

North American Waterfowl Management Plan



SCIENCE SUPPORT TEAM

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Venturing Forward

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Fall 2008



North American Waterfowl Management Plan
Science Support Team

Venturing Forward

The NAWMP Science Support Team's newsletter, "Venturing Forward" is published quarterly and distributed to all NAWMP partners interested in progress relative to the NAWMP's science foundations.

The NAWMP's Plan Committee, the NAWMP Science Support Team's (NSST) Executive Committee and the NSST Committee Chairs all contribute regular updates and news to this newsletter for the benefit of all NAWMP partners and stakeholders as we strive to "Venture Forward."

Contributors are invited to submit news items, photos, articles, comments, etc. to the editor of "Venturing Forward":

NAWMP Science Support Team
Jorge L. Coppen, Editor
Patuxent Wildlife Research Center
11410 American Holly Drive
Laurel, MD 20708
Phone: (301) 497-5792
Fax: (301) 497-5706
E-mail: Jorge_coppen@fws.gov

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NSST OFFICERS

NAWMP Coordinator
Jorge L. Coppen, NAWMP
Patuxent Wildlife Research Ctr.
11410 American Holly Drive
Laurel, MD 20708
Phone: (301) 497-5792
Fax: (301) 497-5706
E-mail: Jorge_coppen@fws.gov

Chair
Mark Gloutney, EHJV Rep.
Manager Conservation Science and Program Development- E. Region
Ducks Unlimited Canada
Box 430
Amherst, NS B4H 3Y4
Phone: 902-667-8726 (230)
Fax: 902-667-0916

Vice-Chair
Tim Jones, Science Coordinator
Atlantic Coast Joint Venture
US Fish and Wildlife Service
11410 American Holly Dr
Laurel, MD 20708-4017
Phone: 301-497-5674
fax: 301-497-5706

Asst. Vice-Chair
Duane Pool, Science Coordinator
The Nature Conservancy
Migratory Bird Program
100 North Bismarck Expressway
Bismarck, ND 58501-5095
Phone: 701-328-6392
Cell: 701-471-9300
Fax: 701-328-6352

Past Chair
Ron Reynolds, Project Leader, Habitat and Population Evaluation Team - Region 6
U.S. Fish and Wildlife Service
3425 Miriam Ave.,
Bismarck, ND 58501
Phone: 701-355-8535
Fax: 701-355-8533
ron_reynolds@fws.gov

NSST Committees

- NSST Executive Committee (Mark Gloutney, Chair)
- Joint Task Group Report Review Committee (Jorge L. Coppen, Chair)
- JV Implementation and Evaluation Plan Review Committee (Mike Brasher, Chair)
- Landscape Monitoring Committee (Tim Jones, Chair)
- NWI Working Group (Rex Johnson, Chair)
- Alternative Performance metrics Working Group (Pat Devers, Chair)
- Regional Population Abundance Objective Committee (Mark Petrie, Chair)

NSST Action Groups

- Pintail Action Group (Jim DeVries, Chair)
- Scaup Action Team (Jane Austin, Chair)

PHOTO CREDITS
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Back Cover: Canvasbacks by David E. Sharp



A “game changer” for Waterfowl

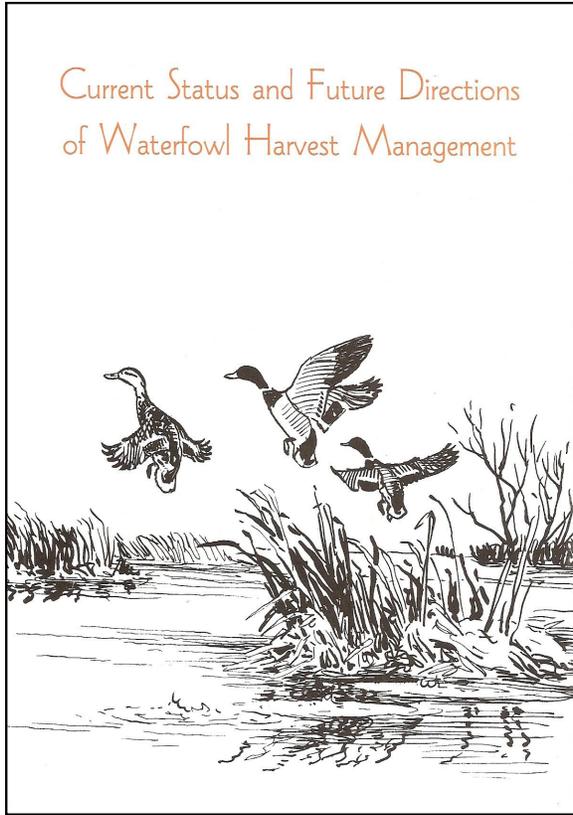
By Paul Schmidt & Basile VanHavre

From the results of the Future of Waterfowl Management Workshop (August 26-28, 2008 in Minneapolis) it would appear that we are in the midst of a significant paradigm shift in waterfowl management on this continent. With 200 of the leading managers and technical experts assembled, we began to chart a course for significant progress in waterfowl management. That workshop was one of a handful of meetings/conferences that I have attended in my 30-year career that I think could be labeled “game changers.” Thanks to the thought-provoking work of the Joint Task Group over the past couple of years and the workshop’s steering committee, the groundwork had been done. The engagement of all the participants and the strong consensus for the need to link our population and habitat management programs in a more harmonious fashion and to develop a stronger human dimensions component in our work has taken the hard work of a few and made it the responsibility of many. The continental progress assessment of the NAWMP, the Special Session at the North American Wildlife and Natural Resource Conference a couple of years ago, the Adaptive Management Task Force, the Joint Task Group and the incredible technical advancements in the 1990’s set the table for our profession to continue to make progress and indeed lead the world in wildlife management.

The next steps in this effort would seem to include using the update of the North American Waterfowl Management Plan to revamp how we think and express the goals of the Plan. We need the goals to be more relevant to what we know about the system now and how this links to harvest and hunter/public satisfaction. The U.S. Fish and Wildlife Service will be us-

ing the draft environmental impact statement on migratory bird hunting as another vehicle for progress. An engaged and skilled Human Dimensions Work Group has formed and will help guide our thinking about the publics we serve. All of these steps could benefit from the guiding hand of a small group of leaders who have the authority and responsibility to keep us moving in this direction of progress.

Your co-chairs are excited and energized about the future of waterfowl management on this continent. We want you to share our enthusiasm for the progress we can make together.



Paul Schmidt is Assistant Director Migratory Birds and State Programs for the U.S. Fish and Wildlife Service and currently serves as a Plan Committee Co-chair.

Basile VanHavre is Director - Population Conservation Management Division Canadian Wildlife Service -Environment Canada and currently serves as a Plan Committee Co-chair.





NSST NEWS

NSST Chair's Message

There has been substantial activity of note from two NSST committees over the past quarter. Mike Brasher's committee tasked with reviewing plans for emerging joint ventures (JV) completed reviews of three JVs. In addition, Pat Devers' committee tasked with exploring alternative performance metrics completed a workshop in August. Thanks to these two groups for their commitment and efforts to drive tasks forward.

I received assessments of NSST members' skills from 19 NSST members. Response shows reasonable coverage of skills and expertise. The NSST executive committee will look at results in more detail in the coming month.

In response your desire to make the NSST meetings more informative and fun, the October meeting in Saskatoon includes a presentation of PHJV planning followed by a field tour of conservation actions. This will include a group dinner on the evening of Oct. 15th.

The NSST and Plan Committee met in July on PEI. Jorge Copen and I represented the NSST. This working session included updating the Plan Committee on progress with the NSST work plan. As such, we reported on activities of the NSST Alternative Performance Metrics and NSST Regional Population Abundance Objectives Committees. We also outlined changes that have been implemented in response to the NSST membership survey. A key issue that we continue to work on is how to effectively manage commitments to review established and emerging joint venture plans.

I have now served my term as Chair of the NSST and will turn the reins over to Tim Jones. I have enjoyed this year and look forward to working with all of you in the future on waterfowl and wetland related issues.

Mark Gloutney



BULLETIN BOARD

Meetings of Interest



**Fall NSST meeting
Saskatoon, Saskatchewan
October 15-16, 2008**



**Plan Committee meeting
Sacramento, CA
Jan. 27-29 2009**



**NSST Regional Population Abundance Objectives Committee
Workshop
Laurel, Maryland
February 3-5, 2009**





Joint Task Group Report Review Committee

By Jorge L. Coppen

The Future of Waterfowl Management Workshop follow-up:

Thanks to all who participated in the Future of Waterfowl Management Workshop. Workshop participation was the basis for the Workshop's success. The organizers are committed to preparing a report and perhaps other documentation of the workshop process, results, and recommendations. A draft of that report will be available for review and comment on the Workshop Webpage at <http://www.djcase.com/futureworkshop>. The workshop organizer's goal is to have the draft report posted by October 15th. Based on the report, participant comments, and ongoing discussions at venues such as the AFWA annual meeting, the organizers intend to develop a few specific recommendations for the workshop sponsors to carry the work forward. You can be informed and involved in this by checking the Workshop Webpage for updates.

Technical Presentations Available on Workshop Webpage

The four technical presentations given on Day 1 of the workshop are available now on the Workshop Webpage at <http://djcase.com/futureworkshop/presentations/index.html>

Breakout Notes/Summary Presentations

Notes compiled during the work of breakout groups and the summary presentations from the three breakout sessions are not posted on the Workshop Webpage. So, if you would like any of the notes or presentations, please email Sarah Sanders at DJ Case & Associates (sarah@djcase.com) and she will email you what you need.



Jorge L. Coppen is the National Coordinator of the NAWMP and serves as the primary NSST representative to the Plan Committee. He currently chairs the Joint Task Group Report Review Committee



Joint Venture Implementation Plan Review Committee Quarterly Update

By Mike Brasher

The NSST JV Implementation Plan Review Committee remains busy with coordination of reviews for the Appalachian Mountains, East Gulf Coastal Plain, Rio Grande, and Sonoran JV Implementation Plans. Reviews for the Waterfowl Supplement of the Sonoran JV Implementation Plan were completed by late July and subsequently shared with Jorge Coppen, NAWMP Coordinator, for distribution to the Plan Committee and Carol Beardmore, Sonoran JV Science Coordinator, for consideration in further revisions of the Supplement.

All three reviews of the East Gulf Coastal Plain JV Implementation Plan are now complete, and by the time you read this update will have been summarized and shared with Jorge and a representative of the East Gulf Coastal Plain JV.

We have secured three reviewers each for the Appalachian Mountains and Rio Grande JV Implementation Plans. One review for each Implementation Plan has already been completed, and we expect to receive the remaining reviews by mid – late October, 2008.

The next step toward NAWMP-sanctioned status is for these emerging JVs to request an opportunity for an oral report date with the Plan Committee. Once sanctioned, they may be scheduled under the triennial JV Progress Reporting schedule, as are established JVs, to undergo periodic assessment relative to the waterfowl components of their Implementation Plans.

Many thanks to the following individuals that have already contributed or agreed to contribute their time to these reviews: Greg Balkcom, Carol Beardmore, Tim Bowman, Steve Cordts, Faye McNew, Duane Pool, Mike Rabe, Ryan Reker, Ron Reynolds, Greg Soulliere, and John Tirpak.



Mike Brasher, a Ducks Unlimited employee, is the Gulf Coast Joint Venture's Science Coordinator and is stationed at Lafayette, Louisiana





NSST Regional Population Abundance Objectives Committee Update

By Greg Soulliere

Accomplishments through August 2008

There is little uniformity among joint ventures (JVs) in deriving regional waterfowl population objectives. Some level of consistency in this process is desirable to ensure efficiencies in planning and evaluating waterfowl habitat conservation across the continent. The NAWMP Science Support Team (NSST) committed to holding a workshop with waterfowl experts familiar with and interested in this topic. More specifically, the group will explore means of apportioning population objectives systematically across regions for all periods of the annual cycle (e.g., breeding, migration, and wintering).

Logistical issues prohibited workshop completion by the original timeline of late 2008. However, the NSST Regional Population Abundance Objectives (RePO) Committee has made substantial progress, and listed below are accomplishments toward the NSST commitment:

Committee members identified: Mark Petrie (PCJV) - Chair, Mike Brasher (GCJV), Jorge Coppen (NAWMP), Duane Pool (TNC), Ryan Reker (RWBJV), Greg Soulliere (UMRGLRJV), and John Tirpak (LMVJV).

Workshop outcome refined: Following the workshop, RePO committee members will recommend a limited range of alternatives for establishing regional population abundance objectives that are linked to continental population objectives. A final report may take the form of a techniques document, white paper, or peer-reviewed publication.

JVs surveyed: An e-mail survey of eastern JV science staff and a telephone survey of several western JVs was completed to determine approaches currently used for establishing regional population abundance objectives.

Key workshop participants identified: Beyond members of the RePO committee, several essential

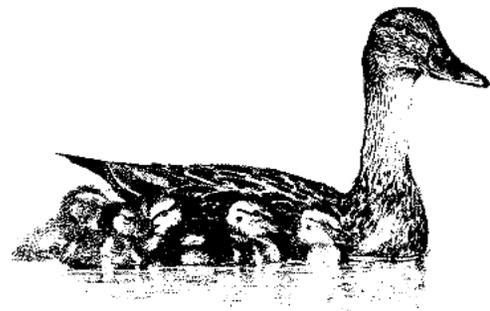
participants are invited to share their expertise and to present temporal-specific considerations (i.e., breeding objectives, migration/wintering). Key participants include Mark Koneff, Mike Runge, Rex Johnson, Ron Reynolds, Jim Dubovsky, and Ken Reinecke.

Background information identified: Relevant literature related to this topic has been collected. This information will be disseminated to the invited group prior to the workshop.

Participation in related activities: RePO committee members have been participating in ancillary workshops (e.g., Wintering JV Performance Metrics, NSST Alternative Performance Metrics) and other NSST activities, such as the review of draft JV Implementation Plans, thus gaining in-depth background on specific JV approaches. Information from these activities will help inform and improve workshop outcomes.

Agenda developed: A draft workshop agenda has been crafted and will be refined by the committee prior to dissemination.

Workshop scheduled: Originally the workshop was scheduled for 1-3 October 2008 at the Patuxent Wildlife Research Center. However, numerous commitments affected availability of key participants, resulting in a rescheduled workshop to be conducted 3-5 February 2009.



Greg Soulliere is the Science Coordinator for the Upper Mississippi River & Great Lakes Region Joint Venture. He currently serves on the NSST Regional Population Abundance Objectives Committee.





NSST Alternative Performance Metrics Workshop
By Pat Devers

The NSST Alternative Performance Metrics Committee completed the Alternative Performance Metrics Workshop August 5-6, 2008 with a primary objective of developing steps to identify a limited number of alternative performance metrics to be adopted and implemented by the NAWMP Committee and joint ventures (JVs). The committee elected to use a two-phase process to elicit input from experts and stakeholders throughout the waterfowl management community.

The first step was to host this workshop to address four objectives:

- Understand the biological and administrative need for new alternative metrics that apply across JV boundaries;
- Identify candidate metrics;
- Develop an objective process to evaluate and select preferred metrics; and
- Achieve consensus around a limited number of preferred metrics for implementation by the JVs.

The second phase of the process will consist of a final report submitted to the NSST by 30 November 2008. The NSST will then submit its recommendation to the NAWMP Committee for final consideration and determination for implementation or revisions.

This preliminary report provides an overview of the structure, process, and preliminary recommendations that resulted from the workshop and is intended only as an informational update to the waterfowl management community.

Workshop participants discussed a variety of topics including the biological and bureaucratic needs for alternative metrics; strengths and weakness of methods currently employed by JVs; need to assess progress across multiple temporal and spatial scales; and potential alternatives.

The workshop participants reached consensus on a general monitoring framework. In the short-term, workshop participants agreed to the following:

JVs should frame their accomplishments in terms of changes in demographic parameters (i.e., season specific vital rates). The vital rate discussed most for the breeding period was recruitment and for the non-breeding period was survival. They were both reviewed in the context of population sustainability and how individual JVs contribute to continental carrying capacity. Framing accomplishments in terms of vital rates creates common currency across all JVs to enable a roll up to the continental scale.

All JVs should adopt the annual life cycle model (Fig. 1) as the basis of their monitoring program. This framework explicitly links ecologically similar JVs (i.e., breeding JVs or wintering JVs) and links JVs temporally throughout the year.

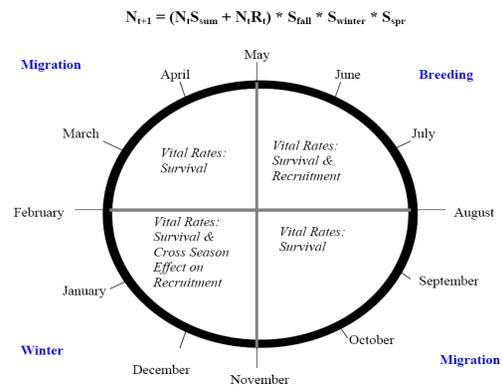


Figure 1. The annual life-cycle model describes important vital rates that influence waterfowl population dynamics during a one-year period.

Individual JVs should develop conceptual models or use previously developed empirical models to relate how habitat management actions influence vital rate (s). These models and contrasting hypotheses will inform the “what” and “how” of the monitoring program. For example, during the winter JVs may be able to impact survival directly or productivity



indirectly through a “cross seasonal effect.” If the JV hypothesizes winter survival (within that region) has a greater impact relative to the cross seasonal effect on continental population growth they would develop a monitoring program to track the influence of their management actions on winter survival. For example, if the JV hypothesized that winter survival is limited by food availability through some functional relationship (Fig. 2), then the JV would develop a protocol to monitor changes in food availability.

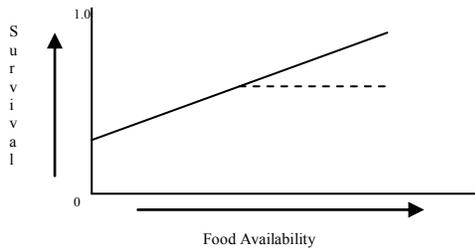


Figure 2. Theoretical example of the relationships between food availability and winter survival.

The resulting monitoring data would serve as model input to estimate 1) impact of management on food abundance, and 2) winter survival. The resulting estimates then provide information on local impacts of JV actions and can be rolled up across JVs to estimate cumulative impacts on waterfowl population dynamics and carrying capacity at the continental scale.

At the JV scale this framework should be used to complement traditional metrics including number of acres protected, enhanced, or restored, dollars spent, and dollars leveraged.

At the continental scale, this framework will complement the current metric of comparing continental population size to the population goal.

In the long-term, JVs should incorporate the influence of both their management actions and population size (Fig. 3) on vital rates. This next step will allow managers and researchers to understand the impact of density-dependence on management actions and vital rates.

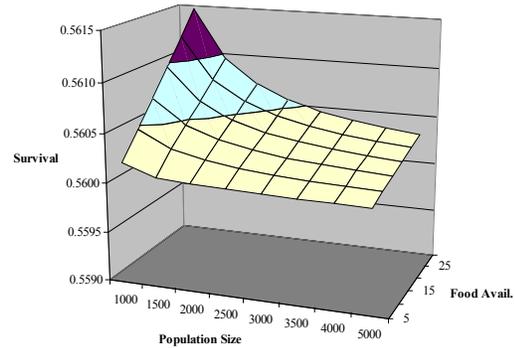


Figure 3. Theoretical relationship between survival and food availability as a function of population size.

The advantages of this framework are many: it links JVs ecologically, temporally, and spatially; it creates a common currency (i.e., vital rates) to allow roll up from regional to continental scale; it further focuses attention on how JVs can increase the capacity of the land to support waterfowl; and it serves as both a planning and assessment tool. Although we recommend all JVs use vital rates as a common currency for assessing progress, this does not necessarily mean JVs will need to monitor vital rates specifically targeted by their management actions on a continuing (i.e., annual) basis. Instead, models that related JV habitat management actions on a vital rate will have to be validated periodically using field monitoring data. We acknowledge that this framework will take varying amounts of time for JVs to implement due to current differences in resources, use of models, and logistical constraints in data acquisition. However, this framework is theoretically sound and robust to changes in population goals and is a critical component of adaptive management. Finally, the NSST will continue to devote time and effort to improve our collective ability to monitor progress toward NAWMP goals and can provide support to individual JVs in the development of models for monitoring.

Pat Devers is the Science Coordinator for the Black Duck Joint Venture and currently serves as Chair of the NSST Alternative Performance Metrics Committee.





Scaup Action Team News

By Jane E. Austin, Ph.D.

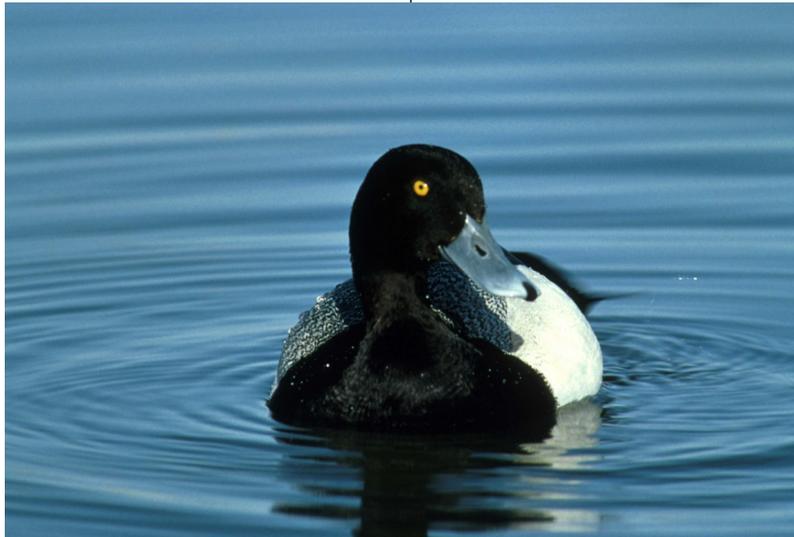
Efforts to objectively address concerns about declining scaup populations have progressed on several fronts: the establishment of this Scaup Action Team (SAT) under the auspices of the North American Waterfowl Management Plan Committee; development of a scaup harvest management strategy by U.S. Fish and Wildlife Service biologists; and, most recently, work initiated to develop a comprehensive conservation plan for greater and lesser scaup through SAT and USGS-Northern Prairie Wildlife Research Center.

The purpose of the conservation planning project is to use principles of structured decision-making to develop a strategic, biologically-based framework to recover the North American scaup population. We view this process as complementary to efforts to improve harvest management decision making and not isolated from them. This approach also complements the new direction and efforts in the waterfowl community to integrate habitat and harvest management into a more coherent system.

Work on the plan is progressing on two fronts: synthesizing current information on scaup and scaup-related issues, and planning for a series of workshops to develop a decision-making framework. For the first, a query was sent out in early September to state, provincial, Joint Venture, and other biologists seeking information at the state and regional scales. Replies received to date have been very helpful in identifying habitats important to scaup, status of monitoring programs, status and threats, and uncertainties affecting management decisions.

A second and critical part of the planning process is a series of workshops that will involve national, re-

gional, and state experts and decision-makers to develop a decision framework. The objective of the first workshop is to develop a rapid prototype of system models and a decision framework at the continental scale. Discussions with Mike Anderson (Ducks Unlimited Canada), Bob Clark (Environment Canada), Dale Humberg (Ducks Unlimited, Inc.), and Mark Koneff, Scott Boomer, and Jim Lyons (U.S. Fish and Wildlife Service) have been instrumental in plans for the first workshop, to be held in early January. Invited participants will include decision-makers in the flyways, habitat, and harvest management and scientists.



Three subsequent, more regionally focused workshops will be convened later in 2009 to further develop and refine the framework and models. The second workshop will focus on the issues related to the breeding grounds; the third and fourth workshops will focus on evaluating conservation issues and refining the decision framework for migration and winter-

ing scaup in the Pacific Flyway and the eastern U.S. (Central, Mississippi, and Atlantic flyways), respectively. While the last workshop covers a huge area, the three flyways share commonalities in scaup populations and migration/winter issues. Participants in each these workshops will include a diversity of decision-makers, managers, and scientists. Results from the four workshops will provide the foundation for the scaup conservation action plan that will integrate conservation and management decisions throughout the annual cycle and across geographic regions.

Jane Austin, Ph.D. is a Research Wildlife Biologist with USGS at Northern Prairie Wildlife Research Center in Jamestown, ND & SAT Chair.





Pintail Action Group Update

By Jim Devries

Since the completion of the Pintail Action Group (PAG) summer newsletter, the PAG has completed a work plan (available from the PAG Chair) for the demographic modeling that will serve as a foundation for linking habitat and harvest management for pintails.

The work plan outlines the objectives, timelines and lead investigators for various components of this work. Through a combination of USGS, USFWS, and partner funding, it appears that the modeling work will be fully funded for one year with likelihood of support for 2 years. We are currently seeking a post-doctoral candidate with modeling expertise for this work. The position will be based with the USFWS in Maryland (contact J. Devries j_devries@ducks.ca for further information).

Ongoing projects:

- The first year of waterfowl food habitats and food density has been completed in the southern Oregon-northeastern California (SONEC) region, an important area for pintails migrating to the Alaska and Prairie-Parkland breeding areas. Samples are currently being processed and field sampling will continue in spring 2009 (contact J. Fleskes joe_fleskes@usgs.gov for further information).
- Analysis is continuing on data gathered as part of Ducks Unlimited Canada's Pintail Nesting Ecology Study. Results from this study will inform and update a breeding

habitat recruitment model for pintails (contact J. Devries for further information).

- A comprehensive analysis of pintail banding and recovery data (1970-2003) undertaken by Mindy Rice (Texas Tech Univ.), David Haukos (USFWS), and Jim Dubovsky (USFWS) is complete. A final report will be circulated to the PAG this fall. Further, a manuscript on pintail survival models has been completed and will be distributed to PAG for comments prior to submission. Results of this work will be used to inform a continental banding strategy for pintails (contact D. Haukos david_haukos@fws.gov for further information).
- An update of the 2003 document "The Northern Pintail in North America: The Problem and Prescription for Recovery" is also underway (contact J. Devries for further information).

The PAG annual meeting will be held October 14, 2008 as part of the fall NSST meeting in Saskatoon, SK.



Jim Devries is a regional research biologist with Ducks Unlimited Canada and currently serves as Chair of the Pintail Action Group.





North American Waterfowl Management Plan

Science Support Team



The NAWMP Science Support Team's mission:

To help strengthen the biological foundations of the North American Waterfowl Management Plan and facilitate continuous improvement of Plan conservation programs.