

# David N. Koons

## Assistant Professor

Department of Wildland Resources and the Ecology Center

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Citizenship: USA

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### Professional Experience

- 2007 – Present Assistant Professor, Department of Wildland Resources and the Ecology Center, Utah State University, Logan, Utah, U.S.A.
- 2005 – 2007 Post-doctoral Fellow, Max Planck Institute for Demographic Research, Rostock, Germany.
- 2005 Post-doctoral Research Associate, School of Forestry and Wildlife Sciences, Auburn University, Auburn, Alabama, U.S.A.

### Education

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| 2005 | Ph.D. in Wildlife Science, minor in Statistics | Auburn University        |
| 2001 | M.S. in Fish and Wildlife Management           | Montana State University |
| 1998 | B.S. in Biology, minor in Statistics           | Montana State University |

### Professional Training

- 2006 Statistical Survival Analysis; International Max Planck Research School for Demography
- 2005 – 2006 Biodemography: matrix population models, quantitative genetics, mark-recapture/recovery survival analysis; International Max Planck Research School for Demography
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### Grants

- Total of **\$1,153,106**
- 2012 NSF REU supplement to DEB 1019613. **D.N. Koons** and R.F. Rockwell. **\$7,125**
- 2012 – 2016 Mississippi Flyway Council, The Hudson Bay Project. R.F. Rockwell, K. Abraham, R. Brook, and **D.N. Koons**. **\$125,000**
- 2011 – 2012 NSF (DEB 1019613), How do environmental conditions during development affect senescence & consequent population dynamics? **D.N. Koons**, O. Gimenez, and R.F. Rockwell. **\$210,401**
- 2011 – 2014 Utah DWR, USFWS, BLM, Improved monitoring for management of the Henry Mountains bison herd. **D.N. Koons**, F.P. Howe, P. Terletzky and J. du Toit. **\$330,286**

- 2011 – 2015 Central Flyway Council, The Hudson Bay Project. R.F. Rockwell, K. Abraham, **D.N. Koons**, and R. Brook. **\$125,000**
- 2011 USU Research Catalyst Grant, Arctic climate change & trophic cascades. **D.N. Koons**. **\$19,770**
- 2009 – 2011 State of Utah, How to estimate bison abundance in the Henry Mountains using probabilistic methods. **D.N. Koons** and F.P. Howe. **\$67,900**
- 2010 Gardner Junior Faculty Travel Fellowship, Physical momentum in biological populations. **D.N. Koons**. **\$500**
- 2009 – 2010 Berryman Institute, Policy change, human harvest and control of lesser snow geese. L.M. Aubry and **D.N. Koons**. **\$80,000**
- 2008 – 2009 USU New Faculty Research Grant, **D.N. Koons**. **\$10,124**
- 2008 – 2011 Delta Waterfowl Foundation, Continental population dynamics of lesser scaup. **D.N. Koons** and B. Ross. **\$85,000**
- 1999 – 2000 IWWR of Ducks Unlimited Canada, Lesser scaup breeding ecology in the Canadian Parklands. **D.N. Koons** and J. Rotella. **\$30,000**
- 1999 – 2000 Delta Waterfowl Foundation, Lesser scaup breeding ecology in the Canadian Parklands. **D.N. Koons** and J. Rotella. **\$60,000**
- 2000 Minnesota Waterfowl Association, Comparative nesting success of sympatric lesser scaup and ring-necked duck. **D.N. Koons**. **\$2,000**

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## Publications

\* = advised student or post-doctoral scientist

\*\* = advised student or post-doctoral scientist in my lab

## Peer-Reviewed

**30 peer-reviewed publications: 14 as 1<sup>st</sup> author, 9 in advisory role, 16 with an IF > 3**

Péron, G.\*\*\*, C.A. Nicolai, and **D.N. Koons**. *In Press*. Demographic response to perturbations: the role of compensatory density-dependence in a North American duck under variable harvest regulations and changing habitat. *Journal of Animal Ecology*

Mattsson, B.J, M.C. Runge, J.H. Devries, G.S. Boomer, J.M. Eadie, D.A. Haukos, J. P. Fleskes, **D.N. Koons**, W.E. Thogmartin, and R.G. Clark. 2012. A modeling framework for integrated harvest and habitat management of North American waterfowl: case-study of northern pintail metapopulation dynamics. *Ecological Modelling* 225:146-158.

**Koons, D.N.**, P. Terletzky\*, P.B. Adler, M.L. Wolfe, D. Ranglack, F.P. Howe, K. Hersey, W. Paskett, J.T. du Toit. *In Press*. Climate and density-dependent drivers of reproductive success in plains bison. *Journal of Mammalogy*

Olson, C.A.\* , K.H. Beard, and D.N. Koons. 2012. Detection probabilities of two introduced frogs in Hawaii: implications for assessing non-native species distributions. *Biological Invasions* 14:889-900.

- Rockwell, R.F., L.J. Gormezano\*, and **D.N. Koons**. 2011. Trophic matches and mismatches: Can polar bears reduce the abundance of nesting snow geese in western Hudson Bay? *Oikos* 120:696-709.
- Gurney, K.E.B., R.G. Clark, S.M. Slattery, N.V. Smith-Downey, J. Walker, S.E. Stephens, M. Petrula, R.M. Corcoran, K.H. Martin, K.A. DeGroot, R.W. Brook, A.D. Afton, K. Cutting, J.M. Warren\*\*, M. Fournier, and **D.N. Koons**. 2011. Time constraints in temperate-breeding species: influence of growing season length on reproductive strategies. *Ecography* 34:628-636.
- Dalgleish, H.J.\*, **D.N. Koons**, M.B. Hooten, C.A. Moffet, and P.B. Adler. 2011. Climate influences the demography of three dominant sagebrush steppe plants. *Ecology* 92: 75-85.
- Aubry, L.M.\*\*, E. Cam, **D.N. Koons**, J.-Y. Monnat, and S. Pavard. 2011. Drivers of age-specific survival in a long-lived seabird: contributions of observed and hidden sources of heterogeneity. *Journal of Animal Ecology* 80:375-383.
- Aubry, L.M.\*\*, R.F. Rockwell, and **D.N. Koons**. 2010. Metapopulation dynamics of mid-continent lesser snow geese: implications for management. *Human-Wildlife Interactions* 4:170-191.
- Dahlgren, D.K. \*, T.A. Messmer, and **D.N. Koons**. 2010. Achieving better estimates of greater sage-grouse chick survival in Utah. *Journal of Wildlife Management* 74:1286-1294.
- Ezard, T.H.G., J.M. Bullock, H.J. Dalgleish\*, A. Millon, F. Pelletier, A. Ozgul, and **D.N. Koons**. 2010. Matrix models for a changeable world: the importance of transient dynamics in population management. *Journal of Applied Ecology* 47:515-523.
- Koons, D.N.** 2010. Genetic estimation of dispersal in metapopulation viability analysis. *Animal Conservation* 13:127-128.
- Dalgleish, H.J.\*, **D.N. Koons**, and P.B. Adler. 2010. Can life history traits predict the response of forb populations to changes in climate variability? *Journal of Ecology* 98:209-217.
- Aubry, L.M.\*, **D.N. Koons**, J.-Y Monnat, and E. Cam. 2009. Consequences of recruitment decisions and heterogeneity on age-specific breeding success in a long-lived seabird. *Ecology* 90:2491-2502.
- Koons, D.N.**, R.D. Birkhead, S.M. Boback, M.I. Williams, and M.P. Greene. 2009. The effect of body size on cottonmouth (*Agkistrodon piscivorus*) survival, recapture probability, and behavior in an Alabama swamp. *Herpetological Conservation and Biology* 4:221-235.
- Koons, D.N.**, S. Pavard, A. Baudisch, and C.J.E. Metcalf. 2009. Is life-history buffering or lability adaptive in stochastic environments? *Oikos* 118:972-980.
- Koons, D.N.** 2009. Is harvest selecting for maladaptation in an increasingly variable world? *Proceedings of the National Academy of Science, USA* 106:E32.
- Koons, D.N.**, C.J.E. Metcalf, and S. Tuljapurkar. 2008. Evolution of delayed reproduction in uncertain environments: a life history perspective. *American Naturalist* 172:797-805.
- Pavard, S., **D.N. Koons**, and E. Heyer. 2007. The influence of maternal care in shaping human survival and fertility. *Evolution* 61:2801-2810.

- Koons, D.N.**, R.R. Holmes, and J.B. Grand. 2007. Population inertia and its sensitivity to changes in vital rates and population structure. *Ecology* 88:2857-2867.
- Metcalf, C.J.E., K. Hampson, and **D.N. Koons**. 2007. What happens if density increases? Conservation implications of population influx into refuges. *Animal Conservation* 10:478-486.
- Metcalf, C.J.E., and **D.N. Koons**. 2007. Environmental uncertainty, autocorrelation and the evolution of survival. *Proceedings of the Royal Society of London, B* 274:2153-2160.
- Koons, D.N.**, J.J. Rotella, D.W. Willey, M. Taper, R.G. Clark, S. Slattery, R.W. Brook, R.M. Corcoran, and J.R. Lovvorn. 2006. Lesser Scaup population dynamics: what can be learned from available data? *Avian Conservation and Ecology - Écologie et conservation des oiseaux* 1(3): 6. [online] URL: <http://www.ace-eco.org/vol1/iss3/art6/>
- Koons, D.N.**, J.B. Grand, and J.M. Arnold. 2006. Population momentum across vertebrate life histories. *Ecological Modelling* 197:418-430.
- Koons, D.N.**, R.F. Rockwell, and J.B. Grand. 2006. Population momentum: implications for wildlife management. *Journal of Wildlife Management* 70:19-26.
- Koons, D.N.**, J.B. Grand, B. Zinner, and R.F. Rockwell. 2005. Transient population dynamics: relations to life history and initial population state. *Ecological Modelling* 185:283-297.
- Koons, D.N.**, and J.J. Rotella. 2003. Have lesser scaup, *Aythya affinis*, reproductive rates declined in parkland Manitoba? *Canadian Field Naturalist* 117:582-588.
- Koons, D.N.**, and J.J. Rotella. 2003. Comparative nesting success of sympatric lesser scaup and ring-necked duck. *Journal of Field Ornithology* 74:222-229.
- Stephens, S.E., **D.N. Koons**, D.W. Willey, and J.J. Rotella. 2003. Effects of habitat fragmentation on avian nesting success: a review of the evidence at multiple spatial scales. *Biological Conservation* 115:101-110.
- Koons, D.N.** 2000. First record of brown-headed cowbird egg in a lesser scaup nest. *Wilson Bulletin* 112:554.

#### Manuscripts

- Péron, G.\*\*\*, and **D.N. Koons**. *In Review*. Demographic synchrony and inter-specific density-dependence in sympatric ducks with parasitic egg-laying. *Ecology*
- Allington, G.R.H., **D.N. Koons**, S.K.M. Ernest, M.R. Schutzenhofer, and T.J. Valone. *In Review*. Biotic resistance and niche opportunities for invasion of an annual plant community.
- Aubry, L.M.\*\*\*, R.F. Rockwell, E.G. Cooch, R.W. Brook, C.P. Mulder, and **D.N. Koons**. *In Review*. Climate, phenology, and habitat degradation: drivers of gosling body condition and juvenile survival in lesser snow geese. *Global Change Biology*

#### In Preparation

- Péron, G.\*\*\*, and **D.N. Koons**. Intra-guild interactions and projected impact of climate and land use changes on North American pochard ducks
- Iles, D.T.\*\*\*, R.F. Rockwell, P. Matulonis, G.J. Robertson, K.F. Abraham, C. Davies, and **D.N. Koons**. The effects of predators, alternative prey, and climate on common eider nesting success.

- Iles, D.T.\*\*\*, R.F. Rockwell, and **D.N. Koons**. Effects of a shift in alternative prey on the stochastic population dynamics of a long-lived sea duck.
- Nicolai, C.A., J.S. Sedinger, B.E. Ross\*\*, J. Warren\*\*, and **D.N. Koons**. Is hunter harvest responsible for the peril of lesser scaup?
- Aubry, L.M.\*\*\*, E. Cam, J.-Y. Monnat, and **D.N. Koons**. Relative fitness differences in stochastic environments across recruitment strategies in a long-lived seabird.
- Aubry, L.M.\*\*\*, E.G. Cooch, R.F. Rockwell, and **D.N. Koons**. Additive vs. compensatory mortality in lesser snow geese: implications for population control.
- Dahlgren, D.K.\*, M. Guttery\*, T.A. Messmer, and **D.N. Koons**. A prospective and retrospective look at greater sage-grouse population dynamics in Utah: the implications for management and conservation of a species at the tipping point.
- Ross, B.E.\*\*\*, and **D.N. Koons**. Using multi-state occupancy models to examine changes in scaup pairing propensity across space and time. *Oikos*
- Ross, B.E.\*\*\*, M. Hooten, and **D.N. Koons**. Spatio-temporal changes in lesser scaup population dynamics.
- Guttery, M.\*, T.A. Messmer, and **D.N. Koons**. Early survival of greater sage-grouse chicks in relation to ecological and demographic factors.
- Warren, J.M.\*\*\*, K.A. Cutting, and **D.N. Koons**. Body condition dynamics and the cost-of-delay hypothesis in a temperate-breeding duck.

#### Theses

- Koons, D.N.** 2005. Transient population dynamics and population momentum in vertebrates. Ph.D. Dissertation, Auburn University, Auburn, Alabama.  
Advisor: James B. Grand, USGS, Alabama Cooperative Fish & Wildlife Research Unit
- Koons, D.N.** 2001. Lesser scaup breeding ecology in the Canadian Parklands. M.S. Thesis, Montana State University, Bozeman, Montana.  
Advisor: Jay J. Rotella

#### Technical

- Rockwell, R. F., K., Dufour, E. Reed, and **D.N. Koons**. *In Press*. Modeling the mid-continent population of lesser snow geese. In: Arctic Ecosystems in Peril: Report of the Arctic Goose Habitat Working Group II. In: B. Batt (ed.) Arctic Ecosystems in Peril: Report of the Arctic Goose Habitat Working Group. Arctic Goose Joint Venture, Canadian Wildlife Service, Ottawa and US Fish and Wildlife Service, Washington, D.C.
- Grand, J.B., **D.N. Koons**, J.M. Arnold, and D.V. Derksen. 2006. Modeling the recovery of avian populations. USGS Report to the Alaska Science Center.
- Carlson, J., A. Craighead, P. Harmata, **D. Koons**, L. Oechsli, D. Ouren, E. Stackhouse, and B. Wilmer. 1999. Gallatin County fish and wildlife habitat. Montana State University, Bozeman, Montana.
- Koons, D.N.**, R. Brooks, and D. Dolsen. 1998. Licensed angler assessment of the fisheries program: A report on the outcomes assessment project. in Montanans' assessment of

Montana Fish, Wildlife, and Parks programs. Montana Fish, Wildlife & Parks, Helena, Montana.

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### **Invited Seminars**

- 2011 3 big challenges for predicting population responses to changing environments.  
Rice University
- 2011 The applied implications of population dynamics in changing environments.  
Oregon State University
- 2010 Who's there? The implications of population structure for wildlife management.  
Brigham Young University seminar series
- 2009 Is life-history buffering or lability adaptive in stochastic environments?  
Utah State University Biology Department seminar series
- 2009 Harvest, environmental stochasticity, and why managers need to be evolutionary biologists.  
University of Nevada at Reno seminar series
- 2009 Harvest, environmental stochasticity, and why managers need to be evolutionary biologists.  
Montana State University seminar series
- 2008 Matrix modeling in conservation: simple and complex uses.  
Populations under Pressure Workshop (Plenary lecture)  
Imperial College London, Division of Biology at Silwood Park, UK
- 2008 Climate change and the implications of environmental uncertainty on life history evolution: why it's important for management.  
Utah State University
- 2007 Structure and its impact on population dynamics  
Centre National de la Recherche Scientifique, Centre d'Ecologie Fonctionnelle et Evolutive, Montpellier, France
- 2007 The importance of structure in population models for conservation & management  
Utah State University

### **Conference Presentations & Abstracts**

- Iles, D.T.\*\*, **D.N. Koons**, and R.F. Rockwell. 2011. Effects of boom-bust nesting success on common eider population dynamics: Inferences from a long-term study in La Pérouse Bay, Manitoba, Canada. 4<sup>th</sup> International Sea Duck Conference.
- Mattsson, B.J., M.C. Runge, J.H. Devries, G.S. Boomer, J.M. Eadie, D.A. Haukos, J.P. Fleskes, **D.N. Koons**, W.E. Thogmartin, and R.G. Clark. 2011. Integrating harvest & habitat management for North American waterfowl: a prototype for northern pintail. TWS 18<sup>th</sup> Annual Conference.
- Koons, D.N.**, R.F. Rockwell, and L.M. Aubry\*\*. 2011. The implications of metapopulation dynamics for the management of mid-continent lesser snow geese. 12th North American Arctic Gose Conference.

- Aubry, L.M.\*\*, E.G. Cooch, R.F. Rockwell, and **D.N. Koons**. 2011. Compensatory versus additive mortality in lesser snow geese: implications for population control. 12th North American Arctic Goose Conference.
- Rockwell, R.F., L.J. Gormezano\*, and **D.N. Koons**. 2011. Trophic matches and mismatches: can polar bears reduce the abundance of nesting snow geese in Western Hudson Bay? 12th North American Arctic Goose Conference.
- Peterson, S.L.\*\*, R.F. Rockwell, and **D.N. Koons**. 2011. Past and present impacts of habitat degradation by lesser snow geese on avian communities along the Hudson Bay lowlands. 12th North American Arctic Goose Conference.
- Aubry, L.M.\*\*, **D.N. Koons**, J.-Y Monnat, and E. Cam. 2010. Age-specific trade-offs and unobserved heterogeneity in a long-lived seabird: implications for senescence. First World Seabird Conference.
- Ross, B.E.\*\*, M.B. Hooten, and **D.N. Koons**. 2010. Analysis of spatio-temporal dynamics in abundance of lesser scaup. TWS 17<sup>th</sup> Annual Conference.
- Iles, D.T.\*\*, and **D.N. Koons**. 2010. Influence of global climate change on common eider (*Somateria mollissima*) population dynamics. TWS 17<sup>th</sup> Annual Conference.
- Dahlgren, D.K.\*, T. Messmer, **D.N. Koons**, E. Thacker, M. Guttery, R. Baxter, D. Mitchell, and D. Olsen. 2009. Sage-grouse in Utah: An Increased Research Effort for the Last Decade. Utah Ornithological Society
- Koons, D.N.**, and B.E. Ross\*\*. 2009. Changes in habitat occupancy and pairing probabilities of the declining continental population of scaup. 5<sup>th</sup> North American Duck Symposium.
- Ross, B.E.\*\*, M.B. Hooten, and **D.N. Koons**. 2009. Analysis of spatio-temporal dynamics in abundance of lesser scaup. 5<sup>th</sup> North American Duck Symposium.
- Clark, R.G., G.S. Boomer, M.C. Runge, M.G. Anderson, J.H. Devries, J.M. Eadie, M. Koneff, J. Fleskes, D. Haukos, **D.N. Koons**, T. Sanders, R. Trost, and W. Thogmartin. 2009. Integrating habitat and harvest management for northern pintails: concepts, challenges and progress. 5<sup>th</sup> North American Duck Symposium.
- Ross, B.E.\*\*, M.B. Hooten, C.K. Wikle, and **D.N. Koons**. 2009. Analysis of spatio-temporal dynamics in abundance of scaup. U.S. IALE Symposium.
- Ross, B.E.\*\*, and **D.N. Koons**. 2009. Changes in occupancy and breeding probabilities of Lesser Scaup. 2<sup>nd</sup> Pan-European Duck Symposium.
- Guttery, M.R.\*, T.A. Messmer, and **D.N. Koons**. 2009. Early survival of greater sage-grouse chicks in a high-elevation southern range population. TWS 16<sup>th</sup> Annual Conference.
- Guttery, M.R.\*, T.A. Messmer, and **D.N. Koons**. 2009. Early survival of greater sage-grouse chicks on Parker Mountain, Utah. Utah TWS annual meeting.
- Dalgleish, H.J.\*, C.A. Moffet, **D.N. Koons**, M.B. Hooten, and P.B. Adler. 2009. Future shifts from snow to rain may decrease survival and population growth of two dominant grasses in sagebrush steppe. ESA 94<sup>th</sup> Annual Meeting
- Koons, D.N.**, and R.F. Rockwell. 2009. Common Eider population ecology in Wapusk National Park. Parks Canada meeting.

- Dalgleish\*, H.J., P.B. Adler, and D.N. Koons. 2008. Life history traits and population dynamics: How will prairie plants respond to climate change? ESA 93<sup>rd</sup> Annual Meeting.
- Dahlgren, D.K. \*, T.A. Messmer, and **D.N. Koons**. 2008. Greater sage-grouse juvenile survival in Utah. Western Association of Fish and Wildlife Agencies Columbian Sharptailed and Greater Sage-grouse Technical Committee Meeting, Mammoth Lakes, CA.
- Koons, D.N.**, and C.J.E. Metcalf. 2006. A broad look at delayed reproduction in variable environments. 3<sup>rd</sup> Workshop for Evolutionary Demography.
- Koons, D.N.**, J.J. Rotella, D.W. Willey, M. Taper, R.G. Clark, S. Slattery, R.W. Brook, R.M. Corcoran, and J.R. Lovvorn. 2006. Lesser scaup population dynamics: what can be learned from available data? 4<sup>th</sup> North American Duck Symposium.
- Koons, D.N.**, A. Baudisch, S. Pavard, C.J.E. Metcalf, and A. Scheuerlein. 2006. Frailty models go Darwinian: The evolutionary advantage of heterogeneous offspring. 2<sup>nd</sup> Workshop For Evolutionary Demography.
- Koons, D.N.**, S. Pavard, A. Baudisch, and C.J.E. Metcalf. 2006. Live or let die? Fitness consequences of temporal variability in survival and death parameters. MPIDR Seminar Series.
- Lindberg, M.S., **D.N. Koons**, J.J. Rotella, D.W. Willey, M. Taper, R. Brook, R.G. Clark, R.M. Corcoran, and J.R. Lovvorn. 2006. Lesser scaup population dynamics: what can be learned from available data? 2<sup>nd</sup> North American Scaup Workshop
- Koons, D.N.**, R.F. Rockwell, and J.B. Grand. 2005. Population momentum: implications for wildlife management. 2<sup>nd</sup> Southeastern Ecology and Evolution Conference.
- Koons, D.N.**, and J.B. Grand. 2004. Life history and population momentum: a general principle for population biology. 14<sup>th</sup> Annual Auburn University Research Forum.
- Koons, D.N.**, and J.J. Rotella. 2003. Comparative nesting success of sympatric lesser scaup and ring-necked duck. 3<sup>rd</sup> North American Duck Symposium.
- Arnold, J.M., J.B. Grand, **D.N. Koons**, and N.V. Yogi. 2003. The role of population modeling in natural resource damage assessment. 27<sup>th</sup> Annual Meeting of The Waterbird Society.
- Koons, D.N.**, B. Zinner, J.B. Grand, and R.F. Rockwell. 2002. Transient demographic analysis of 6 vertebrates: initial conditions and life history explain near-term dynamics: Fourth Conference on Statistics In Ecology And Environmental Monitoring: "Population Dynamics: The Interface Between Models and Data".
- Koons, D.N.**, S.E. Stephens, D.W. Willey, and J.J. Rotella. 2002. Effects of habitat fragmentation on avian nesting success: a review of the evidence at multiple spatial scales; The Wildlife Society 9<sup>th</sup> Annual Conference.
- Koons, D.N.**, and J.J. Rotella. 2001. Lesser scaup breeding ecology in the Canadian Parklands; Institute of Wetland and Waterfowl Research Symposium.
- Koons, D.N.**, and J.J. Rotella. 2000. Lesser scaup breeding ecology in the Canadian Parklands: a comparison to the past; 2<sup>nd</sup> North American Duck Symposium.

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## **Workshops Presented**

- 2010 Taller de Modelos de Captura y Recatpura (first Capture-Mark-Recapture workshop ever held in Latin America). CIMAT, Guanajuato, Mexico
- 2006 Population modeling workshop. 4<sup>th</sup> North American Duck Symposium.
- 2005 Understanding the impacts of catastrophes on marine bird populations: using Aves Modeler for population level analyses. USGS Alaska Science Center
- 2003 Understanding the impacts of catastrophes on marine bird populations: an introduction to Aves Modeler. USGS Alaska Science Center
- 2001 Beaufort sea bird population and recovery modeling workshop. USGS and Alaska Sea Life Center

## **Workshops Attended**

- 2009 Bio-demography workshop. Stanford
- 2006 2<sup>nd</sup> Workshop for Evolutionary Demography. Max Planck Institute for Demographic Research, Rostock, Germany
- 2006 3<sup>rd</sup> Workshop for Evolutionary Demography. Duke University.

## **Teaching**

### Utah State University

- WILD 6400: Animal Population Ecology (graduate), Fall Semesters, 20 students
- WILD 3810: Plant and Animal Populations (undergraduate), Spring Semesters, 35 students
- WILD 6960: Graduate Ecology (graduate; pop eco section), Fall Semesters 2007-2010, 25 students
- WILD 7900: ST-Population & Evolutionary Ecology, Fall 2010, 1 student
- WILD 7900: ST-Bayesian Statistics (graduate), Spring 2008, 1 student
- WILD 7900: ST-Juvenile Survival Assessment (graduate), Spring 2008, 1 student
- Advanced Topics in Animal Demography, Spring 2009, 10 students, ad hoc discussion meetings (not for credit)

### International Max Planck Research School for Demography

- Lecturer: Evolution in Stochastic Environments (graduate), Fall 2006, 10 students

### School of Forestry and Wildlife Sciences, Auburn University

- Lecturer: Analysis of Wildlife Populations (graduate), Fall 2003, 15 students
- Lab Instructor: Analysis of Wildlife Populations (graduate), Fall 2003, 15 students

### Department of Ecology, Montana State University

- Lab Instructor: Human Anatomy and Physiology (undergraduate), Spring 2001, 50 students

- Lab Instructor, Animal Physiology (undergraduate), Fall 1999, 60 students
- Part-time Lecturer: Animal Physiology (undergraduate), Fall 1999, 120 students
- Lab Instructor, Animal Physiology (undergraduate), Fall 1998, 55 students

## **Advising**

### Primary Advisor

- Beth Ross, Ph.D. (Mevin Hooten co-advisor), 2008-present
  - Spatio-temporal variation in the drivers of scaup population dynamics throughout North America
- Jeff Warren, Ph.D., 2010-present
  - Effects of temporal co-variation in life history parameters on lesser scaup population dynamics at Red Rock Lakes NWR
- David Iles, M.S., 2009-present
  - Boom-bust temporal variation in common eider reproductive success and its impact on population dynamics
- Stephen Peterson, M.S., 2009-present
  - Cascading effects of snow goose foraging on vegetation degradation and passerine birds
- Lise Aubry, post-doc, 2009-2012
  - Demographic analyses for guiding lesser snow goose population control efforts
  - Effects of early-life environmental conditions on late-life senescence: cohort variation across space and time
- Guillaume Péron, post-doc, 2010-2012
  - Integrated Population Models for adaptive management
  - Integrated Population Models for investigating species interactions and comparing life histories
- Jason Carlisle, B.S. Honors Thesis, graduated
  - Wood duck box-occupancy patterns in Cache Valley, Utah

*I serve on an additional 7 M.S. committees and 14 Ph.D. committees*

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## **Awards and Recognitions**

- 2011 USU CNR Undergraduate Research Mentor of the year
- 2011 Voted 2<sup>nd</sup> best instructor throughout the degree program amongst graduating seniors in the Wildland Resources department
- 2010 Top Referee for Proceedings of the Royal Society B: Biological Sciences
- 2009 Voted best instructor throughout the degree program amongst graduating seniors in the Wildland Resources department

## **Professional Associations**

- Ecological Society of America

- The American Society of Naturalists