



Deer Management Unit

117

Area Description

This DMU (Drummond Island) is located in far southeastern Chippewa County. It lies at the mouth of the St. Mary's River in northern Lake Huron. It is approximately 135 square miles in size, with 57% of the island in public ownership (state forest) and 43% in private ownership.

Land use and habitat quality for deer

Most of the island is forested. Dominant forest types include aspen, cedar, and northern hardwoods.

Typical winter weather, as related to deer

Drummond is in the moderate snowfall zone, but generally receives less snow than the mainland nearby. Total accumulated snow (TAS) depths from 2005 – 2016 measured at the closest station (east of Pickford) averaged 234 inches. This is above the average of approximately 228 inches for U.P. stations. Snow measurements from the island measured by volunteers from 2011 – 2013 suggest a smaller index than the nearby station on the mainland (average TAS of 105 inches those winters compared to 176 at the closest station east of Pickford).

Management Guidance

The DNR assembled the Drummond Island Writing Team (DIWT) to serve as an advisory committee to the develop of a management plan for Drummond Island. Management plan development was a result of various but potentially conflicting public recreational interests involving state-managed resources. The DIWT included representatives from eight organizations representing conservation, hunting, fishing, forest management, recreational, economic development and tourism interests as well as a member representing the general public and three representatives of the DNR representing wildlife, forestry, and public safety interests. The DIWT developed a series of recommendations regarding the future management of resources on the island. In 2012, the DIWT presented a report of the recommendations to the NRC wherein recommendations were made to improve the island's deer herd. These recommendations included limiting deer harvest on the island to 1 deer per hunter per year and an antler point restriction (APR) of at least 3 points on one antler. The DIWT's recommendations were used

by the DNR as a resource to develop the Drummond Island Comprehensive Resource Management Plan, which was approved on November 5, 2015, following a public review and comment period. Two public meetings were held on the island in 2016 to allow additional public input on the deer recommendations. During those meetings, public input received favored limiting deer harvest on the island to 1 buck per hunter per year and the 3 point APR.

Deer Harvest Analysis

Deer harvest per square mile has been below average when compared to other DMU's in the region. A "no-spike" rule has been in effect since 1997. The number of bucks killed per square mile decreased substantially from 2008 – 2011 which followed the harsher winters of 2008 and 2009. Although the rate rebounded some in 2012 following 3 mild winters, it was low again from 2013 – 2015 following 3 more consecutive harsher winters.

Antlerless harvest is influenced by the antlerless quota. Although this unit had a history of issuing antlerless licenses prior to 2013, no antlerless licenses have been available during the 2013 – 2016 seasons. Antlerless harvest fluctuated little from 2009 – 2013 considering the antlerless license quota for firearm season ranging between 400 in 2009 (equating to 3 antlerless deer per square mile) and 0 in 2011. Antlerless deer could still be taken during archery season through the 2014 season, but harvest per square mile has decreased each year since 2012. In 2015, a regulation change no longer allowed antlerless harvest during archery season in the U.P. The change was made after three consecutive winters from 2013 – 2015 impacted the deer herd.

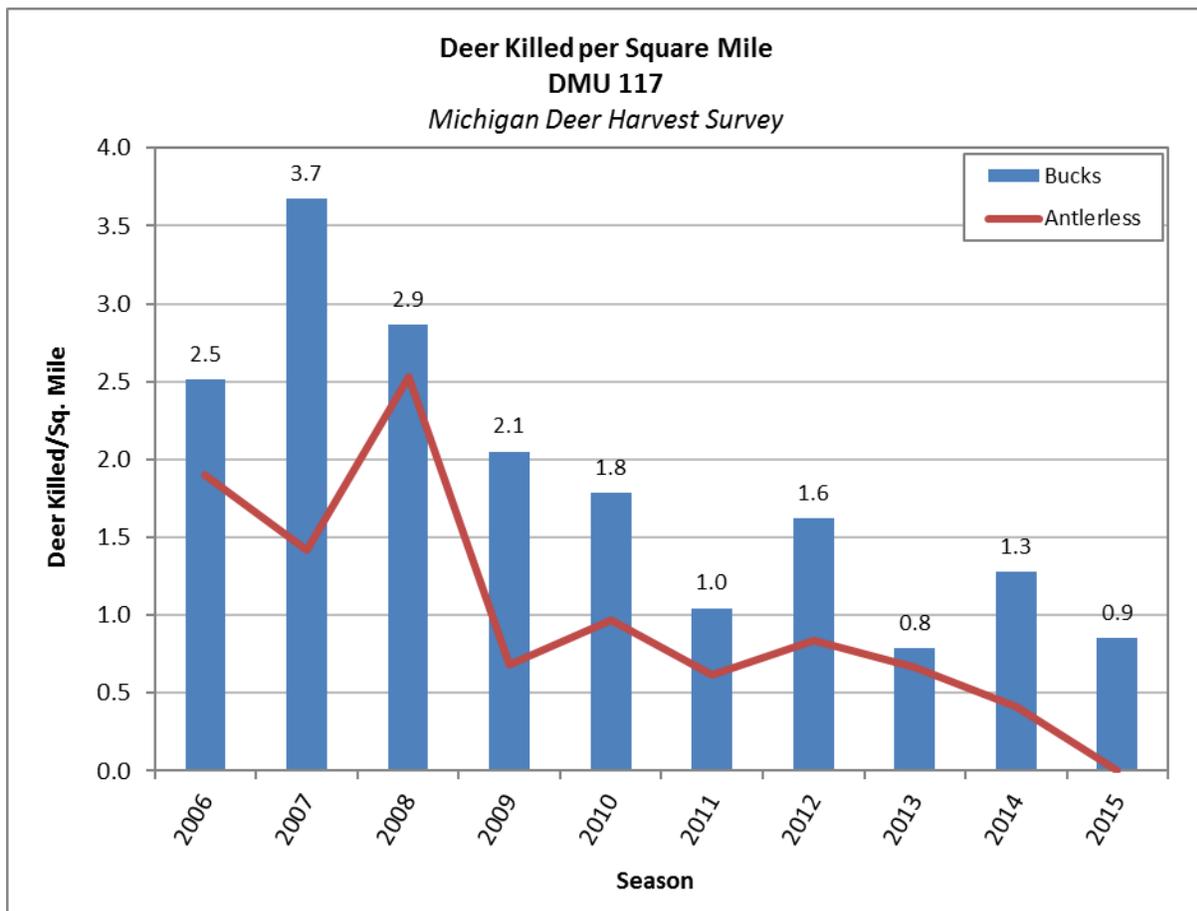


Figure 1: Graph of deer kill per square mile in DMU 117, 2006 – 2015, based on Michigan Deer Harvest Survey results.

Additional Population Assessment Factors

Deer sightings and hunter success/satisfaction trends

Camps from DMU 117 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. Camps observed approximately 2.2 deer per hunter day on average since 2006, which is below average for DMU's across the region (2.7). Buck harvest success rates have been on a decreasing trend since 2006, and this DMU had one of the lowest rates on average for the region from 2014 – 2016. The average fawn-to-doe ratio (30 fawns per 100 does) for 2014-2016 ranks second lowest for DMU's in the region.

DEER MANAGEMENT UNIT 117											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Camps	18	18	19	23	23	23	22	21	23	18	15
Hunters	56	60	71	93	97	85	89	103	92	97	72
% killing a buck	30%	27%	30%	30%	19%	21%	21%	20%	12%	12%	18%
Deer seen per day	1.5	2.2	2.3	1.6	1.9	2.3	2.3	2.7	3.1	2.1	2
Fawns seen per 100 does	57	37	35	25	53	35	39	41	37	29	24
Does seen per buck	3	3	2	2	4	4	4	4	6	5	3
More deer than last year	17%	50%	21%	4%	4%	9%	10%	5%	14%	12%	14%
Same number deer	44%	12%	32%	31%	22%	48%	45%	33%	23%	19%	43%
Fewer deer than last year	39%	38%	47%	65%	74%	43%	45%	62%	63%	69%	43%
Season good-to-excellent	39%	35%	42%	26%	8%	13%	23%	24%	23%	6%	21%
Season fair-to-poor	61%	65%	58%	74%	92%	82%	77%	76%	77%	94%	79%

Figure 2: Deer Camp Survey data in DMU 117.

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.

Agricultural Crop Damage

Agriculture is very limited on Drummond Island. No agricultural deer damage complaints have been received in recent years.

Forest Regeneration Concerns

In the past, DNR Forest Resources Division (FRD) staff expressed concerns about forest regeneration in this unit, and antlerless licenses have been available in the past. However, deer browse does not appear to be limiting forest regeneration on state forest land outside of deer wintering complexes in recent years, and FRD staff are in agreement to maintain the current status in this unit at present.

Deer-Vehicle Collisions

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

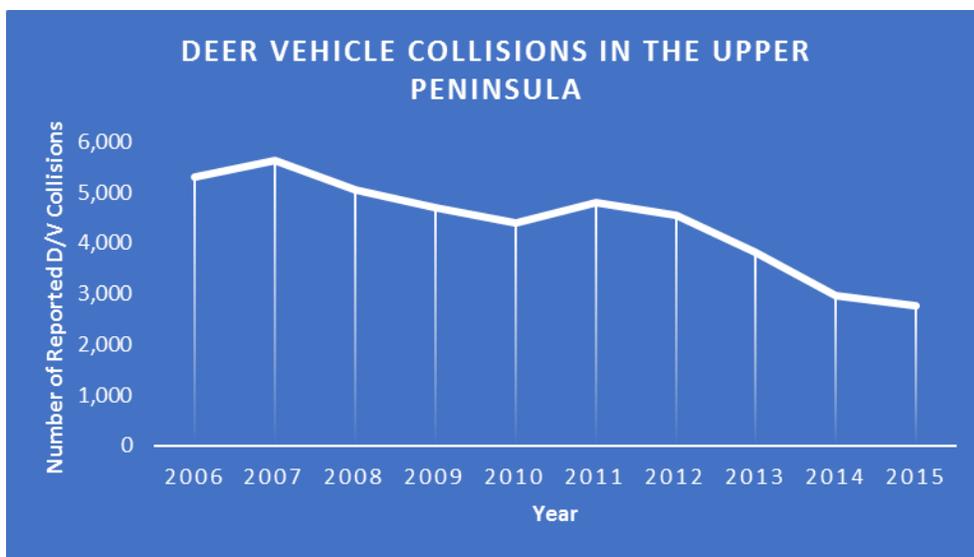


Figure 3: Deer-vehicle collisions in the U.P., 2006 – 2015.

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.

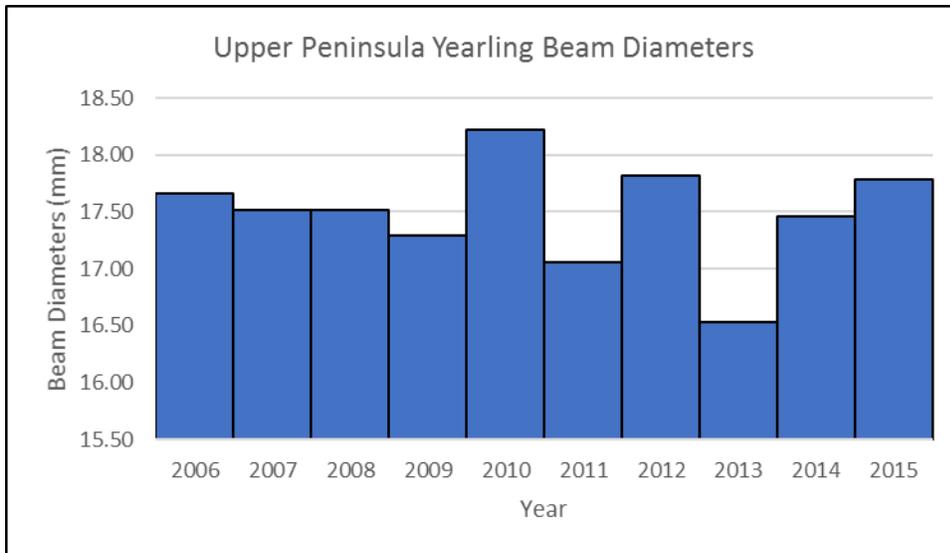


Figure 4: U.P. Yearling Beam Diameters, 2006 – 2015.

Deer Management Recommendations

We recommend that buck harvest be limited to 1 buck per hunter per year in DMU 117, and that bucks have a minimum of 3 points on one antler to be legally harvested from this unit. We recommend that antlerless harvest remain limited. These recommendations are consistent with the recommendations from the multi-year planning process with Drummond Island stakeholders as reflected in the DIWT recommendations to the NRC in 2012, the Drummond Island Comprehensive Resource Management Plan approved in 2015, and input received during three public meetings held since 2015. Deer population indicators, such as buck kill per square mile, deer observed per hunter day, and fawn-to-doe ratios are consistently low. There is little public support for antlerless licenses at present. We recommend that this unit remain “closed” to antlerless harvest.

