

# PROBLEMS AND STRATEGIES FOR MOOSE MANAGEMENT IN MAINE

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For the purposes of this discussion, the state is divided into 3 areas: Primary Management Area, Secondary Management Area, and the Safety Area.

***The following problems (1-6) and strategies pertain to the Primary Management Area where the objective is to manage the moose population at 55-65% of carrying capacity (K) while maintaining mature bulls.***

**Problem 1:** A means to measure the population relative to K is under development but is not ready for final use.

Strategy 1.1: Use antler beam diameter and spread of yearling bulls as an indicator of changes in the population relative to K, and continue to investigate this and other potential measures. At this time, beams below 33 mm and spreads less than 55 cm will be used as a warning of populations approaching or exceeding the population objective.

**Problem 2:** Even if the legal kill is increased to the maximum allowable, the sample size for biological (yearling size, mature bulls) and trend (sighting rate and composition of sightings) data will be small for any one WMD in any one year.

Strategy 2.1: Continue effort to collect data on as many harvested animals as possible.

Strategy 2.2: Implement a survey of moose sightings by deer hunters.

Strategy 2.3: Combine data collected from adjacent WMDs and over several years when appropriate.

Strategy 2.4: When indices give conflicting information, or when a large increase in harvest appears to be possible, recommend an aerial census of the WMDs in question.

**Problem 3:** The only method currently in place for assessing the availability of mature bulls in the population (the number of mature bulls in the harvest) is biased. Because hunters are very selective and pass up smaller bulls in favor of large bulls, the

## *Moose Problems and Strategies*

availability of large bulls in the population is likely to drop below desired levels before the number of mature bulls declines in the harvest.

Strategy 3.1: Develop a means of assessing bull population structure independent of the harvest. Adding a question to the moose hunter survey and proposed deer hunter survey may be adequate to address this issue.

**Problem 4:** Accurate aerial censuses are needed but are expensive.

Strategy 4.1: Actively seek support for sufficient additional financial resources to conduct accurate aerial censuses. Reallocating existing financial resources is not feasible, as it would prevent achieving management goals and objectives for other species.

**Problem 5:** Estimates of allowable harvest are biased. The productivity and mortality data currently available to estimate allowable harvest was derived from a population that had lower moose densities than either the current population or the population objective. Because denser populations are likely to have higher mortality rates and lower reproductive rates, using these estimates may result in a harvest recommendation that is too high.

Strategy 5.1: Conservatively increase populations to meet goals.

Strategy 5.2: Determine productivity and mortality rates for populations near their objective level (e.g., WMDs 9&14), and use those rates to calculate harvest levels, when the population is near target.

**Problem 6:** A study to estimate productivity and survival will be expensive.

Strategy 6.1: Actively seek support for sufficient additional staff and financial resources to conduct studies to estimate productivity and survival. Reallocating existing staff and financial resources is not feasible, as it would prevent achieving management goals and objectives for other species.

***The following problem (7) and strategies pertain to Wildlife Management Districts (7,8,10,12,13,18,19,28,and 29) in the Primary Management Area where the goal is to balance the concerns over moose/vehicle collisions with the desire to provide excellent hunting and viewing opportunity.***

**Problem 7:** It may not be possible to reduce the number of accidents while maintaining the population at 55-65% of K. There is no known effective means of reducing

## *Moose Problems and Strategies*

wildlife/vehicle collisions over a broad area for a long period of time other than reducing the number of animals and/or the amount of traffic. For most of these WMDs, the objective calls for a population the same or higher than current populations.

Strategy 7.1: Continue to erect signs, and improve visibility.

Strategy 7.2: Employ other means where practical or as new methods are developed.

Strategy 7.3: Work with the Department of Transportation to improve road design to reduce risk on new construction or road “improvement” projects.

Strategy 7.4: Improve driver education on how to avoid wildlife collisions. (A committee with representatives from IF&W, DOT, Turnpike Authority, Motor Vehicles and Public Safety is currently working on this.)

***The following problems (8-10) and strategies pertain to Wildlife Management Districts in the Primary Management Area where viewing is also an important issue (WMDs 4,5,7,8,9,10,12,13,14,18,19,28,29). Maintaining viewing opportunity was identified as a particular problem in WMDs 9 and 14 but at some point could be an issue in any of these WMDs.***

**Problem 8**: There are reports that moose watchers are having greater difficulty finding moose around Greenville than in the past. However, the population in some WMDs (9 and 14 included) will need to be stabilized or reduced to meet population objectives. A reduction in the moose population may further reduce the likelihood of seeing a moose.

Strategy 8.1: Provide information on the best times and places to see moose, including information on moose behavior and moose habitat relationships.

Strategy 8.2: Work with landowners to improve visibility through vegetation management, salt licks, viewing structures and/or improved access or parking for good viewing areas.

Strategy 8.3: Explain why the population objective was selected and that higher populations result in habitat damage and/ or road safety problems.

The following problems and strategies pertain to Wildlife Management Districts in the Secondary Management Area where the objective is to reduce the population by one-third and, for most WMDs, maintain mature bulls:

## *Moose Problems and Strategies*

**Problem 9:** Sample sizes for biological information will be small for any individual WMD in a given year, even if the legal kill is the maximum allowable to meet the population goal.

Strategy 9.1: Continue to collect data on as many harvested animals as possible.

Strategy 9.2: Implement a survey of moose sightings by deer hunters.

Strategy 9.3: Combine data collected from adjacent WMDs and over several years when appropriate.

Strategy 9.4: When indices give conflicting information, or when a large increase in harvest appears to be possible, recommend an aerial census of the WMDs in question.

**Problem 10:** Reducing the moose population will not be acceptable to many people.

Strategy 10.1: Develop greater support for the goal by providing information (through the media and/or public meetings) on how and why this objective was developed to meet the goal of improved road safety.

***The following problems (11-12) and strategies pertain to Wildlife Management Districts in the Secondary Management Area not yet opened to hunting (WMDs 15, 16, 17) and in the Safety Area (WMDs 20-27).***

**Problem 11:** Opening hunting seasons in WMDs that have never been opened to moose hunting, and that have a fairly high human population that is widely dispersed, is likely to be met with some opposition. Some people will simply be opposed to hunting but others will be concerned about the structure of the season.

Strategy 11.1: As soon as possible, gather information on local concerns and preferences for hunting regulations and address these concerns when formulating the season's framework.

Strategy 11.2: Conservatively increase permit numbers as problems and concerns of residents are identified and resolved.

**Problem 12:** Reducing the moose population to a very low level will not be acceptable to many people.

## *Moose Problems and Strategies*

Strategy 12.1: Develop greater support for reducing the moose population by providing information (through the media and/or public meetings) on how and why this objective was developed to achieve improved road safety.