

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

**Poster Session 1. 8:00 am Tuesday, 18 August to 11:00 am Wednesday 19 August 2009**  
**Viewing Period: Tuesday 5:00-7:30 pm, Graydon Ballroom Foyer**

**Note:** Presenters will post posters on the board that corresponds to their poster number before 8:00 am on Tuesday; posters must be removed before 11:00 am on Wednesday.

**Boreal Forest Research**

1. **Global Threats and Strategies for Protection of Canada's Boreal Forest**  
*Frederic A. Reid, Gary Stewart, Eric Butterworth, Steven E. Kallick, and Larry Innes*
2. **How Can We Take into Account Waterfowl Habitat in Forest Management Plans in the Boreal? The Case of Duparquet Forest, Quebec**  
*Genevieve Meunier, Marie-Claire LeBlanc, Marcel Darveau, and Louis Imbeau*
3. **Mapping Wetlands and Predicted Breeding Waterfowl Abundance in Quebec Forests**  
*Louis-Vincent Lemelin, Tina Yerkes, Marcel Darveau, John M. Coluccy, Daniel Bordage, and Marie-Claire LeBlanc*
4. **Factors Affecting Landscape-scale Abundance of Beaver Dams in Forested Québec**  
*Julie Labbé, Marcel Darveau, and Louis Imbeau*
5. **Spatial Trends of Bufflehead Populations**  
*Christian Roy, Steve G. Cumming, and Marcel Darveau*
6. **Using Stress Biomarkers to Evaluate Lesser Scaup Habitat Quality and Landscape Attributes**  
*June Z. Yang, Karen L. Machin, and Mark T. Bidwell*

**Great Lakes Research**

7. **Waterfowl Research and Monitoring Priorities for the Upper Mississippi River and Great Lakes Joint Venture Region**  
*Bradly A. Potter, Gregory J. Soulliere, John M. Coluccy, Ronald C. Gatti, Charlotte L. Roy, David R. Luukkonen, Patrick W. Brown, and Michael W. Eichholz*
8. **Breeding Waterfowl Habitat Objectives Accommodate Other Marsh Birds in the Upper Mississippi River and Great Lakes Joint Venture Region**  
*Bradly A. Potter and Gregory J. Soulliere*
9. **Wetland Conversion Analysis for Ontario's Mixed Woodland Plain**  
*Christie-Lee Hazzard and Owen Steele*
10. **IBP Densities in Ontario's Mixed Woodland Plain and Pair Utilization of Two Types of Managed Wetland Habitats**  
*Owen Steele*

11. **Current and Projected Nest Site Availability for Cavity-nesting Waterfowl in the Upper Mississippi River and Great Lakes Region**  
*John C. Denton, Charlotte L. Roy, Gregory J. Soulliere, and Bradly A. Potter*
12. **Factors Influencing Utilization of Artificial Nesting Cylinders by Mallards and Wood Ducks in Northwest Pennsylvania and Southern Ontario**  
*Jeremy Stempka, Scott A. Petrie, and Robert Bailey*
13. **Wintering Ecology of Canvasbacks and Redheads on Lake St. Clair and the Detroit and St. Clair Rivers**  
*Robert V. Baden II, Scott A. Petrie, and Shannon S. Badzinski*
14. **Selenium Uptake and Effects in Greater Scaup Wintering on Western Lake Ontario**  
*Lindsay L. Ware, Scott A. Petrie, Shannon S. Badzinski, and Robert C. Bailey*
15. **Selenium Accumulation in Sea Ducks Wintering at Lake Ontario**  
*Michael L. Schummer, Shannon S. Badzinski, Scott A. Petrie, Yu-Wei Chen, and Nelson Belzile*

## **Contaminants and Disease**

16. **Trace Element Concentrations and Body Condition in Wintering Common Goldeneye from the Great Salt Lake**  
*Josh L. Vest, Michael R. Conover, Clay Perschon, and John T. Luft*
17. **Trace Element Concentrations in Lesser Scaup Eggs and Invertebrate Foods**  
*Mitchell D. Weegman and Matthew M. Weegman*
18. **Implications of Breeding Strategy for Cross-seasonal Contaminant Effects on Eggs: A Case Study with Lesser Scaup**  
*Jeffrey M. Warren and Kyle A. Cutting*
19. **Changes in Lead Shot Distribution in Wetland Sediments Over Time**  
*Elisabeth B. Webb and Richard W. Johnson*
20. **Mallards with Fever – Experimental Infection with Low-pathogenic Influenza A Viruses**  
*Gunnar Gunnarsson, Elsa Jourdain, John Wahlgren, Neus Latorre-Margalef, Lovisa Svensson, Jonas Waldenström, Björn Olsen, Sofie Sahlin, Åke Lundkvist, Kerstin Falk, and Caroline Bröjer*

## **Population Ecology**

21. **Timing of Breeding and Reproductive Success in Common Goldeneyes: Flexible Nesting or Evidence of a Mismatch?**  
*Robert G. Clark, Hannu Pöysä, Pentti Runko, and Antti Passivaara*
22. **Effects of Large-scale Predator Reduction on Duck Nest Success in Eastern North Dakota**  
*Matthew R. Pieron and Frank C. Rohwer*
23. **Mallard Nesting Ecology Amid Wetlands Reserve Program Lands in New York**  
*Matthew R. Kaminski, Guy A. Baldassarre, and Eric R. Wengert*
24. **Age-Related Fidelity of Mallards in the Suisun Marsh of California**  
*Shaun L. Oldenburger, Gregory S. Yarris, Joshua A. Ackerman, Daniel L. Loughman, M. Robert McLandress, and John M. Eadie*

25. **Breeding Site Fidelity and Landscape Effects on Distribution of Mallard Ducks and Broods in the Nebraska Sandhills**  
*Zachary J. Cunningham, Mark P. Vrtiska, Larkin A. Powell, Scott E. Stephens, and Johann A. Walker*
26. **Apparent Survival of Female Lesser Scaup (*Aythya affinis*) near Yellowknife, NT**  
*Stephen W. Leach, Robert G. Clark, Rodney W. Brook, and James Hines*
27. **Recruitment of Mottled Ducks on the Upper Texas Gulf Coast**  
*Elizabeth Rigby and David A. Haukos*
28. **Survival Estimates of Western Gulf Coast Mottled Ducks**  
*Erin M. Wehland, Bruce E. Davis, Bart M. Ballard, Frank C. Rowher, and Michael G. Brasher*
29. **Survival and Cause-Specific Mortality of Female Mallards in Southwestern Louisiana**  
*Paul T. Link and Alan D. Afton*
30. **Habitat Use, Survival, and Reproductive Success of Female Florida Mottled Ducks (*Anas fulvigula fulvigula*) using the Everglades Agricultural Area and Urban Habitats in Southeast Florida**  
*Dana Varner, Gary Hepp, and Ron Bielefeld*
31. **Do Stocking Programs Result in Maladapted Populations? Mallard Bill Morphology After 30 Years of Massive Releases**  
*Jocelyn Champagnon, Matthieu Guillemain, Johan Elmberg, Karin Folkesson, and Michel Gauthier-Clerc*

## **Food and Foraging Ecology**

32. **Studies of Fall–Winter Food Use by North American Dabbling Ducks: 1900–2008**  
*James T. Callicutt, Heath M. Hagy, Michael L. Schummer, and Richard M. Kaminski*
33. **Cost-effective Moist-soil Management in the Central Valley of California**  
*Brian W. Olson, John M. Eadie, Greg Mensik, Jake Messerli, Ed Penny, and Chadd Santerre*
34. **Assessment of Waterfowl Food Resources in WRP and Public Land in Western Oregon and Southwest Washington**  
*Graham R. Evans-Peters, Bruce D. Dugger, and Mark J. Petrie*
35. **Evaluation of Wetland Size and Vegetative Quality on Waterfowl Use in Wetlands Reserve Program Wetlands in Mississippi**  
*K. Sarah Fleming, Richard M. Kaminski, Todd E. Tietjen, Gary N. Ervin, Kevin D. Nelms, and Michael L. Schummer*
36. **Emergent Insect Production in Post-Harvest Flooded Agricultural Fields Used by Ducks and Other Waterbirds**  
*Steven C. Blumenshine, Richard C. Moss, Julie L. Yee, and Joseph P. Fleskes*
37. **Aquatic Macro-invertebrates in Hardwood Bottomlands in the Mississippi Alluvial Valley and Interior Flatwoods of Mississippi**  
*Justyn R. Foth, Richard M. Kaminski, Jacob N. Straub, Alan G. Leach, and Theodor D. Leininger*
38. **Red Oak Acorn Production and Abundance in the Mississippi Alluvial Valley**  
*Alan G. Leach, Jacob N. Straub, Richard M. Kaminski, Andrew W. Ezell, Justyn R. Foth, Theodor D. Leininger, and Kenneth J. Reinecke*

39. **Determining Food Resource Availability for Wintering and Spring Staging American Black Ducks on the Eastern Shore of Virginia**  
*Benjamin S. Lewis Jr., Michael W. Eichholz, and Tina Yerkes*
40. **Patterns in Invertebrate Availability for Waterfowl Consumption during the Spring Migratory Period**  
*Richard D. Schultheis, Michael W. Eichholz, Tina Yerkes, and Matt R. Whiles*
41. **Diet of Spring-migrating Ducks in the Upper Mississippi River and Great Lakes Region**  
*Jay Hitchcock, Michael W. Eichholz, and Tina Yerkes*
42. **Nutrient Reserves, Food Preferences and Mass Change of Waterfowl Migrating Through the Rainwater Basin of Nebraska**  
*Paul R. Tidwell, Elisabeth B. Webb, Mark P. Vrtiska, and Andrew A. Bishop*
43. **A Reliable Correction Factor for Recovery of Moist-soil Seeds from Core Samples**  
*Heath M. Hagy, Jacob N. Straub, and Richard M. Kaminski*
44. **True Metabolizable Energy of American Black Duck Foods**  
*John M. Coluccy and Tina Yerkes*
45. **Nutritional Analysis of Grass Habitats for Grazing Waterfowl Wintering in the Willamette Valley, Oregon**  
*Anne E. Mini, Bruce D. Dugger, and Mark J. Petrie*

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**Poster Session 2. 1:00pm Wednesday, 19 August to 5:00pm Thursday, 20 August 2009**  
**Viewing Period: Wednesday 5:00-7:30 pm, Graydon Ballroom Foyer**

**Note:** Presenters will post posters on the board that corresponds to their poster number before 1:00 pm on Wednesday; posters can stay up until Friday morning, but must be removed by 9:00am.

**Habitat Management**

1. **Quantifying Coastal Marsh Habitat Objectives for Wintering Waterfowl in the Gulf Coast Joint Venture Region**  
*Michael G. Brasher, Barry C. Wilson, and Mark W. Parr*
2. **Midwinter Occurrence of Inundated Playa Wetlands in the Texas High Plains**  
*William P. Johnson, Mindy B. Rice, David A. Haukos, and Philip P. Thorpe*
3. **Historical and Contemporary Wetland Characteristics and Factors Associated with Mallard Use in the Illinois River Valley**  
*Joshua D. Stafford, Randolph V. Smith, Aaron P. Yetter, Michelle M. Horath, and Chris S. Hine*
4. **Moist-soil Plant Seed Abundance for Waterfowl on Lands Managed by the Illinois Department of Natural Resources**  
*Joshua D. Stafford, Aaron P. Yetter, Randolph V. Smith, Chris S. Hine, and Michelle M. Horath*
5. **Selective Herbicides for Managing Moist-soil Wetlands in the Mississippi Alluvial Valley**  
*Joshua C. Cheshier, John D. Madsen, and Richard M. Kaminski*
6. **An Assessment of Wintering Waterfowl Use of Restored Wetlands Using Weather Radar**  
*Jeffrey Buler, Wylie Barrow, Lori Randall, and Joe Fleskes*
7. **Assessing Waterfowl Body Condition to Evaluate the Impact of the Central Valley Joint Venture**  
*Douglas R. Thomas, Joseph P. Fleskes, Michael R. Miller, Julie L. Yee, and John M. Eadie*
8. **Wintering Dabbling Ducks Have Become Heavier: An Effect of Global Warming or Intensified Game Management Practices?**  
*Matthieu Guillemain, Johan Elmberg, Michel Gauthier-Clerc, Grégoire Massez, Richard Hearn, Géraldine Simon, and Jocelyn Champagnon*
9. **Hatching Chronology of Nesting Ducks in the Dakotas: Implications of Perennial Cover Management Practices and Emergency Haying**  
*David A. Brandt, Gary L. Krapu, and Aaron T. Pearse*
10. **Evaluation of Vegetation Control Techniques in Large Managed Wetlands in Maritime Canada**  
*Mark Gloutney and Colin MacKinnon*
11. **Evaluation of Waterfowl and Shorebird Response to Salt Marsh Restoration**  
*Mark Gloutney, Deanne Meadus, Diana Hamilton, and Andrea Maxie*
12. **Effects of Wind Energy Development on Survival and Nesting of Mallards**  
*C. Tanner Gue, Katherine R. Mehl, Johann Walker, and Scott E. Stephens*

## Macroecology

13. **Spatial Distributions of Ponds and Breeding Ducks in the U. S. Prairie Pothole Region**  
*Terry L. Shaffer, Ronald E. Reynolds, Charles R. Loesch, and Brian Wangler*
14. **Spring Migration Ecology of American Black Ducks Determined by Satellite Telemetry**  
*Kurt A. Anderson, Jacob L. Bowman, John M. Coluccy, and Tina Yerkes*
15. **Satellite Tracking Mallards from Arkansas during Spring and Fall Migration**  
*David G. Krementz, Kwasi Asante, and Luke W. Naylor*

## Community Ecology

16. **Trophic Structure of Prairie Pothole Food Webs: New Insights from Stable Isotopes**  
*Jennifer I. M<sup>c</sup>Carter and Thomas D. Nudds*
17. **Dispersal of Aquatic Plant Seeds by Teal: Influence of Retention Time on Seed Survival, Germinability and Viability**  
*Anne-Laure Brochet, Andy J. Green, Hervé Fritz, Michel Gauthier-Clerc, and Matthieu Guillemain*
18. **Explaining the Increase in the Prevalence of the Cloacal Cestode Parasite *Cloacotaenia megalops* in Teal Wintering in the Camargue: What Does it Tell Us about Global Change?**  
*Andy J. Green, Boyko B. Georgiev, Anne-Laure Brochet, Michel Gauthier-Clerc, Hervé Fritz, and Matthieu Guillemain*
19. **Quantifying Mute Swan Aggression and Impacts to Native Waterfowl in Illinois**  
*Adam C. Phillips, Mike Eichholz, and Joshua D. Stafford*
20. **Crayfish-Harvest Potential in Natural Wetlands Managed for Waterfowl in Mississippi**  
*Amy B. Spencer, Louis R. D'Abramo, Heath M. Hagy, and Richard M. Kaminski*

## Behavioural Ecology

21. **Exploring Behavioral Processes: How Waterfowl Habitat Selection and Predator Foraging Behavior Influence Patterns of Nest Predation**  
*Kevin M. Ringelman, John M. Eadie, Joshua T. Ackerman, and Jeremy Kwolek*
22. **Reproductive Experience and Nest Tunnel Use by Female Mallards**  
*Daniel W. Coulton and Robert G. Clark*
23. **Consistency in Initiation Timing of Wild Mallards**  
*Timothy C. Kimmel, Matthew R. Pieron, and Frank C. Rohwer*
24. **Incubation Rhythms and Nest Success of Mallards (*Anas platyrhynchos*) and Northern Pintails (*Anas acuta*) in Southwestern Alberta, Canada**  
*Everett E. Hanna and Robert B. Emery*
25. **Incubation Patterns in Wood Ducks: Effects of Clutch Size, Age and Body Mass**  
*Juliana B. Almeida, C. Alex Hartman, Christopher A. Nicolai, and James S. Sedinger*

26. **Mass Loss during Incubation of Mallards in a Southern Breeding Area**  
*Shaun L. Oldenburger, Gregory S. Yarris, Daniel L. Loughman, Joshua A. Ackerman, M. Robert McLandress, and John M. Eadie*
27. **Habitat Use and Diel Movements by Female Mallards in the Lower Mississippi Alluvial Valley**  
*Bruce E. Davis, Alan D. Afton, and Robert R. Cox, Jr.*
28. **Movements and Use of Habitats by Female Mottled Ducks in Coastal Louisiana and Texas**  
*Bruce E. Davis, Erin M. Wehland, Frank C. Rohwer, and Bart M. Ballard*
29. **Use of Habitats by Female Mallards Wintering in Southwestern Louisiana**  
*Paul T. Link and Alan D. Afton*
30. **Habitat Use of Female Gadwall that Winter Along the Gulf Coast**  
*Jacob M. Gray, Alan D. Afton, and Richard M. Pace III*
31. **Factors Influencing Behavior of Waterfowl during Migration Through Rainwater Basin Wetlands**  
*Elisabeth B. Webb, Loren M. Smith, Mark P. Vrtiska, and Theodore G. LaGrange*
32. **Behavior and Bioenergetics of Spring-migrant Ducks on Wetlands Near Roads in Nebraska**  
*Mark A. Pfof, Robert K. Murphy, and Mark P. Vrtiska*
33. **Influence of Roads on the Use of Wetlands by Spring-staging Ducks in South-Central Nebraska**  
*Mark A. Pfof, Mark P. Vrtiska, and Robert K. Murphy*

## Techniques

34. **Aerial Wetland Mapping: A Novel Technique to Quantify Wetland Habitat Available during Waterbird Surveys**  
*Mark T. Bidwell, Blake Bartzen, Glenn G. Mack, and Robert G. Clark*
35. **The Use of Sightability-Adjusted Brood-Pair Ratios to Estimate Waterfowl Productivity**  
*Anthony M. Pagano, Courtney L. Amundson, Todd W. Arnold, Matthew R. Pieron, and Timothy Kimmel*
36. **Use of Molecular Genetics to Evaluate a Sex Identification Key of Bufflehead (*Bucephala albeola*) using Wings Collected as Part of the Canadian National Harvest Survey**  
*Michel H. Gendron, Andre Breault, and Doug Crump*
37. **Marker Effects on Mallard Ducklings**  
*Courtney L. Amundson and Todd W. Arnold*
38. **Effects of Nasal Saddles on Wood Ducks in Nevada: Monthly Survival, Recapture Probability, and Reporting Rate**  
*Christopher A. Nicolai and Steven M. Olson*
39. **Effects of Implanted Satellite Transmitters on Behaviour and Survival of Female Common Eiders**  
*Peter L. F. Fast, Marie Fast, H. Grant Gilchrist, Joël Bêty, and Sébastien Descamps*

## **Program, Policy, and Regulations**

40. **Wood Duck Nest Box Programs: Viable Management or Perpetuating Myths?**  
*Gregory J. Soulliere, Bradly A. Potter, and John C. Denton*
41. **Distribution and Derivation of the Blue-winged Teal Harvest**  
*Michael L. Szymanski and James A. Dubovsky*
42. **Evaluation of Species-specific Duck Hunting Regulations in Central Flyway States**  
*James H. Gammonley, Mark P. Vrtiska, Michael O'Meilia, Jim Hansen, Michael A. Johnson, Faye McNew, Tim Mitchusson, David Morrison, Larry Roberts, and Spencer Vaa*
43. **Effect of Weekly Hunting Frequency on Waterfowl Harvest, Abundance, and Hunting Quality in Mississippi**  
*Elizabeth A. St. James, Michael L. Schummer, Richard M. Kaminski, Edward J. Penny, Kevin D. Brunke, and James H. Havens*
44. **Using Public Policy to Advance Waterfowl Conservation**  
*Cynthia Edwards and T. Shane Gabor*
45. **The Impact of Wetland Loss**  
*T. Shane Gabor, Wanhong Yang, Xixi Wang, Pascal Badiou, and Cynthia Edwards*
46. **Policy Obstacles to Waterfowl Conservation: A Case Study Involving North Dakota Law and Land Purchase by a Non-profit Organization**  
*Jennifer P. Kross*