

MAC March Meeting Notes on Subcommittee Recommendations

Summary:

Biological Dimensions of the harvest:

Overall agreement on numbers (67:100 bull cow ratio) – still want to be sure these are the numbers we want in the final MAC report

Make 5th recommendation to ask hunters what an acceptable success rate/density threshold should be.

Deer management:

Recommendation #2 – Ban on deer feeding (remove the word **recreational**)

Overall, lots of discussion but no more changes recommended

Social Dimensions of Moose:

Emerging recommendation -- Build constituency

Be upfront and honest with the public about the situation and our knowledge

Start talking to the public now – its not too early to start sending out sound bites/press releases

But – have to really analyze how the public interpret information we put out there and be aware of how they might react

Habitat:

Looking for ideas/input from committee members for areas to focus on

What is our visualization of high quality habitat?

Biological Dimensions of the Harvest: Mark Lenarz

Identify thresholds to close hunting season if population is declining – can't say what these are from a biological perspective. (Note: Thresholds are arbitrary → need to concentrate on those numbers)

1. DNR needs to explain to the public why moose harvest can continue even if it is declining

Question: By doing a better job, do we need to take a different approach with the public?

- We've been saying harvesting bulls doesn't affect the population, but technically we are reducing the number of moose in the population by hunting.
Question is at what population level do we want to stop harvesting? What message do we want to send to the public?

Question: Are we assuming the population is declining?

- Evidence we have of decline:
 - Aerial survey is ambiguous and implies stable/slight decline
 - Model incorporates survival and reproduction → indicates steep decline
 - Declining hunter success
 - A lot of anecdotal info from public saying moose numbers are not what they used to be

Question/Statement: Get across the idea of decline to the public – then raise the question of how many do we need? (How many moose do we need out there? Where does public want us to stop harvesting?)

- Need to understand how the public mind will work → how the public will interpret information about the state of the moose population and the recommendation to keep the hunting season open.

Benefits to continued hunting: Way to gather data

Problem of explaining to the public: The minute we show that there are fewer moose on the landscape due to hunting a large part of the public will make a value judgment → If save a few more moose by not hunting then they have a better chance of surviving. It will be a struggle to explain how hunting does not really effect the overall trend in the population.

2. Close the moose hunting season if the bull:cow ratio drops below 67:100 for 3 consecutive years.

- Open season again if exceed 67:100 ratio for 3 consecutive yrs

(Biologically based recommendation from model based on the breeding strategy of moose in northern Minnesota and Ontario)

Question/Statement: How we approximate moose numbers now is based on quality of stratification, which is only changed every 5 yrs. Don't have a lot of info – when do we know we're in a disaster? – could be well into a disaster before know it's there.

Question/Statement: Problems of when can do survey – snow, weather

- Maybe could do entire NE every 2 years, and hunting zones every other year.
 - But then it would be another 12 years before an individual zone would be surveyed again
 - But could have hunters on the ground there every yr supplying some data

Multiple indicators – is there a way to combine them, not view the indicators as mutually exclusive? How to combine them? We know the weaknesses of each indicator, and taken in isolation from each other, we run into trouble. Can one compensate for the weakness of the other?

Question: What are the chances that there could be real decline and we haven't hit any of these triggers? What if the survey just shows a decline, but triggers (bull:cow ratio, etc) haven't been hit – what are the chances that it's just a decline?

Question/Statement: Bull:cow ratio = 67:100 – seems to be the one to use if talking about harvesting bulls

- If calf:cow ratio falls, then bull:cow ratio becomes irrelevant

Question: Can we use both ratios? Is there any reason why can't use both?

Question/Statement: 94:100 bull:cow right now (+/- 20%)

- Reservation about using exact number is that we don't know what that exact ratio is.
 - That's part of the reason for looking at it over 3 years

3. Close individual moose zones to hunting

- Look at hunter success – close zone if harvest in that zone drops below 20% over 3 consecutive seasons
- Also recommend that any closed zone could be reopened after 3 years if all surrounding zones remain open for 3 years.

Statement: The information we have from hunting zones is the best indicator we can use

- Keeping the hunting season open: view as effective way of getting lots of people out there looking for moose – get a lot of info

- May need to correct for hunter effort → Look at demographics and effort
 - How does changing effort over time relate to reducing the number of permits? – How does success change with lowering permit numbers?
 - How is the number of permits driving the success rates?

Statement: Need 5 or 6 triggers -- don't just rely solely on hunter success – but in some areas the only data we have for those zones are hunter success data

4. Close the season if overall hunter success drops below 30% for 3 consecutive years.

- If drop some zones, success overall would increase
- Change in bull hunter success: 2001 = 61%, 2008 = 45% success
 - If trend continues, and use 30% cut-off, would have first year of 30% success in 2016 – (recommend closing the season)
 - 20% = 2019/2020
- If the moose season is closed, recommend reopening the season if aerial surveys shows population increases above density at closure and shows increasing trend for a minimum of 5 consecutive years.

Question/Statement: #4: 2nd sentence – is 30% acceptable? DNR needs to go to hunters and ask what is acceptable.

Question: Is this applicable to the NW herd?

- **Yes** -- Opinion is that #4 is applicable to the NW herd

Make 5th recommendation to ask hunters what an acceptable success/threshold should be.

How to deal with fine-tuning of recommendations? Think about what numbers we want in the final MAC report

Deer management: Lou Cornicelli

1. Prefer to air on side of affording maximum benefit to moose (manage for <10 deer /mi²)

- Deer zones in moose areas have been managed heavily for past few years

Question: How does <10 deer/mi² compare with current goals?

- Good for eastern moose range, not for western moose herd
- If realign units to match moose zones, then units outside of moose range can have higher deer densities

Question: Do we put a deer density in there?

- Think is useful to have a number in there
- Do we go to the public and see what they think, or just mandate <10 deer/mi²?
 - (like with asking public about acceptable moose numbers)
 - Need to introduce and get public to buy in

2. Ban recreational deer feeding within moose range

Question: What is MN DNR's opinion on banning recreational deer feeding?

- Recreational deer feeding is distinct from population feeding by DNR – makes better sense to ban feeding no matter what the conditions are (from a moose perspective – especially if moose get listed as species of special concern)
- Emergency winter deer feeding standpoint – it is disconnected from recreational feeding
- There is a ban on deer feeding in NW -- Haven't yet pursued ban in rest of state
- Wasn't that big of a deal to ban feeding in NW -- A couple of cases of resistance, but by and large is was accepted.
- Ban on feeding is going to be a significant social issue up here (NE)
 - On Gun Flint Trail – feeding is recreational – need to go about banning deer feeding by giving notice to the public
 - From public standpoint if banning deer feeding may be beneficial to moose, this is understandable
 - Always going to be local opposition to deer feeding ban

- Politically – there is lot of interest in being supportive of whatever needs to be done for moose, but there will always be local opposition
- If going to put it in the recommendation, it has to be up front, not buried in threshold issue
- Anecdotal information on deer feeding: Boundary waters (Fernburg – a lot of feeding there) - & near Isabella - Mike Nelson has information on designated deer wintering yards

3. Allow either sex deer hunting as a default management strategy

- Last year → 50% of deer harvested were antlerless – could indicated decline
 - Maybe to reduce the deer population we don't need to harvest more deer, but just a different type of deer.

4. Realign deer units to correspond with moose range/zones

- Realigning units is not difficult/a big deal -- Will have ~3-4 moose zones per deer zone

Question: If moved boundaries, do we have sight specific enough information to see what kind of an impact realigning boundaries might have?

5. Need better research and monitoring into the causes of moose mortality

- Data on moose disease and deer density are limited and opinions are conflicting
- There is an amount of uncertainty as to what extent reducing deer numbers will improve moose numbers

Question: Would there be any benefit of having serology kits in deer areas?

- Probably not – would need so many
- Brain worm – hang up, can't even get moose samples done now – political issues more so than technical
- In terms of deer – have been many studies looking a P. tenuis in deer – almost a fact that 80% of deer in N. MN will be infected with it. Can also collect deer feces to look at prevalence.
- Need a specific reason/disease to look for with deer – need a working hypothesis before going looking for disease in deer.

Social Dimensions of Moose: Dennis Becker

1. Social recommendations: Reactions to other sub-committees recommendations

- Guiding principles that will help communicate information to the public
 - The public has different/unrealistic expectations
 - When public realizes that we (scientists) don't know a whole lot more than they do- they get mad – there is often a political reaction
 - A lot of the things we don't have answers for will be thrown into this political pot
 - Set appropriate expectations so the public doesn't over-react.
 - Need to acknowledge publicly that this isn't just a scientific fix

2. Economic impacts

- What is the importance of moose to the state? Should we hunt or not hunt
 - Don't pit hunting against non-hunting!
- Need to provide recommendations of the importance of economic benefit of moose that don't revolve around hunting – importance of seeing moose – revenue generated by tourists coming to see moose – very important economic aspect
- The hunt or don't hunt argument is something that the public will latch on to – don't dilute the statements explaining why with a bunch of qualifiers – simple, to the point statements/assumptions
 - Need to find out more about the value of moose
 - Look at the willingness to pay – how much hunters are willing to pay to continue to have a viable moose population – how much are non-hunters willing to pay
 - By what means/mechanisms are they willing to pay
 - Conduct surveys to see what people are willing to pay
- Intrinsic value of moose to the state – an iconic species
 - What becomes the identity of the state if moose decline to where can't see them
 - How do we define ourselves from other states if moose disappear?

- Who bears the cost of moose management?
 - Should it be borne by hunters as well as non-hunters?
 - How? Sales tax? Have we done that already?
- To hunt or not to hunt – committee needs to make clear thresholds.
- **Analysis – gross expenditures, hunting revenue, willingness to pay, etc.**
 - Broad statement about how moose (based on observations) are important to MN
 - Purpose of this recommendation was to identify where we can get the resources to continue moose management – not fair for hunters to bear all of the burden
 - Information gained here is valuable because we can quantify impacts of hunting, tourism, lodging, etc.
 - Moose is part of why people come to MN, but not sole reason – academically, it is difficult to tease out how much people come here for moose vs. the lakes vs...
 - Maybe turn this recommendation into how we could use this style of information
- **Need to mention adverse impacts of moose (crops, vehicles...)...do we need to acknowledge these negative impacts of having moose**
 - How prevalent in the problem?
 - 5% of collared moose have been hit by vehicles (since 2002)
 - In NW crop depredation was a big problem – hybrid poplar plantations depredation was a problem
 - Several people have been killed in automobile accidents (NW)
 - If we have a large increase in moose – will landowners be very upset?
 - In NW, but not in NE
 - Has it ever caused forestry damage?
 - No, tear up plantations, but don't eat them (in NE)
 - If increase in NW, DNR will have issues

3. Needs to be greater integration between fish and wildlife and ecological services.
 - Seems that we can assume a listing of “species of special concern” – if that’s the case, need to recommend integration, and our recommendations need to reflect that more
4. Policy intervention – if committee doesn’t take control, the public will – need to manage expectations
5. Communications
 - Public forums, etc -- there are a variety of ways to do that
 - **A lot of agencies wait until end and show final solution – but the public is also interested in the process**
 - Through press releases – say these sub-committees have been developed and are working on recommendations, don’t really know what is causing the problem
 - Set the public’s expectations, they will be more willing to work with us
 - Don’t understate the uncertainty of the problem to the public
 - Unwillingness to say we don’t have the answer is what gets agencies in trouble
 - Be upfront and keep credibility
 - In these situations – comes down to the public trust

Questions/Statements:

- **Willingness of public to pay for moose in MN vs. for research?**
 - Don’t think public will distinguish between
 - New issue for the public – though they might assume some research has already been done
 - Tell straight out we don’t know exactly what is happening with moose, but this is our best guess at this time and we need to continue to monitor and research – this will give some social license to do research
 - But run the risk of legislature getting involved eventually
- **Have to be careful with this issue as a whole – has the potential to get away from us quickly**

- Need to get out in front of it – propose right up front a set of assumptions/guiding principles – we believe that hunting does not hurt the population because....
- Spell it all out instead of letting the public interpret as they will
- **Question:** What about the media of now?
 - Can't wait on communications too much longer
 - There were releases from the summit, have a website which has basic info and is waiting to go – not a message tool at this point – needs to be that soon though. Something we can do relatively quickly
 - As part of website – thoughts should turn to school teachers
 - Teachers asking what to give money to – give to adopt a moose program

Emerging recommendation

- **Build constituency** ---think about how to do it? – adopt a moose, taxes, etc.
 - Elevate some ideas over others
- **Question: Is supporting keeping moose in MN the same as supporting moose research in MN?**
 - Consider adopt a moose program – there is an expectation that if you put money toward something that you can help solve the problem – public expectations are raised when in actuality it might not help the problem
 - **Have to decide: Is that a risk we are willing to take?**
 - The hunt or don't hunt argument is something that the public will latch on to – don't dilute the statements explaining why with a bunch of qualifiers – simple, to the point statements/assumptions
 - Lay-person might make assumption that hunting hurts the population – even though not biological.
 - Public knee-jerk response to continuing the hunt – what is the expectation?
 - People who actually reads the document vs those that only hear on the radio that moose are declining and then hear announcement of tag issuance

- 95% of public will only hear sound bites – need short, clear statements that can be released as sound bites.
- **Question: Do we want to push communications up on agenda?**
 - If want things on website/ press releases of guiding principles
 - What kind of topics do we want to put out there?
 - Not ready throw guiding principles out there yet
 - Should we be letting the public know right now that this process is going on
 - Public is very concerned about process
 - Can regurgitate information from the summit if need be
- **If a press release is widely picked up – call volume is going to go up and expectations of results go up**
 - By June, public will expect to start seeing the results
 - Could be as easy as saying there is a new DNR web page up about moose
 - Be proactive – contact the people
 - Maybe don't put out press release on moose problem so closely on heels of harvest release – wait until May 1 maybe
 - Send mixed message when they come out together

Habitat: Dan Ryan

What is our visualization of high quality habitat? Where are highest densities of moose – what combination of habitat characteristics?

- There are places with lots of moose, and there are places that look good, but there are no moose there –Why? -- productivity, cover type, etc --- we just don't know
 - There are places in the blowdown where you see no moose

How can we manage for moose without also managing for deer?

- Multiple entries into the same stand instead of clear cutting with one entry – fewer clear cuts, much more selective cutting – favors moose a bit more than deer
 - Management of spruce/fir forests
 - Mountain ash, mountain maple, balsam fir, paper birch are found in Canadian shield mixed habitat

Identify areas of thermal cover for moose

- **Question:** Is goal to create more moose habitats? Is the location of habitat important:
 - Summer thermal cover adjacent to aquatic habitat
 - Is forage where it needs to be? Is thermal cover where it needs to be?
 - Ontario study (unpublished data)?
- **Question:** What is the next step for habitat management? What direction does the committee want to head?
 - Get thoughts from group
- **Question:** Weren't looking at NW – should there be something in there for the NW?
 - On state and fed lands – promote low seral aspen parklands (have a few sentences in the recommendation about the NW herd)

In the management plan, identify areas where we need to focus on if habitat management will be used as a management tool.

- Habitat use analysis will help our ability to predict how moose will respond to changing conditions
- Aquatic habitat is important

Tom Martinson – Note: Recently purchased 6000 acres of land near Murphy City -- 2000 acres needed to restock

- Want input – would like to do something for moose there.
 - What should they do?