Maryland Annual Deer Report

2015-2016

Maryland Department of Natural Resources

This publication of the Maryland Department of Natural Resources, Wildlife and Heritage Service was written and compiled by the Deer Project Staff.



Brian Eyler, Deer Project Leader George Timko, Assistant Deer Project Leader Art and publication design by W.H.Henry

Introduction

Deer hunters experienced another relatively slow season for 2015-2016. Warm weather for much of the season, abundant acorns in some locations, and fewer deer in the population once again made deer hunting more challenging for the year. Although the total harvest dropped slightly, the buck harvest increased, suggesting there were more deer present than the harvest would indicate. Warm weather and acorns can alter deer movements significantly. Many hunters commented that they were observing plenty of deer on their trail cameras, but none during legal shooting hours. This is often a problem in a state such as Maryland, where deer baiting is allowed. Ample food in the form of bait and acorns combined with milder weather can reduce overall deer movements, especially during the daytime. That being said, the Department of Natural Resources will continue to monitor the deer population closely, and will make changes to seasons and bag limits as needed. The Department thanks all deer hunters in Maryland for their continued interest in deer hunting and their assistance in effectively managing the deer population for all citizens of the state.

2015-2016 Season Recap

The 2015-2016 deer harvest decreased 3% from 86,883 in 2014-2015 to 84,022 this season. The harvest was approximately 10% below the previous 5-year average of 93,396 deer. The overall harvest included 81,095 white-tailed deer (28,619 antlered and 52,476 antlerless) and 2,927 sika deer (1,236 antlered and 1,691 antlerless). The whitetail antlered harvest increased approximately 6% while the whitetail antlerless harvest decreased approximately 8%.

Chronic Wasting Disease

The Department of Natural Resources sampled 295 deer during the 2015-2016 deer season in the Allegany County area and detected Chronic Wasting Disease (CWD) in five deer. Four of the infected deer were harvested within the current CWD Management Area (CWDMA; Harvest Management Unit 233) while one of them was harvested just east of Cumberland in Harvest Management Unit 231. This was the first infected deer detected outside of the original CWDMA. A total of 11 deer with CWD have now been detected in Allegany County. The first positive was a yearling buck taken by a hunter in November 2010 in Green Ridge State Forest, near where CWD is present in West Virginia. To date, over 8,500 Maryland deer have been tested for CWD.

CWD is a disease of the brain and nervous system that causes death in cervids. CWD is classified as a transmissible spongiform encephalopathy and attacks the brain of cervids, producing small lesions that eventually result in death. CWD historically was a disease of the West, 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. Currently there are over 20 states and two Canadian provinces in North America that have documented CWD in their deer, elk or moose populations (free-ranging, captive, or both). The disease has also been detected in Norway (free ranging reindeer) and South Korea (captive elk from Canada).

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

CWD Research in Maryland

The Department is currently cooperating with Penn State University on a deer genetics/CWD project. A PhD 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 CWD will provide managers a better understanding of how to manage for the disease as it relates to deer populations.

The Deer Project

The 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 of the current 10-year deer management plan. The current 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 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.

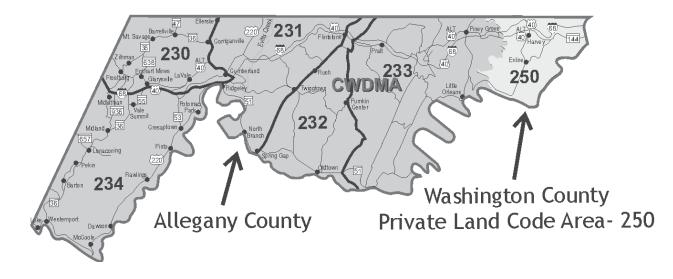
CWD Management

Due to the detection of CWD in Allegany County, the Department of Natural Resources has implemented a number of measures that are intended to prevent the unintentional spread of CWD to other locations in Maryland or to other states. The changes outlined below apply only to the CWD Management Area (CWDMA), which is currently defined as all of Allegany County and Harvest Management Unit (HMU) 250 in western Washington County.

Whole deer carcasses or deer parts cannot be transported out of the CWDMA, 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

Chronic Wasting Disease Management Area



Please check the Department's website (dnr.maryland.gov) for updates on CWD surveillance and management in Maryland. Hunter assistance and cooperation is essential to the Department's efforts to monitor and manage CWD in Maryland.

Carcass Importation Ban

The primary objective in the management of CWD 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 CWD.

A person may not import the whole carcass of a dead deer, elk, or moose into Maryland from another state or province's designated CWD containment, surveillance, or management area, unless the final destination of the carcass is within the Maryland CWDMA or with a CWD-approved Maryland processor or taxidermist (pending regulatory approval in 2016). Travelers may pass through any part of Maryland with whole carcasses from other state/province CWD 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 CWDMA and not with an approved processor or taxidermist:

- Meat with no part of the spinal column 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.
- Upper canine teeth, also known as buglers, whistlers, or ivories.
- Finished taxidermy mount or tanned hides.

Please consult the CWD Alliance website at www.cwd-info.org for a complete list of state and province CWD 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 Maryland Department of Natural Resources within 24 hours of receiving such notification by telephone at 301-842-0332; or by FAX 301-842-1026; or by email to brian.eyler@maryland.gov.

If you hunt deer, elk, moose or other cervids in other states and/or provinces, particularly those in which CWD 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 CWD alliance website www.cwd-info.org/ and the Maryland the Department of Natural Resources website www.dnr.maryland.gov.

Taking Deer Carcasses out of Maryland

Because Maryland is considered a CWD 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 CWDMA. Hunters are strongly encouraged to check state regulations before transporting deer carcasses.

The 2009-2018 deer plan is available for download at dnr.maryland.gov/wildlife/Hunt_Trap/ pdfs/2009-2018MarylandWTDeerPlan.pdf.

During the last several decades, the primary focus of the Deer Project has been to slow and ultimately 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 they relate 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 2007 survey by Responsive Management found that 36% of the Maryland general public were strongly in favor of deer hunting, 25% were somewhat in favor, 19% were neutral or had no opinion, 10% were somewhat opposed to deer hunting, and 10% were strongly opposed. Similarly, 76% of the general public agreed or strongly agreed that deer should be hunted to maintain a healthy population. The survey found that 44% of the general public felt population control was the most important reason for deer hunting, 24% thought hunting for the meat was most important, 14% for sport/recreation, 10% no good reason, 5% don't know, and 1% thought to be with family/friends was most important

Overall, when asked how they prefer the deer population to be managed in their area, the top three responses by the Maryland general public were: 45% for legal, recreational hunting, 33% for birth control/ immunocontraception, and 16% indicated they preferred professional removal via sharpshooters.

Deer Hunting Economics

Along with the positive recreational benefits and population management that deer hunting provides, it also provides significant economic benefits to Maryland. A 2011 survey by the U.S. Fish & Wildlife Service found that deer hunting generated \$221 million annually for the Maryland economy (retail sales plus multiplier effect). Deer hunting in Maryland supports over 2,400 jobs and generates \$69 million in salaries, wages, and business owner's income, \$17.5 million in state and local tax revenue, and \$19 million in federal 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 them with food and clothing. 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 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 only inhabited limited sections of far western Maryland.

Since the birth of modern wildlife management in the early 1900s, Maryland's deer population has expanded dramatically to fill 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 a self sustaining deer herd.

Early hunting seasons of the 1930s and 1940s prohibited the taking of antlerless deer in order to allow for the continued growth and expansion of relocated deer herds. As deer numbers climbed and all 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 whitetail 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

Sika Deer History

Maryland sika deer are originally from Yakushima Island in southern Japan and can be found in the marshes, swamps, wet woodlands, and agricultural fields in 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. 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 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 whitetail competition issues across the lower Eastern Shore.

Sika deer hunting is very popular in Dorchester County and on Assateague Island. Nonresidents 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 over 30,000 hunter days per year.

Past biological data collected by Department of Natural Resourses staff indicate that the average fielddressed weight of a 1.5 year-old male sika deer averages 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 confirmed that sika deer have a lower annual reproductive output than white-tailed deer. Sika females tend to bear a single calf while whitetail females over 1.5 years old frequently bear two fawns. Research found that about 25% of sika female fawns were pregnant while up to 50% of white-tailed female fawns had bred. However, sika deer tend to be longer-lived 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 Department staff often have teeth worn below the gum line indicating significant age. Several female sika deer have been confirmed to be over 20 years old either by using the cementum annuli aging technique or by 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 at udspace.udel.edu/handle/19716/17498.

Results of Legislative Changes Enacted for the 2015-2016 Deer Season

Several legislative changes, primarily expanding Sunday hunting opportunities, became effective for the 2015-2016 Maryland deer season. Sunday deer hunting opportunities were expanded in Allegany, Carroll, Frederick, Garrett, and Washington counties, and included opening additional public lands to Sunday hunting. The added days for 2015-2016 provided important additional opportunities for hunters to harvest deer. A total of 2,588 deer were taken on the Sundays open for deer hunting in the five counties mentioned above (Table 2); including 88 from public lands. A total of 6,447 deer were taken on Sundays statewide.

In Charles and St. Mary's counties, the law passed in 2014 requiring the deer firearm season to run through March 31 was repealed. Thus, in 2015-2016, the deer season in these two counties concluded with the end of the archery season on January 30, like the remainder of the state.

Legislative and Regulatory Changes For the Coming 2016-2017 Season

Numerous deer-related pieces of legislation were introduced during the 2016 legislative session. These bills dealt with poaching penalties, Sunday hunting (none of which passed into law), reduced safety zone distances for archery hunting, and the use of rifles on Deer Management Permits. The Poaching Restitution Act of 2016 successfully passed into law, increasing the mandatory fines for poaching sika and white-tailed deer. The amount of the fines are weighted based on whether the poached deer is antlered or antlerless, and what the Boone & Crockett (B&C) score is if antlered. If convicted of poaching a buck with a B&C score of 150 or less inches, the mandatory penalty is \$2,000 - \$5,000 and 80 hours of community service. If convicted, and the B&C score is greater than 150 inches, the mandatory penalty increases to \$5,000 - \$10,000 and 80 hours of community service. Fines for poaching an antlerless white-tailed deer are \$300 - \$500.

Several bills were passed concerning archery hunting safety zones. In Charles and St. Mary's counties the archery safety zone was reduced to 50 yards. In Anne Arundel County the archery safety zone was reduced to 100 yards. And in Harford County, the archery safety zone was reduced to 50 yards if hunting from an elevated stand, or 100 yards if hunting from the ground.

Lastly, passed legislation for Charles and St. Mary's counties now enables shooters on Deer Management

Permits (DMP) to use rifles year round for harvesting deer under authority of a DMP.

The Department also conducted its biennial spring regulatory process in 2016, which included stakeholder and public input, to develop and implement new deer regulations and/or modify existing regulations. Regulations pending approval that will go into effect for 2016-2017 include:

- Carcass transport restrictions concerning CWD were modified. Hunters that harvest deer from other state CWD areas may now bring the whole carcass into Maryland's CWDMA or to Maryland CWD-approved processors and taxidermists (see CWD section for additional information).
- Sika deer may now be harvested in any county in Maryland. Prior to the regulation change, sika deer legally could only be harvested in Caroline, Dorchester, Talbot, Wicomico, and Worcester counties. Sika deer have been sighted as far north as Kent County.

Additional information regarding legislative and regulatory changes can be found in the 2016-2017 Guide to Hunting and Trapping that comes with the hunting license.

2015-2016 Deer Harvest

Maryland deer hunters harvested 84,022 deer in 2015-2016, a 3% decrease from the 86,883 deer reported in 2014-2015 (Table 1, Figure 1). The harvest was comprised of 29,855 antlered deer (28,619 white-tailed deer and 1,236 sika deer) and 54,167 antlerless deer (52,476 white-tailed deer and 1,691 sika deer; Figure 2). The antlerless harvest included 46,460 does or antlerless bucks, and 7,707 button bucks (Table 3, Figure 3). The antlered harvest increased 6% while the antlerless harvest decreased 8% compared to the 2014-2015 season.

In Deer Management Region A (Garrett, Allegany, and western Washington counties), hunters reported taking 9,190 deer this year, a 5% increase from the 8,740 deer harvested in 2014-2015. The antlered harvest increased 5% from 4,930 deer last year to 5,493 this year, and the antlerless harvest decreased 3% from 3,810 to 3,697 deer.

The reported harvest in Region B decreased 4% from 78,143 deer last year to 74,832 deer this year. The antlered harvest increased 4% from 23,351 deer to 24,362 deer, and the antlerless harvest decreased 8% from 54,792 deer last year to 50,470 deer. Frederick County led the harvest totals this year with 7,149 deer, followed by Washington County with 5,282 deer and Carroll County at 5,238 deer. Baltimore County and Montgomery County completed the top 5 with 4,970 and 4,744 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) declined 9% for the 2015-2016 season. Hunters in these counties reported 17,252

Table 1Maryland Reported Antlered and Antlerless Deer Harvest for theArchery, Firearm, and Muzzleloader Hunting Seasons by County, 2015-2016

0.011171/		ARCHERY			FIREARMS		M	UZZLELOADE	R		TOTAL	
COUNTY	Antlered	Antlerless	Total	Antlered	Antierless	Total	Antlered	Antlerless	Total	Antlered	Antierless	TOTAL
Allegany	495	410	905	1171	562	1733	318	412	730	1984	1384	3368
Anne Arundel	466	902	1368	273	606	879	143	302	445	882	1810	2692
Baltimore	791	1817	2608	440	992	1432	232	698	930	1463	3507	4970
Calvert	274	432	706	221	410	631	91	237	328	586	1079	1665
Caroline												
Whitetail	250	476	726	383	1037	1420	176	476	652	809	1989	2798
Sika	0	1	1	0	1	1	0	0	0	0	2	2
Carroll	666	1164	1830	872	1644	2516	272	620	892	1810	3428	5238
Cecil	401	733	1134	469	981	1450	163	381	544	1033	2095	3128
Charles	412	798	1210	471	830	1301	189	423	612	1072	2051	3123
Dorchester												
Whitetail	182	310	492	473	1011	1484	172	365	537	827	1686	2513
Sika	348	520	868	462	700	1162	334	364	698	1144	1584	2728
Frederick	785	1357	2142	1339	2282	3621	429	957	1386	2553	4596	7149
Garrett	803	546	1349	1355	698	2053	500	506	1006	2658	1750	4408
Harford	514	996	1510	369	911	1280	164	518	682	1047	2425	3472
Howard	365	823	1188	240	524	764	96	286	382	701	1633	2334
Kent	335	519	854	499	1040	1539	259	505	764	1093	2064	3157
Montgomery	673	1471	2144	499	1331	1830	229	541	770	1401	3343	4744
Prince George's	381	728	1109	301	591	892	163	348	511	845	1667	2512
Queen Anne's	381	670	1051	544	1301	1845	241	546	787	1166	2517	3683
St. Mary's	438	748	1186	327	674	1001	137	365	502	902	1787	2689
Somerset												
Whitetail	147	305	452	459	1176	1635	121	330	451	727	1811	2538
Sika	1	0	1	1	5	6	3	0	3	5	5	10
Talbot	246	459	705	417	1112	1529	173	433	606	836	2004	2840
Washington	708	1023	1731	1257	1386	2643	346	562	908	2311	2971	5282
Wicomico												
Whitetail	215	470	685	520	1226	1746	155	455	610	890	2151	3041
Sika	14	14	28	25	35	60	18	11	29	57	60	117
Worcester												
Whitetail	215	401	616	664	1918	2582	144	409	553	1023	2728	3751
Sika	8	10	18	15	23	38	7	7	14	30	40	70
Total	10514	18103	28617	14066	25007	39073	5275	11057	16332	29855	54167	84022

Table 2 Maryland Reported Sunday Hunting Deer Harvest by County, 2015-2016

COUNTY		Archery			Firearms			lunior Hunt		Мі	ızzleloader		Tatal
COUNTY	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Total
Allegany ⁵	39	28	67	127	0	127	40	23	63	7	0	7	264
Anne Arundel ¹	8	10	18	10	21	31	13	3	16	0	0	0	65
Calvert ³	18	33	51	36	80	116	11	0	11	0	0	0	178
Caroline ³													
Whitetail	22	40	62	65	165	230	22	20	42	0	0	0	334
Sika	0	0	0	0	1	1	0	0	0	0	0	0	1
Carroll ⁴	92	112	204	104	214	318	48	31	79	7	26	33	634
Cecil ¹	10	7	17	40	80	120	20	13	33	0	0	0	170
Charles ³	18	49	67	65	97	162	17	7	24	0	0	0	253
Dorchester ²													
Whitetail	12	16	28	51	88	139	31	13	44	0	0	0	211
Sika	14	19	33	47	69	116	7	5	12	0	0	0	161
Frederick ⁴	98	141	239	140	266	406	57	31	88	14	34	48	781
Garrett ⁵	65	42	107	123	0	123	99	48	147	10	0	10	387
Harford ³	39	72	111	33	107	140	16	2	18	0	0	0	269
Kent ¹	8	6	14	30	61	91	27	11	38	0	0	0	143
Montgomery ¹	6	14	20	25	39	64	25	12	37	0	0	0	121
Queen Anne's ³	39	43	82	87	172	259	30	18	48	0	0	0	389
St. Mary's ³	24	41	65	45	86	131	7	5	12	0	0	0	208
Somerset ³													
Whitetail	5	19	24	70	203	273	20	31	51	0	0	0	348
Sika	0	0	0	1	0	1	0	0	0	0	0	0	1
Talbot ²	21	35	56	37	89	126	17	7	24	0	0	0	206
Washington ⁵	69	101	170	116	123	239	51	41	92	7	14	21	522
Wicomico ²													
Whitetail	13	32	45	42	117	159	38	26	64	0	0	0	268
Sika	2		2	5	2	7	1	0	1	0	0	0	10
Worcester ³	13	32	45	99	313	412	30	36	66	0	0	0	523
Total	635	892	1,527	1,398	2,393	3,791	627	383	1,010	45	74	119	6,447

1 Archery season was open on Sunday November 1, 2015 on private lands only. Firearm season was open on Sunday November 29, 2015 on private lands only. The Junior Hunt was open on Sunday November 15, 2015 on private lands only.

2 Archery season was open on Sundays October 11, 18, & 25 and November 1 & 8, 2015 on private lands only. Firearm season was open on Sunday November 29, 2015 on private lands only. The Junior Hunt was open on Sunday November 15, 2015 on private lands only.

3 Archery season was open on Sundays October 11, 18, & 25 and November 1 & 8, 2015 on private lands only. Firearm season was open on Sundays November 29 and December 6, 2015, and January 10, 2016 on private lands only. The Junior Hunt was open on Sunday November 15, 2015 on private lands only.

4 Archery season was open on Sundays October 4, 11, 18, & 25 and November 1, 8, 15, & 22, 2015 on private lands only. Firearm season was open on Sundays November 29 and December 6, 2015, and January 10, 2016 on private lands only. The Junior Hunt was open on Sunday November 15, 2015 on private lands only. Muzzleloader season was open Sundays December 20 & 27, 2015 on private lands only.

5 Archery season was open on Sundays October 4, 11, 18, & 25 and November 1, 8, 15, & 22, 2015 on private and designated public lands only. Firearm season was open on Sundays November 29 and December 6, 2015, on private and designated public lands only. The Junior Hunt was open on Sunday November 15, 2015 on private and designated public lands only. Muzzleloader season was open Sundays December 20 & 27, 2015 on private and designated public lands only.

6 Archery season was open on Sundays October 4, 11, 18, & 25 and November 1, 8, 15, & 22, 2015 on private and designated public lands only. Firearm season was open on Sundays November 29 and December 6, 2015, on private and designated public lands only in Zone 2. Firearm season was open on Sundays November 29 and December 6, 2015, and January 10, 2016 on private lands only in Zone 1. The Junior Hunt was open on Sunday November 15, 2015 on private and designated public lands only. Muzzleloader season was open Sundays December 20 & 27, 2015 on private and designated public lands only.

Designated public lands open to Sunday hunting in Allegany, Garrett, and Washington counties were: Billmeyer-Belle Grove WMA, Cunningham Swamp WMA, Dan's Mountain WMA, Garrett SF, Green Ridge SF, Indian Springs WMA, Mount Nebo WMA, Potomac SF, Prather's Neck WMA, Savage River SF, Sideling Hill WMA, and Warrior Mountain WMA.

Figure 1 Maryland Reported Deer Harvest for the Archery, Firearm, and Muzzleloader Seasons, 2006-2007 through 2015-2016

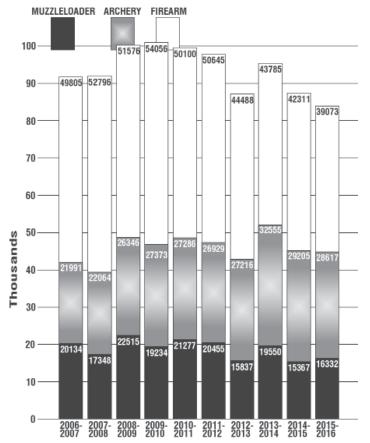


Figure 2 Maryland Reported Antlered and Antlerless Deer Harvest, 2006-2007 through 2015-2016

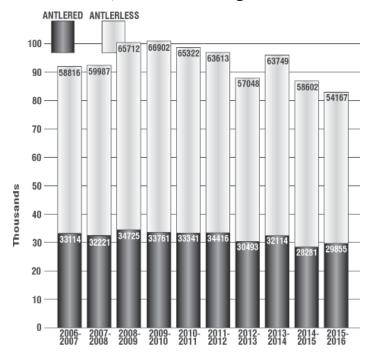


Figure 3 Maryland Reported Button Buck and Doe Harvest, 2006-2007 through 2015-2016

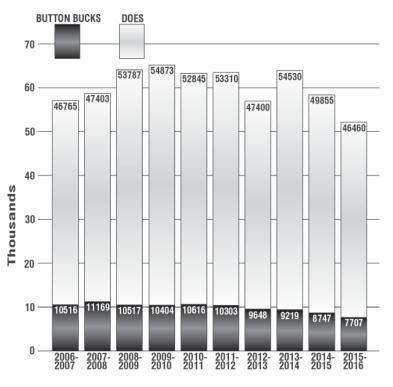
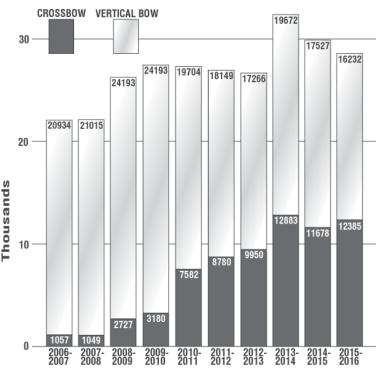


Figure 4 Maryland Reported Crossbow and Vertical Bow Deer Harvest during the Designated Archery Season, 2006-2007 through 2015-2016



deer compared to 18,964 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 6,447 deer (8% of the total harvest) were taken on Sundays during the 2015-2016 season. (Table 2). Sunday hunting is permitted in 20 of 23 counties on up to 13 Sundays each year, predominantly on private lands only.

Archery Season

Archery season in Maryland opens the Friday after Labor Day (September 11th in 2015-2016) and closes on January 31 (unless the 31st is a Sunday). Approximately 55,000 – 65,000 resident and non-resident hunters purchase an archery stamp each year that permits them to hunt during the archery season. The average Maryland hunter that deer hunts with a vertical bow each year (approximately 22,000) normally does so for about 10-15 days each season and 30-35% of these hunters take one deer or more each year with their bow. Approximately 16,000 hunters currently hunt deer with a crossbow. The average crossbow hunter uses a crossbow for 10-11 days each year and approximately 40-45% are successful in taking one or more deer per year with the weapon.

In 2015-2016:

- The reported archery harvest (vertical and crossbow) decreased 2% from 29,205 deer in 2014-2015 to 28,617 deer in 2015-2016 (Table 1).
- There were 10,514 antlered deer (37% of the total archery harvest) and 18,103 antlerless deer harvested with crossbows and vertical bows.
- The antlered archery harvest increased 1% and the antlerless harvest (16,105 does and 1,998 button bucks) decreased 4% from the previous year.
- Crossbow hunters took 4,789 antlered deer and 7,596 antlerless deer during the archery season (Table 4).
- The crossbow harvest (12,385) represented 43% of the total archery season harvest in 2015-2016 similar to the 40% that it was in 2014-2015 (Figure 4).
- Approximately 7,700 different hunters harvested a deer with a crossbow during archery season (compared to 7,200 in 2014-2015).
- 87% of the archery harvest was on private lands.
- Archery hunters took 1,527 deer (635 antlered, 892 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

Table 3 Maryland Reported Buttonbuck Harvest by County, 2015-2016

County	Buttonbuck	Female or Antierless	Total	Percent Buttonbuck			
Allegany	192	1192	1384	13.9			
Anne Arundel	305	1505	1810	16.9			
Baltimore	436	3071	3507	12.4			
Calvert	173	906	1079	16.0			
Caroline							
Whitetail	329	1660	1989	16.5			
Sika	0	2	2	*			
Carroll	429	2999	3428	12.5			
Cecil	325	1770	2095	15.5			
Charles	302	1749	2051	14.7			
Dorchester							
Whitetail	333	1353	1686	19.8			
Sika	103	1481	1584	6.5			
Frederick	514	4082	4596	11.2			
Garrett	247	1503	1750	14.1			
Harford	311	2114	2425	12.8			
Howard	215	1418	1633	13.2			
Kent	293	1771	2064	14.2			
Montgomery	413	2930	3343	12.4			
Prince George's	275	1392	1667	16.5			
Queen Anne's	369	2148	2517	14.7			
St. Mary's	341	1446	1787	19.1			
Somerset							
Whitetail	313	1498	1811	17.3			
Sika	1	4	5	*			
Talbot	383	1621	2004	19.1			
Washington	288	2683	2971	9.7			
Wicomico							
Whitetail	350	1801	2151	16.3			
Sika	10	50	60	*			
Worcester							
Whitetail	456	2272	2728	16.7			
Sika	1	39	40	*			
Total	7707	46460	54167	14.2			
*Small sample s	*Small sample size						

Table 4 Maryland Reported Crossbow Deer Harvest by County, 2015-2016

Table 5
Maryland Reported 2-Week Fire-
arm Season Deer Harvest by
County, 2015

Country	Ar	chery Seaso	on	Muzzlelo	Total		
County	Antlered	Antlerless	Total	Antlered	Antlerless	Total	IULAI
Allegany	270	197	467	7	3	10	477
Anne Arundel	204	349	553	17	46	63	616
Baltimore	374	742	1116	38	165	203	1319
Calvert	131	193	324	7	12	19	343
Caroline							
Whitetail	101	174	275	6	8	14	289
Sika	0	1	1	0	0	0	1
Carroll	263	451	714	15	34	49	763
Cecil	171	298	469	7	30	37	506
Charles	188	374	562	5	30	35	597
Dorchester							
Whitetail	83	147	230	4	9	13	243
Sika	143	214	357	2	7	9	366
Frederick	335	519	854	12	30	42	896
Garrett	431	262	693	5	10	15	708
Harford	219	420	639	15	41	56	695
Howard	179	354	533	15	51	66	599
Kent	112	154	266	3	5	8	274
Montgomery	291	665	956	47	135	182	1138
Prince George's	184	331	515	12	21	33	548
Queen Anne's	157	224	381	5	21	26	407
St. Mary's	225	357	582	6	35	41	623
Somerset	69	137	206	1	4	5	211
Talbot	115	197	312	5	14	19	331
Washington	336	461	797	8	21	29	826
Wicomico							
Whitetail	96	201	297	2	12	14	311
Sika	6	2	8	0	0	0	8
Worcester							0
Whitetail	103	169	272	3	10	13	285
Sika	3	3	6	1	0	1	7
Total	4789	7596	12385	248	754	1002	13387

County Antioved Antiovises Total						
County	Antlered	Antierless	Total			
Allegany	1079	495	1574			
Anne Arundel	220	496	716			
Baltimore	390	860	1250			
Calvert	169	337	506			
Caroline	304	844	1148			
Carroll	712	1385	2097			
Cecil	379	770	1149			
Charles	362	676	1038			
Dorchester						
Whitetail	363	828	1191			
Sika	365	541	906			
Frederick	1117	1924	3041			
Garrett	1122	608	1730			
Harford	269	710	979			
Howard	181	364	545			
Kent	360	811	1171			
Montgomery	365	725	1090			
Prince George's	246	470	716			
Queen Anne's	421	1011	1432			
St. Mary's	262 548		810			
Somerset						
Whitetail	354	913	1267			
Sika	0	5	5			
Talbot	318	930	1248			
Washington	1079	1177	2256			
Wicomico						
Whitetail	382	990	1372			
Sika	21	29	50			
Worcester						
Whitetail	496	1507	2003			
Sika	6	8	14			
Total	11342	19962	31304			

or three days of firearm hunting in early January. Deer taken during managed hunts outside the normal deer seasons are also counted as firearm kills. Approximately 45,000 - 50,000 hunters pursue deer with a firearm each year in Maryland. The average deer hunter spends 5-6 days each year pursuing deer with a firearm and approximately 40-45% of firearm hunters bag at least one deer each year. In 2015-2016:

- The statewide firearm harvest decreased 8% from 42,311 deer in 2014-2015 to 39,073 deer (Table 1).
- The firearm harvest was comprised of 14,066 antlered deer (36% of the total firearm harvest) and 25,007 antlerless deer.
- The antlered harvest increased 4% and the antlerless harvest (20,967 does or antlerless bucks and 4,040 button bucks) decreased 13% from 2014-2015.
- The majority (80%) of the firearm harvest occurred during the 2-week season that begins the Saturday after Thanksgiving (Table 5).
- Firearm hunters took 47% of all deer harvested in Maryland compared to 49% last season. (Figure 1).
- The majority (89%) of the firearm harvest was taken on private property.
- Firearm hunters bagged 3,791 deer (1,398 antlered and 2,393 antlerless) on the Sundays open during the 2-week and January firearm seasons, and juniors harvested 1,010 deer (627 antlered and 383 antlerless) on the Junior Deer Hunt Sunday (Table 2).
- Junior deer hunters bagged a total of 2,534 deer (1,573 antlered and 961 antlerless) during the Junior Deer Hunt weekend; a less than 1% increase from the 2,518 deer in 2014-2015.(Table 6).
- Deer hunters reported 4,251 deer (77% antlerless) for the 3-day January firearm season (Table 7).

Muzzleloader Season

The 2015-2016 statewide, either-sex muzzleloader season included three days in October (October 22 -24) and two weeks during late December (December 19 – January 2). Region B continued with a six day antlerless-only muzzleloader season (October 26 - 31) 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 56,000 and 8,000 muzzleloader stamps, respectively in 2015-2016. The stamps are required to hunt deer during the muzzleloader season. It is estimated that 30,000-35,000 hunters actually hunt during the season. Those that do hunt pursue deer for 3-4 days for each of the early and late seasons. Approximately 30-35% of muzzleloader hunters are successful in harvesting at least one deer in any given year.

In 2015-2016:

• The muzzleloader harvest totaled 16,332 deer compared to 15,367 deer in 2014-2015, a 6%

increase (Table 1).

- There were 5,275 antlered deer and 11,057 antlerless deer harvested with muzzleloaders. Antlerless deer represented 68% of the total muzzleloader harvest.
- The antlered harvest increased 20% and the antlerless harvest (9,388 does or antlerless bucks and 1,669 button bucks) increased less than 1% from the previous year.
- The October muzzleloader harvest was 9,747 deer (3,489 antlered and 6,258 antlerless); a 6% increase from the previous year's harvest of 9,226 deer (Table 8).
- The December muzzleloader harvest totaled 6,585 deer (1,786 antlered and 4,799 antlerless); a 7% increase from the previous year (Table 9).
- The October muzzleloader season accounted for 60% of the total muzzleloader harvest for the year.
- Muzzleloader hunters took 90% of their total harvest on private lands.

Maryland Deer Plan

Maryland's first statewide 10-Year White-tailed Deer Management Plan was created in 1998 and has guided all phases of deer management in Maryland since that time. The plan was revised in 2009 and provides information on deer biology and management in Maryland and outlines the responsibilities and goals of the Deer Project team. The plan and supporting documents are available at dnr.maryland.gov/wildlife/Hunt_Trap/pdfs/2009-2018MarylandWTDeerPlan.pdf.

Deer Research and Data Use

In 2015-2016, 4,545 deer were examined 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 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 male deer that are brought to butcher shops

Table 6 Maryland Reported Junior Deer Hunt Harvest by County, 2015

County	Antlered	Antlerless	Total
Allegany	92	67	159
Anne Arundel	21	9	30
Baltimore ¹	13	10	23
Calvert	19	6	25
Caroline	43	41	84
Carroll	102	51	153
Cecil	45	26	71
Charles	60	36	96
Dorchester			
Whitetail	74	39	113
Sika	19	10	29
Frederick	132	78	210
Garrett	233	90	323
Harford	38	21	59
Howard ¹	19	7	26
Kent	66	31	97
Montgomery	47	27	74
Prince George's ¹	17	16	33
Queen Anne's	67	56	123
St. Mary's	29	21	50
Somerset	61	75	136
Talbot	51	26	77
Washington	143	81	224
Wicomico			
Whitetail	100	56	156
Sika	1	0	1
Worcester			
Whitetail	81	80	161
Sika	0	1	1
Total	1573	961	2534
¹ Saturday only.			

Table 7 Maryland Reported 3-Day January Firearm Season Deer Harvest by County, 2016

Deel Halvest by Coulity, 2010					
County	Antlered	Antlerless	Total		
Anne Arundel	25	72	97		
Baltimore	34	102	136		
Calvert	33	65	98		
Caroline					
Whitetail	36	152	188		
Sika	0	1	1		
Carroll	58	208	266		
Cecil	41	140	181		
Charles	46	110	156		
Dorchester					
Whitetail	36	144	180		
Sika	78	149	227		
Frederick	90	280	370		
Harford	29	129	158		
Howard	12	47	59		
Kent	45	174	219		
Montgomery	34	103	137		
Prince George's	26	87	113		
Queen Anne's	56	234	290		
St. Mary's	33	97	130		
Somerset					
Whitetail	44	188	232		
Sika	1	0	1		
Talbot	48	156	204		
Washington	35	128	163		
Wicomico					
Whitetail	38	180	218		
Sika	3	6	9		
Worcester					
Whitetail	85	331	416		
Sika	1	1	2		
Total	967	3284	4251		

Table 8 Maryland Reported Early Muzzleloader Season Deer Harvest by County, 2015

County	Antlered	Antlerless	Total
Allegany	228	175	403
Anne Arundel	75	174	249
Baltimore	137	367	504
Calvert	54	118	172
Caroline	116	273	389
Carroll	199	384	583
Cecil	101	238	339
Charles	91	235	326
Dorchester			
Whitetail	120	226	346
Sika	256	221	477
Frederick	270	536	806
Garrett	387	213	600
Harford	107	307	414
Howard	46	168	214
Kent	194	263	457
Montgomery	122	308	430
Prince George's	98	195	293
Queen Anne's	153	320	473
St. Mary's	67	212	279
Somerset			
Whitetail	86	220	306
Sika	3	0	3
Talbot	110	242	352
Washington	253	310	563
Wicomico			
Whitetail	101	264	365
Sika	10	9	19
Worcester			
Whitetail	98	273	371
Sika	7	7	14
Total	3489	6258	9747

Table 9
Maryland Reported Late Muzzleloader Season
Deer Harvest by County, 2015-2016

County	Antlered	Antlerless	Total
Allegany	90	237	327
Anne Arundel	68	128	196
Baltimore	95	331	426
Calvert	37	119	156
Caroline	60	203	263
Carroll	73	236	309
Cecil	62	143	205
Charles	98	188	286
Dorchester			
Whitetail	52	139	191
Sika	78	143	221
Frederick	159	421	580
Garrett	113	293	406
Harford	57	211	268
Howard	50	118	168
Kent	65	242	307
Montgomery	107	233	340
Prince George's	65	153	218
Queen Anne's	88	226	314
St. Mary's	70	153	223
Somerset	35	110	145
Talbot	63	191	254
Washington	93	252	345
Wicomico			
Whitetail	54	191	245
Sika	8	2	10
Worcester	46	136	182
Total	1786	4799	6585

0 auntu	0/ Ve erling Duele	Auguana Dainta	
County	%YearlingBuck		. ,
Allegany	67	3.6	17.6
Anne Arundel	39	3.2	16.6
Baltimore	49	4.6	19.1
Calvert	49	4.6	18.3
Caroline	58	4.6	20.2
Carroll	52	4.3	19.2
Cecil	39	3.9	19.3
Charles	41	3.0	15.5
Dorchester	50	3.7	18.9
Frederick	56	4.6	19.1
Garrett	66	4.5	19.5
Harford	58	4.0	19.4
Howard	61	3.2	18.1
Kent	35	3.4	17.9
Montgomery	39	3.6	18.3
Prince George's	45	3.1	16.7
Queen Anne's	43	4.6	20.1
St. Mary's	49	3.9	17.8
Somerset	47	3.4	16.7
Talbot	56	4.1	19.4
Washington	58	4.1	18.9
Wicomico	36	2.6	13.6
Worcester	45	2.9	16.2
Statewide	51	3.9	18.3

Table 10 Maryland Yearling White-tailed Deer Buck (1 1/2 Year Old) Vital Statistics by County, 2015-2016

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 over-population and habitat degradation.

Overall, Maryland's long-term data for these indicators show healthy, productive deer populations

across the state. However, results for 2015-2016 continue to be somewhat mixed and possibly the new antler restriction regulation is causing some confusion and/or apprehension among hunters (Table 10). These data will be monitored closely in the coming years to determine what effects the antler restriction may have.

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 HD and are harvested will exhibit hooves with sloughing or peeling tissue. These deer are still suitable for human consumption. HD 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 (SCWDS) in Athens, Georgia as part of a nationwide survey. The HD study with SCWDS is one of the oldest and most complete nationwide wildlife disease investigations in the country.

Significant HD outbreaks typically occur every three to five years and may affect 10 -20% of a local deer population. However, it is projected that the disease will have little impact on the white-tailed deer population long-term. The last significant outbreak of HD in Maryland was in 2012. The Department received relatively few reports of suspected HD during 2015 and will continue to monitor for HD in the coming years.

Research by the Quality Deer Management Association (QDMA)

The Maryland State Chapter of QDMA continued their reproductive study of white-tailed deer in Maryland during 2015-2016. QDMA staff and volunteers examined the reproductive tracts of 128 female deer harvested during the season and found that 90% of adult females (1.5 years and older) were pregnant. No female fawns (0.5 years old) examined this year were pregnant. Of the pregnant females, 31% were carrying one fetus, 67% carried two fetuses, and 2%were carrying three fetuses. The sex ratio of the 139 fetuses examined was 45% male and 55% female. Like previous years, peak breeding occurred during the first three weeks of November, with 77% bred during that period. Approximately 50% were bred during the first two weeks of November. A total of 3 deer were bred after November 30, and 10 deer were bred prior to November 1 in late October. Late October and early November are typically when bucks will be most active looking for receptive females to breed.

Dressed weights were also collected for harvested deer. Female fawns averaged 50 lbs in weight, female yearlings 71 lbs, and female adults weighed an average of 89 lbs. Male fawns averaged 58 lbs, yearlings 91 lbs, and adults 112 lbs. 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 on these studies, visit the Maryland QDMA website at marylandqdma.com.

Archery Hunter Survey

The annual Archery Hunter Survey was continued for 2014-2015 (survey data from the 2015-2016 season are currently being analyzed and were not ready for the report). Archery hunters reported 16.4 bucks per 100 hours and 39.4 does per 100 hours in 2014-2015. Likewise, they observed 2.4 adult does for every one adult buck and 0.62 fawns for every one adult doe in 2014-2015. The full report is available online at dnr.maryland.gov/wildlife/Pages/ hunt trap/bhsurvey.aspx.

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 brent.evans@maryland.gov. Forms are also available at the web address listed in the previous paragraph.

Maryland Counties Cooperative Deer Management

Since 1994, the Maryland 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 works closely with both counties regarding their deer management efforts. Both counties have implemented nonlethal and lethal deer management programs while maintaining majority public support. Department staff participate 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.

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 and 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 Maryland, 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 Maryland 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, Assistant Deer Project Leader at 301-432-4307.

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 they 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 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. Often times, 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 are created, and promote effective methods that help reduce deer-human conflicts.

Deer Management Information

A section of the following website is devoted to public education on deer and deer management options. Information on nonlethal and lethal methods is provided at: dnr.maryland.gov/wildlife/ Pages/hunt trap/deerdamage.aspx.

Further information and assistance can be obtained from George Timko, Assistant Deer Project Leader at 301-432-4307.

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 of 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.

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 at the standards required to apply for managed hunts held across the state. Appendix II provides a summary of the total deer taken on Maryland public lands during the 2015-2016 hunting seasons.

Deer Population

Maryland's deer population prior to the 2015-2016 hunting season was estimated at 214,000 deer, up 8% from the 2014-2015 estimate of 199,000. 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 inhibited by 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

Table 11 Maryland Reported Deer Vehicular Mortality by County, 2015¹

County	Male	Female	Unknown	Total
Allegany	45	61	14	120
Anne Arundel	38	46	52	136
Baltimore	93	59	331	483
Calvert	41	26	205	272
Caroline	56	37	17	110
Carroll	249	436	111	796
Cecil	27	52	16	95
Charles	32	196	29	257
Dorchester	34	71	0	105
Frederick	330	584	8	922
Garrett	45	91	20	156
Harford	4	1	132	137
Howard	220	461	936	1,617
Kent	19	16	9	44
Montgomery	316	138	3,480	3,934
Prince George's	493	491	102	1,086
Queen Anne's	2	3	14	19
St. Mary's	33	44	1	78
Somerset	6	22	8	36
Talbot	105	69	22	196
Washington	125	166	49	340
Wicomico	12	44	67	123
Worcester	0	0	25	25
Total	2,325	3,114	5,648	11,087
¹ 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.

concerning deer killed by vehicles (Table 11) is reported by a broad spectrum of agencies (county police, state police, sheriff deputies, city police, park rangers, county roads and state roads staff, etc). Because of its many and varied sources, deervehicle collision data tend to vary from year to year 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 33,200 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. These Permits allow farmers to harvest antlerless deer on their property outside of the regular state hunting seasons and bag limits. In 2015, 8,535 deer were taken with Permits compared to 8,482 deer in 2014 (Table 12), an increase of less than 1%. Elevated market prices for crops and 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 numbers. During 2015, 1,391 deer were harvested via sharpshooting in Maryland. Sharp-shooting is performed by deer cooperators licensed by the Department of Natural Resources. County and/or federal officials and 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. Very young fawns in the spring 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 there. 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 hunting season. While there's no doubt that covotes 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

Table 12 Maryland Reported Crop Damage Mortality by County, 2015

County	Male	Female	Total
Allegany	28	221	249
Anne Arundel	17	126	143
Baltimore	46	299	345
Calvert	11	87	98
Caroline	13	140	153
Carroll	77	422	499
Cecil	41	149	190
Charles	17	203	220
Dorchester			
Whitetail	36	398	434
Sika	24	277	301
Frederick	61	471	532
Garrett	104	758	862
Harford	19	210	229
Howard	9	251	260
Kent	19	158	177
Montgomery	30	444	474
Prince George's	30	187	217
Queen Anne's	23	142	165
St. Mary's	49	271	320
Somerset	36	365	401
Talbot	70	331	401
Washington	32	321	353
Wicomico			
Whitetail	35	361	396
Sika	2	10	12
Worcester	76	624	700
Other	122	282	404
Total	1027	7508	8535

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 and coyote and bear populations in Maryland and develop alternative management strategies as the need arises. As part of this monitoring, the Department has recently contracted with University of Delaware to begin a research project in Allegany and Garrett counties to examine predator abundance and fawn recruitment. Results will be available in coming years.

Trophy Deer Contest

Each year the Maryland Bowhunters Society, the Maryland Chapter of the Quality Deer Management Association, and the Department of Natural Resources cosponsor the Maryland Trophy Deer Contest. This contest recognizes hunters who have harvested trophy bucks and promotes quality Maryland deer through wise management. The goal of quality deer management is to produce deer numbers that are in balance with the available habitat and have deer that reach maturity and are in good health.

A primary goal of the Department's deer management program is to maintain the quality of Maryland's deer herd. By encouraging antlerless deer harvest and restraining antlered buck harvest, populations can reach appropriate levels while the potential for mature antlered buck survival improves.

The 2015 Maryland Trophy Deer Contest for bucks taken in the 2013-2014 hunting season was held during the Country Life Outdoors Festival at the St. Mary's County Fairgrounds. The Boone and Crockett system is used to score antlers and both white-tailed and sika entries are accepted. The results of the 2015 contest are listed on the following pages.

The 2016 Maryland Trophy Deer Contest for deer taken during the 2014-2015 hunting seasons will again be held at the Country Life Outdoors Festival at the St. Mary's County Fairgrounds, July 1 - 3, 2016. All entries must be present at the contest.

Maryland All Time Trophy Records

Maryland's quality habitat has produced some impressive trophy deer, with record deer coming from across the state. The attached 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.

Maryland All Time Trophy Deer Records

Carrie	Country	No
Score	County	Name
194 0/8	Kent	earms, Typical Antlers
/ -		Kevin Miller Walter Lachewitz
185 7/8 184 0/8	-	
	St. Mary's	Larry Day rms, Non-Typical Antlers
268 1/8	Charles	William Crutchfield, Jr.
200 1/0 248 7/8	Charles	Donza Watson
248 7/8	Montgomery	Jack Poole
	White-tailed Deer, B	
183 3/8	Talbot	Petev Councell
178 1/8	Harford	Mark Rogowski
177 0/8	Baltimore	Richard Traband
W	hite-tailed Deer, Boy	w, Non-Typical Antlers
223 3/8	Cecil	Jordan Duhamell
220 2/8	Prince George's	Yates Claggett
	Anne Arundel	Robert Gertz
Whi	te-tailed Deer, Muzz	leloader, Typical Antlers
178 6/8	Baltimore	John Gweazdowski
171 3/8	Dorchester	Mark Bronder
170 1/8	Talbot	Kara Gowe
White-	tailed Deer, Muzzlel	oader, Non-Typical Antlers
229 6/8	Anne Arundel	Robert Brookman
200 4/8	Dorchester	Greg Glos
199 3/8	Talbot	William Shields
WI	nite-tailed Deer, Cro	ssbow, Typical Antlers
166 3/8	Baltimore	Wayne Wipfield
164 4/8	Kent	Douglas C. Wood
162 7/8	St. Mary's	Lawrence Copsey
White	e-tailed Deer, Cross	bow, Non-Typical Antlers
211 2/8	Wicomico	Steve Whitelock
180 3/8	Baltimore	Ronnie Hamilton
179 0/8	Somerset	Ernest Hughes
		, Firearms
77 4/8	Wicomico	Tim Krauss
75 7/8	Dorchester	James Howdyshell
72 5/8	Dorchester	David King, Jr.
74 1/9	Sika De	
74 1/8 69 6/8	Dorchester Dorchester	Samuel King Lennv Hyre
69 6/8 69 4/8	Dorchester	5 5
09 4/0	Sika Deer, M	Larry Owen Iuzzleloader
74 6/8	Dorchester	Henry Williams, Jr.
74 0/8 73 4/8	Dorchester	John Eger
73 4 /8 72 7/8	Dorchester	Milton Kern
,o	Sika Deer,	
75 4/8	Dorchester	Jay Pippin
67 4/8	Dorchester	David King
66 6/8	Dorchester	Ronald C. Taylor
	Fallow Dee	
176 7/8	Prince George's	Patrick A. Akins
	Fallow Deer, 1	Muzzleloader
128 1/8	Talbot	Bill McCready

Results from the

2015 MARYLAND TROPHY DEER CONTEST FOR THE 2013-2014 DEER HUNTING SEASONS

Sponsored by the Maryland Bowhunters Society, the Maryland Chapter of the Quality Deer Management Association, and the Maryland Wildlife & Heritage Service.

White-tailed Deer Firearms Season, Typical Antlers

Score	County	Name
153 7/8	Wicomico	Christian Bauer
151 0/8	Charles	Gary Welch
148 4/8	Anne Arundel	Steve Walter
145 2/8	Prince George's	John Kidwell
134 7/8	Saint Mary's	Peter Trossbach
132 7/8*	Prince George's	Joseph Soresi
126 1/8	Charles	Dayton Webber
119 5/8	Saint Mary's	Sean Lumpkins
118 6/8	Anne Arundel	James Gonce
117 0/8	Saint Mary's	John Fore
114 4/8	Calvert	Francis G. Lumpkins
110 3/8*	Saint Mary's	Glen Denney
*Historical		

White-tailed Deer Firearms Season, Non-Typical Antlers

Score	County	Name
	The second se	
155 6 /8	Charles	Clayton Keesee
149 2/8*	Saint Mary's	John Owens
135 3/8	Saint Mary's	Michael Johnson
134 0/8 *	Talbot	Matthew Marth
*Historical		

White-tailed Deer Archery Season, Typical Antlers

Score 158 1/8 149 3/8 147 6/8**, 141 4/8** 138 4/8 132 1/8 132 0/8** 130 6/8** 128 4/8 125 0/8 122 7/8** 122 0/8 116 6/8 113 1/8 112 6/8* 93 6/8* 89 6/8**

County **Prince George's Calvert** Saint Mary's **Prince George's Frederick Charles** Saint Mary's **Talbot** Charles Saint Mary's **Charles** Saint Mary's **Charles** Saint Mary's **Baltimore** Saint Mary's Frederick

Name Matt Bozic Jeremy Hudson **Richard Nueslein David Spitzer** Hunter Crummitt Brian G. Rollins John Zyla Peter Rossbach, Jr. **Michael Haniuk Andrew Davis** Leonard Goldsborough Joey Johnson, III Wayne Suite **Raymond Morgan Andy Simpkins Glen Denney Dennis Britton**

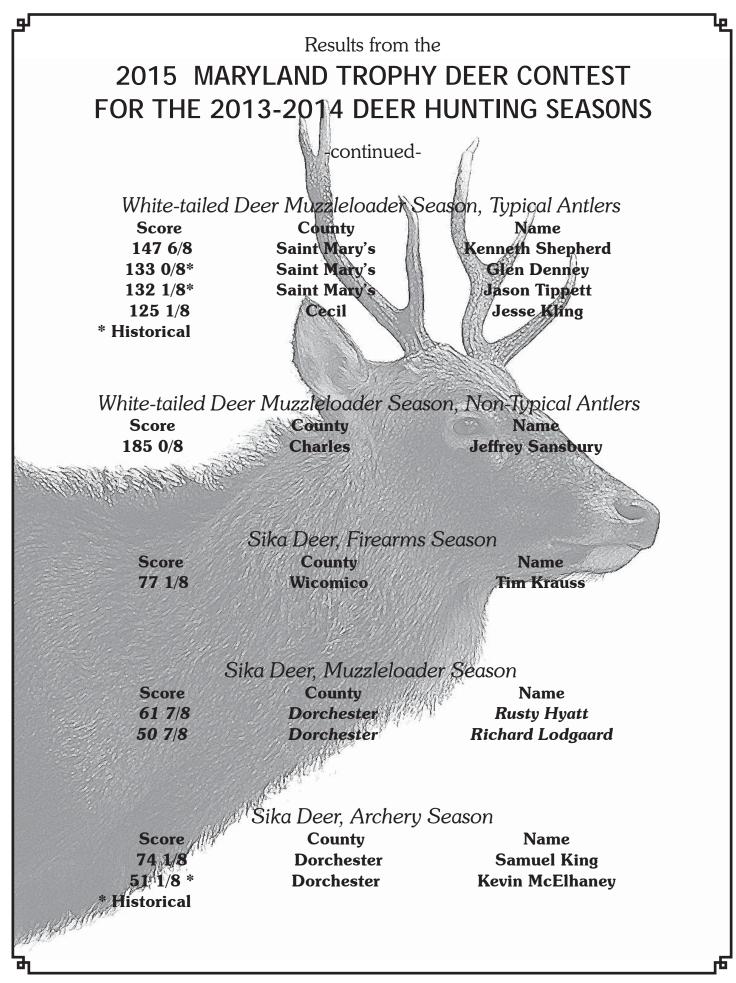
* Historical **Crossbow

White-tailed Deer Archery Season, Non-Typical Antlers

Score	Country	Name
	County	
211 2 / 8 **	Wicomico	Steve Whitelock
185 2/8	Prince George's	Michael McDermott
183 6/8	Anne Arundel	Jason Lahti
176 3/8	Charles	John Boyd
173 0 /8**	Caroline	Peter Marth
168 3/8	Anne Arundel	John Culotta
166 5/8**	Saint Mary's	Keith Taylor
165 2/8**	Calvert	Joe Day
157 3/8	Baltimore	Daniel Yates
156 4/8	Charles	Donald Burch
155 7 /8	Howard	Charlie Minor
154 5/8*	Saint Mary's	Francis Russell, Jr.
150 2/8	Saint Mary's	Joe Jackson, Jr.
121 6/8	Saint Mary's	Nick Simonds
* Historical	**Crossbow	

а,

Ъ



Appendix I Statewide Reported Antlered and Antlerless Deer Harvest by Public Hunting Area and County, 2015-2016

County/PublicLand	Antlered	Antlerless
Allegany	Anticicu	Antioness
Belle Grove WMA	0	0
Billmeyer WMA	16	8
Dan's Mountain WMA	82	58
Green Ridge SF	189	124
Rocky Gap SP	19	16
Sideling Hill WMA	2	4
Warrior Mountain WMA	71	58
Anne Arundel		
Anne Arundel County Managed Hunts	12	35
Crownsville CWMA	2	6
Davidsonville Receiver Station	6	36
Fort Meade	78	93
Smithsonian	7	25
Baltimore		
Gunpowder SP	19	105
Gwynnbrook WMA	7	7
Liberty Watershed	28	54
Loch Raven Watershed	69	163
Patapsco SP	16	44
Pretty Boy Watershed	75	187
Soldiers Delight NEA	6	27
Calvert		
Biscoe Gray Heritage Farm CWMA	0	0
Calvert Cliffs SP	7	11
Flag Pond CWMA	1	2
Hall Creek	4	5
Huntingtown Area	20	26
Caroline		
Chesapeake Forest Lands	5	16
Idylwild WMA	24	85
Tuckahoe SP	10	19

County/PublicLand	Antlered	Antlerless
Carroll		
Avondale WMA	4	9
Hahn CWMA	1	2
Hanover Watershed	10	38
Liberty Watershed	51	108
Maring CWMA	10	10
Morgan Run SP NEA	8	22
Patapsco SP	22	57
Sawmill-Speigel CWMA	8	36
Woodbrook CWMA	9	18
Cecil		
C&D Canal	12	26
Earlville WMA	7	10
Elk Neck SF	24	45
Elk Neck SP	23	65
Fair Hill NRMA	10	124
Grove Farm WMA	15	20
Old Bohemia WMA	5	7
Charles		
Cedar Point WMA	13	23
Cedarville SF	7	8
Chapel Point SP	10	16
Chapman State Park	3	15
Chicamuxen WMA	3	6
Doncaster SF or Tayloes Neck	5	8
Indian Creek NRMA	3	5
Indian Head Naval Ordnance Area	13	39
Myrtle Grove WMA	17	54
Nanjemoy WMA	4	3
Nanjemoy Creek WMA	2	1
Riverside WMA	2	2

County/PublicLand	Antlered	Antlerless
Dorchester		
Blackwater NWR		
whitetail	29	16
sika	126	200
Chesapeake Forest Lands		
whitetail	46	81
sika	24	29
Fishing Bay WMA		
whitetail	3	10
sika	75	73
LeCompte WMA		
whitetail	3	14
sika	1	3
Linkwood WMA		
whitetail	8	11
sika	0	0
Taylor's Island WMA		
whitetail	1	1
sika	11	17
Frederick		
Cunningham Falls SP Thurmont WS	29	48
Emmitsburg Watershed	6	21
Frederick City Watershed	59	136
Heaters Island WMA	5	9
Monocacy NRMA	48	83
South Mountain SP	11	28

Appendix I -continued-Statewide Reported Antlered and Antlerless Deer Harvest by Public Hunting Area and County, 2015-2016

Statewide Reported Antiered an			
County/PublicLand	Antlered	Antlerless	
Garrett			
Cunningham Swamp WMA	4	2	
Deep Creek Lake SP	18	11	
Frostburg Watershed	7	5	
Garrett SF	86	56	
Mount Nebo WMA	27	24	
Potomac SF	39	27	
Savage River SF	215	122	
Youghiogheny Reservoir	5	5	
Harford			
Aberdeen Proving Grounds	92	168	
Gunpowder SP	5	16	
Rock SP	3	19	
Stoney Forest	2	8	
Susquehana SP	12	30	
Howard			
Howard County Parks & Recreation Hunts	21	145	
Hugg-Thomas WMA	2	24	
Patapsco SP	27	77	
Patuxent River SP	46	136	
Tridelphia/Rocky Gorge (WSSC)	39	72	
Kent			
Eastern Neck NWR	30	31	
Millington WMA	31	84	
Sassafras NRMA	12	29	
Montgomery			
Cherrington CWMA	14	29	
Islands of the Potomac WMA	10	21	
Mckee-Beshers WMA	47	99	
Montgomery County M-NCPPC Lands	45	424	
Patuxent River SP	45	92	
Seneca - Schaeffer Farm	11	23	
Seneca Creek SP	72	171	
Strider WMA	12	9	
Tridelphia/Rocky Gorge (WSSC)	23	90	

County/PublicLand	Antlered	Antlerless
Prince George's		
Aquasco Farms Coop	7	15
Beltsville	69	163
Billingsly Tract (Patuxent River Park)	3	12
Brandywine Receiver Station	6	19
Cheltenham WMA	2	2
Gardner Road Park CWMA	2	2
Mill Town Landing NRMA	2	6
Nottingham	2	2
Patuxent WRC (Central & South Tracts)	41	34
Rosaryville SP	4	27
Spice Creek (Patuxent River) NRMA	5	4
Tridelphia/Rocky Gorge (WSSC)	5	21
Queen Anne's		
Tuckahoe SP	10	18
Wye Island NRMA	23	55
St. Mary's		
Elms' CWMA	2	6
Greenwell SP	8	12
Historic St. Mary's City CWMA	2	7
Newtowne Neck SP	10	17
Patuxent Naval Air Station	23	65
Point Lookout SP (Jacobs Property)	3	2
St. Inigoes SF	0	4
St. Mary's SP	18	35
Somerset		
Cedar Island WMA	0	1
Chesapeake Forest Lands		
whitetail	45	136
sika	1	0
Deal Island WMA		
whitetail	11	19
sika	0	2
Fairmount WMA	2	7
Maryland Marine Properties WMA	0	4
Pocomoke Sound WMA	1	0
South Marsh Island WMA	0	0
Wellington WMA	7	7
Talbot		
Seth SF	6	5

County/PublicLand	Antlered	Antlerless
Washington		
Ft. Frederick SP	0	7
Greenbrier SP	16	44
Hagerstown Watershed	7	9
Indian Springs WMA	88	37
Maryland Correctional Training Center	5	18
Prather's Neck WMA	3	8
Sideling Hill WMA	27	19
South Mountain SP	33	57
W. Maryland Ag Research Station (B)	3	14
Woodmont	18	14
Wicomico		
Chesapeake Forest Lands		
whitetail	65	164
sika	0	5
Ellis Bay WMA		
whitetail	1	1
sika	0	3
Johnson WMA	4	2
Nanticoke WMA		
whitetail	8	24
sika	4	4
Wetipquin WMA		
whitetail	0	1
sika	1	1
Wicomico SF		
whitetail	18	45
sika	0	2
Worcester		
Assateague NS		
whitetail	5	2
sika	24	34
Assateague SP		
whitetail	1	2
sika	3	3
Chesapeake Forest Lands	36	87
E.A. Vaughn WMA		
whitetail	24	56
sika	0	0
Hickory Point WMA	0	0
Isle of Wight WMA		
whitetail	1	2
sika	0	1
Pocomoke River WMA	2	10
Pocomoke SF	58	117



Larry Hogan Jr., Governor Boyd K. Rutherford, Lieutenant Governor



Mark Belton, Secretary Joanne Throwe, Deputy Secretary Paul A. Peditto, Director, Wildlife & Heritage Service

> Wildlife & Heritage Service Tawes State Office Building, E-1 580 Taylor Avenue Annapolis, MD 21401 410-260-8540 FAX 410-260-8596 dnr.maryland.gov/wildlife

The facilities of the Department of Natural Resources are available to all without regard to race, color, religion, sex, sexual orientation, age, national origin, or physical or mental disability. Accommodations for individuals with disabilities will be provided upon request. Seven days advance notice is requested. This document is available in alternative format upon request from a qualified individual with a disability.

This program receives federal assistance from the U.S. Fish and Wildlife Service, and thus prohibits discrimination on the basis of race, color, national origin, disability, age, and sex in educational programs, pursuant to Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Educational Amendments of 1972. If you believe that you have been discriminated against in any program, activity, or service, please contact the Office of Fair Practices-MD Department of Natural Resources, Tawes Building, 580 Taylor Ave., D-4, Annapolis, MD, 21401. The telephone number is 410-260-8058. You may also write to the U.S. Fish and Wildlife Service, Civil Rights Coordinator, Division of Bird Habitat Conservation, 4040 N. Fairfax Drive, Mail Stop 110, Arlington, VA, 22203.



Survey and inventory results reported in this publication were funded by the Federal Aid in Wildlife Restoration Act.

Printed on Recycled Paper July 2016



Publication # 03-5312016-594