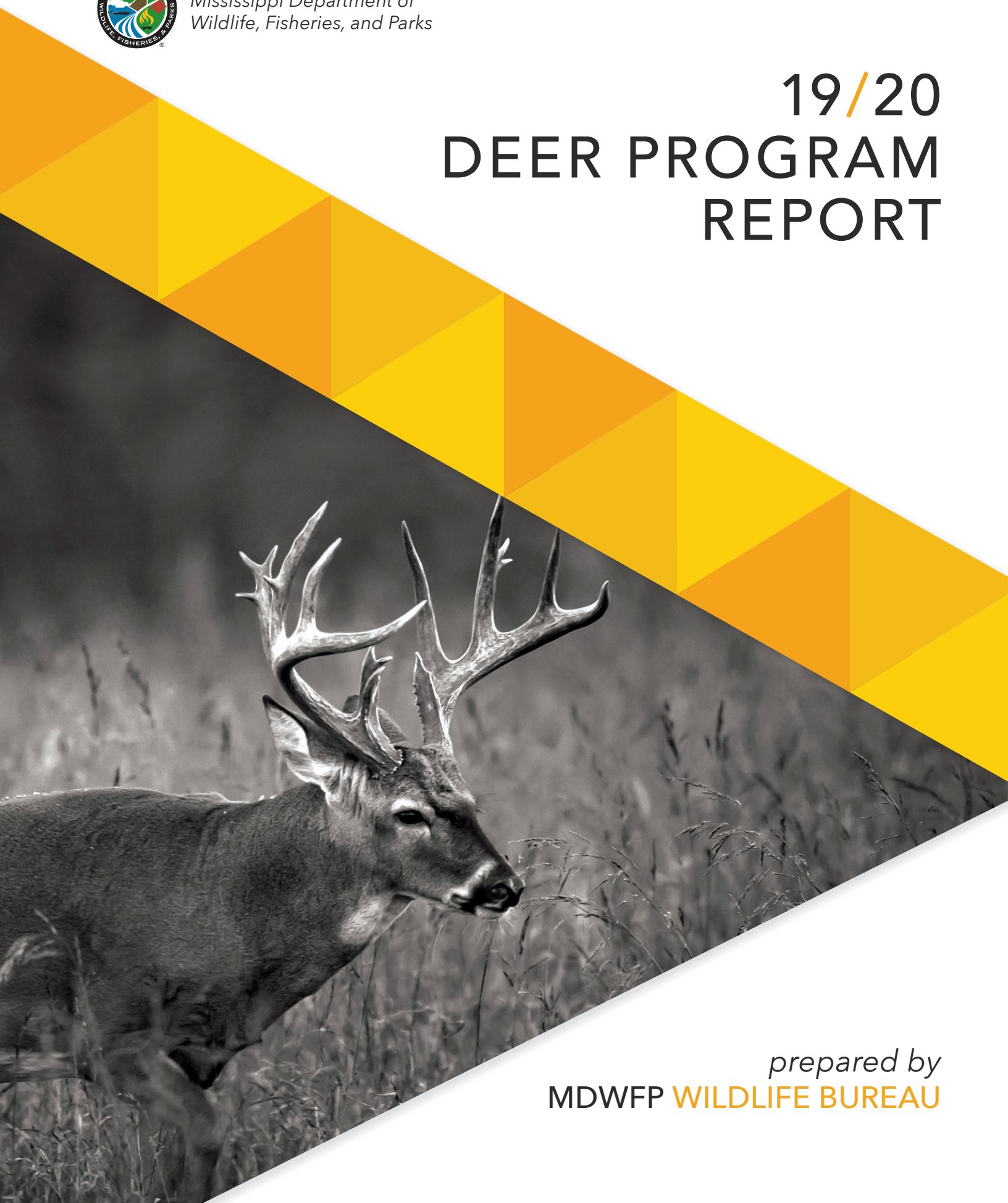
*Mississippi Department of Wildlife, Fisheries, and Parks*

# 19/20 DEER PROGRAM REPORT



*prepared by*

MDWFP WILDLIFE BUREAU

Cover photo by Monita McCool

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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
- Enforcement Bureau monitoring of deer hunting-related citations
- Deer research projects conducted in cooperation with Mississippi State University Forest and Wildlife Research Center

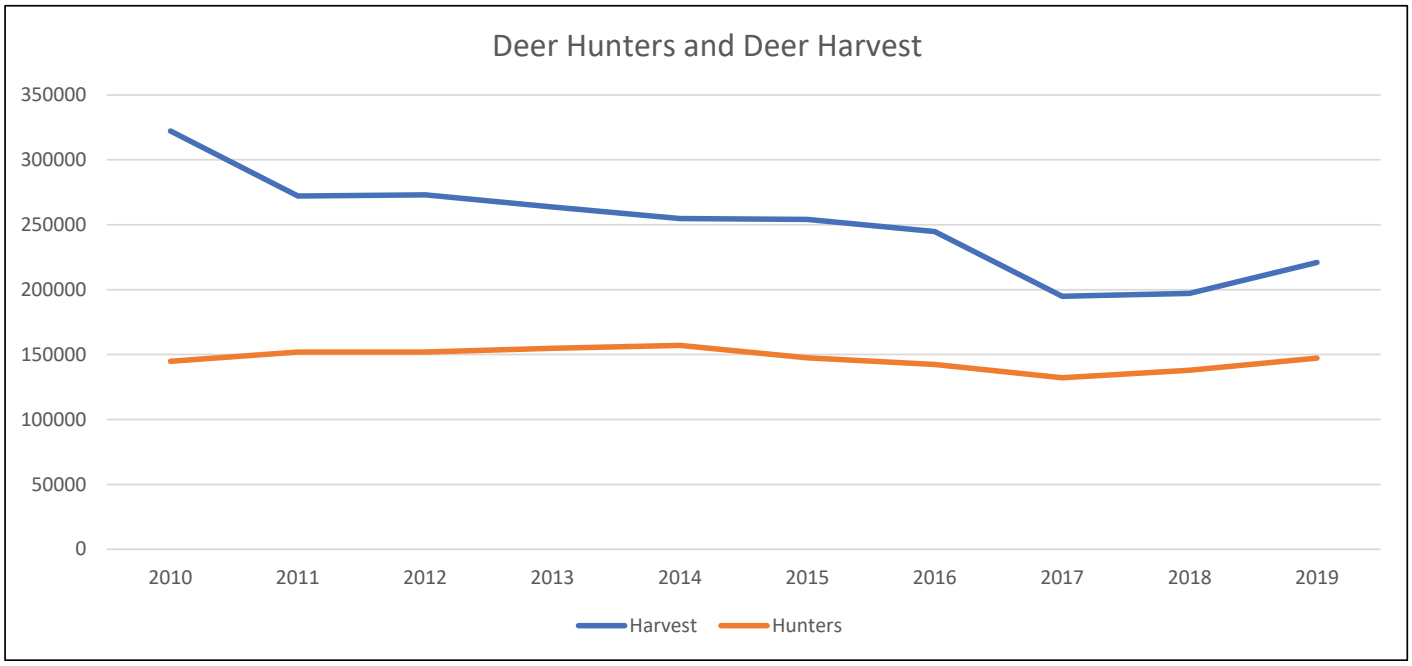
Several factors negatively impacted the deer herd in the 2019–2020 season. Wild hog numbers continue to increase statewide. For the third consecutive year, hunters harvested more wild hogs than deer in Mississippi. Statewide surveillance efforts continued for Chronic Wasting Disease (CWD). Unfortunately, CWD was detected in several more deer. MDWFP continues to combat this fatal deer disease. Additionally, excessive rainfall again resulted in extensive flooding in the Mississippi Delta displacing and congregating wildlife.

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.

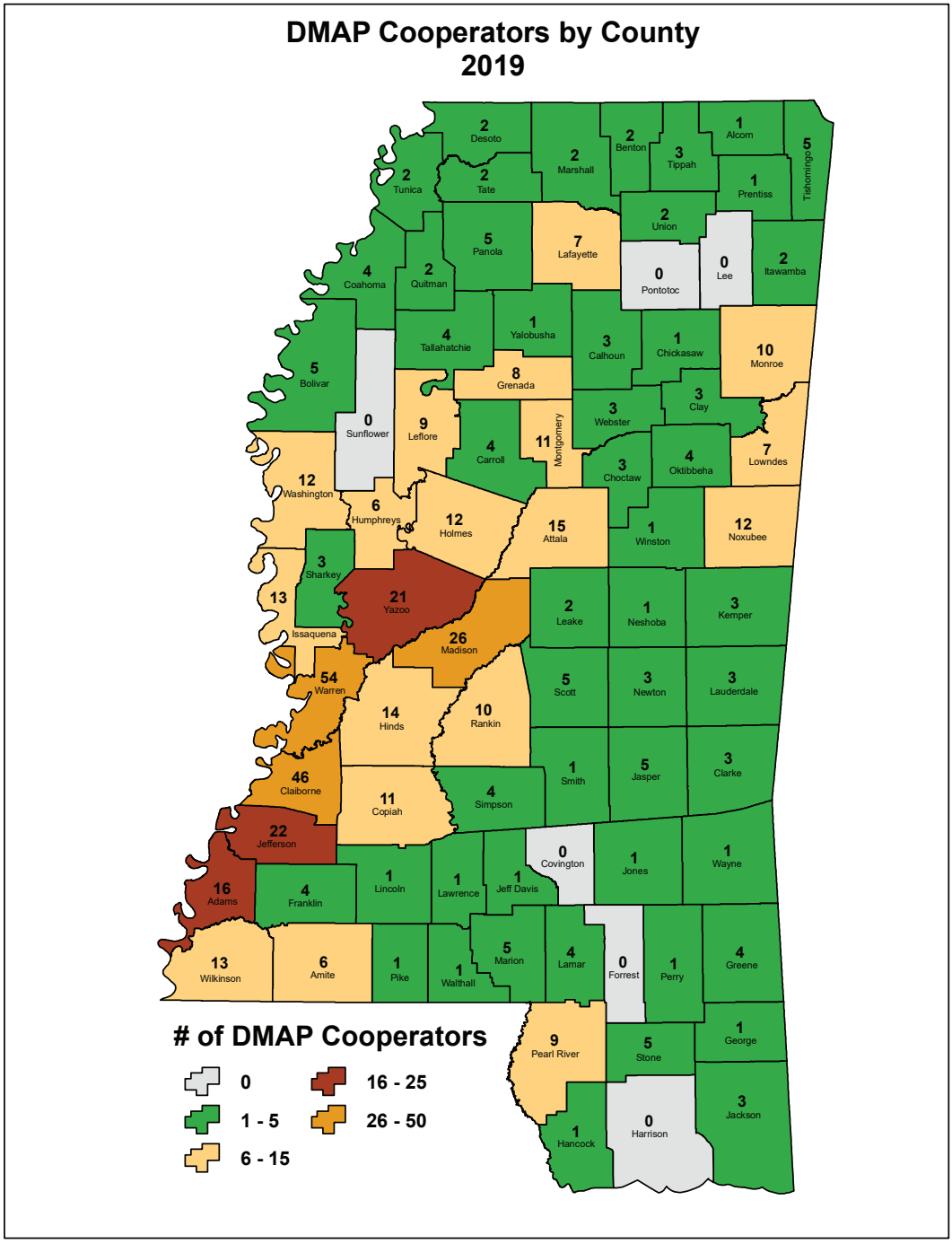
# Deer Harvest Estimates

| 2019-2020 | Total Harvest | | | Total Hunters | | | Average Seasonal Harvest | | Total Man-days | | | Percent Successful Hunters | | Deer Per Hunter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Resident | Non-Resident | Total | Resident | Non-Resident | Total | Resident | Non-Resident | Resident | Non-Resident | Total | Resident | Non-Resident | |
| Total Deer | 201,268 | 19,721 | 220,989 | 125,778 | 21,579 | 147,357 | 1.60 | 0.90 | 3,394,755 | 342,299 | 3,737,054 | 63.6 | 50.0 | 1.50 |
| Buck | 92,673 | 8,932 | 101,605 | | | | | | | | | 44.4 | 28.9 | |
| Doe | 106,877 | 10,750 | 117,627 | | | | | | | | | 45.9 | 33.2 | |
| Archery Total | 42,728 | 3,636 | 46,364 | 54,527 | 7,035 | 61,562 | 0.80 | 0.50 | 835,315 | 70,744 | 906,059 | 42.9 | 36.5 | 0.80 |
| Buck | 14,663 | 1,305 | 15,968 | | | | | | | | | 18.1 | 13.5 | |
| Doe | 27,836 | 2,292 | 30,128 | | | | | | | | | 34.2 | 26.4 | |
| Primitive Total | 26,232 | 1,818 | 28,050 | 47,425 | 6,007 | 53,432 | 0.60 | 0.30 | 475,964 | 46,320 | 522,284 | 37.4 | 23.0 | 0.50 |
| Buck | 9,737 | 869 | 10,606 | | | | | | | | | 15.7 | 11.8 | |
| Doe | 16,954 | 949 | 17,903 | | | | | | | | | 28.0 | 13.8 | |
| Gun Total | 132,308 | 14,267 | 146,575 | 115,778 | 19,524 | 135,302 | 1.10 | 0.70 | 2,083,476 | 225,235 | 2,308,711 | 59.0 | 47.6 | 1.10 |
| Buck | 69,877 | 6,758 | 76,635 | | | | | | | | | 41.5 | 27.5 | |
| Doe | 62,316 | 7,509 | 69,825 | | | | | | | | | 36.1 | 28.5 | |

**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.



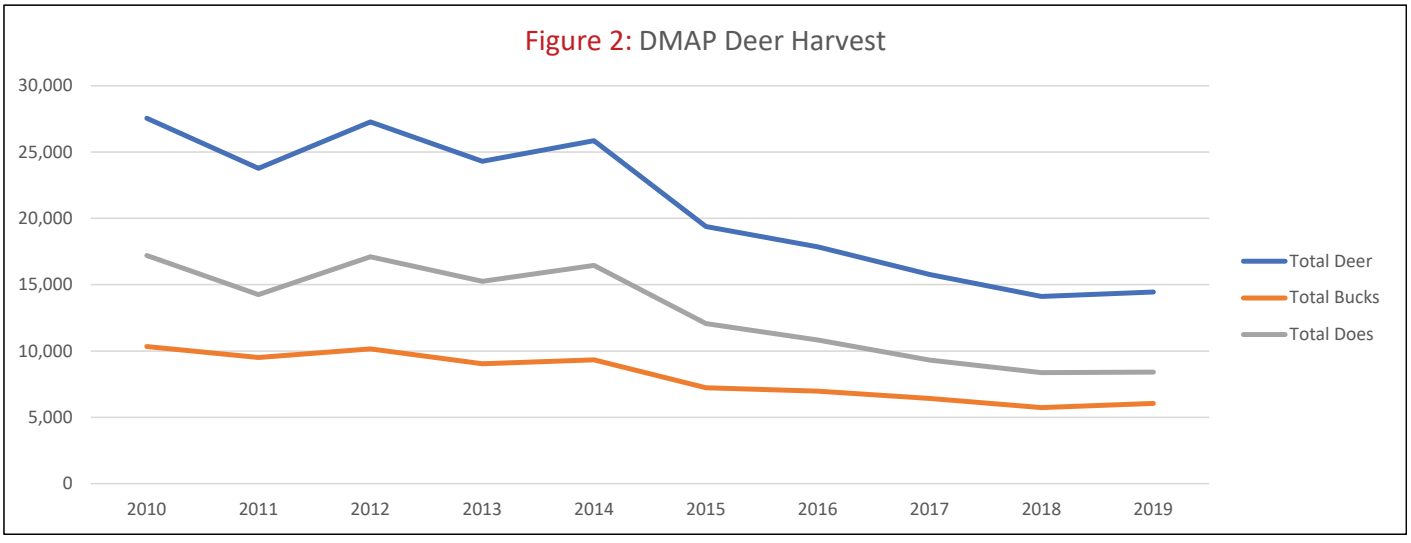
| Table 1: Statewide Compiled Data From Public and Private Lands | | | | | | |
|---|---|---|---|---|---|---|
| **Season** | **2019** | **2018** | **2017** | **2016** | **2015** | **2014** |
| **Acres** | 1,900,765 | 1,633,827 | 1,700,761 | 1,836,388 | 1,988,597 | 2,175,845 |
| **Total Deer** | 14,454 | 14,116 | 15,763 | 17,841 | 19,381 | 25,860 |
| Bucks | 6,049 | 5,737 | 6,430 | 6,980 | 7,237 | 9,341 |
| Does | 8,405 | 8,379 | 9,324 | 10,829 | 12,075 | 16,458 |
| **Acres/Deer** | 131.5 | 115.7 | 107.9 | 102.9 | 102.6 | 84.1 |
| Bucks | 314.2 | 285 | 264.5 | 263.1 | 274.8 | 232.9 |
| Does | 226.1 | 195 | 182.4 | 169.6 | 164.7 | 132.2 |
| **Avg. Age ALL Bucks** | 3.8 | 3.9 | 3.5 | 3.5 | 3.2 | 3.3 |
| **Avg. Points ALL Bucks** | 7 | 7.2 | 7.3 | 7.2 | 7.2 | 7.2 |
| **Avg. Length ALL Bucks** | 16.4 | 17.7 | 17.6 | 16.9 | 17 | 17.1 |
| **Avg. Spread ALL Bucks** | 13.5 | 14.5 | 14.4 | 13.9 | 14 | 14.2 |
| **Acres/3.5+ Bucks** | 465.2 | 402 | 377.3 | 369.7 | 396 | 361 |
| **% 0.5 Yr. Bucks** | 4.2 | 3.5 | 4.4 | 1.7 | 3.9 | 4.9 |
| **Weight** | 63 | 61 | 63.7 | 64 | 61 | 63 |
| **% 1.5 Yr.** | 10.6 | 10.7 | 10.3 | 9.3 | 12 | 11.1 |
| Weight | 102 | 108 | 111 | 107 | 103 | 106 |
| Points | 2.4 | 2.5 | 2.6 | 2.5 | 2.5 | 2.4 |
| Length | 3.6 | 3.8 | 6.1 | 4.9 | 5 | 4.9 |
| Spread | 4 | 4 | 5.9 | 5.5 | 5.4 | 5.4 |
| **% 2.5 Yr.** | 13.3 | 11.7 | 10.6 | 12.1 | 10.8 | 14.2 |
| Weight | 138 | 145 | 145.5 | 142 | 138 | 143 |
| Points | 6.4 | 6.7 | 6.6 | 6.7 | 6.6 | 6.6 |
| Length | 13.9 | 14.3 | 14.7 | 14.6 | 14.7 | 14.9 |
| Spread | 11.4 | 11.8 | 12.3 | 12 | 12.1 | 12.3 |
| **% 3.5 Yr.** | 22.3 | 22.2 | 25.3 | 22.3 | 23.6 | 21.9 |
| Weight | 157 | 163 | 166.1 | 164.1 | 159 | 166 |
| Points | 7.5 | 7.6 | 7.6 | 7.7 | 7.6 | 7.7 |
| Length | 16.2 | 16.9 | 17.2 | 17.3 | 17.1 | 17.6 |
| Spread | 13.4 | 13.8 | 14 | 14.1 | 13.9 | 14.3 |
| **% 4.5+ Yr.** | 45.3 | 51.9 | 49.4 | 52.2 | 45.7 | 42.6 |
| Weight | 176 | 181 | 186.8 | 184.7 | 176 | 181.3 |
| Points | 8.1 | 8.2 | 8.2 | 8.3 | 8.1 | 8.1 |
| Length | 18.5 | 19.2 | 19.9 | 19.9 | 19.3 | 19.6 |
| Spread | 15 | 15.4 | 15.9 | 16 | 15.5 | 15.8 |
| **Doe Age Classes** | | | | | | |
| % 0.5 Yr. | 6.3 | 7.5 | 8.3 | 7.8 | 6.7 | 7.5 |
| % 1.5 Yr. | 18.4 | 21.3 | 20.5 | 16.1 | 19.6 | 17.7 |
| % 2.5 Yr. | 18.5 | 17.7 | 17 | 19.2 | 17.9 | 23.4 |
| % 3.5+ Yr. | 54.6 | 53.5 | 54.2 | 56.9 | 55.8 | 51.3 |
| **% Doe Lactation** | | | | | | |
| 1.5 Yr. | 7 | 9 | 12 | 11 | 8 | 11 |
| 2.5 Yr. | 41 | 57 | 57 | 51 | 43 | 51 |
| 2.5+ Yr. | 50 | 59 | 66 | 54 | 52 | 60 |
| 3.5+ Yr. | 53 | 60 | 69 | 56 | 55 | 64 |

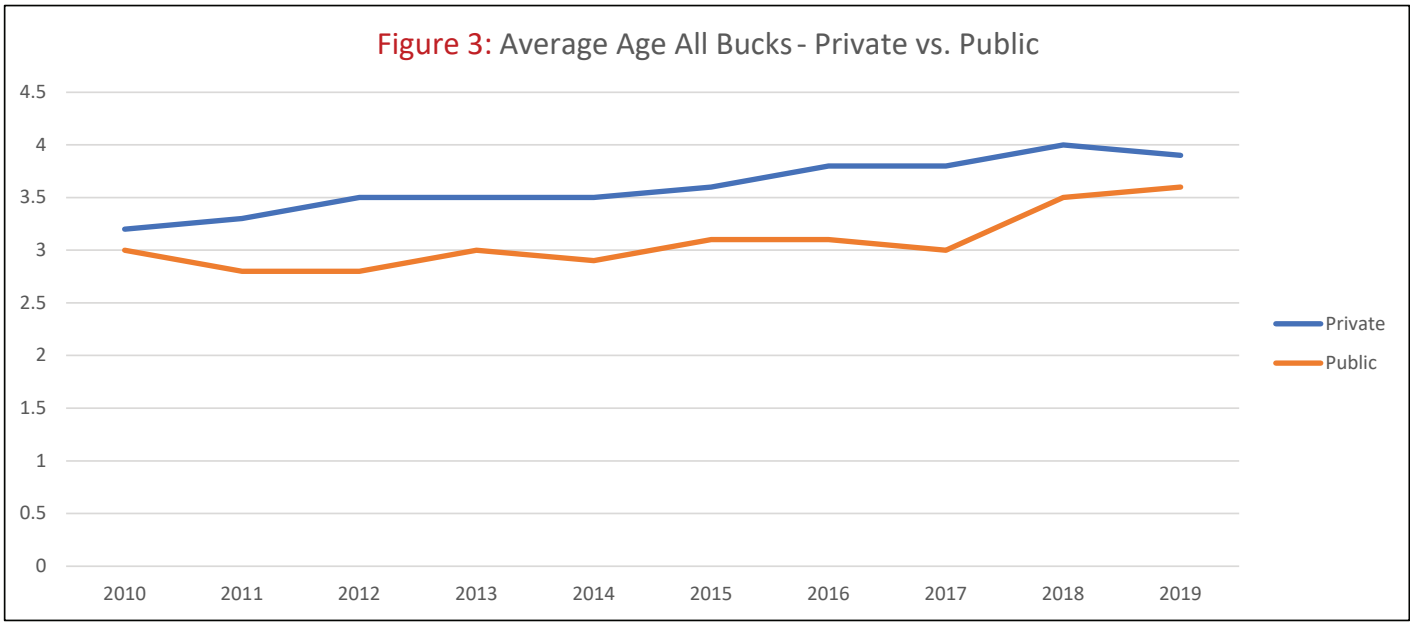
**Table 2: Comparison of Bucks Harvested on Wildlife Management Areas and National Wildlife Refuges vs. Private Lands DMAP**

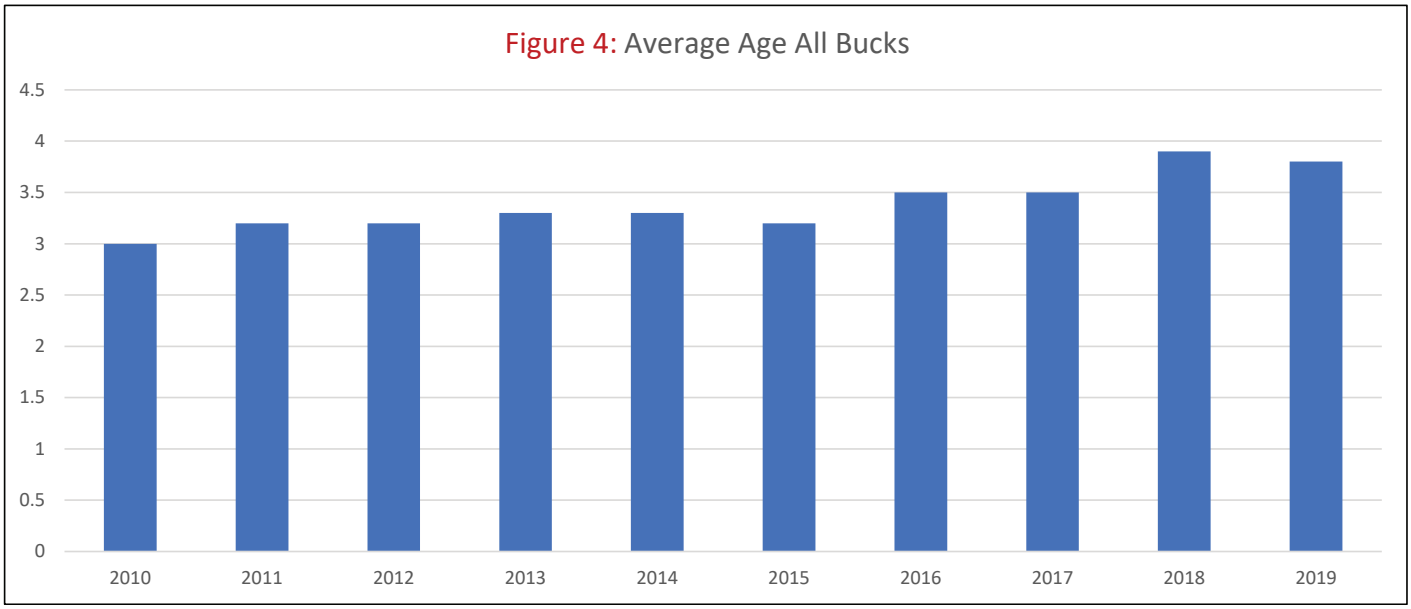
| Season | Average Age | | Average Points | | Average Beam Length | | Average Inside Spread | |
|---|---|---|---|---|---|---|---|---|
| | Private | Public | Private | Public | Private | Public | Private | Public |
| **2010** | 3.2 | 3.0 | 7.3 | 7.2 | 17.3 | 15.9 | 14.0 | 13.0 |
| **2011** | 3.3 | 2.8 | 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 |
| **2019** | 3.9 | 3.6 | 7.0 | 7.1 | 17.3 | 16.2 | 14.1 | 13.3 |

**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 |
| **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 | 1,915 | 64 | 209 |
| **2013** | 1,407,704 | 762,132 | 21,000 | 3,291 | 7,394 | 1,646 | 13,606 | 1,645 | 67 | 232 |
| **2014** | 1,406,799 | 765,872 | 21,884 | 3,241 | 7,551 | 1,571 | 14,333 | 1,670 | 64 | 236 |
| **2015** | 1,255,453 | 718,213 | 16,268 | 2,730 | 5,873 | 1,275 | 10,395 | 1,455 | 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 |
| **2019** | 988,438 | 725,324 | 11,022 | 1,938 | 4,359 | 1,069 | 6,663 | 869 | 89 | 375 |






## 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 5,562 DMAP Antlerless tags were issued to 213 DMAP properties. A total of 2,306 DMAP Management Buck tags were issued to 172 DMAP properties, of which 238 of the tags were used.

**Figure 5:** Buck Tags Issued and Used on DMAP Properties

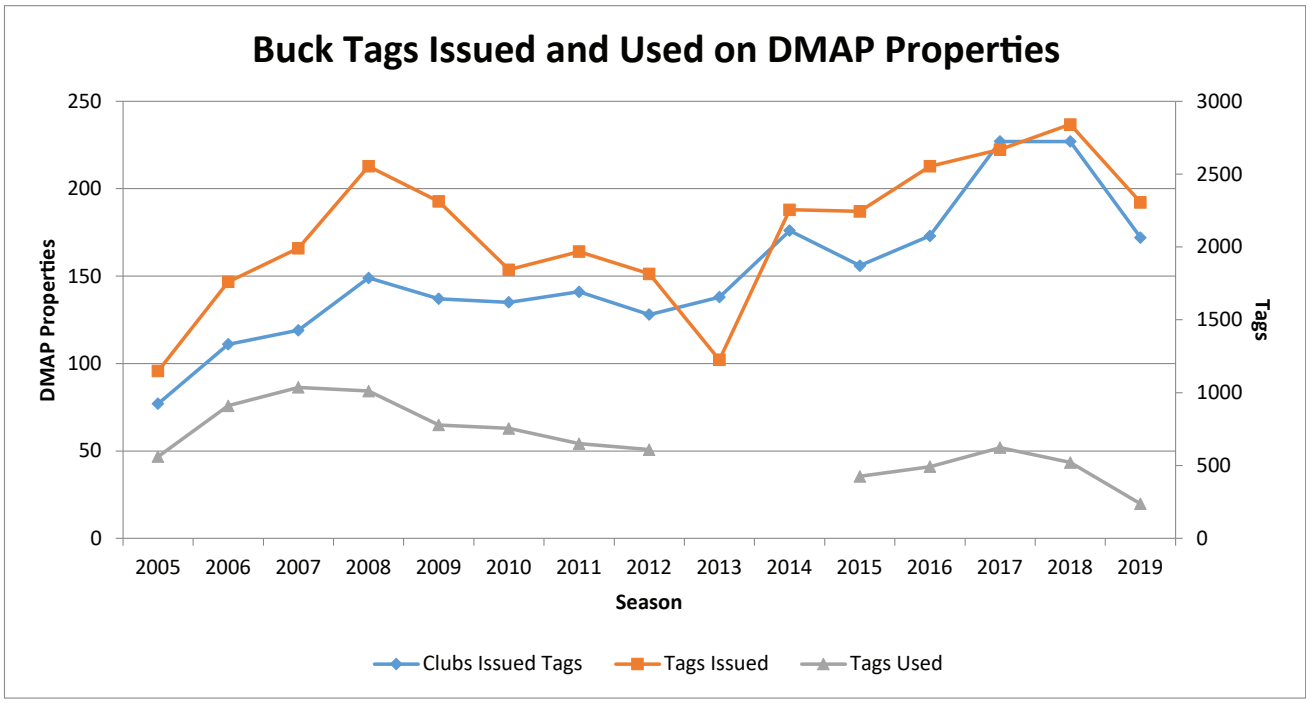



**Figure 6:** Antlerless Deer Tags Issued on DMAP Properties

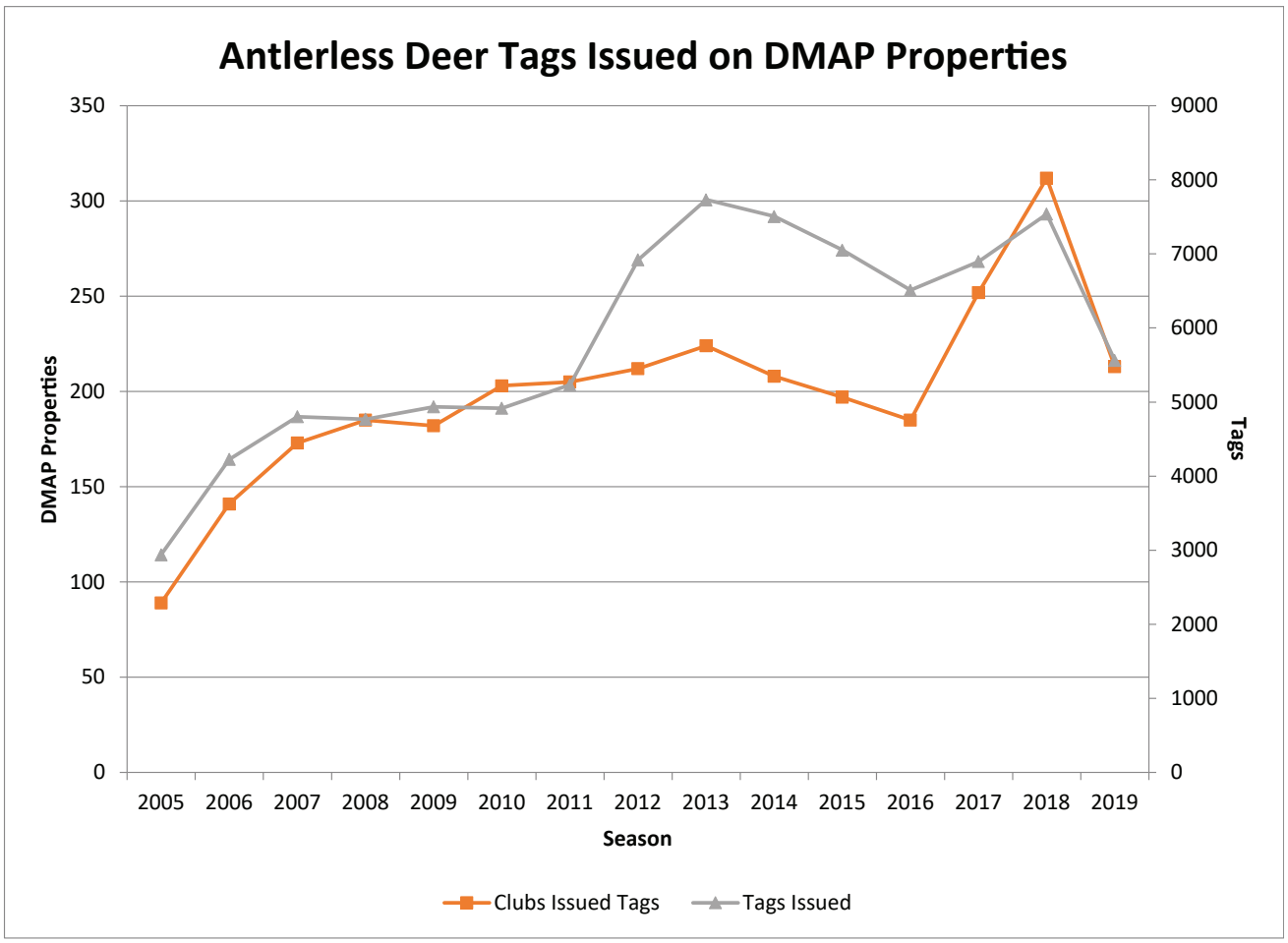
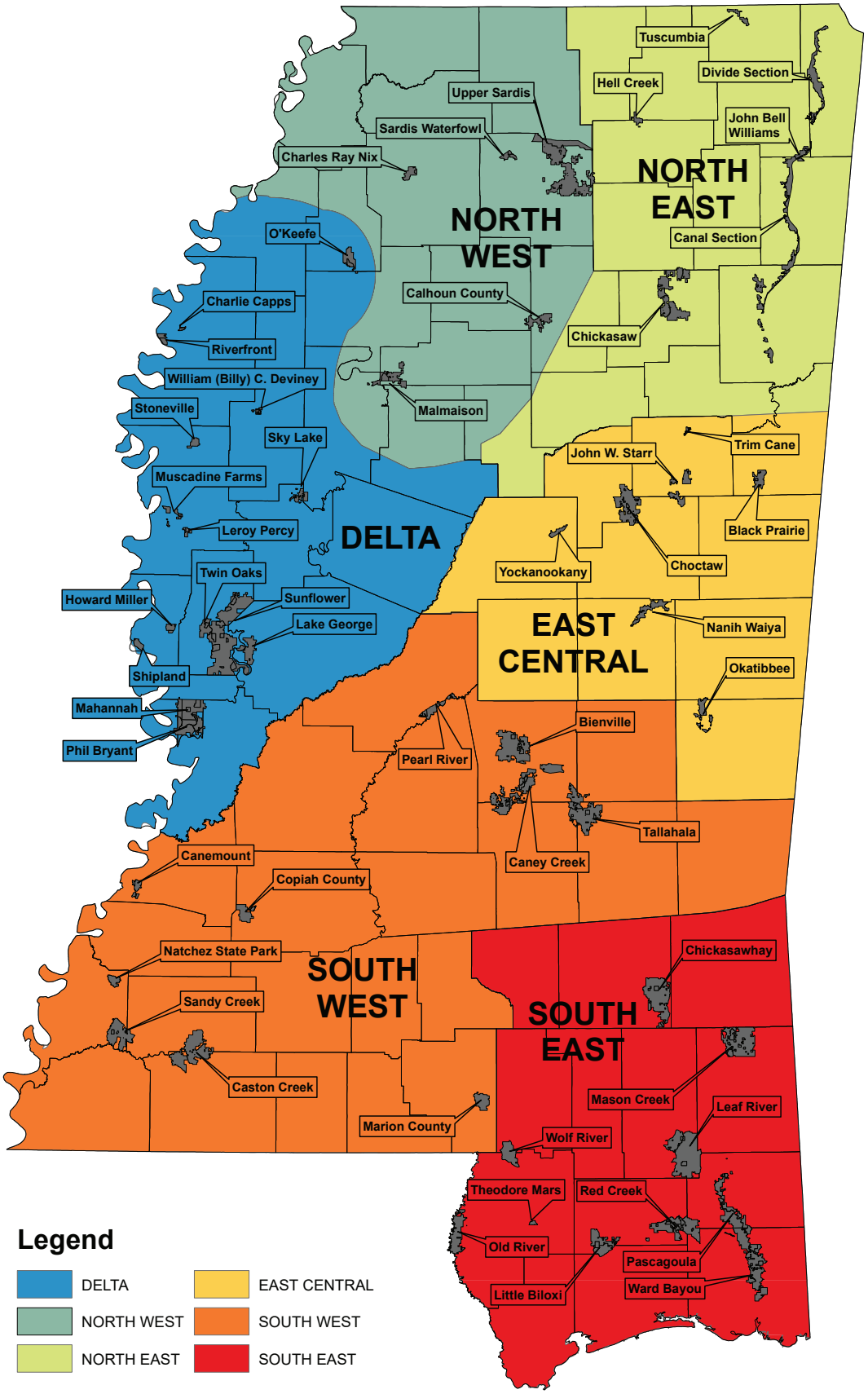


**Figure 7:** **WMA Region Map**




WMA REGIONS

| Table 4: Wildlife Management Area Harvest Information for the 2019–2020 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 | 38 | 221 | 28 | 299 | 10 | 838 | 759 |
| | Leroy Percy | 12/15 | 1,642 | 13 | 126 | 9 | 182 | 4 | 411 | 292 |
| | Mahannah | 16/20 | 12,675 | 40 | 317 | 19 | 667 | 21 | 604 | 678 |
| | O'Keefe | 16/20 | 5,914 | 40 | 148 | 25 | 237 | 15 | 394 | 938 |
| | Phil Bryant | 16/20 | 17,860 | 48 | 372 | 25 | | 23 | | 184 |
| | Sky Lake | 15/18 | 4,306 | 25 | 172 | 9 | 478 | 16 | 269 | 172 |
| | Shipland | 15/18 | 1,800 | 4 | 450 | 2 | 900 | 2 | 900 | 214 |
| | Stoneville | 12/15 | 2,500 | 13 | 192 | 10 | 250 | 3 | 833 | 368 |
| | Sunflower | 15/18 | 58,480 | 49 | 1,193 | 39 | 1,499 | 10 | 5,848 | 1,563 |
| | Twin Oaks | 16/20 | 5,675 | 17 | 334 | 4 | 1,419 | 13 | 437 | 252 |
| | **Delta Total** | | **119,235** | **287** | | **170** | | **117** | | **5,420** |
| | **Delta Average** | | **11,924** | **29** | **353** | **17** | **659** | **12** | **1,170** | **542** |
| **East Central** | Black Prairie | 15/18 | 6,001 | 61 | 98 | 25 | 400 | 36 | 206 | 371 |
| | Choctaw | 10/13 | 24,314 | 48 | 900 | 34 | 972 | 14 | 12,157 | 979 |
| | John Starr | 10/13 | 8,244 | 22 | 375 | 19 | 588 | 3 | 1,030 | 722 |
| | Nanih Waiya | 10/13 | 8,040 | 42 | 171 | 14 | 365 | 28 | 321 | 481 |
| | Okatibbee | 10/13 | 6,883 | 22 | 254 | 12 | 529 | 10 | 491 | 488 |
| | Trim Cane | 10/13 | 891 | 2 | 446 | 2 | 0 | 0 | 891 | 4 |
| | Yockanookany | 12/15 | 2,379 | 7 | 340 | 3 | 339 | 4 | 475 | 111 |
| | **East Central Total** | | **56,752** | **95** | | **50** | | **45** | | **1,806** |
| | **East Central Average** | | **8,107** | **29** | **369** | **16** | **456** | **14** | **2,224** | **451** |
| **North East** | Canal Section | 12/15 | 29,672 | 27 | 1,099 | 16 | 1,855 | 11 | 2,697 | 2,353 |
| | Chickasaw | 10/13 | 26,815 | 36 | 745 | 29 | 925 | 7 | 3,831 | 1,928 |
| | Divide Section | 12/15 | 15,337 | 21 | 730 | 7 | 2,191 | 14 | 1,096 | 929 |
| | Hell Creek | 12/15 | 2,344 | 26 | 90 | 3 | 781 | 23 | 102 | 194 |
| | John Bell Williams | 12/15 | 3,198 | 3 | 1,066 | 1 | 3,198 | 2 | 1,599 | 290 |
| | Tuscumbia | 10/13 | 2,693 | 4 | 673 | 2 | 1,347 | 2 | 1,347 | 152 |
| | **North East Total** | | **80,059** | **117** | | **58** | | **59** | | **5,846** |
| | **North East Average** | | **13,343** | **20** | **734** | **10** | **1,716** | **10** | **1,779** | **974** |
| **North West** | Calhoun County | 10/13 | 7,545 | 15 | 503 | 3 | 1,886 | 12 | 0 | 404 |
| | Charles Ray Nix | 15/18 | 3,812 | 54 | 71 | 22 | 238 | 32 | 81 | 634 |
| | Cossar State Park | 10/13 | 459 | 4 | 36 | 1 | 604 | 3 | 40 | 13 |
| | Malmaison | 15/18 | 9,953 | 53 | 151 | 26 | 663 | 27 | 216 | 1,349 |
| | Sardis Waterfowl | None/Youth Only | 2,480 | 23 | 100 | 11 | 225 | 12 | 177 | 56 |
| | Upper Sardis | 10/13 | 50,485 | 54 | 935 | 35 | 2,103 | 19 | 25,242 | 2,521 |
| | **North West Total** | | **74,734** | **203** | | **98** | | **105** | | **4,977** |
| | **North West Average** | | **12,456** | **34** | **299** | **16** | **953** | **18** | **4,293** | **830** |

Riverfront WMA

| Table 4 Continued: Wildlife Management Area Harvest Information for the 2019–2020 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 | 28 | 1,071 | 18 | 1,667 | 10 | 3,000 | 1,227 |
| | Leaf River | 12/15 | 41,411 | 176 | 235 | 94 | 441 | 82 | 505 | 3,324 |
| | Little Biloxi | 10/13 | 14,540 | 51 | 285 | 31 | 469 | 20 | 727 | 2,239 |
| | Mason Creek | 10/13 | 28,000 | 3 | 9,333 | 3 | 9,333 | 0 | NA | 368 |
| | Old River | 10/13 | 13,000 | 16 | 813 | 9 | 1,444 | 7 | 1,857 | 747 |
| | Pascagoula River | 10/13 | 37,415 | 26 | 1,439 | 19 | 1,969 | 7 | 5,345 | 1,740 |
| | Red Creek | 10/13 | 22,954 | 5 | 4,591 | 2 | 11,477 | 3 | NA | 620 |
| | Theodore A. Mars Jr. | None/Youth Only | 900 | 0 | | 0 | NA | 0 | | 23 |
| | Ward Bayou | 10/13 | 13,234 | 5 | 2,647 | 3 | 4,411 | 2 | 6,617 | 547 |
| | Wolf River | 10/13 | 10,881 | 34 | 320 | 19 | 573 | 15 | 725 | 1,243 |
| | **South East Total** | | **212,335** | **344** | | **198** | | **146** | | **12,078** |
| | **South East Average** | | **21,234** | **34** | | **20** | **3,532** | **15** | | **1,208** |
| **South West** | Bienville | 12/15 | 26,136 | 32 | 817 | 23 | 1,136 | 9 | 2,904 | 1,481 |
| | Canemount | 16/20 | 3,500 | 25 | 140 | 16 | 219 | 9 | 389 | 384 |
| | Caney Creek | 12/15 | 28,000 | 47 | 596 | 20 | 1,400 | 27 | 1,037 | 1,461 |
| | Caston Creek | 10/13 | 27,785 | 31 | 896 | 24 | 1,158 | 7 | NA | 1,684 |
| | Copiah County | 12/15 | 7,386 | 24 | 308 | 16 | 462 | 8 | 923 | 1,448 |
| | Marion County | 12/15 | 7,125 | 32 | 223 | 19 | 375 | 13 | 548 | 1,373 |
| | Natchez State Park | 12/15 | 2,457 | 41 | 60 | 22 | 112 | 19 | 129 | 414 |
| | Pearl River | 10/13 | 6,925 | 10 | 693 | 5 | 1,385 | 5 | 1,385 | 651 |
| | Sandy Creek | 10/13 | 16,407 | 11 | 1,492 | 10 | 1,641 | 1 | 16,407 | 1,374 |
| | Tallahala | 12/15 | 28,120 | 30 | 937 | 15 | 1,875 | 15 | 1,875 | 1,023 |
| | **South West Total** | | **153,841** | **283** | | **170** | | **113** | | **11,293** |
| | **South West Average** | | **15,384** | **28** | **616** | **17** | **976** | **11** | **2,844** | **1,129** |
| **TOTAL** | | | **696,956** | **1,438** | | **803** | | **635** | | **42,770** |
| **AVERAGE** | | | **14,224** | **29** | | **16** | **1,419** | **13** | | **873** |

## Figure 8: WMA Deer Harvest and Man-days

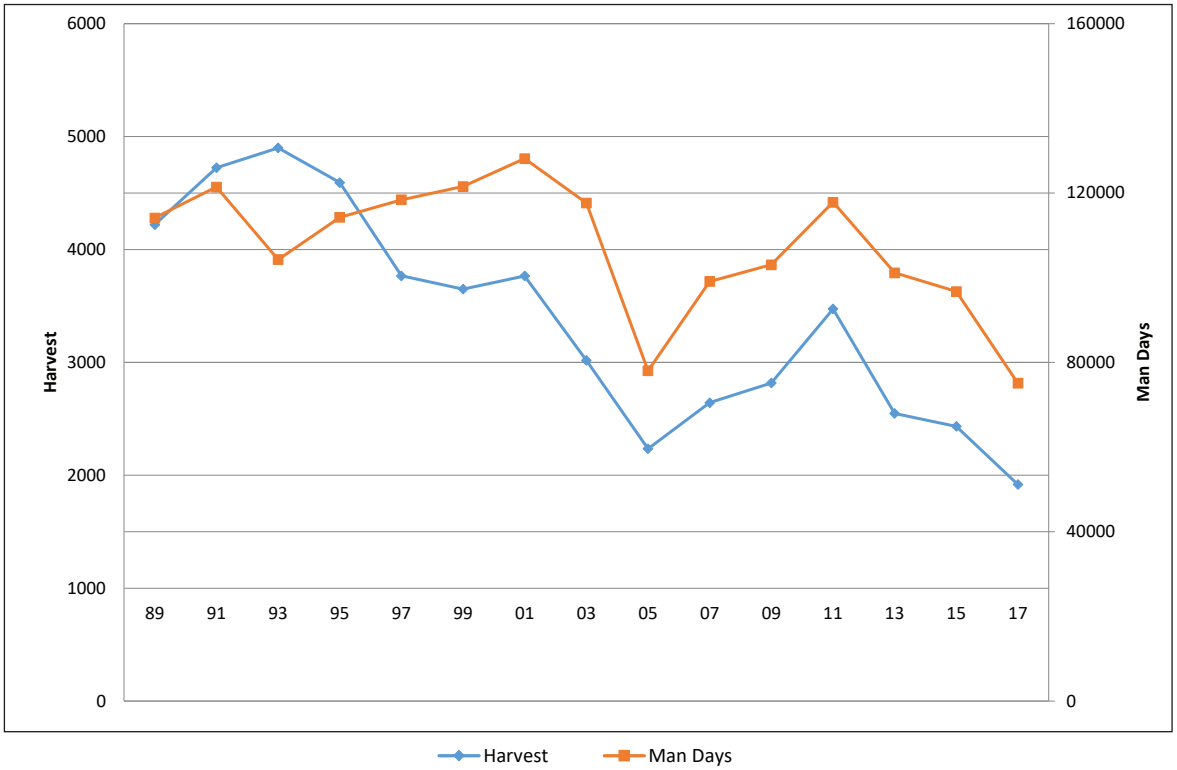
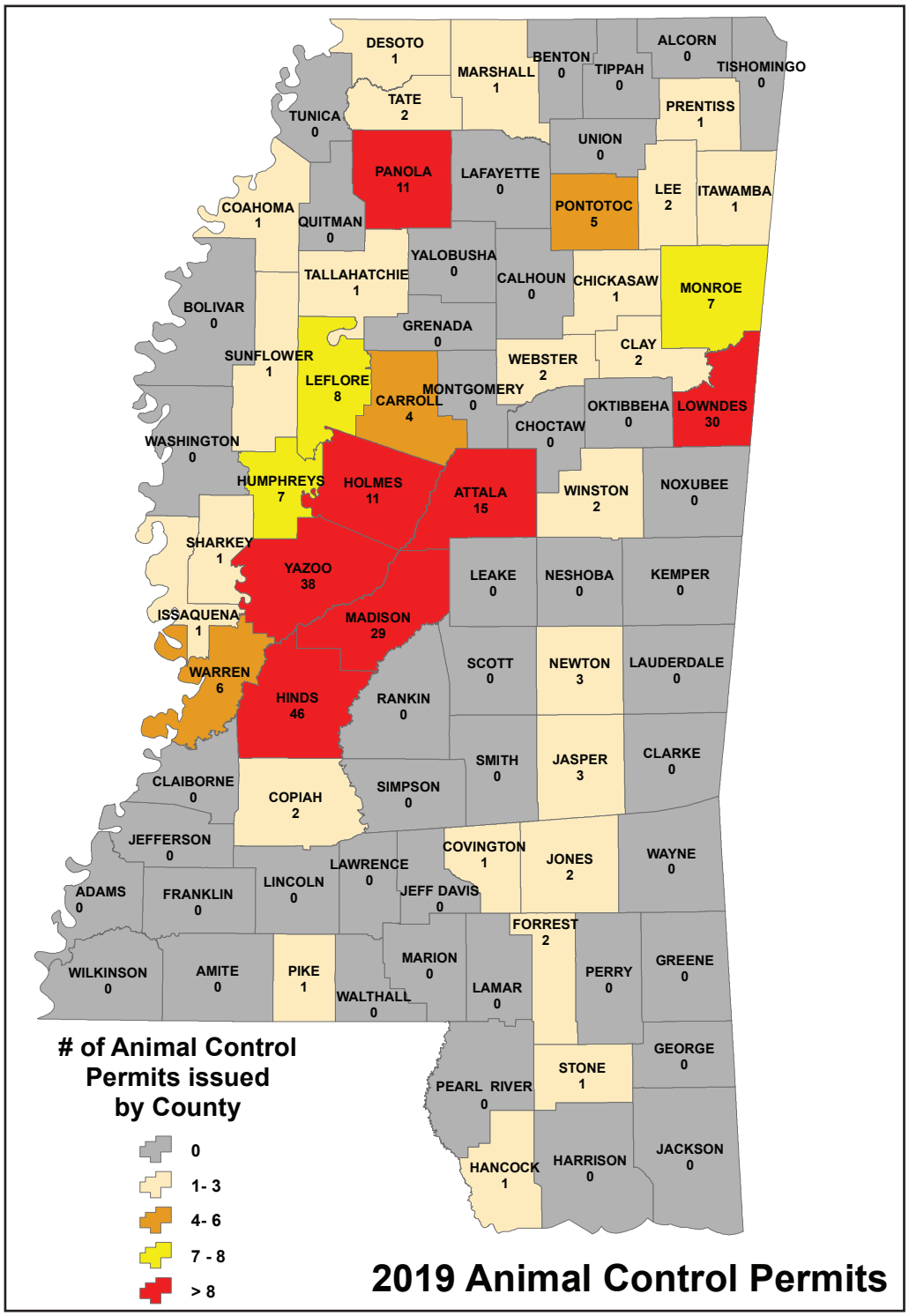


**Figure 9: 2019 Animal Control Permits**




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 253 ACPs were issued in 37 counties during 2019. A total of 2,178 deer were reported killed with these permits. 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 2020, Mississippi has 54 confirmed CWD-positive white-tailed deer across six counties. These counties are Benton, Issaquena, Marshall, Panola, Pontotoc, and Tallahatchie. A total of 8,510 CWD samples were collected from July 2019–June 2020. For more information on CWD, go to mdwfp.com/wildlife-hunting/chronic-wasting-disease/.

**Figure 10: CWD Positive Counties**

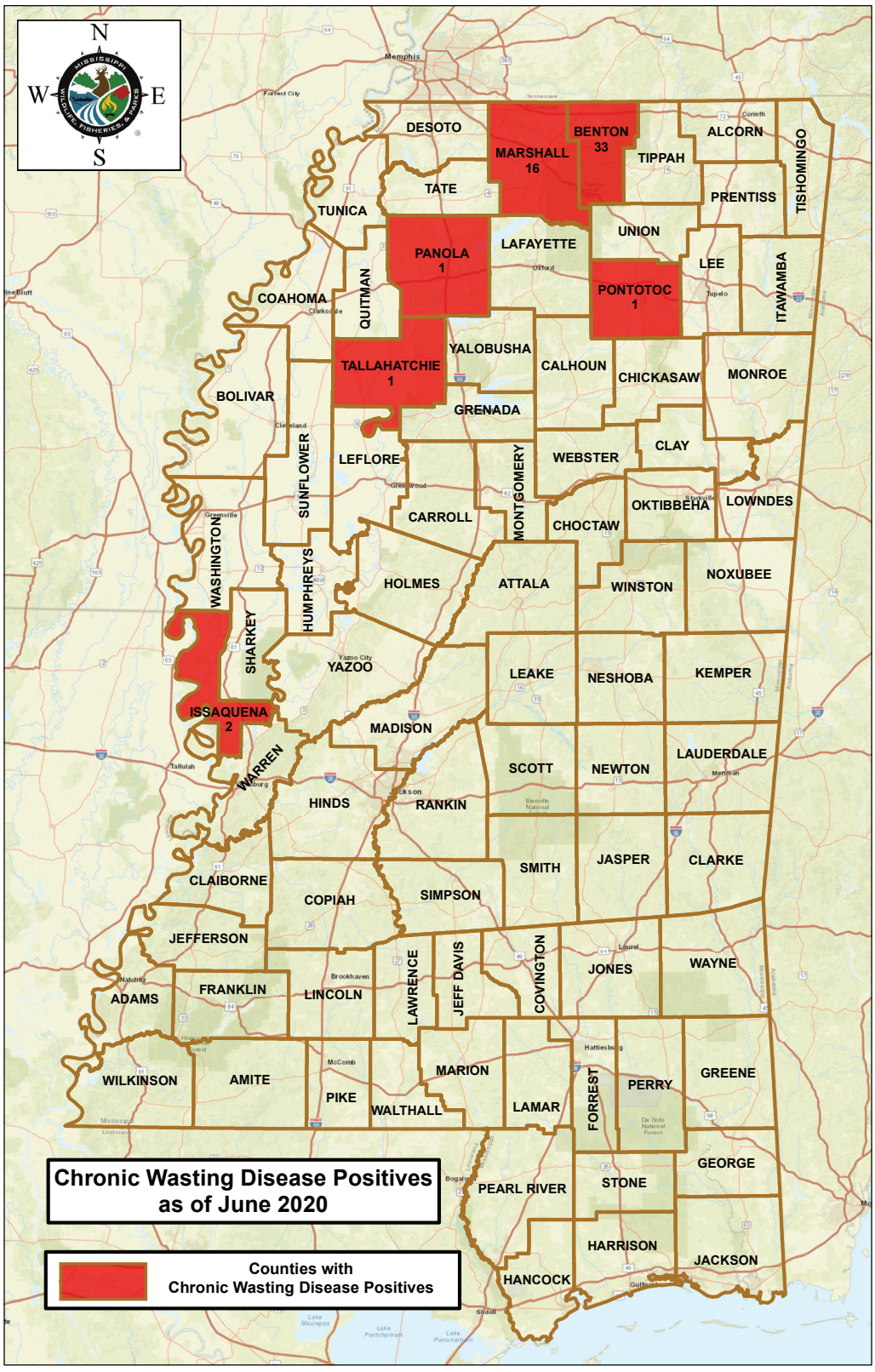
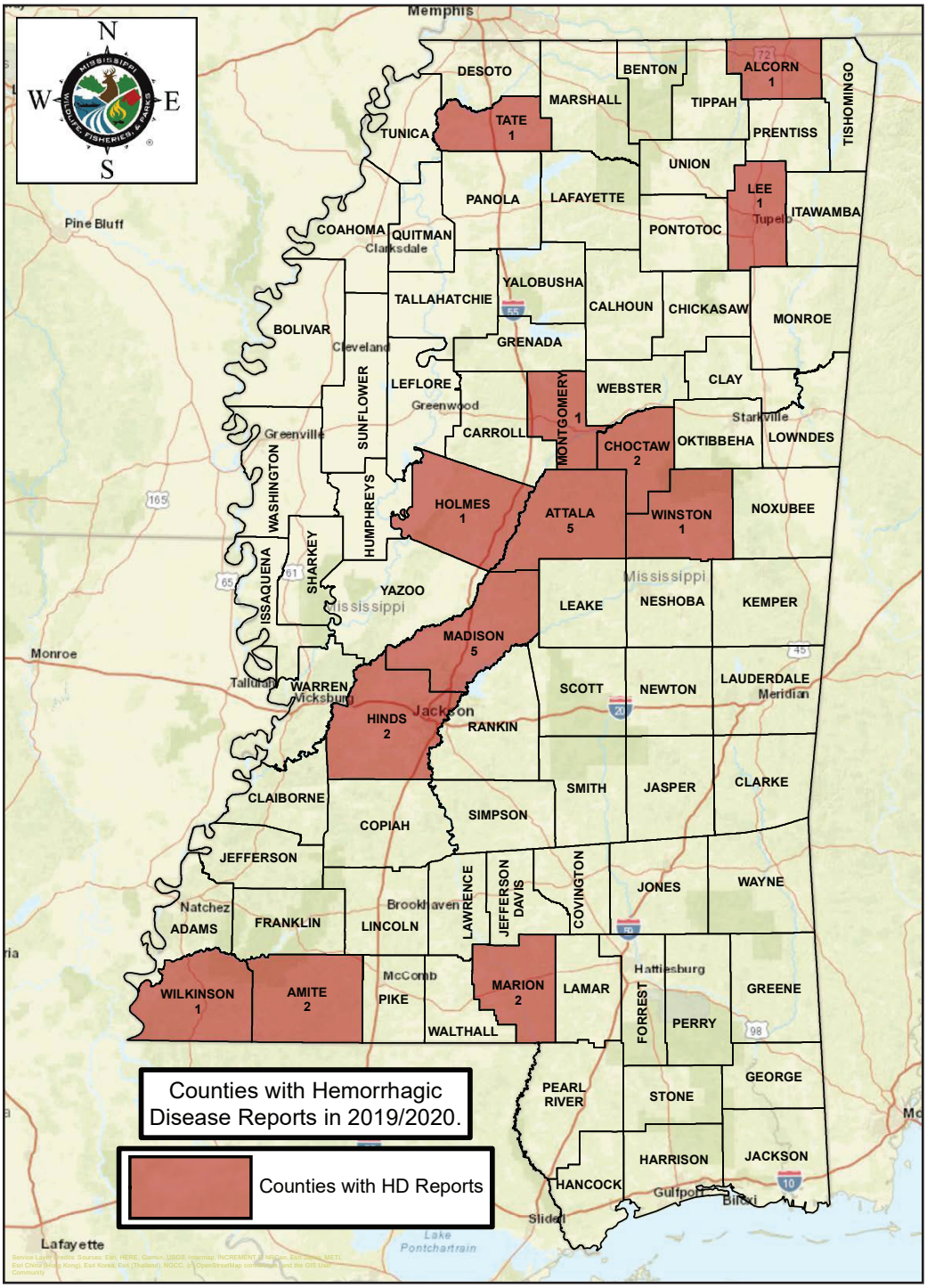


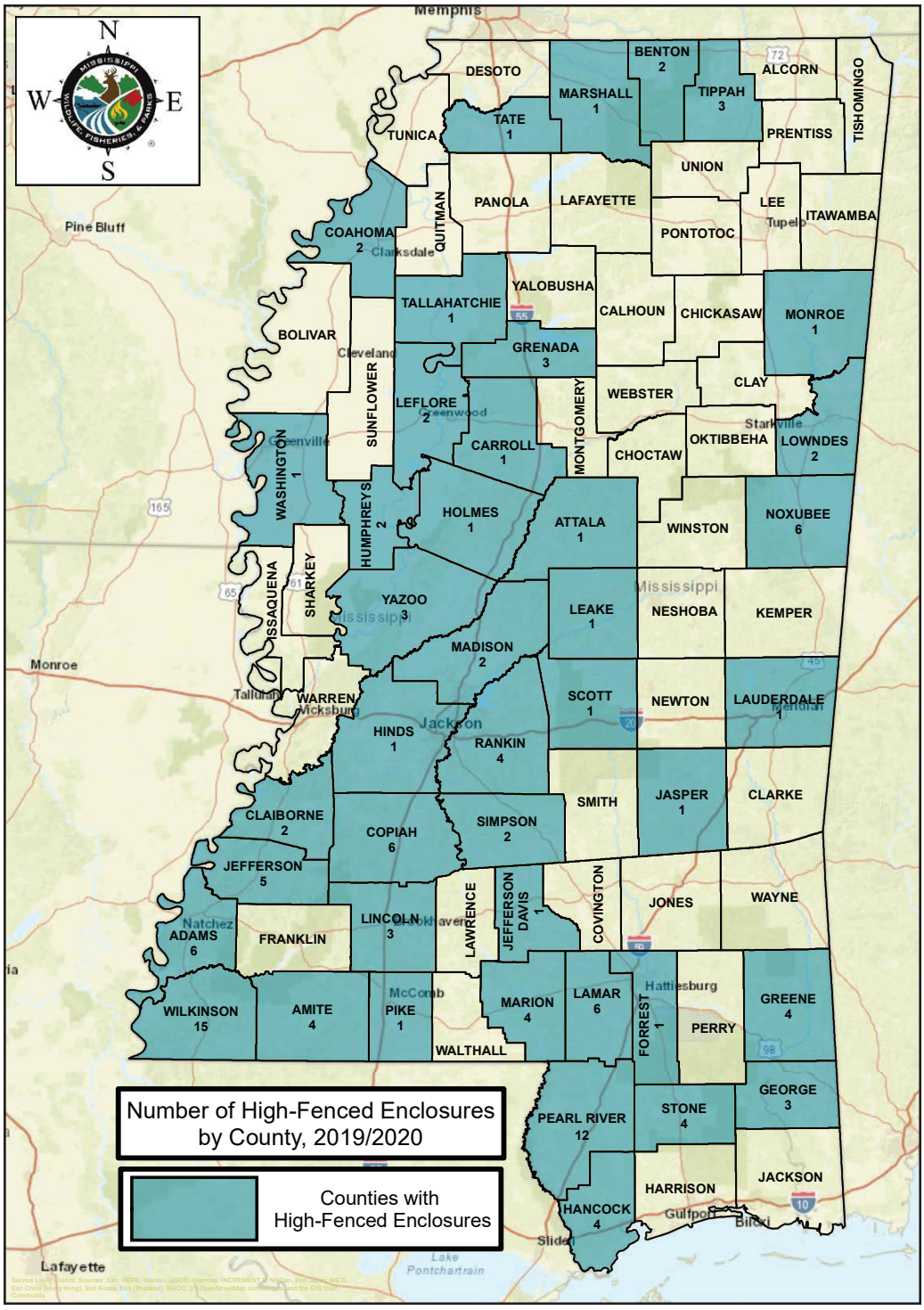
**Figure 11: Hemorrhagic Disease Reports**




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 lower than average for the third consecutive year, with evidence of HD reported in 26 deer across 14 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 2020–2021 hunting season.

## Figure 13: 2019–2020 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 MDWFP. The annual permit is valid from July 1 through June 30. For the 2019–2020 permit year, 117 were permitted totaling 90,371 acres. Four of these enclosures contained permitted breeding pens and 13 of these enclosures offered commercial hunting.

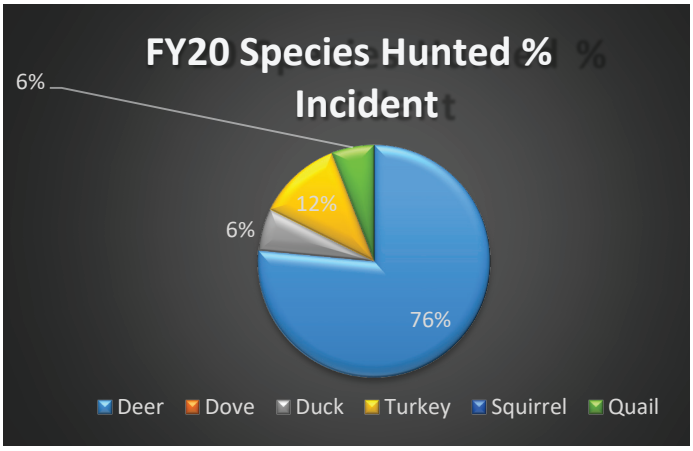
## HUNTING ACCIDENTS

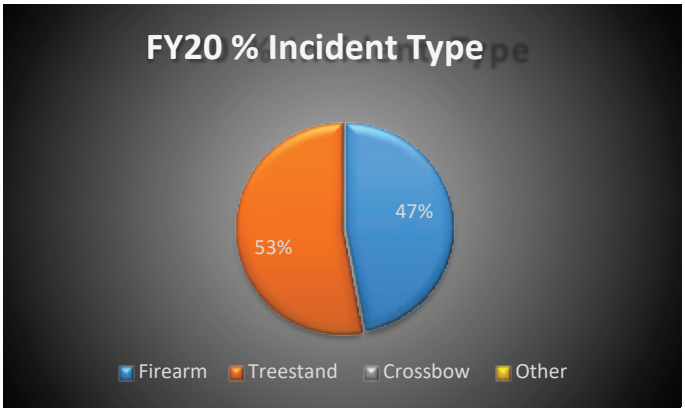
For the purposes of this report, a hunting accident includes an injury to a person(s) by the discharge of a hunting weapon or during the maneuvering of a treestand while engaged in the activity of hunting.

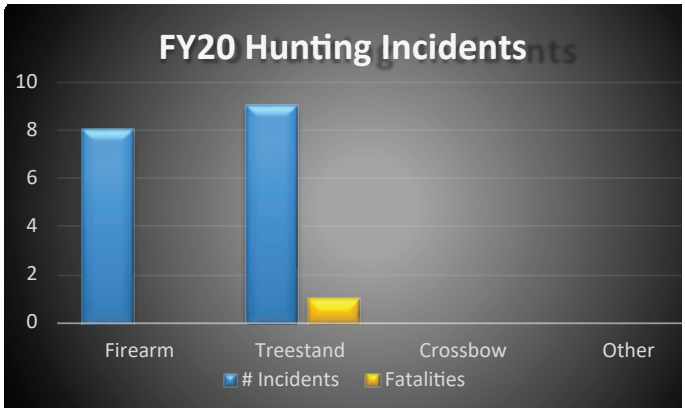
Hunting accidents in Mississippi average about 10 injuries per 100,000 participants. For comparison, football averages around 3,500 injuries per 100,000 participants. Based on relative rates of injury, hunting may be considered a very safe sport.

There were 17 total hunting related accidents investigated in Mississippi during the 2019–2020 hunting season. Eight of these were firearm-related and nine were treestand-related. One of the accidents was fatal.

**Figure 14: FY20 Species Hunted % Incident**




## HUNTER EDUCATION

Without question, the most important component of accident prevention is education. Volunteer instructors and Conservation Officers certified 9,788 sportsmen in Hunter Education during the 2019–2020 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 |
|---|---|
| **2014** | 12,148 |
| **2015** | 10,954 |
| **2016** | 9,858 |
| **2017** | 8,917 |
| **2018** | 8,708 |
| **2019** | 9,788 |

# Enforcement of Deer Hunting-Related Citations 2019–2020

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 2019. 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 | '19–'20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NO LICENSE - NON-RES | 108 | 78 | 96 | 116 | 83 | 102 | 91 | 80 | 68 | 104 | 139 | 95 |
| NO LICENSE - RESIDENT | 337 | 354 | 346 | 275 | 308 | 272 | 266 | 289 | 258 | 347 | 363 | 360 |
| BAITING | 214 | 235 | 205 | 188 | 154 | 131 | 86 | 14 | 26 | 33 | 11 | 18 |
| SUPPLEMENTAL FEED | NA | 44 | 54 | 124 | 170 | 224 | 174 | 188 | 185 | 266 | 160 | 257 |
| DUMPING WILDLIFE PARTS | 6 | 5 | 7 | 4 | 8 | 12 | 3 | 16 | 13 | 23 | 22 | 10 |
| EXCEEDING BAG LIMIT | 12 | 10 | 11 | 6 | 14 | 11 | 11 | 8 | 6 | 7 | 6 | 9 |
| HEADLIGHTING DEER | 175 | 178 | 128 | 105 | 168 | 171 | 105 | 130 | 95 | 148 | 159 | 188 |
| WILDLIFE HARASSMENT (ILLEGAL SHINING) | 36 | 37 | 26 | 23 | 29 | 17 | 18 | 68 | 19 | 42 | 39 | 20 |
| GAME / FUR-BEARING ANIMALS IN CAPTIVITY | 1 | 0 | 3 | 2 | 4 | 7 | 3 | 2 | 1 | 13 | 2 | 0 |
| HUNTING AFTER HOURS | 49 | 53 | 37 | 33 | 37 | 26 | 25 | 35 | 13 | 33 | 42 | 11 |
| HUNTING CLOSED SEASON | 56 | 84 | 63 | 43 | 76 | 78 | 32 | 44 | 18 | 33 | 24 | 30 |
| HUNTING FROM PUBLIC ROAD/MOTORIZED VEHICLE | 47 | 31 | 18 | 34 | 34 | 35 | 17 | 25 | 186 | 301 | 287 | 333 |
| HOMOCHITTO DOG LAW | NA | NA | 1 | 8 | 4 | 8 | 11 | 2 | 5 | 9 | 3 | 9 |
| KILLING DOE OUT OF SEASON | 7 | 10 | 9 | 10 | 3 | 7 | 4 | 2 | 4 | 7 | 14 | 8 |
| NO ARCHERY/ PRIMITIVE WEAPON PERMIT | 24 | 23 | 9 | 15 | 10 | 6 | 15 | 24 | 20 | 25 | 25 | 27 |
| NO HUNTER ORANGE | 266 | 231 | 225 | 204 | 242 | 217 | 190 | 160 | 162 | 254 | 220 | 197 |
| WMA REGS | 167 | 134 | 130 | 112 | 110 | 108 | 125 | 146 | 32 | 171 | 148 | 95 |
| No WMA Permit | 34 | 29 | 44 | 44 | 26 | 39 | 32 | 49 | 132 | 29 | 42 | 31 |
| TRESPASSING | 176 | 180 | 149 | 100 | 119 | 119 | 104 | 120 | 80 | 108 | 137 | 133 |
| UNDERSIZED ANTLERS | 41 | 30 | 28 | 29 | 34 | 26 | 47 | 57 | 21 | 69 | 37 | 14 |
| UNLAWFUL POSSESSION | 115 | 127 | 97 | 93 | 113 | 155 | 91 | 89 | 101 | 126 | 141 | 112 |
| UNLAWFUL WEAPON/ SHOT SIZE | 143 | 140 | 100 | 94 | 129 | 81 | 42 | 58 | 33 | 71 | 55 | 98 |
| PROHIBITION OF IMPORTATION OF CERVID CARCASS | NA | NA | NA | NA | NA | NA | NA | NA | 2 | 3 | 2 | 3 |
| **Totals** | **2,014** | **2,013** | **1,786** | **1,662** | **1,875** | **1,852** | **1,492** | **1,606** | **1,480** | **2,222** | **2,078** | **2,058** |

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

## EFFECTS OF FIRE TIMING AND STUMP SPROUTING ON SUMMER NUTRITIONAL CARRYING CAPACITY FOR DEER (2017-2020) FINAL SUMMARY

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

**ALTER FIRE TIMING TO OPTIMIZE DEER HABITAT QUALITY AND USE**

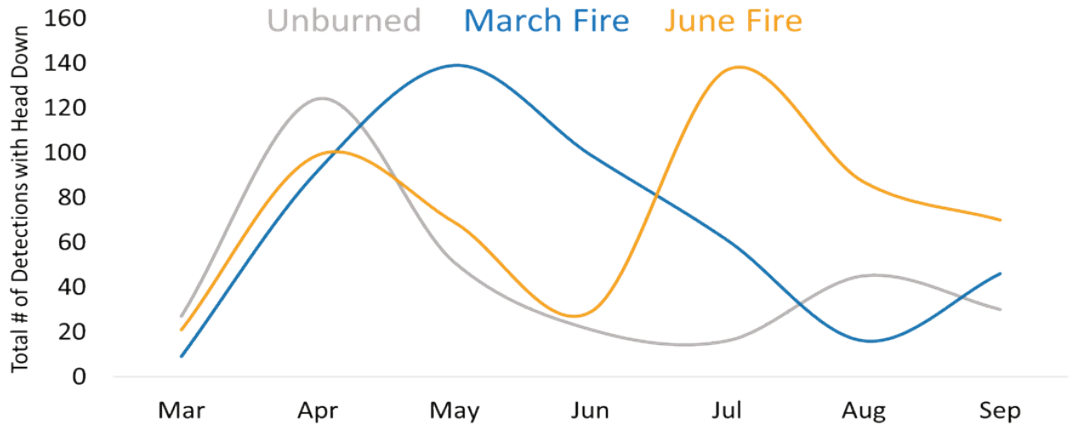
- Growing season fire (June) increased forage protein during the same season.
- Dormant season fire (March) increased protein-based CC during the same season.
- Both fire season treatments increased CC 1-year post fire.
- Deer fed more in areas with greater protein content across the growing season.
- Diversifying fire timing optimizes nutrient availability during summer nutritional stress period for deer on a landscape level.

**STUMP SPROUTS: LOCALIZED HIGH-QUALITY FORAGING FOR DEER IN CLOSED CANOPY FORESTS**

- Mechanical stump sprouting increased protein content of high (Blackgum), medium (Maple), and low (Sweetgum) preference forage.
- Mechanical stump sprouting increased deer use of high (Blackgum), medium (Maple), and even low (Sweetgum) preference forages.

**EMPOWER HUNTERS AND LANDOWNERS TO CREATE LOCALIZED NUTRITIONAL PULSES**

- Vary timing of fire to optimize deer habitat quality and quantity across the landscape, while attracting deer to their property with seasonal nutrient pulses.
- Create stump sprouts to move forage from mid-story to ground level.
- Stump sprouts to attract deer to localized nutrient pulses in closed canopy forests.
- Mechanical- and fire-caused stump sprouting increases quality and use of woody species normally un-used by deer.



# Deer Research Projects

## BUCK MOVEMENT RESPONSE TO VARIATION IN HUMAN ACTIVITY (2016-2020)

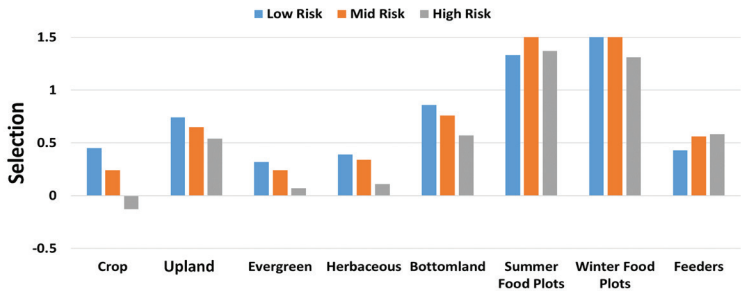
*Steve Demarais, Garrett Street, Bronson Strickland, William McKinley, and Colby Henderson*

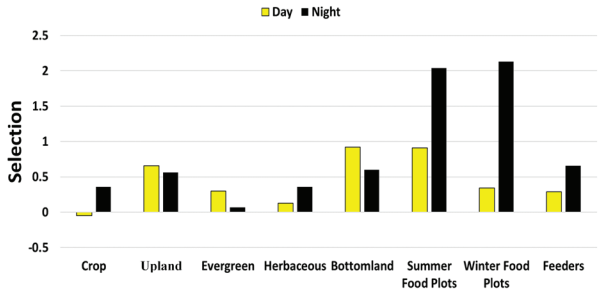
**BUCKS RESPOND TO HUNTER DENSITY ON THE LANDSCAPE**

- Deer selection of natural land covers decreased with increasing hunter risk.
- Food plot results were surprising at first look, being selected more than double any other land cover, including feeders.
- Hunters' selection of natural habitats perfectly mismatched selection by bucks. Deer identified where hunters were located and altered their selection appropriately.
- Day vs Night analysis further clarified deer selection of land covers.
- Deer selected winter food plots 5-times more at night than daytime.
- Daytime use of natural areas included areas with greater cover to avoid hunter risk.
- Deer selected sites with greater oak tree density when acorns were dropping prior to peak rut.

**DEPREDATION PERMITS ACTIVITIES ALTER BUCK USE OF AG FIELDS**

- Deer stayed farther away from fields that had a depredation permit than those without one. This effect even carried over into the non-depredation season.



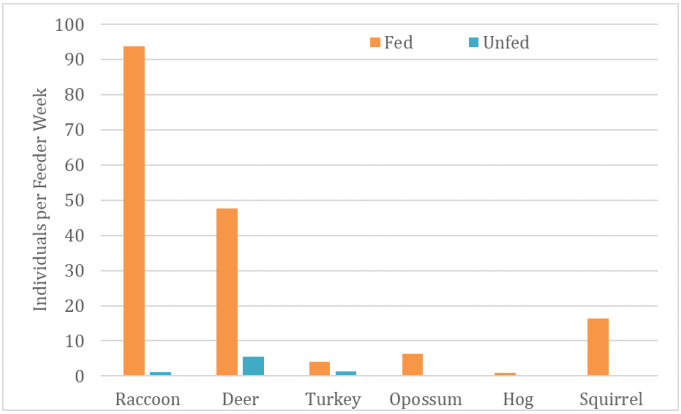




## SUPPLEMENTAL FEEDING EFFECTS ON BUCK MOVEMENT, ZOONOTIC DISEASES, AND HABITAT (2018-2021)

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

**DISEASE AND HABITAT EFFECTS AT FED AND ECOLOGICALLY-EQUIVALENT UNFED SITES**

- Sampling is expanding during Summer 2020 to 30-40 additional pairs in the retrospective study and continuing at the 25 pairs in the manipulative study.
- Feeding significantly increases potential for disease transfer among wildlife due to the artificially greater concentration of species and individuals within species. Turkeys, wild hogs, raccoons, squirrels, and deer visit feeders much more frequently than unfed sites.
- Tick Diseases: Ehrlichia, a group of bacteria which affect humans and wildlife occurred in 3% of ticks. Another bacteria, Rickettsia ambylommatis, was found in 50% of ticks, but is not known to cause human disease. However, this significant difference in prevalence demonstrates how feeding can increase risk of important zoonotic diseases.
- Protozoan Diseases in Feces: Giardia, the protozoan cause of human intestinal distress, was found in two fecal samples.
- Feeding increases concentration of deer near the feeders, with significant impact on habitat quality. Repeated measurements of plants at the manipulative sites shows that after one year of feeding, blackberry is decreasing in height at fed sites while increasing at unfed controls.
- Feeders also concentrate birds, which could increase dispersal of non-native, noxious plant species, exemplified by the greater number of seeds recovered of native blackberry.



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YOU CAN BE ACTIVELY ENGAGED IN WHITE-TAILED DEER MANAGEMENT.

GAME CHECK

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Photo by Deb Atwood Logan

MISSISSIPPI WILDLIFE, FISHERIES, & PARKS

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**THERE ARE 2 WAYS TO REPORT:**

1. **MDWFP app on your mobile device**
2. **Online at mdwfp.com/gamecheck**

To learn more about Game Check, visit mdwfp.com or call (601) 432-2400


Rick Small

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