

Deer Management Unit

017

Area Description

This DMU is approximately 792 square miles in size and includes the eastern extents of Chippewa and Mackinac counties, excluding Drummond Island. It extends from the Lake Superior shoreline to the Lake Huron shoreline. Most (81%) of the land is privately-owned, while 20% is state- or federally-owned. State forest land accounts for approximately 123.6 square miles (16%) while federal ownership in the Hiawatha National Forest accounts for approximately 32.2 square miles (4%).

Land use and habitat quality for deer

DMU 017 is characterized by a mix of forested and agricultural land. Most of the agricultural land consists of hay land and pasture fields for cattle and other livestock, and has lower productivity than in other areas of the state where row crops are present. In general, this DMU lacks any large swamp conifer complexes, although it is not lacking in wetlands in general.

Typical winter weather, as related to deer

This DMU is primarily located in the moderate snowfall zone. Total accumulated snow depths from 2005 – 2016 measured at 2 stations in the DMU average 243 inches. This is above the average of approximately 228 inches for U.P. stations.

Management Guidance

Antlerless harvest opportunities during firearm season were available prior to 2010, but have been less desirable in more recent years with lower deer population indices following harsher winters in 2008, 2009, and 2013 – 2015. During 2013 – 2015, antlerless licenses were offered in only 3 of the 22 DMU's in the region. Deer population indices have generally been low during this period across the region, although some indicators are suggesting the population is starting to rebound. Deer damage complaints are low and state forest managers have expressed little concern about forest regeneration outside of deer wintering areas. There are locally higher deer densities within the unit in a zone where agricultural land is near wintering areas, but this is relatively atypical of the unit. There has been little support for antlerless harvest opportunities in recent years by local sportsmen's groups. In fact, many groups seemed to favor the antlerless regulation changes in 2015 that no longer allowed antlerless deer to be harvested during archery season.

Deer Harvest Analysis

Deer harvest per square mile has been low compared to 2006 – 2008, and is below average compared to other DMU's in the U.P. Relatively low buck kill rates have been experienced since 2009 when two consecutive harsh winters in 2008 and 2009 impacted the deer herd. Buck kill per square mile reached lows in 2014 and 2015 after another round of consecutive harsh winters with above-average snow depths from 2013 – 2015; the population has not recovered to pre-2009 densities. The average buck kill per square mile from 2013 – 2015 (1.1) was below the average of 1.5 across the region.

Antlerless harvest is influenced by the antlerless quota, and no antlerless licenses have been available during regular firearm season since 2010. Antlerless deer could still be taken during archery season through the 2014 season, and the archery harvest accounts most of the increase in the antlerless deer harvest from 2010 – 2013. However, the three consecutive severe winters from 2013 – 2015 had a substantial enough negative impact on deer abundance to warrant regulation changes that no longer allowed antlerless harvest during archery season in the U.P. starting in 2015.

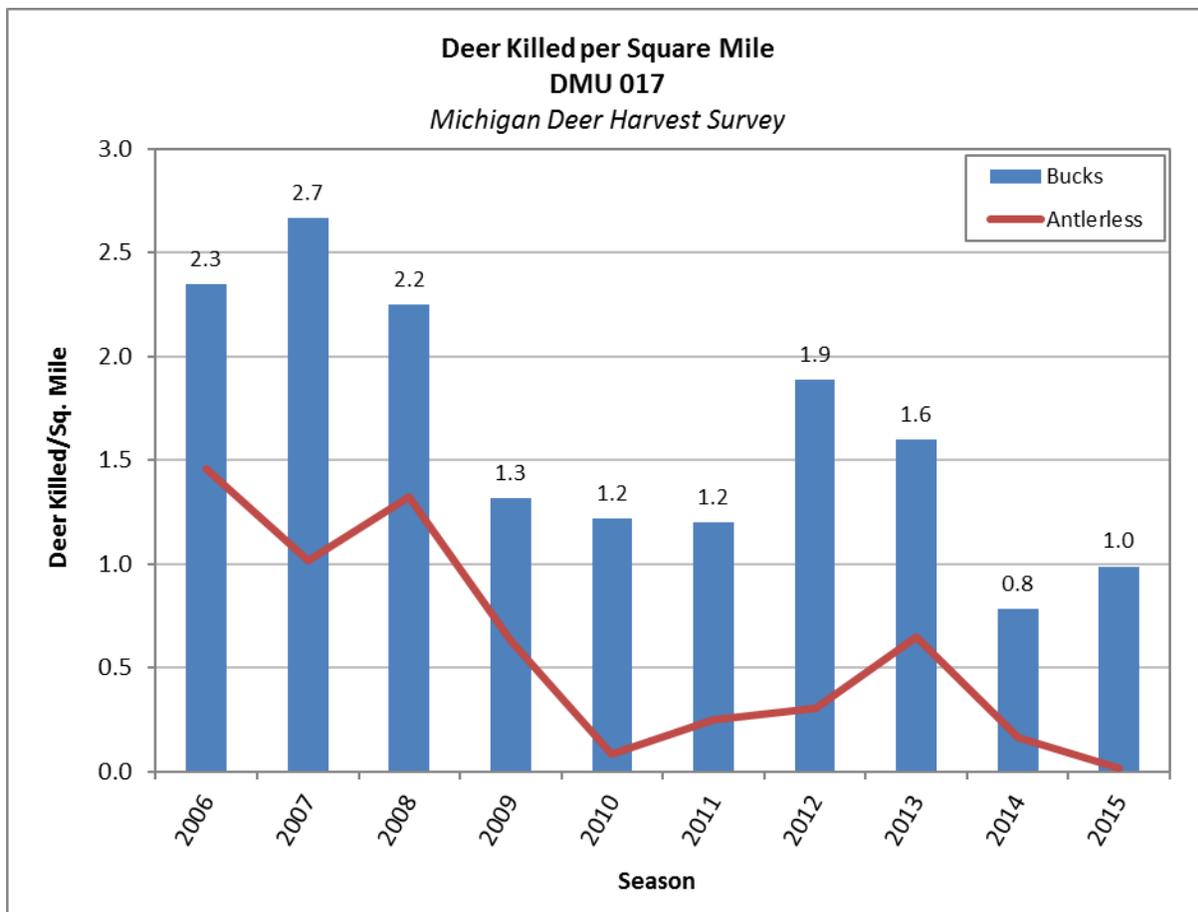


Figure 1: Graph of deer kill per square mile in DMU 017, 2006 – 2015, based on Michigan Deer Harvest Survey results.

Deer sightings and hunter success/satisfaction trends

Camps from DMU 017 that participate in the U.P. Deer Camp Survey (firearm season) have reported relatively low observation and hunter success rates compared to other DMU's in the region.

Participating camps observe 2.3 deer per hunter day on average since 2006. This ranks below the

average of 2.7 for DMU's across the region. Buck kill success rates average 18% in DMU 017 since 2006, which is one of the lowest rates in the region. Hunter satisfaction with the season can vary by year but has been low on average in recent years with only 19% of hunters rating the season good or excellent since 2014. Although this is above average when compared to other DMU's in the region (13% on average), there was near-record low satisfaction with the season in the DMU in 2015 (8%). Common unsolicited comments made by participating camps in the DMU relates a desire to limit harvest to improve the herd.

DEER MANAGEMENT UNIT 017											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Camps	39	36	39	48	59	55	60	57	58	52	51
Hunters	163	165	192	216	244	229	253	246	211	193	205
% killing a buck	11%	25%	21%	12%	16%	19%	25%	21%	13%	13%	21%
Deer seen per day	2	2.7	2.5	1.3	2	1.9	2.9	2.3	2.7	1.8	3.1
Fawns seen per 100 does	51	43	41	37	56	49	52	41	54	56	69
Does seen per buck	0	4	3	4	5	4	3	4	8	4	3
More deer than last year	18%	33%	13%	6%	14%	20%	37%	13%	17%	6%	44%
Same number deer	41%	34%	29%	15%	30%	36%	44%	36%	17%	17%	38%
Fewer deer than last year	41%	33%	58%	79%	56%	44%	19%	51%	66%	77%	18%
Season good-to-excellent	21%	42%	28%	10%	14%	17%	47%	19%	15%	8%	33%
Season fair-to-poor	79%	59%	72%	90%	87%	79%	53%	81%	85%	92%	67%

Figure 2: Deer Camp Survey data in DMU 017.

Research Results

A research project focusing on the role of predators, winter weather, and habitat on deer fawn survival is being conducted in the western U.P. by Mississippi State University in cooperation with the DNR. Results of this research conducted in the low and moderate snowfall zones to date suggest the following:

- high pregnancy rate among adult females despite uneven buck to doe ratios;
- low fawn annual survival following harsh winters;
- under mild to moderate winter severity, the most important factor influencing the growth (positive or negative) of a deer population is the proportion of fawns surviving their first year and becoming potential breeders;
- under severe winter conditions substantial mortality of adult females can occur, replacing recruitment of fawns as the most important factor effecting the growth of a deer population, until the adult female segment of the population recovers;
- severe winter weather can have multi-year effects on deer recruitment and population trends;
- annually, winter severity and habitat conditions influence the amount of predation, which overall was the dominant source of mortality of adult females and fawns. This illustrates the importance of considering all potential limiting factors and their interactions.

These results support results of other surveys suggesting that consecutive harsh winters that have occurred since 2008 have resulted in low deer populations in the region, including in this DMU.

Agricultural Crop Damage

Reported agricultural damage resulting from deer has been low, and ranks low among DMU's. No out-of-season shooting permits have been issued to address crop damage issues in each of the past 3 years. A total of 6 Deer Management Assistance Permits were issued over the last 3 years, resulting in the total take of 14 deer over that same time period.

Forest Regeneration Concerns

No issues have been raised by DNR Forest Resources Division or other agencies.

Deer-Vehicle Collisions

Reported deer-vehicle accidents, adjusted for traffic volume, have declined in the U.P. during the past decade.

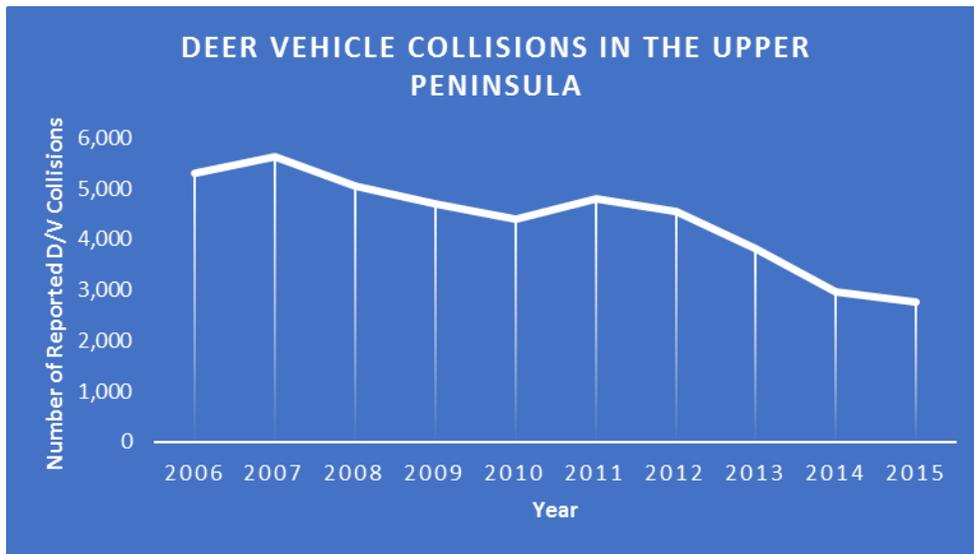


Figure 3: Deer-vehicle collisions in the U.P., 2006 – 2015.

Deer Condition Data

A sample of hunter-harvested deer is examined at check stations each fall. The diameter of antler beams, measured 1 inch above the pedicel, is measured on 1.5-year-old bucks as an index of physical condition. Antler beam diameters have varied little in the U.P. Region during the past decade.

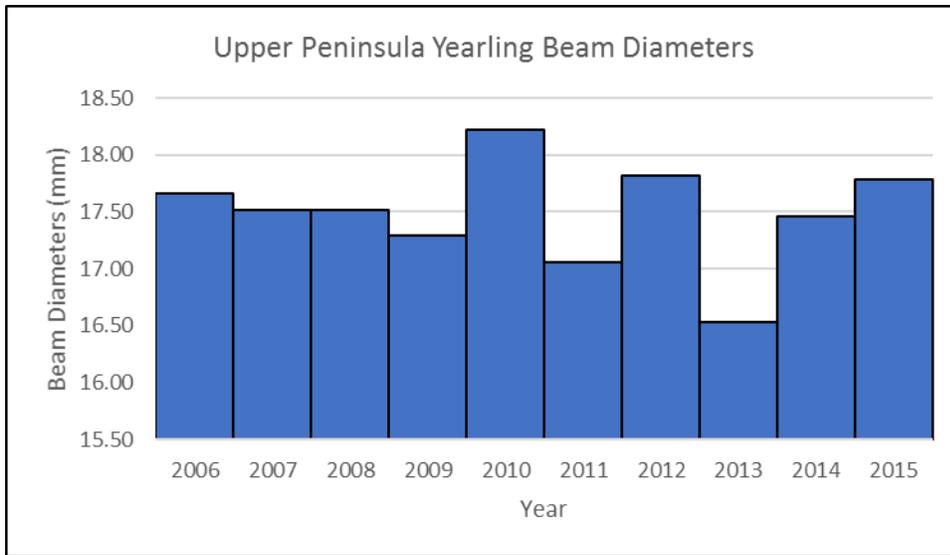


Figure 4: U.P. Yearling Beam Diameters, 2006 – 2015.

Deer Management Recommendations

We recommend DMU 017 be “closed” for the issuance of antlerless licenses. Deer population indicators, such as buck kill per square mile and deer observed per hunter day, seem to be increasing but remain low on average. There is little support for antlerless licenses from sportsmen’s groups in the area. We anticipate that the impacts of the winters of 2013 – 2015 will continue to be seen in deer seasons over the next few years, and any increase in the herd will be influenced by current and future winters.

017
Deer Management Unit

