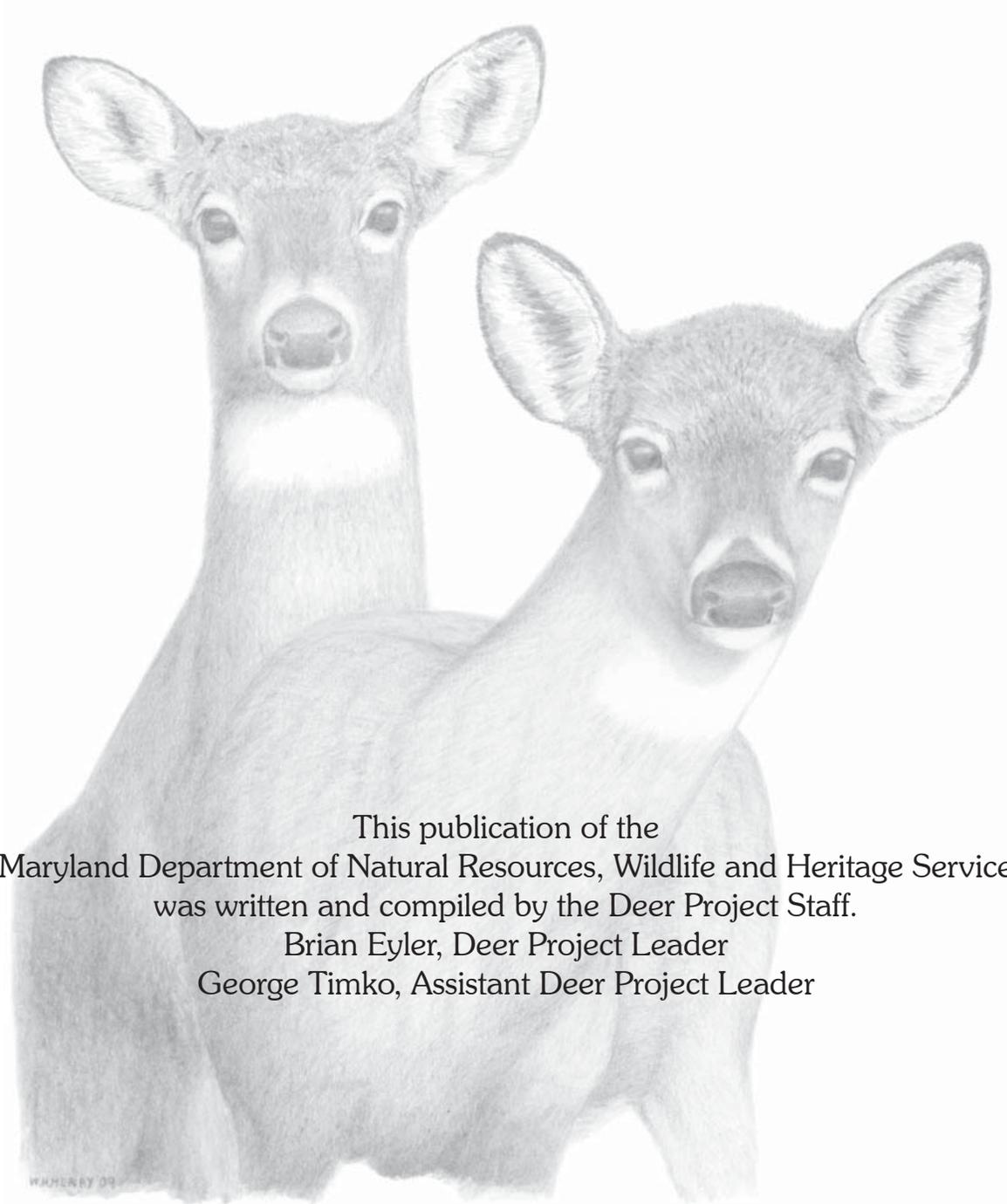


Maryland Department of Natural Resources
Wildlife & Heritage Service



Maryland Annual
Deer Report

2013-2014



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

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Introduction

Another Maryland deer season has concluded and by all indications most hunters found it more productive than the previous 2012-2013 season. The 2013-2014 statewide harvest increased to a more familiar, albeit slightly lower level than experienced in recent years. There are several reasons for the harvest returning to more normal levels, one is Maryland's deer population remains very healthy, another is a scarcity of acorns in 2013-2014 caused deer to move more in search of food, thus making them more vulnerable to hunters. The Department of Natural Resources (DNR) thanks all deer hunters in Maryland for their continued interest in deer hunting and aiding the Department in effectively managing the deer population for all citizens of the state.

2013-2014 Season

The 2013-2014 deer harvest increased 10% from 87,541 in 2012-2013 to 95,863 this past season. The increase is reflective of current deer population levels in Maryland. The reduced harvest in 2012-2013, combined with abundant food resources, contributed to the increased number of deer available for harvest in 2013-2014. Likewise, there were few reported incidences of Hemorrhagic disease or other abnormal sources of mortality in the population. Archery hunters set a new record in 2013-2014 by harvesting 32,555 deer, a 19% increase over the previous record of 27,373 deer taken in 2009-2010.

Chronic Wasting Disease

DNR sampled 261 deer during the 2013-2014 season in the Allegany County area and detected Chronic Wasting Disease (CWD) in one deer. The adult doe was harvested adjacent to the western boundary of the current disease management area (Harvest Management Unit 233). A total of two 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, close to where CWD is present in West Virginia. To date, DNR has tested over 8,000 Maryland deer for CWD.

CWD is a naturally occurring disease of the brain and nervous system that causes death in cervids. CWD is classified as a transmissible spongiform encephalopathy (TSE) 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 east of the Mississippi River in Illinois, Maryland, Michigan, New York, Pennsylvania, Virginia, West Virginia and Wisconsin. Currently 22 states and two Canadian provinces have documented CWD in their deer, elk or moose populations (free-ranging, captive, or both).

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 recently completed two related projects concerning CWD in Maryland. Responsive Management, a professional public opinion survey firm that specializes in natural resource issues, was contracted to survey Maryland deer hunters about CWD. Deer hunters in several different areas of Maryland were surveyed via telephone about CWD and whether its occurrence has impacted their deer hunting. The survey found that the presence of CWD did not change most hunters' behavior significantly. While some hunters did choose to either change their hunting location in Maryland, or stop hunting in Maryland altogether, most indicated they continued to hunt deer as they always did. The survey asked a broad range of questions, and the full report is available online at http://dnr.maryland.gov/wildlife/Hunt_Trapping/pdfs/2013_MD_CWD_Report.pdf.

The Department also contracted with the University of Delaware (UDEL) to examine deer population trends in the Maryland CWD management area and how CWD may impact deer hunter participation currently and in the future. UDEL used camera surveys and spotlight/FLIR roadside counts to estimate the size of the deer population in a section of Green Ridge State Forest. They found pre-hunting season density estimates ranging from 10 – 30 deer per square mile depending on method used. Average density among methods was about 20 deer per square mile. This density is lower than what is commonly found elsewhere in Maryland and will help slow the spread of CWD across the landscape while still providing recreational opportunity for hunters.

UDEL also used the Responsive Management CWD survey and conducted further analyses of the results. They examined individual hunter responses to the survey and compared them to actual harvest check-in data to further determine if CWD was significantly impacting deer harvest in Maryland. Their results suggest that CWD will have a minimal impact on deer harvest in Maryland. Further results can be found in the graduate thesis at http://udspace.udel.edu/bitstream/handle/19716/13019/Jacob_Haus_thesis.pdf?sequence=1.

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:

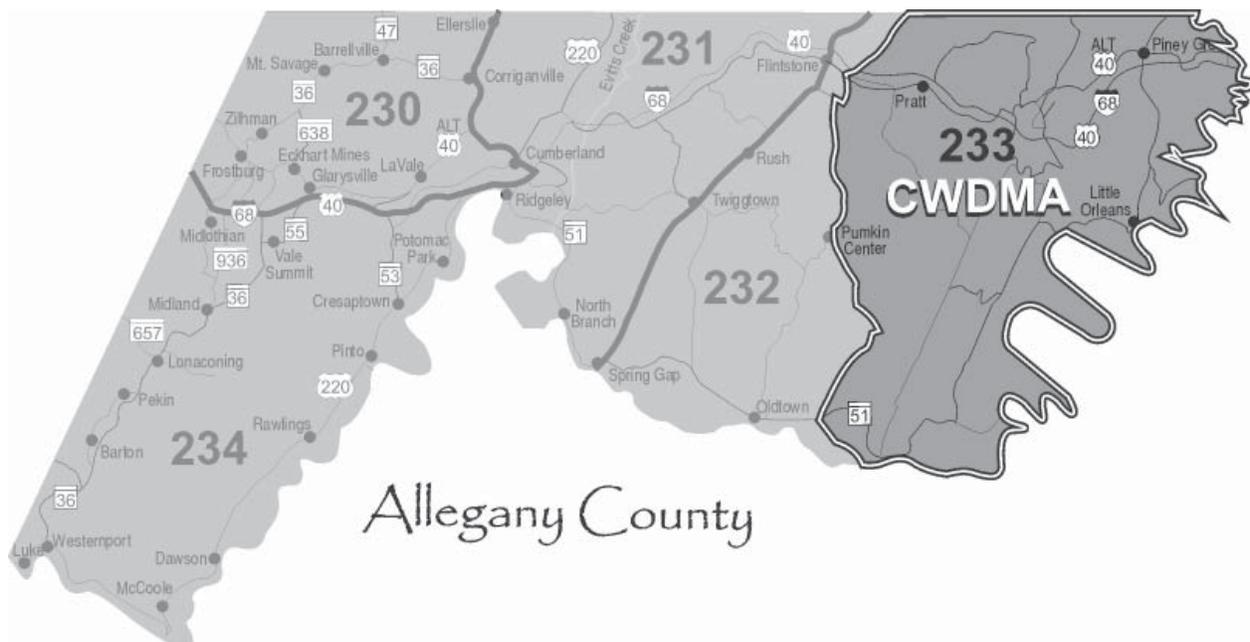
- Avoid shooting or handling a deer that appears sick.
- Wear latex or rubber gloves when field-dressing or butchering deer.
- Remove all internal organs.
- Remove the meat from the bones and spinal column if home processing a deer.
- Do not use household knives or utensils when field-dressing or home 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, DNR has implemented a number of measures that are intended to prevent the unintentional spread of CWD to other locations in Maryland. The changes outlined below apply only to the CWD Management Area (CWDMA), which is defined as Habitat Management Unit 233 in Allegany County.

(1) 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.
- 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.
- Whole deer carcasses or parts being transported directly to approved meat processors, taxidermists, or lined landfills within Allegany County.
- Deer leg quarters with no portion of the spinal column attached.



Dumpsters will be available at select locations to dispose of carcass parts before leaving the CWDMA. Please consult the DNR website (<http://dnr.maryland.gov>) or contact the DNR office (301-842-2702) for a list of dumpster locations.

(2) Baiting and feeding of deer is prohibited in the CWDMA on both private and public land.

Bait and feed include, but are not limited to, corn, other grains, pelleted foods and mineral supplements and salt blocks that act as attractants to deer. Hunting over food plots or areas where normal agricultural activities have occurred is not considered baiting or feeding.

Please check the Department's website (<http://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 prohibit the importation of whole carcasses and certain carcass parts of deer, moose and elk harvested from states that have CWD.

A person may bring only the following parts of a dead deer, elk, or moose into Maryland from another state or province's designated CWD containment, surveillance, or management area:

- Meat with no part of the spinal column or head attached.
- Meat without backbone.
- 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 mounts or tanned hides.

The Department will maintain a list of CWD positive states/provinces and contact numbers to call to confirm the containment areas in those areas that are subject to these restrictions. The list is available on the DNR website (http://dnr.maryland.gov/wildlife/Hunt_Trap/deer/disease/cwdinformation.asp) or by calling 410-260-8540.

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. Travelers may pass through Maryland with cervid carcasses, provided that no parts are disposed of or remain in the state.

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 DNR website <http://dnr.maryland.gov>.

Taking Deer Carcasses out of Maryland

Now that 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 (see <http://cwd-info.org/index.php/fuseaction/policy.regulationsMap>). 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 Deer Project

The DNR 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 2009-2018 deer plan is available for download at http://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 non-lethal techniques where hunting is not practical or acceptable. Therefore, the Deer Project employs a blend of hunting-related deer management methods and proven 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, DNR's 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 25,000 hunter days per year.

Past biological data collected by DNR staff indicate that the average field-dressed 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 DNR 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. DNR's 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 DNR 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.

As more information is collected on sika deer in Maryland, it becomes apparent that more research is needed to understand their life history traits and the role they play in the ecosystem. The University of Delaware has conducted recent studies on sika deer and is continuing to explore additional research opportunities including how sika deer and white-tailed deer allocate resources.

Results of Legislative Changes Enacted for the 2013-2014 Deer Season

Several legislative changes concerning deer hunting took effect for the 2013-2014 Maryland deer season. Sunday deer hunting opportunities were expanded in Calvert, Caroline, Carroll, Charles, Harford, Queen Anne's, Somerset, St. Mary's, and Worcester counties. Sunday hunting continues to grow in popularity and the added days for 2013-2014 provided important additional opportunities for hunters to harvest deer. A total of 3,528 deer were taken on the Sundays open for deer hunting in the nine counties mentioned above. Also in Harford County, the archery safety zone was decreased from 150 yards to 100 yards.

It is difficult to measure how the reduction in archery safety zones translates to the total deer harvest, but it unquestionably provides additional access for deer hunting. That being said, the Department encourages hunters to consider the likely recovery distance for deer shot with archery equipment and to be cognizant of adjacent home owners and landowners.

Legislative and Regulatory Changes For the Coming 2014-2015 Season

Legislation passed during the 2014 General Assembly created several changes for deer hunters in Maryland and include:

- Additional Sunday hunting opportunities have been added for deer hunting in Allegany,

Frederick, Garrett, and Washington counties. Unlike previous Sunday hunting that was restricted to private lands only, the new change also permits Sunday hunting on designated public lands.

- The safety zone for archery hunters has been reduced to 100 yards in Montgomery County;
- Archery deer hunters 21 years old or older may carry certain types of handguns for personal protection in Region A. These handguns may not be used for hunting while the person is archery hunting for deer.
- The firearms deer season has been extended in Charles and St. Mary's counties to end on March 31. This season will be for antlerless deer only.

The Department also conducted its biennial spring regulatory process in 2014, which included stakeholder and public input, to develop and implement new deer regulations and/or modify existing regulations. Regulation changes that go into effect for 2014-2015 include:

- An antler point restriction has been instituted on part of the statewide antlered deer bag limit. The bag limit remains one antlered deer per weapon season with one bonus antlered deer available in Region B. If a hunter is fortunate enough to take three or four antlered deer in a license year, at least two of them must have at least three points on one antler. The antlered deer can be taken in any order with respect to the restriction.
- The antlerless white-tailed deer bag limit has been reduced from three to two per license year in Region A.
- It is now illegal for a person to intentionally wound or kill a deer and not make a reasonable and legal attempt to retrieve it. This regulation does not supersede the need for written permission when entering onto another person's property.
- The sika deer bag limit has been increased to three (no more than one antlered) per weapon season, and the muzzleloader sika deer bag limit can be filled anytime during the early or late muzzleloader seasons.

Additional information regarding legislative and regulatory changes can be found in the 2014-2015 Guide to Hunting and Trapping that comes with the hunting license.

2013-2014 Deer Harvest

Maryland deer hunters harvested 95,863 deer in 2013-2014, a 10% increase over the 87,541 deer reported in 2012-2013 (Table 1, Figure 1). The harvest was comprised of 32,114 antlered deer and 63,749 antlerless deer (Figure 2). The antlerless harvest included 54,530 does and 9,219 button bucks (Figure 3). The antlered harvest increased 5% while the antlerless harvest increased 12% compared to the 2012-2013 season.

Table 1
Maryland Reported Antlered and Antlerless Deer Harvest for the
Archery, Firearm, and Muzzleloader Hunting Seasons by County, 2013-2014

COUNTY	ARCHERY			FIREARMS			MUZZLELOADER			TOTAL		
	Antlered	Antlerless	SubTotal	Antlered	Antlerless	SubTotal	Antlered	Antlerless	SubTotal	Antlered	Antlerless	TOTAL
Allegany	511	393	904	1145	747	1892	365	475	840	2021	1615	3636
Anne Arundel	565	1147	1712	319	821	1140	148	494	642	1032	2462	3494
Baltimore	958	2273	3231	555	1308	1863	274	968	1242	1787	4549	6336
Calvert	330	637	967	285	629	914	137	423	560	752	1689	2441
Caroline												
Whitetail	235	449	684	331	857	1188	162	489	651	728	1795	2523
Sika	0	0	0	0	2	2	1	0	1	1	2	3
Carroll	635	1250	1885	1024	2006	3030	287	713	1000	1946	3969	5915
Cecil	418	872	1290	511	1128	1639	171	512	683	1100	2512	3612
Charles	640	1191	1831	582	1158	1740	244	691	935	1466	3040	4506
Dorchester												
Whitetail	210	333	543	516	1122	1638	181	397	578	907	1852	2759
Sika	238	407	645	509	728	1237	311	362	673	1058	1497	2555
Frederick	863	1535	2398	1397	2506	3903	478	1261	1739	2738	5302	8040
Garrett	595	437	1032	1155	828	1983	383	470	853	2133	1735	3868
Harford	488	1049	1537	425	1046	1471	172	582	754	1085	2677	3762
Aberdeen P.G.	94	240	334	75	155	230	9	19	28	178	414	592
Howard	440	1046	1486	311	742	1053	127	433	560	878	2221	3099
Kent	354	549	903	538	1174	1712	256	509	765	1148	2232	3380
Montgomery	776	1778	2554	670	1708	2378	259	698	957	1705	4184	5889
Prince George's	468	911	1379	381	835	1216	169	473	642	1018	2219	3237
Queen Anne's	437	730	1167	554	1302	1856	210	625	835	1201	2657	3858
St. Mary's	509	977	1486	402	835	1237	205	675	880	1116	2487	3603
Somerset												
Whitetail	158	296	454	407	1120	1527	114	338	452	679	1754	2433
Sika	1	2	3	2	2	4	1	2	3	4	6	10
Talbot	296	502	798	410	1098	1508	166	436	602	872	2036	2908
Washington	788	1153	1941	1455	1725	3180	430	825	1255	2673	3703	6376
Wicomico												
Whitetail	235	479	714	480	1261	1741	163	561	724	878	2301	3179
Sika	12	11	23	15	22	37	9	7	16	36	40	76
Worcester												
Whitetail	208	432	640	595	1802	2397	154	525	679	957	2759	3716
Sika	5	9	14	12	30	42	0	1	1	17	40	57
Total	11467	21088	32555	15061	28697	43758	5586	13964	19550	32114	63749	95863

Figure 1

Maryland Reported Deer Harvest for the Archery, Firearm, and Muzzleloader Seasons, 2004-2005 through 2013-2014

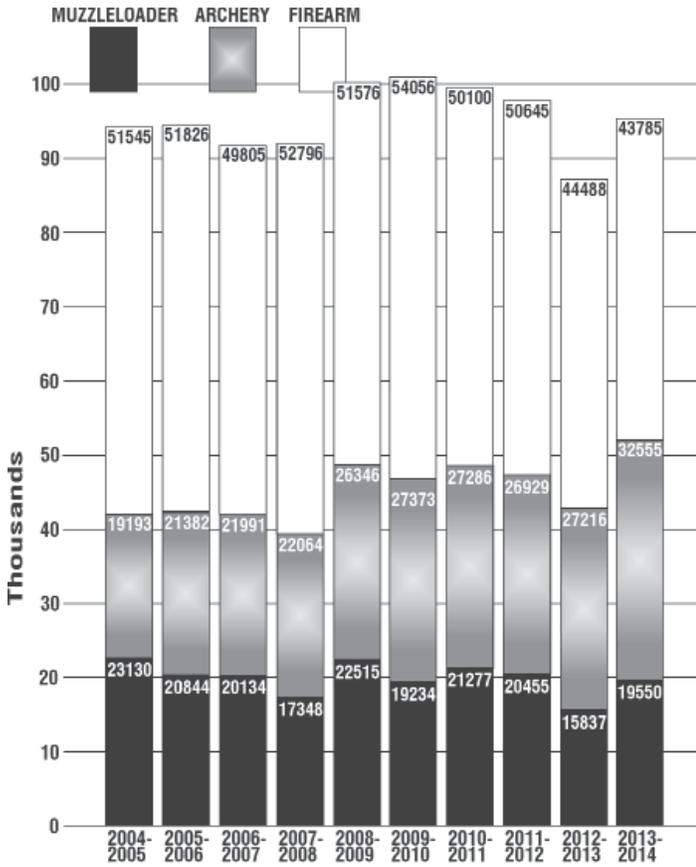


Figure 2

Maryland Reported Antlered and Antlerless Deer Harvest, 2004-2005 through 2013-2014

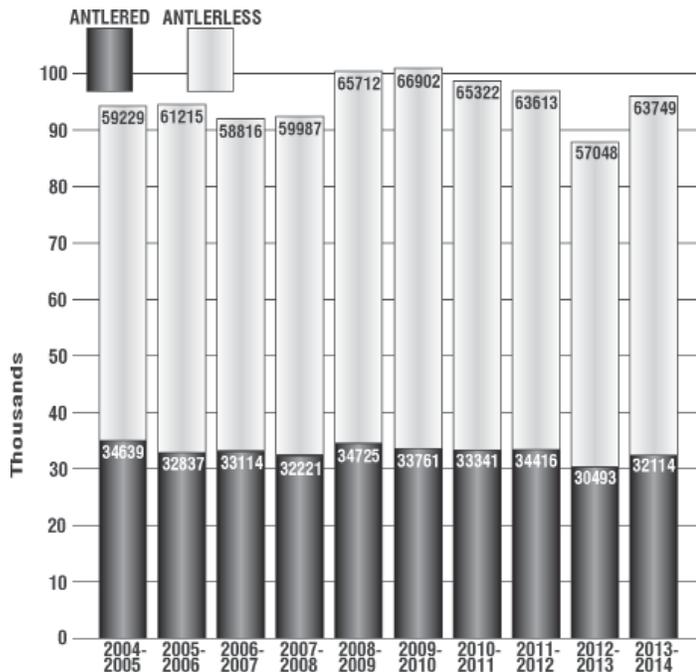


Figure 3

Maryland Reported Button Buck and Doe Harvest, 2004-2005 through 2013-2014

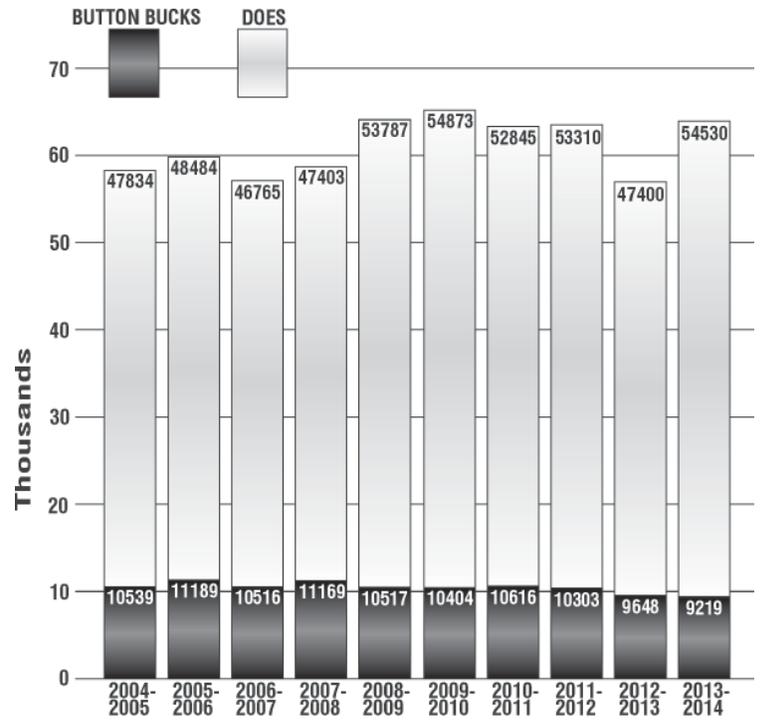


Figure 4

Maryland Reported Crossbow and Vertical Bow Deer Harvest during the Designated Archery Season, 2004-2005 through 2013-2014

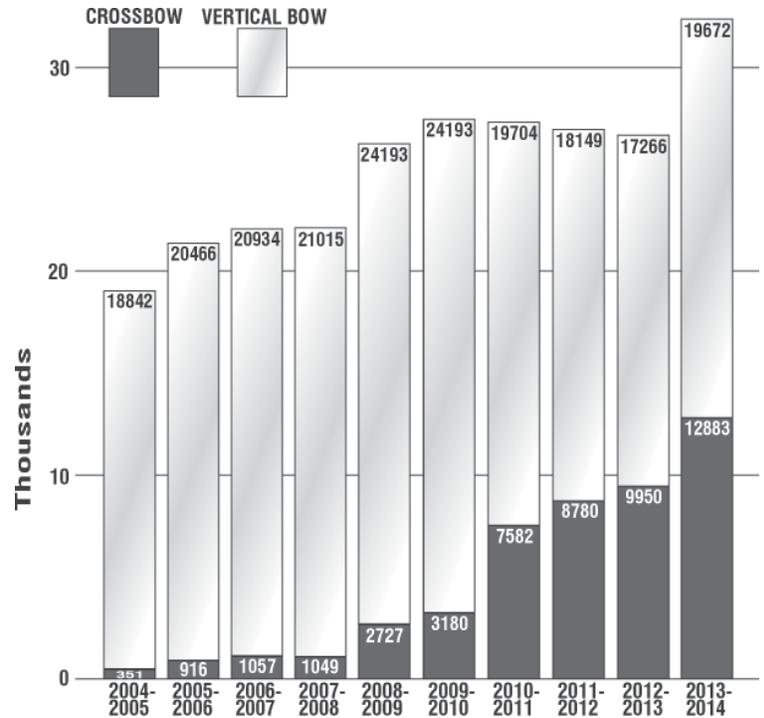


Table 2
Maryland Reported Sunday Hunting Deer Harvest
by County, 2013-2014

COUNTY	Archery			Firearms			Junior Hunt			Muzzleloader			Grand Total
	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	
Allegany ²	14	18	32	89	1	90	37	26	63	0	0	0	185
Anne Arundel ¹	11	11	22	25	49	74	7	11	18	0	0	0	114
Calvert ³	31	39	70	42	109	151	12	5	17	0	0	0	238
Caroline ³													
Whitetail	19	32	51	47	175	222	14	8	22	0	0	0	295
Sika	0	0	0	0	2	2	0	0	0	0	0	0	2
Carroll ⁴	40	64	104	118	309	427	30	13	43	1	12	13	587
Cecil ¹	11	14	25	52	120	172	24	12	36	0	0	0	233
Charles ³	39	63	102	97	236	333	17	13	30	0	0	0	465
Dorchester ²													
Whitetail	15	20	35	45	106	151	14	10	24	0	0	0	210
Sika	10	23	33	43	77	120	10	8	18	0	0	0	171
Frederick ²	45	74	119	108	237	345	45	19	64	0	0	0	528
Garrett ²	25	14	39	121	4	125	53	33	86	0	0	0	250
Harford ³	32	56	88	53	150	203	9	11	20	0	0	0	311
Kent ¹	12	10	22	50	127	177	16	19	35	0	0	0	234
Montgomery ¹	12	27	39	53	108	161	27	8	35	0	0	0	235
Queen Anne's ³	37	47	84	100	303	403	7	14	21	0	0	0	508
St. Mary's ³	33	65	98	67	170	237	19	8	27	0	0	0	362
Somerset ³	12	18	30	63	165	228	13	13	26	0	0	0	284
Talbot ²	32	26	58	36	134	170	15	13	28	0	0	0	256
Washington ²	25	46	71	106	114	220	52	33	85	0	0	0	376
Wicomico ²													
Whitetail	21	23	44	46	116	162	20	29	49	0	0	0	255
Sika	0	1	1	0	1	1	1	1	2	0	0	0	4
Worcester ³	15	32	47	105	284	389	21	19	40	0	0	0	476
Total	491	723	1214	1466	3097	4563	463	326	789	1	12	13	6579

¹Archery season was open on Sunday November 3, 2013. Firearm season was open on Sunday December 1, 2013.

²Archery season was open on Sunday October 13, October 20, October 27, November 3, and November 10, 2013. Firearm season was open on Sunday December 1, 2013.

³Archery season was open on Sunday October 13, October 20, October 27, November 3, and November 10, 2013. Firearm season was open on Sunday December 1 & 8, 2013, and Sunday January 12, 2014.

⁴Archery season was open on Sunday October 13, October 20, October 27, November 3, and November 10, 2013. Firearm season was open on Sunday December 1 & 8, 2013, and Sunday January 12, 2014. Muzzleloader season was open Sunday December 22 & 29, 2013.

Table 3
Maryland Reported Crossbow Deer Harvest
by County, 2013-2014

County	Archery Season			Muzzleloader/Firearm Seasons			Grand Total
	Antlered	Antlerless	Total	Antlered	Antlerless	Total	
Allegany	246	190	436	4	3	7	443
Anne Arundel	256	465	721	15	57	72	793
Baltimore	363	786	1149	30	120	150	1299
Calvert	146	280	426	13	21	34	460
Caroline	85	163	248	2	4	6	254
Carroll	227	416	643	8	30	38	681
Cecil	176	328	504	3	22	25	529
Charles	280	519	799	7	32	39	838
Dorchester							
Whitetail	96	139	235	1	5	6	241
Sika	86	161	247	4	9	13	260
Frederick	306	526	832	6	29	35	867
Garrett	283	191	474	2	3	5	479
Harford	246	513	759	12	55	67	826
Howard	196	394	590	20	70	90	680
Kent	123	164	287		3	3	290
Montgomery	324	702	1026	35	109	144	1170
Prince George's	198	368	566	10	31	41	607
Queen Anne's	131	223	354	1	10	11	365
St. Mary's	258	458	716	12	27	39	755
Somerset							
Whitetail	74	111	185	1	4	5	190
Sika	0	1	1	0	0	0	1
Talbot	134	219	353	1	11	12	365
Washington	354	475	829	3	16	19	848
Wicomico							
Whitetail	83	162	245	4	15	19	264
Sika	1	3	4	0	0	0	4
Worcester							
Whitetail	82	166	248	3	10	13	261
Sika	2	4	6	0	1	1	7
Total	4756	8127	12883	197	697	894	13777

Table 4
Maryland Reported 2-Week Firearm
Season Deer Harvest by
County, 2013

County	Antlered	Antlerless	Total
Allegany	1059	681	1740
Anne Arundel	250	542	792
Baltimore	516	1138	1654
Calvert	237	562	799
Caroline			
Whitetail	273	771	1044
Sika	0	2	2
Carroll	866	1735	2601
Cecil	429	977	1406
Charles	485	1008	1493
Dorchester			
Whitetail	411	979	1390
Sika	335	481	816
Frederick	1221	2229	3450
Garrett	991	751	1742
Harford	376	897	1273
Howard	238	503	741
Kent	430	1039	1469
Montgomery	521	1066	1587
Prince George's	286	578	864
Queen Anne's	485	1139	1624
St. Mary's	342	740	1082
Somerset			
Whitetail	336	998	1334
Sika	2	2	4
Talbot	345	1004	1349
Washington	1241	1495	2736
Wicomico			
Whitetail	399	1104	1503
Sika	12	20	32
Worcester			
Whitetail	485	1559	2044
Sika	0	1	1
Total	12571	24001	36572

Table 5
Maryland Reported Junior Deer Hunt Harvest
by County, 2013

County	Antlered	Antlerless	Total
Allegany	86	66	152
Anne Arundel	18	19	37
Baltimore¹	29	17	46
Calvert	25	16	41
Caroline	44	21	65
Carroll	105	54	159
Cecil	58	29	87
Charles	50	39	89
Dorchester			
Whitetail	64	35	99
Sika	25	20	45
Frederick	133	62	195
Garrett	164	77	241
Harford	29	25	54
Howard¹	20	4	24
Kent	53	27	80
Montgomery	59	26	85
Prince George's¹	16	14	30
Queen Anne's	39	36	75
St. Mary's	34	18	52
Somerset	45	32	77
Talbot	47	27	74
Washington	186	89	275
Wicomico			
Whitetail	59	63	122
Sika	1	2	3
Worcester	68	61	129
Total	1457	879	2336

¹Saturday only.

Table 6
Maryland Reported 3-Day January Firearm Season
Deer Harvest by County, 2014

County	Antlered	Antlerless	Total
Anne Arundel	12	42	54
Baltimore	7	66	73
Calvert¹	22	51	73
Caroline¹	14	65	79
Carroll¹	53	217	270
Cecil	23	68	91
Charles¹	44	96	140
Dorchester			
Whitetail	18	78	96
Sika	41	100	141
Frederick	43	215	258
Harford¹	16	105	121
Howard	4	45	49
Kent	20	73	93
Montgomery	38	98	136
Prince George's	13	34	47
Queen Anne's¹	30	127	157
St. Mary's¹	16	53	69
Somerset¹	26	90	116
Talbot	18	67	85
Washington	13	101	114
Wicomico			
Whitetail	22	94	116
Sika	2		2
Worcester¹	40	174	214
Total	535	2059	2594

¹The late firearm season included Sunday January 12, 2014 in this county.

In Deer Management Region A (Garrett, Allegany, and western Washington counties), hunters reported taking 9,176 deer this year, a 6% increase from the 8,675 deer harvested in 2012-2013. The antlered harvest increased 3% from 5,043 deer last year to 5,186 this year, while the antlerless harvest increased 10% from 3,632 to 3,990 deer.

The reported harvest in Region B increased 10% from 78,866 deer last year to 86,687 deer this year. The antlered harvest increased 6% from 25,450 deer to 26,928 deer, and the antlerless harvest increased 12% from 53,416 deer last year to 59,759 deer this year. Frederick County led the harvest totals again this year with 8,040 deer, followed by Washington County with 6,376 deer and Baltimore County at 6,336 deer. Carroll County and Montgomery County completed the top 5 with 5,915 and 5,889 deer, respectively.

The deer harvest in Maryland's suburban counties (Anne Arundel, Baltimore, Howard, Montgomery, and Prince George's counties) continues to be strong. Hunters in these counties reported 22,055 deer for 2013-2014, up 12% from the 19,693 deer reported the previous year. DNR 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 grow in popularity and is an important aid to deer management. A total of 6,579 deer (7% of the total harvest) were taken on Sundays during the 2013-2014 season. (Table 2). Sunday hunting is permitted in 20 of 23 counties on select Sundays each year.

Archery Season

Archery season in Maryland opens the Friday after Labor Day (September 6th in 2013-2014) and closes on January 31. Approximately 55,000 – 60,000 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 normally does so for about 14 days each season and 35% of these hunters take one deer or more each year. Approximately 12,000 hunters currently hunt deer with a crossbow. The average crossbow hunter uses a crossbow for about 10 days each year and approximately 40% are successful in taking one or more deer per year.

In 2013-2014:

- The reported archery harvest (vertical and crossbow) increased 20% from 27,216 deer in 2012-2013 to 32,555 deer in 2013-2014 (Table 1).
- There were 11,467 antlered deer (35% of total) and 21,088 antlerless deer harvested with crossbows and vertical bows.

- The antlered archery harvest increased 17% and the antlerless harvest (18,714 does and 2,374 button bucks) increased 21% over the previous year.
- Crossbow hunters took 4,756 antlered deer and 8,127 antlerless deer during the archery season (Table 3).
- The crossbow harvest increased from 35% of the total archery season harvest in 2012-2013 to 40% in 2013-2014 (Figure 4).
- Approximately 7,700 different hunters harvested a deer with a crossbow during archery season (compared to 5,900 in 2012-2013).
- 88% of the archery harvest was on private lands.
- Archery hunters took 1,214 deer (491 antlered, 723 antlerless) on Sundays open to archery hunting on private land across 20 counties (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. 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 five to six days each year pursuing deer with a firearm and approximately 40 - 45% of firearm hunters bag at least one deer each year.

In 2013-2014:

- The statewide firearm harvest decreased 2% from 44,488 deer in 2012-2013 to 43,758 deer (Table 1).
- The firearm harvest was comprised of 15,061 antlered deer (34%) and 28,697 antlerless deer.
- The antlered harvest decreased 2% and the antlerless harvest (23,943 does and 4,754 button bucks) decreased 1% from 2012-2013.
- The majority (84%) of the firearm harvest occurred during the 2-week season that begins the Saturday after Thanksgiving (Table 4).
- Firearm hunters took 46% of all deer harvested in Maryland compared to 51% last season. (Figure 1).
- The majority (88%) of the firearm harvest was taken on private property.
- Firearm hunters bagged 4,563 deer (1,466 antlered and 3,097 antlerless) on the Sundays open during the 2-week and January firearm seasons, and juniors harvested 789 deer (463 antlered and 326 antlerless) on the Junior Deer Hunt Sunday (Table 2).
- Junior deer hunters bagged a total of 2,336 deer (1,457 antlered and 879 antlerless) during the

Table 7
Maryland Reported Early Muzzleloader Season
Deer Harvest by County, 2013

County	Antlered	Antlerless	Total
Allegany	282	216	498
Anne Arundel	67	268	335
Baltimore	151	488	639
Calvert	80	251	331
Caroline			
Whitetail	107	298	405
Sika	1	0	1
Carroll	217	389	606
Cecil	125	314	439
Charles	132	371	503
Dorchester			
Whitetail	131	264	395
Sika	241	193	434
Frederick	317	723	1040
Garrett	314	206	520
Harford	122	348	470
Howard	75	221	296
Kent	178	311	489
Montgomery	135	341	476
Prince George's	85	246	331
Queen Anne's	133	357	490
St. Mary's	99	412	511
Somerset			
Whitetail	75	247	322
Sika	1	0	1
Talbot	103	258	361
Washington	318	444	762
Wicomico			
Whitetail	107	365	472
Sika	8	4	12
Worcester			
Whitetail	92	356	448
Sika	0	1	1
Total	3696	7892	11588

Table 8
Maryland Reported Late Muzzleloader Season
Deer Harvest by County, 2013-2014

County	Antlered	Antlerless	Total
Allegany	83	259	342
Anne Arundel	81	226	307
Baltimore	123	480	603
Calvert	57	172	229
Caroline	55	191	246
Carroll	70	324	394
Cecil	46	198	244
Charles	112	320	432
Dorchester			
Whitetail	50	133	183
Sika	70	169	239
Frederick	161	538	699
Garrett	69	264	333
Harford	59	253	312
Howard	52	212	264
Kent	78	198	276
Montgomery	124	357	481
Prince George's	84	227	311
Queen Anne's	77	268	345
St. Mary's	106	263	369
Somerset			
Whitetail	39	91	130
Sika	0	2	2
Talbot	63	178	241
Washington	112	381	493
Wicomico			
Whitetail	56	196	252
Sika	1	3	4
Worcester	62	169	231
Total	1890	6072	7962

Junior Deer Hunt weekend; a 9% decrease (Table 5).

- Deer hunters reported 2,594 deer (79% antlerless) for the 2-day January firearm season (Table 6).

Muzzleloader Season

The 2013-2014 statewide, either-sex muzzleloader season included three days in October (October 17 - 19) and two weeks during late December (December 21 – January 4). Region B continued with a six day antlerless-only muzzleloader season (October 21 - 26) 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 55,000 and 7,400 muzzleloader stamps, respectively in 2013-2014. The stamps are required to hunt deer during the muzzleloader season. Maryland muzzleloader hunters pursue deer for about three days per hunter during the October season and for about 3.5 days in the late two-week season. Approximately 30% of muzzleloader hunters were successful in harvesting at least one deer last year.

In 2013-2014:

- The muzzleloader harvest totaled 19,550 deer compared to 15,837 deer in 2012-2013, a 23% increase (Table 1).
- There were 5,586 antlered deer and 13,964 antlerless deer harvested with muzzleloaders. Antlerless deer represented 71% of the total muzzleloader harvest.
- The antlered harvest increased 5% and the antlerless harvest (11,873 does and 2,091 button bucks) increased 33% from the previous year.
- The October muzzleloader harvest was 11,588 deer (3,696 antlered and 7,892 antlerless), an 18% increase from the previous year's harvest of 9,788 deer (Table 7).
- The December muzzleloader harvest totaled 7,962 deer (1,890 antlered and 6,072 antlerless); a 32% increase from the previous year (Table 8).
- The October muzzleloader season accounted for 59% of the total muzzleloader harvest for the year.
- Muzzleloader hunters took 93% of their total harvest on private lands.

Maryland DNR 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

Table 9
Maryland Yearling Buck (1 1/2 Year Old) Vital Statistics
by County, 2013-2014

County	%YearlingBuck	AveragePoints	BeamDiameter(mm)
Allegany	68	3.8	17.6
Anne Arundel	57	3.7	17.4
Baltimore	49	3.9	18.0
Calvert	53	4.9	17.4
Caroline	69	4.1	19.0
Carroll	45	4.9	20.0
Cecil	52	3.9	19.1
Charles	34	3.1	18.3
Dorchester	49	3.9	17.9
Frederick	56	4.6	20.3
Garrett	68	4.2	18.7
Harford	48	5.6	18.4
Howard	45	3.8	16.9
Kent	32	3.7	19.3
Montgomery	54	3.8	18.5
Prince George's	35	3.3	16.0
Queen Anne's	46	4.8	20.7
St. Mary's	45	4.1	17.2
Somerset	52	4.0	17.8
Talbot	67	3.6	19.5
Washington	77	5	20.6
Wicomico	39	3.6	16.6
Worcester	52	3.3	15.5
Statewide	53	4.2	18.5

and management in Maryland and outlines the responsibilities and goals of the Deer Project team. The plan and supporting documents are available on the DNR website at http://dnr.maryland.gov/wildlife/Hunt_Traps/pdfs/2009-2018MarylandWT-DeerPlan.pdf.

Deer Research and Data Use

In 2013-2014, 4,384 deer were examined at butcher shops across the state during the muzzle-loader 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 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. Overall, Maryland's long-term data for these indicators show healthy, productive deer populations across the state (Table 9).

Deer at the butcher shops are also examined for evidence of hemorrhagic disease; a virus 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 2013. DNR will continue to monitor for HD in the coming years.

Research by the State Chapter of the Quality Deer Management Association (QDMA)

The Maryland State Chapter of QDMA continued studying white-tailed deer in Maryland during 2013-2014. QDMA staff and volunteers examined the reproductive tracts of 193 female deer harvested during 2013-2014 to identify time of breeding and number of fetuses carried. Their research has shown that approximately 85% of adult female deer (1.5 years and older) in Maryland are successfully impregnated in any given year, of which 35% carry one fetus, 60% carry two fetuses, and 3% carry three fetuses. Approximately 4% of female fawns also are impregnated. Peak breeding in Maryland occurs during the first three weeks of November. During this period, and just prior to it, is when bucks will be most active 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 on these studies, visit the Maryland QDMA website at <http://marylandqdma.com>.

Archery Hunter Survey

The annual Archery Hunter Survey was continued for 2012-2013 (survey data from the 2013-2014 season are currently being analyzed and were not ready for the report). Archery hunters reported 18.6 bucks per 100 hours and 40.8 does per 100 hours in 2012-2013. Likewise, they observed 2.2 adult does for every one adult buck and 0.7 fawns for every one adult doe in 2012-2013. The full report is available online at http://dnr.maryland.gov/wildlife/hunt_trap/bhsurvey.asp.

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 on the DNR website at the web address listed above.

DNR and Maryland Counties Cooperative Deer Management

Since 1994, Maryland DNR 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. Maryland DNR 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. Maryland DNR staff 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 DNR assistance.

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. The Deer Project works with Baltimore City as well as 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 DNR, 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.

Maryland DNR 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 DNR. Interested entities should contact George Timko, Maryland DNR 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 on DNR 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 DNR website is devoted to public education on deer and deer management options. Information on nonlethal and lethal methods is provided at: http://dnr.state.md.us/wildlife/Hunt_Traps/deer/deer_damage/ddmtintro.asp.

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

Public Property Deer Management

DNR 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 DNR. 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 DNR.

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 2013-2014 hunting seasons.

Deer Population

Maryland's deer population prior to the 2013-2014 hunting season was estimated at 227,000 deer, up slightly from the 2012-2013 estimate of 223,000. 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 begun to decline. DNR 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 concerning deer killed by vehicles (Table 10) is reported to the DNR 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, deer-vehicle 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 33,250 deer-vehicle collisions in Maryland during each of the last five years.

Farmers and landowners can obtain a Deer Management Permit (DMP) from DNR when

Table 10
Maryland Reported Deer Vehicular Mortality by County, 2013¹

County	Male	Female	Unknown	Total
Allegany	69	125	14	208
Anne Arundel	137	95	82	314
Baltimore	228	214	897	1,339
Calvert	120	141	7	388
Caroline	17	23	17	57
Carroll	256	461	156	873
Cecil	42	86	22	150
Charles	68	230	140	438
Dorchester	30	44	3	77
Frederick	416	606	349	1,371
Garrett	91	140	28	259
Harford	235	451	78	764
Howard	598	700	960	2,258
Kent	22	44	38	104
Montgomery	20	16	597	4,151
Prince George's	450	511	164	1,125
Queen Anne's	4	2	15	21
St. Mary's	41	65	10	116
Somerset	11	35	2	48
Talbot	60	75	12	147
Washington	179	298	47	524
Wicomico	26	38	1	65
Worcester	0	0	36	36
Total	3,120	3,213	3,675	14,833

¹Estimates 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.

Table 11
Maryland Reported Crop Damage Mortality
by County, 2013

County	Male	Female	Total
Allegany	33	213	246
Anne Arundel	30	167	197
Baltimore	71	338	409
Calvert	27	90	117
Caroline	20	125	145
Carroll	103	522	625
Cecil	82	211	293
Charles	33	241	274
Dorchester			
Whitetail	34	277	311
Sika	24	174	198
Frederick	56	462	518
Garrett	94	648	742
Harford	49	325	374
Howard	28	251	279
Kent	13	107	120
Montgomery	24	297	321
Prince George's	73	375	448
Queen Anne's	42	156	198
St. Mary's	67	270	337
Somerset			
Whitetail	46	314	360
Sika	0	1	1
Talbot	70	297	367
Washington	47	341	388
Wicomico			
Whitetail	47	412	459
Sika	0	9	9
Worcester			
Whitetail	85	678	763
Sika	0	3	3
Other	152	315	467
Total	1350	7619	8969

deer are causing damage to commercial crops. DMPs allow farmers to harvest antlerless deer on their property outside of the regular state hunting seasons and bag limits. In 2013, 8,969 deer were taken with DMPs compared to 7,940 deer in 2012 (Table 11), an increase of about 13%. 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, DMPs 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 2013, 1,258 deer were harvested via sharp-shooting in Maryland. Sharp-shooting is performed by deer cooperators licensed by DNR. 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 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 and coyote and bear populations in Maryland and develop alternative management strategies as the need arises.

Trophy Deer Contest

Each year the Maryland Bowhunters Society, the Maryland Chapter of the Quality Deer Management Association, and DNR 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 major goal of DNR's deer management changes is to continue to improve the quality of Maryland's deer herd. By encouraging antlerless deer harvest and restraining antlered buck harvest, populations will reach appropriate levels while the potential for mature antlered buck survival improves.

The 2013 Maryland Trophy Deer Contest for bucks taken in the 2011-2012 hunting season was held during the Southern Maryland Hunting and Outdoor Expo at the Charles County Fairgrounds. The Boone and Crockett system is used to score antlers and white-tailed, fallow, and sika entries are accepted. The results of the 2013 contest are listed on the following pages.

The 2014 Maryland Trophy Deer Contest for deer taken during the 2012-2013 hunting seasons will be held at the Country Life Outdoors Festival at the St. Mary's County Fairgrounds, August 22 - 24, 2014. 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

Score	County	Name
White-tailed Deer, Firearms, Typical Antlers		
194 0/8	Kent	Kevin Miller
185 7/8	Queen Anne's	Walter Lachewitz
184 0/8	St. Mary's	Larry Day
White-tailed Deer, Firearms, Non-Typical Antlers		
268 1/8	Charles	William Crutchfield, Jr.
248 7/8	Charles	Donza Watson
228 4/8	Montgomery	Jack Poole
White-tailed Deer, Bow, Typical Antlers		
183 3/8	Talbot	Petey Councill
178 1/8	Harford	Mark Rogowski
177 0/8	Baltimore	Richard Trabant
White-tailed Deer, Bow, Non-Typical Antlers		
220 2/8	Prince George's	Yates Claggett
208 7/8	Anne Arundel	Robert Gertz
207 5/8	Talbot	Richard E. Stacey, Sr.
White-tailed Deer, Muzzleloader, Typical Antlers		
178 6/8	Baltimore	John Gweazdowski
171 3/8	Dorchester	Mark Bronder
170 1/8	Talbot	Kara Gowe
White-tailed Deer, Muzzleloader, Non-Typical Antlers		
200 4/8	Dorchester	Greg Glos
199 3/8	Talbot	William Shields
190 2/8	Prince George's	Jeffrey B. Henderson
White-tailed Deer, Crossbow, Typical Antlers		
166 3/8	Baltimore	Wayne Wipfield
164 4/8	Kent	Douglas C. Wood
162 7/8	St. Mary's	Lawrence Copey
White-tailed Deer, Crossbow, Non-Typical Antlers		
180 3/8	Baltimore	Ronnie Hamilton
179 0/8	Somerset	Ernest Hughes
176 4/8	Frederick	Kenneth A. Brame
Sika Deer, Firearms		
75 7/8	Dorchester	James Howdyshell
72 5/8	Dorchester	David King, Jr.
71 2/8	Dorchester	Steve Brownley
Sika Deer, Bow		
69 6/8	Dorchester	Lenny Hyre
69 4/8	Dorchester	Larry Owen
68 1/8	Dorchester	Theresa Henriksen
Sika Deer, Muzzleloader		
74 6/8	Dorchester	Henry Williams, Jr.
73 4/8	Dorchester	John Eger
72 7/8	Dorchester	Milton Kern
Sika Deer, Crossbow		
67 4/8	Dorchester	David King
66 6/8	Dorchester	Ronald C. Taylor
52 4/8	Dorchester	Denis Witmer
Fallow Deer, Firearms		
176 7/8	Prince George's	Patrick A. Akins
Fallow Deer, Muzzleloader		
127 7/8	Talbot	Bill McCready

Results from the
**2013 MARYLAND TROPHY DEER CONTEST
 FOR THE 2011-2012 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
161 4/8	Prince George's	Thomas Paul
155 3/8	Charles	Scott Sanders
145 0/8*	Charles	Jim Matthews
144 1/8	Worcester	Ashley Bates
142 5/8*	Worcester	Ken Bates, Sr.
131 0/8*	Saint Mary's	Richard Yeatman
129 4/8	Montgomery	Justin Fleming
128 3/8*	Prince George's	James Soresi
118 7/8	Cecil	Luke Hatton
107 7/8	Cecil	Rachel Rhodes
100 0/8	Queen Anne's	Stephanie Gregor

***Historical**

White-tailed Deer Firearms Season, Non-Typical Antlers

Score	County	Name
173 4/8	Dorchester	Earl Greemlee
160 1/8*	Saint Mary's	Colin Long
142 1/8*	Charles	Cody Magelssen
128 2/8	Saint Mary's	Michael Weeks
128 0/8	Dorchester	Brooke Planner

***Historical**

White-tailed Deer Archery Season, Typical Antlers

Score	County	Name
155 4/8*	Prince George's	Daniel Garner
153 3/8	Calvert	Shawn Lancaster
152 6/8*	Saint Mary's	Jason Guy
149 7/8**	Charles	Haley Tanner
149 4/8**	Cecil	Jim Cole
148 5/8**	Charles	Clay Starner
148 2/8**	Prince George's	Daniel Garner
144 3/8	Montgomery	Robert Cardosi
143 4/8	Saint Mary's	Cole Langley
143 0/8*, **	Anne Arundel	Ernie Wood
139 0/8	Montgomery	Steve Perry
135 3/8	Frederick	Bryan Crider
135 2/8	Baltimore	Solomon Henson
135 0/8**	Calvert	Ronald Williams
130 5/8	Frederick	Michael Norris
130 1/8*, **	Prince George's	Ernie Wood
122 4/8	Saint Mary's	Kelly Weeks

***Historical **Crossbow**

White-tailed Deer Archery Season, Non-Typical Antlers

Score	County	Name
208 7/8	Anne Arundel	Robert Gertz
185 6/8	Charles	John Lane
180 3/8**	Baltimore	Ronnie Hamilton
161 0/8**	Saint Mary's	Kip Pulliam
140 3/8	Saint Mary's	Chris Jennings
112 5/8	Prince George's	William Shearer, 3rd

****Crossbow**

White-tailed Deer Muzzleloader Season, Typical Antlers

Score	County	Name
145 1/8*	Charles	Daniel Burch
143 4/8*	Saint Mary's	Bradley Tippet
135 5/8	Prince George's	Dave Cross
119 7/8*	Charles	Raymond Simpson
110 4/8*	Charles	Danny Harrigan
107 7/8	Saint Mary's	Mike Poe

***Historical**

White-tailed Deer Muzzleloader Season, Non-Typical Antlers

Score	County	Name
190 2/8	Prince George's	Jeffrey Henderson
177 5/8	Saint Mary's	Richard Yeatman
167 1/8	Charles	Brian Griffith
144 1/8	Saint Mary's	Rocky McCumbee
117 2/8*	Saint Mary's	James Bowles

***Historical**

Sika Deer, Firearms Season

Score	County	Name
70 2/8	Dorchester	Brian Kleissler
63 4/8	Dorchester	Craig Dellagatta
54 4/8*	Dorchester	Steve Perry
52 4/8	Dorchester	John Dellagatta
44 4/8	Dorchester	Rick Lodgaard

***Historical**

Sika Deer, Muzzleloader Season

Score	County	Name
70 4/8	Dorchester	Tim Herb
50 3/8	Dorchester	Rick Lodgaard

Sika Deer, Archery Season

Score	County	Name
66 6/8**	Dorchester	Ronald C. Taylor

****Crossbow**

Appendix I

Statewide Reported Antlered and Antlerless Deer Harvest by Public Hunting Area and County, 2013-2014

County/PublicLand	Antlered	Antlerless
Allegany		
Belle Grove WMA	1	0
Billmeyer WMA	14	3
Dan's Mountain WMA	83	53
Green Ridge SF	226	106
Rocky Gap SP	18	21
Sideling Hill WMA	10	3
Warrior Mountain WMA	87	39
Anne Arundel		
Anne Arundel County Managed Hunts	7	51
Crownsville CWMA	4	15
Davidsonville Receiver Station	6	14
Fort Meade	45	195
Smithsonian	8	25
Baltimore		
Gunpowder SP	17	135
Gwynnbrook WMA	4	6
Liberty Watershed	19	79
Loch Raven Watershed	63	166
Patapsco SP	25	54
Pretty Boy Watershed	82	190
Soldiers Delight NEA	3	62
Calvert		
Calvert Cliffs SP	8	13
Flag Pond CWMA	0	0
Hall Creek	1	5
Huntingtown Area	15	32
Caroline		
Chesapeake Forest Lands	0	14
Idylwild WMA	20	52
Tuckahoe SP	10	19

County/PublicLand	Antlered	Antlerless
Carroll		
Avondale WMA	1	8
Farver CWMA	1	1
Hahn CWMA	2	3
Hanover Watershed	19	37
Liberty Watershed	61	164
Maring CWMA	3	5
Morgan Run NEA	11	35
Patapsco SP	16	64
Raincliffe CWMA	1	4
Sawmill-Spiegel CWMA	12	33
Slacks CWMA	5	10
Woodbrook CWMA	8	8
Cecil		
C&D Canal	12	26
Earlville WMA	4	13
Elk Neck SF	25	60
Elk Neck SP	12	62
Fair Hill NRMA	6	126
Grove Farm WMA	9	29
Old Bohemia WMA	5	9
Charles		
Blossom Point Field Test Facility	1	6
Cedar Point WMA	14	32
Cedarville SF	5	17
Chapel Point SP	9	13
Chapman Residual	5	6
Chapman State Park	5	19
Chicamuxen WMA	5	4
Doncaster SF or Tayloes Neck	3	6
Indian Creek NRMA	9	13
Indian Head Naval Ordnance Area	5	34
Mattawoman NEA	4	9
Myrtle Grove WMA	20	33
Nanjemoy NRMA	3	11
Riverside WMA	4	4

County/PublicLand	Antlered	Antlerless
Dorchester		
Blackwater NWR		
whitetail	30	34
sika	123	155
Chesapeake Forest Lands		
whitetail	43	92
sika	34	28
Fishing Bay WMA		
whitetail	11	16
sika	55	51
LeCompte WMA		
whitetail	5	13
sika	1	4
Linkwood WMA		
whitetail	6	10
sika	1	0
Taylor's Island WMA		
whitetail	0	2
sika	2	7
Frederick		
Cunningham Falls SP Thurmont WS	23	79
Emmitsburg Watershed	4	21
Fort Detrick	0	0
Frederick City Watershed	78	145
Heaters Island WMA	7	13
Monocacy NRMA	52	60
South Mountain SP	17	22

Appendix I -continued-

Statewide Reported Antlered and Antlerless Deer Harvest by Public Hunting Area and County, 2013-2014

County/PublicLand	Antlered	Antlerless
Garrett		
4-H Center	0	3
Deep Creek Lake SP	15	12
Frostburg Watershed	12	6
Garrett SF	86	46
Mount Nebo WMA	33	10
Potomac SF	33	30
Savage River SF	196	122
Youghiogheny Reservoir	9	3
Harford		
Aberdeen Proving Grounds	178	414
Gunpowder SP	2	20
Rock SP	2	5
Stoney Forest	4	6
Susquehanna SP	15	72
Howard		
Howard County Parks & Recreation Hunts	51	141
Hugg-Thomas WMA	8	23
Patapsco SP	31	77
Patuxent River SP	71	194
Tridelphia/Rocky Gorge (WSSC)	27	106
Kent		
Eastern Neck NWR	35	37
Millington WMA	28	73
Sassafras NRMA	16	24
Montgomery		
Cherrington Coop	10	53
Mckee-Beshers WMA	68	104
Montgomery County M-NCPPC Lands	39	426
Patuxent River SP	71	97
Seneca - Schaeffer Farm	21	56
Seneca Creek SP	74	187
Strider WMA	6	12
Tridelphia/Rocky Gorge (WSSC)	18	79

County/PublicLand	Antlered	Antlerless
Prince George's		
Aquasco Farms Coop	6	35
Beltsville	88	194
Billingsly Tract (Patuxent River Park)	4	13
Brandywine Receiver Station	9	32
Mill Town Landing NRMA	0	3
Nottingham	0	2
Patuxent WRC (Central & South Tracts)	13	48
Rosaryville SP	5	21
Spice Creek (Patuxent River) NRMA	6	8
Tridelphia/Rocky Gorge (WSSC)	10	39
Queen Anne's		
Tuckahoe SP	4	13
Wye Island NRMA	22	50
St. Mary's		
Elms' CWMA	3	15
Greenwell SP	4	10
Newtowne Neck SP	1	2
Patuxent Naval Air Station	34	63
Point Lookout SP (Jacobs Property)	4	15
St. Inigoes SF	4	8
St. Mary's SP	13	42
Somerset		
Chesapeake Forest Lands	41	99
Deal Island WMA		
whitetail	8	22
sika	0	1
Fairmount WMA	1	0
Maryland Marine Properties WMA	0	1
Pocomoke Sound WMA	3	4
South Marsh Island WMA	0	0
Wellington WMA	1	11
Talbot		
Seth SF	3	1

County/PublicLand	Antlered	Antlerless
Washington		
Ft. Frederick SP	1	20
Greenbrier SP	29	55
Hagerstown Watershed	6	14
Indian Springs WMA	89	40
Maryland Correctional Training Center	14	24
Prather's Neck WMA	7	5
Sideling Hill WMA	36	12
South Mountain SP	45	93
W. Maryland Ag Research Station (B)	1	22
Woodmont	31	11
Wicomico		
Chesapeake Forest Lands		
whitetail	57	129
sika	4	1
Ellis Bay WMA		
whitetail	1	7
sika	2	2
Johnson WMA	1	0
Nanticoke WMA		
whitetail	5	19
sika	1	1
Wetipquin WMA	1	1
Wicomico SF	17	47
Worcester		
Assateague NS		
whitetail	4	6
sika	17	34
Assateague SP		
whitetail	0	1
sika	0	4
Chesapeake Forest Lands	41	81
E.A. Vaughn WMA		
whitetail	12	62
sika	0	1
Hickory Point WMA	1	0
Isle of Wight WMA	1	0
Pocomoke River WMA	1	13
Pocomoke SF	39	111



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

Printed on Recycled Paper
July 2014

