Report to the Joint Standing Committee on Inland Fisheries and Wildlife

As Required by 12 MSRA Section 11552

Proposed Actions For Moose Management in Regards to the Number of Permits Issued, the Length and Timing of the Annual Moose Hunting Season

Presented by the Department of Inland Fisheries & Wildlife
February 2013

In response to the requirements set forth in 12 MSRA, 11552, subsection 2, the Department of Inland Fisheries and Wildlife submits the following report on the actions taken and the actions proposed for the management of moose relative to the number of permits, season timing, and the areas open to hunting.

Moose Management Actions

MDIFW has publicly derived management goals and objectives for many of the game and nongame and endangered species it manages, including moose. Current moose management goals and objectives are to manage moose in northern, western, and downeast Maine [Recreation Management Area] at a level that would maximize both hunting and viewing opportunity. Whereas, in northeastern and several Wildlife Management Districts in central Maine [Compromise Management Area] the goal is to balance the public's concern about moose/vehicle collisions with the public's desire to hunt and view moose. The moose management goal in southern coastal Maine [Road Safety Management Area] is to reduce the moose population to the extent necessary to minimize the danger to motorists.

After 3 winters, Department staff has completed aerial surveys (both double count and composition) of the majority of our state's prime moose area. In collaboration with the Maine Forest Service Ranger Pilots, the department conducted double count aerial surveys for estimating moose abundance across 75% of this area [Wildlife Management Districts 1-6, 8, 11 and 19). This technique provides the Department with a statistically reliable method for estimating moose populations. In the fall of 2012 the department released a statewide moose estimate based on this work. Department biologists determined that the estimate of moose within WMDs 1-11 and 19 drives the statewide population. In other words the number of moose outside these areas likely does not dramatically change the total statewide population. WMD 7, 9 and 10 do not have double count aerial estimates due to facilitating flights over mountainous terrain and other logistical constraints. Data on harvest, habitat, and sighting rates were used in conjunction with aerial survey data to project estimates for these 3 WMDs. We anticipate having the ability to conduct aerial surveys in WMD 9 and 10 at a later date.

In conjunction with the helicopter double count estimates staff have also completed aerial surveys (composition counts) that allow determination of the percent of bull, cows and calves in these units. To date surveys have been completed in WMDs 1-9 and 19; which mean surveys have included WMDs 7 and 9. These surveys provide us with reliable data on bull to cow ratios which is one of the essential and required measurements under the moose management system. Each management district must retain a certain threshold of mature or prime bulls as well as have a threshold percent of bulls among all bulls and cows in the population. If the number of mature bulls or percent of bulls falls below this threshold than the number of bull permits allocated must be reduced.

In addition we have obtained reliable data on the number of calves per adult cows in these areas. This is one of the most critical pieces of information for our moose population related to population growth or decline and an area that we high concern about (i.e., calf mortality). Currently department staff has been evaluating the role of winter

ticks and lungworm as a source of mortality in moose. Heavy winter tick loads on moose, especially calves can be debilitating to the point of being the primary cause of spring mortalities. In a bad tick year not only will there be higher than normal overwinter losses of calves but adults can succumb to heavy loads as well. The department has been working on better understanding the frequency of "bad" winter tick years, the geographical distribution of winter ticks across the state and the effects on various sex and age classes of moose.

With the collection of reproductive data (ovaries) on moose, IFW has the data and ability to reliably assess moose abundance, population composition and reproduction at a level that is unprecedented. *However,* there is still much to be learned and quantified regarding moose mortality and annual losses of calves and adults. Population modeling of moose has demonstrated that population growth can be very slow, can stagnate and/or decline depending on a variety of influences. The department is investigating and determining methods to quantify these losses. ***Thus it is imperative that hunting mortality is carefully controlled and managed based on the best available science that accounts for some level of uncertainty***. Current permit allocations reflect both the best available science and consideration of what currently is not known about moose mortality. Given the precipitous decline of moose in Minnesota and concerns in New Hampshire the department must act prudently in permit recommendations.

To this end, current information suggests that a few WMDs can sustain increased permits, while other WMDs must have permit reductions. In our most northern units (1, 2, and 4) where increases can be implemented the department recognizes the cooperation and responsibilities of landowners within the North Maine Woods where current infrastructure can be stressed during a 6 day moose hunt. The department is working with these stakeholders to better understand issues between moose hunters and the operations within the working forest. The department will be working on a new planning horizon for moose management where the opportunity will exist to improve the season structure and framework to better address the needs and issues with the North Maine Woods. Given the unknowns regarding moose mortality/survival and logistics within the northern commercial forestlands it remains prudent to increase permits carefully to address all of these issues. Over the last 5 years, permit *increases* in the most northern districts have varied from 10% in WMD 3 (which already had high permit allocations) to 742% in WMD 2. On the other end in some Downeast, central, and eastern WMDs permit levels have declined and antlerless permits have been reduced either because population objectives have been met or populations are likely below objective. Thus it remains critical that permits and moose numbers are allocated WMD by WMD while applying the best available science.

The Department has moved into a very positive position where we can reliably and effectively assess moose population dynamics in Maine and provide the highest level of management for the people of the state. With financial support and our continued partnership with the Maine Forest Service and University of Maine Animal Health Lab we will continue to move Maine to the forefront of moose management.

2012 Moose Season Summary

Maine moose hunters could hunt moose for 6 days by permit within the structure of a split season framework [September/October/November] during 2012. The September season [Wildlife Management Districts (WMDs) 1-6, 11, and 19] ran from September 24th to Sept 29th, the October season [WMDs 1-14, 17-19, 27, and 28] ran from the 8th through the 13th, and the November season ran from Nov. 5th to Nov. 10th. In addition, 2012 marked the fourth November moose hunt in Department history covering southern WMDs 15, 16, 23 and 26. WMDs 22 and 25 were added as well for 2011. The southern hunt ran concurrent with the November deer season from October 29th to November 24th and opened for Maine residents on October 27th. The Department timed this hunt to provide additional opportunity for hunters who wanted to hunt lower density moose along with deer hunting and to alleviate landowner concerns about creating another separate hunt in southern Maine.

The annual allocation of moose permits is related to the publicly-derived management goals for each WMD. Permit levels change in response to management actions, new and improved data collection on moose abundance, population composition and reproduction. Antlerless permits were increased in WMDs 1-4. Based on the implementation of statistically reliable aerial survey flights, collection of reproductive data and aerial composition surveys, the department was able to more accurately assess current northern moose populations and thus provide both increases and decreases with sex specific permit levels to achieve WMD population objectives.

The southern Maine moose hunt in WMDs 15, 16, 22, 23, 25 and 26, provided an additional 200 any-moose permits. An Any-moose permit allows the permittee to harvest either a bull or cow. The total number of moose permits issued in 2011 was 3,862.

Overall, hunters registered 2,937 moose in 2012 [776 in September, 1,401 in October, and 760 in November] making this a record moose harvest for the state. Harvest increased over 2011 with excellent hunter conditions prevailing, while permits actually decreased by 4%. Hunter success rates averaged 92%/80%/80% for the September/October and November North seasons respectively. For the southern Maine moose hunt the overall success rate was 18.5% as would be expected under low moose densities. We will be providing additional materials on our website for the southern Maine moose hunt to ensure that prospective hunters are fully aware of the conditions, land access and lower success rates in these areas.

2013 Moose Season Framework

In 2013, there will be 4 separate moose hunting periods in Maine – a September hunt, October hunt, and 2 hunts in November. The September season will run from September 23rd to September 28th in WMDs 1-6, 11 and 19; the October season from October 14th through the 19th and include WMDs 1-14, 17-19, 27, and 28. The November season in WMDs 1-8 and 19 will run from November 4th through November 9th. In WMDs 15, 16, 22, 23, 25 and 26, the season will coincide with November's deer season running from November 4th through November 30th. Opening day for Mainers was Saturday November 2nd.

For 2013, WMDs 1-8 and 19 will offer an additional moose hunt in November from the 4th through the 9th; this was due in part to a change in management strategy in WMD 2 that required an increase in permit allocations to reduce moose abundance [a result of LD 929 An Act to Expand the Moose Hunting Season]. For the fifth year the Department will allocate a total of 130 permits for any moose [bull, cow, or calf] in WMDs 15, 16, 22, 23, 25 and 26. In total, the Department recommended 4,155 permits for the 2013 moose hunt.

Prospects for the 2013 Recreational Moose Hunt

Given the department's tremendous advances in aerial survey work the department now has statistically reliable estimates of moose abundance across northern Maine; our best moose habitat. This has allowed the department to provide additional hunting opportunities in some areas while reducing permits in other areas to best meet our management population goals and objectives. As additional data is collected on moose populations across the state the department will be able to continue to fine tune permit allocations to meet the needs of the public and respond to population changes over time.

Controlled Moose Hunt in Eastern Aroostook County

With public input, the Department conducted a controlled moose hunt in 9 towns in eastern Aroostook County from 2009 to 2012. The purpose of the controlled hunt was to 1) reduce the incidence of crop depredation in selected towns in Aroostook County [commercial broccoli fields] and 2) reduce the incidence of moose / vehicle collisions along the Route 1 and Route 161 corridor. **A controlled hunt is not a recreational hunt.**

Prior to implementing the controlled hunt, the Department had utilized depredation permits and had been increasing the number of recreational moose hunting permits in this area in an attempt to reduce crop depredation and moose / vehicle collisions, but with limited success. The controlled hunt provides a focused, site-specific management effort to mitigate crop depredation and to address road safety.

The controlled hunts occurred during a specified period between mid-August and the start of the September recreational moose hunt. Controlled hunts were NOT open to all hunters. Persons eligible to apply for permits [awarded via lottery] included landowners and registered Maine guides who met certain eligibility requirements.

The Department allocated 100 permits in the 2009 controlled hunt – 45 permits to eligible Registered Maine Guides and 55 permits to eligible landowners. In 2010, the Department allotted 44 permits to guides, 63 permits to landowners, and 6 permits to disabled veterans. And in 2011 the Department allotted 30 permits to guides, 55 to landowners and an additional 15 to disabled veterans. 2012 marked a new maintenance phase of the controlled hunt with permit allocations totaling 50 moose.

Each of the selected guides received three moose permits [one for each of three permittees chosen at the discretion of the guide - guides were not eligible to hunt]. Of the three issued permits, one was an any-moose permit and two were antlerless-only permits. The controlled moose hunt rule required that Registered Maine Guides who received permits must guide their permittees in agricultural areas designated by the Department within the 9 towns open to hunting; and it required that each selected Registered Maine Guide must attend a Department-sponsored training session. The rule required that landowners who received a permit must hunt on their own, eligible land, although the Commissioner could authorize a landowner to use his/her permit to hunt on other designated lands identified in the area open to hunting.

Moose taken under these permits were in addition to the statewide bag limit. Permits issued under this controlled hunt were exempt from the provisions of the moose permit point system of the recreational moose hunt. A person who received a controlled moose hunting permit was exempt from the two-year eligibility requirement of the recreational moose hunt. All other fees, laws and rules relating to moose hunting applied to the controlled hunt.

Hunters harvested a total of 81, 72, 60 and 32 moose in the 2009, 2010, 2011and 2012 controlled hunts, respectively.

Following the 2012 controlled moose hunt, Department biologists and game wardens discussed with representatives of the Smith and Ayer Farms the hunt results and associated issues and successes with focus on possible improvements for future controlled hunts in eastern Aroostook County. The Department recommended scaling back on permits for 2012/2013 in order to maintain local control on depredating moose. The Department has met population objectives for WMD 3 and 6; and thus has reduced permit allocations in WMD 6 (maintain permit levels in WMD 3) to ensure maintaining current moose numbers.

Attached are the rule proposals and supporting materials recommended to the Advisory Council at the January Advisory Council Meeting at Step 1 of the rule making process.