

2007

## AHM Working Group Meeting Summary

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# AHM Working Group Meeting Summary

November 27-29, 2007  
Cambridge, MD

# Nov 27

- Update on AHM-NAWMP Joint Task Group rec. #5 – WF Mgt Policy Summit
  - Case and Koneff updated the group on behalf of Seth Mott of the Summit Planning Committee
  - Planning Committee Membership (S. Mott, R. Morgenweck, K. Babcock, V. Bevill for T. Hauge, P. Bowman, D. Case, R. Clark, M. Anderson)
  - Likely timing: late August 2008
  - Invitees: ~250, Flyways, NSST, JVs, AHM WG, DMBM, DBHC, NGOs, USGS, and others)
  - Described stated meeting purpose and desired outcomes
  - AHM WG: concern was expressed that forum as described is not conducive to productive dialogue, consensus building, or action

# Nov 27

- Update on human dimensions efforts and HDWG
  - Provided by Dave Case
  - See presentation provided
  - No action necessary from the AHM WG
- Black Ducks: progress report on development of an international harvest strategy
  - Provided by Nathan Zimpfer
  - See presentation provided
  - No action necessary from the AHM WG

# Nov 27

- Northern Pintails: derivation of an optimal AHM strategy
  - Presentation by Mike Runge
  - Summary of conclusions from presentation:
    - Should we use current model set?
      - Use H vs. h
      - Can always revisit model set at a later time
    - Is model updating OK?
    - Coupling with MCM strategy adhoc but saves hassle of joint optimization
    - Derived strategy much different than prescribed
    - Regulatory consequences of alternative models are significant
    - A shoulder strategy is possible
      - How set?, need agreement about tradeoffs

# Nov 27

- Northern Pintails: derivation of an optimal AHM strategy (cont)
  - Where go with this proposal? Feedback received from AHM WG:
    - Discomfort expressed about
      - Apparent rise in closure levels
      - We should investigate a constraint to prevent closure at levels higher than current closure thresholds
    - Questions were raised but not resolved about how to select a shoulder point (how set a mgt objective)?
    - WG requested a side by side comparison of the performance metrics for current and derived strategy under different shoulder objectives

# Nov 27

- **Northern Pintails: derivation of an optimal AHM strategy (cont)**
  - WG recommended resurrecting the Flyway NOPI Advisory Committee to provide feedback and guidance – Trost will coordinate
  - Questions remain about how to construct the NOPI strategy conditional on a MALL-based framework season length – when we consider at least 2 and possible 3 mallard stocks and AHM protocols
    - WG indicated that this could possibly be handled through the flyway harvest allocation in current strategy
    - Derived strategy specifies optimal continental allowable harvest
    - Allocated to Flyways
    - Harvest models to determine flyway-specific regs to meet allocated allowable harvest
  - Concern expressed by 1 WG member about the message we are sending by a strategy that would allow for increased NOPI bag limits in the face of restrictions in the overall framework season length based on MALL status
  - **Recommendation from WG:**
    - continue to work toward resolution of these issues and continue to implement the current strategy until remaining issues can be addressed
    - WG requested a side by side comparison of the performance metrics for current and derived strategy under different shoulder objectives
    - Reconstitute the flyway advisory committee

# Nov 28

- **Scaup: continued development of a harvest strategy**
  - Presentation by Scott Boomer
  - Presentation provided brief overview of key elements of the assessment and proposed strategy, answered questions posed by the flyways, and described the proposed framework for selecting regulatory alternatives
  - AHM WG discussion centered on the lack of an alternative model in the proposed strategy that captures the widely held belief that current harvest has no affect on scaup (is completely compensatory) and the population will continue to decline to some lower equilibrium level even if the season is closed (stated another way, the population is currently at  $K$  and  $K$  will continue to decline to new lower level)
  - While it will require further investigation, DMBM believes it is technically possible to develop an alternative model and allow this model to play off adaptively against the model in the current proposal



# Nov 28

- **Scaup: continued development of a harvest strategy(cont)**
  - What would inclusion of an alternative model require?
    - Flyway consultation to capture the true spirit of the proposed alternative model
    - SRC guidance to MBM
      - The SRC last summer indicated that it was comfortable with the proposed strategy and intended to implement it in 2008 and requested that the flyways and MBM focus on outstanding policy issues
      - However, SRC left the door open to consideration of alternative viable models
      - MBM needs to further consider the technical challenges of developing an alternative model – not sure if it could be ready for the upcoming regulatory cycle
      - Would SRC support possible delay of strategy implementation if technical work can't be accomplished in time?

# Nov 28

- Scaup: continued development of a harvest strategy(cont)
  - What additional Flyway feedback/consultation is necessary?
    - A policy decision would need to be made about the lowest population level at which harvest would be allowed if the scaup population continues to decline
    - Other policy issues?

# Nov 28

- **Scaup: continued development of a harvest strategy(cont)**
  - Also the idea of just including an alternative functional form of the logistic model to describe a compensatory mortality hypothesis
    - This does not completely capture the belief that system change is driving the population decline and will continue reduce the population regardless of harvest
    - Also the current expression of the logistic in the proposed harvest strategy allows for compensatory mortality if supported by the data

# Nov 28

- Scaup: continued development of a harvest strategy(cont)
  - AHM WG Recommendation:
    - Believe it is technically possible to develop an alternative model as described, not sure how long this will take
    - recommend pursuing this technical work
    - MBM engage SRC to ascertain their perspective on whether this additional work should be conducted and the implications to the current timetable for implementation of the current proposed strategy
    - MBM engage Flyway Councils to address additional policy issues (eg, closure threshold)

# Nov 28

- **Canvasbacks: report on predicted effects of addition of 2-bird bag to existing strategy**
  - Presentation by Emily Silverman
  - While simulations based on the existing density-independent model may provide optimistic projections of the proportion of closed seasons, they agree with simulations based on a density-dependent variant of the model in the current strategy, that the effect of a 2 bird bag at population levels from 600-900k are minimal

# Nov 28

- **Canvasbacks: report on predicted effects of addition of 2-bird bag to existing strategy**
  - General comfort was expressed by the AHM WG with the simulation exercise conducted to evaluate the effect of including a 2-bird bag limit in the existing strategy
  - General comfort was expressed by the AHM WG with the existing canvasback model and harvest strategy
  - The SRC did not assign a more comprehensive review of the canvasback model or strategy as a priority task for DMBM, however, DMBM (as resources permit) will consider means to improve the existing model, at least by inclusion of density dependence so that the model is more useful in making long-term predictions

# Nov 28

- **Canvasbacks: report on predicted effects of addition of 2-bird bag to existing strategy**
  - DMBM will present the results of the assessment to the SRC in January and will make the assessment results available to the Flyways in time for consideration in March
  - DMBM and Flyways formulate recommendations for the SRC to consider in June
  - **AHM WG Recommendation:**
    - present results of the simulations to SRC and Flyways to inform decision on inclusion of 2 bird bag in existing strategy
    - No pressing imperative to revisit canv models and strategy except that model modifications to include density dependence should be investigated (this would not be ready for the upcoming cycle)

# Nov 28

- Wood ducks: assessment of harvest potential and implications for a harvest strategy
  - Pam Garrettson delivered presentation focusing primarily on the technical assessment
  - Nearly all outstanding technical issues have been resolved and DMBM is comfortable with the resulting estimates of  $r_{max}$  and  $h_{max}$ 
    - One remaining issue is to determine what the appropriate comparison statistic for  $h_{max}$
    - Current understanding is that this statistic is a harvest rate weighted by the cohort specific rates when at the stable sex and age distribution projected by the Leslie matrix used to calculate  $r_{max}$
  - A scoping document describing options for how this assessment might be folded into a constant harvest rate strategy has recently been provided to the Atlantic and Mississippi Flyways for consideration



# Nov 28

- Wood ducks: assessment of harvest potential and implications for a harvest strategy
  - AHM WG recommendation on technical assessment:
    - General agreement that PBR provides an appropriate framework for assessing the harvest potential of wood ducks
    - General agreement that outstanding technical issues have been adequately addressed
    - General agreement that  $S_0$  has been appropriately estimated
    - General agreement that reproduction at low density was appropriately estimated
    - MBM continue to work with AF/MF to develop a constant harvest rate strategy based on this assessment

# Nov 28

- **Mottled Ducks: progress report on assessing harvest potential**
  - Presentation delivered by Khristi Wilkins
  - Reviewed previous attempts at assessments of harvest potential
  - Reviewed outcomes of modu workshop and meeting to discuss modu (wgc) bpop survey design
  - Presented results of a recent analysis using the MWS and harvest information as the only range-wide, long-term databases for this population
    - Fit a logistic growth model with harvest and a scaling parameter on harvest similar to the scaup model
    - Parameter estimates for  $r$ ,  $K$ , and  $q$  were highly correlated and were not believed to be biologically realistic
    - Taken at face value this assessment would suggest that we are harvesting wgc modu on the right shoulder, however, DMBM believes that the parameter estimates are not realistic

# Nov 28

- **Mottled Ducks: progress report on assessing harvest potential**
  - Assessment work to date has provided conflicting depictions of the harvest potential of wgc modu, depending on the data and methods applied
  - This reinforces the current work toward improved monitoring programs
  - DMBM will continue to consider methods to assess the harvest potential of modu with existing data
  - **AHM WG recommendation:**
    - Conflicting assessment results based on existing data confound present efforts to understand the harvest potential of WGC modus
    - Until new data are available or new methods can be applied to existing data to better estimate harvest potential, WGC modu harvest should continue to be managed annually based on the best available data

# Nov 29

- **Western Mallards: report on efforts to develop an AHM protocol for WMAL and to respond to PF concerns**
  - Presentation delivered by Todd Sanders and Fred Johnson
  - 4 unresolved issues identified by the Pacific Flyway and additional assessment work on these were addressed
  - 1) PF would like to consider more options for mgt objectives
    - Current options (open, closed) may result in liberal season all time, but if must restrict, only option is closed
    - Options that add at least 1 intermediate regulatory option reduce amount of time in liberal prescription, but when must step back, you only go to the intermediate package. This virtually eliminates closed seasons.

# Nov 29

- **Western Mallards: report on efforts to develop an AHM protocol for WMAL and to respond to PF concerns**
  - 2) Alternative models and adaptation
    - Current model formulation effectively considers 729 discrete models (combinations of  $r$ ,  $K$ , and  $d$ )
    - Is just parametric uncertainty and models have same basic functional form, however still admit a wide range of system behaviors
    - Balance models are still considered infeasible
  - 3) How handle AK?
    - Work done so far suggests we can remove AK from MCMAL with minor adjustments without complete retooling model set
    - Only way to know for sure is to rebuild the model set and compare--resources not identified to do this yet.
    - Question of what do about AK regs and how they relate to strategy is a policy consideration and doesn't much affect strategy

# Nov 29

- **Western Mallards: report on efforts to develop an AHM protocol for WMAL and to respond to PF concerns**
  - #4 Joint vs. Independent Optimization
    - Primary conclusion: joint and independent optimization results are equivalent under realistically constrained situations
    - Based on this, is there a pressing need to pursue joint optimization
    - (Note the way the stochastic simulations are not exactly correct – don't think we will affect patterns but with evaluate and report back)

# Nov 29

- Western Mallards: report on efforts to develop an AHM protocol for WMAL and to respond to PF concerns
  - AHM WG Recommendations:
    - Next Steps:
    - Are there remaining outstanding tech issues with models that must be addressed?
      - Not at this time
    - Need/desire to further explore joint harvest strategies with MCMAL
      - Not at this time
    - Consider stock specific mgt objectives and constraints
      - PFC needs to recommend X% of MSY as mgt objective and consider the need for additional regulatory constraints
    - Develop regulatory alternatives in the PF that could be expected to influence harvest rates. Is this necessary?
      - PFC needs to make a recommendation for any changes in reg. alternatives in March
    - Whats the timetable?
      - PFC, CFC, and MFC need to recommendation about implementation of an independent strategy for WMAL in March (even an independent strategy has implications for the MF and CF)

# Nov 29

- Open discussion on benefits vs. costs of multi-stock mgt for mallards and of multi-species mgt
  - The WG engaged in discussion of the benefits and costs of multi-stock mgt for mallards and the more general issue of multi-species management
  - Mixed opinions were expressed and the issue deserves further consideration



# Nov 29

- **Atlantic Population CAGO update**
  - Presentation delivered by Mike Runge
  - See ppt for details of assessment methods and results and insights
  - **AHM WG recommendation:**
    - continue development to resolve remaining technical issues
    - coordinate with AFC to resolve policy questions
      - Strength of cost function
      - Does this framework adequately capture the problem?
      - Is this producing tools that the AF finds useful?

# Nov 29

- **Communications Team Update**
  - Update on Flyways.us
  - Koneff replaces F. Johnson
  - Discussed HDWG and Strategy Team efforts regarding hunter recruitment and retention
  - Discussed the issue of scaup and canvasback harvest strategy communications needs which led to a discussion of the purpose of the AHM WG
  - **AHM WG Recommendation:**
    - Include discussion of the purpose/role of the AHM WG as an agenda topic for next meeting