2018–2019 DEER PROGRAM REPORT

prepared by
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Did you know?

Hunting license sales support white-tailed deer management, disease surveillance, and research that benefits all Mississippians.

Acknowledgments

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 "jack-lighting" 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 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 Matt Goss who was responsible for the report layout and design. Also, a special thanks to all the biologists who had a part in developing this report.

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 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 a few decades ago.

Annual surveys are used to monitor trends in hunter harvest and effort in Mississippi. 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. The survey revealed that total deer harvest remains alarmingly low, compared to just five years ago.

Sample methods were unchanged for the following data sets:

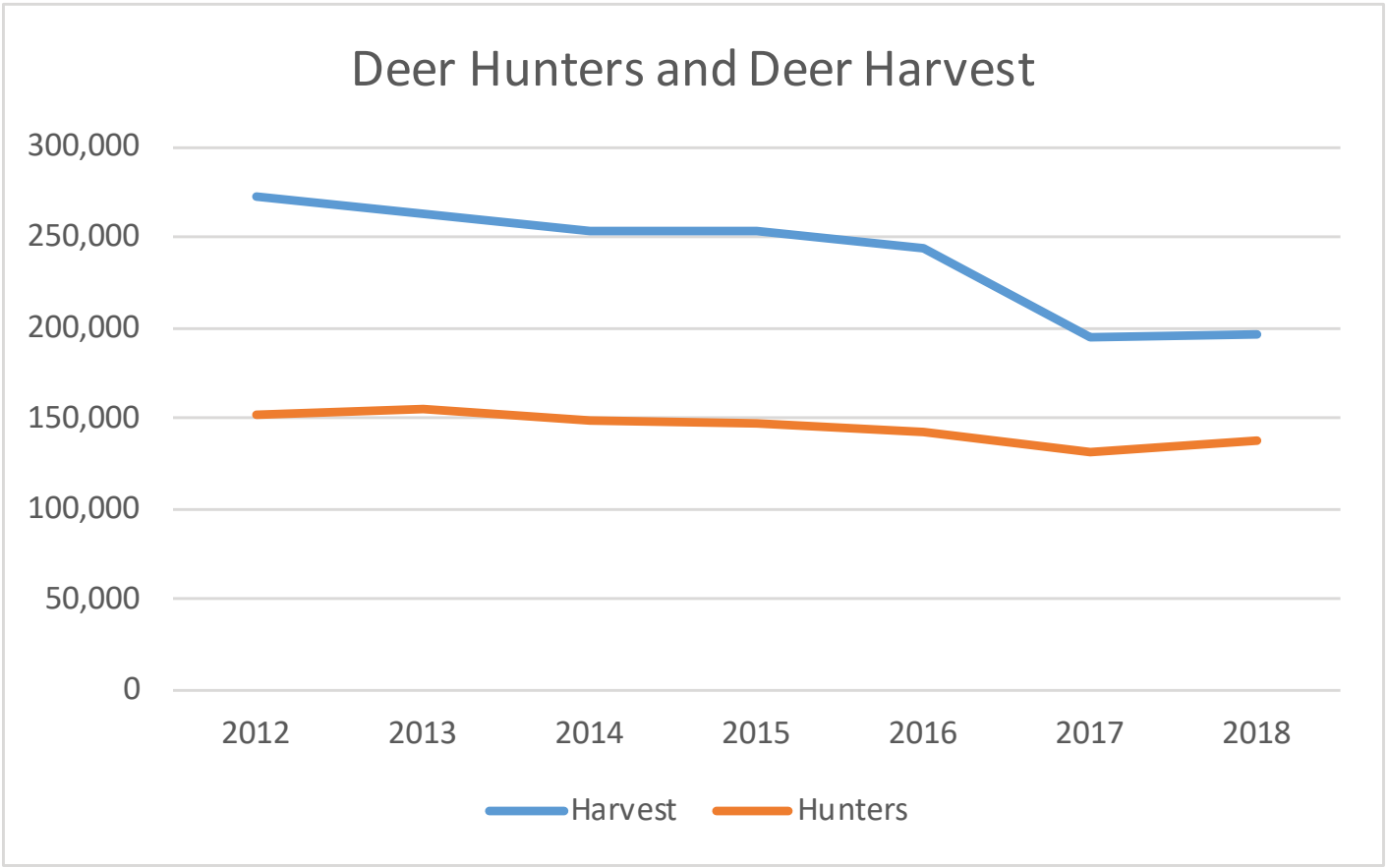
- Hunter effort and harvest information collected on state-operated WMAs
- Employee observations of deer mortality due to motor vehicle collisions
- Enforcement Bureau monitoring of deer hunting-related citations
- Deer research projects conducted in cooperation with Mississippi State University Forest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

Several factors negatively impacted the deer herd in the 2018–2019 season. Wild hog numbers continue to increase statewide. For the second consecutive year, hunters harvested more wild hogs than deer in Mississippi. This was the first deer season since the discovery of Chronic Wasting Disease (CWD) in Issaquena County in February 2018. Surveillance efforts increased statewide following this positive diagnosis. Unfortunately, CWD was detected in several more deer in six counties. MDWFP continues to combat this fatal deer disease. Additionally, excessive rainfall resulted in extensive flooding in the Mississippi Delta. High waters caused seasons to be closed early and limited access in other areas. Wildlife was impacted from the flooding, which continued well into the summer months. MDWFP began surveys to monitor the impacts of the flood.

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. All known media sources were utilized in this process.

2018-2019														
	Total Harvest			Total Hunters			Average Seasonal Harvest		Total Man-days			Percent Successful Hunters		
	Resident	Non-Resident	Total	Resident	Non-Resident	Total	Resident	Non-Resident	Resident	Non-Resident	Total	Resident	Non-Resident	Deer Per Hunter
Total Deer	170,799	26,358	197,157	113,505	24,478	137,983	1.50	1.10	3,027,051	489,952	3,517,003	62.8	51.5	1.40
Buck	78,414	12,283	90,697									41.4	33.1	
Doe	92,169	14,031	106,200									43.7	33.1	
Archery Total	34,550	3,978	38,528	47,330	8,698	56,028	0.70	0.50	738,757	107,353	846,110	41.0	30.6	0.70
Buck	11,697	1,136	12,833									16.9	15.7	
Doe	22,744	2,797	25,541									32.3	17.6	
Primitive Total	21,661	3,235	24,896	39,640	8,043	47,683	0.50	0.40	391,094	69,718	460,812	33.6	27.8	0.50
Buck	10,505	1,311	11,816									17.8	12.4	
Doe	10,831	1,923	12,754									19.7	18.6	
Gun Total	115,238	19,276	134,514	101,916	21,462	123,378	1.10	0.90	1,897,200	312,881	2,210,081	57.3	48.5	1.10
Buck	56,211	9,835	66,046									37.2	30.2	
Doe	58,594	14,031	72,625									34.9	29.6	

Figure 1: **Deer Harvest and Hunters**



The Deer Management Assistance Program (DMAP) is a free comprehensive deer management program, consisting of data collection and cooperator education with which MDWFP tries to put the landowner/cooperator in a better position to manage their lands for a healthy deer herd. As a result of the diligence of hundreds of DMAP cooperators, representing thousands of sportsmen, the DMAP program has successfully provided biologists, managers, and hunters with data to aid in recommendations and decision making. The analysis of the tables and graphs below capture the obvious trends and subtle changes in deer herd condition and structure. 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.

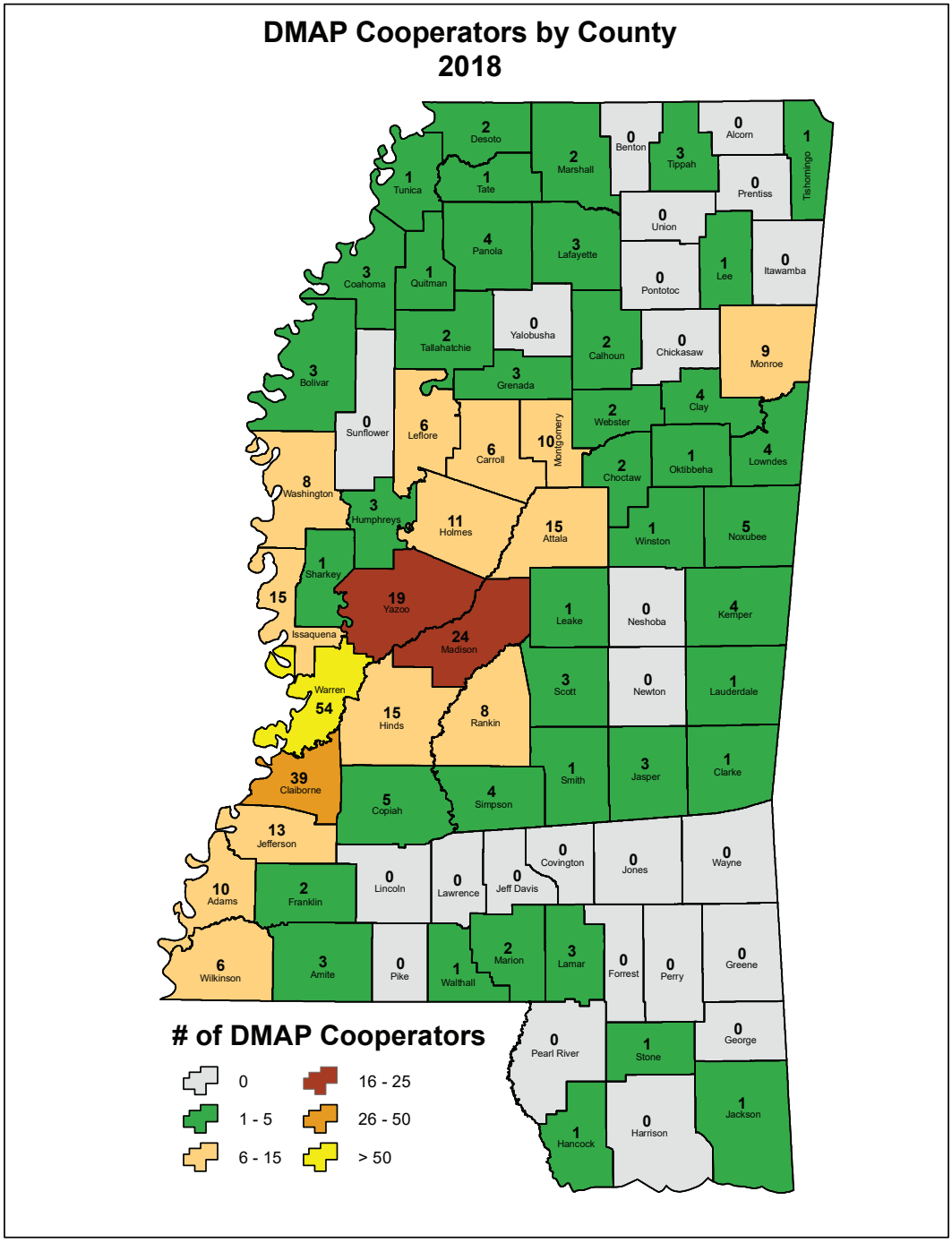


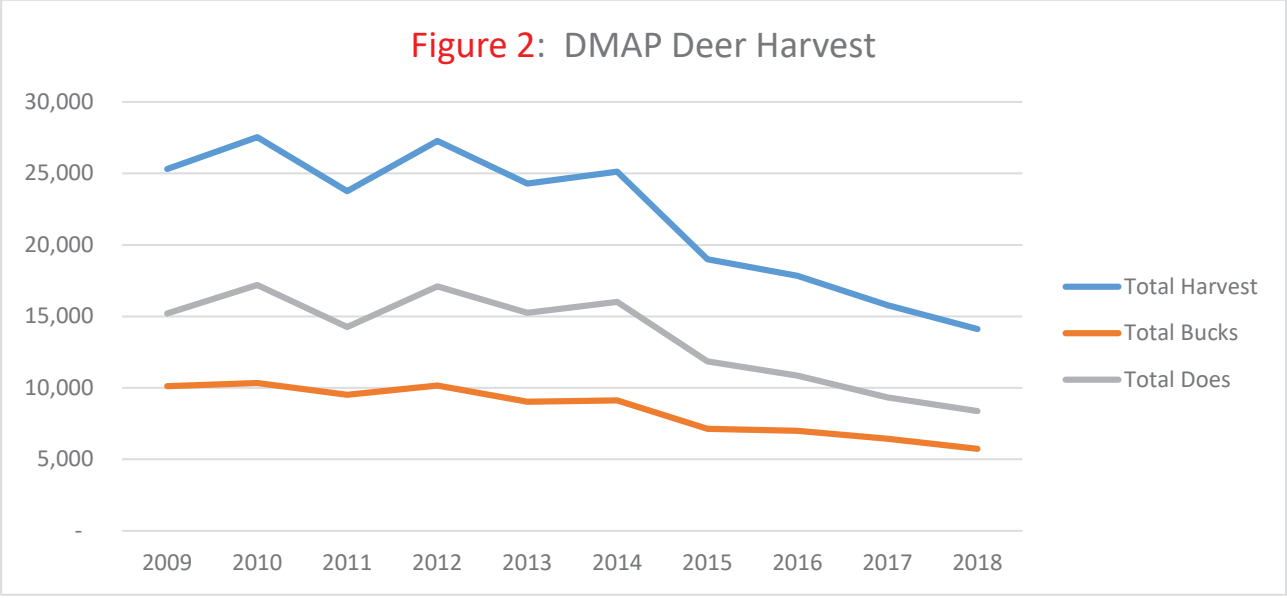
Table 1: Statewide Compiled Data From Public and Private Lands					
Season	**2018**	**2017**	**2016**	**2015**	**2014**
Acres	1,633,827	1,700,761	1,836,388	1,988,597	2,175,845
Total Deer	14,116	15,763	17,841	19,381	25,860
Bucks	5,737	6,430	6,980	7,237	9,341
Does	8,379	9,324	10,829	12,075	16,458
Acres/Deer	115.7	107.9	102.9	102.6	84.1
Bucks	285	264.5	263.1	274.8	232.9
Does	195	182.4	169.6	164.7	132.2
Avg. Age ALL Bucks	3.9	3.5	3.5	3.2	3.3
Avg. Points ALL Bucks	7.2	7.3	7.2	7.2	7.2
Avg. Length ALL Bucks	17.7	17.6	16.9	17.0	17.1
Avg. Spread ALL Bucks	14.5	14.4	13.9	14.0	14.2
Acres/3.5+ Bucks	402	377.3	369.7	396	361
% 0.5 Yr. Bucks	3.5	4.4	1.7	3.9	4.9
Weight	61	63.7	64.0	61	63
% 1.5 Yr.	10.7	10.3	9.3	12.0	11.1
Weight	108	111.0	107.0	103	106
Points	2.5	2.6	2.5	2.5	2.4
Length	3.8	6.1	4.9	5	4.9
Spread	4.0	5.9	5.5	5.4	5.4
% 2.5 Yr.	11.7	10.6	12.1	10.8	14.2
Weight	145	145.5	142.0	138	143
Points	6.7	6.6	6.7	6.6	6.6
Length	14.3	14.7	14.6	14.7	14.9
Spread	11.8	12.3	12.0	12.1	12.3
% 3.5 Yr.	22.2	25.3	22.3	23.6	21.9
Weight	163	166.1	164.1	159	166
Points	7.6	7.6	7.7	7.6	7.7
Length	16.9	17.2	17.3	17.1	17.6
Spread	13.8	14.0	14.1	13.9	14.3
% 4.5+ Yr.	51.9	49.4	52.2	45.7	42.6
Weight	181	186.8	184.7	176.0	181.3
Points	8.2	8.2	8.3	8.1	8.1
Length	19.2	19.9	19.9	19.3	19.6
Spread	15.4	15.9	16.0	15.5	15.8
Doe Age Classes					
% 0.5 Yr.	7.5	8.3	7.8	6.7	7.5
% 1.5 Yr.	21.3	20.5	16.1	19.6	17.7
% 2.5 Yr.	17.7	17.0	19.2	17.9	23.4
% 3.5+ Yr.	53.5	54.2	56.9	55.8	51.3
% Doe Lactation					
1.5 Yr.	9	12	11	8	11
2.5 Yr.	57	57	51	43	51
2.5+ Yr.	59	66	54	52	60
3.5+ Yr.	60	69	56	55	64

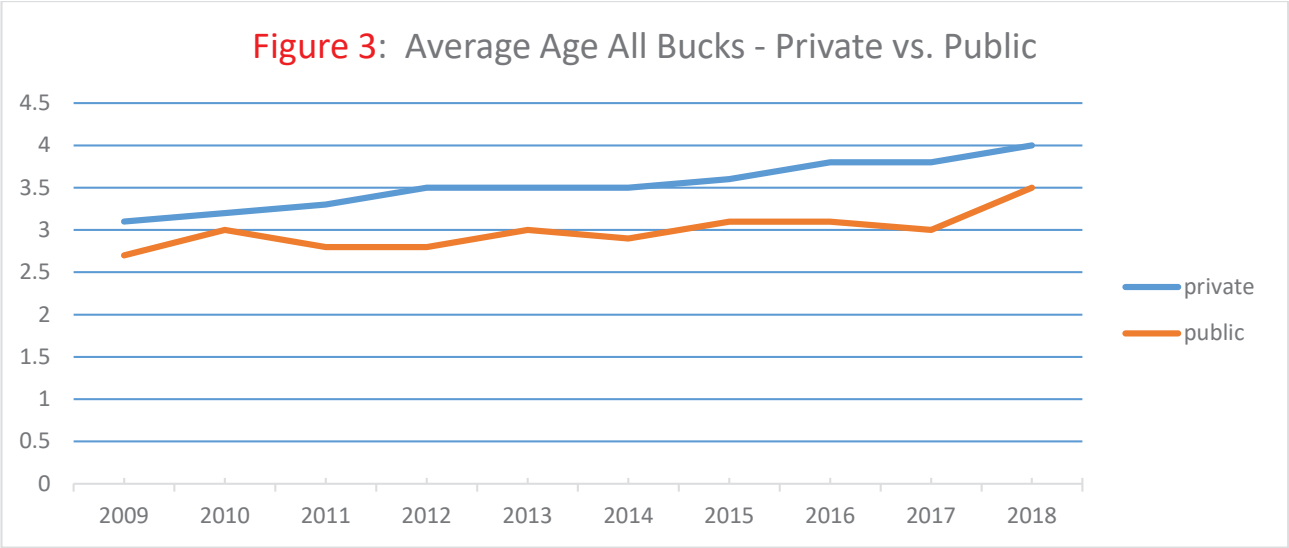
Table 2: Comparison of Bucks Harvested on Wildlife Management Areas and National Wildlife Refuges vs. Private Lands DMAP

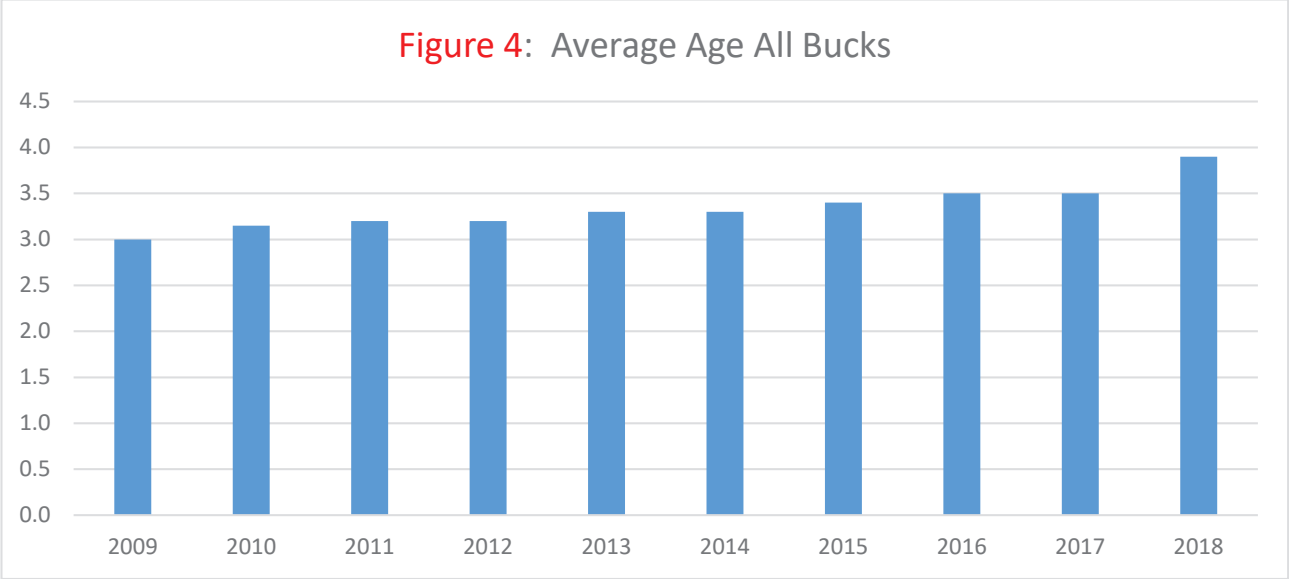
Season	Average Age		Average Points		Average Beam Length		Average Inside Spread	
	Private	Public	Private	Public	Private	Public	Private	Public
2009	3.1	2.7	7.3	7.0	16.8	15.0	13.8	12.4
2010	3.2	3.0	7.3	7.2	17.3	15.9	14.0	13.0
2011	3.3	2.8	7.4	6.9	17.1	15.0	14.1	12.4
2012	3.5	2.8	7.4	7.1	17.5	15.7	14.5	13.0
2013	3.5	3.0	7.1	7.0	17.1	15.7	14.2	13.0
2014	3.5	2.9	7.2	7.1	17.4	15.9	14.4	13.2
2015	3.6	3.1	7.2	7.1	17.2	15.9	14.1	13.2
2016	3.8	3.1	7.5	7.2	17.9	16.4	14.7	13.6
2017	3.8	3.0	7.3	7.2	17.9	16.2	14.6	13.5
2018	4.0	3.5	7.2	7.0	18.0	16.3	14.7	13.4

Table 3: Comparison of Deer Harvest on Wildlife Management Areas and National Wildlife Refuges vs. Private Lands DMAP

Season	Acres		Total Deer		Bucks		Does		Acres/Deer	
	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public
2009	1,629,220	767,216	21,853	3,461	8,450	1,658	13,403	1,803	75	222
2010	1,543,744	726,671	23,993	3,545	8,782	1,559	15,211	1,986	64	205
2011	1,336,729	803,417	19,563	4,203	7,449	2,066	12,114	2,137	68	191
2012	1,511,078	761,895	23,616	3,649	8,436	1,734	15,180	1915	64	209
2013	1,407,704	762,132	21,000	3,291	7,394	1,646	13,606	1645	67	232
2014	1,406,799	765,872	21,884	3,241	7,551	1,571	14,333	1670	64	236
2015	1,255,453	718,213	16,268	2,730	5,873	1,275	10,395	1455	77	263
2016	1,086,657	749,731	14,944	2,897	5,586	1,417	9,386	1,472	73	259
2017	973,154	728,701	13,557	2,219	5,249	1,192	8,308	1,027	72	328
2018	931,114	702,713	12,123	1,993	4,663	1,074	7,460	919	77	353







DMAP HARVEST TAGS

MDWFP issues DMAP Antlerless and DMAP Management Buck tags to DMAP properties to allow the harvest of deer in excess of the annual and daily bag limits. DMAP tags are issued by biologists based on an individual landowner's or manager's need. The management buck harvest criteria are determined by the DMAP biologist. DMAP tags may only be used on the property to which they were issued. A total of 7,538 DMAP Antlerless tags were issued to 312 DMAP properties. A total of 2,841 DMAP Management Buck tags were issued to 227 DMAP properties, of which 521 of the tags were used.

Figure 5: Buck Tags Issued and Used on DMAP Properties

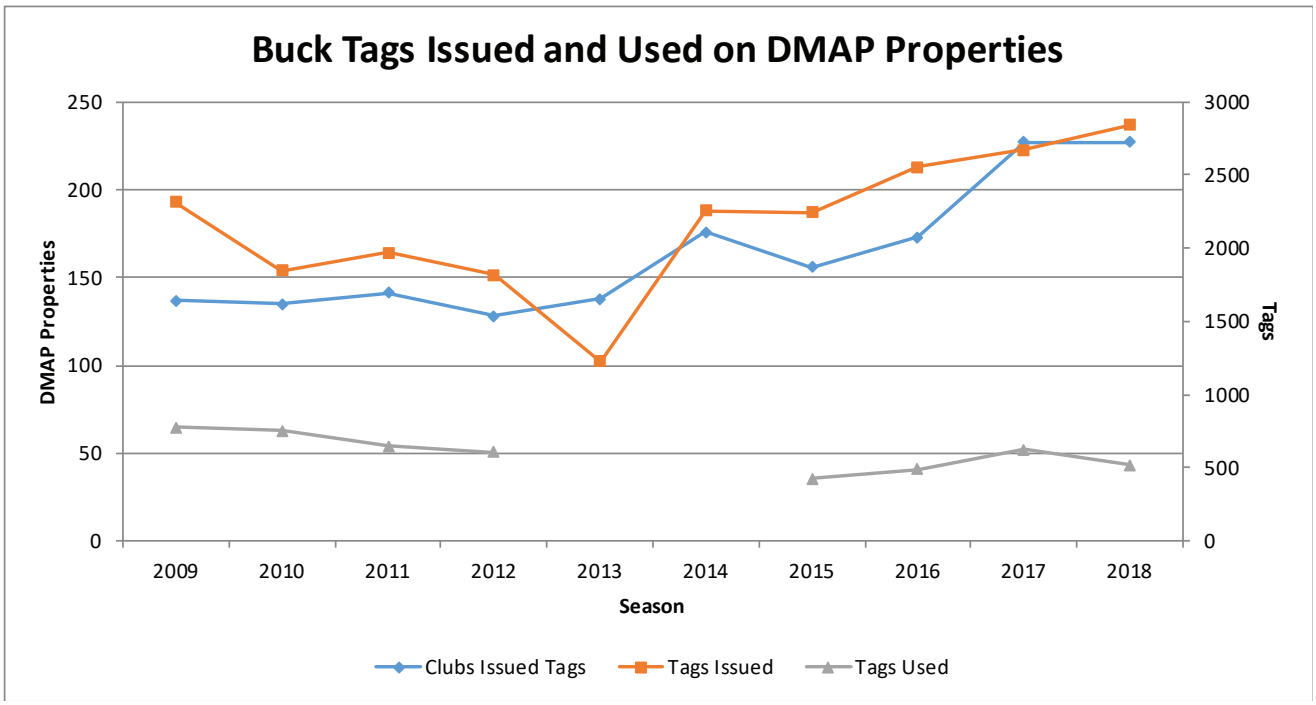


Figure 6: Antlerless Deer Tags Issued on DMAP Properties

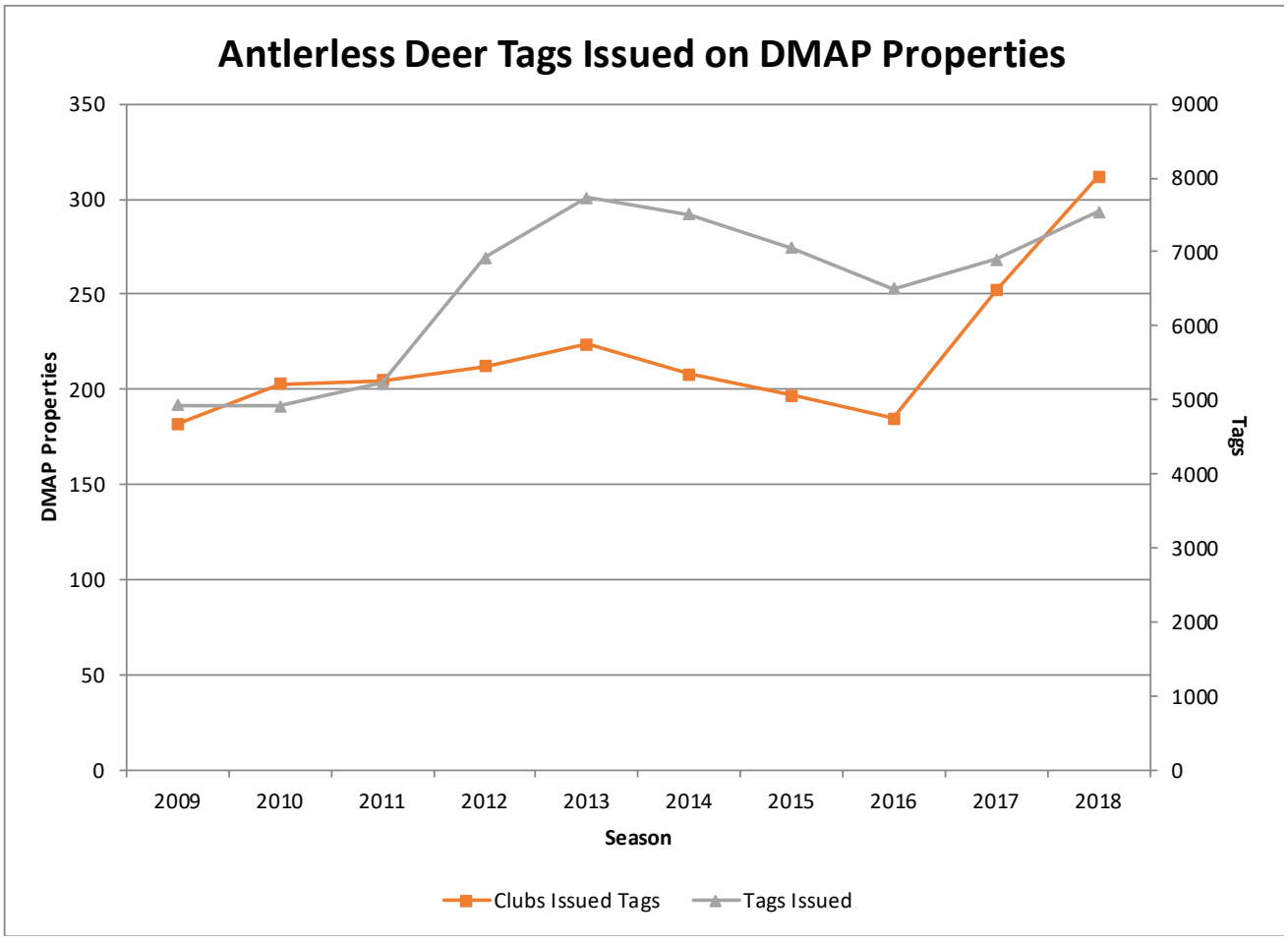
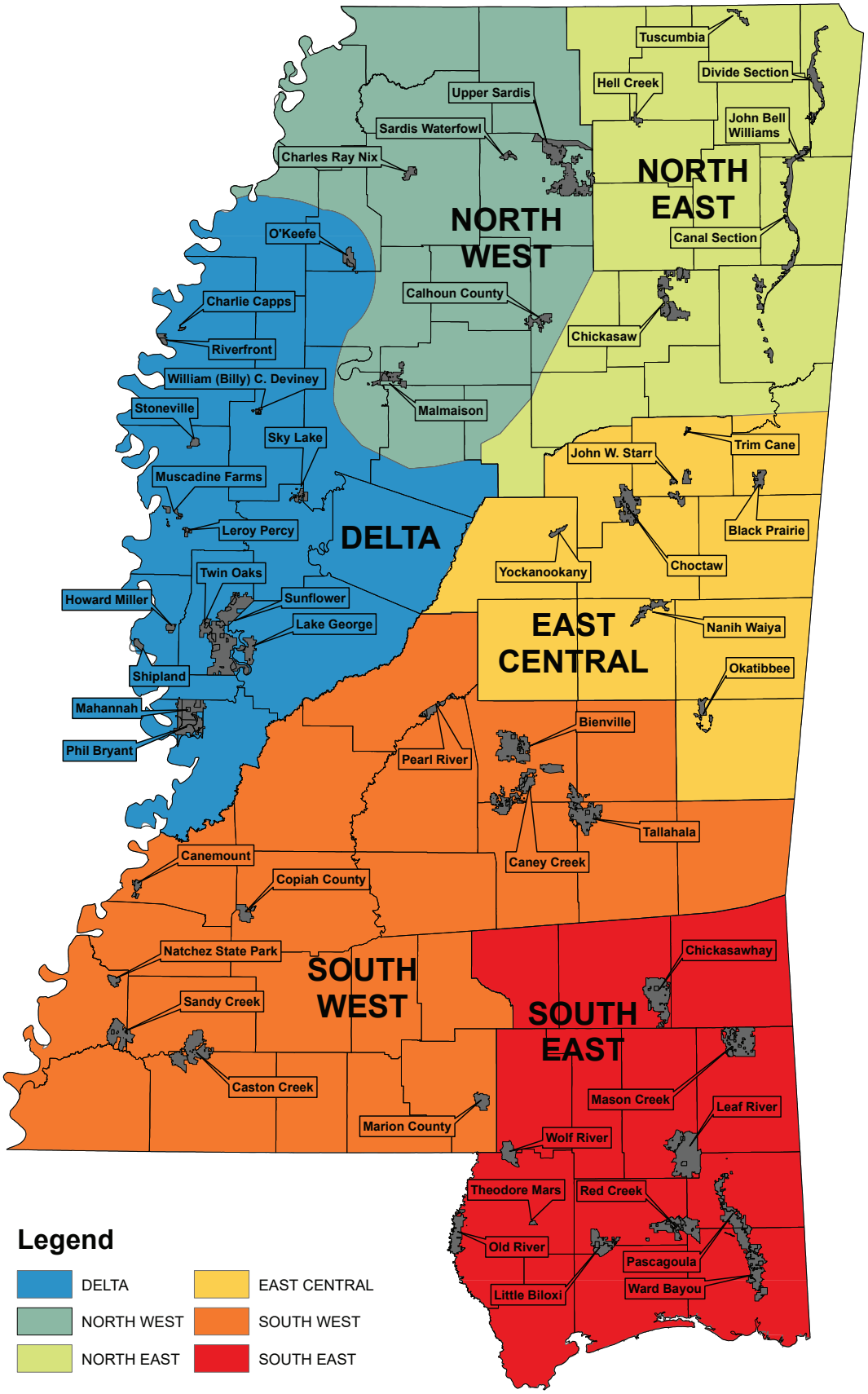


Figure 7: **WMA Region Map**



WMA REGIONS

Table 4: Wildlife Management Area Harvest Information for the 2018–2019 Season										
Region	**Wildlife Management Area**	**Antler Criteria**	**Acreage**	**Total Harvest**	**Acres/ Deer**	**Buck Harvest**	**Acres/ Buck**	**Doe Harvest**	**Acres/Doe**	**Total Man days**
Delta	Lake George	15/18	8,383	92	91	42	200	50	168	2,161
	Leroy Percy	12/15	1,642	8	205	5	328	3	547	387
	Mahannah	16/20	12,675	102	124	32	396	70	181	644
	O'Keefe	16/20	5,914	59	100	25	237	34	174	1,168
	Sky Lake	15/18	4,306	10	431	5	861	5	861	201
	Shipland	15/18	1,800	6	300	3	600	3	600	436
	Stoneville	12/15	2,500	17	147	8	313	9	278	865
	Sunflower	15/18	58,480	90	650	75	780	15	3899	6,079
	Twin Oaks	16/20	5,675	43	132	8	709	35	162	666
	Delta Total		**101,375**	**427**		**203**		**224**		**12,607**
	Delta Average		**11,264**	**47**	**242**	**23**	**491**	**25**	**763**	**1,401**
East Central	Black Prairie	15/18	6,001	44	136	15	400	29	206	364
	Choctaw	10/13	24,314	27	900	25	972	2	12,157	1,494
	John Starr	10/13	8,244	22	375	14	588	8	1,030	924
	Nanih Waiya	10/13	8,040	47	171	22	365	25	321	928
	Okatibbee	10/13	6,883	27	254	13	529	14	491	589
	Trim Cane	10/13	891	1	891	0	0	1	891	11
	Yockanookany	12/15	2,379	12	198	7	339	5	475	207
	East Central Total		**26,437**	**109**		**56**		**53**		**2,659**
	East Central Average		**8,107**	**26**	**418**	**14**	**456**	**12**	**2,224**	**645**
North East	Canal Section	12/15	29,672	52	571	31	957	21	1,413	3,865
	Chickasaw	10/13	26,815	45	596	44	609	1	26,815	2,974
	Divide Section	12/15	15,337	28	548	10	1,534	18	852	1,497
	Hell Creek	12/15	2,344	12	195	2	1,172	10	234	156
	John Bell Williams	12/15	3,198	6	533	3	1,066	3	1,066	317
	Tuscumbia	10/13	2,693	2	1,347	1	2,693	1	2,693	273
	North East Total		**80,059**	**145**		**91**		**54**		**9,082**
	North East Average		**13,343**	**24**	**632**	**15**	**1,339**	**9**	**5,512**	**1,514**
North West	Calhoun County	10/13	7,545	4	1,886	4	1,886	0	0	935
	Charles Ray Nix	15/18	3,812	63	61	16	238	47	81	884
	Cossar State Park	10/13	604	4	36	1	604	201	40	36
	Malmaison	15/18	9,953	61	151	15	663	46	216	1,930
	Sardis Waterfowl	None/Youth Only	2,480	25	100	11	225	14	177	81
	Upper Sardis	10/13	50,485	26	1,942	24	2,103	2	25,242	2,683
	North West Total		**74,879**	**183**		**71**		**310**		**6,549**
	North West Average		**12,480**	**31**	**696**	**12**	**953**	**52**	**4,293**	**1,092**

Table 4 Continued: Wildlife Management Area Harvest Information for the 2018–2019 Season										
Region	**Wildlife Management Area**	**Antler Criteria**	**Acreage**	**Total Harvest**	**Acres/ Deer**	**Buck Harvest**	**Acres/ Buck**	**Doe Harvest**	**Acres/Doe**	**Total Man-days**
South East	Chickasawhay	10/13	30,000	22	1,364	19	1,579	3	10,000	2,258
	Leaf River	12/15	41,411	118	351	77	538	41	1,010	5,712
	Little Biloxi	10/13	14,540	39	373	33	441	6	2,423	2,688
	Mason Creek	10/13	28,000	3	9,333	3	9,333	0	N/A	1,097
	Old River	10/13	13,000	26	500	12	1,083	14	929	1,285
	Pascagoula River	10/13	37,415	36	1,039	29	1,290	7	5,345	3,585
	Red Creek	10/13	22,954	1	22,954	1	22,954	0	N/A	1,204
	Theodore A. Mars Jr.	None/Youth Only	900	1	900	0	N/A	1	900	49
	Ward Bayou	10/13	13,234	5	2,647	4	3,309	1	13,234	1,030
	Wolf River	10/13	10,881	41	265	31	351	10	1,088	1,828
	South East Total		**212,335**	**292**		**209**		**83**		**20,736**
	South East Average		**21,234**	**29**	**3,973**	**21**	**4,542**	**8**	**4,366**	**2,074**
South West	Bienville	12/15	26,136	61	428	55	475	6	4,356	1,927
	Canemount	16/20	3,500	62	56	264	135	36	97	668
	Caney Creek	12/15	28,000	49	571	42	667	7	4,000	1,843
	Caston Creek	10/13	27,785	28	992	28	992	0	NA	3,108
	Copiah County	12/15	6,811	84	81	44	155	40	170	2,255
	Marion County	12/15	7,125	48	148	20	356	28	254	1,630
	Natchez State Park	12/15	2,457	40	61	13	189	27	91	529
	Pearl River	10/13	6,925	27	256	14	495	13	533	922
	Sandy Creek	10/13	16,407	32	513	29	566	3	5,469	2,478
	Tallahala	12/15	28,120	30	937	27	1,041	3	9,373	1,853
	South West Total		**153,266**	**461**		**298**		**163**		**17,213**
	South West Average		**15,327**	**46**	**405**	**30**	**507**	**16**	**2,705**	**1,721**
TOTAL			**678,666**	**1,688**		**968**		**918**		**70,704**
AVERAGE			**14,139**	**35**	**1,184**	**20**	**1,432**	**19**	**3,123**	**1,473**

Figure 8: WMA Deer Harvest and Man-days

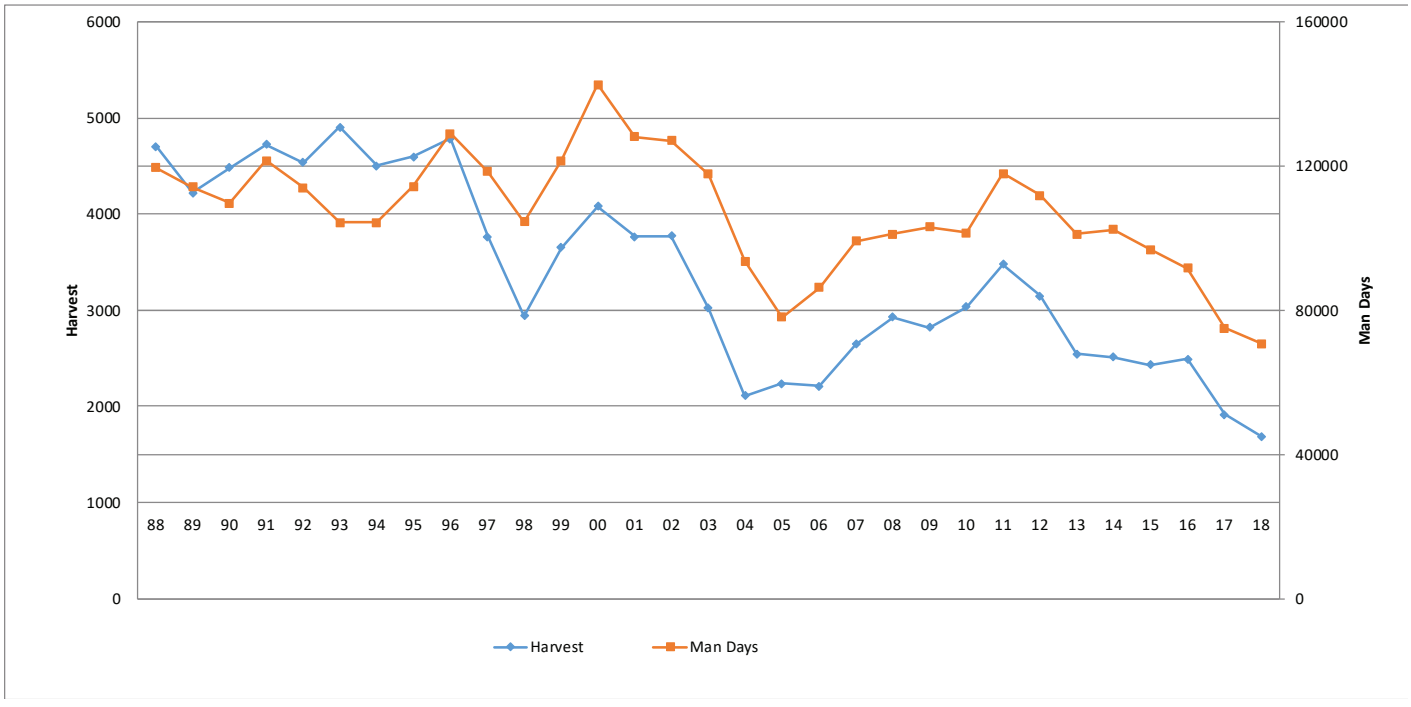
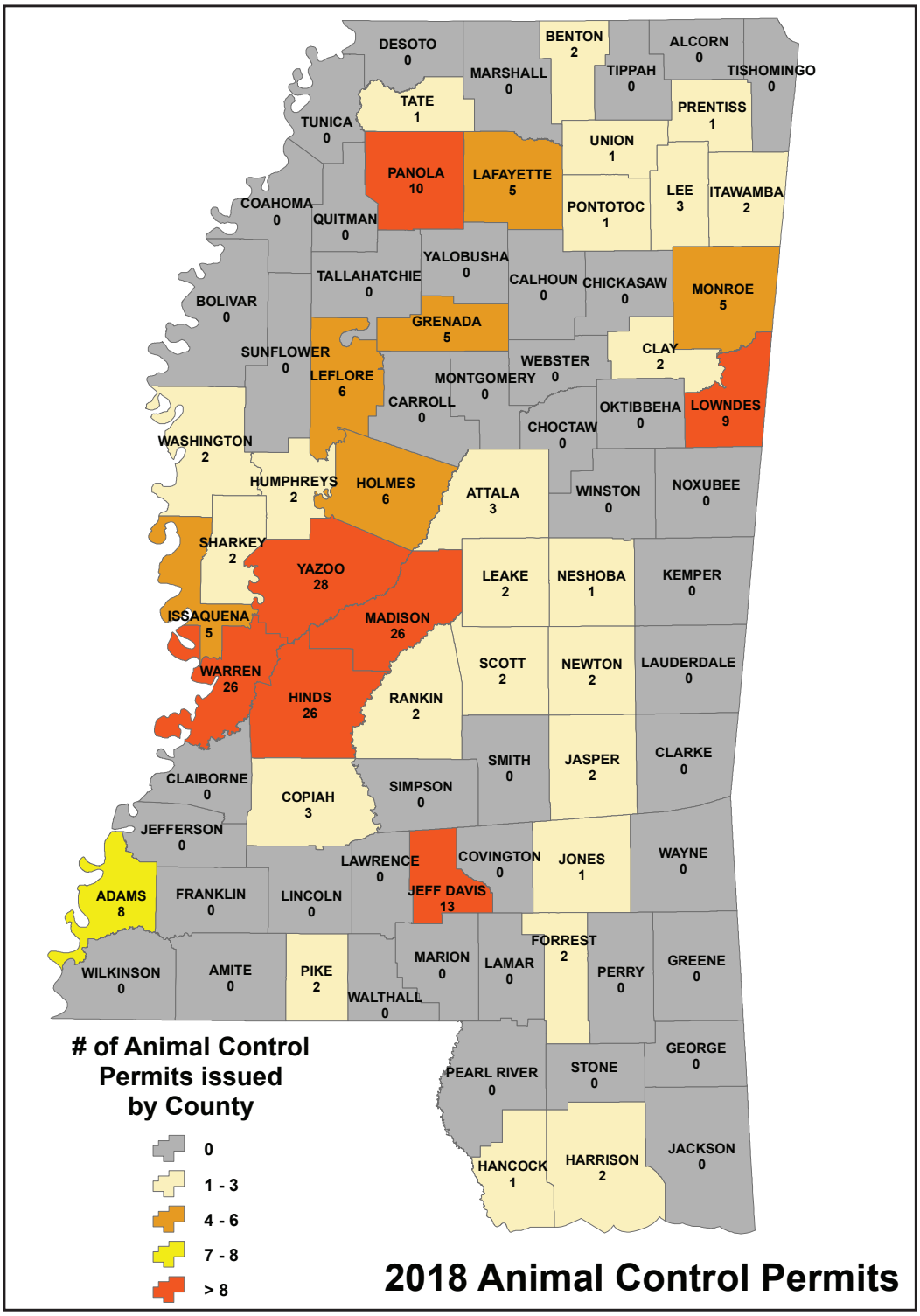


Figure 9: 2018 Animal Control Permits



Each year, white-tailed deer cause damage to agricultural crops and smaller areas such as gardens in residential settings. 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. Landowners can also employ other forms of direct methods to alleviate depredation issues, with lethal removal being a last resort. 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.

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. A total of 222 ACPs were issued in 38 counties during 2018. Due to most agricultural plant's high palatability and nutritional value, depredation problems will continue to occur in Mississippi as long as abundant deer populations exist. Extensive problems with agricultural depredation can normally be controlled with adequate antlerless harvest.

Chronic Wasting Disease was first confirmed in Mississippi on February 9, 2018 in Issaquena County in a 4.5-year-old buck. As of June 2019, Mississippi has 19 confirmed CWD-positive white-tailed deer across six counties. A total of 8018 CWD samples were collected from October 2018–June 2019. For more information on CWD, go to *mdwfp.com/wildlife-hunting/chronic-wasting-disease/*.

Figure 10: CWD Positive Counties

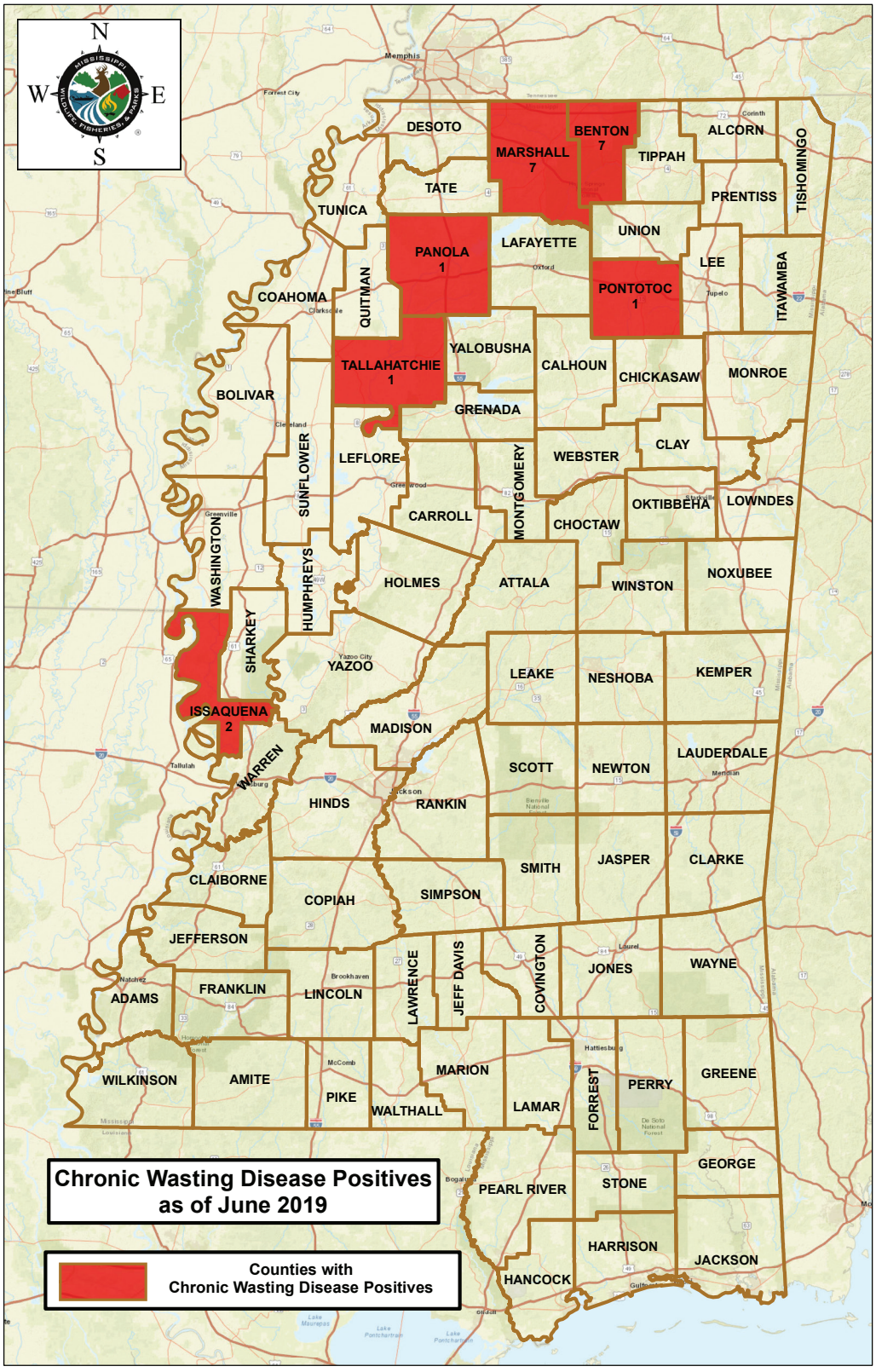
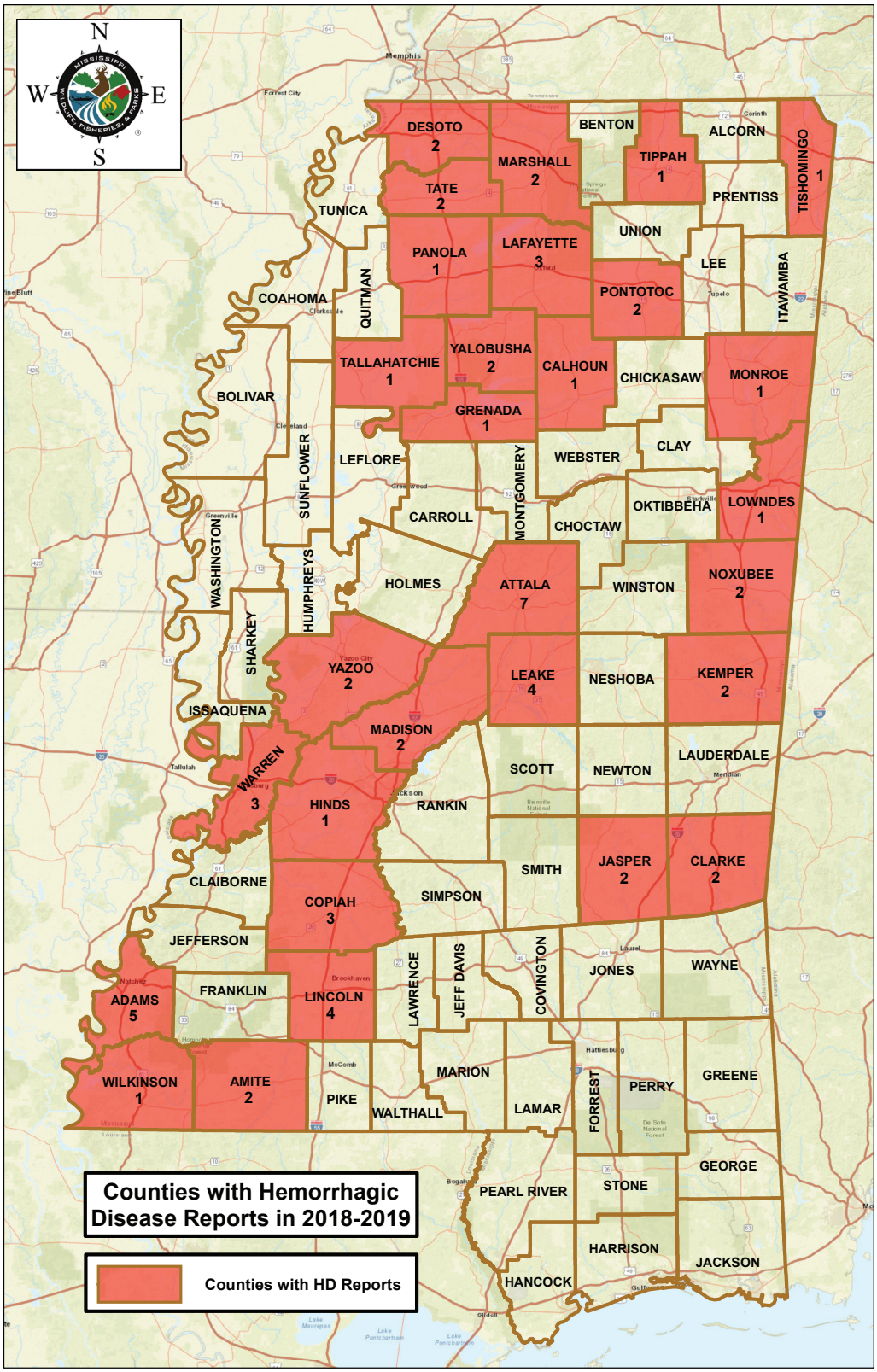


Figure 11: Hemorrhagic Disease Reports



Hemorrhagic Disease (HD), also recognized as Epizootic Hemorrhagic Disease (EHD) or Bluetongue (BT), is considered the most important viral disease of white-tailed deer in the United States. There are currently six subtypes of BT virus and two subtypes of EHD virus known in North America. Wildlife biologists refer to both viruses collectively as HD, due to the indistinguishable differences in symptoms.

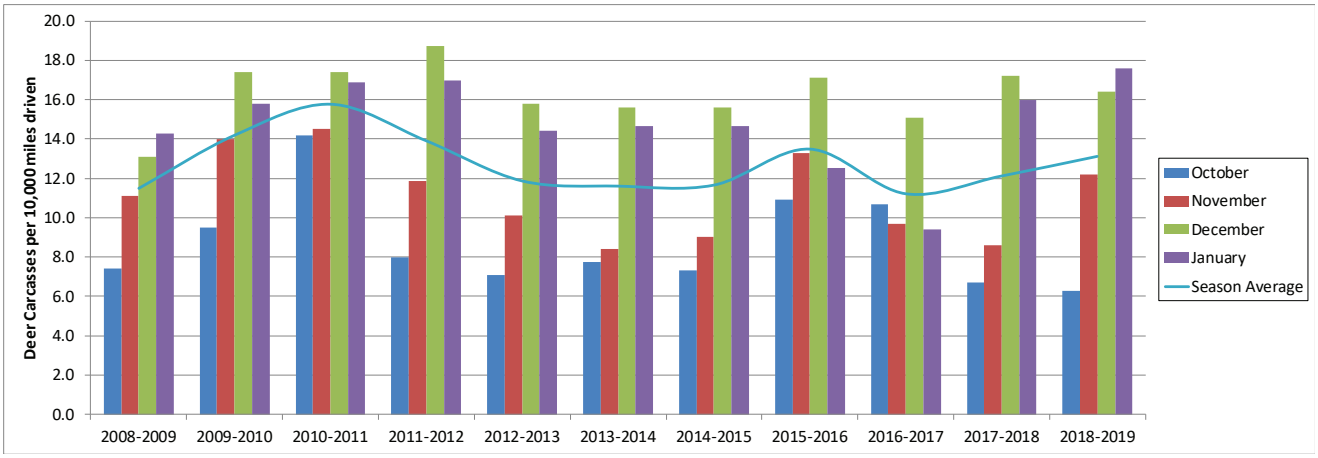
MDWFP biologists have been monitoring the presence of HD in Mississippi by several methods: through investigation of sudden, unexplained high deer mortality during late summer and early fall, necropsy diagnosis, isolation of EHD or BT virus, and observation of hoof lesions on hunter-harvested deer. The occurrence of HD during the 2018–2019 hunting season was lower than average for the second consecutive year, with evidence of HD reported in 63 deer across 29 counties. 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 2019–2020 hunting season.

Since 1997, MDWFP personnel have monitored statewide deer roadkill in an effort to gain trend information about population levels and to compare rates over time. 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. Data are reported as numbers of carcasses observed per 10,000 miles driven.

Table 5: Roadkill Averages

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	2016-2017	2017-2018	2018-2019
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	10.7	6.7	6.3
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	9.7	8.6	12.2
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	15.1	17.2	16.4
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	9.4	16.0	17.6
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	11.2	12.1	13.1

Figure 12: Statewide Averages (Deer/10,000 Miles Driven)



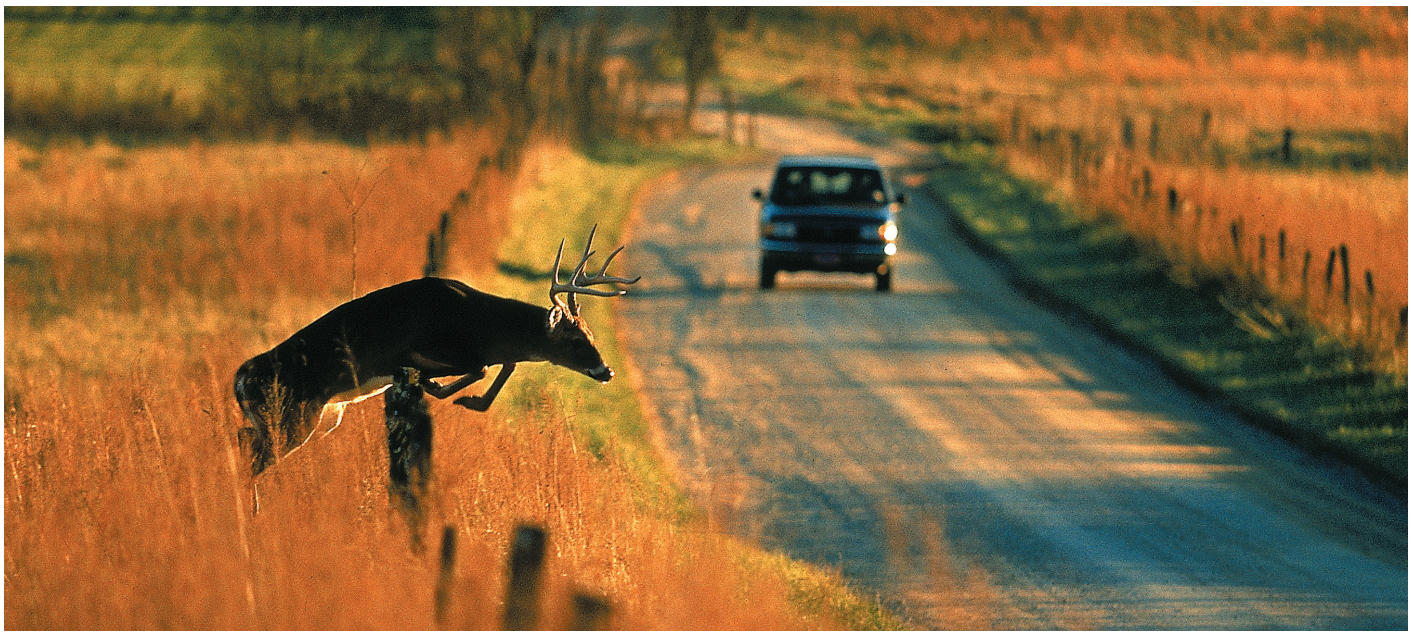
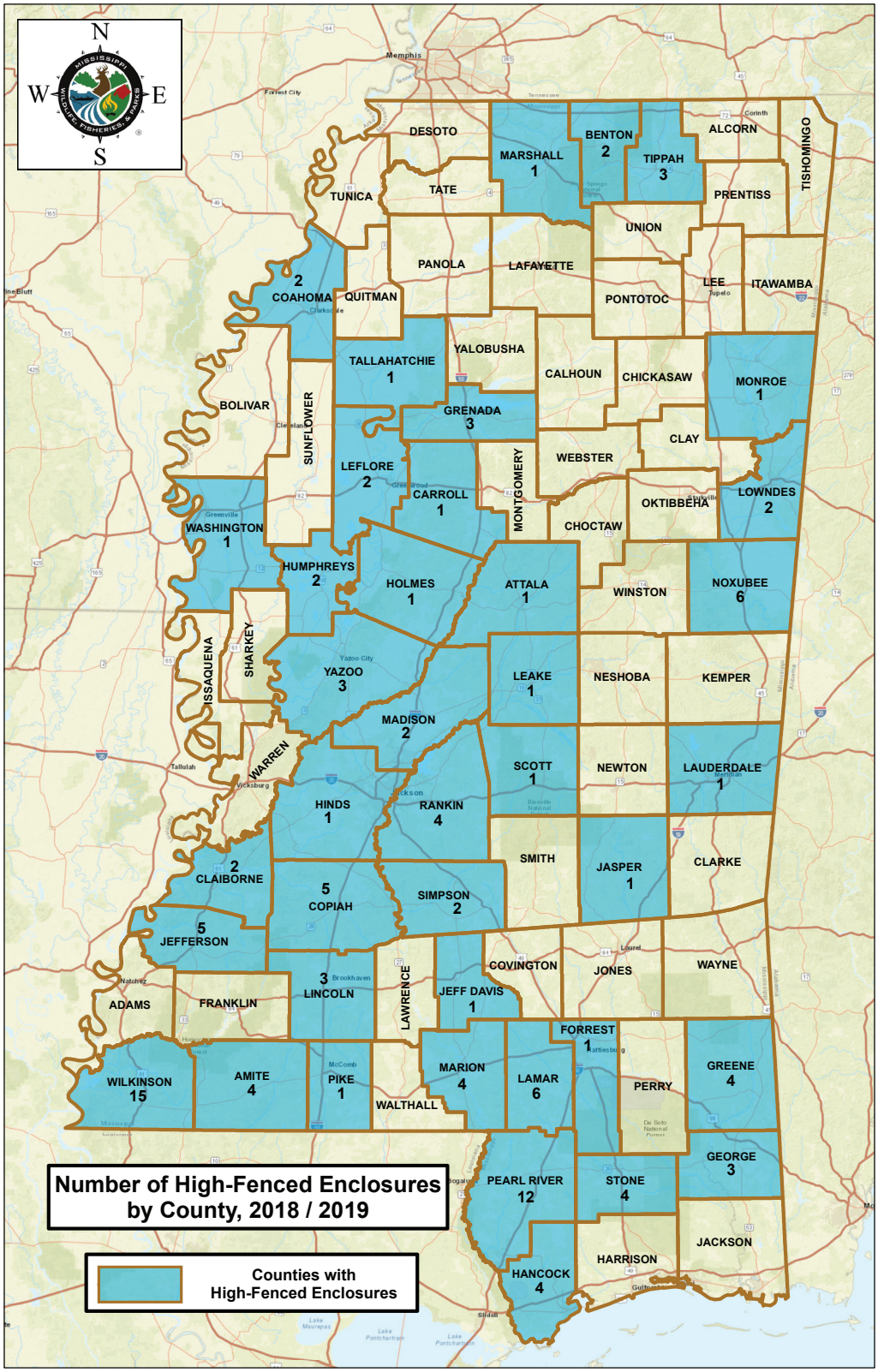


Figure 13: 2018–2019 Permitted Enclosures



40 Miss Admin. Code, Part 2, Rule 8.2 requires owners of high-fenced enclosures containing white-tailed deer to obtain an annual Facility Permit from the MDWFP. The annual permit is valid from July 1 through June 30. For the 2018– 2019 permit year, 126 were permitted totaling 90,371 acres. Six of these enclosures contained permitted breeding pens and 15 of these enclosures offer commercial hunting.

HUNTING ACCIDENTS

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.

Hunting accidents in Mississippi average 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.

There were 20 total hunting related accidents investigated in Mississippi during the 2018–2019 hunting season. Seven of these were firearm-related and 11 were treestand-related. Three of the accidents were fatal.

Figure 14: FY19 Species Hunted % Incident

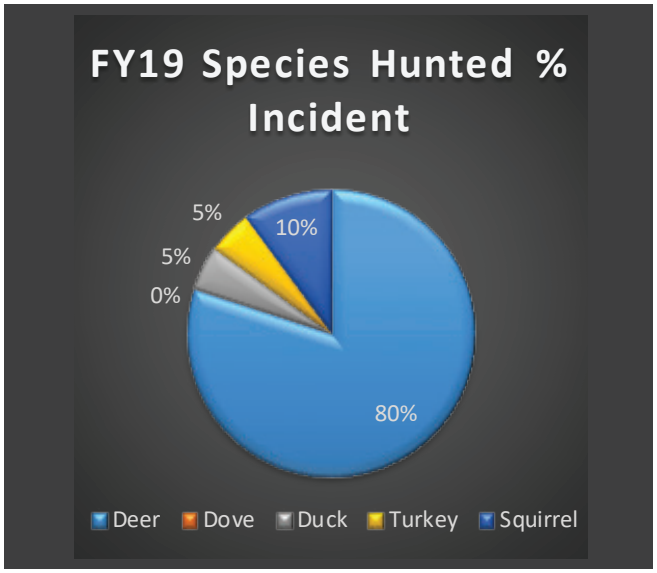


Table 6: Hunting Accidents by Type			
FY19 to Date	**# Incidents**	**%**	**Fatalities**
Firearm	7	35%	1
Treestand	11	55%	2
Crossbow		0%	
Other	2	10%	
Total	20	90%	3

HUNTER EDUCATION

Without question, the most important component of accident prevention is education. Volunteer instructors and Conservation Officers certified 8,708 sportsmen in Hunter Education during the 2018–2019 season. For more information about hunter safety and Hunter Education, including dates for classes in your area, visit *mdwfp.com*.

Table 7: Hunter Education	
Year	**Students Trained**
2013	11,954
2014	12,148
2015	10,954
2016	9,858
2017	8,917
2018	8,708

Mississippi Department of Wildlife, Fisheries, and Parks began electronic tracking of citations in 1996. Twenty-three deer hunting violations were extracted from the database and summarized from 2008 to 2018. These violations were chosen because they are commonly cited, or because they represent recent 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).

Table 8: Statewide Citations Summary for Most Frequent Deer-Related Violations By Season

Violation	'08–'09	'09–'10	'10–'11	'11–'12	'12–'13	'13–'14	'14–'15	'15–'16	'16–'17	'17–'18	'18–'19
NO LICENSE - NON-RES	108	78	96	116	83	102	91	80	68	104	139
NO LICENSE - RESIDENT	337	354	346	275	308	272	266	289	258	347	363
BAITING	214	235	205	188	154	131	86	14	26	33	11
SUPPLEMENTAL FEED	NA	44	54	124	170	224	174	188	185	266	160
DUMPING WILDLIFE PARTS	6	5	7	4	8	12	3	16	13	23	22
EXCEEDING BAG LIMIT	12	10	11	6	14	11	11	8	6	7	6
HEADLIGHTING DEER	175	178	128	105	168	171	105	130	95	148	159
WILDLIFE HARASSMENT (ILLEGAL SHINING)	36	37	26	23	29	17	18	68	19	42	39
GAME / FUR-BEARING ANIMALS IN CAPTIVITY	1	0	3	2	4	7	3	2	1	13	2
HUNTING AFTER HOURS	49	53	37	33	37	26	25	35	13	33	42
HUNTING CLOSED SEASON	56	84	63	43	76	78	32	44	18	33	24
HUNTING FROM PUBLIC ROAD/MOTORIZED VEHICLE	47	31	18	34	34	35	17	25	186	301	287
HOMOCHITTO DOG LAW	NA	NA	1	8	4	8	11	2	5	9	3
KILLING DOE OUT OF SEASON	7	10	9	10	3	7	4	2	4	7	14
NO ARCHERY/ PRIMITIVE WEAPON PERMIT	24	23	9	15	10	6	15	24	20	25	25
NO HUNTER ORANGE	266	231	225	204	242	217	190	160	162	254	220
WMA REGS	167	134	130	112	110	108	125	146	32	171	148
No WMA Permit	34	29	44	44	26	39	32	49	132	29	42
TRESPASSING	176	180	149	100	119	119	104	120	80	108	137
UNDERSIZED ANTLERS	41	30	28	29	34	26	47	57	21	69	37
UNLAWFUL POSSESSION	115	127	97	93	113	155	91	89	101	126	141
UNLAWFUL WEAPON/ SHOT SIZE	143	140	100	94	129	81	42	58	33	71	55
PROHIBITION OF IMPORTATION OF CERVID CARCASS	NA	NA	NA	NA	NA	NA	NA	NA	2	3	2
Totals	2,014	2,013	1,786	1,662	1,875	1,852	1,492	1,606	1,480	2,222	2,078

Mississippi Department of Wildlife, Fisheries, and Parks supports these research projects using Federal Aid in Wildlife Restoration Funds.

RESPONSES OF WHITE-TAILED DEER TO VARIATION IN HUNTING ACTIVITY

Ashley Jones, Colby Henderson, Steve Demarais, Garrett Street, Bronson Strickland, and William McKinley

Using data collected from GPS collars on adult bucks since the 2016-17 hunting season, we are generating new knowledge about their movements throughout the year. Shifts in location are a normal part of their annual cycle. Results from our study area show about two thirds of adult bucks live within a large, single area. The remainder are mobile and live in two distinct areas separated by one to three miles with a connecting pathway. Regardless, almost all bucks shift localized areas of use during the hunting season. This new knowledge helps explain why a buck patterned so well during October suddenly seems to disappear. Analyses are ongoing, but adult bucks make significant movements across the landscape that can affect hunting success.

EFFECTS OF FIRE TIMING ON NUTRITIONAL CARRYING CAPACITY

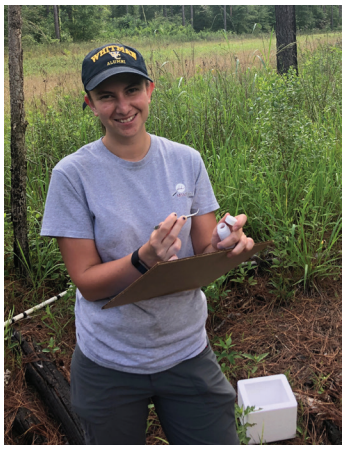
Rainer Nichols, Steve Demarais, Marcus Lashley, Rick Hamrick, John Gruchy, and Bronson Strickland

Prescribed burning within thinned pine stands dramatically improves habitat quality for deer. We are evaluating deer forage quality on sites burned during February to March and June to determine if there is a seasonal mismatch in nutritional requirements for fawn production and antler growth. Separate, but adjacent study plots were burned during March 2018 and June 2018 (an adjacent unburned plot was also included for study). We are measuring several parameters associated with regrowth of plants to evaluate forage quality and how deer use these areas after burning. Analyses and data collection are ongoing, but we believe a combination of dormant season and growing season burns will optimize habitat quality for deer.

EFFECTS OF HUNTING SEASON FEEDING ON DEER MOVEMENT, DISEASE PREVALENCE, AND HABITAT

Miranda Huang, Zoe Johnson, Beau Navarre, Steve Demarais, Marcus Lashley, Garrett Street, Cooper Brookshire, Brandon Barton, Bronson Strickland, William McKinley, and John Gruchy

We are evaluating deer movement response to feeding using data collected during a buck movement study that concluded with the 2018-19 hunting season. We are also evaluating how presence of feeders may alter nearby habitat quality and presence of diseases. We will evaluate habitat and disease associations with feeding using fed and unfed areas across Mississippi. Comparing areas adjacent to feeders that have been in place for varying amounts of time to similar locations without feeders will show the extent of impact and how long it takes issues to develop, which will inform recommendations to minimize disease and habitat issues. Camera surveys conducted on these fed and unfed sites will document if feeders increase visitation by deer and other wildlife. Data collection was initiated during the summer of 2019.



DEVELOPMENT OF DEER MANAGEMENT SUPPORT TOOLS AND OUTPUTS

Phil Jones, Steve Demarais, Bronson Strickland, and William McKinley

Mississippi is a leader in deer management because we develop new management tools and target research to address important topics. We are conducting analyses to understand how drought and flood variations affect deer populations to inform future deer management decisions. To answer how drought severity and timing and weather (rainfall and temperature) might explain some portion of annual variation in DMAP data, we quantified how these variables correlated with changes in deer body and antler size and fawn recruitment using available weather station data. Our flooding analysis is a cooperative venture by the state wildlife agencies in Mississippi, Louisiana, and Arkansas, and Delta Wildlife. We are evaluating long-term flood events to determine how timing and duration of flooding affects deer condition indices. Tools in progress include a model of Chronic Wasting Disease impacts on herd population growth and age structure.

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Photo by Deb Atwood Logan

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OUR MISSION IS TO AUGMENT THE STATE'S EFFORTS TO ENSURE THE CONSERVATION AND ENHANCEMENT OF OUR FISH AND WILDLIFE RESOURCES SO THEY SURVIVE AND THRIVE FOR CURRENT AND FUTURE GENERATIONS

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