

# Deer Management Unit

## 127

### Area Description

Deer Management Unit (DMU) 127 is 328 sq. miles in size and is found in far western Gogebic County surrounding Ironwood, Bessemer and adjacent rural communities. This unit has significant Lake Superior shoreline and therefore is heavily influenced by Lake Superior weather / winter severity and snow depths. The bulk of this unit is (65%) privately owned. However, much of this is owned by Gogebic County and is managed as a working forest which is also accessible to the public.

### Land use and habitat quality for deer

DMU 127 is heavily influenced by industrial forest, county forest and Ottawa National Forest land management practices. Agricultural influence is very limited and primarily only a factor a near traditional rural communities along M-28 and US-2. However deer feeding across much of this unit plays an increasing role in deer herd distribution and dynamics.

### Typical winter weather, as related to deer

Winter weather can be extremely difficult for deer in DMU 127. Snow fall often exceeds 300 inches each year and is highly influenced by Lake Superior. Many of the deer in this DMU receive supplemental food throughout the winter months. Despite this supplemental feeding fawn recruitment and over-winter survival still tends to be low in this DMU during even normal winters.

### Management Guidance

Deer densities across DMU 127 are very low and have not recovered from two consecutive bad winters in 2008 and 2009 and then again in 2013 and 2014. Because of these very low deer densities antlerless permits have not been available in DMU 127 since 2009. There is relatively little agricultural activity in this area and consequently the level of deer crop damage is extremely low. Outside of the deer wintering complexes deer browse has not impacted tree regeneration.

Deer population indices have generally been low during this period across the region, although some indicators are suggesting numbers are starting to rebound. Deer damage complaints are low and state forest and commercial managers have expressed little concern about forest regeneration outside of deer wintering areas. There has been little support for antlerless harvest opportunities in recent years by local sportsmen's groups. In fact, many groups seemed to favor elimination of the ability to harvest an antlerless deer during archery season when that was implemented in 2015.

### Deer Harvest Analysis

Bucks harvest per square mile in DMU 127 has averaged 2.0 bucks from 2006-2015, and was significantly lower during the 2015 hunting season of 0.2 bucks per square mile (Fig.1). This harvest density is one of the lowest in the U.P. The average buck kill per square mile from 2013 – 2015 across the U.P. region is 1.5 per square mile. 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.

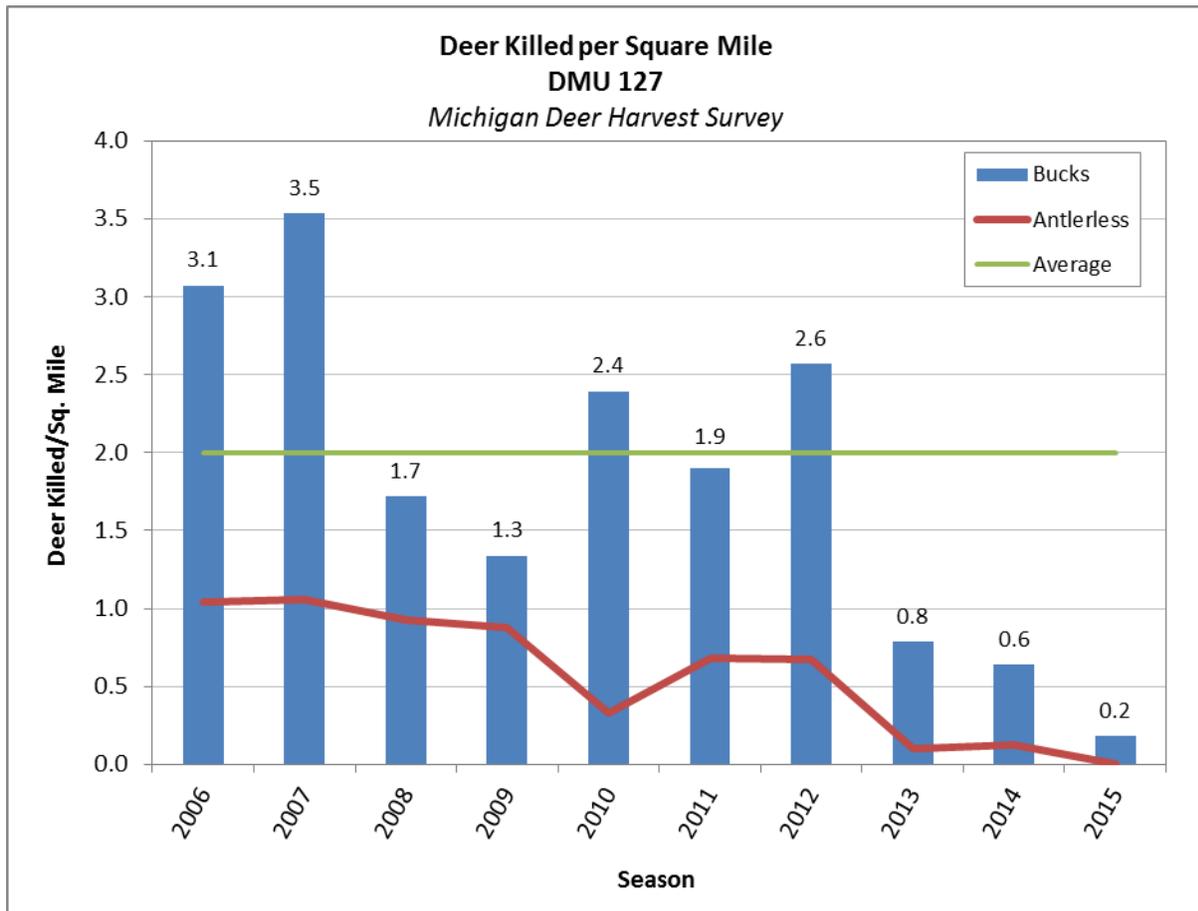


Figure 1: Graph of deer kill per square mile in DMU 127, 2006 – 2015, based on Michigan Deer Harvest Survey results.

### Deer sightings and hunter success/satisfaction trends

Participation in the U.P. Camp Survey has remained fairly low in DMU 127 over the past few years (Table 1). The number of deer seen by hunters per day in DMU 127 was 0.7 in 2016 which is up from the previous year but below the 10 year average for DMU 127 of 2.1 deer/day, which is similar to the U.P. wide average for the same time period (2.2 deer/day). The number of hunters that were successful at killing a buck in DMU 127 was average for the DMU in the camp survey but below average the Mail Survey however they follow the same general declining trend.

DEER MANAGEMENT UNIT 127											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Camps	11	10	10	17	14	17	10	12	9	14	11
Hunters	43	32	34	61	49	61	31	37	24	26	22
% killing a buck	23%	37%	35%	13%	35%	30%	42%	16%	25%	19%	27%
Deer seen per day	2.2	4.9	4	1.2	1.6	1.9	3.6	1.5	1.4	0.5	0.7
Fawns seen per 100 does	52	72	52	51	53	31	33	34	10	44	71
Does seen per buck	5	5	3	4	6	4	6	10	4	N/A	1
More deer than last year	18%	22%	0%	6%	14%	6%	40%	0%	0%	20%	10%
Same number deer	18%	67%	30%	12%	36%	47%	40%	9%	11%	10%	30%
Fewer deer	64%	11%	70%	82%	50%	47%	20%	91%	89%	70%	60%
Season good-to-excellent	9%	34%	10%	0%	21%	12%	50%	8%	0%	0%	10%
Season fair-to-poor	91%	66%	90%	100%	79%	88%	50%	92%	100%	100%	90%

Figure 2: Deer Camp Survey data in DMU 127.

## 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.

The Predator-Prey research 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, especially in DMU 127.

## 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 2 does were taken under Deer Management Assistance Permits last year and the number of permits issued and does taken under permits is down 38% from the previous 3 years.

## 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.

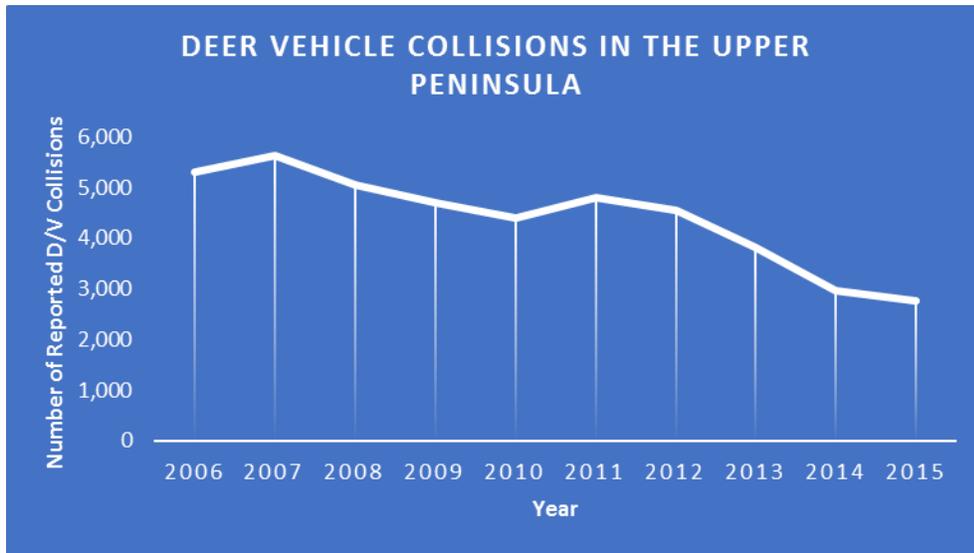


Figure 3: Deer-vehicle collisions in the U.P., 2006 – 2015.

## 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.

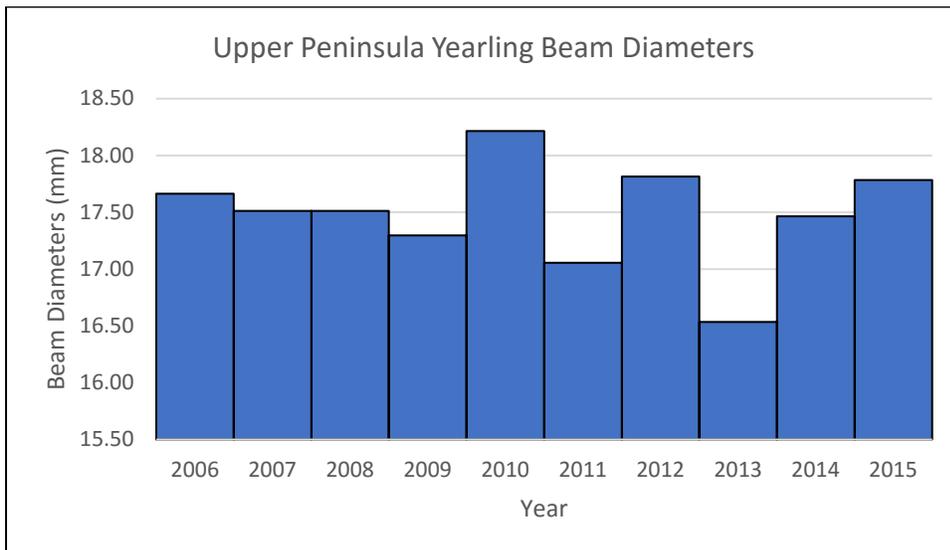


Figure 4: U.P. Yearling Beam Diameters, 2006 – 2015.

## Deer Management Recommendations

We recommend DMU 127 be “closed” for the issuance of antlerless licenses. Deer population indicators, such as buck kill per square mile and deer observed per hunter day are very low. 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.

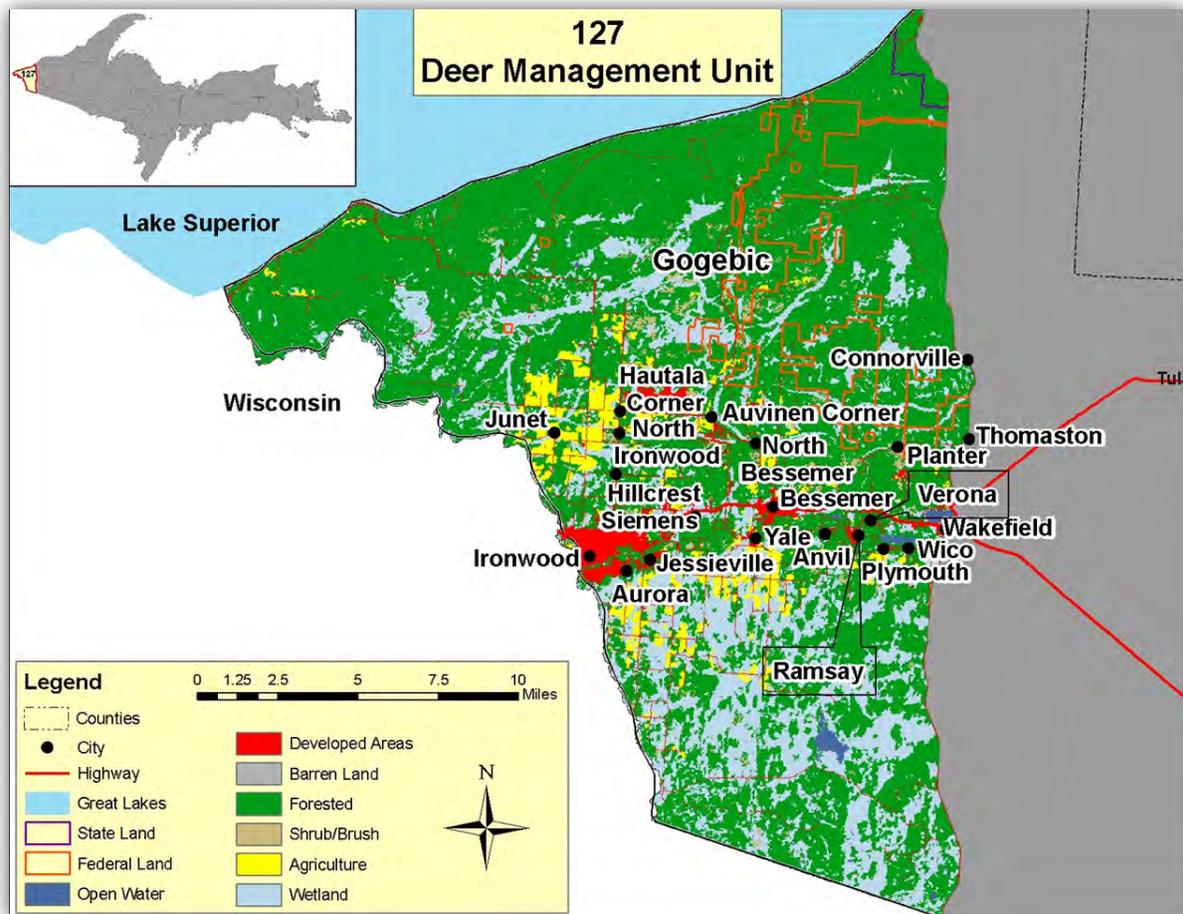


Figure 5: Cover types for DMU 127.