

# Science & Research Action Team

May 18, 2013 Progress Report

## Today's Activities/Discussions:

- **Finalized proposal language for:**
  - **H.1, H.2, H.5, H.7, H.8, C.1, C.2, C.5, A.1, A.2, and A.5**
- **Presentation by Dr. Robert Rolley on deer population estimation in Wisconsin (see presentation)**
  - Estimates are made annually to assist in management decisions and in the deer quota setting process.
  - Sex-Age-Kill Procedure:
    - Used since 1960s
    - Procedure: Estimate of bucks, estimate of doe population, and estimate of fawn population
    - Uses mandatory registration to calculate the total buck harvest data
    - Deer populations are not uniformly distributed within DMUs

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## **Additional Action Team questions/information requests:**

N/A

## **Implementation Action Items proposed or discussed by the Action Team :**

- **H.1. Establish Research Steering Committee**
  - The team endorsed the language and the members are in agreement on the recommendation.
- **H.5. Develop long-term research plan**
  - The team recommended new language in the implementation proposal, to switch depredation funding from license and application fees to general purpose revenues and use depredation license fees for research.
  - The team endorsed the updated implementation proposal.

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## Implementation Action Items proposed or discussed by the Action Team :

- **H.7. Research projects of an applied nature**
  - The team endorsed the language and the members are in agreement on the recommendation.
- **H.8. Project results should be extended to the public**
  - The team recommended new language to the proposal, and added the implementation action to work with the DNR Bureau of Communications to develop a robust outreach/education/marketing plan to push information to all stakeholders and endorsed the implementation proposal.

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## Implementation Action Items proposed or discussed by the Action Team :

- **C.1. Continue to conduct research on the impacts of predators on the deer herd.**
  - The team recommended new language within the implementation proposal to include continuing high-quality research on predators including geospatial studies and sustainable harvest of predators.
  - The team recommended the evaluation and validation of new research methodologies, including the expanded use of rigorous, scientific, citizen monitoring by different groups (e.g., hunters, loggers, mail carriers, private/corporate).
  - The team endorsed the recommended implementation proposal.

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## **Implementation Action Items proposed or discussed by the Action Team :**

- **C.2. Involve the public as much as practical with field-based research projects.**
  - The team endorsed the language and the members are in agreement on the recommendation.
- **C.5. Geospatial studies of predators, especially for wolves.**
  - The team endorsed the implementation proposal, to include the implementation language in C.1.

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## Implementation Action Items proposed or discussed by the Action Team :

- **H.2. Human Dimensions Research Development**
  - The team endorsed the implementation proposal and added new language regarding:
    - The need for developing metrics for human dimensions using long-term monitoring, and offered possible research areas to explore in the future.
    - The team noted obstacles of not doing rigorous human dimensions research in favor of less expensive methods and limitation of having adequate staffing and funding, and lack of long-term perspective by policy makers.

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## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - The team recommended:
    - Reject the recommendation as written, given that estimating at the state and regional level does not help manage the herd.
    - Use SAK at the level that is appropriate for management (DMU level) and scientific inference.
    - Target efforts towards DMUs with less certainty/more controversy in population estimates
    - Find a way to rigorously examine and incorporate local knowledge into deer estimation.
    - Keep collecting registration and harvest age-data during the firearm deer season.

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## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - Rationale/Discussion:
    - The team opposed using SAK solely at the regional/state level, because a state estimate has no management purpose.
    - Suggested to focus the use of SAK in specific areas of need and expand research to improve estimation procedures.
    - Large errors at the DMU level create distrust, which provides the rationale for moving to the state and regional levels. However, even with better estimates, the question remains if stakeholders will still trust and support the estimates.
    - The recommendation comes out of the misperception of the interpretation of uncertainty in SAK estimates. Noted that alternative methods are not better or less expensive.

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## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - Rationale/Discussion:
    - Suggested to de-emphasize the communication of the SAK numbers.
    - Concern that mortality rates exceed growth rates and that research and management are not considering the additional factors of baiting, hunter selectivity, predation, land ownership and habitat quality.
    - Large political influence on deer management. Concern that if you get rid of SAK then there is concern that political forces will be stronger on setting limits.

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## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - Rationale/Discussion:
    - Get better precision at larger units but further decouple local experiences from population estimates. Need to work on the precision of the estimates.
    - New statistical methods to quantify local data into the broader population estimates.

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## Implementation Action Items proposed or discussed by the Action Team :

- **A.2. Do away with population goals and population estimates at the DMU level.**
  - The team recommended:
    - The team rejects the recommendation, see rationale and discussion for A.1.
    - Encourage developing additional metrics for monitoring deer populations and impacts when evaluating unit goals at the time of 3-year unit reviews.
    - Include valid local input as an additional factor to consider in goal setting.

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## Implementation Action Items proposed or discussed by the Action Team :

- **A.5. Reduce the number of DMUs and combine the Farmland regions**
  - The team endorses the recommendation.
  - Implementation recommendations included:
    - Reduce the number of DMUs, incorporating public input and similar deer habitat and populations.
    - Maintain recognizable DMU boundaries.
    - Reduce DMUs by aggregating current DMUs to maintain continuity with historical data.
    - Enter negotiated management experiments and research studies in DMUs identified as having particularly contentious population estimates.