

# 5<sup>TH</sup> NORTH AMERICAN DUCK SYMPOSIUM AND WORKSHOP



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# Welcome to the 5<sup>th</sup> North American Duck Symposium & Workshop

## Duck Ecology and Management in a Changing World

The Organizing Committee is pleased to welcome you to the Fifth North American Duck Symposium and Workshop in the Great Lakes Basin, one of North America's premier waterfowl staging regions. As we are learning, it is also an important breeding and wintering area, which makes the theme of the meeting - "Duck Ecology and Management in a Changing World" - timely. As we sit poised on the threshold of the most significant revisions to the North American Waterfowl Management Plan since its inception almost 25 years ago, you will also hear about the "new frontier" of duck research and management in Canada's boreal forest; "big picture" threats to, and opportunities for, foods for ducks; lessons learned from management-by-experiment; and new ideas for stakeholder input to coherent harvest and habitat management.

Today, perhaps as never before, waterfowl management faces significant challenges resulting from key scientific uncertainties about the effects of drivers of duck population change in fast-changing ecological and social arenas. We sincerely hope that you will enjoy yourself at NADS 5, and leave as excited about what you learned, with friendships rekindled or forged anew, as we became while assembling the program and other events over the past several months.

## Sponsors, Supporters, and Contributors

- Atlantic Flyway Council <http://www.flyways.us/flyways/atlantic>
- Bass Pro Shops <http://www.basspro.com>
- Bird Studies Canada <http://www.bsc-eoc.org>
- California Waterfowl <http://www.calwaterfowl.org>
- Central Flyway Council <http://central.flyways.us>
- Delta Waterfowl <http://deltawaterfowl.org>
- Ducks Unlimited Canada <http://ducks.ca>
- Ducks Unlimited Inc. <http://ducks.org>
- Environment Canada <http://ec.gc.ca>
- Ontario Ministry of Natural Resources <http://ontario.ca>
- Great Lakes Fish Corporation <http://www.greatlakesfishcorp.com>
- Institute for Wetland & Waterfowl Research <http://www.ducks.ca/conserves/research>
- Kent Cartridge <http://www.kentgamebore.com/>
- Long Point Waterfowl <http://www.bsc-eoc.org/lpw.html>
- Mississippi Flyway Council <http://mississippi.flyways.us>
- Ontario Federation of Anglers & Hunters <http://ofah.org>
- Pacific Flyway Council <http://flyways.us/flyways/pacific>
- Prairie Habitat Joint Venture <http://www.nawmp.ab.ca/phjv>
- Sea Duck Joint Venture <http://www.seaduckjv.org>
- St. Lawrence Outfitters Inc. <http://www.stlawrenceoutfitters.com>
- Stoeger <http://www.stoegerindustries.com>
- University of Guelph <http://uoguelph.ca>
- U.S. Fish & Wildlife Service <http://www.fws.gov>
- Winous Point Marsh Conservancy
- Yamaha <http://www.yamaha-motor.ca>

## Organizing Committee

- Tom Nudds, Co-chair, University of Guelph
- Scott Petrie, Co-chair, Long Point Waterfowl
- Shannon Badzinski, Long Point Waterfowl
- Ted Barney, Long Point Waterfowl
- Rick Davis, Long Point Waterfowl
- Amanda Pratt, Long Point Waterfowl

## Science Program Committee

- Ken Abraham, Co-chair, Ontario Ministry of Natural Resources & Trent University
- Shannon Badzinski, Co-chair, Long Point Waterfowl
- Tom Nudds, Co-chair, University of Guelph
- Rod Brook, Ontario Ministry of Natural Resources
- Marcel Darveau, Ducks Unlimited Canada
- Grant Gilchrist, Canadian Wildlife Service
- Dave Howerter, Institute for Wetland & Waterfowl Research, Ducks Unlimited Canada
- Randy Milton, Nova Scotia Department of Natural Resources
- Bruce Pollard, Canadian Wildlife Service
- Greg Soulliere, U.S. Fish and Wildlife Service
- Josh Stafford, Illinois Natural History Survey

## Student Awards Committee

- Mike Eichholz, Chair, Southern Illinois University
- Josh Ackerman, U.S. Geological Survey
- John Coluccy, Ducks Unlimited, Inc.
- Frank Rohwer, Louisiana State University, Delta Waterfowl
- Stuart Slattery, Institute for Wetland & Waterfowl Research,  
Ducks Unlimited Canada
- Josh Stafford, Illinois Natural History Survey
- Johann Walker, Ducks Unlimited, Inc.

## Robert Todd Eberhardt Memorial Award Committee

- Al Afton, Chair, U.S. Geological Survey & Louisiana State University
- Jim Leafloor, Canadian Wildlife Service
- Chris Nicolai, Nevada Department of Wildlife
- Scott Petrie, Long Point Waterfowl
- Ron Reynolds, U.S. Fish and Wildlife Service

## Tours and Transportation Committee

- Ted Barney, Chair, Long Point Waterfowl
- Barbara Campbell, Canadian Wildlife Service
- Rick Davis, Long Point Waterfowl
- Norm North, Canadian Wildlife Service
- Scott Petrie, Long Point Waterfowl
- Owen Steele, Ducks Unlimited Canada

## Symposium Artists

- Rick Davis, Taxidermist
- Joe Kish, Decoy Carver
- Angela Lorenzen, NADS 5 Print & Logo Design
- Theodore Smith, Photographer

# Schedule of Activities

	Sun, 16 Aug	Mon, 17 Aug	Tues, 18 Aug	Wed, 19 Aug	Thurs, 20 Aug	Fri, 21 Aug
<b>7:00 - 8:00am</b>	1. Airport Shuttle: Toronto Pearson 11:00am-11:00pm	1. Airport Shuttle: Toronto Pearson 7:00am - 11:00pm	1. Registration Desk Graydon Foyer (7:00 - 5:00)  Welcome & Announcements Graydon Ballroom (7:50 - 8:00)	1. Registration Desk Graydon Foyer (7:00 - 5:00)  Announcements Graydon Ballroom (7:50 - 8:00)	1. Registration Desk Graydon Foyer (7:00 - 5:00)  Announcements Graydon Ballroom (7:50 - 8:00)	1. Airport Shuttle: Delta Meadowvale 5:00am - 5:00pm
<b>8:00 - 10:00</b>		1. Registration & Submit PowerPoint Graydon Foyer (8:00am -10:00pm) 2. Boreal Modeling Workshop Britannia Room (8:30 - 12:00) 3. Pintail Action Group Mtg Hazel McCallion B (8:30 - 2:30)	Riches of the Boreal Forest: Waterfowl Populations & Conservation Challenges	Abundance, Dynamics, & Conservation of Duck Foods & Foraging Habitats in North America	Predator Management at the Landscape Scale: The Delta Experience	1. DU Science Team Mtg Hazel McCallion A (8:00 -12:00)
<b>10:00 - 10:15</b>			Refreshment Break	Refreshment Break	Refreshment Break	
<b>10:15 - 12:00</b>			Contributed Papers 1. Waterfowl Research in the Boreal Forest	Contributed Papers 3. Waterfowl Foods & Habitat Management	Contributed Papers 6. Population & Community Ecology	
<b>12:00 - 1:00pm</b>			Lunch (Hazel McCallion)	Lunch (Hazel McCallion)	Lunch (Hazel McCallion)	
<b>1:00 - 3:00</b>		1. PLAGS Workshop Hazel McCallion A (1:00 - 4:00) 2. Scaup Action Team Mtg Hazel McCallion C (1:00 - 4:30)	Implications of a Changing Great Lakes Ecosystem for Ducks	Contributed Papers 4. Macroecology	Linking Harvest, Habitat, & Human Dimensions: An Update	
<b>3:00 - 3:15</b>			Refreshment Break	Refreshment Break	Refreshment Break	
<b>3:15 - 5:00</b>		1. Black Duck Joint Venture Mtg (3:30 - 6:00)	Contributed Papers 2. Population Ecology	Contributed Papers 5. Behavioural Ecology	Contributed Papers 7. Hunter, Harvest, and Habitat Linkages & Ecological Uncertainty	
<b>5:00 - 6:00</b>			1. Poster Session 1 Graydon Foyer (5:00 - 7:30)	1. Poster Session 2 Graydon Foyer (5:00 - 7:30)	1. Cash Bar Graydon Foyer (5:00 - 10:00)	
<b>6:00 - 7:00</b>		1. Reception & Social Mixer (6:00 - 10:00)	1. Local Tours (depart 6:00)	1. Local Tours (depart 6:00) 2. NADS Board Mtg (6:30 - 8:30)	1. Banquet & Awards Graydon Ballroom (6:30 - 10:00)	
<b>7:00 - 8:00</b>	1. Boreal Modeling Workshop Organizer Mtg (7:30)		1. Boreal Modeling Workshop Britannia Room (7:00 - 10:00)	1. Raptor Show Courtyard (7:30 - 8:30)		
<b>8:00pm -</b>	1. Hospitality Hudson Bay Suite, 14 <sup>th</sup> flr – S. Tower (open 8:00)	1. Hospitality Hudson Bay Suite, 14 <sup>th</sup> flr – S. Tower (open 10:00)	1. Hospitality Hudson Bay Suite, 14 <sup>th</sup> flr – S. Tower (open 8:00)	1. Hospitality Hudson Bay Suite, 14 <sup>th</sup> flr, S. Tower (open 8:00)	1. Hospitality Hudson Bay Suite, 14 <sup>th</sup> flr - S. Tower (open 10:30)	

## Science Program – Oral Presentations

### Tuesday, 18 August 2009 – 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 Väinänen, 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.*

## Science Program – Oral Presentations

### Wednesday, 19 August 2009 – 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  $\delta\text{D}$ ,  $\delta^{13}\text{C}$ , 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*

## Science Program – Oral Presentations

### Thursday, 20 August 2009 – 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. M<sup>c</sup>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*



## Science Program – Poster Presentations

**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 install 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*

## Science Program – Poster Presentations

**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 install 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?**  
*Mathieu 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*



## Banquet & Awards Program

NADS 5 Banquet & Awards Ceremony, Thursday 20 August 2009,  
5:00 pm – 10:30 pm, Graydon Ballroom

- 5:00 Cash Bar – Graydon Ballroom Foyer
- 6:30 Dinner
- 7:00 Acknowledgement of Sponsors, Committees, & Hotel Scott A. Petrie
- 7:10 Robert Todd Eberhardt Memorial Award Alan D. Afton  
*To be announced*
- 7:25 Robert N. Helm, Jr. Travel Scholarships F. Patrick Kehoe &  
*Courtney L. Amundson & Matt R. Pieron, &* Ross Melinchuk  
*Kirsty E.B. Gurney*
- 7:40 NADS Incorporation Mike A. Johnson &  
Alan D. Afton
- 8:15 NADS Conference Banner Presentation Thomas D. Nudds  
*NADS 6 location to be announced*
- 8:30 Music by The Good Lovelies
- 9:15 NADS Travel Scholarships Michael W. Eichholz  
*John A. Dassow, Heath M. Hagy,*  
*Benjamin J. O'Neal, Sarah J. Thompson, &*  
*Josh L. Vest*
- 9:30 NADS Presentation Awards Michael W. Eichholz  
*To be announced*
- 9:45 More music by The Good Lovelies
- 10:30 Hospitality Room

*Thanks for making the symposium a success!*

