

# Maryland Annual Deer Report



**2018-2019**

**Maryland Department of Natural Resources  
Wildlife and Heritage Service**



Larry Hogan, Governor



Jeannie Haddaway-Riccio, Secretary

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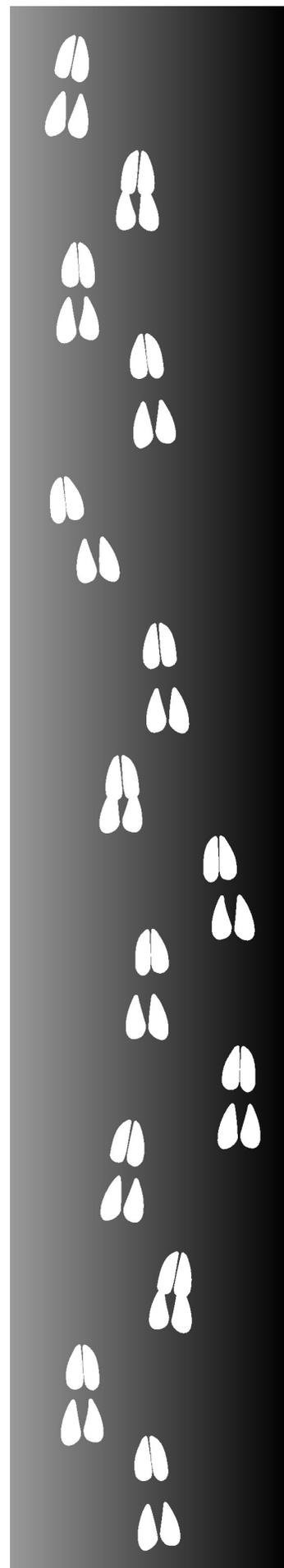
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## Introduction

Deer hunters harvested 77,382 deer during the 2018-2019 season. The harvest represented an 11 percent decline from the previous season. Numerous factors contribute to fluctuations in the annual deer harvest. Warmer and wetter weather has become more common during the deer season, which influences the harvest to some degree. Food availability, including naturally occurring mast also alters the harvest. Lastly, a major factor in deer harvest is hunter effort. Hunter effort can fluctuate from year to year.

Although hunter effort changes to a small degree from year to year, overall, it is down considerably in Maryland over the long term. In recent years, survey data indicate that hunters have spent about 900,000 total “days” a year deer hunting in Maryland. This is significantly less than the peak in 1994 of 1,736,000 days. Hunter surveys and other feedback suggest this is partially due to less available time for the typical hunter to get afield and pursue the opportunity to take a deer. As a result, it is a primary focus of the department now to find ways to increase these opportunities so that hunters can enjoy more time afield.

However, while effort is down, success is up (owing to Maryland’s very healthy deer population). In 1994, deer hunters were taking, on average, one deer for every 20 days of effort. Today, deer hunters take one deer for every 12 - 13 days of effort. Providing additional hunting opportunities during peak times has the potential to continue this trend.

Finally, the Department of Natural Resources is committed to wisely managing Maryland’s deer population to ensure it is neither over-exploited nor under-managed. Hunting seasons and bag limits will be adjusted as needed to ensure the population remains healthy. The Department of Natural Resources appreciates all deer hunters in Maryland for their continued interest in the effective management of the deer population for the benefit of all residents.

## 2018-2019 Season Recap

The 2018-2019 deer harvest decreased from 86,542 in 2017-2018 to 77,382 this season. The harvest was approximately 12 percent below the previous five-year average of 87,700 deer. The overall harvest included 73,948 white-tailed deer (29,699 antlered and 44,249 antlerless) and 3,434 sika deer (1,609 antlered and 1,825 antlerless). The 2018-2019 sika deer harvest is the largest annual harvest on record for that species in Maryland.

## Chronic Wasting Disease

The Department of Natural Resources sampled 561 deer for Chronic Wasting Disease (CWD) during 2018 and the disease was detected in 25 deer. Twenty-two of the infected deer were harvested within the current Chronic Wasting Disease Management Area (CWDMA) while three deer came from Washington County Harvest Management Unit (HMU) 251 adjacent to the current CWDMA. A total of 52 deer with chronic wasting disease have now been detected in Maryland within Allegany and Washington counties (see listing below). The first positive was a yearling buck taken by a hunter in November 2010 in Green Ridge State Forest near an area where chronic wasting disease is present in West Virginia. To date, the department has tested more than 10,000 Maryland deer for the disease.

### Number of deer detected with Chronic Wasting Disease, 2010-2018

Allegany County Harvest Management Unit	Number of Deer Infected	Washington County Harvest Management Unit	Number of Deer Infected
230	0	250	7
231	7	251	3
232	2	252	0
233	33		
234	0		

Chronic wasting disease is a disease of the brain and nervous system that causes death in cervids (“deer”). Chronic wasting disease is classified as a transmissible spongiform encephalopathy and attacks the brain of cervids, producing small lesions that eventually result in death. Chronic wasting disease, historically, was western U.S. disease, but since 2001 it has been detected in numerous states east of the Mississippi River, including the mid-Atlantic states of Maryland, New York, Ohio, Pennsylvania, Virginia and West Virginia. More than 20 states and three Canadian provinces in North America have documented chronic wasting disease in their deer, elk or moose populations (free-ranging, captive or both). The disease has also been detected in Finland (free-ranging moose), Norway (free ranging-reindeer), South Korea (captive elk from Canada) and Sweden (free-ranging moose).

Concerns over chronic wasting disease should not stop hunters from enjoying the hunting season or any venison they may acquire. Chronic wasting disease has not been shown to be transmissible to humans. However, it is recommended that hunters field-dressing or butchering deer take the same precautions as they might to protect against other pathogens or diseases. Additional information on the proper handling of harvested deer and chronic wasting disease management can be found on the following pages.

## The Proper Handling of Harvested Deer and CWD Management

The following common-sense precautionary measures are recommended for the safe handling, field-dressing, and home processing of venison:

- Avoid shooting or handling a deer that appears sick.
- Wear latex or rubber gloves when field-dressing or butchering deer.
- Remove all internal organs.
- Remove the meat from the bones and spinal column if home processing a deer.
- Do not use household knives or utensils when field-dressing or home processing a deer.
- Avoid cutting through bones or the spinal column (backbone).
- Never eat a deer's brain, eyeballs, spinal cord, spleen or lymph nodes.
- If you saw off antlers or through a bone, or if you sever the spinal column with a knife, be sure to disinfect these tools prior to using them for the butchering or removal of meat.
- Remove all fat, membranes, and connective tissue from the meat. Note that normal field-dressing and trimming of fat from meat will remove lymph nodes.
- Always wash hands and instruments thoroughly after dressing and processing game meat.
- Use a 50/50 solution of household chlorine bleach and water to disinfect tools and work surfaces. Wipe down counters and let them dry; soak knives for one hour.

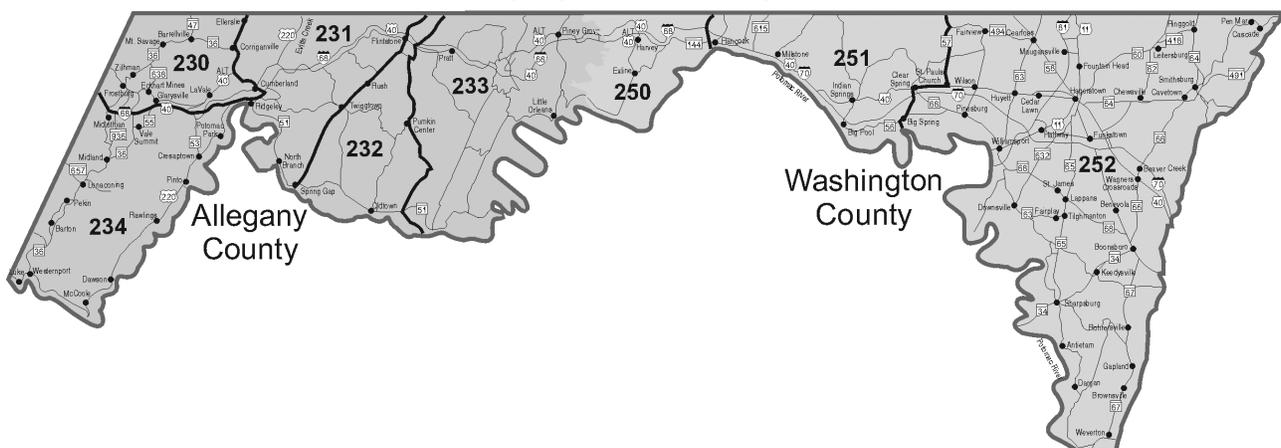
### CWD Management

Due to the detection of chronic wasting disease in Allegany and Washington counties, the Department of Natural Resources has implemented a number of measures that are intended to prevent the unintentional spread of chronic wasting disease to other locations in Maryland or to other states. The changes outlined below apply only to the Chronic Wasting Disease Management Area, which is currently defined as all of Allegany and Washington counties.

**Whole deer carcasses or deer parts cannot be transported out of the Chronic Wasting Disease Management Area, except for:**

- Meat with no part of the spinal column, backbone, or head attached.
- Hind quarters and front shoulders with no spinal column or backbone attached.
- Cleaned hide with no head attached.
- Skull plate cleaned of all meat and brain tissue.
- Antlers with no meat or soft tissue attached.
- Finished taxidermy mounts or tanned hides.
- Upper canine teeth, also known as buglers, whistlers, or ivories.
- Whole deer carcasses or parts being transported directly to approved meat processors, taxidermists, or lined landfills within Allegany or Washington counties.

### The Chronic Wasting Disease Management Area Includes Allegany And Washington Counties.



Please check the Department of Natural Resources website, at [dnr.maryland.gov/](http://dnr.maryland.gov/), for updates on chronic wasting disease surveillance and management. Hunter assistance and cooperation is essential to the department's efforts to monitor and manage chronic wasting disease.

## **Carcass Importation Ban**

The primary objective in the management of chronic wasting disease is to prevent its spread into new areas. One possible mode of disease transmission is by the movement and disposal of infected carcasses. In an effort to minimize the risk for disease spread, Maryland, along with many other states, has adopted regulations that restrict the importation of whole carcasses and certain carcass parts of deer, moose, and elk harvested from states that have chronic wasting disease.

A person may not import the whole carcass of a dead deer, elk, or moose into Maryland from another state or province's designated chronic wasting disease containment, surveillance, or management area, unless the final destination of the carcass is within the Maryland Chronic Wasting Disease Management Area or with a chronic wasting disease-approved Maryland processor or taxidermist. Travelers may pass through any part of Maryland with whole carcasses from other state/province chronic wasting disease areas if the carcasses will not remain in the state for more than 24 hours and no parts are disposed of or remain in the state.

**A person may import only the following parts of a carcass into Maryland if the final destination is within the state, but outside the Chronic Wasting Disease Management Area, and not with an approved processor or taxidermist:**

- Meat with no part of the spinal column or head attached.
- Hindquarters and front shoulders with no spinal column or backbone attached.
- Cleaned hide with no head attached.
- Skull plate cleaned of all meat and brain tissue.
- Antlers with no meat or soft tissue attached.
- Upper canine teeth, also known as buglers, whistlers, or ivories.
- Finished taxidermy mount or tanned hides.

Please consult the Chronic Wasting Disease Alliance website at [cwd-info.org](http://cwd-info.org) for a complete list of state and province chronic wasting disease containment, surveillance, and management areas.

Any person who imports or possesses a cervid carcass or part of a cervid that was tested for chronic wasting disease in another state or province, and is notified that the cervid tested positive, must report the test results to the Department of Natural Resources within 24 hours of receiving such notification - by telephone at 301-842-0332; or by fax at 301-842-1026; or by email to [brian.eyler@maryland.gov](mailto:brian.eyler@maryland.gov).

If you hunt deer, elk, moose, or other cervids in other states and/or provinces, particularly those in which chronic wasting disease has been detected, check with the respective fish and wildlife agencies regarding special regulations or specific advice for hunters. Also check with your home state fish and wildlife agency to ensure that animals lawfully killed elsewhere may be imported and possessed in your state. Additional information can be found at the Chronic Wasting Disease Alliance website at [cwd-info.org/](http://cwd-info.org/) and the Department of Natural Resources website at [dnr.maryland.gov/](http://dnr.maryland.gov/).

## **Taking Deer Carcasses out of Maryland**

Because Maryland is considered a chronic wasting disease-positive state, deer hunters must follow carcass importation regulations in other states when they transport a deer carcass out of Maryland. The surrounding states of Delaware, Pennsylvania, Virginia, and West Virginia each have specific regulations as to whether they will allow whole deer carcasses or only parts of carcasses to enter from Maryland. Likewise, the regulations for each of these states vary as to whether they apply to deer from anywhere in Maryland or just to deer taken within the Chronic Wasting Disease Management Area. Hunters are strongly encouraged to check state regulations before transporting deer carcasses..

## CWD Research in Maryland

The department continues to cooperate with Penn State University on a deer genetics and chronic wasting disease project. A doctoral candidate is collecting genetic samples from hunter-harvested deer to study dispersal patterns in the four-state area (Maryland, Pennsylvania, Virginia and West Virginia). Gaining insight into the dispersal characteristics of deer in areas with chronic wasting disease will provide managers a better understanding of how to manage for the disease as it relates to deer populations.

## The Deer Project

The Department of Natural Resources Deer Project is responsible for managing native white-tailed deer and non-native sika deer. The Deer Project utilizes broad-based deer management techniques under guidance from the current ten-year deer management plan. The 2009-2018 plan has five major goals:

- **Population Goal:** Use diverse and progressive methods to ensure the long-term viability of Maryland's white-tailed deer population through comprehensive research, efficient monitoring, public outreach, trained staff, and effective management.
- **Education Goal:** Educate Maryland citizens on all aspects of deer biology, including management tools, disease issues, economic aspects, and recreational opportunities.
- **Recreation Goal:** Provide the opportunity for all citizens to safely, fairly, and ethically enjoy diverse deer-related recreational experiences and traditions consistent with established deer population trend goals.
- **Damage Goal:** Identify and actively address the negative impacts the deer population has on human interests and the ecosystem in a manner consistent with the long term viability of the deer population in Maryland.
- **Operational Resources Goal:** Ensure that all necessary resources are available to support the proper management of white-tailed deer in Maryland.

The 2009-2018 deer plan is available for download from the department's website.

The department is currently revising the deer plan, which will be finalized in 2019. During 2018, a public opinion survey was conducted regarding deer and deer management and the department solicited comments from the public regarding deer via public meetings, an internet forum and telephone and email communications. Stakeholders were also convened to solicit the opinion of various groups in the state that have an interest in deer. This information will be used to revise the current deer plan.

During the last several decades, the primary focus of the Deer Project has been to slow and reduce a rapidly growing deer population. While hunting remains the most cost-effective and efficient population control mechanism available in most Maryland landscapes, continued urbanization has necessitated the development and use of additional techniques where hunting is not practical or acceptable. Therefore, the Deer Project employs a blend of hunting-related deer management methods and proven lethal and non-lethal deer management techniques to manage deer.

To remain up-to-date on current deer management techniques and methods, Maryland Deer Project staff are members of the

Northeast Deer Technical Committee and Southeast Deer Study Group. Staff routinely meet and share information with deer biologists and managers from other eastern states and Canadian provinces as it relates to current deer management and biology.

## Maryland Public Attitudes Regarding Deer Management

The majority of the Maryland public recognizes the value of deer hunting as an effective management tool. A 2018 survey by Responsive Management found that 41 percent of the Maryland general public were strongly in favor of deer hunting, 26 percent were somewhat in favor, 16 percent were neutral or had no opinion, 7 percent were somewhat opposed to deer hunting and 10 percent were strongly opposed. Similarly, 77 percent of the general public agreed or strongly agreed that deer should be hunted to maintain a healthy population. The survey found that population control and hunting for food (venison) were cited as the most important reasons for deer hunting.

## Deer Hunting Economics

Along with the positive recreational benefits and population management that deer hunting provides, hunting also provides significant economic benefits to Maryland. A recent survey found that 88,000 people hunt in Maryland each year (the majority hunting for deer) and they spend \$178 million annually on trip-related expenditures and equipment. The resulting ripple effect translates to \$401 million generated annually for the Maryland economy (huntingworksforamerica.com). Hunting in Maryland supports more than 4,500 jobs and generates \$128 million in salaries, wages, and business income, along with \$32 million in state and local tax revenue.

## White-tailed Deer History

Prior to the arrival of European immigrants, white-tailed deer inhabited all of Maryland and eastern North America. Native Americans hunted deer during all seasons. In Maryland, wolves and mountain lions preyed on all age classes and sexes of white-tailed deer.

The first European settlers in Maryland found ample white-tailed deer populations. Deer meat and hides provided food and clothing and venison recipes from those early settlers have been passed down through generations.

As the colony prospered and human populations multiplied, unregulated market hunting and the destruction of habitat (deforestation) caused deer populations to decline drastically throughout the 1700s. Market hunters sold deer meat to colonists and shipped deer hides to supply England's booming leather industry. With settlements expanding across the state during the 1800s, deer populations continued to drop and mountain lions and wolves were exterminated. By 1900, white-tailed deer inhabited only limited sections of far western Maryland.

Since the birth of modern wildlife management in the early 1900s, Maryland's deer population has expanded dramatically into all available habitats. State wildlife biologists, working hand-in-hand with private citizens, re-established white-tailed deer in all counties in the state. Some native deer were trapped in western Maryland and released into unoccupied habitat elsewhere. A few deer were obtained from other states and released across Maryland. The majority of deer relocated after World War II came from a large population inhabiting Aberdeen Proving Grounds in Harford County. Deer

relocation efforts ended in the early 1960s when most areas of the state supported self-sustaining herds.

Early hunting seasons of the 1930s and 1940s prohibited the taking of antlerless deer to allow for the continued growth and expansion of relocated deer herds. As deer numbers climbed and deer habitat became populated, deer seasons and bag limits became more liberal. Across Maryland today, the current deer seasons and bag limits encourage the harvest of antlerless deer in order to manage deer populations. At the same time, these regulations encourage hunters to be more selective when harvesting an antlered buck.

Since white-tailed deer thrive in habitat that is composed of woods and openings, the expansion of housing developments into forests or onto farms provides excellent deer habitat. Community open spaces and home sites created in wooded areas produce habitat preferred by white-tailed deer. Open farm fields become better deer habitat as new homeowners plant trees and shrubs on their property. Deer populations have escalated in these suburban landscapes where exceptional habitat is available and hunting becomes limited. Effectively addressing these suburban deer herds remains a significant challenge for Maryland deer managers.

## Sika Deer History

Maryland sika deer are originally from Yakushima Island in southern Japan and can be found in marshes, swamps, wet woodlands and agricultural fields on portions of the lower Eastern Shore. Populations exist mainly in Dorchester County and on Assateague Island in Worcester County. However, harvest data and reported sightings indicate that sika deer are slowly expanding into similar, but more limited, marshy habitat in portions of Wicomico, Caroline, and Somerset counties.

Sika deer became established on the lower Eastern Shore after being released by Clement Henry on James Island (Dorchester County) and by Dr. Charles Law on Assateague Island (Worcester County) during the early 1900s. Exactly how they initially made their way from Japan to the Eastern Shore is unknown, but genetic research indicates there may have been several generations in the United Kingdom. The small number of sika deer in the original stock (approximately six individuals) has resulted in relatively low genetic variability within the population today. However, Maryland sika deer display no ill effects from the small founder population

and appear as healthy, or healthier, than native white-tailed deer. Currently, the Department of Natural Resources' sika deer management goal is to maintain this non-native species at population levels observed during the late 1990s and early 2000s so that hunting opportunities are balanced with agricultural depredation and white-tailed deer competition issues across the lower Eastern Shore.

Sika deer hunting is very popular in Dorchester County and on Assateague Island. Non-residents and hunters from other areas of Maryland now

travel to the lower Eastern Shore with hopes of taking a trophy sika stag with six points or more. Professional guide services are available that cater exclusively to sika deer hunters. Recent survey figures indicate that 3,000 - 5,000 hunters annually pursue sika deer for more than 30,000 hunter days per year.

Past biological data collected by the Department of Natural Resources indicate that the average field-dressed weight of a 1.5 year-old male sika deer is 53 pounds, while 3.5+ year-old males top 80 pounds. Sika stags that were 3.5+ years of age averaged 5.5 antler points, while 2.5 year-old deer had 4.1 points. Field-dressed yearling (1.5 years old) females averaged 45 pounds with 3.5+ year-old females weighing about 60 pounds.

Sika deer tend to use different habitats than native white-tailed deer that share the same area. Although home range sizes are similar between the two species, sika deer use forested wetlands, marshes and the interface between these two habitats much more than white-tailed deer. Sika deer do not appear to rely on agricultural lands to the extent that white-tailed deer do. It is unknown whether sika deer prefer the forested wetlands and marshes of Dorchester County or if competing white-tailed deer relegate them there.

Previous research directed by the Department of Natural Resources confirmed that sika deer have a lower annual reproductive output than white-tailed deer. Sika females tend to bear a single calf while white-tailed females over 1.5 years old frequently bear two fawns. However, sika deer tend to live longer than white-tailed deer and probably produce as many, or more, calves in their lifetime as do female white-tailed deer. Tagged individuals from previous research studies have been harvested or observed 10+ years after they were initially captured. Numerous sika deer aged by the Department of Natural Resources have teeth worn below the gum line, indicating significant age. Several female sika deer have been confirmed to be more than 20 years old, either by using the cementum annuli aging technique or by looking at when they were originally tagged. The longer life span of sika deer may result from their use of habitat that is more difficult to hunt; thus, not as many are harvested each year as compared to white-tailed deer.

The department will continue to monitor sika deer closely and promote research to learn more about this unique species on the Eastern Shore. Recently, a study completed by the University of Delaware examined sika genetics and the possible consequences of competition between sika deer and native white-tailed deer. Results of that study are available from the University of Delaware website.

## Results of Legislative and Regulatory Changes For the 2018-2019 Deer Season

Two legislative changes and multiple regulatory changes went into effect for the 2018-2019 deer season. Legislatively, in Montgomery County, archery hunters were no longer required to specifically use a tree stand when hunting within 50 – 100 yards of any building or camp occupied by humans, but instead could use any elevated position. This change most likely further improved access for deer hunting in urban and suburban areas. Legislation also enabled hunters to use daylight fluorescent pink as a substitute for daylight fluorescent orange when required to wear protective visible clothing. It is unknown what impact this change had concerning the deer harvest, but most likely it was minimal.



### Regulations that changed for 2018-2019 included the following:

- The statewide combined total antlered white-tailed bag limit for archery, muzzleloader and firearms seasons was reduced to two deer. Hunters in Region B were eligible to take a third antlered deer with the purchase of a Bonus Antlered Deer Stamp.
- Hunters could only harvest one antlered white-tailed deer per day within the prescribed bag limit.
- Hunters were permitted to harvest one antlered white-tailed deer within the prescribed bag limit that did not meet the requirement of having at least three points on one antler. Junior hunters and apprentice license holders 16 years of age or younger were exempt from this requirement.
- Hunters in Region B were no longer required to harvest two antlerless white-tailed deer before using the Bonus Antlered Deer Stamp.
- Hunters in Region A were permitted to harvest either an antlerless or an antlered white-tailed deer during the early muzzleloader season on public land.
- The Region B archery season antlerless white-tailed bag limit was changed from unlimited to 15.
- Additional Sunday hunting opportunities for archery hunters were added in Allegany, Carroll, Frederick, Kent, Montgomery, Garrett and Washington counties under existing legislation.

Due to normal annual fluctuations in the deer harvest due to weather, hunter effort, and food availability, several years of trend data are typically needed to determine what effects season and bag limits changes have on the overall deer harvest and deer population. The department will continue to monitor the trends in antlered and antlerless harvest in the coming seasons to see what impacts the above regulatory changes have on the harvest. Modifications to these changes will be implemented as needed.

## Regulatory and Legislative Changes For the Coming 2019-2020 Season

Deer hunting related legislation that passed during the 2019 session added additional Sunday hunting opportunities and reduced the archery hunting safety zone in select counties. Deer hunters in Dorchester, Cecil, St. Mary's and Wicomico counties will have additional Sunday hunting opportunities beginning with the 2019-2020 season. Archers hunting in Cecil County will be required to remain 50 yards from occupied dwellings unless they have permission of the owner. Similarly, in Washington County the archery safety zone

was reduced to 50 yards if hunting from an elevated stand, or 100 yards if hunting from the ground.

The department has also modified the Chronic Wasting Disease Management Area in response to finding the disease in Harvest Management Unit 251 in Washington County. The new disease management area will encompass all of Allegany and Washington counties. Further details about the 2019-2020 changes will be available in the Maryland Guide to Hunting & Trapping 2019-2020.

## 2018-2019 Deer Harvest

Maryland deer hunters harvested 77,382 deer in 2018-2019, an 11 percent decrease from the 86,542 deer reported in 2017-2018 (Table 1, Figure 1). The harvest was comprised of 29,699 antlered white-tailed deer, 44,249 antlerless white-tailed deer, 1,609 antlered sika deer, and 1,825 antlerless sika deer. The antlerless harvest included 40,351 does or antlerless bucks and 5,723 button bucks (Table 3, Figure 3). The antlered harvest decreased 1 percent and the antlerless harvest decreased 16 percent compared to the 2017-2018 season.

In Deer Management Region A (Garrett, Allegany, and western Washington counties), hunters reported taking 9,705 deer this year; a 3 percent decrease from the 10,003 deer harvested in 2017-2018. The antlered harvest decreased 10 percent from 6,237 deer last year to 5,608 this year and the antlerless harvest increased 9 percent from 3,766 to 4,097 deer.

The reported harvest in Region B decreased 12 percent from 76,539 deer last year to 67,677 deer this year. The antlered harvest increased 1 percent from 25,433 deer to 25,700 deer, and the antlerless harvest decreased 18 percent from 51,106 deer last year to 41,977 deer.

Frederick County led the harvest totals again in 2018-2019 with 6,545 deer, followed by Carroll County with 5,421, and Garrett County at 4,973. Washington and Baltimore counties rounded out the top five with 4,620 and 4,604 deer respectively (Table 1).

Following the statewide trend, the deer harvest in Maryland's suburban counties (Anne Arundel, Baltimore, Howard, Montgomery, and Prince George's counties) decreased 17 percent for the 2018-2019 season. Hunters in these counties reported 15,060 deer compared to 18,136 deer reported the previous year. The Department of Natural Resources will continue with liberal antlerless harvest regulations in these counties in an effort to address the impacts that high deer populations have on Maryland's suburban landscape and residents.

Sunday deer hunting in Maryland continues to be an important aid to deer management. A total of 8,416 deer (11 percent of the total harvest) were taken on Sundays during the 2018-2019 season (Table 2). Sunday hunting is permitted in 20 of 23 counties with up to 20 Sundays open in some counties, predominantly on private lands.

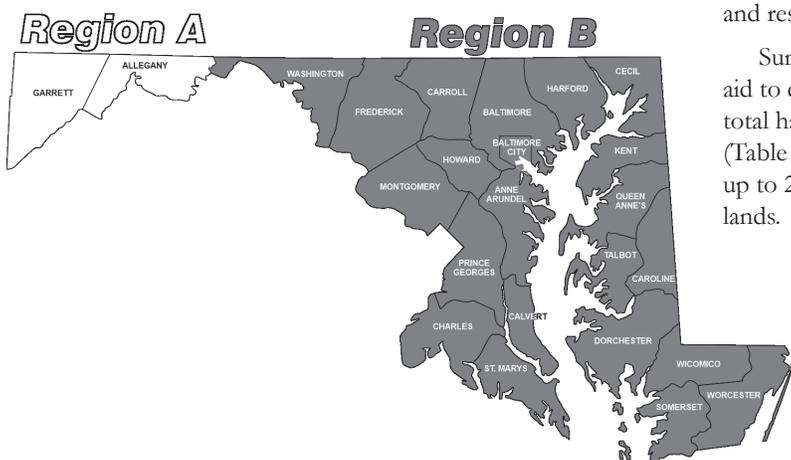


Table 1  
Maryland Reported Antlered and Antlerless Harvest for the Archery, Firearm, and Muzzleloader Hunting Seasons by County, 2018-2019

COUNTY	Archery			Firearms			Muzzleloader			Total		
	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	TOTAL
Allegany	449	354	803	1,220	679	1,899	348	411	759	2,017	1,444	3,461
Anne Arundel	477	704	1,181	312	548	860	131	310	441	920	1,562	2,482
Baltimore	862	1,417	2,279	525	980	1,505	254	566	820	1,641	2,963	4,604
Calvert	285	357	642	242	387	629	87	203	290	614	947	1,561
Caroline												
Whitetail	207	288	495	500	1,093	1,593	122	346	468	829	1,727	2,556
Sika	0	1	1	0	0	0	0	0	0	0	1	1
Carroll	705	929	1,634	1,213	1,766	2,979	279	529	808	2,197	3,224	5,421
Cecil	425	631	1,056	655	1,244	1,899	157	394	551	1,237	2,269	3,506
Charles	388	467	855	466	586	1,052	177	275	452	1,031	1,328	2,359
Dorchester												
Whitetail	170	177	347	458	753	1,211	106	231	337	734	1,161	1,895
Sika	371	459	830	642	822	1,464	453	431	884	1,466	1,712	3,178
Frederick	788	957	1,745	1,513	2,198	3,711	391	698	1,089	2,692	3,853	6,545
Garrett	710	515	1,225	1,656	1,088	2,744	461	543	1,004	2,827	2,146	4,973
Harford	510	857	1,367	439	867	1,306	196	441	637	1,145	2,165	3,310
Howard	369	610	979	251	430	681	121	246	367	741	1,286	2,027
Kent	347	383	730	563	1,079	1,642	234	487	721	1,144	1,949	3,093
Montgomery	682	1,055	1,737	505	1,012	1,517	191	440	631	1,378	2,507	3,885
Prince George's	347	498	845	300	461	761	152	304	456	799	1,263	2,062
Queen Anne's	349	470	819	582	1,123	1,705	202	467	669	1,133	2,060	3,193
St. Mary's	294	406	700	307	474	781	139	257	396	740	1,137	1,877
Somerset												
Whitetail	172	204	376	471	890	1,361	103	198	301	746	1,292	2,038
Sika	4	2	6	4	2	6	3	1	4	11	5	16
Talbot	242	313	555	402	898	1,300	140	324	464	784	1,535	2,319
Washington	588	696	1,284	1,266	1,263	2,529	312	495	807	2,166	2,454	4,620
Wicomico												
Whitetail	216	277	493	676	1,191	1,867	144	351	495	1,036	1,819	2,855
Sika	31	31	62	45	35	80	34	15	49	110	81	191
Worcester												
Whitetail	189	244	433	791	1,574	2,365	168	340	508	1,148	2,158	3,306
Sika	1	8	9	16	9	25	5	9	14	22	26	48
<b>Total</b>	<b>10,178</b>	<b>13,310</b>	<b>23,488</b>	<b>16,020</b>	<b>23,452</b>	<b>39,472</b>	<b>5,110</b>	<b>9,312</b>	<b>14,422</b>	<b>31,308</b>	<b>46,074</b>	<b>77,382</b>

Table 2  
Maryland Reported Sunday Hunting Deer Harvest by County, 2018-2019

COUNTY <sup>1</sup>	Archery			Firearms			Junior Hunt			Muzzleloader			Grand Total
	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	
Allegany	63	48	111	208	*	208	53	26	79	6	0	6	404
Anne Arundel	14	9	23	29	56	85	4	3	7	*	*	*	115
Calvert	31	26	57	45	86	131	9	5	14	*	*	*	202
Caroline	25	22	47	95	220	315	17	12	29	*	*	*	391
Carroll	123	105	228	212	319	531	40	31	71	7	24	31	861
Cecil	11	12	23	74	96	170	26	20	46	*	*	*	239
Charles	35	33	68	91	115	206	16	7	23	*	*	*	297
Dorchester													
Whitetail	19	16	35	61	76	137	16	8	24	*	*	*	196
Sika	16	17	33	63	93	156	5	10	15	*	*	*	204
Frederick	124	102	226	287	490	777	66	29	95	15	25	40	1,138
Garrett	81	71	152	240	*	240	102	36	138	9	0	9	539
Harford	54	65	119	66	143	209	9	13	22	*	*	*	350
Kent	64	54	118	85	162	247	19	14	33	2	26	28	426
Montgomery	73	89	162	58	83	141	17	8	25	3	11	14	342
Queen Anne's	51	54	105	107	244	351	10	7	17	*	*	*	473
St. Mary's	26	37	63	58	85	143	11	5	16	*	*	*	222
Somerset	20	18	38	78	143	221	27	22	49	*	*	*	308
Talbot	35	27	62	50	98	148	15	11	26	*	*	*	236
Washington	87	95	182	225	168	393	46	20	66	10	15	25	666
Wicomico													
Whitetail	25	24	49	86	113	199	31	14	45	*	*	*	293
Sika	2	0	2	3	2	5	0	1	1	*	*	*	8
Worcester	19	22	41	133	277	410	36	19	55	*	*	*	506
<b>Total</b>	<b>998</b>	<b>946</b>	<b>1,944</b>	<b>2,354</b>	<b>3,069</b>	<b>5,423</b>	<b>575</b>	<b>321</b>	<b>896</b>	<b>52</b>	<b>101</b>	<b>153</b>	<b>8,416</b>

\* Sunday hunting was not open during this season in this county.

<sup>1</sup> See the Sunday Hunting chart on page 10 for the Sundays that were open for deer hunting in each county in 2018-2019.



# SUNDAY DEER HUNTING 2018-2019 (FOR WHITE-TAILED AND SIKA DEER)

## Sunday hunting is allowed only on these dates and time during these seasons.

COUNTY	Archery Season												Firearms Season			Muzzleloader Season		Lands Open					
	Sept. 9	Sept. 16	Sept. 23	Sept. 30	Oct. 7	Oct. 14	Oct. 21	Oct. 28	Nov. 4	Nov. 11	Nov. 18	Dec. 30	Jan. 6	Jan. 13	Jan. 20	Jan. 27	Nov. 11 (Jr-Hunt)		Dec. 2	Jan. 6	Dec. 16	Dec. 23	
ALLEGANY	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private & Designated Public 1
ANNE ARUNDEL								Open	Open														Private Only
BALTIMORE																							None
CALVERT						Open	Open	Open	Open	Open								Open	Open	Open	Open	Open	Private Only
CAROLINE						Open	Open	Open	Open	Open								Open	Open	Open	Open	Open	Private Only
CARROLL					Open	Open	Open	Open	Open	Open	Open	Open						Open	Open	Open	Open	Open	Private Only
CECIL								Open	Open									Open	Open	Open	Open	Open	Private Only
CHARLES						Open	Open	Open	Open	Open								Open	Open	Open	Open	Open	Private Only
DORCHESTER						Open	Open	Open	Open	Open								Open	Open	Open	Open	Open	Private Only
FREDERICK						Open	Open	Open	Open	Open	Open	Open						Open	Open	Open	Open	Open	Private Only
GARRETT	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private & Designated Public 1
HARFORD						Open	Open	Open	Open	Open								Open	Open	Open	Open	Open	Private Only
HOWARD																							None
KENT	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only
MONTGOMERY	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Open2	Private Only
PRINCE GEORGE'S																							None
QUEEN ANNE'S						Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only
ST. MARY'S						Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only
SOMERSET						Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only
TALBOT						Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only
WASHINGTON REGION A	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private & Designated Public 1
WASHINGTON REGION B	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only
WICOMICO						Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only
WORCESTER						Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Private Only

<sup>1</sup>Designated public lands open to Sunday hunting in Allegany, Garrett and Washington counties are: Billmeyer-Belle Grove WMA, Cunningham Swamp WMA, Dan's Mountain WMA, Garretts State Forest (SF), Green Ridge SF, Indian Springs WMA, McCoolle FMA, Mount Nebo WMA, Potomac SF, Prather's Neck WMA, Savage River SF, Sideling Hill WMA, Warrior Mountain WMA.  
<sup>2</sup>Legal shooting hours for deer are one half hour before sunrise to 10:30am on this Sunday (applies only to Kent and Montgomery counties where footnoted).

Figure 1  
Maryland Reported Deer Harvest for the Archery, Firearm, and Muzzleloader Seasons, 2009-2010 through 2018-2019

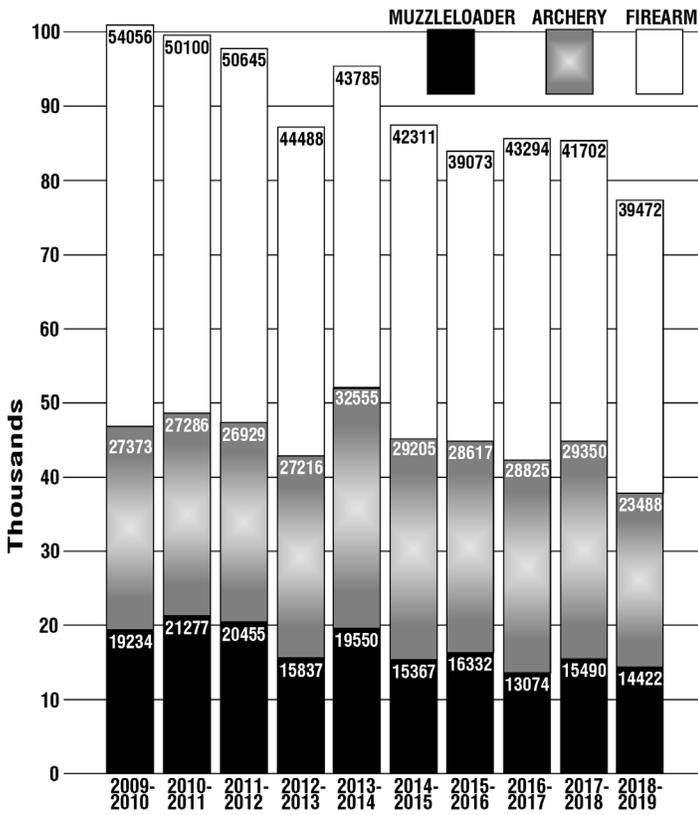


Figure 2  
Maryland Reported Antlered and Antlerless Deer Harvest, 2009-2010 through 2018-2019

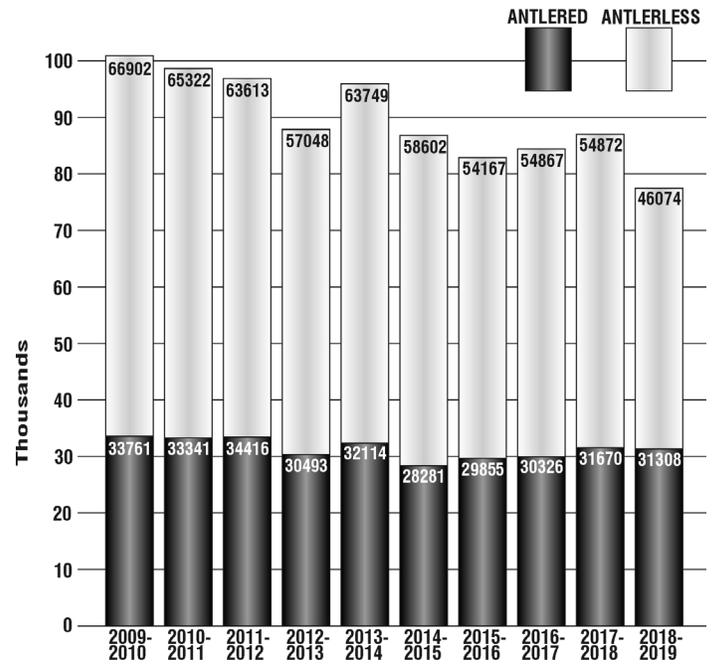


Figure 3  
Maryland Reported Button Buck and Doe Harvest, 2009-2010 through 2018-2019

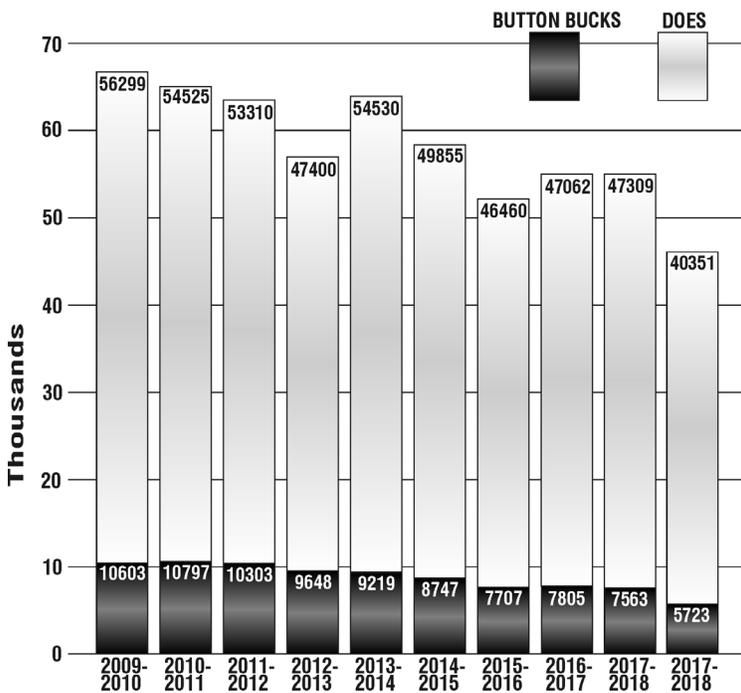
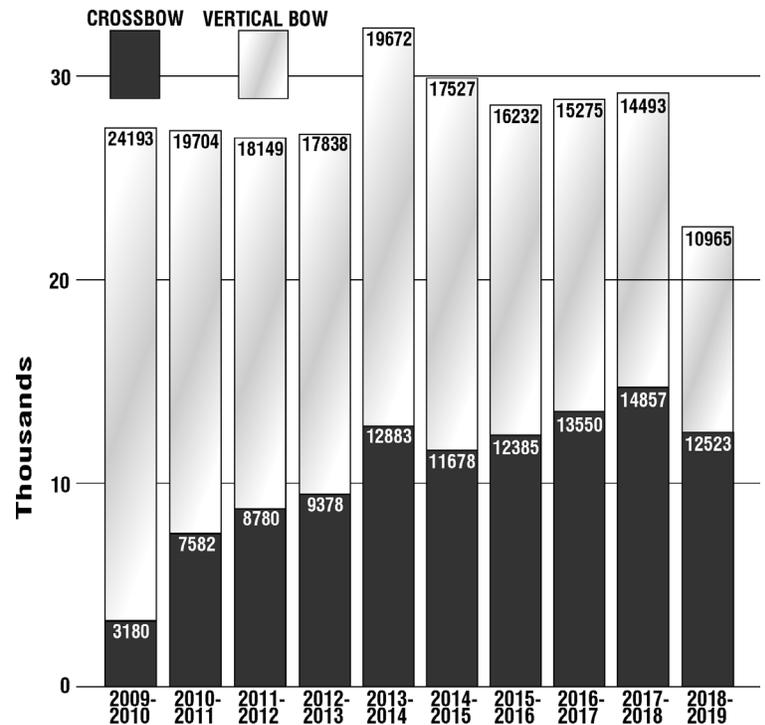


Figure 4  
Maryland Reported Crossbow and Vertical Bow Deer Harvest during the Designated Archery Season, 2009-2010 through 2018-2019



## Archery Season

Archery season in Maryland opens the Friday after Labor Day (September 7 in 2018-2019) and closes on January 31 (unless January 31 is a Sunday and is closed to hunting on Sunday). Resident and non-resident hunters purchased approximately 55,000 and 10,000 archery stamps respectively in 2018-2019. The average Maryland hunter who deer hunts with a vertical bow each year (20,000-25,000 individuals) normally does so for about 10-15 days each season; and 25-35 percent of these hunters take at least one deer each year with their bow. Approximately 15,000-20,000 hunters currently hunt deer with a crossbow in Maryland. The average crossbow hunter hunts with a crossbow for 10-11 days each year and 35-45 percent are successful in taking at least one deer per year with the weapon.

In 2018-2019:

- The reported archery harvest (vertical and crossbow) decreased 20 percent from 29,350 deer in 2017-2018 to 23,488 deer in 2018-2019 (Table 1).
- There were 10,178 antlered deer (43 percent of the total archery harvest) and 13,310 antlerless deer harvested with crossbows and vertical bows.
- The antlered archery harvest decreased 7 percent and the antlerless harvest (11,911 does or antlerless bucks and 1,399 button bucks) decreased 28 percent from the previous year.
- Crossbow hunters took 5,656 antlered deer and 6,867 antlerless deer during the archery season (Table 4).
- The crossbow harvest (12,523 deer) represented 53 percent of the total archery season harvest in 2018-2019 – slightly higher than the 50 percent that it was in 2017-2018 (Figure 4).
- Approximately 8,600 different hunters harvested a deer with a crossbow during archery season (compared to 9,200 in 2017-2018).
- 88 percent of the archery harvest was on private lands.
- Archery hunters took 1,944 deer (998 antlered, 946 antlerless) on Sundays open to archery hunting (Table 2).

## Firearm Season

The statewide firearm season begins the Saturday after Thanksgiving and runs for the following two weeks. In Region B, hunters have an additional two or three days of firearm hunting in early January depending on whether Sunday hunting is allowed or not. Deer taken during managed hunts outside the normal deer seasons are also counted as firearm kills. Approximately 45,000 - 55,000 hunters deer hunt with a firearm each year in Maryland. The average firearm hunter spends 5-6 days each year pursuing deer and approximately 40-45 percent of firearm hunters bag at least one deer each year.

Table 3  
Maryland Reported Buttonbuck Harvest  
by County, 2018-2019

COUNTY	Buttonbuck	Female or Antlerless	Total	Percent Buttonbuck
<b>Allegany</b>	156	1,288	1,444	10.8
<b>Anne Arundel</b>	219	1,343	1,562	14.0
<b>Baltimore</b>	330	2,633	2,963	11.1
<b>Calvert</b>	130	817	947	13.7
<b>Caroline</b>				
<b>Whitetail</b>	257	1,470	1,727	14.9
<b>Sika</b>	0	1	1	*
<b>Carroll</b>	384	2,840	3,224	11.9
<b>Cecil</b>	290	1,979	2,269	12.8
<b>Charles</b>	155	1,173	1,328	11.7
<b>Dorchester</b>				
<b>Whitetail</b>	226	935	1,161	19.5
<b>Sika</b>	89	1,623	1,712	5.2
<b>Frederick</b>	414	3,439	3,853	10.7
<b>Garrett</b>	235	1,911	2,146	11.0
<b>Harford</b>	294	1,871	2,165	13.6
<b>Howard</b>	150	1,136	1,286	11.7
<b>Kent</b>	248	1,701	1,949	12.7
<b>Montgomery</b>	333	2,174	2,507	13.3
<b>Prince George's</b>	162	1,101	1,263	12.8
<b>Queen Anne's</b>	262	1,798	2,060	12.7
<b>St. Mary's</b>	182	955	1,137	16.0
<b>Somerset</b>				
<b>Whitetail</b>	188	1,104	1,292	14.6
<b>Sika</b>	1	4	5	*
<b>Talbot</b>	233	1,302	1,535	15.2
<b>Washington</b>	227	2,227	2,454	9.3
<b>Wicomico</b>				
<b>Whitetail</b>	220	1,599	1,819	12.1
<b>Sika</b>	5	76	81	*
<b>Worcester</b>				
<b>Whitetail</b>	328	1,830	2,158	15.2
<b>Sika</b>	5	21	26	*
<b>Total</b>	<b>5,723</b>	<b>40,351</b>	<b>46,074</b>	<b>12.4</b>

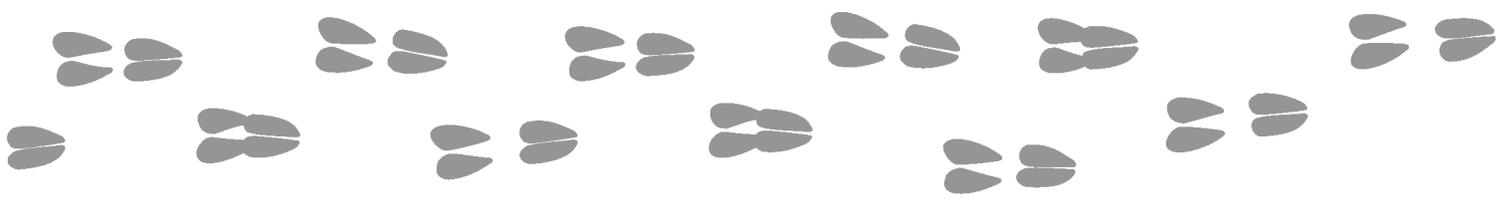
\*Small sample size

Table 4  
Maryland Reported Crossbow Deer Harvest  
by County, 2018-2019

COUNTY	Archery Season			Muzzleloader/Firearm Seasons			Grand Total
	Antlered	Antlerless	Total	Antlered	Antlerless	Total	
Allegany	268	210	478	10	6	16	494
Anne Arundel	279	378	657	29	54	83	740
Baltimore	441	707	1,148	67	127	194	1,342
Calvert	165	197	362	11	28	39	401
Caroline	117	126	243	6	18	24	267
Carroll	353	435	788	17	44	61	849
Cecil	240	324	564	17	44	61	625
Charles	211	237	448	10	28	38	486
Dorchester							
Whitetail	92	99	191	3	2	5	196
Sika	187	241	428	12	19	31	459
Frederick	381	462	843	15	36	51	894
Garrett	480	293	773	16	12	28	801
Harford	254	439	693	35	55	90	783
Howard	209	323	532	37	67	104	636
Kent	177	146	323	8	16	24	347
Montgomery	369	591	960	57	106	163	1,123
Prince George's	197	268	465	20	47	67	532
Queen Anne's	183	192	375	9	35	44	419
St. Mary's	202	260	462	12	26	38	500
Somerset							
Whitetail	102	95	197	5	11	16	213
Sika	3	2	5	0	0	0	5
Talbot	134	179	313	5	13	18	331
Washington	359	373	732	16	29	45	777
Wicomico							
Whitetail	128	142	270	7	20	27	297
Sika	18	16	34	0	0	0	34
Worcester							
Whitetail	107	130	237	4	8	12	249
Sika	0	2	2	0	0	0	2
Grand Total	5,656	6,867	12,523	428	851	1,279	13,802

Table 5  
Maryland Reported 2-Week  
Firearm Season Deer Harvest by  
County, 2018

COUNTY	Antlered	Antlerless	Total
Allegany	1,095	628	1,723
Anne Arundel	227	389	616
Baltimore	484	794	1,278
Calvert	193	334	527
Caroline	416	907	1,323
Carroll	1,017	1,334	2,351
Cecil	545	977	1,522
Charles	380	482	862
Dorchester			
Whitetail	382	619	1,001
Sika	459	539	998
Frederick	1,272	1,701	2,973
Garrett	1,408	1,007	2,415
Harford	364	634	998
Howard	210	326	536
Kent	449	861	1,310
Montgomery	365	516	881
Prince George's	252	370	622
Queen Anne's	479	905	1,384
St. Mary's	250	407	657
Somerset			
Whitetail	363	641	1,004
Sika	3	2	5
Talbot	342	787	1,129
Washington	1,115	1,061	2,176
Wicomico			
Whitetail	547	893	1,440
Sika	39	18	57
Worcester			
Whitetail	626	1,215	1,841
Sika	1	1	2
Total	13,283	18,348	31,631



In 2018-2019:

- The statewide firearm harvest decreased 5 percent from 41,702 deer in 2017-2018 to 39,472 deer (Table 1).
- The firearm harvest comprised 16,020 antlered deer (41 percent of the total firearm harvest) and 23,452 antlerless deer.
- The antlered harvest increased 4 percent and the antlerless harvest (20,126 does or antlerless bucks and 3,326 button bucks) decreased 11 percent from 2017-2018.
- The majority (80 percent) of the firearm harvest occurred during the two-week season that begins the Saturday after Thanksgiving (Table 5).
- Firearm hunters took 51 percent of all deer harvested in Maryland compared to 48 percent last season. (Figure 1).
- The majority (90 percent) of the firearm harvest was taken on private property.
- Firearm hunters bagged 5,423 deer (2,354 antlered and 3,069 antlerless) on the Sundays open during the two-week and January firearm seasons; and junior deer hunters harvested 896 deer (575 antlered and 321 antlerless) on the Junior Deer Hunt Sunday (Table 2).
- Junior deer hunters bagged a total of 2,164 deer (1,455 antlered and 709 antlerless) during the Junior Deer Hunt weekend; 12 percent less than the 2,465 deer taken in 2017-2018. (Table 6).
- Deer hunters reported 4,617 deer (78 percent antlerless) for the three-day January firearm season (Table 7).

## Muzzleloader Season

The 2018-2019 statewide either-sex muzzleloader season included three days in October (October 18 - 20) and two weeks during late December (December 15 - 29). Region B continued with a six-day antlerless-only muzzleloader season (October 22 - 27) to provide for additional deer population management through antlerless deer harvest. The October muzzleloader season is set annually to begin the first Thursday after the 15th of the month.

Resident and non-resident hunters purchased approximately 50,000 and 8,000 muzzleloader stamps respectively in 2018-2019. The stamps are required to hunt deer during the muzzleloader season. It is estimated that 30,000-35,000 hunters actually hunt during this season. Those that do hunt pursue deer for 3-5 days for each of the early and late seasons. Approximately 25-30 percent of muzzleloader hunters are successful in harvesting at least one deer in any given year.

In 2018-2019:

- The muzzleloader harvest totaled 14,422 deer compared to 15,490 deer in 2017-2018, a 7 percent decrease (Table 1).
- There were 5,110 antlered deer and 9,312 antlerless deer harvested with muzzleloaders. Antlerless deer represented 65 percent of the total muzzleloader harvest.
- The antlered harvest decreased 3 percent and the antlerless harvest (8,314 does or antlerless bucks and 998 button bucks) decreased 9 percent from the previous year.
- The October muzzleloader harvest was 8,981 deer (3,543 antlered and 5,438 antlerless); a 4 percent decrease from the previous year's harvest of 9,381 deer (Table 8).

- The December muzzleloader harvest totaled 5,441 deer (1,567 antlered and 3,874 antlerless); an 11 percent decrease from the previous year's harvest of 6,109 deer (Table 9).
- The October muzzleloader season accounted for 62 percent of the total muzzleloader harvest for the year.
- Muzzleloader hunters took 88 percent of their total harvest on private lands.

## The Department of Natural Resources Deer Plan

Maryland's first statewide Ten-Year White-tailed Deer Management Plan was created in 1998 and has guided all phases of deer management in Maryland. The plan, most recently revised in 2009, provides information on deer biology and management in Maryland and outlines the responsibilities and goals of the Deer Project team.

The department is currently completing a revision of the deer plan, which will be finalized in 2019. At the time of printing, the Deer Project had twice met with the deer plan stakeholder group, oversaw completion of a professional telephone public opinion survey, held four public comment meetings, and received comments via an online forum, telephone, letters and email. More than 800 comments were received concerning deer and deer management. The next deer plan will be a 15-year plan that will run through 2034.

## Deer Research and Data Use

In 2018-2019, department staff and volunteers examined 4,531 deer at butcher shops across the state during the muzzleloader and firearm seasons. At the butcher shops, sex and age of the deer were determined and antler measurements were recorded for bucks. Deer were also checked for evidence of illness or disease. The yearly sample of harvested deer provides valuable information that is used to estimate deer population numbers and to detect any changes in the deer herd reproductive potential. It is also used to monitor the overall health of deer and the effects of changes to seasons and bag limits made to better manage deer populations.

Staff and volunteers determine the age of each deer by the wear and replacement of its teeth. As young deer get older, their milk teeth are replaced with permanent teeth. As adult deer age, their permanent teeth begin to wear down. This wear enables biologists to reliably categorize deer as fawns (less than one year old), yearlings (approximately 1.5 years old) or adults (two years and older). The proportions of deer in each age class and their gender are then used in reconstruction models to develop and follow trends in the state's deer population.

The antler beam circumference measurements of yearling bucks that are brought to butcher shops are used as indicators of the reproductive potential and health of the deer herd. Yearling males in good habitat with moderate deer numbers will have larger antler beam diameters than those in higher populations or poorer habitat. Abundant food and modest competition translates into more energy available for antler growth. This is most evident in the yearling age class. Trends in these measurements can indicate deer herd overpopulation and habitat degradation.

Table 6  
Maryland Reported Junior Deer Hunt Harvest  
by County, 2018

COUNTY	Antlered	Antlerless	Total
Allegany	125	51	176
Anne Arundel	12	5	17
Baltimore <sup>1</sup>	17	17	34
Calvert	19	6	25
Caroline	44	25	69
Carroll	98	61	159
Cecil	61	38	99
Charles	43	10	53
Dorchester			
Whitetail	45	31	76
Sika	20	23	43
Frederick	131	62	193
Garrett	248	81	329
Harford	16	25	41
Howard <sup>1</sup>	15	1	16
Kent	41	24	65
Montgomery	39	17	56
Prince George's <sup>1</sup>	13	4	17
Queen Anne's	48	13	61
St. Mary's	27	14	41
Somerset			
Whitetail	71	45	116
Sika	1	0	1
Talbot	31	14	45
Washington	114	43	157
Wicomico			
Whitetail	79	44	123
Sika	1	1	2
Worcester	96	54	150
<b>Total</b>	<b>1,455</b>	<b>709</b>	<b>2,164</b>

<sup>1</sup>Saturday only.

Table 7  
Maryland Reported 3-Day January Firearm Season  
Deer Harvest by County, 2019

COUNTY	Antlered	Antlerless	Total
Anne Arundel	17	57	74
Baltimore	23	133	156
Calvert	30	47	77
Caroline	40	161	201
Carroll	98	371	469
Cecil	48	186	234
Charles	42	87	129
Dorchester			
Whitetail	24	83	107
Sika	82	155	237
Frederick	110	435	545
Harford	28	167	195
Howard	15	67	82
Kent	50	163	213
Montgomery	48	180	228
Prince George's	22	59	81
Queen Anne's	55	205	260
St. Mary's	26	49	75
Somerset	37	204	241
Talbot	29	97	126
Washington	37	159	196
Wicomico			
Whitetail	50	254	304
Sika	5	16	21
Worcester	66	300	366
<b>Total</b>	<b>982</b>	<b>3,635</b>	<b>4,617</b>

Table 8  
Maryland Reported Early Muzzleloader Season  
Deer Harvest by County, 2018

COUNTY	Antlered	Antlerless	Total
Allegany	261	209	470
Anne Arundel	77	154	231
Baltimore	152	306	458
Calvert	63	112	175
Caroline	80	217	297
Carroll	194	313	507
Cecil	108	237	345
Charles	103	155	258
Dorchester			
Whitetail	78	167	245
Sika	329	267	596
Frederick	260	410	670
Garrett	369	301	670
Harford	134	252	386
Howard	67	150	217
Kent	168	249	417
Montgomery	105	227	332
Prince George's	89	191	280
Queen Anne's	135	280	415
St. Mary's	87	146	233
Somerset			
Whitetail	80	136	216
Sika	2	1	3
Talbot	94	216	310
Washington	244	270	514
Wicomico			
Whitetail	101	224	325
Sika	27	8	35
Worcester			
Whitetail	133	231	364
Sika	3	9	12
Total	3,543	5,438	8,981

Table 9  
Maryland Reported Late Muzzleloader Season  
Deer Harvest by County, 2018

COUNTY	Antlered	Antlerless	Total
Allegany	87	202	289
Anne Arundel	54	156	210
Baltimore	102	260	362
Calvert	24	91	115
Caroline	42	129	171
Carroll	85	216	301
Cecil	49	157	206
Charles	74	120	194
Dorchester			
Whitetail	28	64	92
Sika	124	164	288
Frederick	131	288	419
Garrett	92	242	334
Harford	62	189	251
Howard	54	96	150
Kent	66	238	304
Montgomery	86	213	299
Prince George's	63	113	176
Queen Anne's	67	187	254
St. Mary's	52	111	163
Somerset			
Whitetail	23	62	85
Sika	1	0	1
Talbot	46	108	154
Washington	68	225	293
Wicomico			
Whitetail	43	127	170
Sika	7	7	14
Worcester			
Whitetail	35	109	144
Sika	2	0	2
Total	1,567	3,874	5,441

Table 10  
Maryland Yearling White-tailed Deer Buck (1 1/2 Year Old) Vital Statistics by County, 2018-2019

COUNTY	%YearlingBuck	AveragePoints	BeamDiameter(mm)
<b>Allegany</b>	<b>67</b>	<b>3.4</b>	<b>16.5</b>
<b>Anne Arundel</b>	<b>27</b>	<b>3.2</b>	<b>16.9</b>
<b>Baltimore</b>	<b>45</b>	<b>3.9</b>	<b>17.4</b>
<b>Calvert</b>	<b>43</b>	<b>4.9</b>	<b>20.3</b>
<b>Caroline</b>	<b>39</b>	<b>3.7</b>	<b>18.2</b>
<b>Carroll</b>	<b>41</b>	<b>4.2</b>	<b>18.0</b>
<b>Cecil</b>	<b>39</b>	<b>4.7</b>	<b>20.5</b>
<b>Charles</b>	<b>23</b>	<b>2.9</b>	<b>15.7</b>
<b>Dorchester</b>	<b>44</b>	<b>3.0</b>	<b>16.3</b>
<b>Frederick</b>	<b>39</b>	<b>4.3</b>	<b>18.8</b>
<b>Garrett</b>	<b>62</b>	<b>3.5</b>	<b>18.0</b>
<b>Harford</b>	<b>46</b>	<b>4.7</b>	<b>18.8</b>
<b>Howard</b>	<b>33</b>	<b>4.2</b>	<b>17.4</b>
<b>Kent</b>	<b>34</b>	<b>3.8</b>	<b>18.8</b>
<b>Montgomery</b>	<b>35</b>	<b>2.9</b>	<b>16.9</b>
<b>Prince George's</b>	<b>29</b>	<b>3.8</b>	<b>18.2</b>
<b>Queen Anne's</b>	<b>31</b>	<b>3.6</b>	<b>18.6</b>
<b>St. Mary's</b>	<b>47</b>	<b>4.3</b>	<b>19.0</b>
<b>Somerset</b>	<b>44</b>	<b>3.3</b>	<b>17.2</b>
<b>Talbot</b>	<b>51</b>	<b>3.8</b>	<b>18.1</b>
<b>Washington</b>	<b>65</b>	<b>4.3</b>	<b>19.5</b>
<b>Wicomico</b>	<b>32</b>	<b>3.1</b>	<b>15.1</b>
<b>Worcester</b>	<b>32</b>	<b>2.9</b>	<b>15.6</b>
<b>Statewide</b>	<b>42</b>	<b>3.8</b>	<b>18.0</b>

Overall, Maryland's long-term data for these indicators show healthy, productive deer populations across the state (Table 10). The percentage of yearling bucks in the harvest remains very healthy at 42 percent and has shown a positive declining trend. However, the average number of antler points and the average antler beam diameter for yearling bucks have also been declining. These data will continue to be monitored closely in the coming years.

Deer examined at the butcher shops are also examined for evidence of hemorrhagic disease; a viral disease spread by biting midges. Hemorrhagic disease (HD), or "blue-tongue," commonly appears in late summer and early fall. Deer that have survived hemorrhagic disease and are harvested will exhibit hooves with sloughing or peeling tissue. These deer are still suitable for human consumption. Hemorrhagic disease occurs yearly in Maryland, although it varies in intensity. The results of this yearly, statewide examination are reported to the Southeastern Cooperative Wildlife Disease Study in Athens, Georgia as part of a nationwide survey. This study is one of the oldest and most complete nationwide wildlife disease investigations in the country.

Significant hemorrhagic disease outbreaks typically occur every three to five years and may affect 10-20 percent, or more, of a local deer population. While the 2017-2018 season saw a significant outbreak of hemorrhagic disease in Maryland, especially on the Eastern Shore, there were very few reported cases of the disease in 2018-2019. The Department of Natural Resources will continue to monitor for HD in the coming years.

### Research by the Quality Deer Management Association

The Maryland State Chapter of the Quality Deer Management Association (QDMA) continued their annual reproductive monitoring of white-tailed deer in Maryland during 2018-2019. QDMA staff and volunteers examined the reproductive tracts of 122 female deer harvested during the season and found that 82 percent of adult females (1.5 years and older) were pregnant. None of the deer examined that were less than one year old were pregnant. Of the pregnant adult females, 34 percent were carrying one fetus and 66 percent carried two fetuses. None of the females examined were carrying more than two fetuses. The sex ratio of the 126 known-sex fetuses (one unknown) was 62 percent female. As in previous years, peak breeding occurred during the first three weeks of November, with 78 percent bred during that period. Approximately 42 percent were bred during the first two weeks of November. A total of five deer (7 percent) were bred after November 30 and four deer (5 percent) were bred prior to November 1. Late October and early November are typically when bucks will be most actively looking for receptive females to breed.

Information concerning white-tailed deer reproductive rates and population densities in urban areas are important components for effective management of deer in Maryland. For further information about these studies, visit the Maryland QDMA website.

## Archery Hunter Survey

The annual Archery Hunter Survey was continued for 2017-2018 (survey data from the 2018-2019 season are currently being analyzed and were not ready for this report). Archery hunters reported 18.19 bucks and 40.46 does per 100 hours in 2017-2018. Likewise, they observed 2.22 adult does for every one adult buck and .63 fawns for every one adult doe in 2017-2018.

The Archery Hunter Survey provides observational data about furbearers, deer, and other wildlife. Archery hunters record the number of animals observed during each hunt, number of hours they hunt, county of hunt, and other specific details about each hunt. If you are an archery hunter and would like to participate, contact Brent Evans at 443-786-3656 or by email at [brent.evans@maryland.gov](mailto:brent.evans@maryland.gov). Forms are also available on the Department of Natural Resources website, at the web address listed above.

## The Department of Natural Resources and Maryland Counties Cooperative Deer Management

Since 1994, the Department of Natural Resources has promoted cooperative deer management relationships with Maryland counties. Montgomery County and Howard County both developed their own deer management units, manned by professional staff. The Department of Natural Resources works closely with both counties regarding their deer management efforts. Both counties have implemented non-lethal and lethal deer management programs while maintaining majority public support. The Department of Natural Resources participates in county deer management workshops, reviews and advises on county deer management plans, and issues appropriate state permits for deer management activities at the county level. Anne Arundel, Baltimore and Prince George's counties have also developed similar deer management programs within their jurisdictions with assistance from the Department of Natural Resources.

Reservoir watersheds are areas of largely undeveloped land that protect Maryland water supplies. These areas are often managed by municipal staff. Unregulated deer numbers are known to affect the watershed habitat, water quality, and can also affect neighboring residents. Among others, the Deer Project works with Frederick County, Baltimore City and the Washington Suburban Sanitary Commission to manage the deer on their respective watershed lands. These entities permit public hunting on suitable areas of their watershed properties in order to regulate deer numbers. Through these cooperative relationships with the Department of Natural Resources, hunters fill a valuable role in helping to manage deer numbers. Annually, hunters remove hundreds of deer from watershed properties during the regulated deer hunting seasons.

The Department of Natural Resources continues to work with various county and municipal government agencies on deer management issues and encourages others to follow the lead of the aforementioned entities to develop deer management programs in cooperation with the department. Interested entities should contact George Timko, Department of Natural Resources Assistant Deer Project Leader, at 301-478-2314 or by email at [george.timko@maryland.gov](mailto:george.timko@maryland.gov).

## Suburban Deer Management

Deer management in suburban areas ranks as one of the most difficult challenges facing wildlife agencies throughout the country. Maryland's Deer Project is charged with managing deer across the state's varied landscape for a diverse public that has different opinions on how deer should be managed. This includes the large urban/suburban corridor in the midsection of the state.

As development continues in Maryland, the conversion of forested and agricultural lands into housing developments can actually improve habitat conditions for deer. Developed areas provide more than adequate food resources and often offer refuge from hunting. As a result, deer numbers can increase rapidly in these areas. High deer numbers lead to a greater number of negative interactions with suburban residents, decreasing the residents' tolerance of deer and increasing the demand on the Department of Natural Resources to somehow regulate the population.

Safety concerns and social considerations in urban areas often prevent the use of common lethal deer population control measures (i.e., hunting). Non-lethal control measures, such as fencing and repellants, can help reduce deer problems, but they do not eliminate them. They also do not address the deer overpopulation itself.

Increasing deer-vehicle collisions, damage to ornamental plants and gardens, and damage to natural habitats are some of the problems that continue to persist when deer numbers are not directly reduced. Oftentimes, when public tolerance levels have been surpassed, lethal control methods are considered as a last resort. At this point, the department must provide its professional opinion as to what, if any, lethal method (i.e., managed hunt, professional sharp-shooting, etc.) is feasible for a particular scenario. Often, a combination of non-lethal and lethal techniques is recommended to help resolve the problem. The Deer Project will continue to evaluate any new deer management techniques as they appear and promote effective methods that help reduce deer-human conflicts.

## Deer Management Information

A section of the Department of Natural Resources website is devoted to public education on deer and deer management options. Information on non-lethal and lethal methods is also provided.

Further information and assistance can be obtained from George Timko at 301-478-2314 or by email at [george.timko@maryland.gov](mailto:george.timko@maryland.gov).

## Public Property Deer Management

The Department of Natural Resources provides assistance to local governments, communities, and publicly owned properties that choose to address deer population issues. Public entities that desire to conduct hunts outside of the regional deer hunting season framework may do so with prior approval from the department. Managed hunts are used to help control deer populations under special conditions on properties where stricter control of hunters is required. This allows each facility to manage deer hunting to complement their mission. Military bases and agricultural research facilities, as well as state, county, and municipal parks, have developed deer hunting programs in conjunction with the Department of Natural Resources.

To improve opportunities for the public to qualify for managed hunts, the Assistant Deer Project Leader guides the statewide Shooter Qualification Card program. This program provides public access to shooting ranges where hunters can become certified in the standards required to apply for managed hunts held across the state. Appendix I provides a summary of the total deer taken on Maryland public lands during the 2018-2019 hunting seasons.

## Deer Population

Maryland's deer population prior to the 2018-2019 hunting season was estimated at 207,000 deer, a decrease from the 2017-2018 estimate of 222,000. Trends in deer abundance are commonly monitored using harvest estimates and the age structure of the deer herd. These methods work well in areas where hunters have access to most of the land, but are much less reliable for urban/suburban deer populations where hunting occurs sporadically.

Liberal antlerless regulations have slowed or halted deer population growth in many areas outside the Washington D.C. to Baltimore suburban corridor. In some rural counties, the deer population has declined. The Department of Natural Resources is currently investigating additional ways to control deer in the suburban corridor where hunting is limited by a lack of access to land.

## Non-Hunting Mortality

Factors that cause mortality in deer other than hunting include disease, fawn predation (from bears, coyotes, bobcats, fishers, feral dogs, etc.), collisions with vehicles, harvest using Deer Management Permits, and harvest via sharp-shooting. Data concerning deer killed by vehicles (Table 11) is reported to the Department of Natural Resources by a broad spectrum of agencies (county police, state police, sheriff's deputies, city police, park rangers, county roads and state roads staff etc.). Because of these many and varied sources, deer-vehicle collision yearly data tends to vary depending on the effort put forth by the various agencies who report them. Therefore, these data should be used with caution when looking at trends over time and should be considered minimum estimates for a given year.

Besides deer-vehicle collision data obtained from the various state agencies of Maryland, State Farm Insurance Company also estimates total deer vehicle collisions based on its share of the insurance business for each state and the number of accidents reported by their clients. They project there have been an average of 31,700 deer-vehicle collisions in Maryland during each of the last five years.

Farmers and landowners can obtain a Deer Management Permit from the Department of Natural Resources when deer are causing damage to commercial crops. Deer Management Permits allow farmers to harvest antlerless deer on their property outside of the regular state hunting seasons and bag limits. In 2018, 9,365 deer were taken with Deer Management Permits compared to 8,941 deer in 2017 (Table 12), an increase of 5 percent. Significantly higher planting costs continue to cause farmers to control deer more intensely than they have in the past. While regulated hunting remains the most effective way to control deer statewide, Deer Management Permits are a valuable tool for farmers protecting their livelihood.

In areas where lethal control of deer via regulated hunting is not feasible due to urbanization or security issues (i.e., military bases), sharp-shooting deer is a viable lethal alternative for controlling deer

Table 11  
Maryland Reported Deer Vehicular Mortality by  
County, 2018<sup>1</sup>

COUNTY	Male	Female	Unknown	Total
Allegany	33	90	20	143
Anne Arundel	31	48	799	878
Baltimore	51	64	792	907
Calvert	49	16	182	247
Caroline	55	43	8	106
Carroll	240	359	87	686
Cecil	40	100	2	142
Charles	17	105	111	233
Dorchester	25	33	8	66
Frederick	126	288	327	741
Garrett	99	203	38	340
Harford	154	258	72	484
Howard	195	503	871	1,569
Kent	3	6	5	14
Montgomery	4	0	3,235	3,239
Prince George's	420	405	0	825
Queen Anne's	5	3	21	29
St. Mary's	3	6	0	9
Somerset	4	12	0	16
Talbot	46	39	10	95
Washington	133	138	17	288
Wicomico	30	48	23	101
Worcester	2	0	24	26
<b>Total</b>	<b>1,765</b>	<b>2,767</b>	<b>6,652</b>	<b>11,184</b>
<sup>1</sup> Estimates vary from year to year depending on effort put forth by various agencies who collect the data. Total numbers should be considered minimum estimates for a given year.				

numbers. During 2018, 1,785 deer were harvested via sharp-shooting in Maryland. Sharp-shooting is performed by deer cooperators who are licensed by the Department of Natural Resources. County and/or federal officials, as well as a few private groups, remove deer using this method.

In recent years, hunters have become increasingly concerned about coyote and bear predation on deer in western Maryland. Coyotes have increased in number in Washington, Allegany, and Garrett counties over the last five years. In the spring, very young fawns can be a food source for predators. Likewise, the black bear population is expanding and population numbers are at record highs for recent times. Studies in other states indicate that bears have been shown to be equally or even more effective at predating fawns than coyotes.

Currently, reproductive data that the Deer Project collects does not indicate coyotes or bears are having a significant impact on the deer population in Maryland. In Garrett County, fawn recruitment, based on the annual hunter harvest, has declined in recent years to relatively low numbers, but the deer population remains stable to growing. While the deer population is significantly lower in western Maryland than it was 10 years ago, the decline can be largely attributed to the relatively high percentage of antlerless deer taken during the hunting season. While there's no doubt that coyotes and bears are predating fawns, Maryland's long-term deer data, along with research and experience from nearby states, indicate that their effect is minimal. The vast majority of white-tailed deer give birth to fawns within a two- to four-week period in May and June, which overwhelms predators like coyotes and bears. During that time, there are far more fawns on the ground than can be consumed by predators, thus ensuring that an adequate number will survive to reproduce in coming years.

The Deer Project will continue to monitor fawn recruitment rates, as well as coyote and bear populations in Maryland and will develop alternative management strategies as the need arises. As part of this monitoring, the department recently worked with the University of Delaware on a research project in Allegany and Garrett counties to examine predator abundance and fawn recruitment. Results of their research indicated varying densities of predators across the region and suggested that they are not significantly impacting fawn recruitment rates in western Maryland. The thesis will be available online via University of Delaware in the near future.

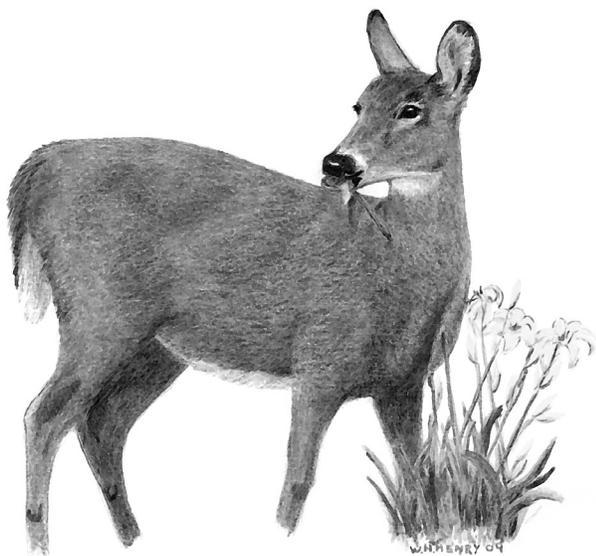


Table 12  
Maryland Reported Crop Damage Mortality  
by County, 2018

COUNTY	Male	Female	Total
<b>Allegany</b>	<b>27</b>	<b>241</b>	<b>268</b>
<b>Anne Arundel</b>	<b>33</b>	<b>171</b>	<b>204</b>
<b>Baltimore</b>	<b>44</b>	<b>369</b>	<b>413</b>
<b>Calvert</b>	<b>11</b>	<b>67</b>	<b>78</b>
<b>Caroline</b>	<b>23</b>	<b>164</b>	<b>187</b>
<b>Carroll</b>	<b>71</b>	<b>701</b>	<b>772</b>
<b>Cecil</b>	<b>48</b>	<b>243</b>	<b>291</b>
<b>Charles</b>	<b>9</b>	<b>155</b>	<b>164</b>
<b>Dorchester</b>			
<b>Whitetail</b>	<b>28</b>	<b>359</b>	<b>387</b>
<b>Sika</b>	<b>34</b>	<b>287</b>	<b>321</b>
<b>Frederick</b>	<b>77</b>	<b>593</b>	<b>670</b>
<b>Garrett</b>	<b>183</b>	<b>1,206</b>	<b>1,389</b>
<b>Harford</b>	<b>30</b>	<b>303</b>	<b>333</b>
<b>Howard</b>	<b>20</b>	<b>277</b>	<b>297</b>
<b>Kent</b>	<b>20</b>	<b>266</b>	<b>286</b>
<b>Montgomery</b>	<b>34</b>	<b>399</b>	<b>433</b>
<b>Prince George's</b>	<b>24</b>	<b>247</b>	<b>271</b>
<b>Queen Anne's</b>	<b>24</b>	<b>219</b>	<b>243</b>
<b>St. Mary's</b>	<b>35</b>	<b>208</b>	<b>243</b>
<b>Somerset</b>			
<b>Whitetail</b>	<b>17</b>	<b>259</b>	<b>276</b>
<b>Sika</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Talbot</b>	<b>58</b>	<b>379</b>	<b>437</b>
<b>Washington</b>	<b>28</b>	<b>320</b>	<b>348</b>
<b>Wicomico</b>			
<b>Whitetail</b>	<b>45</b>	<b>478</b>	<b>523</b>
<b>Sika</b>	<b>1</b>	<b>3</b>	<b>4</b>
<b>Worcester</b>			
<b>Whitetail</b>	<b>50</b>	<b>475</b>	<b>525</b>
<b>Sika</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Total</b>	<b>975</b>	<b>8,390</b>	<b>9,365</b>

## Maryland All Time Trophy Deer Records

Maryland's quality habitat has produced some impressive trophy deer, with record deer coming from across the state. The accompanying table indicates the scores of the top three bucks per weapon (hunting implement), which county it was taken in and the name of the hunter who took it. This list is compiled from information collected by Walter "Tinker" Johnson, chairman and record-keeper for the Maryland Trophy Deer Contest.



Score	County	Name
<b>White-tailed Deer, Firearms, Typical Antlers</b>		
194 0/8	Kent	Kevin Miller
185 7/8	Queen Anne's	Walter Lachewitz
184 0/8	St. Mary's	Larry Day
<b>White-tailed Deer, Firearms, Non-Typical Antlers</b>		
268 1/8	Charles	William Crutchfield, Jr.
248 7/8	Charles	Donza Watson
228 4/8	Montgomery	Jack Poole
<b>White-tailed Deer, Bow, Typical Antlers</b>		
183 3/8	Talbot	Petey Councell
178 1/8	Harford	Mark Rogowski
177 0/8	Baltimore	Richard Traband
<b>White-tailed Deer, Bow, Non-Typical Antlers</b>		
223 3/8	Cecil	Jordan Duhamell
220 2/8	Prince George's	Yates Claggett
208 7/8	Anne Arundel	Robert Gertz
<b>White-tailed Deer, Muzzleloader, Typical Antlers</b>		
178 6/8	Baltimore	John Gweazdowski
171 3/8	Dorchester	Mark Bronder
170 1/8	Talbot	Kara Gowe
<b>White-tailed Deer, Muzzleloader, Non-Typical Antlers</b>		
229 6/8	Anne Arundel	Robert Brookman
200 4/8	Dorchester	Greg Glos
199 3/8	Talbot	William Shields
<b>White-tailed Deer, Crossbow, Typical Antlers</b>		
166 3/8	Baltimore	Wayne Wipfield
164 4/8	Kent	Douglas C. Wood
162 7/8	St. Mary's	Lawrence Copsey
<b>White-tailed Deer, Crossbow, Non-Typical Antlers</b>		
211 2/8	Wicomico	Steve Whitelock
195 3/8	Kent	Albert H. Piasecki
185 6/8	Calvert	Mark A. Yetter
<b>Sika Deer, Firearms</b>		
77 1/8	Wicomico	Tim Krauss
75 7/8	Dorchester	James Howdysshell
72 5/8	Dorchester	David King, Jr.
<b>Sika Deer, Bow</b>		
74 1/8	Dorchester	Samuel King
72 3/8	Dorchester	Bryan Spath
69 6/8	Dorchester	Lenny Hyre
<b>Sika Deer, Muzzleloader</b>		
74 4/8	Dorchester	Henry Williams, Jr.
73 4/8	Dorchester	John Eger
72 7/8	Dorchester	Milton Kern
<b>Sika Deer, Crossbow</b>		
75 4/8	Dorchester	Jay Pippin
67 4/8	Dorchester	David King
66 6/8	Dorchester	Ronald C. Taylor
<b>Fallow Deer, Firearms</b>		
176 7/8	Prince George's	Patrick A. Akins
<b>Fallow Deer, Muzzleloader</b>		
128 1/8	Talbot	Bill McCready
<b>Fallow Deer, Bow</b>		
202 1/8	Prince George's	Michael Cavanaugh
<b>Fallow Deer, Crossbow- pending</b>		
134 7/8	Talbot	Jody LeCompte

Appendix I

Statewide Reported Antlered and Antlerless Deer Harvest by Public Hunting Area and County, 2018-2019

County/PublicLand	Antlered	Antlerless
<b>Allegany</b>		
Belle Grove WMA	4	5
Billmeyer WMA	15	7
Dan's Mountain WMA	72	52
Green Ridge SF	255	158
McCoole FMA	2	0
Rocky Gap SP	24	11
Sideling Hill WMA	8	7
Warrior Mountain WMA	76	69
<b>Anne Arundel</b>		
Anne Arundel County Managed Hunts	28	46
Crownsville CWMA	1	5
Davidsonville Receiver Station	3	13
Fort Meade	33	57
Smithsonian	14	29
<b>Baltimore</b>		
Gunpowder SP	14	77
Gwynnbrook WMA	2	5
Liberty Watershed	13	31
Loch Raven Watershed	55	114
North Point SP	9	38
Patapsco SP	19	42
Pretty Boy Watershed	79	112
Soldiers Delight NEA	22	31
<b>Calvert</b>		
Biscoe Gray Heritage Farm CWMA	0	1
Calvert Cliffs SP	4	10
Flag Pond CWMA	0	1
Hall Creek	1	8
Huntingtown Area	14	22
Parkers Creek WMA	7	14
<b>Caroline</b>		
Chesapeake Forest Lands	6	9
Idylwild WMA	36	51
Tuckahoe SP	8	28

County/PublicLand	Antlered	Antlerless
<b>Carroll</b>		
Avondale WMA	6	5
Hahn CWMA	2	2
Hanover Watershed	8	25
Liberty Watershed	43	89
Maring CWMA	4	8
Morgan Run SP NRMA	14	22
Patapsco SP	18	39
Sawmill-Spiegel CWMA	15	15
Woodbrook CWMA	6	14
<b>Cecil</b>		
Bohemia River SP	9	23
C&D Canal	13	30
Earlville WMA	6	14
Elk Neck SF	16	58
Elk Neck SP	20	56
Fair Hill NRMA	17	82
Grove Farm WMA	9	21
Old Bohemia WMA	6	10
<b>Charles</b>		
Blossom Point Field Test Facility	3	6
Cedar Point WMA	12	18
Cedarville SF	8	11
Chapel Point SP	15	14
Chapman State Park	6	12
Chicamuxen WMA	5	5
Doncaster SF or Tayloes Neck	5	7
Indian Creek NRMA	6	1
Indian Head Naval Ordnance Area	12	36
Myrtle Grove WMA	27	35
Nanjemoy NRMA	5	4
Nanjemoy Creek WMA	3	1
Riverside WMA	0	2

County/PublicLand	Antlered	Antlerless
<b>Dorchester</b>		
Blackwater NWR		
whitetail	26	37
sika	203	242
Chesapeake Forest Lands		
whitetail	48	59
sika	49	34
Fishing Bay WMA		
whitetail	5	14
sika	101	95
LeCompte WMA		
whitetail	12	11
sika	7	5
Linkwood WMA		
whitetail	5	1
sika	0	0
Taylor's Island WMA		
whitetail	0	2
sika	17	14
<b>Frederick</b>		
Cunningham Falls SP, Thurmont Watershed	26	40
Emmitsburg Watershed	5	11
Frederick City Watershed	57	113
Heaters Island WMA	2	12
Monocacy NRMA	38	42
South Mountain SP	10	14
Urbana FMA	2	4

Appendix I -continued-  
Statewide Reported Antlered and Antlerless Deer Harvest by Public Hunting Area and County, 2018-2019

County/PublicLand	Antlered	Antlerless
<b>Garrett</b>		
Cunningham Swamp WMA	6	3
Deep Creek Lake SP	13	11
Frostburg Watershed	13	12
Garrett SF	81	70
Mount Nebo WMA	42	38
Potomac SF	38	32
Savage River SF	240	194
Wolf Den Run SP	2	2
Youghiogheny Reservoir	5	2
<b>Harford</b>		
Aberdeen Proving Grounds	94	180
Gunpowder SP	1	11
Rock SP	14	17
Stoney Forest	1	5
Susquehanna SP	18	30
<b>Howard</b>		
Howard County Parks & Recreation Hunts	11	71
Hugg-Thomas WMA	5	9
Patapsco SP	13	23
Patuxent River SP	52	84
Tridelphia/Rocky Gorge (WSSC)	22	33
<b>Kent</b>		
Eastern Neck NWR	27	42
Millington WMA	33	38
Sassafras NRMA	20	32
<b>Montgomery</b>		
Cherrington CWMA	9	23
Islands of the Potomac WMA	7	14
Mckee-Beshers WMA	45	44
Montgomery County MNCPPC Lands	32	341
Patuxent River SP	68	95
Seneca - Schaeffer Farm	12	17
Seneca Creek SP	68	66
Strider WMA	7	6
Tridelphia/Rocky Gorge (WSSC)	30	24

County/PublicLand	Antlered	Antlerless
<b>Prince George's</b>		
Aquasco Farms Coop	15	16
Belt Woods NEA	3	8
Beltsville	70	91
Billingsly Tract (Patuxent River Park)	1	7
Brandywine Receiver Station	13	12
Cheltenham WMA	4	0
Gardner Road Park CWMA	2	4
Mill Town Landing NRMA	2	5
Nottingham	5	3
Patuxent WRC (Central & South Tracts)	22	39
Rosaryville SP	7	17
Spice Creek (Patuxent River) NRMA	2	6
Tridelphia/Rocky Gorge (WSSC)	5	11
<b>Queen Anne's</b>		
Tuckahoe SP	11	16
Wye Island NRMA	23	46
<b>St. Mary's</b>		
Elms' CWMA	2	8
Greenwell SP	1	10
Historic St. Mary's City CWMA	2	4
Myrtle Point Park CWMA	2	4
Newtowne Neck SP	6	15
Patuxent Naval Air Station	20	23
Point Lookout SP (Jacobs Property)	1	5
St. Inigoes SF	1	5
St. Mary's SP	15	27

County/PublicLand	Antlered	Antlerless
<b>Somerset</b>		
Cedar Island WMA	0	1
Chesapeake Forest Lands		
whitetail	55	100
sika	0	0
Deal Island WMA		
whitetail	10	7
sika	1	0
Fairmount WMA		
whitetail	1	6
sika	0	0
Maryland Marine Properties WMA	2	3
Pocomoke Sound WMA	3	1
South Marsh Island WMA	0	0
Wellington WMA	2	2
<b>Talbot</b>		
Seth SF	0	2
<b>Washington</b>		
Ft. Frederick SP	0	6
Greenbrier SP	13	32
Hagerstown Watershed	2	3
Indian Springs WMA	71	52
Maryland Correctional Training Center	8	17
Prather's Neck WMA	4	5
Sideling Hill WMA	18	13
South Mountain SP	23	43
W. Maryland Ag Research Station (B)	0	0
Woodmont	19	24

Appendix I -continued-  
 Statewide Reported Antlered and Antlerless Deer Harvest by Public Hunting Area and County, 2018-2019

County/PublicLand	Antlered	Antlerless
<b>Wicomico</b>		
Chesapeake Forest Lands		
whitetail	67	110
sika	11	5
Ellis Bay WMA		
whitetail	1	5
sika	2	0
Johnson WMA		
Nanticoke WMA		
whitetail	11	15
sika	6	5
Wetipquin WMA		
Wicomico SF		
whitetail	30	30
sika	0	0
<b>Worcester</b>		
Assateague NS		
whitetail	6	11
sika	20	22
Assateague SP		
whitetail	0	2
sika	1	4
Chesapeake Forest Lands		
whitetail	57	86
sika	0	0
E.A. Vaughn WMA		
Hickory Point WMA		
Isle of Wight WMA		
Pocomoke River WMA		
Pocomoke SF		

CFL- Chesapeake Forest Land  
 CWMA- Cooperative Wildlife Management Area  
 FMA- Fishery Management Area  
 MNCPPC- Maryland-National Capital Park and Planning Commission  
 NEA- Natural Environment Area  
 NRMA- Natural Resources Management Area  
 NS- National Seashore  
 NWR- National Wildlife Refuge  
 SF- State Forest  
 SP- State Park  
 WMA- Wildlife Management Area  
 WRC- Wildlife Research Center  
 WSSC- Washington Suburban Sanitary Commission



