoid eating or contact with brain, spinal cord, spleen, lymph nodes, or eyes.
- Cut through the spinal cord only when removing the head. Use a knife designated solely for this purpose.
- Bone out meat to avoid cutting into or through bones. Remove all fat and connective tissue to avoid lymph nodes.
- Dispose of all carcass material, including the head, in a landfill or pit dug for carcass disposal purposes.
- Either process your animal individually or request that it be processed without adding meat from other animals.
- Disinfect knives and other processing equipment in a 50% bleach solution for a minimum of one hour.
- Discontinue baiting and feeding which unnaturally concentrate deer.

Figure 3 **Number of CWD Samples Taken**



CWD has not been found in Mississippi

Hemorrhagic Disease

Biting Midge (Culicoides spp.) transmits EHD

Mouth Lesions from EHD

Hoof Sloughing from EHD

Hemorrhagic Disease (HD), sometimes referred to as Epizootic Hemorrhagic Disease (EHD) or Bluetongue (BT), is considered the most important viral disease of white-tailed deer in the United States. Different subtypes of two closely related viruses cause HD: EHD and BT. To make it more complex, there are technically six subtypes of BT virus and two subtypes of EHD virus. A distinguishable difference does not visually exist between these diseases, so wildlife managers normally group the symptoms into one category and refer to the condition as HD.

Biting midges of the genus Culicoides transmit HD; therefore the disease is seasonal, based on the abundance of midge vectors. Normal occurrence of HD is late summer through fall (approximately late July–November). Deer that become infected with the HD virus may exhibit a variety of outward symptoms. Some mildly infected deer will exhibit few symptoms. Others which contract a more potent form of the virus will appear depressed, become feverish, have swollen areas around the head or neck, and may have trouble breathing. Those contracting the potent form of the virus can die within 1 to 3 days. Normal population mortality rates from HD are usually less than 25 percent. However, mortality rates greater than 50 percent of the population have been documented. On a brighter note, HD has destroyed no free-ranging deer population.

HD is first suspected when unexplained deer mortality is observed in late summer or early fall. Typically, archers who are scouting during late September are the first to observe suspect carcasses in the woods. On some occasions, HD deer are found dead during the late summer in or adjacent to water. The fever produced by the disease causes the infected deer to seek water. These deer may subsequently succumb to the disease in or near creeks and ponds.

Hunters will most frequently encounter the evidence of HD while observing harvested deer during the winter months. During the high fever produced by HD, an interruption in hoof growth occurs. This growth interruption causes a distinctive ring around the hoof, which is readily identifiable upon close examination. Hoof injury, as well as bacterial or fungal infection can cause a "damaged" appearance on a single hoof. HD is not considered unless involvement is noticed on two or more hooves.

Fortunately, people are not at risk of contracting HD. Handling infected deer or eating the venison from infected deer is not a public health risk. Even being bitten by the midge carrying the virus is not a cause of concern for humans. Deer which develop bacterial infections or abscesses secondary to HD may not be suitable for consumption.

The case is not as clear regarding domestic livestock. A small percentage of BT infected cattle can become lame, have reproductive problems, or develop sore mouths. Variations exist between BT and EHD virus infection in cattle and domestic sheep. Sheep are usually unaffected by EHD but can develop serious disease symptoms with the BT virus.

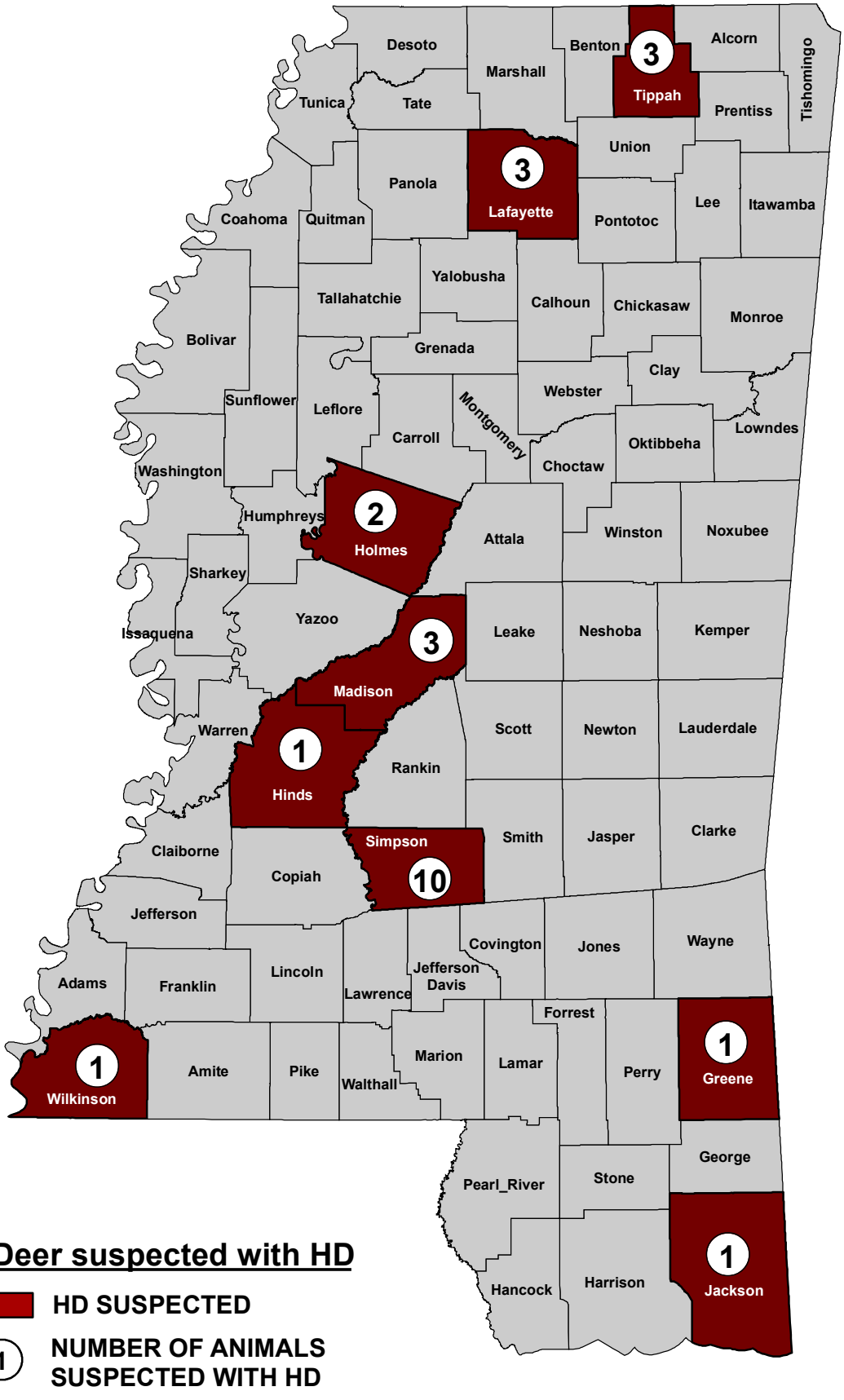
Occasionally over-population of a deer herd has been blamed for outbreaks of HD. Abnormally high deer populations are expected to have greater mortality rates because the deer are in sub-optimal condition. Furthermore, the spread of the virus would be expected to be greater in dense deer herds. However, an outbreak of HD cannot be directly attributed to an overpopulated deer herd.

HD can be diagnosed several ways. A reliable tentative diagnosis can be made after necropsy by a trained biologist or veterinarian. A confirmed diagnosis can only be made by isolating one of the viruses from refrigerated whole blood, spleen, lymph node, or lung from a fresh carcass.

MDWFP biologists have been monitoring the presence of HD in Mississippi by several methods: through investigation of sudden, unexplained high deer mortality during late summer and early fall, necropsy diagnosis, isolation of EHD or BT virus, and observation of hoof lesions on hunter-harvested deer. HD or previous HD exposure is always present in Mississippi deer herds. Similar to disease resistance in humans, previous exposure without mortality yields the development of antibodies that afford the animal protection against future exposure to a disease. Without the antibody presence, significant mortality would occur.

A low occurrence of HD was observed during the 2015–2016 hunting season, with evidence of HD reported in 25 deer across 9 counties **(Figure 3)**. Researchers have documented a distinctive 2–3 year cycle in HD outbreaks. Assuming that these cyclic outbreaks occur, we can expect a higher occurrence of HD during the 2016–2017 hunting season.

Figure 4 **Deer Suspected with HD**



Conservation officers often assist farmers and landowners in mitigating agricultural depredation by deer through the use of Animal Control Permits (ACPs). The method for application of ACPs changed significantly in the fall of 2009. Landowners who experience deer depredation problems on agricultural plants, gardens, and ornamental landscaping are required to apply for a permit before any action is taken to harass or remove problem animals. The process for permit issuance includes an on-site evaluation by an MDWFP officer to verify the occurrence of depredation, documentation of damage or safety concerns with photographic evidence, followed by submission of the ACP application to supervisors and administrative personnel for final approval. Permits are issued primarily for agricultural damage, but ornamental vegetation is included. Miscellaneous problems such as deer on airport runways and in suburban areas also occur and are handled by the U.S. Department of Agriculture/Wildlife Services (USDA/WS), who are issued permits to conduct removals. MDWFP personnel are not permitted to conduct lethal removals under an ACP within an urban/suburban area due to safety and liability concerns. Additionally, property owners should know that permits are not issued in every situation.

A total of 239 ACPs were issued in 43 counties during 2015. This was an increase over the 196 permits issued in 40 counties during 2014. This increase in 2015 may be associated with an increase in the number of deer within the state's deer herd along with a reduction of their natural food sources.

The ability to associate trends in deer abundance with the number of ACPs issued may have been lost until people adjusted to the new application process. Counties where ACPs were issued and the number of permits issued by county are shown in **Figure 4**. Counties with the most depredation problems are generally counties with the most rapidly expanding deer populations. Cases of deer depredation included damage to soybeans, corn, cotton, peas, sweet potatoes, watermelons, gourds, numerous garden and truck crops, flowers, ornamental trees, shrubs, landscaping, and interference on airports.

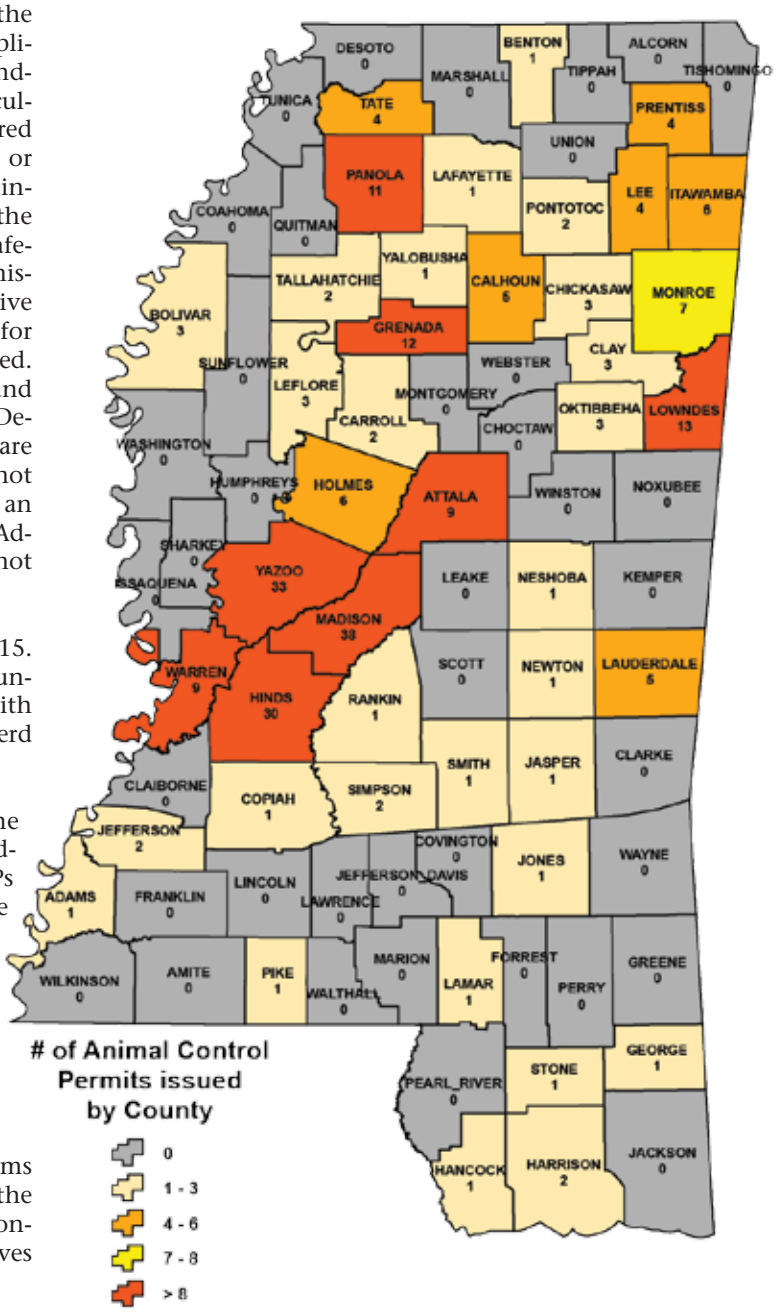
The preferred method of controlling deer depredation problems is adequate hunter harvest during deer season. This lowers the deer population to levels that are in balance with the environmental carrying capacity of the habitat. Normally this involves cooperation with adjoining landowners and hunting clubs.

Alternative direct methods used to solve depredation problems include scare or harassment tactics, assorted chemical applications, electric fencing, and traditional fencing at a height that eliminates deer access. High fencing around gardens and small problem areas is costly but provides assured control on a long-term basis with little or no maintenance.

In some instances, after other control measures have been exhausted, deer will be lethally removed. This process seldom provides a long-term solution but is used in some problem situations.

Depredation problems will continue to occur in Mississippi as long as abundant deer populations exist. Extensive problems with agricultural depredation can be controlled with adequate antlerless harvest. Instances of urban conflicts with deer are increasing due to escalating deer numbers and urban sprawl. Urban deer problems are magnified in cities where bowhunting has been banned.

Figure 5 **2015 Animal Control Permits**



Deer herd health evaluations (HHEs) are conducted by MDWFP biologists annually. Evaluation sites are selected each year based on a specific need for additional information which cannot be obtained from hunter-harvested deer. These sites may be DMAP cooperator lands, WMAs, open public lands, or areas with a specific deer management concern. Some sites are sampled annually, others on a rotational schedule of 2 – 3 years, and some locations on an as-needed basis.

Time constraints normally limit the number of locations biologists sample each year. Deer collections are conducted during the months of February, March, and April. Collection timing must be late enough to ensure that all does have been bred, but early enough to precede spring green-up when foliage density reduces the ability to readily observe and identify deer. The sampling window is most critical in the southern portion of the state where late breeding occurs and early green-up of native vegetation occurs.

The winter of 2015–16 was marked by heavy flooding that impacted the Mississippi River Valley from December through April. The MDWFP closed several Delta areas to deer hunting as the flooding worsened and deer were forced out of their normal home ranges. The MDWFP used the abnormal flooding situation to monitor the herd along the Mississippi River. HHEs were conducted in areas were flood waters had recently subsided, in areas adjacent to flooding, and in areas partially inundated. The goal was to determine the effects of early winter flooding on deer health and reproduction.

Biologists complete an application for approval to conduct each herd health evaluation during a specific time period. The MDWFP Deer Committee reviews these applications and denies or grants approval. Other agency personnel assist the biologist in charge of the deer collection. When non-agency personnel are participating in the process, specific prior approval is obtained on the application.

During a typical herd health evaluation, biological data regarding reproduction, body condition, and disease are collected from mature females. A minimum of 10 mature females are desired to obtain an adequate sample size to assess herd parameters. Mature does are collected during the late afternoon on existing food plots or at night with the aid of a light and truck platform, which has been designed specifically for this purpose. Non-target deer are occasionally taken by mistake during the collection process. Data are obtained from all deer but the purpose of the evaluation is to obtain reproductive, physical condition, and disease data from mature females. All measurements and data are obtained from the deer on site or at a convenient nearby location. All deer are donated to a charitable institution or to an individual determined needy by agency personnel. Neither deer nor portions thereof are utilized by any MDWFP employees. Receipts are obtained from every deer donated. Rarely, instances have occurred where deer had to be disposed of in a manner where human utilization was not possible.

Reproduction

Reproductive data collected during herd health evaluations include conception dates, fawning dates, number of corpus lutea per doe, and number of fetuses per doe. Conception dates and fawning dates are determined using a fetal aging scale. Fetal length is measured on the fetal aging scale and the length is used to calculate conception date and fawning date. Breeding date ranges for Mississippi are presented in **Figure 5**. Data from the 2016 statewide deer herd health evaluations are given in **Table 4**. Data were collected from 91 deer on 11 sites across the state.

In **Table 4**, conception date ranges, averages, and corresponding fawning dates are given for each collection site. The earliest conception date (23-November) was detected at Ward Lake Hunting Club in Coahoma County. The latest conception date (24-February) was detected at Camp Shelby in Forrest County. Mean fawning dates based on the conception dates ranged from (29-June) on Burke Hunting Club in Coahoma County to (15-August) on Camp Shelby in Forrest Count. The statewide average conception date was (1- January) and the corresponding state average fawning date was (16-July).

Sample sizes for each collection site are given as N1 or N2. Different groupings by age and sex are mandatory to accurately interpret condition and reproductive data. Total 1½+ year old fecund (capable of breeding) does are represented as N1. Mature 2½+ year old does are represented as N2. Both N1 and N2 deer are utilized to calculate conception dates, but only N2 deer are considered in the sample when reproductive rates and condition data are compared.

Data comparing conception ranges and mean conception dates are self-explanatory. Average number of corpus lutea (CLs) is determined by examination of the ovaries of each N2 deer in the sample and counting the number of CLs present at the time of collection. A CL is a structure in the ovary which forms when an egg is released. The CL functions to maintain pregnancy by the release of hormones. As in domestic livestock, healthy deer on a high plane of nutrition will produce more eggs than deer in poor condition. Therefore, CL data provide a quantitative index to gauge not only reproductive performance at a specific site but also provide a general index to overall herd condition. CL data ranged from a low of (1.6 CLs) per doe at Black Bear Plantation in Issaquena County to a high of (2.4 CLs) per doe on Black Prairie WMA in Lowndes County.

Average number of fetuses are also self-explanatory, but will, in most instances, be a lower number than the average number of CLs because all CLs do not represent a viable fetus. As the average number of CLs provides an index to reproductive rates and herd condition, the average number of fetuses per doe provides an additional index to determine site-specific herd health. Average number of fetuses per doe ranged from a low of 1 at Fitler Timber in Issaquena County to a high of 2.2 on Black Prairie WMA in Lowndes County. The state average CL count and fetal count were both 1.8. This is due to multiple areas having does with maternal twins (two feti from a single egg.) In fact, a doe sampled at Canemount WMA released two eggs and had four feti.

Body Condition

Body condition data collected during herd health evaluations include dressed weight and kidney fat index (KFI). Average dressed weight only includes N2 deer. A wide range of weights are apparent due to soil type, deer herd condition, and habitat

type. In general, dressed weight is a reliable indicator to help gauge herd condition but should not be used to compare different sites unless all soil and habitat types are uniform.

KFI provides a quantitative index to energy levels within a deer herd. KFI is calculated by expressing the weight of the kidney fat as a percentage of the kidney weight. Deer in good physical condition usually have a KFI of over 100%. Substandard kidney fat levels were found at several areas. The highest value during 2016 was (145.8%) seen on Canemount WMA in Claiborne County.

Disease

Biological samples were taken during the herd health evaluations for the purpose of Chronic Wasting Disease (CWD) monitoring. The presence of CWD was not detected in any samples taken during the 2016 herd health evaluations.

Discussion

Eight of the eleven HHEs conducted in 2016 targeted flood impacted areas. Later than average breeding was observed on four of these properties. The remaining four had near average or before average breeding dates. The average number of CLs and feti were not affected by the flooding. In fact, the fetal count was 100% of CL count. This is considered high under normal conditions and suggests that any stress from the flooding did not negatively impact breeding success or early term fetal abortion rate. Additionally, average body weights held constant from previous site-specific HHEs. This suggests that any flood related displacement or temporary increase in deer density did not negatively impact nutritional intake prior to the HHEs.

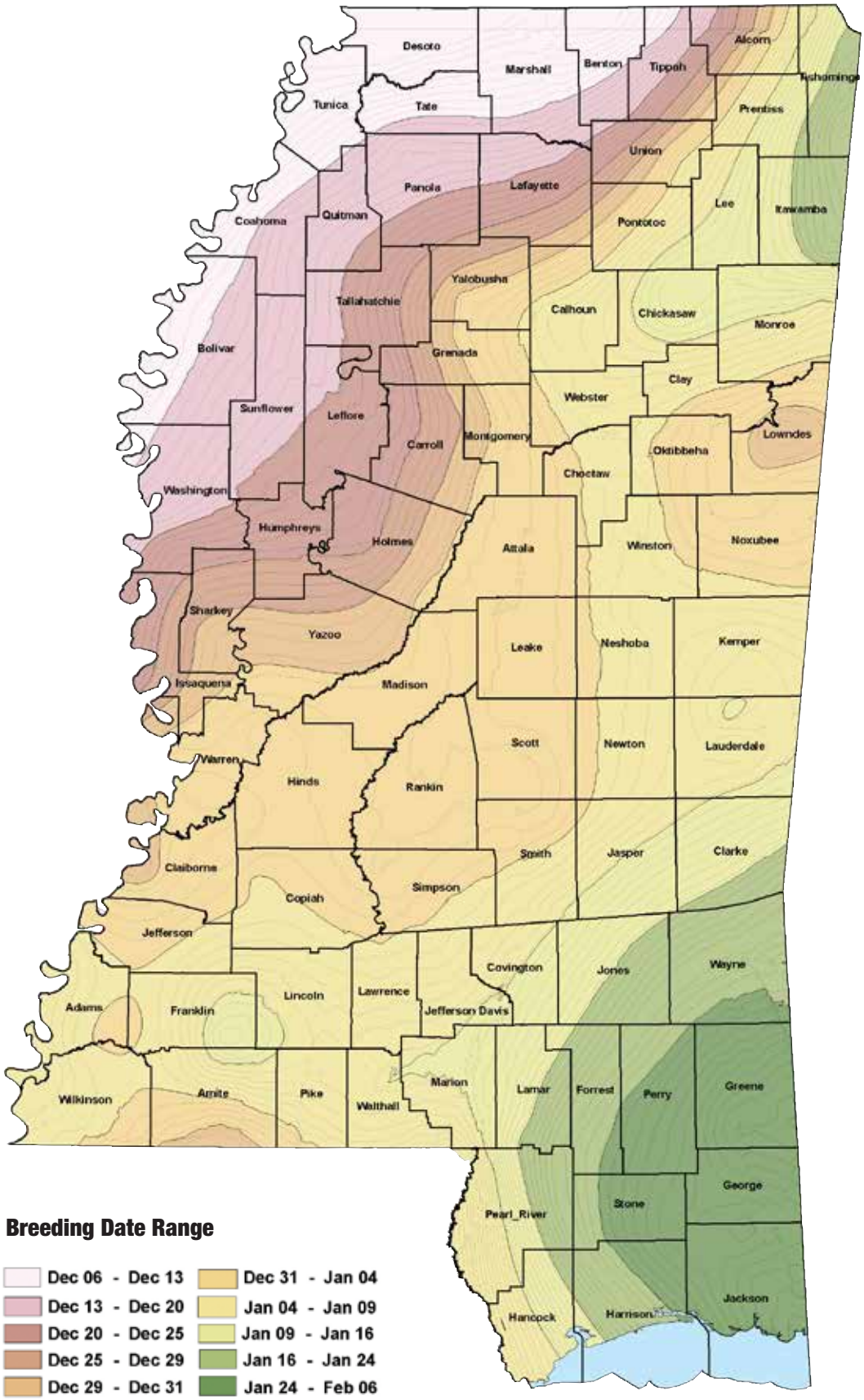
Table 4 2016 Deer Heard Health Evaluation Summary

Soil	SiteID	SITE	Date	N1	N2	MinConDate	MaxConDate	AvgCon	Avg-Fawn	Avg#-CLs	AvgFe-tus	AvgW-ght	AvgKFI
D	19	Black Bear Plantation*	7-Mar	10	10	7-Dec	8-Feb	31-Dec	15-Jul	1.6	1.5	85.1	52.4
BP	20	Black Prairie WMA	9-Mar	11	9	18-Dec	13-Jan	29-Dec	13-Jul	2.4	2.2	90.56	66.72
B	24	Burke Hunting Club*	1-Mar	8	7	4-Dec	5-Jan	15-Dec	29-Jun	1.7	1.6	90.43	66.44
LCP	30	Camp Shelby	13-Apr	11	10	20-Jan	24-Feb	31-Jan	15-Aug	1.7	1.7	68.3	43.5
Lthick	33	Canemount WMA*	7-Mar	6	4	16-Dec	21-Jan	28-Dec	12-Jul	2	2.3	93.75	145.83
D	115	Mahannah WMA*	7-Mar	13	11	27-Nov	8-Feb	20-Dec	4-Jul	2.1	2	100.91	115.32
Lthick	191	Woodlawn*	14-Mar	8	7	13-Dec	31-Jan	6-Jan	21-Jul	1.7	1.7	85.67	107.76
B	203	Ward Lake*	1-Mar	10	8	23-Nov	25-Dec	17-Dec	1-Jul	2	2.1	104.38	116
Uthick	211	Charles Ray Nix WMA	3-Mar	7	7	5-Dec	6-Jan	24-Dec	8-Jul	2	2	80	91.6
D	214	Fitler Farms LLC*	7-Mar	5	5	21-Dec	22-Feb	13-Jan	28-Jul	1	1	86	41.8
D	295	Lake George WMA*	8-Mar	2	2	24-Dec	16-Feb	20-Jan	4-Aug	2	1.5	100	135.9
				91	**80**		**13-Dec**	**27-Jan**	**1-Jan**	**16-Jul**	**1.8**	**1.8**	**89.55**

N1: Numer of females 1.5+ years old
N2: Numer of females 2.5+ years old

*Indicates area impacted by flooding

Figure 6 **Breeding Date Range**



The 2015–2016 hunting season was the sixth year using the antler criteria and management zones developed and implemented prior to the 2009–2010 hunting season. Zone lines are based on soil regions using highways and interstates as dividing boundaries. See **Figure 6** for zone boundaries. Within each Deer Management Zone, hunting opportunity was allowed as follows:

1) Hill Zone allowed hunting opportunity from October 1 through January 31. Legal bucks were those having a minimum 10 inch inside spread or a minimum 13 inch main beam.

2) Southeast Zone allowed hunting opportunity from October 15 through February 15. Legal bucks were those having a minimum 10 inch inside spread or a minimum 13 inch main beam.

3) Delta Zone allowed hunting opportunity from October 1 through January 31. Legal bucks were those having a minimum 12 inch inside spread or a minimum 15 inch main beam.

The objective of the antler restrictions within these Deer Management Zones was to protect most 1½ year old bucks statewide. This protection was intended to prevent over-harvest of young bucks and improve antler size as bucks get older. In order to accomplish this, the antler criteria needed to be easy to use, yet unique for each soil region because some soil regions grow significantly bigger deer than others. Therefore, the three Deer Management Zones were implemented using specific antler criteria and season structure for the respective zone. All three zones had the same season structure as in previous years. Biological data did not warrant changes in season structure. Hunting opportunity was allowed in the Delta and Hill Zones from October 1 through January 31. Hunting opportunity was allowed in the Southeast Zone from October 15 through February 15. The Southeast Zone opened two weeks later to take into consideration the late fawning dates of the coastal soils. Additionally, buck hunting opportunity was extended through February 15 to allow additional hunting opportunity during the later breeding period of the southeast (See breeding date map, **page 35**. This shifted season is based on Deer Herd Health Evaluation Data which illustrates later breeding within the Southeast Zone during January through mid-February.

Inside spread antler restrictions placed on some Wildlife Management Areas (WMAs) are in their fourteenth year of existence. Antler regulations on most WMAs were amended for the 2007–2008 hunting season to include a minimum main beam length restriction, while dropping the 4-point restriction. Under the new antler regulations, legal bucks must meet either the minimum inside spread or the minimum main beam length. Results from studies on the effects of the "4-point law" and apparent over-harvest of bucks on some WMAs gave support to the change in antler regulations on WMAs and also helped lead changes in statewide antler regulations.

Beginning in the 2003–2004 hunting season, management buck tags were issued to WMAs and DMAP properties allowing additional harvest of sub-optimal bucks. For more information on management buck tags, see the Deer Tags section of this report on page 40.

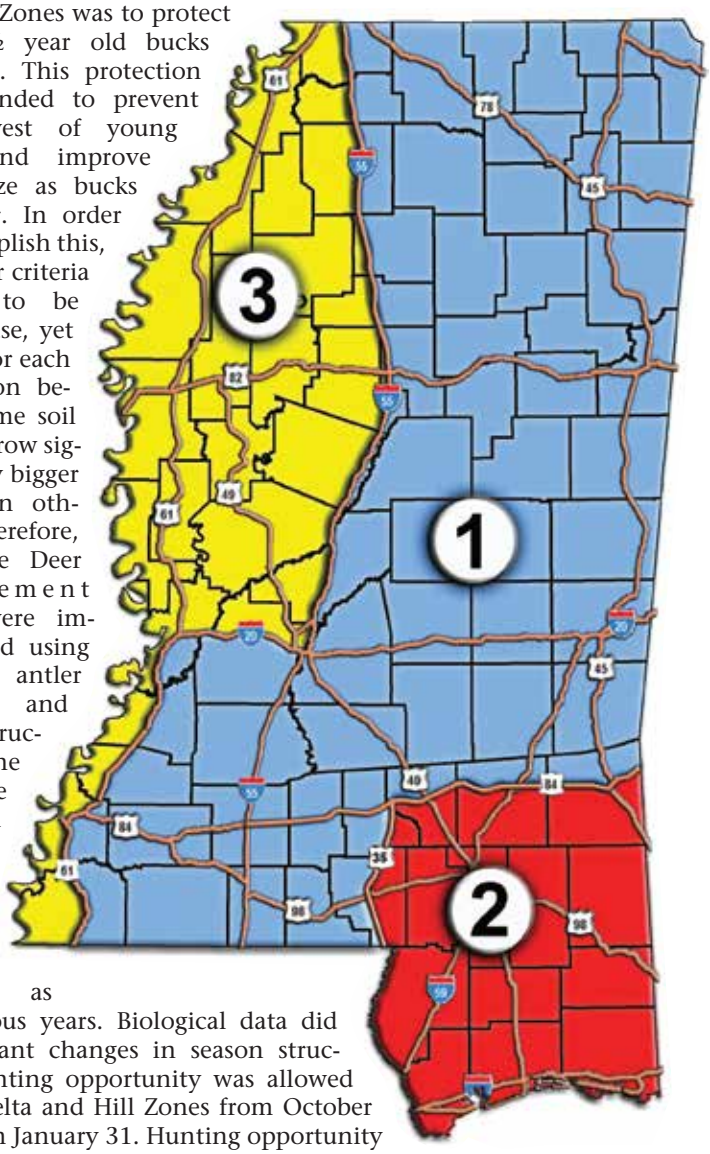


Figure 7 **Deer Management Zones**

Legal Bucks			
Zone	Inside Spread	OR	Main Beam
1	10″	OR	13″
2	10″	OR	13″
3	12″	OR	15″

PERMITS

40 Miss Admin. Code, Part 2, Rule 8.2 requires owners of enclosures containing white-tailed deer to obtain an annual Facility Permit from the MDWFP. The permit is valid from July 1 through June 30. For the 2015– 2016 permit year, 114 facility permits applications were received totaling 84,602 acres. See **Figure 7** for enclosure locations in Mississippi.

40 Miss Admin. Code, Part 2, Rule 8.2 allows white-tailed deer breeding pens within enclosures of at least 300 acres. For the 2015–2016 permit year, 6 white-tailed deer breeder permits were issued along with 485 metal ear tags which are to be inserted in all deer 1.5 years old and older being held in a breeding facility. As allowed by 40 Miss Admin. Code, Part 2, Rule 8.2, no intrastate white-tailed deer transport permits were issued.

As described in Section 49-11-3, Mississippi Code of 1972, the MDWFP may issue operating licenses to any person, partnership, association, or corporation for the operation of commercial wildlife enclosures. Each commercial wildlife enclosure shall contain a minimum of 300 acres in one tract of leased or owned land. During the 2015–2016 permit years, 18 big game commercial wildlife enclosure licenses were issued.

ENCLOSURE MANAGEMENT ASSISTANCE PROGRAM

As required 40 Miss Admin. Code, Part 2, Rule 8.2, all permitted high-fenced enclosures containing white-tailed deer must be enrolled in the Enclosure Management Assistance Program (EMAP). The owner of a permitted high-fenced enclosure must work with an MDWFP approved wildlife biologist to manage the white-tailed deer herd within the enclosure.

EMAP is a sub-level of DMAP (Deer Management Assistance Program). The starting point of EMAP is goal/objective setting by the enclosure owner to manage the white-tailed deer herd within their enclosure. Once goals and objectives are set, biological data are collected from harvested white-tailed deer, (i.e., weights, antler measurements, lactation data on does, and a jaw-bone pulled to determine the age of each deer harvested). The enclosure owner is responsible for the collection of biological data. The wildlife biologist is responsible for supplying the enclosure owner with harvest data sheets and jawbone tags.

EMAP cooperators receive a harvest summary report after each hunting season. This report contains a detailed analysis of current and historical harvest as well as graphs and charts that show trend directions while facilitating data interpretation.

For management of deer herds within high-fenced enclosures and upon the request of the wildlife biologist, the MDWFP may issue management buck and doe tags to EMAP properties to allow the harvest of does and management bucks in excess of the annual and daily bag limits.

For the 2015–2016 hunting season, harvest data were submitted for 55 enclosures, with 520 bucks and 711 does harvested. For management purposes, 370 buck tags were issued to 19 enclosures and 555 doe tags were issued to 21 enclosures.

CHRONIC WASTING DISEASE SURVEILLANCE

Regulations adopted by the Mississippi Commission on Wildlife, Fisheries, and Parks (40 Miss Admin. Code, Part 2, Rule 8.2) allow the movement of captive white-tailed deer from one permitted high-fenced enclosure to another permitted high-fenced enclosure within Mississippi only if the high-fence enclosure from which the deer originate is participating in the *Mississippi White-tailed Deer Herd CWD Certification Program*. No person may import a live white-tailed deer into Mississippi pursuant to Section §49-7-54, Mississippi Code of 1972.

It is the responsibility of the enclosure/breeding pen owner to obtain sampling supplies and collect samples. Retropharyngeal lymph nodes and obex tissue must be collected for testing.

The MDWFP supplies sampling data sheets to the enclosure/breeding pen owner. Once samples are collected, the MDWFP submits samples to the testing laboratory and supplies test results back to the enclosure/breeding pen owner. The contract laboratory for all captive CWD testing is the National Veterinary Services Laboratories. Visit www.mdwfp.com/deer for more information regarding the *Mississippi White-tailed Deer Herd CWD Certification Program*.

For the 2015–2016 permit year, 183 samples were taken from white-tailed deer within 18 high-fenced enclosures and submitted to the National Veterinary Services Laboratories for CWD testing. All samples were tested and evidence of CWD was not detected in any of the samples.

Figure 8 **Permitted Enclosures 2015–2016**

MANAGEMENT BUCK TAGS

During the 2003–2004 hunting season, sub–4 point bucks were legal for harvest for the first time since 1995. Sub–4 point tags were issued by biologists to DMAP properties on a limited basis for management purposes. During the 2005–2006 season, tags were expanded to include management bucks. Management buck tags were issued to DMAP properties allowing additional harvest of sub-optimal bucks. Tagged bucks did not count against the annual bag limit. During the 2006–2007 season, tagged bucks did not count against the annual and daily bag limit. The management buck harvest criteria were for an individual property and determined by the DMAP biologist. A written management justification issued by the MDWFP must accompany any request for such a permit. Management bucks harvested under this permit must be identified with a tag immediately upon possession.

Management buck tags were issued to the following 156 DMAP properties for the 2015–2016 season: 27 Break, 3 Creeks, Aesland Sportsman, Apooka, Archer Island, Arkabutla, Attala, Atwoods, Barefoot, BBP HC, Beck's Bay, Beech Ridge, Big Black Wildlife, Big O, Big River Farms, Biggers, Binford Place, Black Bayou, Bonanza, Box B, Bozeman Farms, Breakwater, Brierfield, Brooksville, Bruce Kirkland, Burke, C G M, C&F, Cameron East, Cameron Plantation, Casey Jones Mgt, Catfish, Cedar Ridge, Chad Bradford, Champion Hill, Chesterfield, Chief, Circle M, Clark & Clark, Concordia, Coon Hunters, Cotton Gin, Curran & Josh Carroll, Cypress Bend, Cypress Pond, Cypress Run, Dancin Coyote, Dancin Coyote adj land, Delta Marsh, Deviney FR, Diddy wah diddy, Dixon Brothers Dixon Lake LLC, DMAP, Dog River Donaldson PT, Double D Farms, Double Deuce, Elliot Lake, Ellislie Ensley Bottom Farms, Fairview Plantation, Fitler Farms, Francis Landing, Georgetown, Glassock Island, Golding Farms, Grenada Dam 5989, Grimp, Gumbo Flats, Halifax, Halpino, Hartwood, Hawk's Grove, Heifer Pasture, Hofman, Homewood, Horseshoe Lake Lodge, Hutcherson, Independence, Isnt Tranquility, J Cameron, Joe Sewell Coop, John Robinson, Lake Forest Ranch, Leland Irby, Magna Vista, Magna Vista Section, Malmaison WMA, Melrose, Melton Properties, Merigold, Millbrook, Molestage, Moore Farms, Nails Bayou, North Cameron, P & W, Palmer Farms, Palmyra, Paradise, Patrick Farms, Persimmon Creek, Pine Knot, Pinecrest, Pinhook, Possum Creek, Prewitt, Primos Lease, Providence Plant, Rabie's Retreat, Red Gate, Refuge Land Co, Regan Island, Richard Reid, Riverland, Rivers Run, Riverside, Riverwatch, Rosedale, Scotland, Shadyside, Shiloh Landing, Slay Wilderness, Sligo, Solitude, Speights Farms, Sun Creek Cons, Swamp Donkey LLC, Talking Warrior, Tara, TCP, Tennessee Bar, Togo Island, Tri County, Triple C Farms, Triple Creek, Twin Lakes, Vance, Ward Lake, Washingon Island, Wetlands, White House, White Oak, Wilderness Main, Williams Farm, Willow Oaks, Woodlawn Plantation, Yates, and Yucatan.

A total of 2,244 tags were issued to these DMAP properties, and 426 of these tags were used. The number of DMAP clubs receiving buck tags and the number of tags issued are down very slightly from the previous season. However, the number of clubs receiving tags and the number of tags issued are still higher than the previous four seasons **(Figure 7)**. Although buck tag numbers and usage declined somewhat this past season, the utility of these tags still remains high. These tags allow the harvest of sub-optimal bucks that would otherwise be passed up by hunters because the deer would count against the daily and annual bag limit. Removal of these deer aids many clubs in maintaining deer herds at or under habitat carrying capacity.

DMAP ANTLERLESS TAGS

MDWFP issues antlerless tags to DMAP properties. This allows the harvest of antlerless deer in excess of the annual and daily bag limits. These tags have been issued since the implementation of DMAP. When antlerless seasons were liberalized statewide, the need for antlerless tags was reduced. However, some landowners and managers still have the need for more antlerless harvest than state bag limits allow.

Antlerless tags are issued by DMAP biologists based on an individual landowner's or manager's need. The tags can only be used on antlerless deer on the property to which they were issued.

DMAP biologists issued 7,051 antlerless tags to 197 DMAP clubs during the 2015–2016 season. Antlerless tags issued and the number of clubs issued tags have decreased slightly since the 2012–2013 season; however, the increase in antlerless tags issued since the 2003–2004 season correlates to increased interest in deer management in Mississippi **(Figure 9).**

FEE MANAGEMENT ASSISTANCE PROGRAM

The Fee Management Assistance Program (FMAP) was implemented during the 1989–1990 season. It began as a pilot program in two north-central counties at the request of local conservation officers to control expanding deer populations. Under this program, doe tags were purchased for $10 each, at a rate of one per 50 acres. The landowner or club was required to show proof of ownership or hunting control. FMAP allowed the permittee to harvest antlerless deer in addition to the state bag limit. This program was accepted and quickly spread statewide. Sportsmen realized they could properly harvest does and still maintain a huntable population.

Initially, a large number of permits were sold. However, liberalization of antlerless opportunity has occurred throughout the state. There have been no FMAP permits sold since 2013.

Continuation of the program is recommended because it provides an opportunity to harvest antlerless deer in excess of the season bag limit on specific areas that are in excess of the environmental carrying capacity.

Figure 9 **Buck Tags Issued and Used on DMAP Properties**

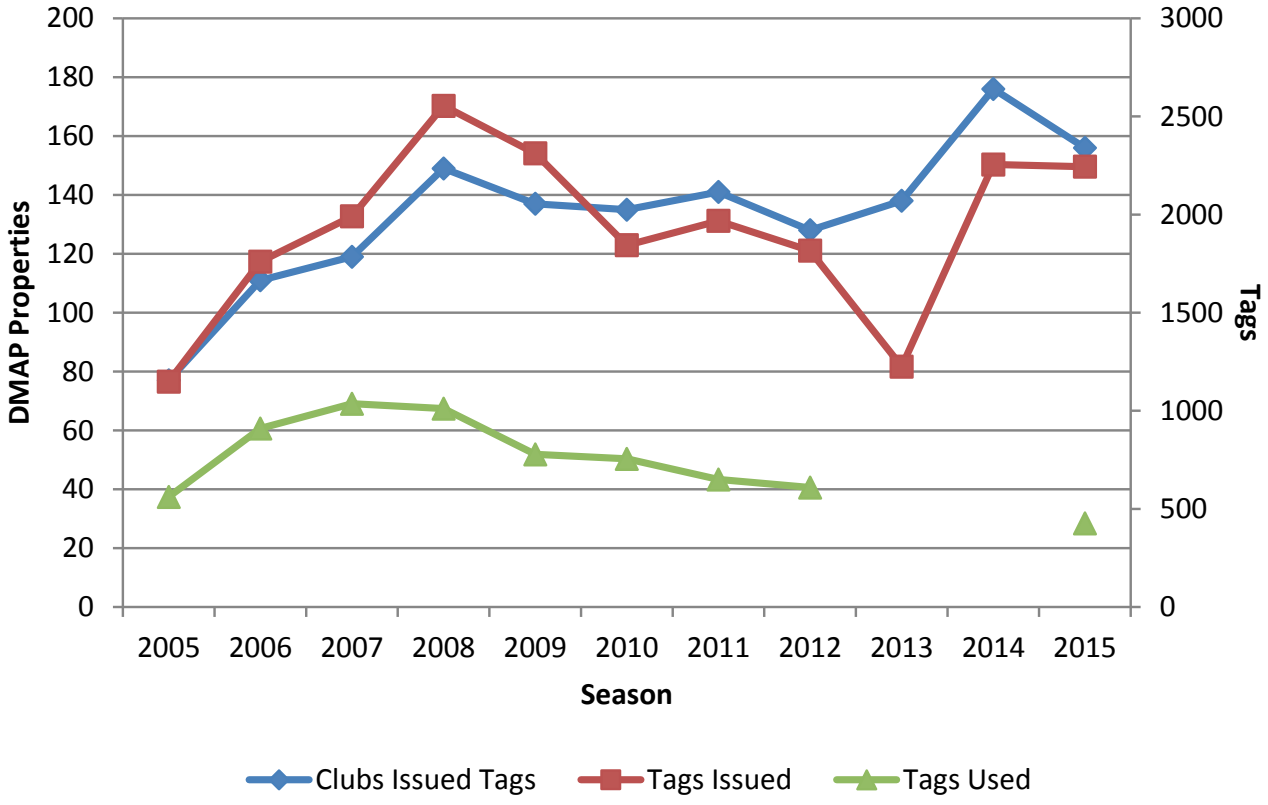
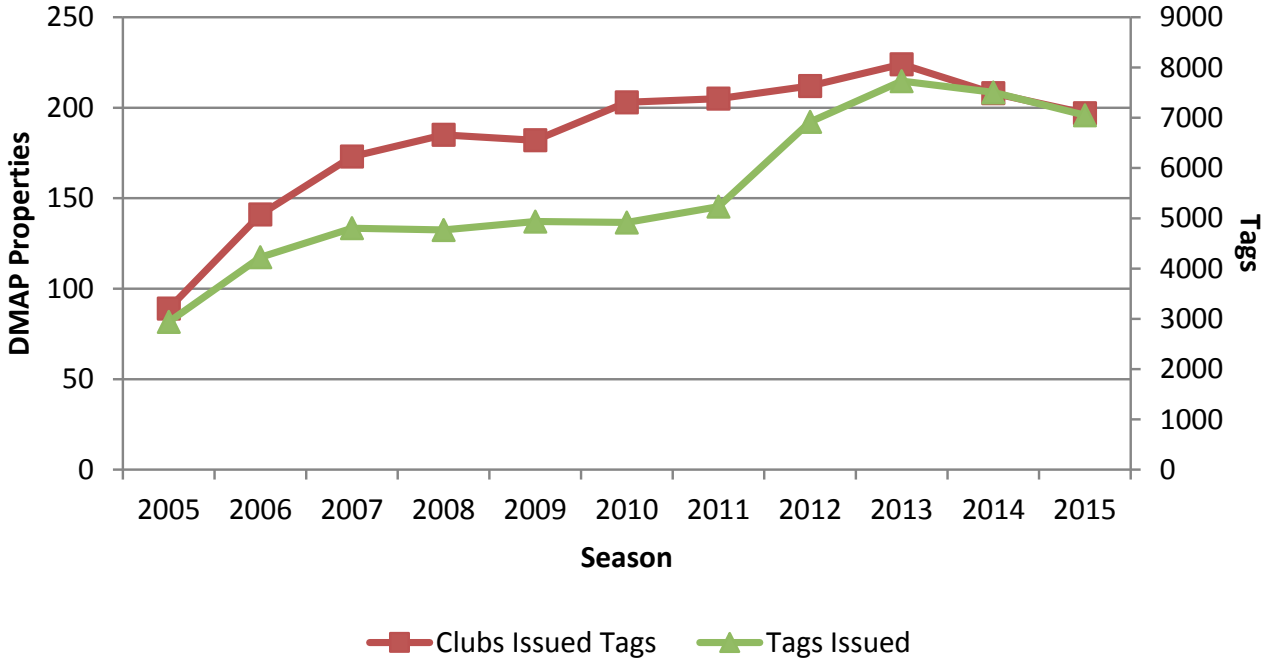


Figure 10 **Antlerless Deer Tags Issued on DMAP Properties**



Through a cooperative research program with Mississippi State University initiated in 1976, the Mississippi Department of Wildlife, Fisheries and Parks gained information which provided biologists with the ability to evaluate population density relative to carrying capacity, using body condition indicators and harvest age structure parameters rather than less reliable population estimates or browse surveys. This Cooperative Deer Management Assistance Program (DMAP) directly involved hunters in management through the collection of biological data. The interpretation of these data, through a partnership between DMAP cooperators and biologists, is the guiding principle of DMAP. From a two-county pilot project in its first year, DMAP grew steadily until participation peaked in 1994 at almost 1,200 cooperators with over 3.25 million acres under management.

As a result of the diligence of hundreds of DMAP cooperators, representing thousands of sportsmen, the DMAP has successfully provided biologists and managers with data to aid in recommendations and decision making. In excess of 10,000 deer have annually been available for comparative purposes since 1983. **(Figure 12)**. Analysis of these data over time captured the obvious trends and subtle changes in deer herd condition and structure. These trends and changes would have gone undocumented and possibly undetected without DMAP. Clubs and landowners participating in DMAP may or may not be representative of hunter goals and objectives on a statewide basis. Therefore, deer condition and herd structure on DMAP lands may not reflect herds on un-managed lands. However, a data source representing more than 1.5 million acres is credible and can be used to examine trend data. The statewide coverage of private lands enrolled in DMAP at the county level can be seen in **Figure 10**.

Liberalized season structure and antlerless bag limits during the mid-1990s allowed land managers the flexibility to meet harvest objectives without the need for additional antlerless tags, which resulted in a decline in DMAP participation in the mid-2000s **(Figure 11)**. Furthermore, it is likely that the peak in DMAP participation in the mid-2000s represents the peak in MDWFPs resources that could effectively be applied to DMAP cooperators. This "saturation point" was predicted in the original DMAP position statement drafted in 1980. Furthermore, the original intent of DMAP was to teach private landowners and hunting clubs to manage their own deer herds. It stands to reason that some clubs might cease to participate in the program once they have gleaned a sufficient amount of deer management knowledge. Current enrollment (public and private lands) includes 575 cooperators on 1,973,933 acres. Total DMAP cooperators have remained on a slightly declining trend since 2002. Total DMAP harvest has mirrored the changes in cooperators and acreage in DMAP over the past few years **(Figure 12)**.

Based on the statewide DMAP data, a few trends are apparent. The addition of statewide antler criteria, first "the 4-point rule" in 1995 followed by statewide spread and main-beam regulations in 2009, have successfully protected yearling bucks and increased the average age of all harvested bucks **(Figure 16)**. Indeed, it is quite impressive to consider that 44% of the buck harvest from 1991-1994 was made up of yearlings, while only 12% of bucks harvested today are yearlings, many of those are taken as management bucks or by youth hunters. Subsequently, more than three-quarters of the buck harvest on DMAP properties during the 2015-2016 season were mature (>3.5 year old). Furthermore, acreage per mature buck harvested is half of what it was during the early 1990s. This means that mature bucks are likely more common over the past 5 hunting seasons than they have been since such data has been recorded.

Statewide condition data for harvested deer on WMAs, NWRs, and DMAP properties are summarized in **Table 9**. This table shows trend data on various antler parameters such as spread, length, circumference, and points. Other information, such as weight and lactation data are also provided in this table.

Perhaps the greatest utility of the DMAP dataset is the ability to evaluate specific deer herd metrics based on soil region. Categorizing harvest data based on soil region, or major physiographic region **(Figure 22)**, is believed to be appropriate based on peer-reviewed research which has shown morphological and antler characteristic differences between these regions. This data is presented in **Tables 10-20**. Soil region summaries allow individual DMAP cooperators and landowners not enrolled in DMAP to compare their harvest data to soil region averages. These tables also present trend data on various antler characteristics such as spread, length, circumference, and points. Other information, such as weight and lactation data are provided in these tables as well. WMA and NWR harvested deer are not included in the soil region tables to give a better representation of the deer herd on private lands on DMAP.

Of particular note for the regional data from the 2015 season is the decline by nearly 30% in total deer harvest in the batture. This is certainly a result of the somewhat unprecedented flooding and subsequent cancelation of deer season for much of the month of January in that region.

A comparison of WMAs/NWRs to DMAP properties reveals some interesting trends. During the 2015 season, private DMAP cooperators harvest nearly two does for every buck, while buck and doe harvest was nearly even on public lands. Acres per deer harvested showed a declining trend through the mid-2000s on both DMAP and WMAs/NWRs, indicating increased hunter success. During the 2015 season, however, acres per deer harvested showed a relatively large increase, indicating decreased hunter success. Although, average temperature during December 2015 was warmer than the average temperature during the previous several Decembers, raising the traditional concerns of decreased deer movement related to temperatures, no peer-reviewed study has shown that such effects on deer movement

exist. Furthermore, prolonged late-summer drought throughout much of the Central Region likely impacted cool-season food plot production, and very likely hunter success.

The early-2010s saw similar trends across private DMAP cooperators and WMAs/NWRs of increasing hunter success in harvesting mature bucks (e.g., decreasing acres per 3.5+ yo buck harvested; **Figure 19**). Notice the dramatic increase in harvest efficiency of mature bucks from 2009 to 2016. This is surely due to the implementation of minimum spread/main beam criteria on these WMAs/NWRs during the 2008 season. Interestingly the average age of bucks harvested on WMAs/NWRs was once again above 3 years old. This is very likely a perfect reflection of the reduction in antler criteria on many WMAs during the previous 3-year cycle of WMA regulations. Increased antler criteria on many WMAs were reinstated for the 2015 season. As expected, more young bucks were protected. It is important to consider harvest data from WMAs/NWRs as minimum harvest numbers. Compliance with WMA regulations for submitting harvest data is known to be poor on some WMAs and NWRs.

SPECIAL NOTE: The statewide summary table and all graphs include harvest data from all DMAP Cooperators including private lands, Wildlife Management Areas (WMAs), and National Wildlife Refuges (NWRs) that participate in DMAP. WMA and NWR data is not included in the soil region summary tables and is used for comparison in **Tables 6-8** and **Figures 18-21**.

Figure 11 2015 DMAP Cooperators by County

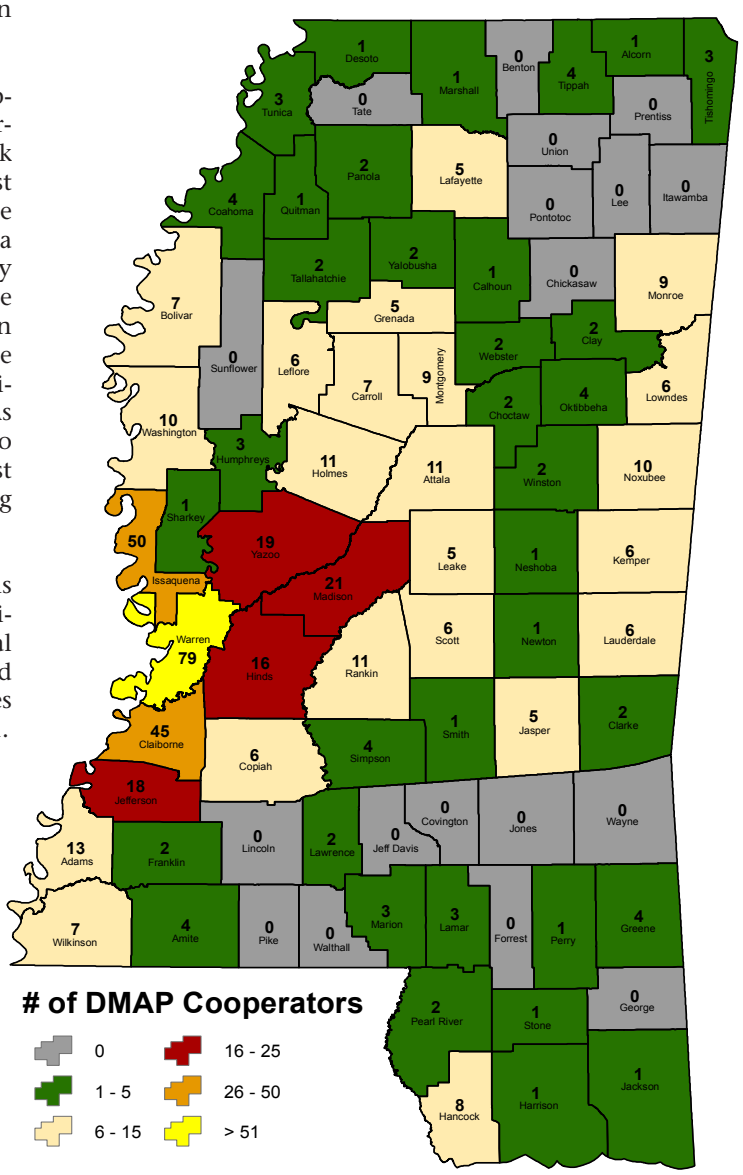


Figure 12 DMAP Acreage and Cooperators

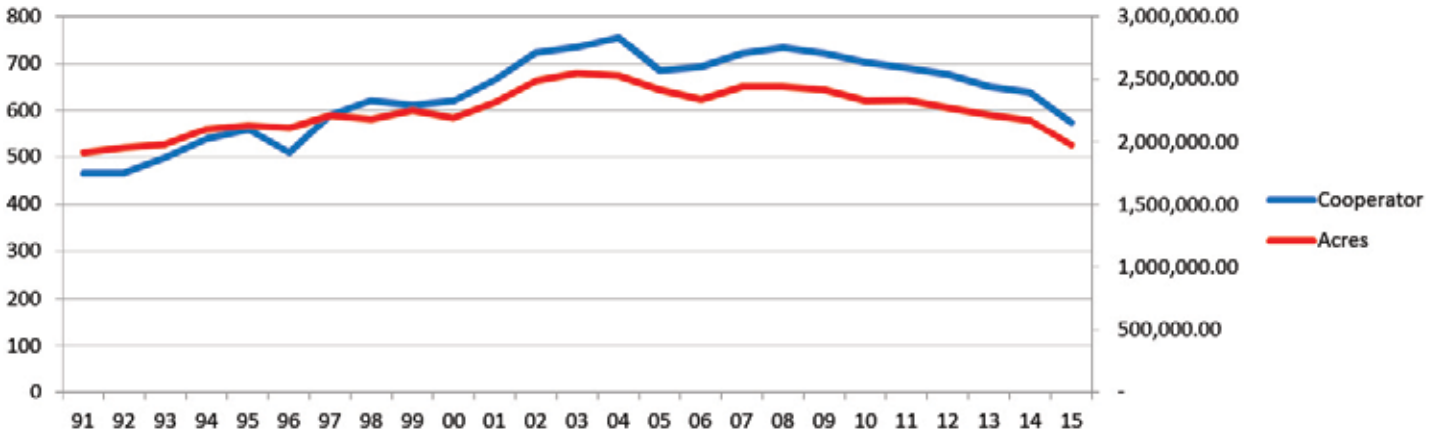


Figure 13 DMAP Deer Harvest

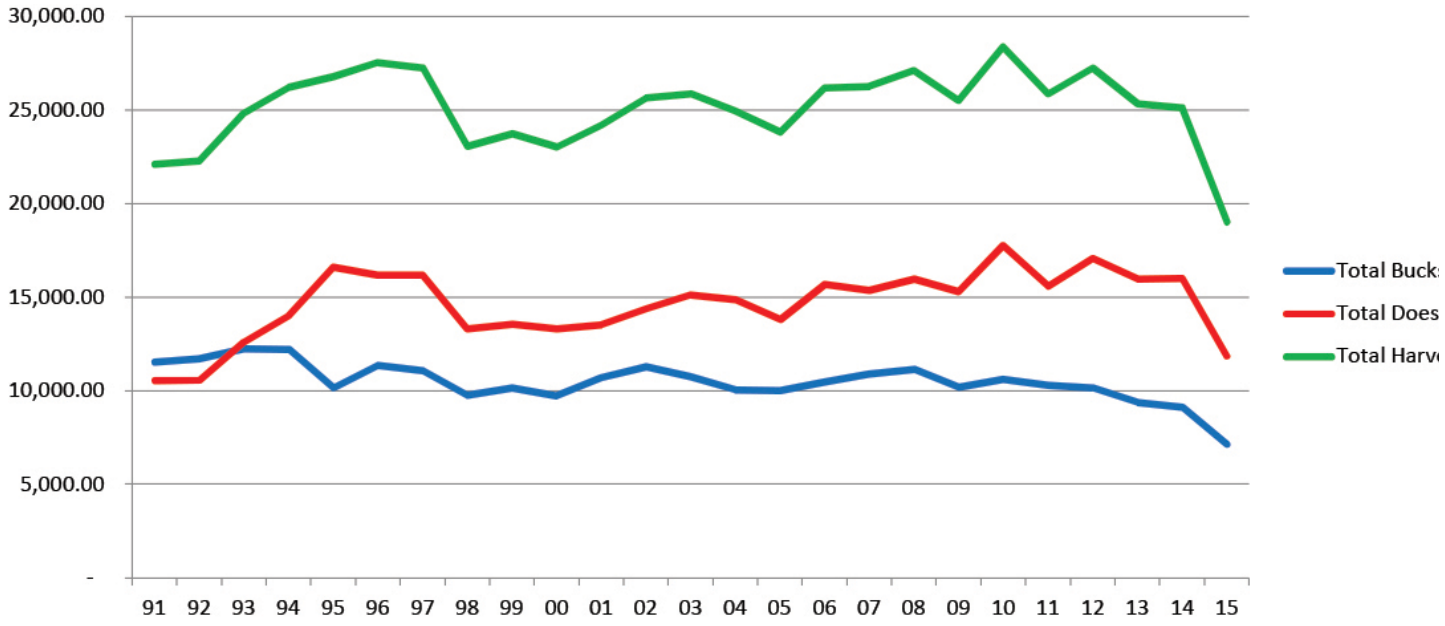


Figure 14 Acres/Deer Harvested

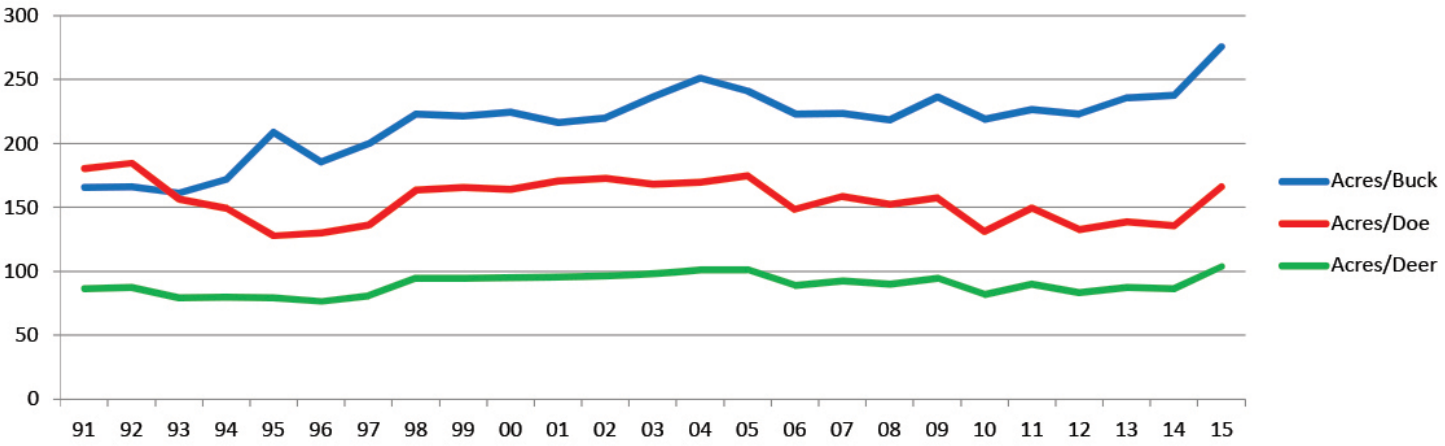


Figure 15 Average Age All Bucks

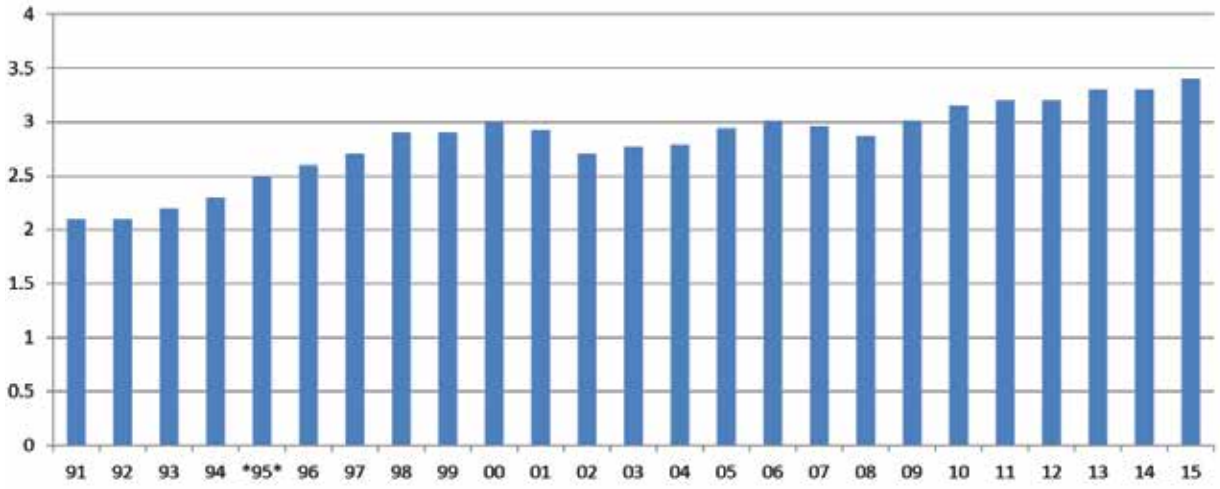


Figure 16 Acres/3.5+ Year Old Bucks

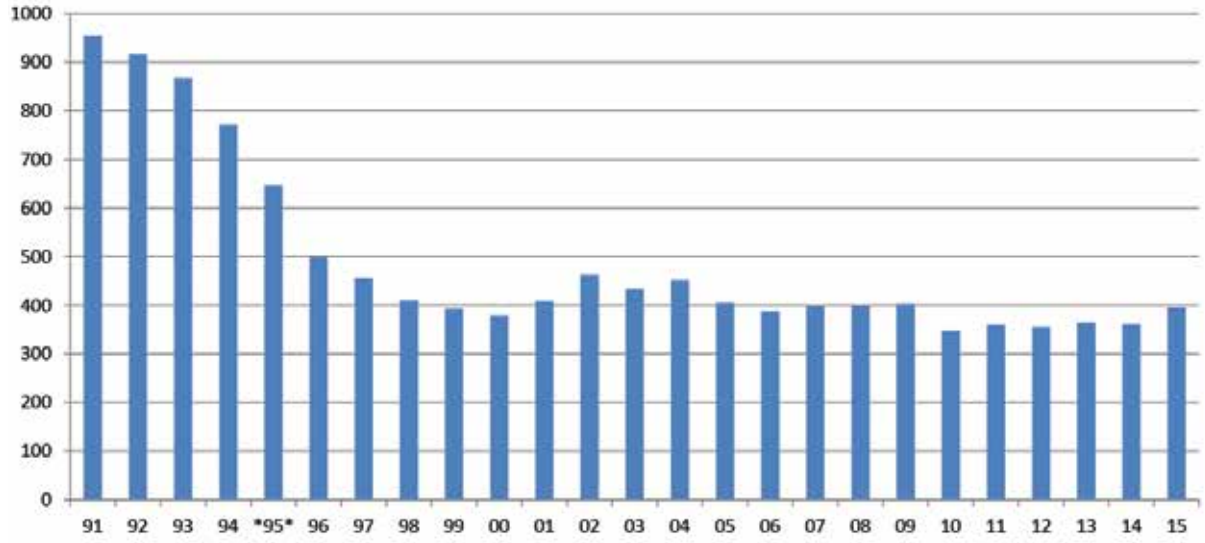


Figure 17 Percentage of Bucks by Age Class

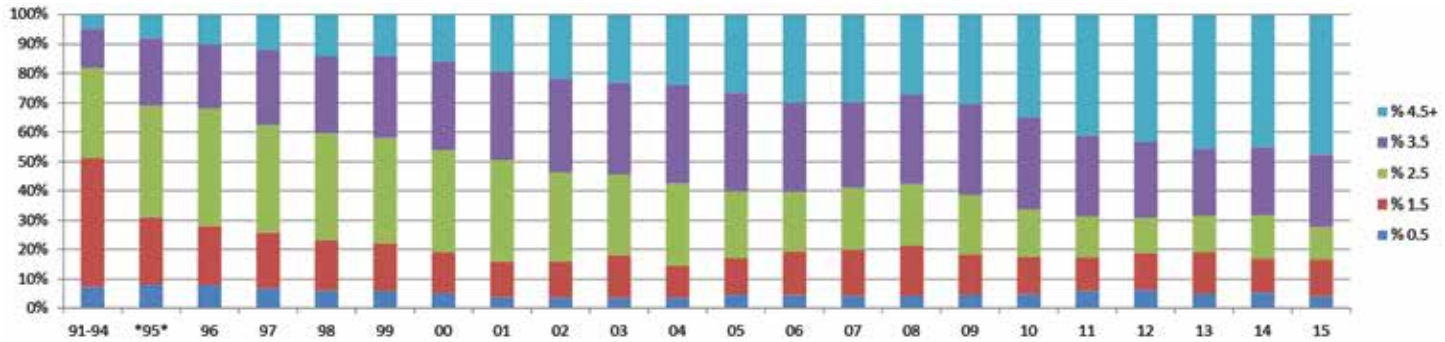


Table 5 DMAP Participation and Harvest by County 2015-2016 Season

County	Cooperators	Acres	Harvest		
			Bucks	Does	Total
ADAMS	13	49,907	218	244	465
ALCORN	1	2,436	1	5	6
AMITE	4	12,128	65	88	153
ATTALA	11	37,816	270	388	665
BENTON	0	0	0	0	0
BOLIVAR	7	50,858	277	449	732
CALHOUN	1	1,900	13	30	43
CARROLL	7	12,164	51	139	190
CHICKASAW	0	0	0	0	0
CHOCTAW	2	4,217	32	32	64
CLAIBORNE	45	74,007	593	948	1,542
CLARKE	2	8,700	36	101	137
CLAY	2	6,485	15	49	64
COAHOMA	4	20,874	83	225	309
COPIAH	6	20,996	114	187	301
COVINGTON	0	0	0	0	0
DESOTO	1	1,537	55	82	137
FORREST	0	0	0	0	0
FRANKLIN	2	4,541	21	40	61
GEORGE	0	0	0	0	0
GREENE	4	5,839	15	34	49
GRENADA	5	20,464	66	151	217
HANCOCK	8	10,519	9	10	19
HARRISON	1	3,500	3	0	3
HINDS	16	33,343	112	343	455
HOLMES	11	34,829	132	233	365
HUMPHREYS	3	5,538	45	78	126
ISSAQUENA	50	118,045	484	844	1,345
ITAWAMBA	0	0	0	0	0
JACKSON	1	5,200	32	39	71
JASPER	5	6,879	28	104	132
JEFF DAVIS	0	0	0	0	0
JEFFERSON	18	43,178	197	395	600
JONES	0	0	0	0	0
KEMPER	6	16,426	80	140	220
LAFAYETTE	5	16,117	57	115	172
LAMAR	3	5,008	22	27	49
LAUDERDALE	6	27,304	70	78	148
LAWRENCE	2	2,912	17	24	41
LEAKE	5	13,478	32	56	88
LEE	0	0	0	0	0
LEFLORE	6	14,359	36	75	111
LINCOLN	0	0	0	0	0
LOWNDES	6	50,355	34	96	130
MADISON	21	36,278	276	623	904
MARION	3	8,937	65	57	122
MARSHALL	1	2,300	6	1	7
MONROE	9	19,977	119	331	450
MONTGOMERY	9	21,316	126	187	313
NESHOBA	1	8,040	18	22	40
NEWTON	1	3,495	19	21	40
NOXUBEE	10	34,187	120	296	416
OKTIBBEHA	4	6,827	22	51	73
PANOLA	2	4,900	34	105	139
PEARL RIVER	2	1,730	11	4	15
PERRY	1	1,810	5	2	7
PIKE	0	0	0	0	0
PONTOTOC	0	0	0	0	0
PRENTISS	0	0	0	0	0
QUITMAN	1	7,295	25	107	133
RANKIN	11	21,894	72	175	247
SCOTT	6	61,537	119	159	278
SHARKEY	1	2,140	9	19	28
SIMPSON	4	21,414	52	55	108
SMITH	1	7,400	23	30	53
STONE	1	640	45	44	89
SUNFLOWER	0	0	0	0	0
TALLAHATCHIE	2	5,150	11	44	55
TATE	0	0	0	0	0
TIPPAH	4	16,261	33	52	85
TISHOMINGO	3	20,116	31	35	67
TUNICA	3	9,221	25	70	95
UNION	0	0	0	0	0
WALTHALL	0	0	0	0	0
WARREN	79	125,035	818	1,087	1,907
WASHINGTON	10	46,763	308	630	943
WAYNE	0	0	0	0	0
WEBSTER	2	8,172	42	75	117
WILKINSON	7	22,750	167	217	387
WINSTON	2	5,037	15	22	37
YALOBUSHA	2	1,971	12	9	21
YAZOO	19	56,938	364	695	1,059
TOTAL	532	1,403,916	6,307	11,074	17,445

Table 6 Harvest Summary of Bucks by Age Class: WMAs, National Wildlife Refuges, and DMAP

Season	Sample	0.5 Bucks		1.5 Bucks		2.5 Bucks		3.5 Bucks		4.5+ Bucks		Avg. Age All Bucks	Total 3.5+ Bucks	Acres/ 3.5+ Bucks
		#	%	#	%	#	%	#	%	#	%			
1991	17,850	1,250	7.0	8,392	47.0	5,280	29.6	2,200	12.3	677	3.8	2.1	2,877	960
1992	17,631	1,410	8.0	8,025	45.5	5,154	29.2	2,255	12.8	831	4.7	2.1	3,086	847
1993	18,585	1,301	7.0	8,527	45.9	5,488	29.5	2,489	13.4	852	4.6	2.1	3,341	740
1994	19,128	1,530	8.0	7,063	36.9	6,529	34.1	3,020	15.8	1,045	5.5	2.2	4,065	685
1995	14,650	1,172	8.0	3,391	23.1	5,503	37.6	3,367	23.0	1,187	8.1	2.5	4,554	560
1996	16,350	1,308	8.0	3,246	19.9	6,489	39.7	3,601	22.0	1,697	10.4	2.3	5,298	500
1997	14,405	1,296	9.0	2,737	19.0	5,474	38.0	3,601	25.0	1,585	11.0	2.4	5,186	456
1998	13,278	1,062	8.0	2,257	17.0	4,913	37.0	3,452	26.0	1,859	14.0	2.5	5,311	410
1999	12,336	740	6.0	1,974	16.0	4,441	36.0	3,454	28.0	1,727	14.0	2.9	5,181	393
2000	11,329	566	5.0	1,586	14.0	3,965	35.0	3,399	30.0	1,813	16.0	3.0	5,211	379
2001	10,639	404	3.8	1,319	12.4	3,660	34.4	3,192	30.0	2,064	19.4	2.7	5,256	468
2002	11,258	394	3.5	1,396	12.4	3,411	30.3	3,580	31.8	2,466	21.9	2.8	6,046	438
2003	10,737	374	3.5	1,546	14.4	2,974	27.7	3,328	31.0	2,512	23.4	2.8	5,841	456
2004	10,100	362	3.6	1,121	11.1	2,818	27.9	3,373	33.4	2,424	24.0	2.9	5,797	463
2005	9,719	452	4.7	1,205	12.4	2,196	22.6	3,285	33.8	2,576	26.5	2.9	5,861	408
2006	10,246	460	4.5	1,506	14.7	2,070	20.2	3,125	30.5	3,074	30.0	3.0	6,199	387
2007	10,026	426	4.3	1,564	15.6	2,115	21.1	2,938	29.3	2,978	29.7	3.0	5,915	401
2008	10,234	438	4.3	1,750	17.1	2,129	20.8	3,142	30.7	2,763	27.0	2.9	5,905	346
2009	10,033	472	4.7	1,354	13.5	2,027	20.2	3,120	31.1	3,060	30.5	3.0	6,180	401
2010	10,341	496	4.8	1,293	12.5	1,706	16.5	3,630	35.1	3,630	35.1	3.2	7,259	347
2011	9,468	528	5.6	1,146	12.1	1,553	16.4	2,642	27.9	3,598	38.0	3.2	6,240	358
2012	9,525	571	6.2	1,211	12.5	1,330	12.2	2,535	25.7	3,878	43.4	3.2	6,413	355
2013	8,896	446	5.0	1,244	14.0	1,118	12.6	2,041	22.9	4,047	45.5	3.3	6,088	365
2014	8,847	461	5.2	1,039	11.7	1,322	14.9	2,050	23.2	3,975	45.0	3.3	6,025	361
2015	6,949	284	4.1	866	12.5	780	11.2	1,710	24.6	3,309	47.6	3.4	5,019	396

Table 7 Comparison of WMAs and National Wildlife Refuges vs. Private Lands DMAP

	Acres		Total Deer		Bucks		Does		Acres/Deer		Acres/Buck		Acres/Does	
	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public
2001	1,651,465	672,467	21,362	2,934	9,162	1,571	12,200	1,363	77	229	180	428	135	493
2002	1,784,033	664,467	22,878	2,740	9,779	1,488	13,099	1,252	78	243	182	447	136	531
2003	1,819,587	684,967	23,401	2,431	9,442	1,278	13,959	1,153	78	282	193	536	130	594
2004	1,858,150	627,746	23,042	1,844	9,152	903	13,890	941	81	340	203	695	134	667
2005	1,701,621	726,346	21,585	2,310	8,912	1,148	12,673	1,162	79	314	191	633	134	625
2006	1,644,169	694,682	23,678	2,455	9,304	1,178	14,374	1,277	69	283	177	590	114	544
2007	1,671,498	756,762	23,054	3,007	9,177	1,672	13,877	1,335	73	252	182	453	120	567
2008	1,645,261	765,780	23,086	3,691	9,223	1,807	13,863	1,884	71	207	178	424	119	406
2009	1,629,220	767,216	21,853	3,461	8,450	1,658	13,403	1,803	75	222	193	463	122	426
2010	1,543,744	726,671	23,993	3,545	8,782	1,559	15,211	1,986	64	205	176	466	101	366
2011	1,336,729	803,417	19,563	4,203	7,449	2,066	12,114	2,137	68	191	179	389	110	376
2012	1,511,078	761,895	23,616	3,649	8,436	1,734	15,180	1915	64	209	179	439	100	398
2013	1,407,704	762,132	21,000	3,291	7,394	1,646	13,606	1645	67	232	190	463	103	463
2014	1,406,799	765,872	21,884	3,241	7,551	1,571	14,333	1670	64	236	186	488	98	459
2015	1,255,453	718,213	16,268	2,730	5,873	1,275	10,395	1455	77	263	214	563	121	494

Table 8 Comparison of Bucks Harvested on WMAs and National Wildlife Refuges vs. Private Lands DMAP

	Average Age		Average Points		Average Length		Average Spread		Acres/3.5+	
	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public
2001	2.7	2.4	7.2	6.8	15.9	14.1	13.0	11.3	359	1,582
2002	2.8	2.5	7.3	6.8	16.3	14.2	13.2	11.4	346	1,359
2003	2.9	2.1	7.2	5.7	16.5	12.1	13.3	10.1	346	2,429
2004	2.9	2.6	7.2	7.1	16.4	15.1	13.4	12.6	361	2,299
2005	3.0	2.4	7.2	6.2	16.6	13.6	13.6	11.3	300	2,249
2006	3.1	2.4	7.1	6.3	16.5	14.1	13.5	11.6	293	1,666
2007	3.0	2.7	7.1	6.6	16.5	14.3	13.6	11.6	311	1,024
2008	2.9	2.6	7.0	6.5	16.2	14.1	13.5	11.7	310	1,055
2009	3.1	2.7	7.3	7.0	16.8	15.0	13.8	12.4	312	1,048
2010	3.2	3.0	7.3	7.2	17.3	15.9	14.0	13.0	270	915
2011	3.3	2.8	7.4	6.9	17.1	15.0	14.1	12.4	266	915
2012	3.5	2.8	7.4	7.1	17.5	15.7	14.5	13.0	269	962
2013	3.5	3.0	7.1	7.0	17.1	15.7	14.2	13.0	266	960
2014	3.5	2.9	7.2	7.1	17.4	15.9	14.4	13.2	263	1,130
2015	3.6	3.1	7.2	7.1	17.2	15.9	14.1	13.2	290	1,053

Figure 18 Total Deer Harvest: Private vs. Public

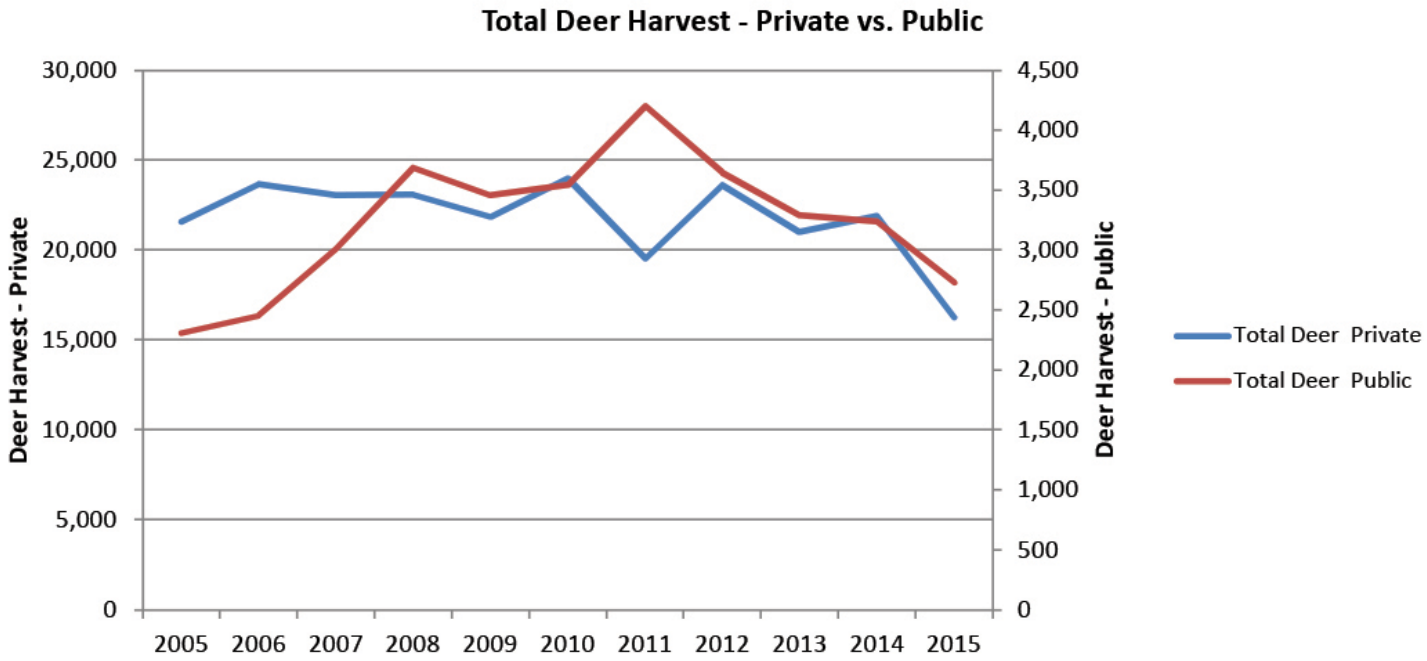


Figure 19 **Acres/Deer Harvested: Private vs. Public**

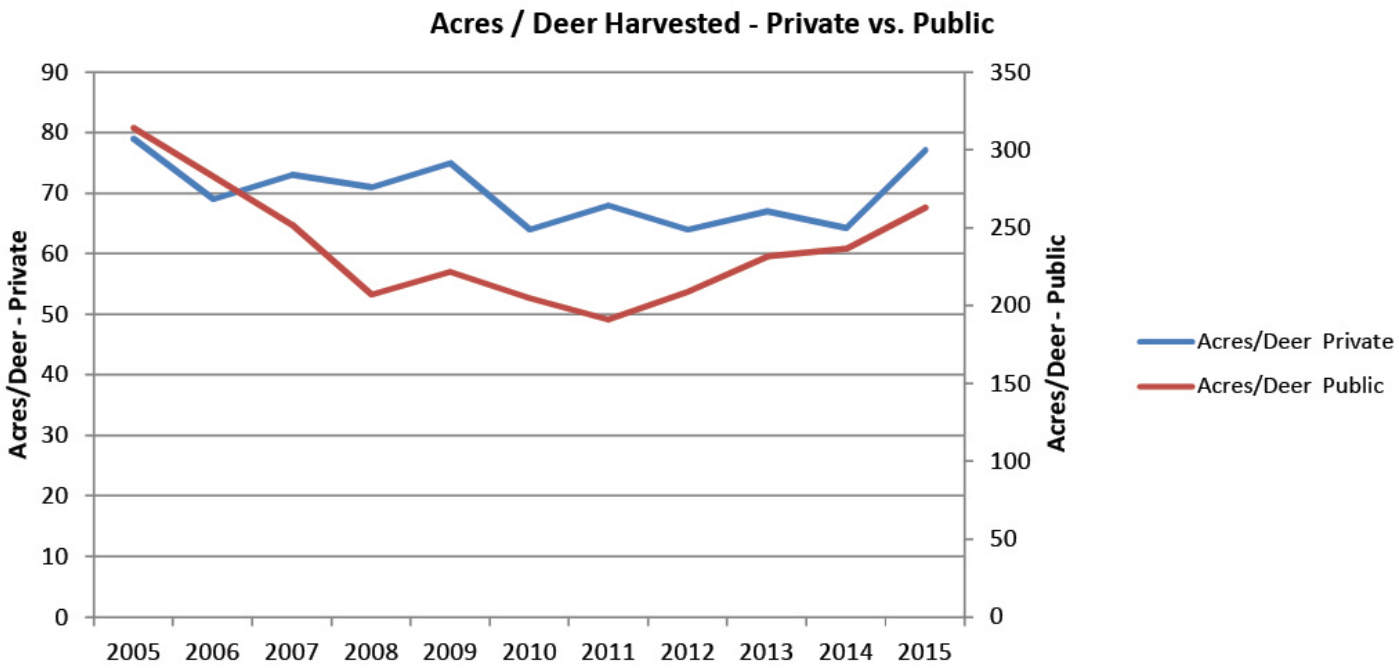


Figure 20 **Acres/3.5+ Year Old Buck Harvested: Private vs. Public**

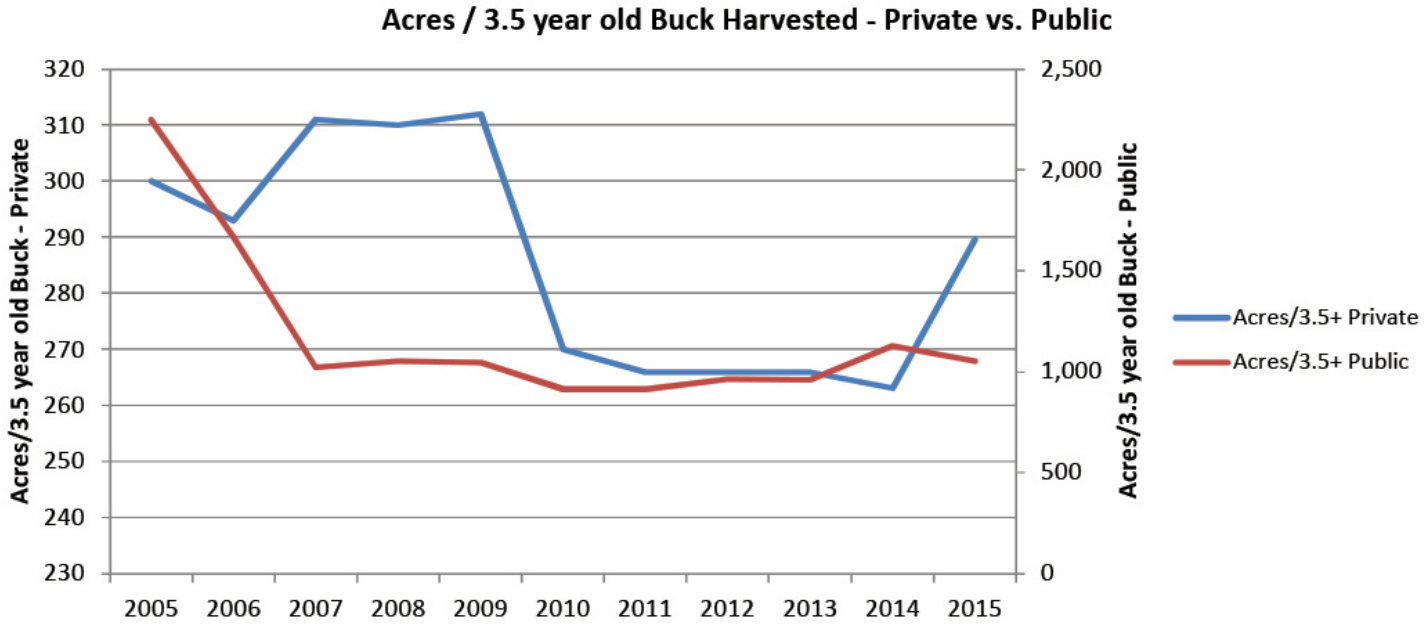
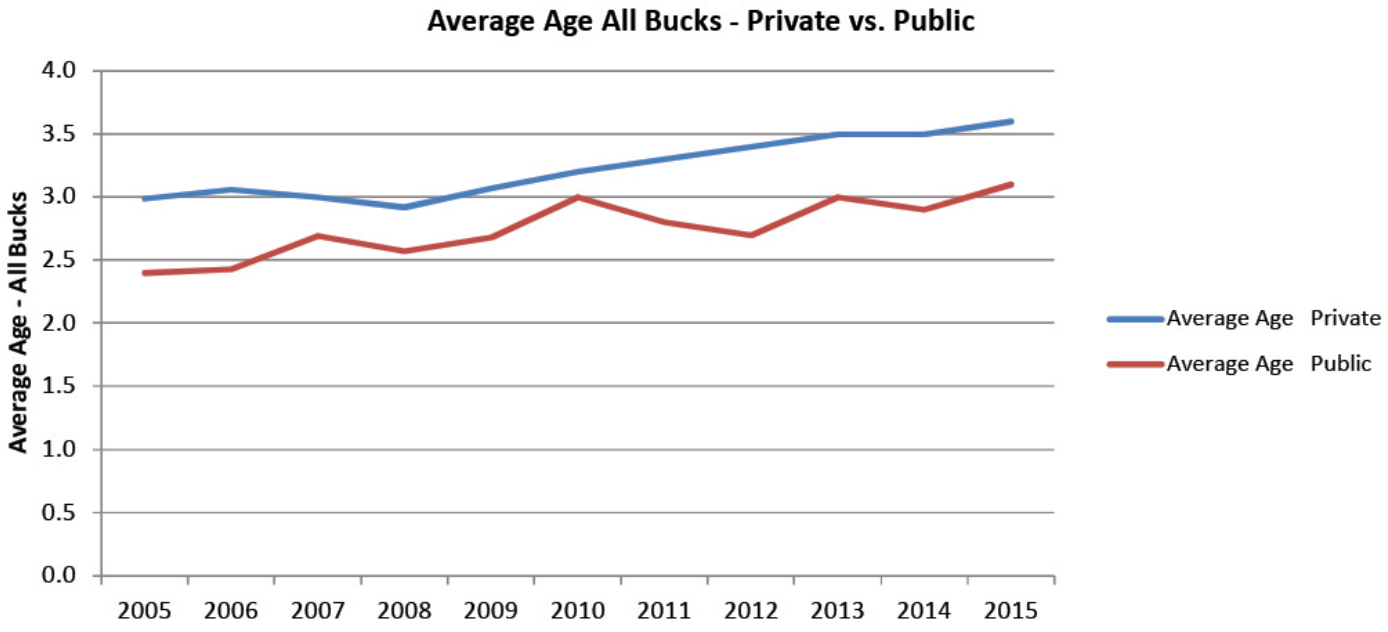


Figure 21 **Average Age All Bucks: Private vs. Public**




Steve Gulledge

Table 9 Statewide Compiled Data (DMAP, NWR, WMA)

	Season				Average	
	2015	2014	2013	2012	1996-2011	1991-1994
Acres	1,988,597	2,175,845	2,219,276	2,275,923	2,201,196	3,105,186
Total Deer	19,381	25,860	25,646	27,054	25,663	39,138
Bucks	7,237	9,341	9,379	10,107	9,927	19,562
Does	12,075	16,458	16,214	16,881	15,736	19,576
Acres/Deer	102.6	84.1	86.5	84.1	86.0	80
Acres/Buck	274.8	232.9	236.6	225.2	222	159
Acres/Doe	164.7	132.2	136.9	134.8	140	160
Avg. Age ALL Bucks	3.2	3.3	3.3	3.4	2.8	2.2
Avg. Points ALL Bucks	7.2	7.2	7.1	7.3	7.1	4.8
Avg. Length ALL Bucks	17.0	17.1	16.9	17.2	15.8	10.4
Avg. Spread ALL Bucks	14.0	14.2	14.0	14.3	12.9	8.7
Acres/3.5+ Bucks	396	361	365	355	352	808
% 0.5 Yr. Bucks	3.9	4.9	4.8	5.6	5.2	7.5
Weight	61	63	61	62	65	63
% 1.5 Yr.	12.0	11.1	13.3	12.0	12.3	44
Weight	103	106	106	110	114	115
Points	2.5	2.4	2.4	2.6	3.6	3.2
Circumf.	1.9	1.8	1.9	2	2.3	2.2
Length	5	4.9	5	5.7	7.4	6.8
Spread	5.4	5.4	5.5	5.8	6.7	6.0
% 2.5 Yr.	10.8	14.2	11.9	13.2	16.4	31
Weight	138	143	143	146	148	148
Points	6.6	6.6	6.7	7.0	6.9	6.6
Circumf.	3.3	3.4	3.4	3.5	3.4	3.3
Length	14.7	14.9	14.8	15.4	14.5	14.0
Spread	12.1	12.3	12.1	12.6	11.8	11.4
% 3.5 Yr.	23.6	21.9	21.8	25.1	29.5	14
Weight	159	166	162	167	169	163
Points	7.6	7.7	7.6	7.9	7.8	7.5
Circumf.	3.8	4.0	3.9	4.0	4.0	3.9
Length	17.1	17.6	17.3	17.8	17.4	16.7
Spread	13.9	14.3	14.1	14.6	14.1	13.5
% 4.5 Yr.	45.7	42.6	43.1	38.4	22.0	5 (589)*
Weight	176.0	181.3	177.6	180.9	181	173
Points	8.1	8.1	8.1	8.3	8.3	8.1
Circumf.	4.4	4.4	4.4	4.5	4.4	4.3
Length	19.3	19.6	19.6	19.9	19.3	18.6
Spread	15.5	15.8	15.7	16.1	15.4	14.9
% 5.5 Yr.	14.0	12.0	12.4	11.1	9.4	0.7 (151)*
Weight	179	185	178	183	186	174
Points	8.3	8.2	8.2	8.4	8.4	7.9
Circumf.	4.5	4.5	4.5	4.6	4.6	4.4
Length	19.8	20.0	19.9	20.4	20.0	18.9
Spread	15.8	16.1	15.9	16.4	15.9	15.2

Table 9 Statewide Compiled Data (DMAP, NWR, WMA) Continued

	Season				Average	
	2015	2014	2013	2012	1996-2011	1991-1994
% 6.5 Yr.	6.3	6.3	6.6	5.2	3.6	<0.5 (44)*
Weight	182	184	180	184	188	176
Points	8.1	8.1	8.2	8.5	8.4	8.3
Circumf.	4.5	4.6	4.6	4.7	4.7	4.5
Length	19.8	20.3	20.2	20.8	20.4	19.4
Spread	15.8	16.2	16.1	16.7	16.1	15.2
% 7.5 Yr.	1.9	1.9	1.5	1.6	1.0	<0.1 (18)*
Weight	182	187	186	181	188	168
Points	8.0	8.2	8.2	8.3	8.4	7.4
Circumf.	4.6	4.6	4.6	4.7	4.7	4.4
Length	20.2	20.6	20.5	21.1	20.5	18.3
Spread	16.3	16.6	16.8	16.7	16.1	15.0
% 8.5 Yr.	1.4	1.3	1.0	1.2	0.6	<0.1 (11)*
Weight	175	179	180	178	183	171
Points	7.7	7.5	8.0	8.3	8.1	7.5
Circumf.	4.6	4.5	4.6	4.7	4.6	4.3
Length	19.8	20.0	20.7	20.9	19.9	18.5
Spread	15.8	15.9	16.8	16.4	15.8	14.4
Doe Age Classes						
% 0.5 Yr.	6.7	7.5	7.1	8.5	7.5	11.0
% 1.5 Yr.	19.6	17.7	22.2	19.4	20.0	23.0
% 2.5 Yr.	17.9	23.4	17.9	18.5	21.0	24.0
% 3.5+ Yr.	55.8	51.3	52.8	53.6	51.5	42.0
Doe Weights						
0.5 Yr.	61	63	61	63	63	60
1.5 Yr.	91	94	94	98	96	96
2.5 Yr.	105	108	108	108	109	108
3.5 Yr.	112	115	113	115	115	115
% Doe Lactation						
1.5 Yr.	8	11	10	13	11	13
2.5 Yr.	43	51	48	60	58	59
2.5+ Yr.	52	60	57	65		
3.5+ Yr.	55	64	60	67	70	70
All Antlerless Harvest						
% 0.5 Yr. Buck Fawns	2.4	2.8	2.7	3.4	3.1	7.0
% 0.5 Yr. Doe Fawns	6.8	7.5	7.1	8.6	7.3	10.3
% 1.5 Yr. Does	19.7	17.7	22.1	19.4	19.4	21.5
% 2.5 Yr. Does	17.9	23.4	17.8	18.5	19.9	22.0
% 3.5+ Yr. Does	53.2	48.7	50.2	50.2	49.9	39.3

*Sample sizes for these data are relatively low and should be acknowledged when comparing statewide averages. Data are presented as %harvest(# observations).

Figure 22 **Soil Resource Areas Map**

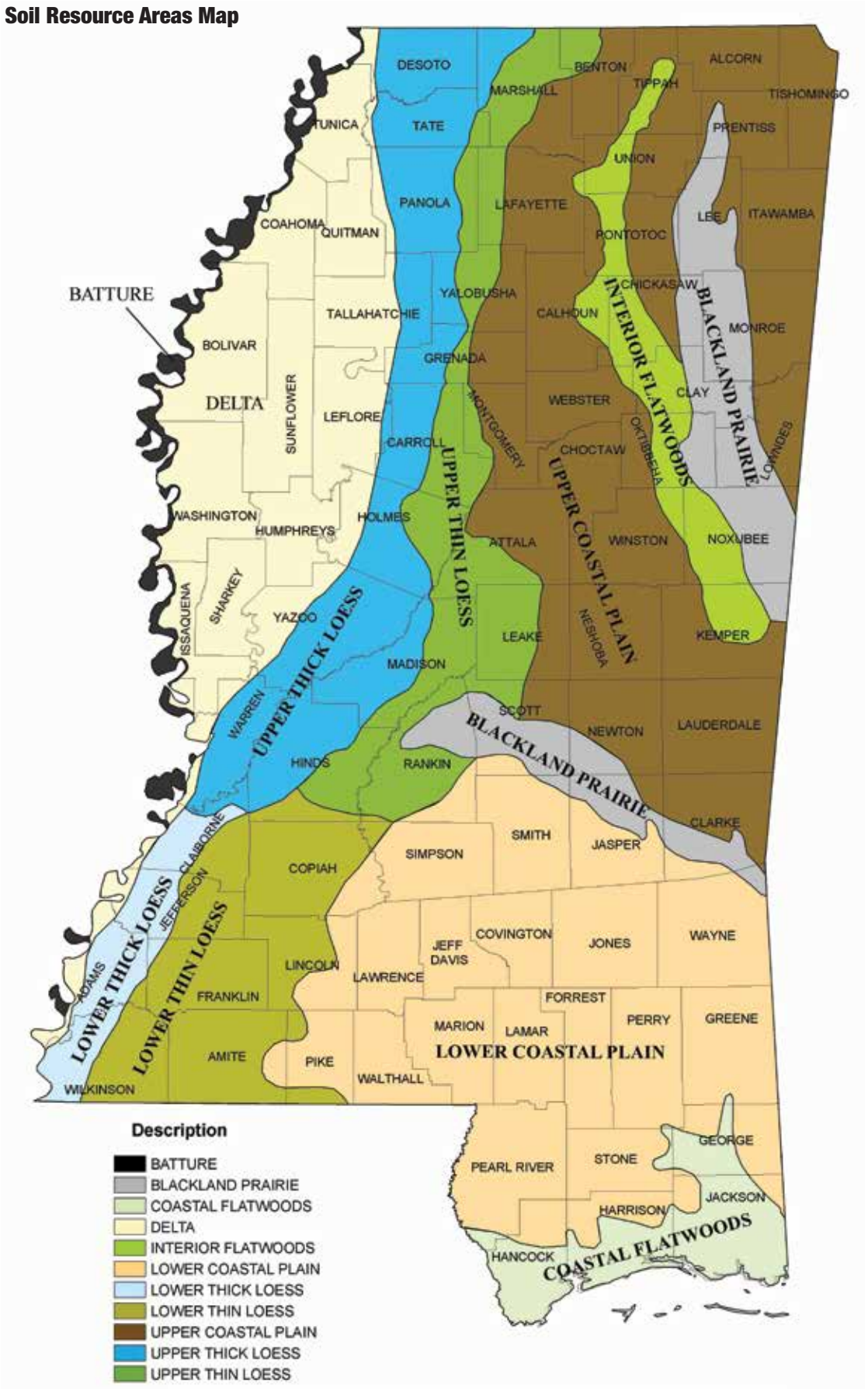


Table 10 Batture Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	235,150	249,319	254,044	263,522	250,509
Total Deer	3,575	5,852	4,902	4,659	4,747
Bucks	1,356	2,133	1,847	1,922	1,815
Does	2,199	3,703	3,045	2,731	2,920
Acres/deer	65.8	42.6	51.8	56.6	54.2
Bucks	173.4	116.9	137.5	137.1	141.2
3.5+ Bucks	212.0	145.9	167.6	167.7	173.3
Does	106.9	67.3	83.4	96.5	88.5
Avg. Age ALL Bucks	4.0	4.0	4.0	3.9	4.0
% 0.5 Yr. Bucks	1.5	4.2	3.5	4.2	3.4
Weight	64.9	66.4	65.0	69.7	66.5
% 1.5 Yr.	7.8	4.1	5.4	3.6	5.3
Weight	102.3	109.7	115.5	120.6	112.0
Points	2.1	2.3	2.1	2.4	2.2
Circumf.	1.8	2.1	2.1	2.3	2.1
Length	4.3	5.3	6.1	7.4	5.8
Spread	4.7	5.7	6.1	7.2	5.9
% 2.5 Yr.	6.2	9.2	6.9	7.5	7.5
Weight	160.4	161.1	164.3	171.0	164.2
Points	6.7	6.7	7.0	7.6	7.0
Circumf.	3.5	3.6	3.6	3.7	3.6
Length	16.9	16.9	16.8	17.9	17.1
Spread	13.9	13.7	13.9	14.8	14.1
% 3.5 Yr.	23.9	22.6	22.9	26.6	24.0
Weight	181.8	184.3	184.7	185.5	184.1
Points	7.6	7.9	7.9	8.3	7.9
Circumf.	4.0	4.1	4.2	4.3	4.2
Length	18.5	19.0	19.4	19.8	19.2
Spread	15.2	15.4	15.8	16.2	15.7
% 4.5+ Yr.	60.5	59.8	61.2	58.1	59.9
Weight	196.7	196.4	197.1	197.2	196.9
Points	8.0	8.1	8.2	8.4	8.2
Circumf.	4.4	4.5	4.6	4.7	4.6
Length	20.2	20.7	20.9	21.5	20.8
Spread	16.1	16.8	16.9	17.4	16.8
Doe Age Classes					
% 0.5 Yr.	3.0	5.4	5.7	7.1	5.3
% 1.5 Yr.	23.0	17.6	26.1	20.3	21.7
% 2.5 Yr.	24.5	31.0	23.3	23.5	25.6
% 3.5+ Yr.	49.5	45.9	44.9	49.1	47.4
Doe Weights					
0.5 Yr.	64.1	65.5	64.0	66.6	65.1
1.5 Yr.	91.9	98.8	99.6	104.5	98.7
2.5 Yr.	109.5	112.3	113.1	114.3	112.3
3.5+ Yr.	117.3	120.0	119.3	121.2	119.5
% Doe Lactation					
1.5 Yr.	3.2	10.3	9.1	13.7	9.1
2.5 Yr.	34.9	55.6	53.2	71.4	53.8
2.5+ Yr.	39.0	64.3	61.1	75.3	59.9
3.5+ Yr.	41.1	70.1	65.2	77.2	63.4

Table 11 Delta Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	150,534	185,546	182,256	195,786	178,531
Total Deer	2,139	2,993	2,590	2,646	2,592
Bucks	701	908	689	850	787
Does	1,420	2,072	1,885	1,791	1,792
Acres/deer	70.4	62.0	70.4	74.0	69.2
Bucks	214.7	204.3	264.5	230.3	228.5
3.5+ Bucks	273.7	280.7	403.2	318.9	319.1
Does	106.0	89.5	96.7	109.3	100.4
Avg. Age ALL Bucks	3.7	3.5	3.2	3.4	3.5
% 0.5 Yr. Bucks	4.7	5.0	5.2	5.1	5.0
Weight	71.2	68.8	72.2	69.5	70.4
% 1.5 Yr.	9.3	8.5	15.6	10.2	10.9
Weight	119.8	120.3	116.8	128.4	121.3
Points	2.2	2.2	2.2	2.4	2.3
Circumf.	1.9	1.5	1.6	1.5	1.6
Length	4.5	4.2	4.4	5.8	4.7
Spread	5.1	5.1	4.4	5.9	5.1
% 2.5 Yr.	5.3	12.0	10.8	9.8	9.4
Weight	161.5	163.1	163.3	170.1	164.5
Points	6.2	6.5	7.3	7.5	6.9
Circumf.	3.5	3.5	3.6	3.7	3.6
Length	16.9	16.0	15.8	16.9	16.4
Spread	14.2	13.3	13.0	14.5	13.8
% 3.5 Yr.	22.9	22.6	25.0	33.0	25.9
Weight	185.8	189.0	187.8	187.7	187.6
Points	8.0	7.9	8.1	8.3	8.1
Circumf.	4.1	4.2	4.2	4.3	4.2
Length	18.6	18.9	19.0	19.5	19.0
Spread	15.3	15.3	15.6	16.2	15.6
% 4.5+ Yr.	57.9	52.0	43.5	41.8	48.8
Weight	199.9	203.3	200.6	203.9	201.9
Points	8.4	8.3	8.3	8.6	8.4
Circumf.	4.6	4.6	4.5	4.8	4.6
Length	20.3	20.7	20.5	21.1	20.7
Spread	16.5	16.8	16.6	17.2	16.8
Doe Age Classes					
% 0.5 Yr.	7.3	6.7	6.7	8.3	7.2
% 1.5 Yr.	18.3	15.4	24.6	20.2	19.6
% 2.5 Yr.	20.2	28.2	21.8	20.9	22.8
% 3.5+ Yr.	54.2	49.7	46.9	50.6	50.3
Doe Weights					
0.5 Yr.	65.7	69.6	67.8	71.8	68.7
1.5 Yr.	103.5	105.9	102.3	107.7	104.9
2.5 Yr.	114.9	115.8	116.1	117.5	116.1
3.5+ Yr.	124.2	125.2	126.9	125.5	125.5
% Doe Lactation					
1.5 Yr.	11.3	18.1	10.2	12.4	13.0
2.5 Yr.	40.4	55.1	45.4	62.4	50.8
2.5+ Yr.	52.3	61.3	56.1	64.6	58.6
3.5+ Yr.	56.7	64.8	61.1	65.5	62.0

Table 12 Upper Thick Loess Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	209,744	224,243	231,857	232,766	224,653
Total Deer	3,661	4,522	4,734	5,450	4,592
Bucks	1,258	1,432	1,596	1,721	1,502
Does	2,399	3,086	3,131	3,712	3,082
Acres/deer	57.3	49.6	49.0	42.7	49.6
Bucks	166.7	156.6	145.3	135.3	151.0
3.5+ Bucks	230.2	238.8	224.2	219.0	228.1
Does	87.4	72.7	74.1	62.7	74.2
Avg. Age ALL Bucks	3.4	3.2	3.2	3.0	3.2
% 0.5 Yr. Bucks	5.4	6.3	5.1	9.5	6.6
Weight	64.6	70.0	63.3	64.4	65.6
% 1.5 Yr.	15.4	18.2	20.2	19.3	14.8
Weight	109.3	112.2	110.2	117.2	112.2
Points	2.1	2.1	2.1	2.1	2.1
Circumf.	1.7	1.7	1.7	1.9	1.8
Length	3.5	4.0	3.7	4.3	3.9
Spread	4.6	4.5	4.6	4.6	4.6
% 2.5 Yr.	5.5	7.9	7.4	8.0	7.2
Weight	146.8	148.4	147.4	152.3	148.7
Points	6.5	6.2	6.4	6.8	6.5
Circumf.	3.4	3.2	3.4	3.4	3.4
Length	14.6	13.7	14.5	14.8	14.4
Spread	12.0	11.9	12.1	12.4	12.1
% 3.5 Yr.	21.2	21.3	20.3	21.8	21.1
Weight	163.1	171.1	169.8	173.8	169.5
Points	7.6	7.8	7.7	7.9	7.8
Circumf.	3.9	4.0	4.0	4.2	4.0
Length	17.3	17.5	17.5	17.9	17.6
Spread	14.3	14.5	14.2	14.8	14.5
% 4.5+ Yr.	52.5	46.4	46.4	41.5	46.7
Weight	181.6	184.4	185.3	189.3	185.2
Points	8.2	8.1	8.2	8.4	8.2
Circumf.	4.5	4.5	4.5	4.6	4.5
Length	19.8	19.4	19.8	20.1	19.8
Spread	15.9	15.7	15.9	16.3	16.0
Doe Age Classes					
% 0.5 Yr.	8.4	8.3	6.9	9.2	8.2
% 1.5 Yr.	18.2	17.3	20.5	19.9	19.0
% 2.5 Yr.	15.5	20.2	17.4	18.1	17.8
% 3.5+ Yr.	57.9	54.1	55.2	52.8	55.0
Doe Weights					
0.5 Yr.	65.7	66.6	64.8	64.6	65.4
1.5 Yr.	97.7	100.2	98.3	102.5	99.7
2.5 Yr.	111.1	110.9	112.3	112.9	111.8
3.5+ Yr.	116.4	119.3	118.0	118.9	118.2
% Doe Lactation					
1.5 Yr.	9.9	11.1	11.9	14.1	11.8
2.5 Yr.	56.1	49.1	48.3	62.3	54.0
2.5+ Yr.	63.2	61.8	58.6	68.0	62.9
3.5+ Yr.	65.1	66.6	61.9	70.0	65.9

Table 13 Lower Thick Loess Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	111,281	131,919	126,525	130,947	125,168
Total Deer	1,878	2,275	2,731	2,798	2,421
Bucks	755	880	948	1,114	924
Does	1,111	1,383	1,777	1,681	1,488
Acres/deer	59.3	58.0	46.3	46.8	52.6
Bucks	147.4	149.9	133.5	117.5	137.1
3.5+ Bucks	175.0	192.0	177.5	164.1	177.1
Does	100.2	95.4	71.2	77.9	86.2
Avg. Age ALL Bucks	3.9	3.7	3.5	3.4	3.6
% 0.5 Yr. Bucks	1.9	3.3	4.4	4.0	3.4
Weight	61.8	59.4	58.6	61.9	60.4
% 1.5 Yr.	9.7	8.8	12.1	12.9	10.8
Weight	96.9	101.9	104.8	103.8	101.9
Points	2.1	2.3	2.2	2.3	2.2
Circumf.	1.8	1.4	1.9	1.8	1.7
Length	3.6	2.8	4.0	4.1	3.6
Spread	3.9	5.0	5.0	5.0	4.7
% 2.5 Yr.	4.8	7.5	6.8	8.2	6.8
Weight	143.3	138.2	141.8	150.6	143.5
Points	7.3	6.2	6.6	7.0	6.8
Circumf.	3.5	3.2	3.2	3.5	3.4
Length	14.8	14.1	14.3	14.7	14.5
Spread	12.5	11.7	11.4	12.2	12.0
% 3.5 Yr.	21.5	21.9	19.7	25.8	22.2
Weight	159.0	158.8	161.7	168.0	161.9
Points	7.7	7.6	7.9	7.8	7.8
Circumf.	3.9	3.9	4.0	4.0	4.0
Length	17.0	17.0	17.1	17.3	17.1
Spread	14.0	13.7	13.9	14.2	14.0
% 4.5+ Yr.	64.0	58.5	57.1	49.1	57.2
Weight	174.6	177.6	176.6	181.4	177.6
Points	8.2	8.1	8.3	8.4	8.3
Circumf.	4.4	4.4	4.5	4.5	4.5
Length	18.8	19.0	19.3	19.4	19.1
Spread	15.0	15.1	15.2	15.4	15.2
Doe Age Classes					
% 0.5 Yr.	4.2	5.4	5.1	6.2	5.2
% 1.5 Yr.	21.2	15.6	22.5	18.8	19.5
% 2.5 Yr.	15.6	19.4	12.3	13.7	15.3
% 3.5+ Yr.	59.0	59.6	60.1	61.3	60.0
Doe Weights					
0.5 Yr.	64.5	60.2	58.5	60.9	61.0
1.5 Yr.	93.5	89.3	91.0	93.8	91.9
2.5 Yr.	104.9	105.0	109.9	104.9	106.2
3.5+ Yr.	112.6	113.4	113.8	113.1	113.2
% Doe Lactation					
1.5 Yr.	8.7	7.1	7.6	10.0	8.4
2.5 Yr.	33.7	46.3	48.3	51.1	44.9
2.5+ Yr.	47.9	57.4	56.4	67.0	57.2
3.5+ Yr.	51.7	61.0	58.1	70.6	60.4

Table 14 Upper Thin Loess Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	73,486	91,546	93,474	101,290	89,949
Total Deer	982	1,392	1,366	1,426	1,292
Bucks	348	490	512	510	465
Does	626	899	854	916	824
Acres/deer	74.8	65.8	68.4	71.0	70.0
Bucks	211.2	186.8	182.6	198.6	194.8
3.5+ Bucks	362.0	372.1	342.4	377.9	363.6
Does	117.4	101.8	109.5	110.6	109.8
Avg. Age ALL Bucks	2.8	2.7	2.8	2.8	2.8
% 0.5 Yr. Bucks	7.8	9.1	8.3	7.1	8.1
Weight	63.3	64.0	61.2	63.6	63.0
% 1.5 Yr.	20.4	17.8	20.3	18.9	19.3
Weight	101.7	111.6	110.4	110.4	108.5
Points	2.5	2.6	2.6	2.7	2.6
Circumf.	1.8	2.0	1.9	1.8	1.9
Length	4.3	5.0	4.8	5.4	4.9
Spread	4.7	5.2	5.1	5.6	5.2
% 2.5 Yr.	11.1	20.8	14.9	18.5	16.3
Weight	138.3	146.9	142.9	144.2	143.1
Points	6.5	6.8	6.7	7.0	6.8
Circumf.	3.1	3.5	3.5	3.4	3.4
Length	14.2	15.2	14.5	15.0	14.7
Spread	11.5	12.2	11.9	12.1	11.9
% 3.5 Yr.	29.3	22.9	19.5	23.9	23.9
Weight	153.1	162.8	157.6	163.3	159.2
Points	7.4	7.7	7.8	7.6	7.6
Circumf.	3.8	3.9	3.9	3.9	3.9
Length	16.7	16.7	16.4	17.0	16.7
Spread	13.5	13.8	13.5	13.6	13.6
% 4.5+ Yr.	31.4	29.3	37.1	31.7	32.4
Weight	165.9	173.2	174.0	170.9	171.0
Points	8.2	8.0	7.9	8.6	8.2
Circumf.	4.2	4.4	4.3	4.4	4.3
Length	18.7	18.8	18.4	18.7	18.7
Spread	14.9	15.1	14.8	15.3	15.0
Doe Age Classes					
% 0.5 Yr.	9.9	12.5	11.3	9.3	10.7
% 1.5 Yr.	19.9	24.1	20.4	20.4	21.2
% 2.5 Yr.	18.9	23.3	18.3	18.9	19.8
% 3.5+ Yr.	51.3	40.2	50.0	51.4	48.2
Doe Weights					
0.5 Yr.	59.6	60.5	59.3	65.9	61.3
1.5 Yr.	86.7	92.3	92.0	93.4	91.1
2.5 Yr.	100.8	102.5	105.6	103.7	103.2
3.5+ Yr.	106.8	110.0	110.0	110.5	109.3
% Doe Lactation					
1.5 Yr.	12.1	14.2	14.2	13.7	13.6
2.5 Yr.	55.4	58.3	55.7	60.7	57.5
2.5+ Yr.	60.7	60.7	61.6	69.8	63.2
3.5+ Yr.	62.7	62.1	63.7	73.1	65.4

Table 15 Lower Thin Loess Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	65,715	74,637	74,981	84,855	75,047
Total Deer	840	1,070	984	1,202	1,024
Bucks	296	370	354	404	356
Does	544	700	629	795	667
Acres/deer	78.2	69.8	76.2	70.6	73.7
Bucks	222.0	201.7	211.8	210.0	211.4
3.5+ Bucks	338.7	369.5	340.8	334.1	345.8
Does	120.8	106.6	119.2	106.7	113.3
Avg. Age ALL Bucks	3.2	2.9	3.1	3.0	3.1
% 0.5 Yr. Bucks	4.7	5.9	5.9	6.3	5.7
Weight	56.3	69.2	59.1	66.3	62.7
% 1.5 Yr.	17.0	20.5	22.0	14.5	18.5
Weight	108.0	109.5	110.6	115.1	110.8
Points	2.2	2.3	2.4	2.5	2.4
Circumf.	2.5	2.1	2.2	2.2	2.3
Length	6.3	5.2	5.3	5.7	5.6
Spread	5.6	4.8	5.7	5.7	5.5
% 2.5 Yr.	8.0	13.6	7.9	9.6	9.8
Weight	139.6	142.2	149.9	152.3	146.0
Points	5.6	5.9	6.9	6.9	6.3
Circumf.	3.3	3.2	3.6	3.5	3.4
Length	13.8	14.1	15.2	15.6	14.7
Spread	11.2	10.8	11.8	12.7	11.6
% 3.5 Yr.	22.5	21.7	16.4	29.6	22.5
Weight	154.1	164.9	157.7	160.9	159.4
Points	7.3	7.8	7.6	7.8	7.6
Circumf.	3.7	4.0	3.9	3.8	3.9
Length	16.2	17.4	16.7	16.4	16.7
Spread	12.3	13.7	13.4	13.4	13.2
% 4.5+ Yr.	47.8	38.3	48.1	40.0	43.5
Weight	176.8	180.9	181.1	177.4	179.1
Points	8.1	8.2	8.1	8.0	8.1
Circumf.	4.4	4.5	4.4	4.3	4.4
Length	19.0	19.6	19.3	18.7	19.2
Spread	15.1	15.3	15.2	14.9	15.1
Doe Age Classes					
% 0.5 Yr.	6.2	6.3	7.1	9.3	7.2
% 1.5 Yr.	17.7	19.2	19.6	18.9	18.8
% 2.5 Yr.	14.5	15.1	14.3	17.5	15.3
% 3.5+ Yr.	61.5	59.5	59.0	54.3	58.6
Doe Weights					
0.5 Yr.	62.2	61.8	63.4	64.1	62.9
1.5 Yr.	94.2	94.3	94.3	98.6	95.4
2.5 Yr.	103.0	107.4	109.3	107.3	106.8
3.5+ Yr.	112.0	116.8	114.1	114.3	114.3
% Doe Lactation					
1.5 Yr.	11.8	8.5	9.3	13.5	10.8
2.5 Yr.	41.3	53.9	48.8	51.9	49.0
2.5+ Yr.	53.4	64.2	58.5	60.1	59.0
3.5+ Yr.	56.3	66.8	60.8	62.7	61.7

Table 16 Black Prairie Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	58,886	60,734	70,937	79,982	67,635
Total Deer	814	881	977	1,198	968
Bucks	236	295	318	389	309.5
Does	578	584	657	808	657
Acres/deer	72.3	68.9	72.6	66.8	70.2
Bucks	249.5	205.9	223.1	205.6	221.0
3.5+ Bucks	436.2	365.9	427.3	368.6	399.5
Does	101.9	104.0	108.0	99.0	103.2
Avg. Age ALL Bucks	2.9	2.8	2.7	2.8	2.8
% 0.5 Yr. Bucks	7.6	7.4	10.2	5.2	7.6
Weight	58.7	64.9	63.2	62.3	62.3
% 1.5 Yr.	6.7	9.3	12.2	9.6	9.5
Weight	107.7	112.5	104.2	114.3	109.7
Points	2.6	2.5	2.3	3.8	2.8
Circumf.	2.0	1.9	1.8	2.3	2.0
Length	5.2	5.5	5.0	7.5	5.8
Spread	6.0	6.2	6.4	6.7	6.3
% 2.5 Yr.	25.1	21.6	22.8	25.3	23.7
Weight	136.8	149.2	143.0	150.5	144.9
Points	7.1	7.3	6.9	7.3	7.2
Circumf.	3.5	3.6	3.3	3.4	3.5
Length	15.4	15.5	14.5	15.2	15.2
Spread	12.6	12.6	11.9	12.6	12.4
% 3.5 Yr.	27.8	33.5	24.1	30.6	29.0
Weight	156.6	168.1	163.2	166.7	163.7
Points	7.9	7.9	7.4	8.0	7.8
Circumf.	4.0	4.1	3.9	4.0	4.0
Length	17.4	17.8	17.0	17.6	17.5
Spread	14.1	14.4	13.6	14.3	14.1
% 4.5+ Yr.	32.7	28.3	30.7	29.2	30.2
Weight	167.7	176.4	176.4	178.5	174.8
Points	8.4	8.6	8.1	8.4	8.4
Circumf.	4.4	4.4	4.4	4.4	4.4
Length	18.7	18.9	19.0	19.5	19.0
Spread	14.9	15.4	15.2	15.2	15.2
Doe Age Classes					
% 0.5 Yr.	8.1	7.4	8.6	8.7	8.2
% 1.5 Yr.	19.5	9.3	19.6	23.1	17.9
% 2.5 Yr.	22.1	21.6	20.1	19.2	20.7
% 3.5+ Yr.	50.3	61.7	51.7	49.0	53.2
Doe Weights					
0.5 Yr.	60.8	59.7	59.9	59.9	60.1
1.5 Yr.	88.3	96.6	91.9	97.0	93.5
2.5 Yr.	101.1	106.9	104.7	108.2	105.2
3.5+ Yr.	110.6	114.7	112.1	115.5	113.2
% Doe Lactation					
1.5 Yr.	6.3	13.9	12.8	13.3	11.6
2.5 Yr.	58.6	54.5	50.8	55.6	54.9
2.5+ Yr.	59.1	58.9	59.7	59.3	59.3
3.5+ Yr.	59.3	60.5	63.2	60.7	60.9

Table 17 Upper Coastal Plain Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	301,107	323,725	335,433	372,530	333,199
Total Deer	2,507	2,883	3,313	3,504	3,052
Bucks	934	1,047	1,206	1,304	1,123
Does	1,572	1,835	2,104	2,180	1,923
Acres/deer	120.1	112.3	101.2	106.3	110.0
Bucks	322.4	309.2	278.1	285.7	298.8
3.5+ Bucks	574.6	619.0	482.6	566.2	560.6
Does	191.5	176.4	159.4	170.9	174.6
Avg. Age ALL Bucks	2.8	2.8	3.0	2.8	2.9
% 0.5 Yr. Bucks	5.4	5.7	5.7	7.6	6.1
Weight	57.6	57.7	59.8	59.6	58.7
% 1.5 Yr.	16.7	15.7	15.9	15.7	16.0
Weight	94.2	96.5	96.8	106.4	98.5
Points	2.6	2.5	2.5	3.2	2.7
Circumf.	1.9	1.8	1.9	2.1	1.9
Length	5.3	4.9	5.3	7.1	5.7
Spread	5.7	5.7	5.6	6.6	5.9
% 2.5 Yr.	19.0	26.5	17.9	23.7	21.8
Weight	133.7	136.7	135.4	139.8	136.4
Points	6.5	6.7	6.6	6.9	6.7
Circumf.	3.3	3.3	3.4	3.5	3.4
Length	14.1	14.1	14.2	14.9	14.3
Spread	11.6	11.7	11.6	12.0	11.7
% 3.5 Yr.	28.3	20.7	22.6	20.6	23.1
Weight	145.1	149.2	144.7	150.7	147.4
Points	7.4	7.4	7.2	7.4	7.4
Circumf.	3.7	3.9	3.7	3.8	3.8
Length	16.1	16.5	15.8	16.5	16.2
Spread	13.0	13.5	12.6	13.2	13.1
% 4.5+ Yr.	30.6	31.4	37.9	32.8	33.2
Weight	156.7	161.6	158.4	163.9	160.2
Points	7.8	8.0	7.8	8.0	7.9
Circumf.	4.1	4.2	4.1	4.2	4.2
Length	17.9	18.1	17.9	18.3	18.1
Spread	14.4	14.4	14.3	14.5	14.4
Doe Age Classes					
% 0.5 Yr.	9.6	5.7	9.5	10.5	8.8
% 1.5 Yr.	20.6	15.7	22.3	19.6	19.5
% 2.5 Yr.	17.1	26.5	15.9	19.6	19.8
% 3.5+ Yr.	52.7	52.1	52.3	50.3	51.9
Doe Weights					
0.5 Yr.	57.6	58.4	56.5	58.9	57.9
1.5 Yr.	83.9	85.2	85.6	89.6	86.1
2.5 Yr.	94.7	96.7	98.2	99.6	97.3
3.5+ Yr.	101.5	104.0	104.3	105.7	103.9
% Doe Lactation					
1.5 Yr.	8.7	9.3	9.2	12.2	9.9
2.5 Yr.	48.5	48.2	45.8	54.7	49.3
2.5+ Yr.	56.3	59.6	58.2	63.4	59.4
3.5+ Yr.	58.8	65.4	62.0	66.8	63.3

Table 18 Lower Coastal Plain Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	84,002	84,961	97,826	59,360	81,537
Total Deer	596	656	751	476	620
Bucks	266	233	307	204	252.5
Does	330	422	441	272	366
Acres/deer	140.9	129.5	130.3	124.7	131.4
Bucks	315.8	364.6	318.7	291.0	322.5
3.5+ Bucks	449.2	562.7	531.7	498.8	510.6
Does	254.6	201.3	221.8	218.2	224.0
Avg. Age ALL Bucks	3.3	3.0	2.9	2.8	3.0
% 0.5 Yr. Bucks	3.1	2.6	3.7	2.7	3.0
Weight	58.4	57.5	59.5	54.2	57.4
% 1.5 Yr.	10.4	13.7	15.1	15.4	13.7
Weight	108.0	104.5	105.4	108.2	106.5
Points	3.1	2.6	2.6	3.0	2.8
Circumf.	2.2	1.6	1.9	1.9	1.9
Length	7.2	5.6	5.5	6.9	6.3
Spread	7.5	6.7	5.4	7.0	6.7
% 2.5 Yr.	14.3	17.2	19.5	18.6	17.4
Weight	132.2	140.4	142.4	140.1	138.8
Points	6.5	6.6	6.2	6.9	6.6
Circumf.	3.2	3.3	3.2	3.2	3.2
Length	14.1	14.1	13.3	14.3	14.0
Spread	11.2	11.4	10.9	12.2	11.4
% 3.5 Yr.	29.0	30.8	29.2	36.7	31.4
Weight	143.0	149.2	149.9	147.5	147.4
Points	7.1	7.4	7.4	7.2	7.3
Circumf.	3.5	3.7	3.6	3.5	3.6
Length	15.2	15.7	15.4	14.8	15.3
Spread	12.2	12.6	12.5	12.1	12.4
% 4.5+ Yr.	43.2	35.7	32.6	26.6	34.5
Weight	151.1	153.8	156.5	159.1	155.1
Points	7.8	7.5	7.8	7.9	7.8
Circumf.	3.9	4.0	4.0	4.2	4.0
Length	17.0	17.0	17.5	17.8	17.3
Spread	13.3	13.7	14.0	14.0	13.8
Doe Age Classes					
% 0.5 Yr.	3.8	3.9	3.3	3.5	3.6
% 1.5 Yr.	21.3	21.9	18.2	19.3	20.2
% 2.5 Yr.	16.3	20.2	18.0	23.6	19.5
% 3.5+ Yr.	58.8	54.0	60.5	53.6	56.7
Doe Weights					
0.5 Yr.	62.9	63.9	63.4	59.0	62.3
1.5 Yr.	87.9	88.1	86.5	90.1	88.2
2.5 Yr.	99.9	99.9	102.3	100.5	100.7
3.5+ Yr.	102.1	105.8	104.1	109.9	105.5
% Doe Lactation					
1.5 Yr.	10.6	9.0	13.5	10.0	10.8
2.5 Yr.	40.4	53.7	51.4	53.3	49.7
2.5+ Yr.	56.9	57.9	58.1	58.9	58.0
3.5+ Yr.	61.5	59.5	60.1	61.3	60.6

Table 19 Coastal Flatwoods Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	21,946	22,870	28,070	19,669	23,139
Total Deer	43	108	102	74	82
Bucks	24	52	51	42	42.25
Does	19	56	51	32	40
Acres/deer	510.4	211.8	275.2	265.8	315.8
Bucks	914.4	439.8	550.4	468.3	593.2
3.5+ Bucks	4389.2	714.7	967.9	728.5	1700.1
Does	1155.1	408.4	550.4	614.7	682.1
Avg. Age ALL Bucks	2.6	2.9	2.8	2.9	2.8
% 0.5 Yr. Bucks	4.2	3.8	2.0	2.5	3.1
Weight	52.0	54.0	50.0	50.0	51.5
% 1.5 Yr.	25.0	23.1	20.0	15.0	20.8
Weight	95.5	99.9	94.7	111.8	100.5
Points	2.5	2.1	2.3	27.0	8.5
Circumf.	3.1	1.9	1.6	1.3	2.0
Length	7.0	3.1	4.1	4.2	4.6
Spread	6.0	7.2	5.8	5.5	6.1
% 2.5 Yr.	12.5	11.5	20.0	15.0	14.8
Weight	130.7	126.3	147.6	144.0	137.2
Points	6.3	4.8	6.6	5.0	5.7
Circumf.	3.1	2.7	3.1	3.0	3.0
Length	13.6	12.8	14.3	12.4	13.3
Spread	12.8	10.4	11.2	11.0	11.4
% 3.5 Yr.	33.3	30.8	30.0	35.0	32.3
Weight	145.9	147.1	158.9	142.6	148.6
Points	7.4	7.9	7.8	7.5	7.7
Circumf.	3.4	3.8	3.5	3.2	3.5
Length	15.1	15.8	15.6	15.6	15.5
Spread	11.9	13.1	12.6	13.7	12.8
% 4.5 Yr.	25.0	30.8	28.0	32.5	29.1
Weight	151.0	157.1	156.4	155.3	155.0
Points	7.2	7.9	7.4	7.7	7.6
Circumf.	4.0	4.2	3.9	3.7	4.0
Length	16.4	17.7	18.8	17.5	17.6
Spread	12.7	13.8	13.9	14.6	13.8
Doe Age Classes					
% 0.5 Yr.	12.5	7.1	5.7	9.6	8.7
% 1.5 Yr.	6.3	16.1	28.3	19.4	17.5
% 2.5 Yr.	50.0	23.2	22.6	25.8	30.4
% 3.5+ Yr.	31.3	53.6	43.4	45.2	43.4
Doe Weights					
0.5 Yr.	53.0	56.5	42.7	59.3	52.9
1.5 Yr.	75.0	87.9	90.3	84.6	84.5
2.5 Yr.	99.5	93.6	101.8	102.9	99.5
3.5+ Yr.	102.2	102.5	111.3	95.9	103.0
% Doe Lactation					
1.5 Yr.	0.0	44.4	33.3	0.0	19.4
2.5 Yr.	37.5	46.2	33.3	12.5	32.4
2.5+ Yr.	23.1	44.2	46.0	36.4	37.4
3.5+ Yr.	0.0	43.3	52.6	50.0	36.5

Table 20 Interior Flatwoods Soil Resource Area (Summary of DMAP Data)

	Season				Average
	2015	2014	2013	2012	'12-'15
Acres	35,824	37,064	34,832	48,375	39,024
Total Deer	378	672	386	615	513
Bucks	126	282	142	226	194
Does	252	389	244	389	319
Acres/deer	94.8	55.2	90.2	78.7	79.7
Bucks	284.3	131.4	245.3	214.0	218.8
3.5+ Bucks	465.2	311.5	440.9	343.1	390.2
Does	142.2	95.3	142.8	124.4	126.1
Avg. Age ALL Bucks	2.8	2.7	2.9	2.9	2.8
% 0.5 Yr. Bucks	5.9	12.4	8.3	9.0	8.9
Weight	59.7	57.3	59.5	60.9	59.4
% 1.5 Yr.	12.6	13.3	18.8	12.3	14.3
Weight	91.9	100.2	96.3	109.0	99.4
Points	2.0	2.1	2.2	3.0	2.3
Circumf.	1.6	1.2	1.3	1.7	1.5
Length	2.9	4.0	4.0	5.6	4.1
Spread	3.9	4.6	5.2	5.2	4.7
% 2.5 Yr.	16.8	17.6	13.5	11.8	15.0
Weight	133.0	139.0	133.8	139.0	136.2
Points	5.6	6.4	5.5	6.4	6.0
Circumf.	3.1	3.3	3.1	3.4	3.2
Length	14.0	14.7	14.1	14.7	14.4
Spread	11.2	11.3	10.9	11.2	11.2
% 3.5 Yr.	37.0	26.7	18.0	30.3	28.0
Weight	148.5	146.9	135.0	155.1	146.8
Points	7.4	7.4	6.3	7.5	42.4
Circumf.	3.6	3.7	3.4	3.7	4.6
Length	16.7	16.5	13.4	16.7	12.6
Spread	13.2	13.0	11.0	13.2	13.5
% 4.5+ Yr.	27.7	30.0	41.4	36.5	30.3
Weight	159.0	165.1	170.7	165.5	165.1
Points	7.6	7.8	8.3	8.0	7.9
Circumf.	4.0	4.1	4.2	4.1	4.1
Length	17.6	18.0	18.6	18.0	18.1
Spread	13.8	14.4	14.9	13.7	14.2
Doe Age Classes					
% 0.5 Yr.	8.2	5.9	7.6	9.1	7.7
% 1.5 Yr.	23.8	18.9	16.0	18.9	19.4
% 2.5 Yr.	9.8	17.6	13.0	18.4	14.7
% 3.5+ Yr.	58.2	57.6	63.4	53.6	58.2
Doe Weights					
0.5 Yr.	53.7	58.4	58.2	60.2	57.6
1.5 Yr.	85.5	89.4	87.5	97.7	90.0
2.5 Yr.	100.9	101.5	102.9	101.0	101.6
3.5+ Yr.	107.1	108.8	111.0	110.6	109.4
% Doe Lactation					
1.5 Yr.	22.4	10.5	21.6	28.6	20.8
2.5 Yr.	47.8	41.1	67.7	69.1	56.4
2.5+ Yr.	58.7	57.7	70.0	69.0	63.9
3.5+ Yr.	60.6	62.8	70.5	68.9	65.7

The Law Enforcement Bureau began monitoring all statewide citations at the district and county levels during the 1996–1997 deer season. Twenty cited deer hunting violations were extracted from the database and summarized from 2008 to 2016 in **Table 21**. These violations were chosen because they are commonly cited, or because they represent changes in Administrative Rules or policy. Some citations were combined into one category because they represent similar violations (i.e., Unlawful shot/weapon includes hunting with restricted calibers and inappropriate weapons for the season). Citations for eight of the most common violations are summarized by county in **Table 22** on page **64-65**. The total citations in **Table 21** represent the totals for all deer-related citations.

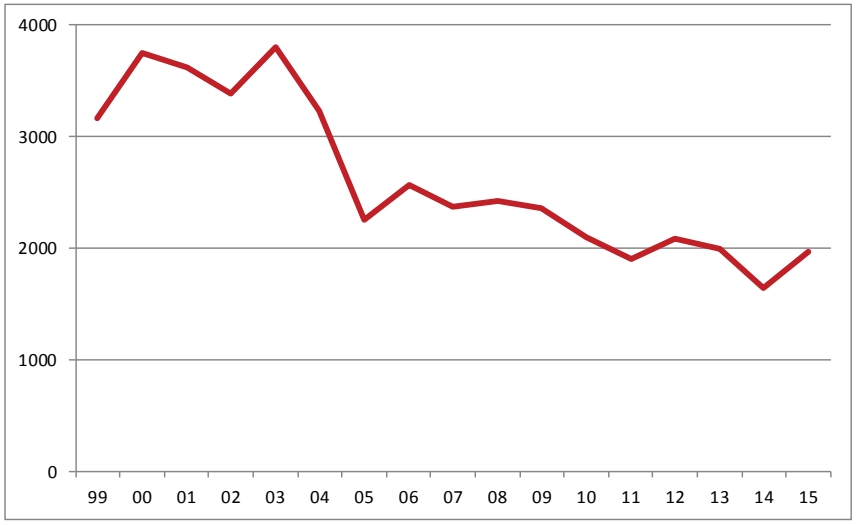
A total of 1,807 citations were written during the 2015–2016 deer hunting season **(Table 21 and Figure 23)**. This is an increase in deer-related citations from the previous season, potentially in some part due to the increase in citations related the high-water and season closure along the Mississippi River and South Delta. The increase in citations may also be related to an increase in new Conservation Officers in the field. MDWFP graduated new classes of officers in the fall of 2014, one of the largest to pass through the Mississippi Conservation Officers Training Academy. These officers would have completed their field training and been active in important details, including headlighting, which may have accounted for the increase in citations from last season.

Several logical trends in citations across the past eight deer seasons may be inferred from **Table 21**. First, citations that one would expect to remain constant, including hunting without the appropriate license and violations of the WMA regulations, appear to remain constant, indicating some consistency in enforcement of game laws. Citations for no hunter orange, unlawful weapons, and baiting decreased over the same period, undoubtedly because administrative rules were passed during that time that better defined or liberalized activities related to those violations. For instance, the Administrative Rule defining supplemental feeding (MS Admin Code 40 Part 2 Rule 2.4–Supplemental Feeding of Wild Animals out-

Table 21 Citation Summary

Statewide Citations Summary for Most Frequent Deer-Related Violations By Season								
Violation	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
NO LICENSE - NON-RES	108	78	96	116	83	102	91	80
NO LICENSE - RESIDENT	337	354	346	275	308	272	266	289
BAITING	214	235	205	188	154	131	86	14
SUPPLEMENTAL FEED	NA	44	54	124	170	224	174	188
DUMPING WILDLIFE PARTS	6	5	7	4	8	12	3	16
EXCEEDING BAG LIMIT	12	10	11	6	14	11	11	8
HEADLIGHTING DEER	175	178	128	105	168	171	105	130
HUNTING AFTER HOURS	49	53	37	33	37	26	25	35
HUNTING CLOSED SEASON	56	84	63	43	76	78	32	44
HUNTING FROM PUBLIC ROAD/ MOTORIZED VEHICHLE	47	31	18	34	34	35	17	25
HOMOCHITTO DOG LAW	NA	NA	1	8	4	8	11	2
UNLAWFUL ACT DUE TO HIGH WATER CLOSURES	NA	NA	NA	NA	NA	NA	NA	18
HUNTING/SHOOTING FROM MAIN LEVEE	3	8	3	2	0	2	5	2
KILLING DOE OUT OF SEASON	7	10	9	10	3	7	4	2
NO ARCHERY/ PRIMITIVE WEAPON	24	23	9	15	10	6	15	24
NO HUNTER ORANGE	266	231	225	204	242	217	190	160
WMA REGS	167	134	130	112	110	108	125	146
No WMA Permit	34	29	44	44	26	39	32	49
TRESPASSING	176	180	149	100	119	119	104	120
UNDERSIZED ANTLERS	41	30	28	29	34	26	47	57
UNLAWFUL WEAPON/ SHOT SIZE	143	140	100	94	129	81	42	58
Totals	1865	1857	1663	1546	1729	1675	1385	1467

Figure 23 Total Deer-Related Citations



side of Wildlife Enclosures) was enacted in 2008 and amended in 2015. This rule, passed per legislative authority (§§49-1-29, 49-4-4, 49-7-33, and 49-7-33.1), better defined supplemental feeding. Baiting citations were reduced, but citations for violations of the supplemental feeding rule increased.

In a special case for the 2015-2016 season, the Administrative Rule (MS Admin Code 40 Part 4 Rule 1.5-Regulations Regarding the Taking, Catching or Killing of Any Wild Bird or Wild Animal on Lands Affected By Flood Waters) governing the closure of large and small game seasons was initiated for the first time since 1984. The MDWFP Law Enforcement Bureau engaged in a historic detail, involving multiple states, state and federal agencies, and private and public organizations. The efforts of these officers help protect deer and other wildlife from additional molestation during a time when they were most vulnerable.

Our officers are doing a great job across the state, but they need the help of sportsmen. Hunters can assist our officers by reporting wildlife violations by calling 1-800-BE-SMART. Most counties have only one or two officers, but with concerned sportsmen, they have eyes and ears all over the county.

Table 22 Citation Summary by County

Citations Summary for Most Frequent and Total Deer-Related Violations By County During the 2015-2016 Season.

County	Supplemental Feed	Headlighting Deer	No License-Non-Res	No License-Resident	No Hunter Orange	Trespassing	Undersized Antlers	Total of All Deer -Related
ADAMS	0		2	4	0	1	0	8
ALCORN	2	1	0	2	2	0	0	14
AMITE	4	2	1	3	1	0	0	12
ATTALA	7	4	1	6	1	2	1	32
BENTON	0	0	0	3	0	0	0	15
BOLIVAR	1	1	1	1	1	3	0	25
CALHOUN	4	7	1	10	4	10	2	53
CARROLL	2	2	0	0	0	0	0	6
CHICKASAW	1	1	0	2	0	3	2	24
CHOCTAW	7	2	0	4	5	4	2	33
CLAIBORNE	7	1	2	10	3	3	1	38
CLARKE	1	2	3	4	3	0	1	21
CLAY	1	1	2	1	1	0	1	13
COAHOMA	2	2	0	1	0	2	1	25
COPIAH	14	0	8	10	7	5	2	61
COVINGTON	4	1	1	3	3	0	2	17
DESOTO	1	1	1	2	0	0	0	10
FORREST	0	1	0	1	0	0	1	7
FRANKLIN	1	0	1	0	1	3	0	12
GEORGE	1	2	0	3	0	1	1	25
GREENE	1	1	1	6	0	2	0	23
GRENADA	3	0	0	1	1	1	2	16
HANCOCK	0	2	0	2	0	0	3	12
HARRISON	1	3	0	6	1	2	4	38
HINDS	2	2	1	7	4	4	0	30
HOLMES	2	1	3	7	5	1	1	31
HUMPHREYS	1	0	0	0	0	0	0	3
ISSAQUENA	1	0	2	5	2	0	0	34
ITAWAMBA	0	1	5	1	5	1	0	26
JACKSON	1	2	3	8	5	2	1	68
JASPER	0	0	0	1	1	0	1	6
JEFFERSON	7	0	4	6	2	2	2	27
JEFFERSON DAVIS	7	6	4	9	6	2	0	49
JONES	2	0	0	2	3	0	0	9
KEMPER	3	2	2	5	0	0	0	19

Citations Summary for Most Frequent and Total Deer-Related Violations By County During the 2015-2016 Season.

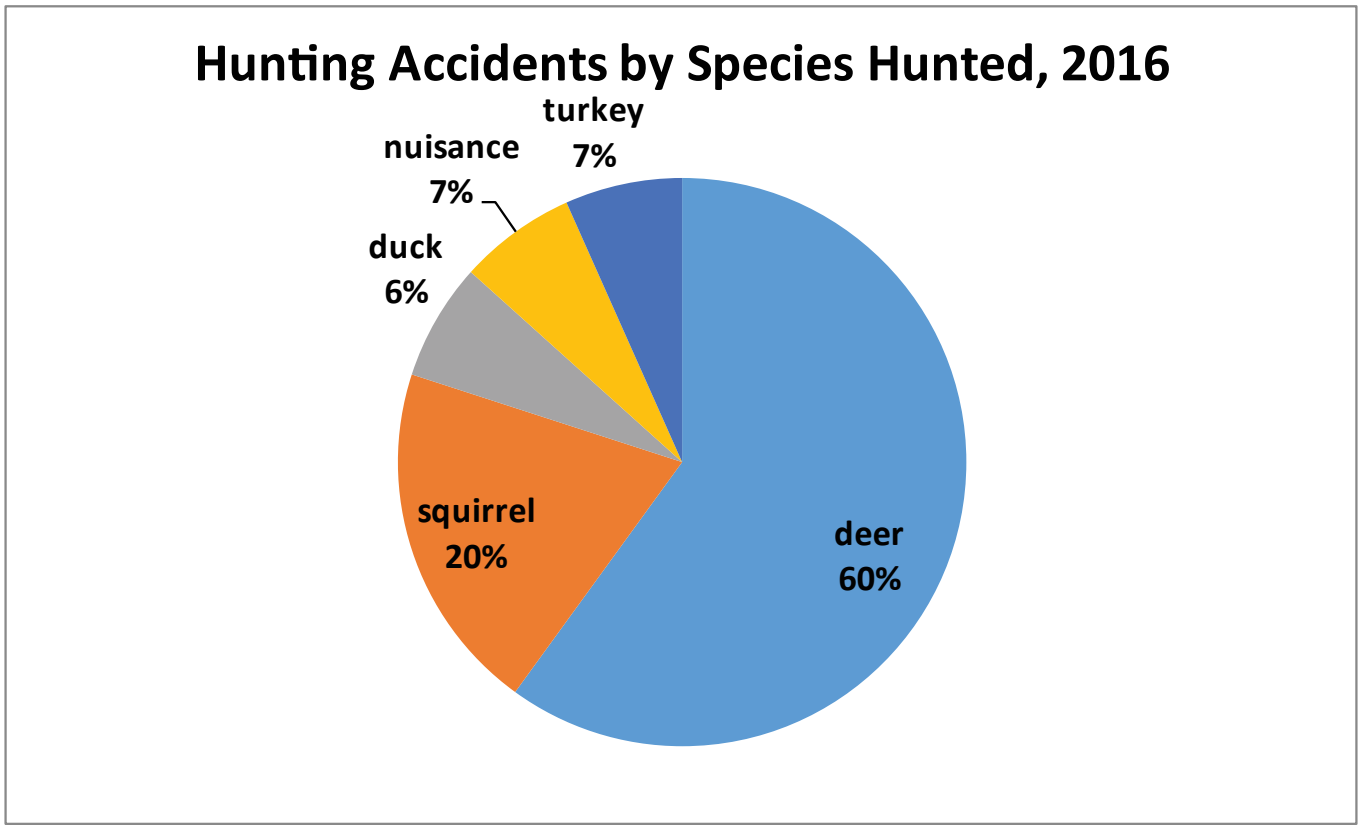
County	Supplemental Feed	Headlighting Deer	No License-Non-Res	No License-Resident	No Hunter Orange	Trespassing	Uundersized Antlers	Total of All Deer -Related
LAFAYETTE	1	0	1	0	0	0	0	4
LAMAR	0	0	0	1	0	0	0	6
LAUDERDALE	2	4	0	7	2	2	0	22
LAWRENCE	4	0	0	1	3	1	0	27
LEAKE	1	2	0	6	1	2	1	23
LEE	1	2	0	7	5	2	2	24
LEFLORE	0	0	1	2	0	0	0	4
LINCOLN	6	0	0	4	3	0	0	17
LOWNDES	0	1	1	4	4	1	1	18
MADISON	2	0	1	7	4	5	1	30
MARION	2	2	1	1	1	0	0	20
MARSHALL	0	0	2	3	1	0	0	8
MONROE	2	0	2	4	2	2	2	45
MONTGOMERY	7	7	0	3	4	1	0	20
NESHOBA	2	6	0	7	1	2	1	25
NEWTON	4	4	1	8	6	0	3	33
NOXUBEE	3	1	3	6	2	2	0	22
OKTIBBEHA	5	6	0	3	2	3	0	32
PANOLA	1	3	0	2	2	2	0	16
PEARL RIVER	2	2	1	4	1	2	0	24
PERRY	0	1	1	4	2	2	0	54
PIKE	4	0	3	2	4	0	0	15
PONTOTOC	1	2	0	3	1	1	1	13
PRENTISS	1	3	2	4	2	1	0	29
QUITMAN	0	1	0	2	1	0	0	10
RANKIN	3	3	0	6	6	4	3	39
SCOTT	5	3	3	2	2	2	0	24
SHARKEY	4	0	1	9	1	4	1	68
SIMPSON	0	2	1	4	1	2	1	16
SMITH	0	2	0	3	1	1	2	16
STONE	5	1	0	4	1	0	0	28
SUNFLOWER	0	1	0	0	0	2	1	8
TALLAHATCHIE	1	1	0	0	0	2	2	7
TATE	1	3	0	1	1	2	0	14
TIPPAH	0	1	0	4	3	2	0	14
TISHOMINGO	0	2	0	0	0	1	1	9
TUNICA	1	2	0	1	1	0	0	11
UNION	1	1	0	3	1	2	0	9
WALTHALL	11	6	4	3	9	2	0	46
WARREN	5	0	0	2	5	0	0	24
WASHINGTON	0	1	0	1	2	0	0	10
WAYNE	1	2	0	2	0	1	0	14
WEBSTER	4	0	0	2	0	1	0	9
WILKINSON	1	1	2	0	1	0	0	6
WINSTON	0	0	0	1	0	0	2	6
YALOBUSHA	2	0	0	3	0	1	0	11
YAZOO	1	0	0	7	4	6	1	45
Total	188	130	80	289	160	120	57	1807

For the purposes of this report, a hunting accident includes an injury to a person(s) by the discharge of a hunting weapon or during the maneuvering of a treestand while engaged in the activity of hunting. There were 17 total hunting related accidents investigated in Mississippi during the 2015–2016 hunting season. This is the lowest number for hunting accidents reported during the past 10 years. Of the accidents occurring during the 2015–2016 season, 11 were firearm related and 5 were tree stand related. Although a slight majority of hunting accidents occurred while deer hunting (**Figure 23**), this is a decrease from the proportion of accidents that occur while deer hunting in previous years (approximately 75%).

From 2006 to 2013 the proportion of firearm and treestand related accidents was fairly constant at approximately half and half. In contrast, the 2014–2015 season saw the proportion of treestand related accidents rise to nearly two-thirds, while the proportion fell to less that 30% for the 2015–2016 season. Unlike treestand accidents, firearm accidents require mandatory reporting, allowing MDWFP to monitor trends in firearm accidents and measure successes of the Hunter Education Program. Due to the lack of mandatory reporting for treestand accidents, the MDWFP Deer Program warns that the numbers reported here for treestand accidents are likely and unfortunately, underestimated. However, it is relevant to note that the MDWFP began requiring the use of industry standard, full-body, fall arrest systems on Wildlife Management Areas in 2009, per Administrative Rule (MS Admin Code 40 Part 2 Rule 1.1—Basic Regulations for All Wildlife Management Areas). Perhaps the increased attention from the Administrative Rule, as well as the increased availability of quality fall-arrest systems and increased prominence of safety devices in the media have led more hunters to address treestand safety issues.

Hunting accidents in Mississippi average about one injury for every 9,666 licensed hunters, or about 10 injuries per 100,000 participants. For comparison, football, averages around 3,500 injuries per 100,000 participants. Based on relative rates of injury, hunting may be considered a very safe sport. While treestand-related injuries appear to be on a declining trend, the MDWFP urges caution when utilizing above ground treestands. Know how to properly use and wear a full-body harness—then use it every time you hunt from a treestand. Take time before hunting season to read the safety information and instructions on all of your safety equipment, including instructions for treestands. Knowing how it feels to suspend in the event of a fall, and knowing how to use the supplied suspension relief device can and will give you the confidence to survive in the event of a fall. Remember the most important part of your hunt is making it home. Share this message with the ones you care for and help MDWFP spread the word about treestand safety.

Figure 24 **Hunting Accidents by Species Hunted**



Related to Treestand Safety, MDWFP urges anyone hunting from an elevated stand to:

- Learn and use proper treestand safety.
- Always use a full-body harness.
- Maintain connection to the tree from the time you leave the ground until you return (life-lines are a great option for fixed-position stands).
- Read all instructions that come with any treestand or treestand related product.
- Watch the treestand safety video that comes with all Treestand Manufacturers Association (TMA) certified treestands/harnesses.
- Learn what the TMA does and how products are tested/certified.
- Remove all stands from the woods each year and store stands out of the weather.
- Inspect treestands and safety equipment each time they are used.
- Store harnesses indoors and out of the weather.
- Carry and know how to use the suspension relief device (SRD) supplied with every TMA certified harness.
- Practice suspending from a TMA certified harness at ground level (with another responsible adult supervising) and deploy the SRD to understand how it feels to be suspended and use the SRD.
- Make a plan before each hunt that includes letting someone know where you will be hunting.
- Be sure to carry an emergency signal device (cell phone or whistle attached to harness).
- Never use tree limbs to climb.
- Use a lineman's belt and the supplied tree strap while hanging a fixed-position stands.
- Always connect the bottom and top sections of a climbing stand and practice retrieving a lost bottom section (at ground level, with supervision, while wearing a harness).
- Be a good example for other hunters by always wearing a harness while hunting in an elevated position.

Without question, the most important component of accident prevention is education. Volunteer instructors and conservation officers certified 10,954 sportsmen in Hunter Education during the 2015–2016 season **(Figure 24)**. For more information about hunter safety and Hunter Education, including dates for classes in your area, visit www.mdwfp.com.

Figure 25 Students Trained

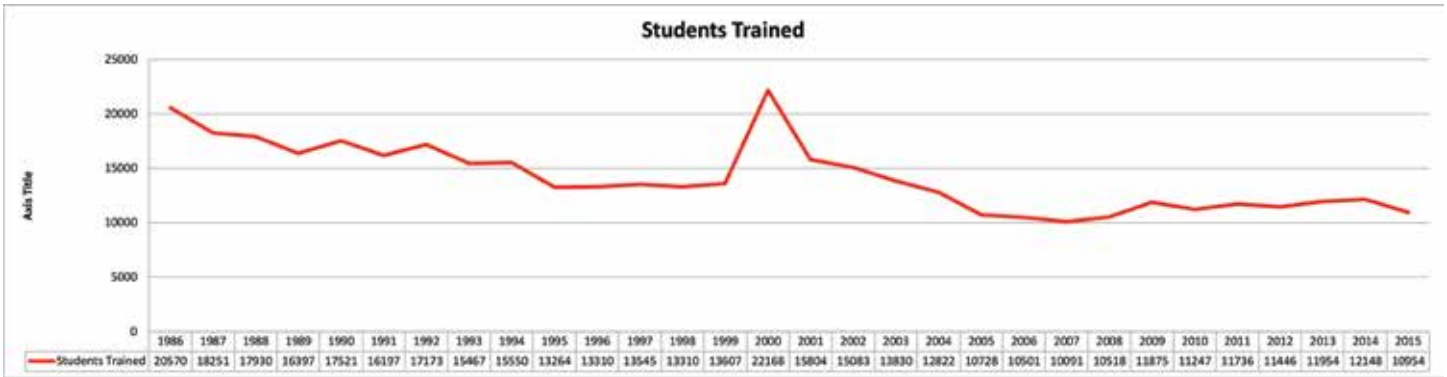
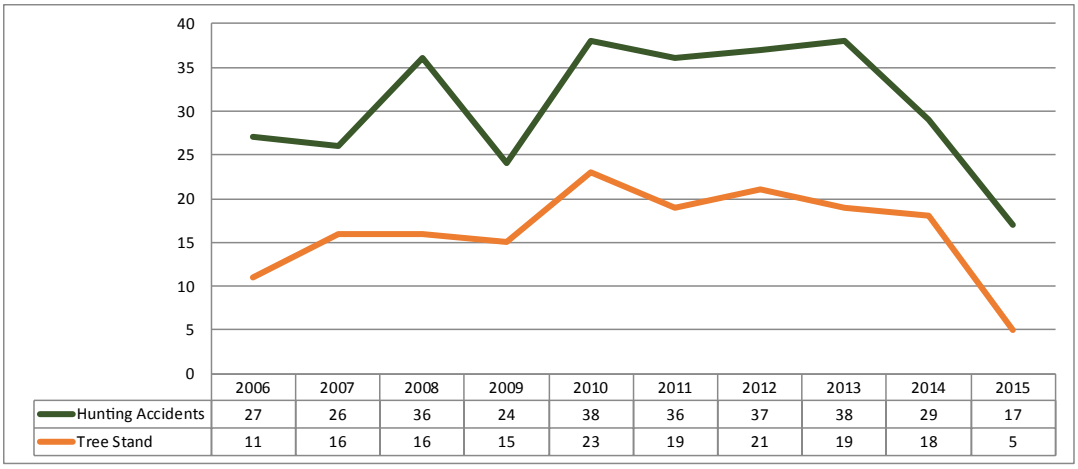


Figure 26 Total Hunting Related Accidents-10 Year Trend



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Hunting Accidents	27	26	36	24	38	36	37	38	29	17
Tree Stand	11	16	16	15	23	19	21	19	18	5

Paul Brown

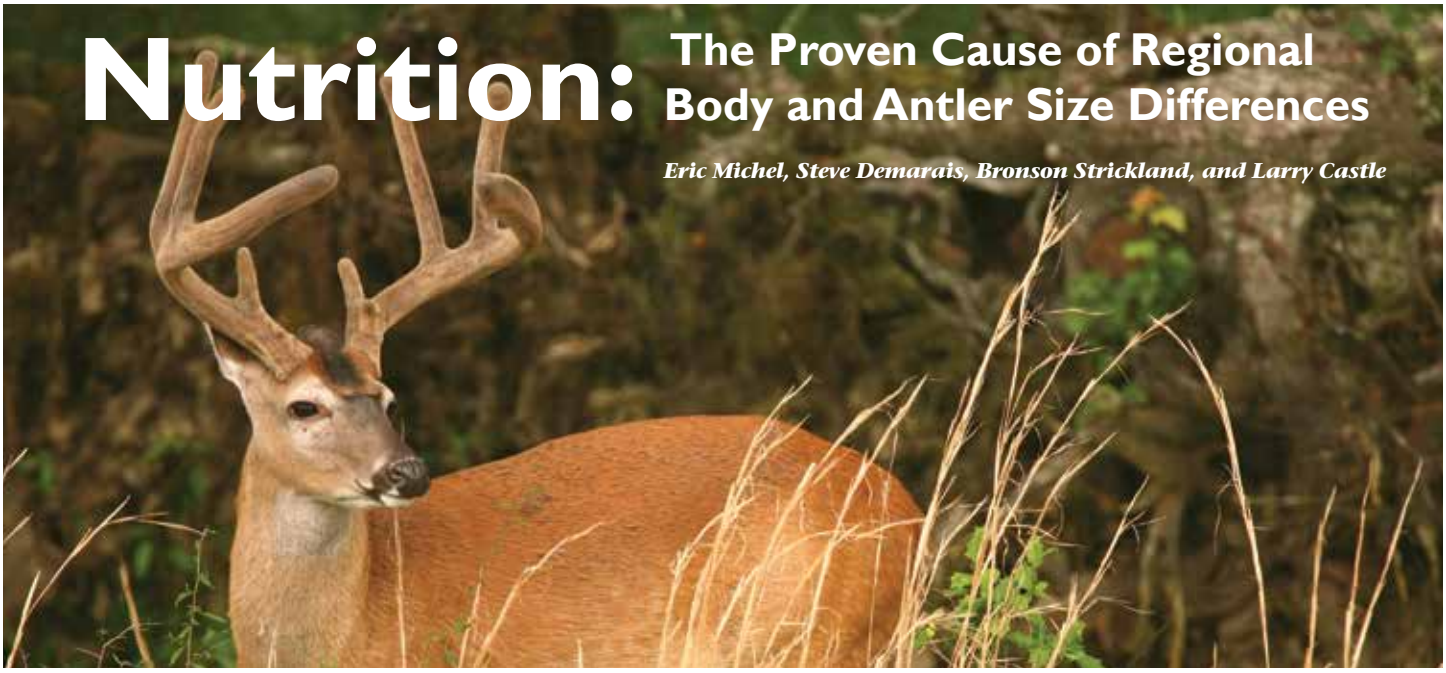
Effects of hunting activity on movement ecology of white-tailed deer using GPS collars

Ashley Jones, Steve Demarais, Bronson Strickland, and Garrett Street

Where do bucks go during the hunting season? Do they perceive hunters on the landscape and change their behavior to avoid predation? To answer these and other questions, we placed telemetry collars on 55 bucks aged 2.5 years or older in Madison and Yazoo Counties along the Big Black River beginning in October, 2016. Each buck received a bright orange GPS collar to track their locations through February, 2019. The collars record locations of the bucks every 15 minutes during the hunting seasons and every 4 hours the rest of each year. Using these locations combined with where hunters are on the landscape, we will understand how adult bucks alter their movements and habitat selection to avoid harvest. Specifically, we want to know how the proportion of time spent in certain areas changes in response to hunting pressure. We also want to know how the way they move through these areas changes during the hunting season.

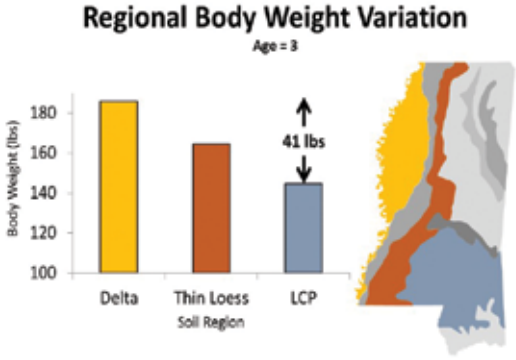
Although the complete results of how bucks avoid hunters will not be available until 2019, some new and interesting information has been gained by placing telemetry collars on deer. We have already lost 7 deer: 4 died from rut-related injuries, 2 were hit by cars, and 1 was accidentally harvested by a hunter. We have also documented three separate bucks making 5-mile relocation movements over short time periods. Large movements like these may occur more often at different times of year, and our research will reveal such patterns. Support for this project is from Mississippi Department of Wildlife, Fisheries, and Parks using Federal Aid to Wildlife Restoration funds.

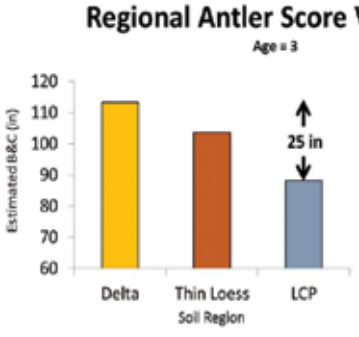
Nutrition: The Proven Cause of Regional Body and Antler Size Differences



Eric Michel, Steve Demarais, Bronson Strickland, and Larry Castle

Are deer in the Delta bigger than deer in southeast Mississippi because of differences in the nutritional quality of the habitat or is it because of their genetic makeup? To address this question, the MDWFP captured pregnant does from the regions with the biggest deer (Delta), average deer (Thin Loess), and smaller deer (Lower Coastal Plain; LCP). Their offspring were raised on optimum nutrition to eliminate nutritional differences related with their source habitats; these are called first generation deer. We allowed first generation deer from each region to breed, and we raised their second generation fawns on optimum nutrition to further eliminate the effects of forage quality.





First Generation Results

Being raised on optimum nutrition caused a moderate increase in growth of first-generation bucks compared to their wild predecessors. Over all three regions, body and antler size increased about 6%, but the pattern was not consistent among regions. Body weight for 3-year-old bucks from the Delta and Thin Loess increased by 9 pounds but LCP bucks remained essentially unchanged compared to their wild counterparts roaming the nutritionally deprived region of South Mississippi. Antler score was a different story. Bucks from the Delta remained essentially unchanged, whereas Thin Loess bucks and LCP bucks increased 7 inches more than their wild predecessors.

Second Generation Results

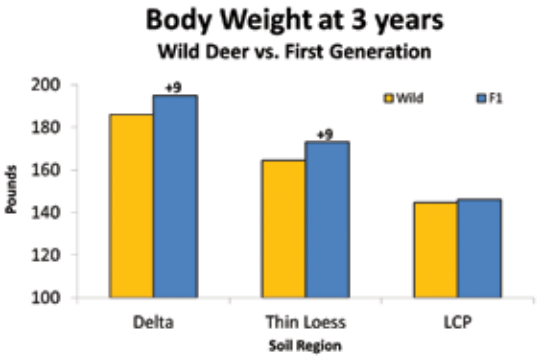
We saw astounding improvements in the second generation. As you can see in the next figure, bucks from the Delta, Thin Loess, and LCP regions increased 32, 21 and 36 pounds, respectively, compared to the wild bucks–that's a whopping 18% improvement! The second generation LCP bucks grew body weights equivalent to wild bucks from the Delta region. Antler size displayed the same trend. Bucks from the Delta, Thin Loess, and LCP regions increased 5, 11 and 28 inches, respectively, compared to the wild bucks. The 28 inches for LCP bucks was an amazing 32% improvement compared to their wild predecessors!

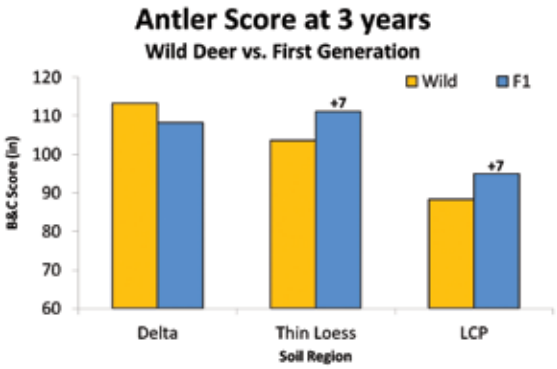
What Does it Mean?

First and foremost, you are what you eat–but you're also what your mother and her mother ate! Our results clearly show that deer in the LCP region of Mississippi are not genetically doomed to have smaller bodies and antlers, they are simply a product of their environment. Once nutrition was improved, LCP bucks started to display their genetic potential–but it took time. We feel confident that what we found was an epigenetic effect.

This new Epigenetic phenomenon explains how one's DNA can

First Generation Results





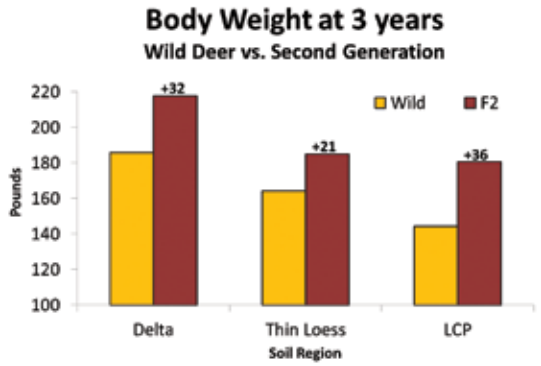
remain the same while its expression is altered by environmental conditions. One way to think about it is a series of switches within an animal's genes. If generations of a family have lived in a low-quality habitat, then it is advantageous to "turn off the switch" for the genes that promote a large body and antlers–the advantage is that smaller animals are better suited to the quality of forage in their environment. This "off switch" keeps animals from growing larger in a particularly good year, only to be hurt when forage quality returns to "normal." Therefore, this new epigenetics model shows that in addition to the environment a buck experiences during his lifetime, the habitat quality experienced by his parents and grandparents also is critically important!

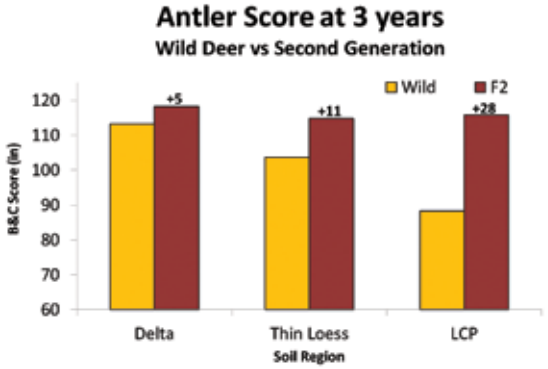
This is a remarkable discovery and explains the variation we see in body and antler size far better than the basic genetic model. It is also one trick that Mother Nature has that allows deer (and other animals) to adapt to their environment.

Although the first generation of bucks were raised on the same optimal diet, certain genes that code for growth were not "switched on." Their mothers had passed along a signal to their genes, which essentially said not to grow as big as you can because the environment simply will not support it (there is a disadvantage to being too big when food is limited).

However, by the second generation, these genetic switches were turning on and signaling to the genes that it is now safe to grow larger because my mother had good nutrition. This can be thought of as the mother "inheriting" her environment. If a mother inherits a high-quality environment, then she will pass that along to her fawns, and the same will occur if she inherits a low-quality environment.

Second Generation Results





The second important result was exhibited by deer with genetics represented by the Delta region. Some of our study animals came from the region that we considered to be the "Gold Standard" for body and antler growth by white-tailed deer in Mississippi. Yet, we observed a 32-pound increase in body weight and a 5-inch increase in antler score. These results prove that even deer in the Delta are not attaining their full potential in the wild.

Application to Management

There are three take-home messages from this research:

1) Focus on nutrition. These results are empowering because they show a clear link between body and antler quality and nutrition, which is something you can improve on your property. Habitat management and supplemental food plots will yield results.

2) We need to be realistic about our expectations as big changes take time. We live in a society where everything is at our finger tips. If we want it now, we can have it now. This mindset should not be carried over into deer management. Although individual deer will respond to increased nutrition in the short-term, it will take 5 to 10 years of consistently improved nutrition for the "genetic switches" to be turned on and stimulate greater expression of their genetic potential. Once turned on, you will see far greater improvements at the population level.

3) Stop worrying about genetics! Although genetics do control body and antler growth of individuals, previous work by the MSU Deer Lab has proven that genetics cannot be managed in free-ranging populations.

Support for this project is from the MDWFP using Federal Aid in Wildlife Restoration funds, MSU Deer Lab, Purina Mills, and private individuals.

While Males Fight, Females Choose

Daniel L. Morina, Steve Demarais, Bronson K. Strickland and Jamie E. Larson

Secondary sexual characteristics are physical aspects that develop at sexual maturity that are not used directly in the sexual act. Many female birds select their mate based on secondary sexual traits that signal their genetic quality, which is one reason male birds are more brightly colored. In mammals, however, it can be difficult to determine what signals quality to the female. Secondary sexual traits in deer, such as body mass and size of antlers, may provide an advantage in male-male competition for access to mates while simultaneously functioning as indicators of genetic quality or status.

The ability to isolate individual male traits is challenging and limits detection of the influential trait females are selecting, so we manipulated antler size while controlling for age and body size. We evaluated female choice by placing an estrus female into a choice trial pen with the manipulated males in adjacent, separate pens and recorded her choice-related behavior.

We based each female's choice on three behavioral criteria that took place within 10 feet of each male's fence line. For a choice to be determined for each criterion, she had to spend at least 60% of her time on one side or the other. Combining results of the three timed movement criteria, females preferred males with larger antlers in 13 of 15 trials.

In the first demonstration of female choice for antler size in deer, we showed that females prefer larger-antlered males to smaller-antlered males when male-male competition is controlled. This mate choice for larger antlers may be adaptive for females because this moderately to highly heritable trait increases reproductive success in males. It may be advantageous for females to choose mates with larger antlers if they produce male offspring with larger antlers, who in turn also have greater reproductive success.

Support for this project was provided by the Mississippi Department of Wildlife, Fisheries, and Parks through the Federal Aid in Wildlife Restoration Project.

Daniel L. Morina, Steve Demarais, Bronson K. Strickland, Jamie E. Larson, and John Gruchy

Determining Age of Fetal White-Tailed Deer:

Knowledge of the breeding seasons of white-tailed deer is essential for management and of great interest to hunters. It provides hunters and managers information about when rutting activity occurs and certain measures of herd health. Breeding dates are estimated by collecting fetuses from does and aging them using a growth curve developed in South Carolina. Once fetus age is determined, managers back date to the date of conception to estimate breeding date. The South Carolina fetal growth curve has never been evaluated in any other state. Fawning dates of does relocated from the Delta, Thin Loess, and Lower Coastal Plain soil regions of Mississippi to the MSU Deer Research Unit differed from fawning dates estimated using the South Carolina fetal growth curve. The objective of this project is to develop a more accurate fetal growth curve.

The Wisconsin Blue Buck: Fact versus Fiction

Jordan L. Youngmann, Steve Demarais, Randy W. DeYoung, Bronson Strickland, William McKinley, Johnathan Bordelon, and Chris Cook

Current populations of white-tailed deer in the southeastern United States are genetically mixed as a result of restocking during the mid-1900s. Although most restocked deer came from native sources or nearby states, some deer were shipped from up north, including areas like Michigan and Wisconsin. The legend goes that these northern deer have resulted in the "Wisconsin Blue Buck" or big-bodied descendants in certain places across the South. However, this story has never been proven through the use of DNA analysis.

To test the Blue Buck theory, we sampled free-range deer across Louisiana, Mississippi, and Alabama at sites with known historic stocking of a significant number of northern deer. We also sampled deer DNA from the stocking source populations in Michigan and Wisconsin. Genetic relationships were tested through the use of 14 microsatellite DNA markers.
Preliminary analysis found southeastern populations to be loosely divided east to west along the Mississippi River with further relationships apparent in populations that received deer from North Carolina. Additionally, genetic grouping was found between native Alabama deer that received no stocking and nearby Mississippi deer, suggesting natural recolonization of pre-restoration populations in some areas.

Only one analysis showed evidence of a northern genetic contribution still present in southeastern populations: between Black Warrior WMA in Alabama, and Michigan, which provided 105 (74%) translocated deer to that area. Why so little evidence of northern deer across the South? When one considers the long trip those deer faced from Michigan and Wisconsin, the warmer climate upon arrival, and exposure to different strains of diseases such as epizootic hemorrhagic disease, it is most likely that few of them survived long enough to make a genetic impact.

Support for this project is provided by the Mississippi Department of Wildlife, Fisheries, and Parks, the Louisiana Department of Wildlife and Fisheries, and the Alabama Department of Conservation and Natural Resources using Federal Aid in Wildlife Restoration funds.

Are All Southeast Deer The Same?

Known conception dates are required to develop a fetal growth curve. Therefore, we synchronize estrus using a controlled internal drug release dispenser containing progesterone. After synchronizing their breeding date, females are placed in a breeding pen with one or more males of the same region for natural mating. We remove fetuses by cesarean section surgery at predetermined intervals ranging from 35 to 189+ days post-conception. This coincides with typical timing of the data collection methods used by deer managers.

Preliminary analyses suggest fetal size may be a function of the doe's body mass. Since, the average doe mass is different among the three regions sampled, the accuracy of the South Carolina fetal growth curve differs for each region. If the variation in fetal size can be explained by the mass of the doe, we believe a universal scale can be developed for use throughout the range of white-tailed deer to refine estimates of regional breeding dates.

Support was provided by the Mississippi Department of Wildlife, Fisheries, and Parks through the Federal Aid in Wildlife Restoration Project.

Paul Brown


Steve Gulledge

Each year the MDWFP conducts a phone survey through Responsive Management. The survey provides the agency with metrics hunter participation and success. Information from the survey allows the agency to gauge trends in hunting pressure as well as hunter success within each season. Results of the survey can be separated by resident or non-resident, weapon category, county, and species hunted.

Resident Hunter Survey Results

Tables 24 and 25 display the deer harvest results from the 2015 and 2016 Survey of Mississippi Resident and Non-resident Hunters.

Total resident deer hunters by user group (gun, archery, and primitive weapons) are shown in **Figure 27**. Archery and gun hunter numbers increased, while primitive weapons hunters saw a slight decline. The overall number of hunters increased for the first time since the 2012–2013 season.

Deer hunting man-days by user group are shown in **Figure 28**. A long-term evaluation of hunter man-days reveals a declining trend that began in the mid-1980s. The 2015–2016, however, demonstrated the first increase in participation among all seasons since the 2012-–2013 season. Hunter man-days increased substantially for gun hunters. Archery and primitive weapons hunter participation showed a slight increase.

Total resident deer harvest for the 2015–2016 season is depicted in **Figure 29**. This graph includes the combined harvest of bucks and does from archery, primitive weapon, and gun deer seasons. Total resident deer harvest in the 2015–2016 season increased by 1,645 (i.e., <1%) compared to the 2014–2015 season (Table 26). The percentage of successful hunters declined from 69% to 66%. The average seasonal harvest dropped slightly from 1.84 to 1.72 deer per hunter.

Archery and primitive weapon hunters harvested 31% of total harvest and 37% of total doe harvest. These numbers decreased from 35% and 41%, respectively, in 2014–2015 season **(Table 26)**. Archery and primitive weapon hunters harvested twice as many does than bucks. On average it took archery hunters 19.4 days, primitive weapons hunters 18.4 days, and gun hunters 13.1 days to harvest a deer. These averages increased from 17.7, 13.4, and 12.4 days, respectively, for the 2014–2015 season.

Non-Resident Hunter Survey Results

Total hunter numbers increased by 5.5% from the 2014–2015 to the 2015–2016 season **(Table 26, Figure 30)**. Buck harvest increased by 2.3% and doe harvest decreased by 0.7% **(Figure 31)**. Man-days decreased for primitive weapons and gun hunters and increased for archery hunters **(Figure 32)**. Non-resident success rates decreased from the 2014–2015 season in all categories except doe harvest during archery and gun seasons.

2015-2016 Summary (Resident and Non-Resident Combined)

The total number of deer harvested decreased by about 500 deer from the 2014-2015 season. This resulted from minor gains and losses in resident and non-resident success, respectively. A total of 147,570 deer hunters spent 3,863,551 man-days deer hunting and harvested 109,738 bucks and 144,508 does, for a total of 254,246 deer. It took an average of 15.2 man-days per deer harvested. Hunters spent an average of 26.2 man-days hunting during the season.

Table 23 2015-2016

	Total Harvest			Total Hunters			Average Seasonal Harvest		Total Man-days			Percent Successful Hunters		Deer Per Hunter
	R	NR	Total	R	NR	Total	R	NR	R	NR	Total	R	NR	
Total	229,068	25,178	254,246	122,978	24,592	147,570	1.86	1.02	3,423,900	439,651	3,863,551	66.0	52.0	1.72
Buck	98,947	10,791	109,738									44.0	32.0	
Doe	130,121	14,387	144,508									52.0	37.0	
Archery Total	39,369	3,890	43,259	48,383	7,483	55,866	0.81	0.47	762,628	88,959	851,587	41.0	30.0	0.76
Buck	12,743	1,046	13,789									16.0	9.0	
Doe	26,626	2,844	29,470									36.0	24.0	
Primitive Total	32,324	3,839	36,163	48,901	8,050	56,951	0.66	0.41	593,961	74,990	668,951	43.0	31.0	0.62
Buck	11,085	1,413	12,498									17.0	12.0	
Doe	21,239	2,426	23,665									31.0	23.0	
Gun Total	157,374	17,650	175,024	107,437	21,127	128,564	1.46	0.83	2,067,311	275,702	2,343,013	63.0	47.0	1.36
Buck	75,113	8,532	83,645									41.0	29.0	
Doe	82,261	9,118	91,379									41.0	30.0	

R: Resident NR: Non-Resident

Table 24 2014-2015 vs 2015-2016

	Total Harvest			Total Hunters			Average Seasonal Harvest		Total Man-days			Percent Successful Hunters		Deer Per Hunter
	R	NR	Total	R	NR	Total	R	NR	R	NR	Total	R	NR	
Total Deer	1,645	-1,127	518	8,253	1,273	9,526	-0.12	-0.21	353,491	-23,440	330,051	-3.0	-2.0	-0.12
Buck	2,566	-1,228	1,338				0.00	0.00				-1.0	-1.0	0.00
Doe	-921	101	-820				0.00	0.00				-1.0	0.0	0.00
Archery Total	-764	186	-578	6,324	-840	5,484	-0.14	0.00	51,578	3,658	55,236	-3.0	0.0	-0.12
Buck	1,291	-12	1,279				0.00	0.00				-1.0	-3.0	0.00
Doe	-2,055	198	-1,857				0.00	0.00				0.0	2.0	0.00
Primitive Total	-6,188	-394	-6,582	-860	-817	-1,677	-0.11	-0.08	77,598	-220	77,378	0.0	0.0	-0.12
Buck	-2,597	-174	-2,771				0.00	0.00				0.0	0.0	0.00
Doe	-3,591	-220	-3,811				0.00	0.00				0.0	-1.0	0.00
Gun Total	8,597	-718	7,879	7,509	-200	7,309	-0.03	-0.05	224,315	-26,878	197,437	0.0	-2.0	-0.02
Buck	3,867	-841	3,026				0.00	0.00				-1.0	-2.0	0.00
Doe	4,730	123	4,853				0.00	0.00				0.0	1.0	0.00

R: Resident NR: Non-Resident

Figure 26 **Total Deer Hunters—Resident**

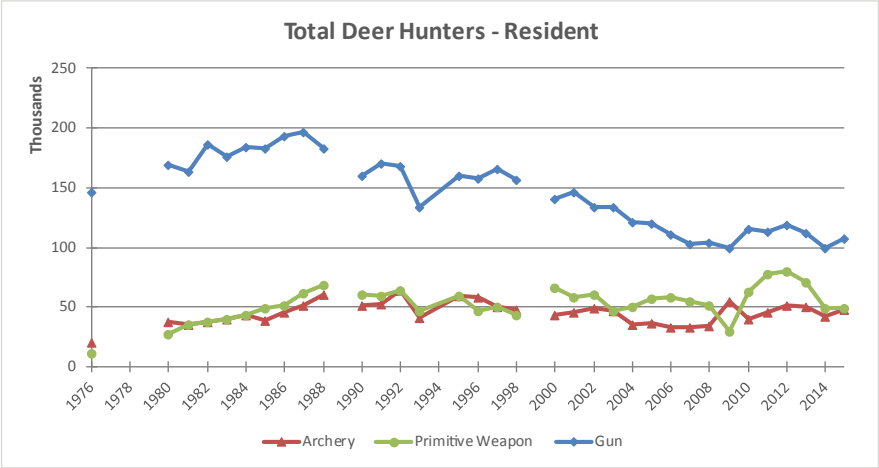


Figure 27 **Total Man-Days—Resident**

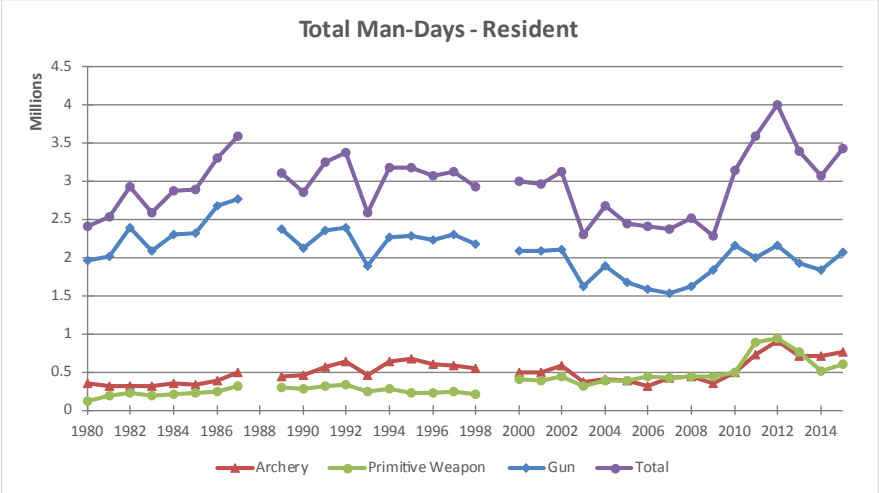


Figure 28 **Total Deer Harvest—Resident**

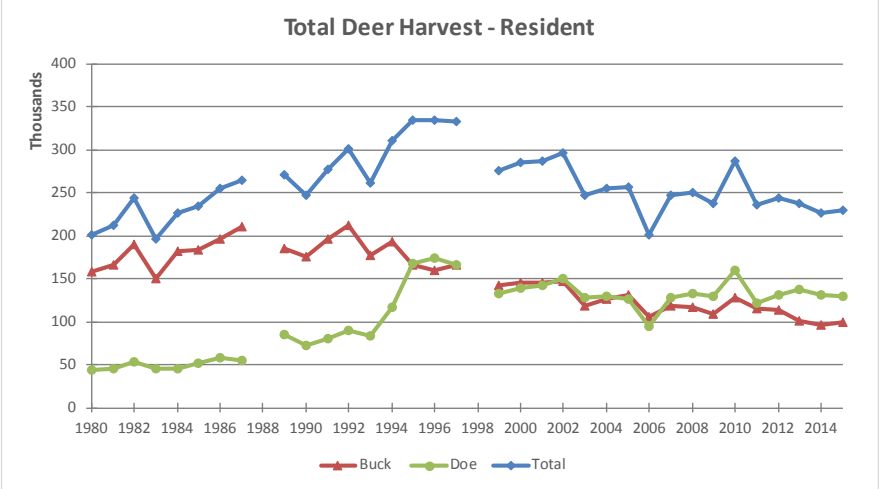


Figure 30 **Total Deer Hunters Non-Resident**

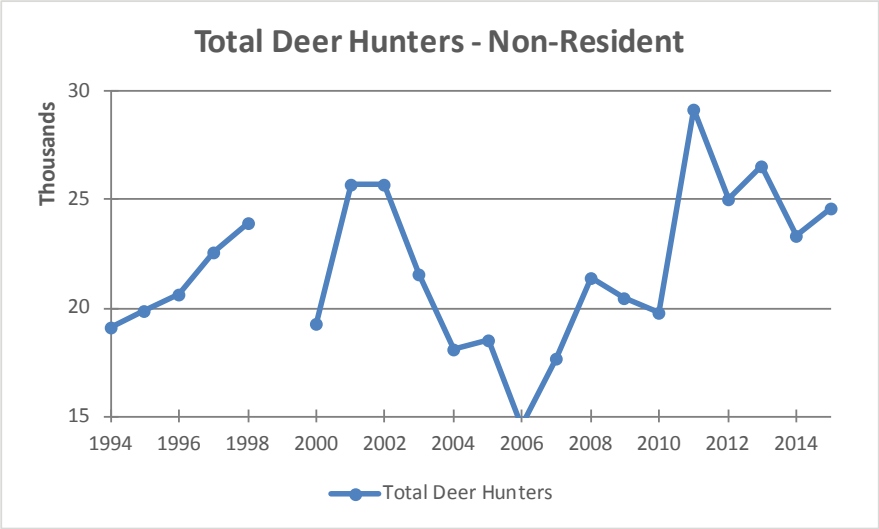


Figure 31 **Total Deer Harvest Non-Resident**

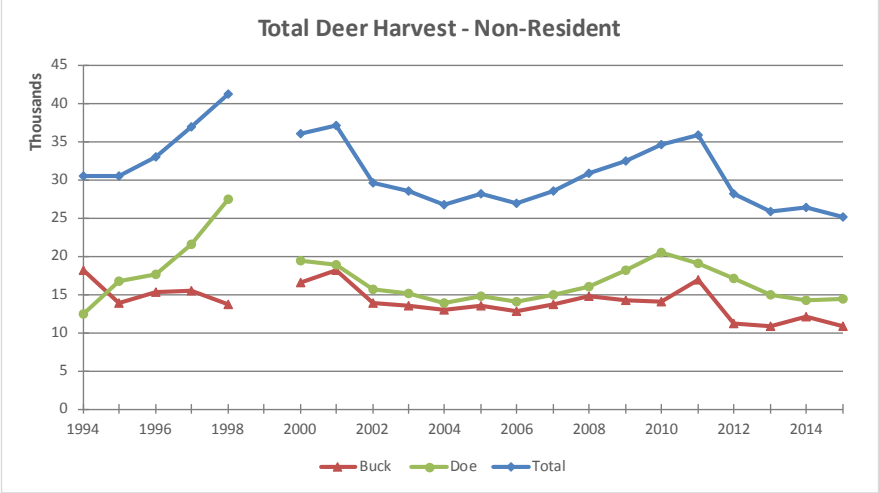
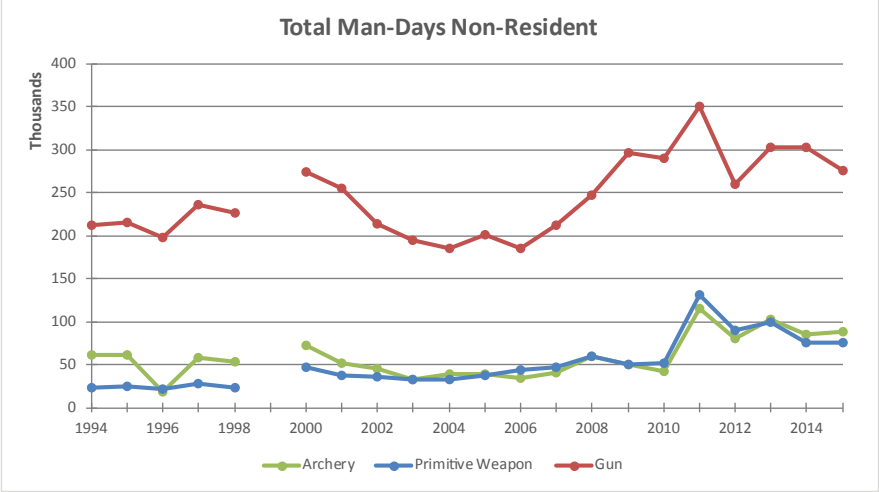


Figure 32 **Total Man-Days Non-Resident**



A MESSAGE FROM THE BIOLOGISTS

The 2015–2016 deer season was certainly unique. For only the sixth time since 1964, the Mississippi River was above flood stage on multiple river gauges during the hunting season. On average the 2016 flood event was 5 feet higher than the highest records during the deer season. As a result of this natural disaster, the Commission exercised their previously established authority to close the deer season in four pre-determined zones, beginning on January 3, 2016 in the northernmost zone **(Figure 33)** and ultimately extending through deer season. Additionally, to address the severity of the flood and displacement of deer from the Batture into other regions of the state, the Commission expanded the area of season closure to include additional acreage in Bolivar, Issaquena, Sharkey, and Yazoo Counties. In total, the deer season was closed on 1.6 million acres for some length of time. Based on the previously established guidelines, the Commission had the opportunity to reopen the season in some zones once the water receded, however, they voted for the season to remain closed to allow displaced deer to return to their natural home ranges without additional disturbance from hunters.

MDWFP biologists worked with Mississippi State University and Delta Wildlife to discuss a practical means of evaluating potential effects of the flood on deer populations. As a result of these discussions, MDWFP biologists conducted nine herd health evaluations in the Delta and Batture region. The results of these evaluations, discussed earlier in this report, appear to indicate little if any negative impacts, based on the parameters we use to assess herd health. Further cursory evaluation of historical harvest data and herd health check data seem to support indications that flood impacts to herd health will vary greatly based on local conditions.

Hunters in areas impacted by the flood have expressed concerns about impacts to subsequent fawn crops, particularly given the frequency of spring flooding from 2009 to 2011. For these hunters, as well as hunters in many areas reporting decreased daytime sightings of deer during the 2015-2016 season, the MDWFP recommends collecting data to help set antlerless harvest goals and manage deer populations. Hunters can assess local deer populations where possible using a rigorously conducted camera survey (www.mdwfp.com/camerasurvey). Camera surveys conducted during September or immediately following the closing of deer season are the best way to assess the total number of deer in an area. In the absence of camera survey data, standardized hunter observation data or a long-term harvest dataset may be used to assess deer populations. Additionally, we encourage hunters to try the new Deer Hunt app from the MSU Deer Lab (MSUDeerLab.com). This app allows hunters to track deer observations throughout the season by stand and across multiple properties as needed. Good hunter observation data can be use to estimate adult sex ratio and fawn crop. When hunter observation data, camera survey data, and good harvest data are used in conjunction, biologists and hunters have a means to cross-validate findings and improve the accuracy of management decisions.

Statewide DMAP harvest data (total deer harvest per acre) and hunter harvest survey results indicate overall hunter success was lower than previous seasons. Although no peer-reviewed study has shown decreased deer movement during unseasonably warm weather, we feel it is relevant to note that the average temperature in December 2015 was seven degrees warmer than December 2014 and eleven degrees warmer than December 2013. Furthermore, prolonged late-summer drought in the central region of the state resulted in poor cool-season food plot production, potentially impacting deer observations. It is also noteworthy that many Central Region clubs in counties hit hardest by the late-summer 2015 drought (e.g., Holmes, Carroll, Yazoo, and Attala counties) saw significant declines in doe body weights.

All things considered, buck quality during the 2015-2016 season was outstanding. Nearly 75% of all bucks harvested on DMAP cooperators were mature (≥3.5 years old). A high proportion of mature bucks in the harvest is positive, not only because of the potential increase in hunter opportunity to harvest a large antlered animal, but also because herds with balanced age structures tend to have more concise breeding seasons, resulting in better post-rut body condition for all bucks. Furthermore, the steady decline in hunting incidents and safety-related citations (i.e., no hunter orange) indicates Mississippi hunters are making smart decisions about more than just buck harvest.

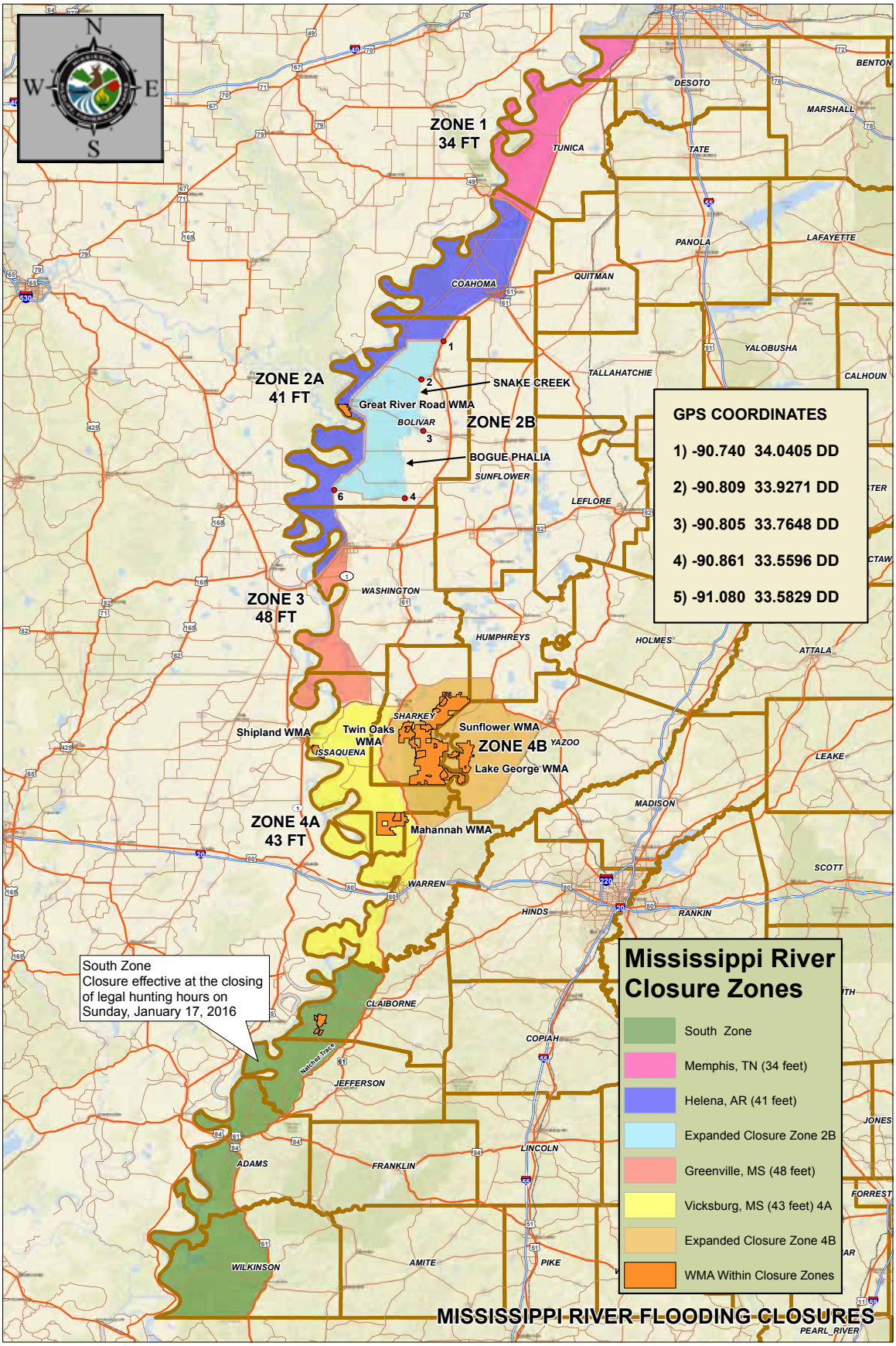
Heading into the 2016-2017 season, deer managers face several challenges. The warm, wet spring of 2016 will surely result in another strong mast crop. Also, the landscape-level increase in supplemental feeding may impact deer movements. Stay diligent. When food resources are plentiful, daytime deer sightings tend to be reduced.

Lastly, we appreciate the opportunity to serve the hunters of the State of Mississippi. The DMAP harvest data and WMA harvest reporting, while not perfect, are a critical dataset to help biologists inform the public and decision makers about the health and status of our deer herd and we owe the hunters and cooperators a great deal of gratitude for their cooperation in collection this data.

Sincerely,

The Biologists

Figure 33 **Flood Closure and Crest**



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