

DMU 018

Clare County

Deer Management Unit

Area Description

Clare County Deer Management Unit (DMU) 018 is in the Northern Lower Peninsula Region (NLP). This County is 71% forested, 11% cropland, and 15% pasture and idle grassland. Approximately 4% of the land use is urban. The human population density is 14.7 persons per square mile. Many Clare County residents are seasonal, as the county ranks 2nd in the state for the number of second homes.

Most of the public lands are located in the northern and western parts of Clare County. Approximately ¼ of the county is in public ownership (23%) and is mostly forested. The predominant forest species on state lands are mixed upland aspen, oak and jack pine. Jack pine represents 20% of the forest cover. Aspen is less prominent in Clare County compared to Gladwin County, but oak and jack pine compensate for early successional aspen and supports the current distribution and density of deer.

Large, private land holdings are common in Clare County. Many of these parcels are managed for deer. It is common practice for property owners to establish food plots to attract and hold deer on site. Despite liberal private land antlerless deer quotas, townships such as Hatton and Arthur have been slow to reach desired deer densities due in part to restricted hunter access. The southeastern corner of Clare County has productive agricultural lands where primarily hay, corn, and some soybeans are grown. Current deer numbers in this portion of the county have not resulted in unmanageable crop depredation problems by deer.

Severe winter conditions can have some negative impact on deer in Clare County. Population levels are primarily influenced by regulated hunting.

TB and CWD have not been detected in deer in Clare County.

Recreational deer hunting is a popular activity in Clare County. On state owned lands, the higher quality shade intolerant tree species/stands have been identified and managed to maximize available habitat. A similar situation has occurred with the interfacing privately owned properties, as landowners have actively assumed the role of managers. Participation in federal farm programs, such as the Conservation Reserve Enhancement Program (CREP) and Conservation Reserve Program (CRP), have increased recently within Clare County – principally as a means of improving habitat quality on small privately owned parcels. There is high interest in owning and managing land, particularly for deer. For many, quality – not quantity, has become the focus of private land management practices.

Management Guidance

Two main goals guide the deer management in this DMU: 1) impact management; and 2) hunting opportunities. Impact management refers to the 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 mail survey of hunters, the winter severity index, deer-vehicle collision data from the Michigan State Police, and deer-related information collected by regional wildlife biologists (e.g., number of Crop Damage Permits, spotlight surveys and habitat assessments).

Population Assessment Factors

Winter Severity Index

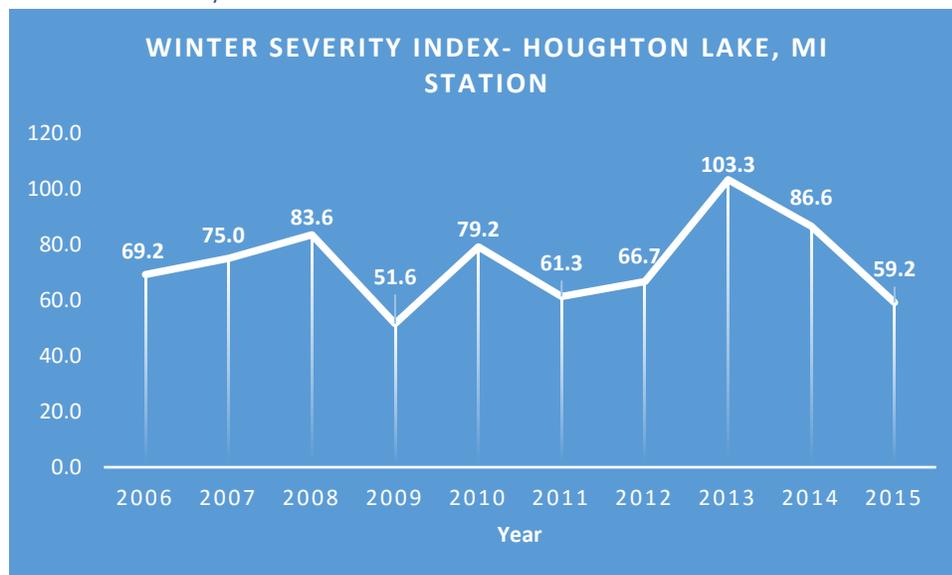


Figure 1: Houghton Lake Areas Winter Severity Index from 2006 to 2015

In northern Michigan, winter severity has a direct impact on deer condition at the population level. Whereas mild winters allow for better survival of deer, severe winters can cause high deer mortality. In addition, female deer may abort fetuses in order to survive which results in lower birth rates the following year. Winter severity has been variable over the last four years. The mild winters observed have allowed for a slight increase in the deer population. The current management strategy centers on maintaining the population at the current level by adjusting private land antlerless license quotas. Consideration will be given to hunter densities on public lands when setting public land antlerless quotas. Deer Management Assistance Permits (DMAP's) will continue to be the primary means of addressing areas of high deer density where crop damage is prevalent on private lands.

The current Winter Severity Index (WSI) system takes advantage of standard weather data available from the National Climatic Data Center. The Department of Natural Resources (DNR) uses weekly data on air temperature, wind speed, and precipitation from weather stations throughout Michigan and the surrounding area to calculate a weekly index value from November through April. For monitoring deer

related trends in Clare County, only the Houghton Lake Area WSI station data were used. The DNR plots these values over time to provide insight into the pattern of winter severity over the course of the winter and to identify severe weather events. Extended periods of severe weather and very early or very late peaks in severity within a winter tend to have the greatest effect on deer. The above graph shows the cumulative WSI, or the overall severity of each complete winter season. Despite several harsher winters over the past 10+ years, the last couple winters have been mild. Winter severity is the most important factor influencing deer population levels in the Northern Lower Peninsula. Relatively mild winters allow for increased deer survival, particularly for fawns which are typically the most vulnerable. Furthermore, mild winters tend to positively affect newborn survival. In general, milder winters tend to favor an increase in deer population levels.

Deer Vehicle Collisions Data

Collisions between vehicles and deer in Clare County, over the past four years, have been fairly stable. This indicates a stable to slightly increasing deer population.

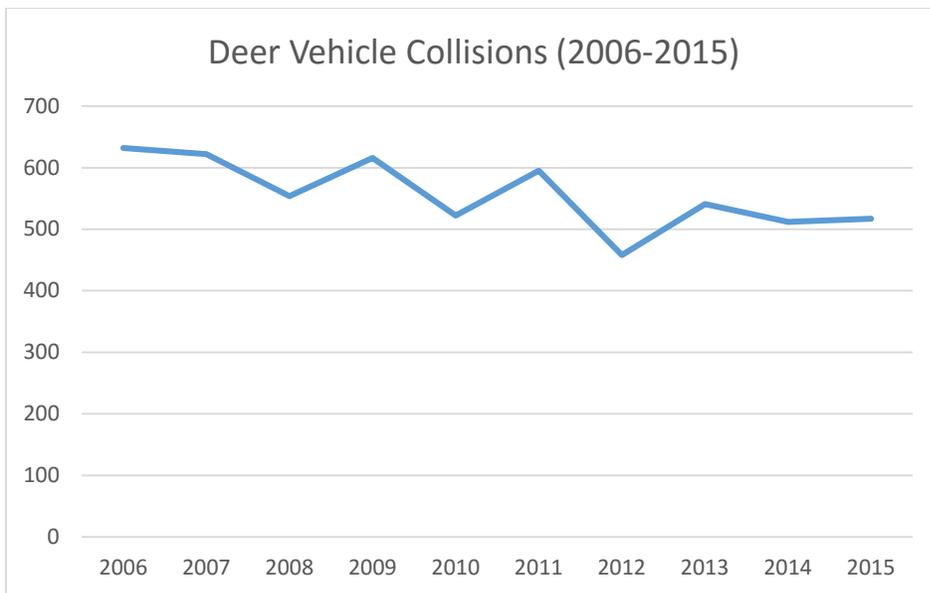


Figure 2: Clare County Deer Vehicle Collisions 2006 to 2015

Deer Harvest Analysis 2006-2015

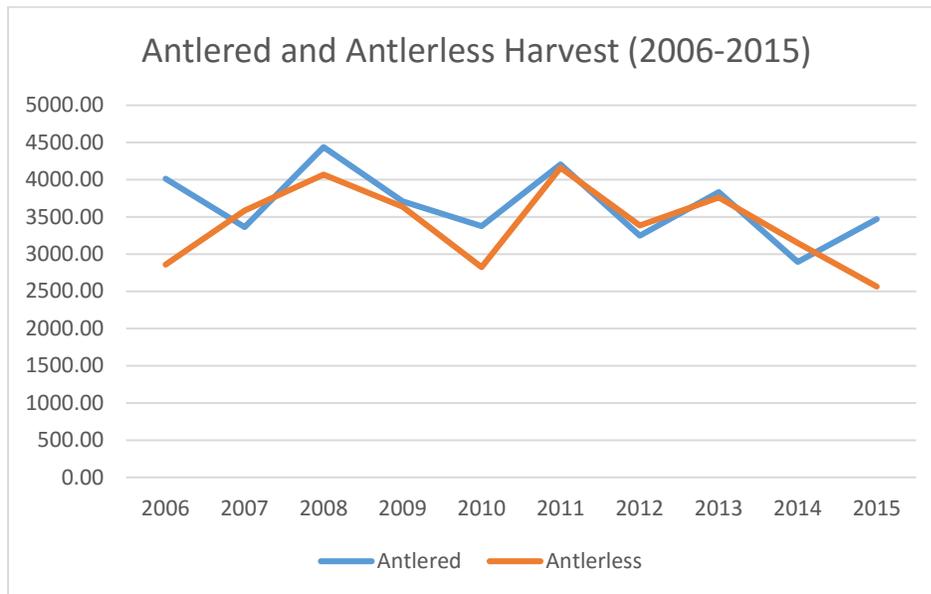


Figure 3: Antlered and Antlerless Harvest Clare County 2006 to 2015

Antlerless deer harvest within the DMU has declined over the past four years while antlered deer harvest has remained somewhat stable. The trend in antlerless harvest is also reflected by the decline in the number of private land antlerless licenses purchased over this same period. Both the antlered and antlerless harvest indicates that the population is likely stable to increasing. While it can be difficult to pinpoint exactly what is causing a population to increase or decrease we can make predictions based on past trends and looking at a number of factors that can indicate changes in populations.

In Clare County over the past four years crop damage permits issued have varied from a low of 6 to a high of 18. Out of Season Kill Tags issued have varied from a low of 29 to a high of 68. DMAPs issued over the past four years involve an average of 6 farms per year. Number of DMAP tags issued averaged 140 per year. Crop damage by deer in Clare County is centered in Arthur and Greenwood Townships. Crop damage throughout the rest of the County is fairly insignificant. The number of deer-related crop damage complaints will be closely monitored for the next three years. A significant increase or decrease in complaints can be used as an indicator of deer population trends. DMAPs will continue to be the primary means of addressing areas of high deer density where crop damage is prevalent.

The negative impacts of deer browsing on regenerating forest stands has not been significant over the past four years in Clare County.

Deer Condition Data 2006-2015

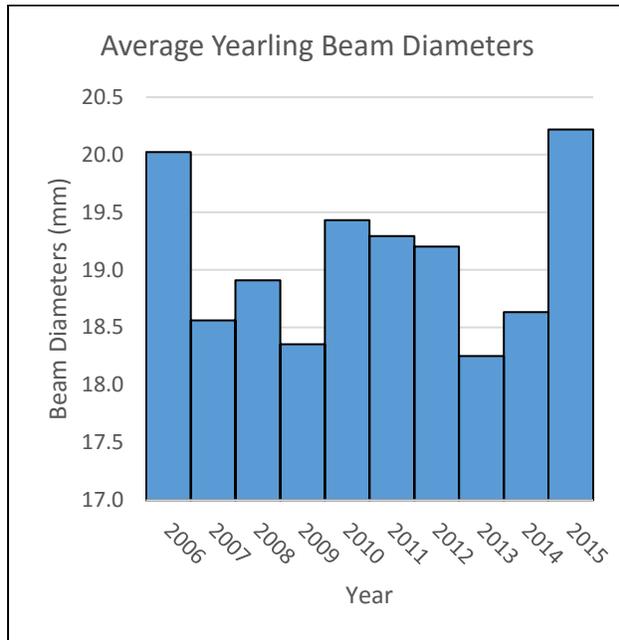


Figure 4: Clare County Average Yearling Beam Diameters 2006 to 2015

Antler beam diameter measurements taken from harvested yearling bucks have been generally consistent over the past ten years, with small variation from year to year. Beam diameter measurements give an indication of overall health of the deer population. Lower average beam diameters in yearling bucks could indicate increasing competition for available browse due to a higher number of deer on the landscape. These data suggest that nutrition is not a big influence on the deer population over this timeframe.

Deer Management Recommendations

Clare County DMU 018 has a deer population that has been fairly stable the past four years. There has not been a significant movement, up or down, in the number of crop damage complaints or car-deer crashes. Harvest of antlerless deer over this same period has been generally stable. Antler beam diameter measurements taken from harvested bucks have been fairly consistent over the past ten years.

Hunting opportunities in DMU 018 are plentiful. The 84,640 acres of public land provide suitable habitat for deer hunting and include ample hunter access. On the 283,360 acres of private land the opportunities for hunting deer are also abundant, in fact there are many tracts of private land that are used explicitly for deer hunting. A casual deer hunter camp survey, on public land, has been conducted by DNR staff the past three years and indicates that hunting pressure on these public lands is slightly decreasing. Enforcement and Forest Resource Divisions have provided input and concur with the 2017-2019 proposed deer regulations for Clare County.

We are recommending a late private land antlerless firearm season for DMU 018. This recommendation is based on the number of deer damage complaints related to agricultural crops which will allow for an increased capacity for landowners to take antlerless deer. We are also recommending that antlerless licenses be made available to hunters for both private and public land with no changes. The

recommendation for antlerless quotas will be very similar to what has been recommended in the past four years. The strategy, at this time, is to keep the deer population at the level it is at currently. Stabilizing these regulations for the next three years will manage deer numbers within acceptable levels for hunters as well as for forest health and agriculture.

Deer Management Unit 18



Legend

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|----------------------------------|------------|------------------|
| Deer Management Units Polys Edit | Open Water | Hay/Pasture |
| Highway | Developed | Cultivated Crops |
| Cities | Forested | Wetlands |
| | Herbaceous | |

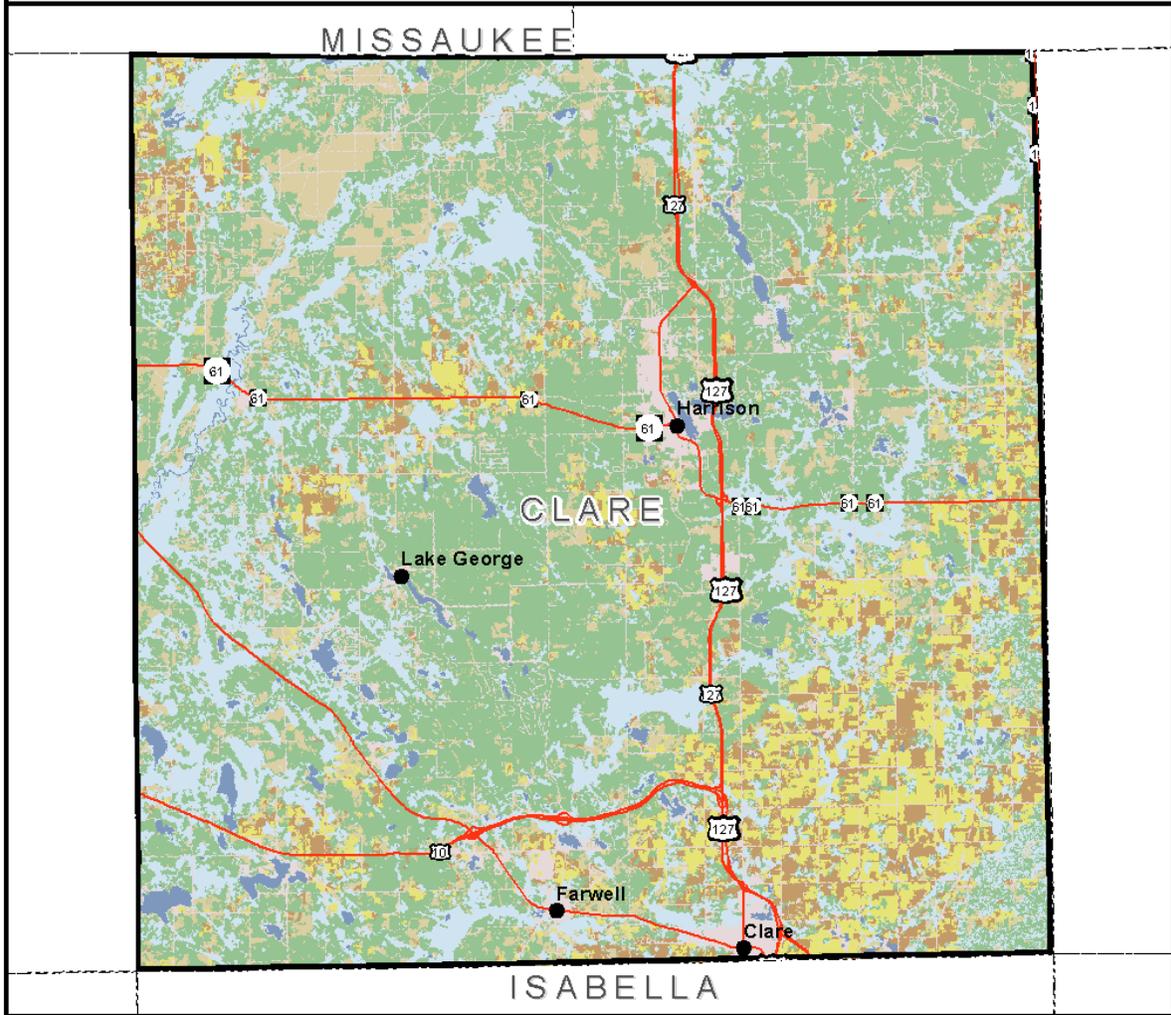


Figure 5: Map of DMU 018 depicting cover types within the unit.