

DMU 065

Ogemaw County

Deer Management Unit

Area Description

Ogemaw County Deer Management Unit is in the Northern Lower Peninsula Region (NLP). It has roughly 99,000 acres of public land which is about 27% of the total acreage in the county. The remainder of land is in private ownership. Topography varies from rolling hills to flat outwash plains. Soil types consist mainly of sandy types that are well drained. The landscape consists of large blocks of state land and federal. The state land is concentrated in the northwest part of the County while the federal land is primarily in the north central and northeast regions. Those large blocks of land are dominated by forest land and provide excellent habitat for deer. Much of the state-owned land is located on sandy outwash plains in the northwest portion of the county and is dominated by jack pine forests. The private land consists of residential developments and agricultural land amongst forested habitat. The agricultural lands are concentrated in the southwest, southeast and central portions of the county. Many small inland lakes are scattered throughout the DMU which see heavy recreational use.

Management Guidance

Two main goals guide the deer management in this DMU: 1) impact management; and 2) hunting opportunities. 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 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., number of Crop Damage Permits, residential property damage, Deer Management Assistance Permits, forest regeneration assessments, etc.).

Population Assessment Factors

Deer Harvest Analysis

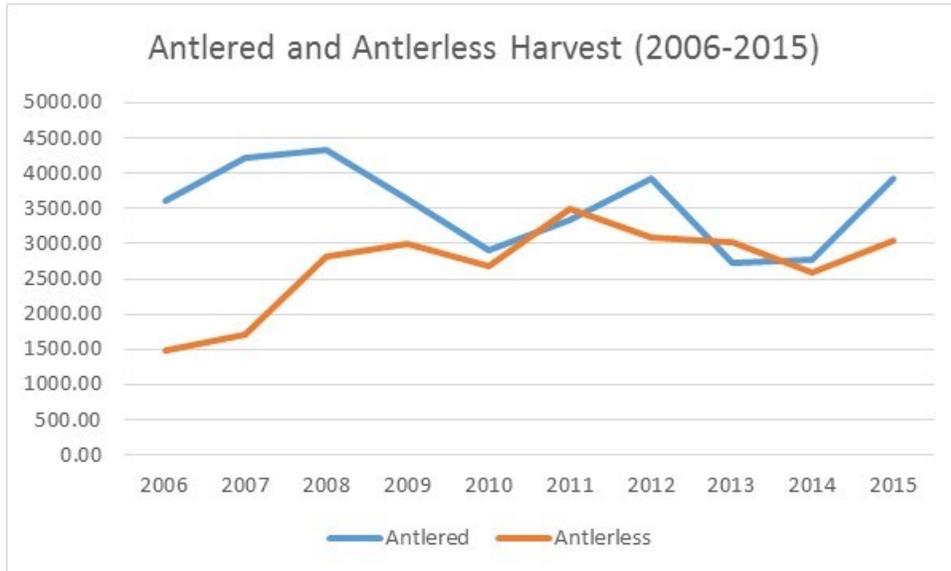


Figure 1 Deer Harvest Estimates for DMU 065, Ogemaw County, Michigan

Buck harvest has oscillated between 5 and 7 bucks harvested per square mile consistently over the last decade. The fluctuations observed are likely related to varying winter severities, hunter effort and fall food availability. Both the antlered and antlerless harvest indicates that the population is likely stable. While it can be difficult to pinpoint exactly what causes a population to increase, decrease, or stabilize, we can make predictions based on past trends and looking at several factors that can indicate changes in populations.

Winter Severity Index

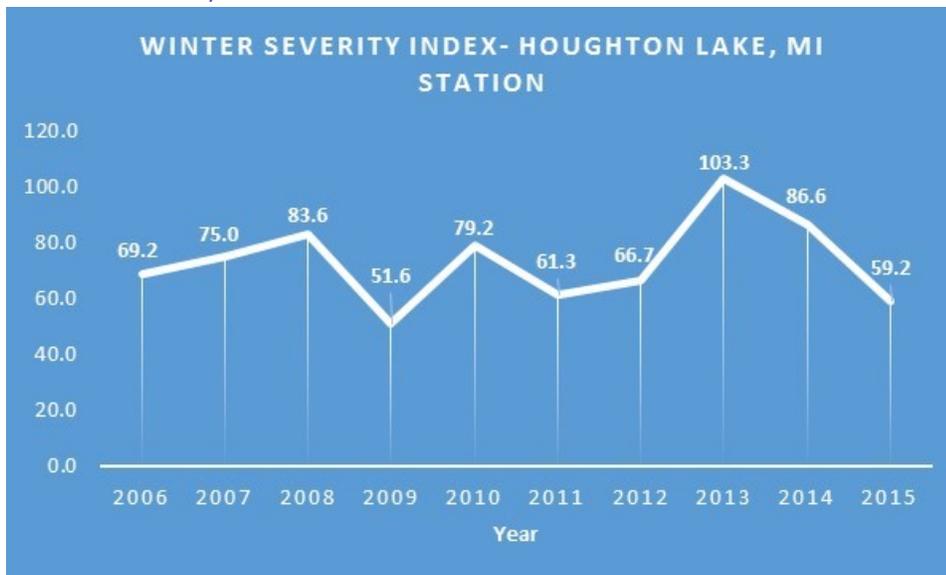


Figure 2 Winter Severity Index Measurements for DMU 065, Ogemaw County

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, does may abort fetuses to survive which creates a lag effect into the following year. Does with poor nutrition tend to have smaller litter sizes and give birth to fawns with reduced birth weights. Winter severity over the last five years has been variable with most years below the 10-year-average for the Houghton Lake area. The notable exception was in 2013 when a late winter season cold spell resulted in a “late spring” in the Northern Lower Peninsula region. Antlerless harvest quotas in this DMU have been liberal on privately owned lands with the goal of reducing damage to crops on agricultural lands. On public lands, antlerless quotas have been more conservative due both to the amount of land available and the lower productivity of the public lands on the sandy outwash plains. Antlerless quotas were significantly reduced in this DMU from 2006-07 due to perceptions of lower deer numbers. However, during that same period the buck harvest was above average. From 2008 to the present, antlerless quotas have ranged between 6,700 and 8,000 permits available across both private and public lands.

Deer Management Assistance and Crop Damage Permits

Deer Management Assistance Permits (DMAP) and Crop Damage Permits (CDP or OOS) are utilized to address deer overabundance issues in specific locations at specific times of the year. DMAPs may be applied for by any private landowner with deer damage, safety issues and other concerns such as forest regeneration. Because CDPs are not typically issued during the regular hunting seasons, agricultural producers who experience chronic deer damage will frequently request DMAPs to ensure they can harvest adequate numbers of antlerless deer in the Fall. In Ogemaw County DMAP interest has grown over the last decade, but recently has tapered off due to the perception that adequate numbers of over-the-counter antlerless permits are available to ensure landowners can reach their deer management goals.

CDPs are most frequently issued to agricultural producers during the spring and summer months to address damage to crops when they are most vulnerable to damage. Since the southern portions of Ogemaw County are heavy to agriculture, CDP demand typically ranges from 50-150 tags issued per year.

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 contextualized as one part of a deer population assessment.

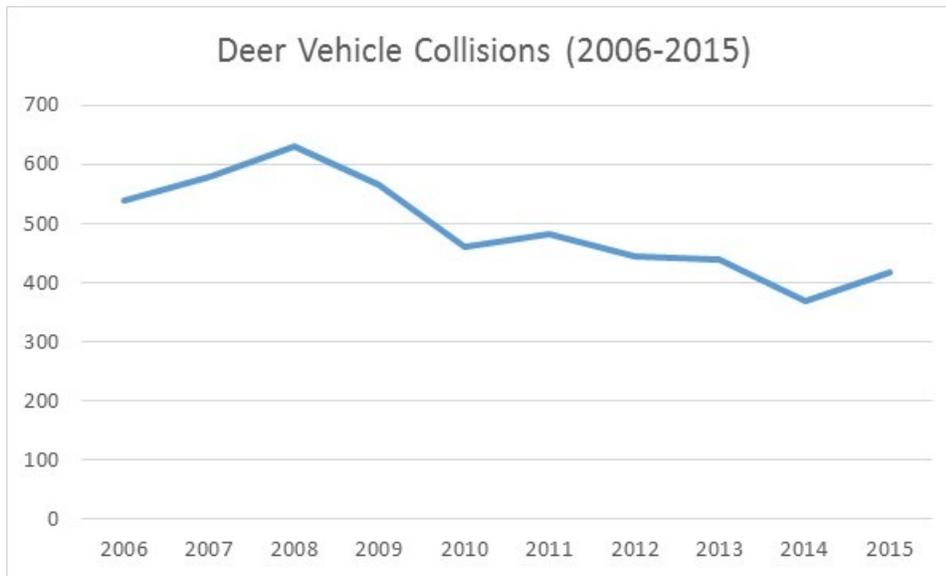


Figure 3 DMU 065 Deer Vehicle Collisions

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. DVCs in this DMU display a gradual long term decline but, appear to have stabilized around 400 collisions per year over since 2013.

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, observed as low yearling main beam diameters and antler points. In northern Michigan, winter severity is has a direct impact on deer condition at the population level. Other 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.

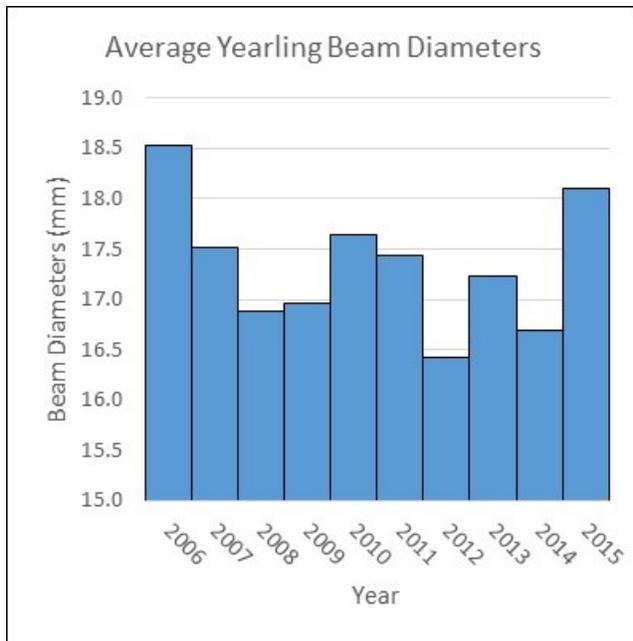


Figure 4 DMU 065 Beam Diameter Measurements for 1-year old Antlered Deer

Beam diameters in DMU 065 have had little fluctuation over the last ten years indicating stability within the herd. What fluctuations have been observed can be attributed to environmental factors such as winter severity and food abundance such as mast production.

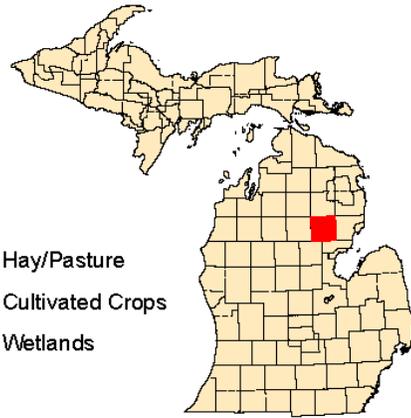
Deer Management Recommendations:

During the last 9-10 years the deer population in this DMU has been stable overall. Smaller year-to-year changes are evident and due to factors discussed above. Extremely severe winters can negatively affect deer populations and those effects can last for several years. The effects of severe winters in this DMU are somewhat moderated on agricultural lands as deer tend to congregate near dairy operations and associated feed storage areas. This frequently causes conflicts due to feed loss and concerns of disease transmission. Private land impact management within Ogemaw County is centered on working with landowners who are experiencing damage and providing permits as appropriate on a case-by-case basis. Additionally, maintaining liberal private land antlerless quotas is critical to keeping the deer population within biological and social carrying capacity.

Public hunting opportunities abound within this DMU with extensive tracts of both State and Federal land open to hunting. The local economy is also highly dependent upon outdoor recreation. Upon public lands the main focus is to limit over browsing of forest regeneration, especially negative impacts to the oak resource which is important to deer and other game species for fall nutrition.

The effects of the severe winter of 2013-2014 on the deer here were mitigated by a 16% reduction of antlerless permits over the following three years. That reduction did not appear to have a measurable effect on the antlerless harvest which annually is very close to the harvest levels of antlered deer. Consequently, no changes to the antlerless harvest quotas will be recommended for this DMU. Historically Ogemaw County has been closed to early and late antlerless hunting seasons and that closure is expected to remain the status quo.

Deer Management Unit 65



Legend

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

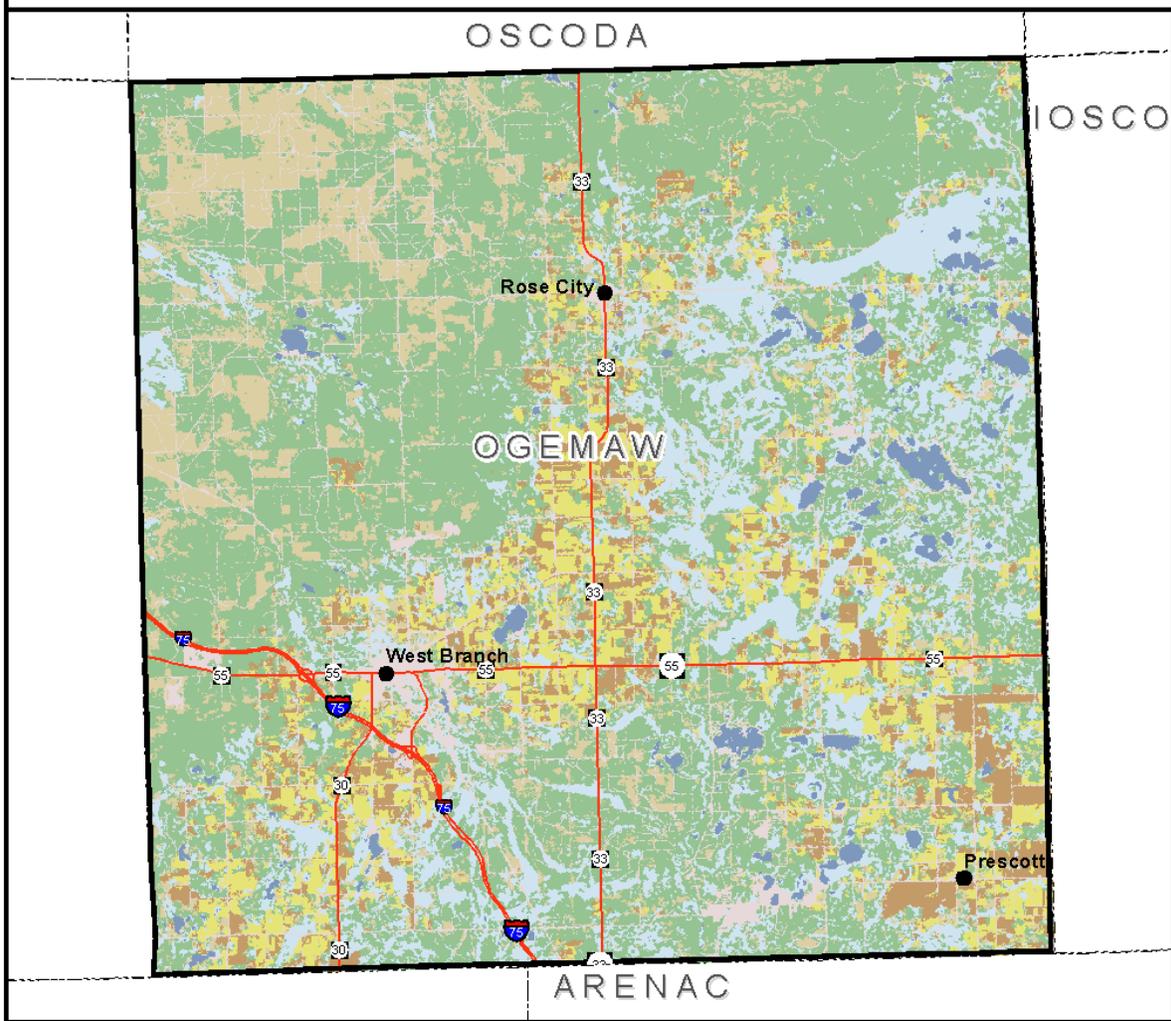


Figure 5 DMU 065, Ogemaw County Land Cover Types