

Legislative Directive

Public Act No. 366 of 2010, (attached to this report under Appendix A), created the Michigan Moose Advisory Council (Council) and sets forth the legislative directives we were to follow. The Act requires that by December 22, 2011, the Council submit to the Michigan Department of Natural Resources (DNR), the Michigan Natural Resources Commission (NRC), and the Michigan Legislature, recommendations with respect to whether a moose hunting season should be established, and among other issues, to suggest the number of moose to be harvested. Further direction mandates that the Council consider the effect such a season would have on Michigan's moose population, as well as the potential economic benefits of any potential season.

Facilitating Resources

The Council relied heavily on a moose white paper prepared by Michigan DNR Wildlife Division staff, including lead moose researcher Dr. Dean Beyer (attached in Appendix B), support from additional Michigan DNR staff, and interaction with Dr. Scott Winterstein, Michigan State University Department of Fisheries and Wildlife. Dr. Winterstein provided invaluable assistance with modeling the Michigan moose herd, utilizing known research and exploring likely outcomes given various approaches to managing a potential moose harvest.

The Michigan Moose Hunting Advisory Council also advertised and conducted two public input sessions, one in the Eastern Upper Peninsula (Newberry), and one in the Central Upper Peninsula (Alberta). The Michigan DNR provided an electronic mailbox for individuals who wished to provide written comments to the Council.

Value Statement

This Council recognizes the uniqueness of the reintroduced and recovering moose population in Michigan, and its benefits to both visitors and Michigan's citizens. Success in this recovery process may be measured by the expansion and sustainable management of moose in the Upper Peninsula. The Council recognizes that people have a wide range of values for moose, including, but not limited to; naturalistic values, existential values, biological values, spiritual values, and utilitarian values. This Council makes no attempt to evaluate or prioritize the values people may have with respect to moose, and believes that moose should be managed in a fashion that responds to the variety of these values as much as possible, while recognizing that any management effort will have to address conflicts among these values and may end up favoring some values over others. We believe that Michigan moose should be managed using the axioms of the North American Model of Wildlife Management, furthering the goal of producing a future when Michigan moose have fully occupied suitable

habitat. Further, we support using the best wildlife science available for decision-making, and the utilization of “best practices” to achieve population objectives that are in harmony with available habitat and social tolerance of the moose resource.

Although the members of the Council come from a variety of backgrounds, we share a deep appreciation for Michigan’s natural resources. It became obvious early in our efforts that this shared appreciation also produced a shared concern. Members of the Council wanted to assure that moose hunting would occur only if hunting did not reduce the continued presence and expansion of the Michigan moose herd.

The Council favors limited harvest and recommends that proceeds from license applications and sales be used exclusively for moose management and research.

Economic Impact

Beyond the source of a possible funding mechanism to moose management and research, a hunt will bring additional, though potentially modest monies into the Michigan economy and the communities in the area opened for moose hunting. While the Council has suggested a numerically conservative moose harvest as a starting point, by providing for a group participation hunting opportunity, the number of participants could be expanded to increase the economic impact of a moose season. If the moose herd grows as expected, based on the available information, then the future economic impact is expected to grow as well.

Issues That May Affect Michigan Moose Management

The Michigan Moose Hunting Advisory Council believes that the issues identified below are current concerns with respect to moose in Michigan, and need to be addressed as part of the overall development of a moose hunting plan.

1. Shortage of Resources Available for Moose Management. A shortage of adequate funding and personnel exists for most species of wildlife in Michigan. Population monitoring, harvest strategy development, habitat improvement, and possible additional research effort requires either less effort directed towards existing species under active management or development of additional new management capability.

2. Land Ownership Trends in Michigan Moose Zones. Parcelization of land is a reality that is affecting all wildlife in the Great Lakes, especially those species requiring large home ranges. Parcelization results in smaller pieces of land ownership, additional development, conflicting plans for land use, and reduction in public access for both recreational users and management agencies. Land ownership trends in recent decades have seen the transfer of land from timber-

based firms to Real Estate Investment Trusts (REIT) and Timber Management Investment Organizations (TIMO), which often increases the rate of land fragmentation and development. Recent studies have suggested that as much as 20% of land held by private non-industrial owners in the Upper Peninsula is likely to be divided into smaller parcels over the next decade. Changes in land ownership patterns may negatively affect the state's ability to manage the moose resource and moose habitat as well as alter the availability of public access within moose range.

3. Effects of Global Warming. Moose in Michigan exist on the southern extremity of their traditional range. With the well-documented warming of the planet, it is likely that this temperature change will have negative effects on moose. Thermal regulation in moose is more critical in summer than winter and therefore a premium needs to be placed on continuing protection of high-quality habitat.

4. Overall Forest Management Practices and Forest Species Trends that may be Harmful to Moose. Although the percentage of forest land in the UP remains rather static, the composition of the forest has changed substantially since the 1930s, to what is now the early days of a maturing, recovering forested landscape. Of most concern for moose is the fact that aspen acreage has been steadily declining, and aspen is a prime browse species for moose. Mesic conifers also have declined and continue to decline due to maturation and the demand for long-fiber softwoods in the pulp and paper industry. The commission must work with commercial forest act landowners and managers to promote the management of and for early succession aspen and mesic conifers.

5. Moose/Vehicle Accidents. Wherever moose exist in conjunction with high speed roads, vehicle collisions are a serious challenge and steps need to be taken by the Michigan Department of Transportation in cooperation with the DNR to address this concern. Possible steps discussed by the council included warning signs, lights, and improved wildlife passage.

6. Illegal Take. Poaching of Michigan moose could have a significant detrimental effect on this herd's ability to expand and occupy available habitat. An effective communications plan could go a long way toward assuring a protective public perspective regarding moose and the laws that protect them. The public's willingness to regard moose as a valuable resource worth protecting is key to minimizing losses due to poaching.

7. Artificial Maintenance of Deer Numbers in Excess of Winter Carrying Capacity Through Feeding. When moose and deer share the same habitat, the threat of the transmission of brain worm from deer to moose exists. If deer numbers are allowed to exist at artificially high numbers because of baiting and feeding, moose may be negatively impacted. Fortunately, at this time the core area occupied by Michigan moose is not prime deer habitat, and deer feeding

conflict is not a major concern. If the moose population expands its area, the issue may need to be more specifically addressed in future management considerations.

Moose Season and Management Recommendations:

1. This Council believes that a moose hunting season is a viable concept at the current level of Michigan's moose population. Given the information received from management experts from both within and outside the Michigan DNR, it is possible to hunt moose in Michigan at the current population level, while still providing for a management scheme that allows for continuing growth of the moose herd. Information based on research conducted on Michigan moose suggests it is possible to continue growing the moose herd if harvest is restricted to a modest number of male moose.

In order to assure maximum accountability for management and hunting impacts on the population, we believe it is necessary for harvest to be allowed only when managers have the best available knowledge pertaining to current numbers of animals existing in the area to be hunted. We understand that current funding levels only provide the opportunity for a population estimate to be developed every other year. With that in mind, we recommend that moose harvest only be allowed on years following a successfully executed population survey.

It is hoped that with the assistance of the Legislature, funds raised by the sale of moose hunting applications and licenses could be earmarked for moose management efforts. If so, it would be possible to provide for an annual population estimate, thereby allowing an annual moose season. In keeping with common management practices, hunting quotas during any season would be based on changes in the estimated moose population. As the moose population expands in number and becomes more robust, and its continued survival is more assured, then this annual population estimate requirement should be reconsidered and perhaps eliminated.

2. Management priority should be placed on continued growth of the moose herd. If changes in the population or other natural factors suggest that continued hunting would prohibit long-term continued growth in moose numbers, then moose hunting should be stopped until such time as biological evidence exists that hunting can be resumed without damage to continued growth. This Council suggests that it be the objective of moose management to provide for a long-term growth rate of at least 3%. It is understood that growth of the herd will certainly change from one year to the next, and that during some years with difficult natural conditions, there may be no growth or negative reductions in population. We urge managers to put growth of the herd as the highest priority, and that hunting be allowed only when hunting will not jeopardize long-term herd

health and development. The management plan noted above should contain guidelines for when a hunt would be acceptable, or when a season closure would be recommended.

3. Moose hunting should take place in the "core area" identified by DNR managers in the Western Upper Peninsula. This area contains the majority of animals in Michigan and harvest of animals in this area would minimize impacts on reproductive capacity of the herd. If a hunting season is approved, the boundaries of the area open for hunting should utilize known physical features such as roads or rivers easily identifiable to the public. Additional harvest areas should be considered when occupied moose range exists beyond the current core area and research supports hunting harvest.

4. First-year harvest levels be set at no more than ten bull moose. Research provided to the Council by the Department, university researchers, and outside sources, suggests that this number of male moose will not have significant statistical impacts on the reproductive capacity of the Michigan moose herd. The number of ten moose was selected as a conservative number intended to assure continued growth of the herd, while still providing an opportunity for Michigan's hunting public to enjoy this unique and valuable resource.

5. Resolution of Indian treaty issues is necessary before a season may be initiated. The entire area occupied by moose in Michigan is located in areas where a significant number of Indian tribes retain court-affirmed treaty-reserved hunting rights. While the State of Michigan may control moose harvest for state-licensed hunters, it does not have authority to control tribal harvest. Therefore, in order to assure a predictable and biologically acceptable number of harvested moose in a proposed hunting season, the state must achieve some sort of projected moose harvest understanding with each of the eligible hunting tribes before a season can be initiated. Unless an agreed-upon combined harvest level is achieved, it will not be possible to work toward continued growth rate of the herd.

There are numerous legal complexities related to this issue. This council is not the appropriate entity, or this report the appropriate place, to identify or address them.

Some tribes have requested consultation on the issue of a moose season prior to the implementation of a moose season.

6. Lack of a Comprehensive Michigan Moose Management Plan. Many of the high profile species of wildlife in Michigan have a dedicated management plan for the species. A management plan should be comprehensive in that it should contain a history, current status, and goals for the future for the species and its habitat. The decision-making process for management of the species

could also be part of the plan. Any comprehensive management plan should also include a process for public involvement. The Council understands and appreciates that limited financial and personnel resources constrain the development of a management plan. Until a management plan can be developed, management principles should be established by the department and utilized to inform management decisions.

7. No DNR Public Communications Plan for Michigan Moose. When moose were reintroduced to Michigan in 1985-87, a great amount of public communication was involved and the Michigan public was engaged and excited about moose. Since that time, moose have slowly disappeared from public awareness as DNR research efforts declined and moose monitoring received less attention. A good communications plan highlighting Michigan moose would likely increase public awareness and concern for moose, and would result in a continuing sense of the value that moose represent to Michigan citizens and visitors not to mention the Michigan economy as well.

8. Other management issues discussed by the council:

- >Season dates should be set post-rut to allow the maximum opportunity for breeding-age cows to mate with available bulls.
- >Licenses should be restricted to Michigan residents only.
- >Licenses should be "once-in-a-lifetime" because of the very limited opportunities available.
- >The department should consider a group hunting opportunity similar to formats utilized in other states, allowing the lottery winner to select two other licensed participants, further requiring all in group have to be in voice contact and allowing the group to only harvest one legal animal, thus maximizing participation, increasing revenues and interest in the season, and provides for sufficient manpower to remove harvested animal from the field. This increased level of participation also promotes additional positive economic impact of the hunt.
- >The department should establish regulations allowing quartering of harvested animal in the field, since these animals are too large to be removed intact.
- >The department should require registration at a DNR facility within 24 hours of harvest with all retained parts of the harvested animal required to be shown physically at time of registration.