

DMU 354

Lakeview Deer Management Unit

Mecosta and Montcalm Counties

Area Description

The Lakeview Deer Management Unit (DMU 354) lies in the Southwestern Lower Peninsula (SWLP) region and covers Montcalm and Mecosta Counties. The majority of public hunting opportunities in this DMU are available on the Flat River (11,373 acres), Stanton (4,715 acres), Langston (3,200 acres), Edmore (3,744 acres), Vestaburg (2,952 acres), Martiny Lake (7,984 acres), and Haymarsh (6,456 acres) State Game Areas. There is an additional 1,800 acres of Manistee National Forest in the western portion of the DMU. Topography varies from rolling hills to relatively flat with soils that are generally well-suited to row crop agriculture. The landscape is highly fragmented due to the predominance of agriculture on privately-owned lands, which constitute 94% of the DMU. Aside from public lands which are predominantly forested, habitat providing cover for deer (e.g., woodlots, shrub/brush, and wetland) is often isolated and exists in relatively small patches (Table 1).

Habitat	354	354 Public Lands
Forest (%)	34.8	69.4
Agriculture (%)	37.9	4.5
Grass/Shrubland (%)	14.1	9.2
Wetland (%)	7.1	14.4
Developed (%)	4.1	1.4
Water (%)	2.0	1.1
Bare/Rocky (%)	0.2	0.0

Table 1: Habitat types found in DMU 354 on all lands and public lands

Management Guidance

Three main goals guide the deer management in this DMU: 1) disease management; 2) impact management; and 3) hunting opportunities. Due to the recent discovery of Chronic Wasting Disease (CWD) in Mecosta County, disease management is the primary management concern in DMU 354. Disease sampling requires collection of large numbers of deer each year and concerns about disease spreading rates determine that a significant population reduction is appropriate. Impact management refers to reduction of undesirable effects associated with deer over-abundance. Crop damage, deer-vehicle collisions, and poor forest regeneration due to over-browsing are examples. In an effort to find a middle-ground in which deer numbers provide ample hunting and wildlife viewing opportunities and mitigate unwanted impacts, we review data from several sources to adjust the harvest strategy as needed. These data include deer harvest data from check stations and an annual hunter survey, the winter severity index, deer-vehicle collision data from the Michigan State Police, and deer-related

information collected by regional wildlife biologists (e.g., hunter observations, number of Crop Damage Permits, spotlight surveys, habitat assessments, etc.).

Population Assessment Factors

While buck harvest numbers increased in 2015 compared to 2014, they have been stable to slightly declining since 2008 (Fig. 1). Antlerless harvest numbers have declined since 2008. Declining harvest rates generally indicate a declining deer population absent significant hunting regulation changes or significant changes in hunter behavior. The availability of antlerless permits was intended to limit the productivity of the deer herd and has contributed to the slight reduction of the population in this DMU. Other environmental factors, such as disease (EHD die-off in 2012), poor weather immediately preceding fawning, increased predation, and changing agricultural practices, can also impact deer numbers.

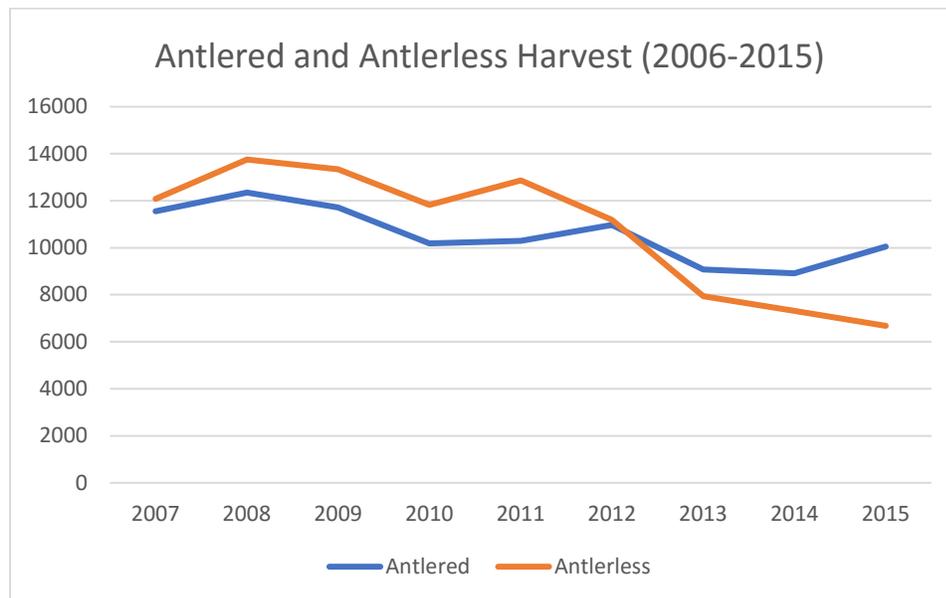


Figure 1. Antlered and Antlerless deer harvest in DMU 354, 2007-2015.

Changes in hunter numbers, activities, perceptions, behaviors and goals can also impact harvest numbers. Overall, the number of hunters in Michigan has slightly declined over the last decade. In addition, large scale shift in hunters' decisions to target older deer and pass on younger bucks can result in reduced harvest numbers and increased hunter effort, as there are fewer deer available in older age classes. This hunter selection for more mature bucks appears to be happening in DMU 354 as the percentage of harvested bucks that are yearlings has declined in both Montcalm and Mecosta Counties (Figure 2). Success and harvest rates may thereby be suppressed not only by population decline, but by human decision-making processes. Similarly, hunters may self-regulate harvest of antlerless deer or decide to hunt in other areas for a variety of factors, such as a perception of too few deer.

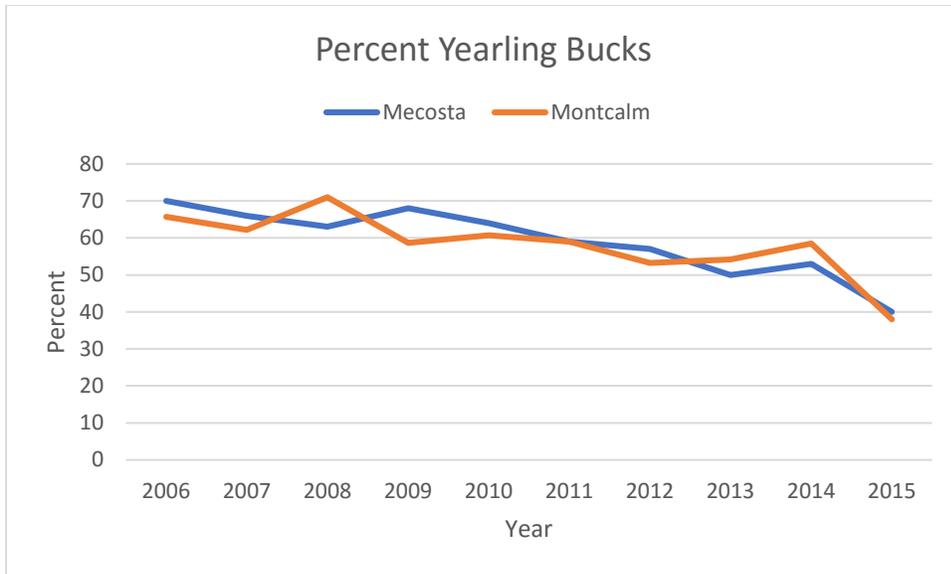


Figure 2. Percent of harvested bucks that are 1.5 years of age in DMU 354, 2006-2015.

Additional Population Assessment Factors:

Deer-Vehicle Collisions

Deer-vehicle collisions (DVC) are commonly used as an index to the deer population trend, the idea being that high rates of DVCs are correlated with high deer populations, and vice versa. Research has shown that there are other factors that influence the rate of DVCs. Habitat proximate to the roadway and highway characteristics can blur the relationship between deer population and DVCs. However, DVC data can provide useful information if considered as one part of a deer population assessment.

DVCs indexed by vehicle miles travelled have declined from 2001-2015 in DMU 354 (Figure 3). These data are provided by the Michigan State Police. Although changes may have occurred in law enforcement response and recording of DVCs over time, we assume they have remained consistent enough to provide an accurate estimate of DVC rates relative to vehicle miles driven. The displayed decline in DVCs is an additional indicator that the Lakeview DMU deer density may have declined somewhat over the past 5-8 years.

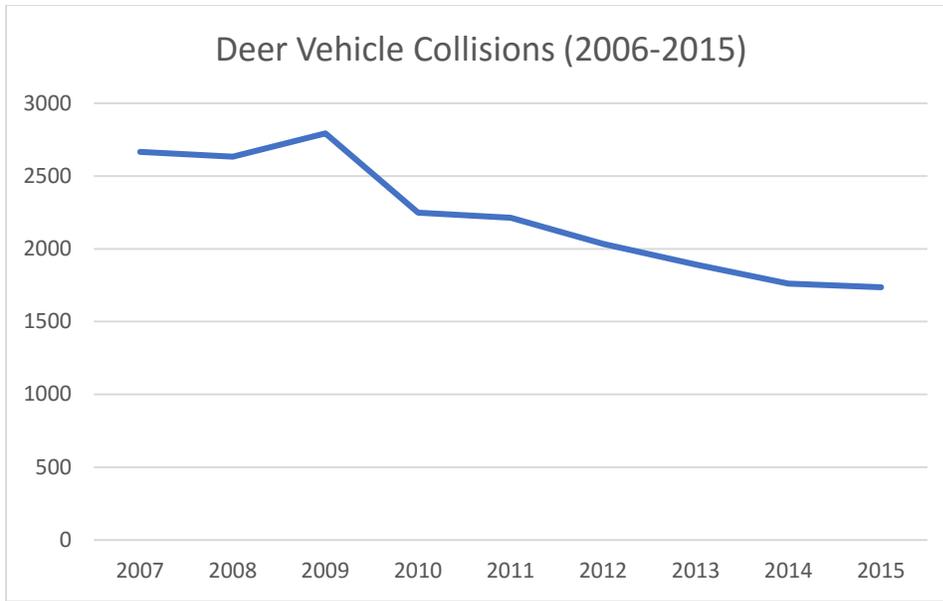


Figure 3. Deer-vehicle collisions in DMU 354 2007-2015.

Deer Management Assistance and Crop Damage Permits

Deer Management Assistance Permits (DMAPs) allow for the harvest of antlerless deer by private landowners or their designees during legal deer hunting seasons. Landowners may request and be granted DMAPs by MDNR to address deer damage concerns when sufficient antlerless permits are not available in a DMU to address the landowner’s needs. DMAP requests are tracked by MDNR and may trend with deer populations (i.e., an increase in deer density may result in additional DMAP requests). In the DMU 354, crop damage complaints have been stable over the last 5 years.

Crop Damage Permits are also requested by landowners, but allow for the harvest of antlerless deer outside of legal hunting seasons to address agricultural damage. Requests for Crop Damage Permits may also trend with deer density. Crop damage complaints have been stable in DMU 354 over the last decade.

Deer Condition Data

Yearling main antler beam diameter, measured just above the burr, and number of points are useful for determining deer body condition. These measurements are recorded by MDNR as hunters voluntarily present harvested deer at check stations throughout the state. When aggregated by DMU, the average antler beam diameter and number of points for yearling bucks over multiple years is calculated. An upward trend indicates improving herd condition, whereas a downward trend points to declining herd condition. Generally, herd condition is a function of environmental and landscape factors. An abundance of highly nutritional food resources and good cover is beneficial for herd condition. Depletion of these resources through overpopulation leads to a decline in herd condition, often observed as low yearling main beam diameters and antler points. In southern Michigan, winter severity is not likely to impact deer condition on a population level. Environmental factors may impact deer condition indirectly, though. A late frost or an especially rainy spring can negatively influence crop production which is a major source of nutrition in this DMU. Likewise, changes in land use practices can affect cover and food

resources. In DMU 354, beam diameters have gone up and down over the years with no consistent trends (Figure 4).

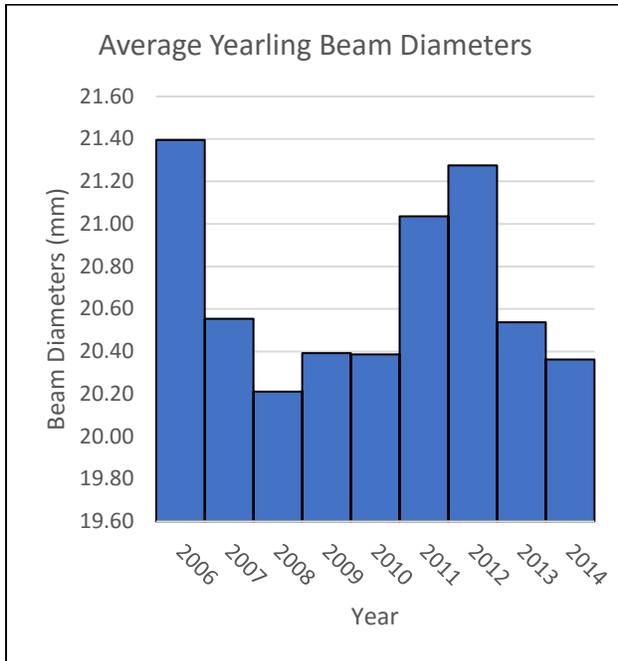


Figure 4. Average main antler beam diameter of yearling bucks for DMU 354, 2006-2014.

Deer Management Recommendations:

The deer population has been stable to slightly declining in this DMU over the last decade. Deer density remains high, however, especially relative to other regions of the state. In fact, density is high enough to continually require the issuance of a limited number of DMAPs and Deer Damage Permits to address crop damage complaints throughout much of the unit. While some hunters report seeing fewer deer since the moderate EHD outbreak of 2012, hunting opportunities across the unit remain robust due to the continued high deer density. In 2017, 2 captive deer in Mecosta County were diagnosed with Chronic Wasting Disease. DNR efforts to monitor the impacts of this disease in Mecosta and Montcalm Counties, specifically in DMU 359, will utilize Disease Control Permits issued to land owners, targeted sharpshooting, collection of road-killed deer, and specimens submitted by hunters to determine the presence of CWD in the deer herd. The goals of acquiring high numbers of samples and significantly reducing the deer herd to slow the potential spread of disease results in a recommendation of 26,000 private land antlerless permits in DMU 354. In addition, 1,200 public land antlerless permits will be made available.

It is recommended that the early antlerless season be re-established in DMU 354 for the 2017 season in order to encourage collection of samples and population reduction and that baiting and feeding be eliminated so that deer are not unnaturally concentrated.

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