

Science Program for the 5th North American Duck Symposium & Workshop
17 – 21 August 2009, Toronto, Ontario

Oral Presentations – Tuesday, 18 August 2009 in the Graydon Ballroom

7:50 - 8:00 Welcome and opening remarks

Plenary 1. Riches of the Boreal Forest: Waterfowl Populations and Conservation Challenges

Chair: Jane Austin

8:00 - 8:20 **Importance of the Western Boreal Forest to North American Ducks**
Stuart Slattery, Michael Robin, and Llwellyn Armstrong

8:20 - 8:40 **Declining Scaup Populations in the Boreal Forest: Testing the Climate Change Hypothesis with Snow Cover Data**
Mark C. Drever, Robert G. Clark, Thomas D. Nudds, Chris Derksen, and Stuart Slattery

8:40 - 9:00 **Impacts of Disturbance Regimes on Boreal-nesting Waterfowl Communities**
Mark T. Bidwell, Robert G. Clark, and Glenn G. Mack

9:00 - 9:20 **Is the Eastern Boreal Forest a Low Priority Habitat for Waterfowl?**
Marcel Darveau

9:20 - 9:40 **Perspectives on Breeding Ecology of Scaup in Boreal Alaska**
Kristin DeGroot, Perry Barboza, Mark Lindberg, Dan Esler, Joel Schmutz, and Kate Martin

9:40 - 10:00 **Challenges for Waterfowl Conservation in the Western Boreal Forest**
Stuart Slattery

10:00 - 10:15 **Refreshment Break**

Contributed Papers 1. Waterfowl Research in the Boreal Forest

Chair: Ken Abraham

10:15 - 10:30 **Changes in Habitat Occupancy and Pairing Probabilities of the Declining Continental Population of Scaup**
David N. Koons and Beth E. Ross

10:30 - 10:45 **Analysis of Spatio-temporal Dynamics in Abundance of Lesser Scaup**
Beth E. Ross, Mevin B. Hooten, and David N. Koons

10:45 - 11:00 **Latitudinal Variation in Timing of Breeding and Reproductive Investment in Temperate-nesting Waterfowl**
Kirsty E. B. Gurney, Robert G. Clark, Mike Petrula, Stuart M. Slattery, Scott Stephens, and Johann Walker

11:00 - 11:15 **Furbearer Harvest and Scaup Populations: Chance Correlation or Trophic Cascade?**
Jean-Michel DeVink

11:15 - 11:30 **Waterfowl Response to Agricultural Encroachment and Wetland Productivity in the Boreal Transition Zone of Western Canada**
Jonathan E. Thompson, Mike Ranger, and Suzanne E. Bayley

11:30 - 11:45 **What is Currently Driving Nesting Waterfowl Abundance in the Eastern Canadian Forest: Natural or Human-driven Processes?**
Marie-Hélène Ouellet D'Amours, Louis Imbeau, Marcel Darveau, and Daniel Bordage

11:45 - 12:00 **Understanding Occupancy Patterns of Boreal Forest Waterfowl: Utility and Limitations of Current Datasets**
Luca Borger and Thomas D. Nudds

12:00 - 1:00 **Lunch**

Plenary 2. Implications of a Changing Great Lakes Ecosystem for Ducks

Co-chairs: Scott Petrie and Tina Yerkes

1:00 - 1:15 **The State of the Great Lakes Watershed Waterfowl: Future Challenges and Opportunities**
Tina Yerkes and Scott A. Petrie

1:15 - 1:30 **Changes in Wetland Abundance and Distribution in Michigan: Implications for Breeding and Migrating Waterfowl**
John M. Coluccy, Robb Macleod, and Tina Yerkes

1:30 - 1:45 **Habitat Characteristics Affecting Settling Patterns of Breeding Waterfowl in Southern Ontario**
David J. Messmer, Scott A. Petrie, and Mark Gloutney

1:45 - 2:00 **Establishing Non-breeding Habitat Objectives for Diving Ducks in the Upper Mississippi River and Great Lakes Joint Venture Region**
Gregory J. Soulliere, Bradly A. Potter, and John M. Coluccy

2:00 - 2:15 **Spring Migration of Female Scaup Tracked by Satellite from the Lower Great Lakes**
Shannon S. Badzinski, Scott A. Petrie, and Glenn H. Olsen

2:15 - 2:30 **Understanding Energetic and Habitat Requirements of Spring Migrating Waterfowl in the Great Lakes**
John M. Coluccy, Tina Yerkes, Michael W. Eichholz, Robert J. Gates, Blair Shaman, Joel Sartwell, David A. Graber, and Mark J. Petrie

2:30 - 2:45 **Effects of Dietary Selenium on the Health and Survival of Staging and Wintering Lesser Scaup**
Caroline Brady, Scott A. Petrie, Robert Bailey, and Shannon S. Badzinski

2:45 - 3:00 **Coastal Marsh Management in the Western Lake Erie Basin: Perspectives from the Past, Projections for the Future**
Robert J. Gates and Roy W. Kroll

3:00 - 3:15 **Refreshment Break**

Contributed Papers 2. Population Ecology

Chair: Johan Elmberg

3:15 - 3:30 **Seasonal Survival and Breeding-site Fidelity of Lesser Scaup Females at Red Rock Lakes National Wildlife Refuge**
Jeffrey M. Warren, Kyle A. Cutting, and Richard S. Sojda

- 3:30 - 3:45 **Is Nest Success Really Driving Prairie-nesting Duck Population Dynamics?**
Michael W. Eichholz
- 3:45 - 4:00 **Estimating Prairie-wide Pintail Production with Habitat-linked Models**
James H. Devries
- 4:00 - 4:15 **Population Biology of King Eiders at Karrak Lake, Nunavut**
Ray T. Alisauskas, Dana K. Kellett, and Katherine R. Mehl
- 4:15 - 4:30 **The Vast Majority of 1st-year Eurasian Teal (*Anas crecca crecca*) Never Reach the Wintering Quarters**
Matthieu Guillemain, Jean-Maxime Bertout, Thomas K. Christensen, Hannu Pöysä, Veli-Matti Väänänen, Patrick Triplet, Vincent Schricke, and Anthony D. Fox
- 4:30 - 4:45 **Harvest and Survival Rates of Wood Ducks in Eastern North America: Effects of Geography, Sex, Age and Harvest Regulations**
Pamela R. Garrettson and Nathan L. Zimpfer
- 4:45 - 5:00 **Accuracy of Age Determination of Ducks in the U.S. Fish and Wildlife Service Waterfowl Parts Collection Survey**
Aaron T. Pearse, Kenneth D. Richkus, Frank C. Rohwer, Paul I. Padding, and Robert R. Cox, Jr.

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Oral Presentations – Wednesday, 19 August 2009 in the Graydon Ballroom

7:50 - 8:00 Announcements

Plenary 3. Abundance, Dynamics, and Conservation of Duck Foods and Foraging Habitats in North America

Co-chairs: Michael L. Schummer, Joshua D. Stafford, and Richard M. Kaminski

8:00 - 8:05 **Introduction**
Michael L. Schummer

8:05 - 8:20 **Abundance, Dynamics and Conservation of Duck Foods and Foraging Habitats in North America: Fall and Winter**
Michael L. Schummer, Matthew Gray, Joshua D. Stafford, Richard M. Kaminski, and Kenneth J. Reinecke

8:20 - 8:35 **Abundance, Dynamics and Conservation of Duck Foods and Foraging Habitats in North America: Spring**
Joshua D. Stafford, Michael J. Anteau, Michael W. Eichholz, Robert J. Gates, Mark Sherfy, and Tina Yerkes

8:35 - 8:50 **Abundance, Dynamics and Conservation of Duck Foods and Foraging Habitats in North America: Breeding Season**
Michael J. Anteau, Robert G. Clark, Gary Krapu, and Mark Sherfy

8:50 - 9:05 **Giving-up Density of Moist-soil Seeds By Dabbling Ducks in the Mississippi Alluvial Valley**
Heath M. Hagy, Richard M. Kaminski, and Kenneth J. Reinecke

9:05 - 9:20 **Waterfowl Foods in Managed Grain Sorghum Fields in the Mississippi Alluvial Valley**
Alicia J. Wiseman, Richard M. Kaminski, Samuel K. Riffell, Kenneth J. Reinecke, and Erick J. Larson

9:20 - 9:35 **Common Goldeneye on the Great Salt Lake: Abundance, Food Habits and Nutrient Reserves during Winter**
Josh L. Vest, Michael R. Conover, and John T. Luft

9:35 - 9:50 **Waterfowl Food Abundance during Spring Migration in the Upper Midwest, USA**
Jacob N. Straub, Robert J. Gates, Tina Yerkes, and Richard D. Schultheis

9:50 - 10:00 **Concluding Remarks**
Richard M. Kaminski

10:00 - 10:15 **Refreshment Break**

Contributed Papers 3. Waterfowl Foods and Habitat Management

Chair: David Haukos

10:15 - 10:30 **Using Bioenergetic Models for Conservation Planning in the Klamath Basin, California**
Bruce D. Dugger, Mark J. Petrie, and Dave Mauser

- 10:30 - 10:45 **Increased Winter Habitat Improves Body Condition of Ducks in the Central Valley of California**
Joseph P. Fleskes, Michael R. Miller, Gregory S. Yarris, Douglas R. Thomas, and John M. Eadie
- 10:45 - 11:00 **Linking Winter Waterfowl Habitat to Survival: Challenges and Opportunities in Measuring Conservation Effect**
John M. Tirpak, Michael G. Brasher, Bruce D. Dugger, John M. Eadie, Robert S. Holbrook, Kenneth J. Reinecke, Ryan R. Reker, Gregory J. Soulliere, William B. Uihlein, III, and Barry C. Wilson
- 11:00 - 11:15 **Estimating Habitat Carrying Capacity for American Black Ducks Wintering in Southern New Jersey**
Dane M. Cramer, Paul M. Castelli, Chris K. Williams, and Tina Yerkes
- 11:15 - 11:30 **Plant and Duck Community Responses to Management and Hydrology on Wetlands Reserve Program Lands in Mississippi**
K. Sarah Fleming, Richard M. Kaminski, Todd E. Tietjen, Gary N. Ervin, Kevin D. Nelms, and Michael L. Schummer
- 11:30 - 11:45 **Effects of Cattle Grazing on Wetland Parameters Important to Breeding Waterfowl in the Southern Interior of BC**
Bruce Harrison and Marc Jones
- 11:45 - 12:00 **Assessing Impacts of Disturbance from Wind Energy Development on Breeding Ducks in the Prairie Pothole Region of North and South Dakota**
Ronald E. Reynolds, Neal D. Niemuth, Charles R. Loesch, Johann Walker, Scott E. Stephens, and Jeffrey S. Gleason

12:00 - 1:00 **Lunch**

Contributed Papers 4. Macroecology

Chair: Bruce Pollard

- 1:00 - 1:15 **Endogenous Nutrient Dynamics of Ducks during Spring Migration**
Michael W. Eichholz and Tina Yerkes
- 1:15 - 1:30 **Nutrient Allocation Strategies of Female Lesser Scaup at Red Rock Lakes National Wildlife Refuge, Montana**
Kyle A. Cutting, Jay J. Rotella, Jeff M. Warren, Susan E. Wainwright, and John T. Takekawa
- 1:30 - 1:45 **Linking Canadian Harvested American Black Ducks to their Natal Areas using Stable Isotope Analysis of δD , $\delta^{13}\text{C}$, and $\delta^{15}\text{N}$**
Paul Ashley, Keith Hobson, Steven VanWilgenburg, Norm North, and Scott Petrie
- 1:45 - 2:00 **Long-term Effects of Ponds, Climate, and Upland Habitats on Prairie-nesting Ducks**
Kevin M. Podrutzny, Thomas D. Nudds, and Jay J. Rotella
- 2:00 - 2:15 **Nesting Ecology of Pintails in Prairie Canada**
James H. Devries and Karla L. Guyn

- 2:15 - 2:30 **Abundance of Duck Broods Relative to Habitat Characteristics in the Prairie Pothole Region**
Johann Walker, James K. Ringelman, Scott E. Stephens, Ronald E. Reynolds, Charles R. Loesch, and John W. Solberg
- 2:30 - 2:45 **Generating Abundance and Distribution Estimates for Breeding Waterfowl in the Upper Mississippi River and Great Lakes Joint Venture Region**
Bradly A. Potter and Gregory J. Soulliere
- 2:45 - 3:00 **Long-term Trend Analyses of Climatic Factors Influencing Autumn-Winter Migration by Mallards in the Central, Mississippi, and Atlantic Flyways**
Michael L. Schummer, Richard M. Kaminski, Charles L. Wax, Mike E. Brown, Christina E. Zimmerman, Andrew H. Raedeke, and David A. Graber
- 3:00 - 3:15 **Refreshment Break**

Contributed Papers 5: Behavioural Ecology

- Chair: David Koons
- 3:15 - 3:30 **Nest Choice in a Homogeneous Northern Environment: A Study of Common Eiders**
Peter L. F. Fast, Robert G. Clark, H. Grant Gilchrist, and Joël Bêty
- 3:30 - 3:45 **Risk-taking by Prairie Ducks: Can Hens Detect Reduced Predator Abundance and Adaptively Modify Parental Investment?**
John A. Dassow, Michael W. Eichholz, Patrick J. Weatherhead, and Joshua D. Stafford
- 3:45 - 4:00 **Conspecific Nest Parasitism in Common Eiders: Do Nest Parasites Target Safe Nest Sites?**
Alain P. Lusignan, Katherine R. Mehl, Ian L. Jones, and Mark L. Gloutney
- 4:00 - 4:15 **Comparisons of Investment in Parasitic vs. Non-parasitic Eggs Reveals Male Biased Parasitic Eggs**
Letitia M. Reichart and Michael S. Webster
- 4:15 - 4:30 **Does Egg Position in the Nest Bowl Influence Hatching Synchrony?**
Brenna Towery and Michael Eichholz
- 4:30 - 4:45 **Landscape Composition and Demography of Northern Pintails (*Anas acuta*) in the Southern Canadian Prairies**
Terry A. Kowalchuk and Robert G. Clark
- 4:45 - 5:00 **Waterfowl on Weather Radar: A New View of Dabbling Duck Migration**
Benjamin J. O'Neal, Joshua D. Stafford, and Ronald P. Larkin

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Oral Presentations – Thursday, 20 August 2009 in the Graydon Ballroom

7:50 - 8:00 Announcements

Plenary 4. Predator Management at the Landscape Scale: The Delta Experience

Chair: Frank C. Rohwer

8:00 - 8:10 **Predator Reduction in the PPR – Introduction, History, and Adaptive Management**
Frank C. Rohwer

8:10 - 8:30 **Predator Reduction in the Southern Prairies and in the Parklands of Saskatchewan:
Is it a Valuable Management Strategy?**
John A. Dassow, Michael W. Eichholz, Nick R. Docken, and Charles S. Dieter

8:30 - 8:50 **Top-down or Bottom-up? Compensatory Predation and Food Resource Limitation on
Ducks in a Complex Prairie Food Web**
Christopher J. S. Martin and Jennifer I. Mc Carter

8:50 - 9:10 **Insights to the Mechanism of Population Regulation in Mallards: Survival and
Dispersal from Predator-managed and Unmanaged Areas in NE North Dakota**
Laura A. Beaudoin

9:10 - 9:50 **Quantifying the Effects of Predator Management on Mallard Recruitment in North
Dakota**
Courtney L. Amundson and Matthew R. Pieron

9:50 – 10:00 **Predator Reduction in the PPR – Adaptive Science and Management**
Frank C. Rohwer

10:00 - 10:15 **Refreshment Break**

Contributed Papers 6. Population and Community Ecology

Chair: Mark Gloutney

10:15 - 10:30 **Adapting Conservation on the Canadian Prairies: Spatial and Temporal Variation in
Nesting Success**
*David W. Howerter, Robert B. Emery, Llwellyn M. Armstrong, Michael G. Anderson,
James H. Devries, and Susan H. Witherly*

10:30 - 10:45 **Putting Density Dependence in Perspective: Nest Density, Nesting Phenology, and
Biome All Matter to Survival of Simulated Mallard Nests**
Johan Elmberg, Karin Folkesson, Gunnar Gunnarsson, and Matthieu Guillemain

10:45 - 11:00 **Factors Affecting Mallard Duckling Survival in Western Canada: Implications for
Landscape-level Conservation Planning**
Pauline M. Bloom, Robert G. Clark, and David W. Howerter

11:00 - 11:15 **Density-dependent Reproductive Success in Dabbling Ducks: Using a 20-year Dataset
to Identify Patterns**
*Josh T. Ackerman, John M. Eadie, Greg Yarris, Dan Loughman, Bob McLandress, and
Julie Yee*

- 11:15 - 11:30 **Seed Dispersal by Teal: Duck Guts are More Important than their Feet**
Anne-Laure Brochet, Matthieu Guillemain, Hervé Fritz, Michel Gauthier-Clerc, and Andy J. Green
- 11:30 - 11:45 **The Effects of Pike Predation on Lake Use and Reproductive Success of Ducks: An Experimental Study in Boreal Lakes**
Lisa Dessborn, Johan Elmberg, and Göran Englund
- 11:45 - 12:00 **Effects of Encroaching Woody Vegetation on Upland-nesting Ducks**
Sarah J. Thompson and Todd W. Arnold
- 12:00 - 1:00 **Lunch**

Plenary 5. Linking Harvest, Habitat, and Human Dimensions: An Update

Co-chairs: Michael G. Anderson and Dale D. Humburg

- 1:00 - 1:05 **Introduction**
Michael G. Anderson
- 1:05 - 1:25 **Harvest Management Challenges to Developing Coherence in Waterfowl Management**
G. Scott Boomer, Michael C. Runge, and Fred A. Johnson.
- 1:25 - 1:45 **Populations, Processes and Participation: Challenges of Integrating Habitat Management with Harvest and Human Dimensions**
John M. Eadie, Michael G. Anderson, and James K. Ringelman
- 1:45 - 2:05 **Waterfowl, Wetlands, and People: Integrating Human Dimensions into Waterfowl Management**
Andrew H. Raedeke, Dale D. Humburg, David Fulton, Kevin Hunt, Mark Vrtiska, and David Luukkonen
- 2:05 - 2:20 **Applying Concepts of Structured Decision-making to the Development of a Comprehensive Scaup Conservation Action Plan**
Jane E. Austin, G. Scott Boomer, Mark D. Koneff, and James E. Lyons
- 2:20 - 2:35 **Integrating Habitat and Harvest Management for Northern Pintails: Concepts, Challenges and Progress**
Robert G. Clark, G. Scott Boomer, Michael C. Runge, Michael G. Anderson, James H. Devries, John M. Eadie, Mark Koneff, Joseph P. Fleskes, Dave Haukos, David N. Koons, Todd Sanders, Robert Trost, and Wayne Thogmartin
- 2:35 - 2:50 **Managing Overabundant Snow Geese: A Reflection on 10 years of Learning in Search of Consensus**
Kenneth F. Abraham, Kathryn M. Dickson, James R. Kelley, and Robert F. Rockwell.
- 2:50 - 3:00 **Challenge to the Community**
Dale D. Humburg
- 3:00 - 3:15 **Refreshment Break**

Contributed Papers 7. Hunter, Harvest, and Habitat Linkages and Ecological Uncertainty

Chair: Michael A. Johnson

3:15 - 3:30 **Regional Population Abundance Objectives for Waterfowl Conservation Planning in North America: Recommendations for Consistency**

Michael G. Brasher, Gregory J. Soulliere, John M. Tirpak, Mark J. Petrie, Jorge L. Coppen, Duane B. Pool, and Ryan R. Reker

3:30 - 3:45 **Effects of Hunting Season Structure, Environmental Factors, and Body Condition on Non-breeding Mallard Survival**

Joshua L. Dooley, Todd A. Sanders, and Paul F. Doherty, Jr.

3:45 - 4:00 **Compensation in Mortality in Ducks: Estimates of Monthly Survival in Wood Ducks by Using Banding, Recapture, and Resighting Data**

Christopher A. Nicolai

4:00 - 4:15 **Use of a Lincoln Estimator to Explore Temporal Patterns in Northern Pintail Sex Ratio and Population Dynamics**

James S. Sedinger and Christopher A. Nicolai

4:15 - 4:30 **Nest Success and Population Growth Rates of Midcontinent Mallards: Tests with Historical Data at Two Spatial Scales**

Mark C. Drever and Thomas D. Nudds

4:30 - 4:45 **Modeling Waterfowl Hunting and Conservation Behavior: Initial Insights from Electronic Data**

Dale D. Humburg, Andrew Raedeke, and G. Scott Boomer

4:45 - 5:00 **Comparing Opinions and Satisfaction of a Citizen Advisory Committee to Other Michigan Waterfowl Hunter Stakeholders**

Gregory J. Soulliere, Brian J. Frawley, R. Ben Peyton, and Peter A. Bull