

## **Dr. Erik J Blomberg**

Dept. of Wildlife, Fisheries, and Conservation Biology

University of Maine

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### **EDUCATION**

- 2012 PhD – University of Nevada, Reno  
Ecology, Evolution, and Conservation Biology Program  
Focus – Avian Population Ecology and Life History Evolution  
Major Advisor – Dr. James Sedinger  
Graduated August 2012
- 2007 M.S. - University of Rhode Island  
Dept. of Natural Resources Science  
Focus – Avian Ecology and Habitat Relationships  
Major Advisor – Dr. Scott McWilliams  
Graduated December 2007
- 2005 B.S. - University of Wisconsin Stevens Point  
College of Natural Resources  
Major - Wildlife Management and Ecology  
Biology Minor  
Graduated May 2005

### **PROFESSIONAL APPOINTMENTS**

- 2017 **Assistant Professor** – Wildlife Population Ecology. Department of Wildlife, Fisheries, and Conservation Biology, University of Maine. Orono, ME. October 2013 to present.
- 2013 **Wildlife Biologist** – USGS Western Ecological Research Center. Dixon Field Station.  
Employment period June 2012 – September 2013.

### **REVIEWED PUBLICATIONS**

- 2018 Mangelinckx, J., S. Davis, R. B. Allen, S. Sullivan, and **E. J. Blomberg**. *In press*.  
Reproductive status affects summertime resource selection and survival of Ruffed Grouse in  
Maine, USA. *The Auk: Ornithological Advances*.

- Gibson, D., **E. J. Blomberg**, M. T. Atamian, S. P. Espinosa, and J. S. Sedinger. *In press*. Effects of transmission lines on demography and population dynamics of greater sage-grouse. *Wildlife Monographs*.
- McKnight, A., **E. J. Blomberg**, G. Golet, D. Irons, C.S. Loftin, and S.T. McKinney. *In press*. Experimental evidence of long-term reproductive costs in a colonial nesting seabird. *Journal of Avian Biology*.
- Davis, S., J. Mangelinckx, R. B. Allen, S. Sullivan, and **E. J. Blomberg**. 2018. Survival and harvest of ruffed grouse in central Maine, USA. *Journal of Wildlife Management*. In early view
- Blomberg, E. J.**, S. Davis, J. Mangelinckx, and K. Sullivan. 2018. Detecting capture-related mortality in radio-marked birds following release. *Avian Conservation and Ecology*. 13:5 <https://doi.org/10.5751/ACE-01147-130105>
- Coates, P.S., B. G. Prochazka, M. A. Ricca, B. J. Halstead, M. L. Casazza, **E. J. Blomberg**, B. Brussee, L. Wiechman, J. Tebbenkamp, and K. P. Reese. *In press*. The relative importance of intrinsic and extrinsic drivers to population growth vary among local populations of Greater Sage-grouse: an integrated population modelling approach. *Auk: Ornithological Advances*.
- Schroeder, M. A., **E. J. Blomberg**, D. A. Boag, P. Pyle, M. Patten. 2018. Spruce Grouse (*Falciapennis canadensis*), version 2.0 In *The Birds of North America* (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology.
- 2017 Kane, K., J. Sedinger, D. Gibson, **E. J. Blomberg**, M. Atamian. 2017. Fitness landscapes and life table response experiments predict the importance of local areas to population dynamics. *Ecosphere* DOI: 10.1002/ecs2.1869
- Loman, Z. G., **E. J. Blomberg**, W. V. Deluca, D. J. Harrison, C. S. Loftin, and P. B. Wood. 2017. Validating landscape capability as a predictor of upland game bird abundance and occurrence. *Journal of Wildlife Management*.
- Fremgen, M., D. Gibson, R. Ehrlich, A. Krakauer, J. Forbey, **E. J. Blomberg**, J. Sedinger, G. Patricelli. 2017. Necklace-style radio-transmitters are associated with changes in display vocalizations of male Greater Sage-grouse. *Wildlife Biology* doi: 10.2981/wlb.00236.
- Blomberg, E. J.**, D. Gibson, J. S. Sedinger, and M. T. Atamian. 2017. Variable drivers of primary versus secondary nesting; density-dependence and drought effects on greater sage-grouse. *Journal of Avian Biology* 48: 827-836.
- Gibson, D., **E. J. Blomberg**, M. T. Atamian, and J. S. Sedinger. 2017. Weather, habitat composition, and female behavior interact to modify offspring survival in greater sage-grouse. *Ecological Applications*. 27:168-181

- 2016 Gibson, D., **E. J. Blomberg**, M. T. Atamian, and J. S. Sedinger. *In press*. Weather, habitat composition, and female behavior interact to modify offspring survival in greater sage-grouse. *Ecological Applications*. 00: 000-000
- Coates, P. S., M. A. Ricca, B. G. Prochazka, M. L. Brooks, **E. J. Blomberg**, K. E. Doherty, C. A. Hagen, and M. L. Casazza. 2016. Fire, climate, and invasive grass impact and indicator species by reshaping sagebrush ecosystems. *Proceedings of the National Academy of Sciences*. 113: 12745-12750
- Fremgen, M., D. Gibson, R. Ehrlich, A. Krakauer, J. Forbey, **E. Blomberg**, J. Sedinger, G. Patricelli. *In press*. Necklace-style radio-transmitters are associated with changes in display vocalizations of male Greater Sage-grouse. *Wildlife Biology* 00:000.
- Gibson, D., **E. J. Blomberg**, M. T. Atamian, and J. S. Sedinger. 2016. Nesting habitat selection influences nest and early offspring survival in Greater Sage-Grouse. *Condor: Ornithological Applications* 118: 689-702
- Gibson, D., **E. J. Blomberg**, and J. S. Sedinger. 2016. Evaluating vegetation effects on animal demographics; the role of plant phenology and sampling bias. *Ecology and Evolution*. 6:3621-3631
- Jahner, J. P., D. Gibson, C. L. Weitzman, **E. J. Blomberg**, J. S. Sedinger, and T. L. Parchman. 2016. Site fidelity and habitat features shape fine-scale genetic structure of greater sage-grouse in central Nevada. *BMC Evolutionary Biology* 16:127.
- Coates, P. S., M. L. Casazza, M. A. Ricca, B. E. Brussee, **E. J. Blomberg**, K. B. Gustafson, C. T. Overton, D. M. Davis, L. E. Neil, S. P. Esinosa, S. C. Gardner, and D. J. Delehanty. 2016. Integrating spatially explicit indices of abundance and habitat quality: an applied example for greater sage-grouse management. *Journal of Applied Ecology* 53: 83-95
- 2015 **Blomberg, E. J.**, D. Gibson, and J. S. Sedinger. 2015. Biases in nest survival associated with choice of exposure period: a case study in North American upland game birds. *Condor: Ornithological Applications* 117:577-588.
- Blomberg, E. J.** 2015. Does harvest timing play a role in greater sage-grouse survival? A cautionary perspective. *Journal of Wildlife Management* 79:695-703.
- Gibson, D., **E. J. Blomberg**, M. T. Atamian, and J. S. Sedinger. 2015. Observer effects strongly influence estimates of daily nest survival probability but do not substantially increase rates of nest failure in greater sage-grouse. *The Auk: Ornithological Advances* 132:397-407.
- 2014 **Blomberg, E.J.**, J.S. Sedinger, D. Gibson, P.S. Coates, and M.L. Casazza. 2014. Carry-over effects and climatic conditions influence the postfledging survival of greater sage-grouse. *Ecology and Evolution* doi: 10.1002/ece3.1139

- Gibson, D., **E.J. Blomberg**, M.T., Atamian, and J.S. Sedinger. 2014. Lek fidelity and movement among leks by male Greater Sage-grouse: a capture-mark-recapture approach. *Ibis*, 156: 729-740
- Blomberg, E.J.**, D. Gibson, M.T. Atamian and J.S. Sedinger. 2014. Individual and environmental effects on egg allocations of female Greater Sage-grouse. *The Auk: Ornithological Advances*, 131: 507-523.
- 2013 **Blomberg, E. J.**, P. L. Wolff, and J. S. Sedinger. 2013. Geographic variation in liver metal concentrations of greater sage-grouse. *Journal of Fish and Wildlife Management* 4:298-302.
- Blomberg, E. J.**, S. R. Poulson, J. S. Sedinger, and D. Gibson. 2013. Prefledging diet is correlated with individual growth in greater sage-grouse (*Centrocercus urophasianus*). *Auk* 130:715-724.
- Blomberg, E. J.**, D. Gibson, J. S. Sedinger, M. L. Casazza, and P. S. Coates. 2013. Intra-seasonal variation in survival and cause-specific mortality of greater sage-grouse. *Wildlife Biology* 19:347-357.
- Gibson, D., **E. J. Blomberg**, G.L. Patricelli, A. H. Krakauer, M. T. Atamian, and J. S. Sedinger. 2013. The effects of radio-collars on male sage-grouse survival and lekking behavior. *Condor* 115:769-776.
- Coates, P. S., M. L. Casazza, **E. J. Blomberg**, S. Gardner, S. Espinosa, M. Farinha, L. Wiechman, and B. Halstead. 2013. Evaluating space use of greater sage-grouse to identify area thresholds for surface use designation in sagebrush ecosystems. *Journal of Wildlife Management* 78:1598-1609.
- Blomberg, E. J.**, J. S. Sedinger, D. V. Nonne, and M.T. Atamian. 2013. Annual male lek attendance influences count-based population indices of greater sage-grouse. *Journal of Wildlife Management* 78:1583-1592.
- Blomberg, E. J.**, J. S. Sedinger, D. V. Nonne., and M.T. Atamian. 2013. Seasonal reproductive costs contribute to reduced survival of female greater sage-grouse. *Journal of Avian Biology* 44:149-158.
- 2012 **Blomberg, E.J.**, B.C. Tefft, J.M. Reed, and S.R. McWilliams. 2012. Evaluating spatially explicit viability of a declining ruffed grouse population. *Journal of Wildlife Management* 76:503-513.
- Blomberg, Erik J.**, James S. Sedinger, Michael T. Atamian, and Daniel V. Nonne. 2012. Characteristics of climate and landscape disturbance influence the dynamics of greater sage-grouse populations. *Ecosphere* 3:art55 . <http://dx.doi.org/10.1890/ES11-00304.1>

- Sedinger, J. S., **E. J. Blomberg**, A. W. VanDellen, and S. X. Byers. 2012. Environmental and population strain effects on survival of Lahontan cutthroat trout in Walker Lake, Nevada: a Bayesian approach. *Transactions of the American Fisheries Society*. 32:512:522
- 2011 Sedinger, B. S., J. S. Sedinger, S. Espinosa, M. T. Atamian, and **E. J. Blomberg**. 2011. Environmentally associated large scale variation in greater sage-grouse survival in Nevada. *Studies in Avian Biology* No 39.
- 2010 Atamian, M. T., J. S. Sedinger, J. S. Heaton, and **E. J. Blomberg**. 2010. Landscape Level Assessment of Brood Rearing Habitat for Greater Sage-grouse in East-Central Nevada. *Journal of Wildlife Management* 74:1533-1543.
- 2009 **Blomberg, E. J.**, B. C. Tefft, E. G. Endrulat, and S. R. McWilliams. 2009. Predicting landscape-scale habitat distribution for ruffed grouse using presence-only data. *Wildlife Biology* 15:380-394.

#### MANUSCRIPTS IN REVIEW AND REVISION

- 2018 Hoffman, K., M. Hunter, Jr., A.J.K. Calhoun, J. Bogart, and **E. J. Blomberg**. *In revision*. Breeding habitat occupancy by cryptic pool-breeding salamanders. *Journal of Herpetology*.
- Allen, B. B., D. G. McAuley, and **E. J. Blomberg**. *In revision*. Multi-scale resource selection by American woodcock (*Scolopax minor*) during fall migration at Cape May, New Jersey. *The Condor: Ornithological Applications*.
- Gilbert, C., and E.J. Blomberg. *In review*. Changing occupancy of spruce grouse on Mount Desert Island, Maine, over a 25-year period. *Northeastern Naturalist*.
- Mangelinckx, J., S. Davis, R. B. Allen, S. Sullivan, and **E. J. Blomberg**. *In review*. Effects of habitat characteristics on multiple aspects of ruffed grouse nesting ecology in Maine, USA. *Forest Ecology and Management*.
- McKnight, A. **E.J. Blomberg**, D.B. Irons, C.S. Loftin, S.T. McKinney. *In revision*. Survival and recruitment dynamics of black-legged kittiwakes (*Rissa tridactyla*) at an Alaskan colony. *Marine Ornithology*.

#### THESES

- 2012 **Blomberg, Erik J.** 2012. Population ecology of sage-grouse in the Great Basin: predictable patterns in a variable environment. Dissertation. The University of Nevada, Reno. Reno, NV, USA.

- 2007 **Blomberg, Erik J.** 2007. Ruffed grouse population viability and habitat distribution in Rhode Island: implications for management of a declining population. Thesis. The University of Rhode Island, Kingston, Rhode Island, USA.

#### **STUDENT THESES (ADVISED OR CO-ADVISED)**

- 2018 Gilbert, C. 2018. Twenty-five years of change in spruce grouse occupancy at their southern range margin in Maine, USA. Honors Thesis, University of Maine.

- 2017 Davis, S. 2017. Survival, harvest, and drumming ecology of ruffed grouse in central Maine, USA. M.S. Thesis, University of Maine.

Mangelinckx, J. 2017. Nesting ecology and summertime resource selection of ruffed grouse in central Maine, USA. M. S. Thesis, University of Maine

Allen, B. 2017. American woodcock migration ecology at an important stopover, Cape May, New Jersey. M. S. Thesis, University of Maine

Marshal, H. A. 2017. Perception of the horizon predicts bird abundance better than habitat patch size in a tidal marsh species of conservation concern. Honors Thesis, University of Maine.

Keefner, N. B. 2017. Do insulating characteristics of feathers vary among color phases in ruffed grouse (*Bonasa umbellus*). Honors Thesis, University of Maine.

#### **OTHER PUBLICATIONS AND REPORTS**

- 2018 **Blomberg, E.J.**, and D.L. Levesque. *In Press*. From mice to moose and everything between – Mammals of the Orono Bog. Chapter in upcoming Essay Compilation Volume about the Orono Bog Boardwalk.

**Blomberg, E.J.**, and A. Ross. 2018. Research and management of spruce grouse along a southern range margin. *The Wildlife Professional*.

Fish, A., **E. Blomberg**, and A. Roth. 2018. American woodcock (*Scolopax minor*) migration ecology in the eastern management unit. Year 1 Progress Report. 24 pgs.

Davis, S., J. Mangelinckx, and **E. Blomberg**. 2018. Understanding population ecology of ruffed grouse inhabiting multiple use forest landscapes to inform habitat and harvest management. Final Project Report. 68 pgs.

- 2017 Mangelinckx, J., **Blomberg, E. J.**, and M. E. Martin. 2017. Monitoring population dynamics of Maine ruffed grouse using spring drumming surveys. Year 4 Progress Report. 25 pgs.

- 2016 **Blomberg, E. J.** 2016. Grouse research in North America: revisiting the forgotten forest grouse. Grouse News No 51.
- Davis, S., J. Mangelinckx, and **E. Blomberg**. 2016. Understanding population ecology of ruffed grouse inhabiting multiple use forest landscapes to inform habitat and harvest management. Year 2 Progress Report. 56 pgs.
- Blomberg, E.J.** 2016. Grouse research in North America; the case of the forgotten forest grouse. Grouse News No. 51.
- 2015 Mangelinckx, J., S. Davis, and **E. Blomberg**. 2015. Understanding population ecology of ruffed grouse inhabiting multiple use forest landscapes to inform habitat and harvest management. Year 1 Progress Report. 38 pgs.
- Blomberg, E. J.**, and M. E. Martin. 2015. Monitoring population dynamics of Maine ruffed grouse using spring drumming surveys. Year 2 Progress Report. 25 pgs.
- 2014 Martin, M. E., and **E. J. Blomberg**. 2014. A first year assessment of ruffed grouse drumming survey protocols in Maine. Year 1 Progress Report. 14 pgs.
- 2013 Nonne, D. V., **E. J. Blomberg**, and J. S. Sedinger. 2013. Dynamics of Greater Sage-grouse populations in response to transmission lines: final project report. University of Nevada, Reno.
- 2012 **Blomberg, E.J.** 2012. Greater Sage-grouse population dynamics. Bulletin of the Ecological Society of America, October 2012 Issue.
- Coates, P.S., J. E. Dudko, **E. J. Blomberg**, D. J. Delehanty, and M. J. Casazza. 2012. Data summary of a Columbian Sharp-tailed grouse habitat suitability examination between Idaho and Nevada. Western Ecological Research Center Data Summary Report.
- 2011 Nonne, D. V., **E. J. Blomberg**, and J. S. Sedinger. 2011. Dynamics of Greater Sage-grouse populations in response to transmission lines: year 9 progress report. University of Nevada, Reno.
- 2010 **Blomberg, E. J.**, D. V. Nonne, and J. S. Sedinger. 2010. Dynamics of Greater Sage-grouse populations in response to transmission lines: year 8 progress report. University of Nevada, Reno.
- 2009 **Blomberg, E. J.** and J. S. Sedinger. 2009. Dynamics of Greater Sage-grouse populations in response to transmission lines: year 7 progress report. University of Nevada, Reno.

2008 **Blomberg, E. J.** and J. S. Sedinger. 2008. Dynamics of Greater Sage-grouse populations in response to transmission lines: year 6 progress report. University of Nevada, Reno.

**EXTERNAL GRANTS AND CONTRACTS (Total awarded = \$1,179,108)**

2018 Evaluation of American eel phenology and survival in the Penobscot River. The Nature Conservancy, Co-PI (30% Resp) with Joe Zydlewski (50% Resp) and Daniel Weaver (20% Resp). \$189,591

Population estimation, harvest management, and large-scale spatial ecology of wild turkeys in Maine. National Wild Turkey Federation. Requested: \$104,498; Awarded: \$60,000 (direct purchase of GPS transmitters)

Conserving WNS Affected Bat Populations in Acadia National Park: The Case for Continued Studies, Monitoring, Information Sharing, and Proactive Mitigation. National Park Service. \$14,912

2017 Population estimation, harvest management, and landscape-scale spatial ecology of wild turkeys in Maine. Maine Department of Inland Fisheries and Wildlife. \$186,480

Woodcock migration ecology across the eastern region. US Fish and Wildlife Service. \$14,406

Evaluating N-Mixture analysis for local trends of greater sage-grouse populations. Pheasants Forever, sub-award through Oregon State University. \$8,644.

Use of forested habitat adjacent to highways by northern long-eared bats. New England Transportation Consortium, sub-award through the University of New Hampshire. \$21,132.

2015 BatME: Monitoring bat distributions in Maine using outreach-based citizen science. Maine Outdoor Heritage Fund. \$14,499.

Bat ecology in commercial forests in Maine. Cooperative Forestry Research Unit. Co-PI with Shawn Fraver. \$23,455.

2014 Evaluation of American eel phenology and survival in the Penobscot River. The Nature Conservancy. Co-PI with Joe Zydlewski. \$199,412.

Environmental influences on stopover timing and habitat use of American woodcock. US Fish and Wildlife Service. \$57,989.

Population dynamics of spruce grouse in the managed forest landscapes of northern Maine. Cooperative Forestry Research Unit. Co-PI with Dan Harrison. \$89,236



Demography and population status of spruce grouse in northern Maine forests. Maine Outdoor Heritage Fund. Co-PI with Dan Harrison. \$17,835

Understanding population dynamics of ruffed grouse inhabiting multiple use forest landscapes to inform habitat and harvest management. Maine Department of Inland Fisheries and Wildlife. \$281,517.

## **TEACHING**

*University of Maine:*

**Co-instructor:** WLE 250 – Wildlife Field Experience. May 2015, 2016, 2017, 2018

**Instructor:** WLE 411 – Wildlife Population Dynamics Lab. Fall 2014, 2015, 2016, 2017, 2018.

**Instructor:** WLE 410 – Wildlife Population Dynamics and Conservation. Spring 2014, Fall 2014, 2015, 2016, 2017, 2018.

**Instructor:** WLE 435 – Ecology and Management of Game Birds. Spring 2016, 2018.

**Instructor:** WLE 650 – Special Topics: Demographic Estimation. Spring 2014, 2015, 2018

**Instructor:** WLE 650 – Special Topics: Readings in Applied Population Ecology. Spring 2016.

*University of Nevada, Reno:*

**Instructor:** NRES 485 – Consumptive Use of Wildlife Populations. Fall 2011.

**Teaching assistant:** NRES 488/688 – Wildlife Population Dynamics. Fall 2010

## **INVITED COURSE LECTURES**

2016 Introduction to management and ecology principles related to North American Grouse. WLE 100, University of Maine, Department of Wildlife Ecology.

2015 Introduction to management and ecology principles related to North American Grouse. WLE 100, University of Maine, Department of Wildlife Ecology.

Winter ecology of ruffed grouse in northern ecosystems. WLE 435: Winter Ecology, University of Maine, Department of Wildlife Ecology.

- 2014 Introduction to management and ecology principles related to North American Grouse. WLE 100, University of Maine, Department of Wildlife Ecology.
- 2013 Introduction to management and ecology principles related to North American Grouse. WLE 100, University of Maine, Department of Wildlife Ecology.
- Ecology of Greater-Sage Grouse in the western U.S. WLE 200, University of Maine, Department of Wildlife Ecology
- 2012 Closed Capture Models. NRES 310 – Wildlife Ecology and Management (University of Nevada, Reno)
- 2011 Integrating ecological research with wildlife management: an example using greater sage-grouse. NRES 100 – Principles of Natural Resources and Environmental Science (University of Nevada, Reno)
- Wildlife capture-mark-recapture techniques. NRES 100 - Principles of Natural Resources and Environmental Science (University of Nevada, Reno)
- 2007 Population Viability Analysis. NRS 223 – Conservation Biology (University of Rhode Island).

## **STUDENT ADVISING**

### *Graduate Students as Major Advisor (Current):*

Alexander Fish (PhD) WFCB. Co-advised with A. Roth  
 Joel Tebbenkamp (PhD) WFCB. Co-advised with D. Harrison  
 Matthew Gonnerman (PhD) WFCB.  
 Matthew Mensinger (M.S.) WFCB.

### *Graduate Students as Major Advisor (Former):*

Samantha Davis (M.S.) WFCB – *Graduated August 2017*  
 Joelle (Ellie) Mangelinckx (M.S.) WFCB - *Graduated August 2017*  
 Brian Allen (M.S.) WFCB - *Graduated August 2017*  
 Emily Thornton (PhD) WFCB. Co-advised with J. Zydlewski; Left Program  
 Berlynn Heres (PhD) WFCB. Co-advised with J. Zydlewski; Left Program

### *Graduate Committee as Committee Member (UMaine - Current):*

George Maynard (PhD) WFCB  
Trevor Peterson (PhD) SBE/EES  
Allison Brehm (M.S.) WFCB  
Anna Buckardt (M.S.) WFCB  
Kevin Job (M.S.) WFCB  
Catlin Ames (PhD) SMS  
Stephanie Shea (PhD) SFA  
Carrie Gray (PhD) SBE/EES  
Alejandro Molina-Moctezuma (PhD) WFCB  
Kaitlyn Wilson (M.S.) WFCB  
Edwin (Elliot) Johnston (M.S.) SBE/EES

*Graduate Committee as Committee Member (UMaine - Former):*

Allison McKnight (PhD) WFCB/EES  
John Clare (PhD) WFCB  
Abdulai Barrie (M.S.) WFCB  
Stephen Dunham (M.S.) WFCB  
Adrienne Leopold (PhD) EES  
Ryo Ogowa (M.W.C.) WFCB  
Betsy Barber (PhD) WFCB

*Graduate Committee as Committee Member (External):*

Steven Mathews (PhD) Idaho State University  
Katherine Gillman (PhD) University of New Hampshire

*Undergraduate Honors Thesis as Adviser:*

Nicole Keefner – WFCB/SBE  
Hallie Marshall - WFCB (co-advised with B. Olsen)  
Chris Gilbert – WFCB  
Lauren Dolinski - WFCB`  
Kaj Overturf – WFCB/SEB  
Kyle Lima - WFCB

*Undergraduate Honors Thesis as Committee Member:*

Anthony Pawlicki - WFCB  
Emily Anderson - EES  
N. Scott. Parkhill – WFCB  
Darlene Turcotte – SBE

Jill Tengeres – WFCB  
Marie Ring - SBE

*Independent Study:*

Marie Martin (B.S.) – WFCB, Fall 2014.  
Michael Thompson (PhD) – SFR, Fall 2015.  
Kyle Shute - WFCB, Fall 2016.

*Undergraduate Academic Advising:*

2014: 16 students  
2015: 31 students  
2016: 24 students  
2017: 17 students  
2018: 22 students

**AWARDS AND SCHOLARSHIPS**

2012 **Outstanding PhD Student** – Department of Natural Resources and Environmental Sciences, University of Nevada, Reno.

2011 **Donald H. Rusch Memorial Gamebird Research Award** – Awarded annually by The Wildlife Society to graduate students studying aspects of upland gamebird and waterfowl ecology. Received November 2011 at the Wildlife Society Annual Conference. Awarded a \$2000 honorarium.

CABNR Graduate Student Scholarship - Awarded September 2011.

2006 New England Outdoor Writers Assoc. Annual Scholarship – Awarded February 2006

National Rural Water Assoc. Annual Scholarship – received annually from 2001 – 2006

Wisconsin Rural Water Assoc. Annual Scholarship - received annually from 2001 – 2006

2005 UWSP College of Natural Resources Scholarship Program – various awards 2003 - 2005

**Highest Honors for a poster presentation** - Comparison of nest box selection of two cavity nesting duck species in central Wisconsin. UWSP College of Natural Resources Undergraduate Symposium – Received April 2005

**INVITED PRESENTATIONS**

2018 Where have we been and where are we going? Grouse population ecology past, present, and future. International Grouse Symposium, Logan, UT, September 2018.

Ecology of tri-colored bats and their current status as a species petitioned for ESA listing. Wagner Forests Spring Training Workshop. The Forks, Maine, May 2018.

2017 Two birds, one stone; bringing basic perspectives to applied research on eastern gamebirds. University of New Hampshire Environmental Sciences Seminar Series. 3 November 2017

American woodcock migration ecology in the Eastern Region: a large-scale collaborative effort. 11<sup>th</sup> American Woodcock Symposium. Roscommon, Michigan. October 2017

A full annual perspective on ruffed grouse survival in Maine. Northeastern Upland Gamebird Technical Committee Meeting. Winter Harbor, ME, September 2017.

American woodcock migration ecology in the Eastern Region: a collaborative approach. Northeastern Upland Gamebird Technical Committee Meeting. Winter Harbor, ME, September 2017.

American woodcock migration ecology in the Eastern Region: a collaborative approach. Atlantic Flyway Council Fall Meeting. Annapolis, MD, August 2017.

Ruffed grouse population ecology in Maine forest. Maine Woodlot Owners Association Annual Meeting. 11 January 2017.

2016 Update on current state and federal regulatory decisions related to northern long-eared bats (*Myotis septentrionalis*). Cooperative Forestry Research Unit Winter Meeting. 20 January 2016.

2015 Landscapes, life histories, and populations: the challenge of conserving greater sage-grouse in a changing climate. University of New Hampshire, Department of Biology. 13 February 2015.

The importance of snow conditions to the ecology of ruffed grouse in northern climates. Presentation to the Acadia Learning Snowpack Project. 3 February 2015

Update on current state and federal regulatory decisions related to northern long-eared bats (*Myotis septentrionalis*). Cooperative Forestry Research Unit. 21 January 2015

- 2014 Landscapes, life histories, and populations: the challenge of conserving greater sage-grouse in a changing climate. University of Maine School of Biology and Ecology Seminar series, 26 September 2014.
- 2013 Predictable patterns in variable environments: population dynamics, life histories, and conservation of North American grouse. University of Maine, May 30 2013.
- A tale of two grouse: resource availability affects habitat relationships, population dynamics, and conservation. SUNY College of Environmental Science and Forestry. April 2 2013.
- Mapping greater sage-grouse habitats in Nevada. Presentation to Nevada Governor's Sagebrush Ecosystem Council. Carson City, NV, 21 February 2013.
- Greater sage-grouse research in the Bi-State Region. Douglas County Wildlife Advisory Board. Minden, NV, 25 January 2013.
- 2012 The role of predation in greater sage-grouse population ecology. Bi-State Greater Sage-grouse Local Working Group. Smith Valley, NV, 17 August 2012
- 2011 Ecology of greater sage-grouse. Great Basin Institute/Bureau of Land Management field personnel training session. Reno, NV, 19 January 2011.
- 2009 Falcon-Gondor Transmission Line Study: Seven years of sage-grouse data from Eureka Co. Nevada Department of Wildlife, Biologist Summer Training Session. Ely, NV, July 30, 2009.
- 2007 Habitat identification, population viability analysis, and forest management for ruffed grouse in Rhode Island. Northeast Upland Gamebird Technical Committee. West Greenwich, RI. September 19, 2007.

#### **CONFERENCE PRESENTATIONS (as presenter/lead author)**

- 2018 Blomberg, E.J., \*A. Fish, and A. Roth. American woodcock migration ecology in the Eastern Region: a large-scale collaborative effort. Eastern Bird Banding Association Annual Conference. Winter Harbor, ME, June 2018.
- 2016 Blomberg, E.J. Integrating new technologies in forest grouse research and management. The Wildlife Society Annual Conference, Raleigh, NC. October 2016.
- Spatial and Temporal Trends in Density and Site-Occupancy of Ruffed Grouse in Maine. The Wildlife Society Annual Conference, Raleigh, NC. October 2016. Poster

Occupancy Analysis and its Application to Bat Population Monitoring. Paper. International Bat Research Symposium, Winter Harbor, ME, April 2016

Monitoring bat populations in Maine: new strategies for citizen science data collection. Paper. Northeast Bat Working Group Symposium. Baltimore, MD, January 2016.

2015 Population ecology of greater sage-grouse following transmission line construction: results of a 10-year study in Nevada, USA. 13<sup>th</sup> International Grouse Symposium. Reykjavik, Iceland, September 2015.

2014 The role of climatic processes in governing the population dynamics of greater sage-grouse in the Great Basin. 29<sup>th</sup> Western Agencies Sage and Columbian Sharp-tailed Grouse Workshop. Elko, NV, June 2014.

2013 Climatic processes influence the dynamics of a candidate species: greater sage-grouse in the Great Basin. The Wildlife Society Annual Conference. Milwaukee, WI, October 2013.

Reconstructing time-specific diet composition in greater sage-grouse chicks using feather stable isotopes. The Wildlife Society Western Section Conference. Sacramento, CA, January 2013.

Climatic processes influence the dynamics of a candidate species: greater sage-grouse in the Great Basin. The Wildlife Society Western Section Conference. Sacramento, CA, January 2013.

2012 Reconstructing time-specific diet composition in greater sage-grouse chicks using feather stable isotopes. The Wildlife Society Annual Conference. Portland, OR, October 2012

Reconstructing time-specific diet composition in greater sage-grouse chicks using feather stable isotopes. 28<sup>th</sup> Western Agencies Sage and Columbian Sharp-tailed Grouse Workshop. Steamboat Springs, CO, June 2012.

Temporal variation in male breeding propensity influences lek count indices of population growth in greater sage-grouse. The Western Section of the Wildlife Society Annual Conference. Sacramento, CA, February 2012.

Demographic responses of greater sage-grouse to climatic variation in the Great Basin. Nevada Chapter of the Wildlife Society Annual Conference. Reno, NV, January 2012.

2011 Demographic consequences of environmental stochasticity and large-scale habitat disturbance to greater sage-grouse. The Wildlife Society Annual Conference. Kona, HI, November 2011.

Reconstructing time-specific diets of greater sage-grouse chicks using feather stable isotopes. Poster. The Wildlife Society Annual Conference. Kona, HI, November 2011.

- Habitat and predation effects on fall survival of greater sage-grouse in eastern NV. The Wildlife Society, Nevada Chapter Symposium 2011. Reno, NV, January 2011.
- 2010 Spatial, temporal and individual variation in survival of female greater sage-grouse.\* The Wildlife Society, 17<sup>th</sup> Annual National Conference. Snowbird UT, October 2010.
- Estimating breeding propensity of male greater sage-grouse using Pollock's robust design. 27<sup>th</sup> Western Agencies Sage and Columbian Sharp-tailed Grouse Workshop. Twin Falls, ID, June 2010.
- Spatial, temporal and individual variation in survival of female greater sage-grouse. 27<sup>th</sup> Western Agencies Sage and Columbian Sharp-tailed Grouse Workshop. Twin Falls, ID, June 2010.
- Demographic response of greater sage-grouse to transmission line construction in eastern NV, USA. The Society for Range Management, Annual Conference. Denver, CO, February 2010.
- 2009 Using capture-mark-recapture to validate population trends estimated from lek counts of greater sage-grouse. The Wildlife Society, 16<sup>th</sup> Annual National Conference. Monterrey, CA, September 2009.
- 2008 Nest success of greater sage-grouse following transmission line construction in northern Nevada, USA. 11<sup>th</sup> International Grouse Symposium. Whitehorse, Yukon, Canada, September 2008.
- Greater sage-grouse nest success following transmission line construction in Northern Nevada. 26<sup>th</sup> Western Agencies Sage and Columbian Sharp-tailed Grouse Workshop. Mammoth Lakes, CA, June 2008.
- 2007 A GIS-based model of ruffed grouse habitat distribution in Rhode Island. Poster. The Wildlife Society, 14<sup>th</sup> Annual National Conference. Tucson, AZ, September 26, 2007.
- 2005 Comparison of nest box selection of two cavity nesting duck species in central Wisconsin. Poster. UWSP College of Natural Resources Undergraduate Research Symposium. Stevens Point, WI. April 2005.

## **PROFESSIONAL SERVICE ACTIVITIES**

*Manuscript Review:*



I have served as a reviewer for **26 manuscripts** since October 2013, for the following journals (>1 review indicated parenthetically): Journal of Wildlife Management (3), Journal of Applied Ecology, Biological Conservation (2), Canadian Journal of Zoology, AIMS Environmental Science, Journal of Field Ornithology, Canadian Field Naturalist, Ecosphere (2), Biodiversity and Conservation, Wildlife Biology, PlosONE (2), Condor (2), Wilson Journal of Ornithology, Journal of Fish and Wildlife Management, Rangeland Ecology and Management, Canadian Journal of Fisheries and Aquatic Sciences, Biodiversity and Conservation, Maine Policy Review, Journal of Animal Ecology, Northeastern Naturalist.

*Editorial Activities:*

I am an associated editor for Avian Conservation and Ecology

I am serving on the editorial board for the forthcoming Proceedings of the 11<sup>th</sup> American Woodcock Symposium.

*Other Professional Service:*

- 2017 **Orono Bog Boardwalk Management Committee** - University of Maine Representative since 2014.
- 2016 **Organizing Committee** - International Bat Research Symposium, Winter Harbor, Maine, April 2016..
- 2014 **Conference Program Committee**. The Wildlife Society Annual Conference. Chair of panel Discussions and Round Tables sub-committee.
- 2013 **External Agency Representative** – Nevada Department of Wildlife Evaluation Committee for Helicopter Services. February 2013 to present.
- Session Chair** – Upland habitats, gamebirds and wildlife. The Wildlife Society Western Section 2013 Conference. Sacramento, CA, January 2013.
- 2012 **Technical Advisory Team** – provide technical assistance to the Executive Oversight Committee for Bi-State Greater Sage-grouse. October 2012 to present
- Greater Sage-grouse Rolling Review Team** - Northern Great Basin Rapid Ecological Assessment. September 2012 to present.
- Session Chair** – Ecology and Management of Upland Birds. The Wildlife Society Western Section 2012 Conference. Sacramento, CA, 3-5 February 2012.

**Colloquium Committee** – Ecology, Evolution and Conservation Biology Program.  
University of Nevada, Reno. Fall 2009 to Spring 2012

2007 **Graduate Student Representative** – Natural Resource Sciences Department. University of Rhode Island. January to December 2007.

2005 **Board of Directors** – UWSP Student Chapter of the Wildlife Society. 2004-2005 Academic Year.

**Waterfowl Project Leader** - UWSP Student Chapter of the Wildlife Society. 2003-2005 Academic Years.

## **OUTREACH AND PRESS**

2018 Our paper on ruffed grouse survival and harvest, which was published in the Journal of Wildlife Management, was highlighted and I was interviewed for an article in the Bangor Daily News. July 2018.

A UMaine News Release and a Bangor Daily News Article on our ruffed grouse research was picked up and posted by phys.org, the Associated Press, US News and World Review, and WRAL.com.

Have led evening ‘bat walks’ for groups of 4-8 participants using handheld acoustic detectors in the Bangor City Forest and Orono Bog Boardwalk, 1 or 2 presentations each during summers of 2016, 2017, and 2018.

Presented a talk titled "Maine's upland game birds; new insights from research at the University of Maine" at the 80<sup>th</sup> Annual Eastern Maine Sportsman’s Show, March 2018.

Presented an update on our ongoing American woodcock research at the Central Maine Chapter of the Ruffed Grouse Society Annual Banquet in Brewer, Maine, November 2017.

2017 Presented a talk titled “Ruffed grouse population ecology in Maine’s forests” to the Penobscot County Chapter of the Maine Woodlot Owners Association, Old Town, ME, March 2017.

Presented a talk titled “Ruffed grouse population ecology in Maine’s forests” at the Maine Woodlot Owners annual meeting, Augusta, ME, January 2017.

2016 Presented a talk on bat ecology and acoustic monitoring to the Penobscot Chapter of Maine Audubon. July 2016.

I was interviewed and our bat citizen science project was featured in an article in the Bangor Daily News. March 2016.

Presented a talk entitled “Wildlife, winter, and the ecology of ruffed grouse” and gave a radio-telemetry demonstration to a group of approximately 40 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> grade students at Appleton Elementary School, Appleton, ME. January 2016.

I delivered an invited talk in the Merryspring Nature Center Weekly Lecture Series titled “Ruffed Grouse Ecology, Conservation, and Research in Maine”. Merryspring Nature Center, Camden, Maine. January 2016.

2015 Bangor Daily News - Interview to discuss ongoing bat citizen science research. Published 19 November 2015 (<http://bangordailynews.com/2015/11/19/outdoors/maine-public-monitors-bats-with-mobile-devices/>)

Friends of Dr. Edith Marion Patch Seminar Series – Delivered an invited lecture entitled “Monitoring bat populations in Maine: New strategies for citizen-science data monitoring”. October 2015.

University of Maine News Release – interview with UMaine News reporter to discuss ongoing bat citizen science research. Published 5 November 2015 (<https://umaine.edu/news/blog/2015/11/05/blomberg-seeks-to-increase-awareness-monitoring-of-declining-bat-populations-in-maine/>). Also picked up by Phys.org and the Maine Edge.

Ruffed grouse research in Maine; an update. Presentation given at the Bangor Chapter of the Ruffed Grouse Society Annual Banquet. November 2015

Monitoring bat populations in Maine: new strategies for citizen-science data collection. Invited presentation to the Friends of Dr. Edith Marion Patch and Orono Bog Boardwalk.

Wabanaki Youth in Science (WaYS). Presentation and workshop with student group on bat ecology and acoustic data collection.

Upland game birds of the American west: hunting, biology and conservation. Presentation given at the Penobscot County Conservation Club annual Sports Show.

Measuring and modelling snow crust conditions with relevance to wildlife survival – Collaborative project with Old Town High School 9<sup>th</sup> Grade Earth Science Students.

2014 Invited presentation at Falmouth Rod and Gun Club, Falmouth ME. Ruffed grouse ecology, conservation, and research in Maine. November 2014.

Maine Public Broadcast Network – Interview to discuss ongoing ruffed grouse research 11 September 2014 (<http://news.mpbnet.net/post/maine-grouse-study-underway>).

Bangor Daily News - Interview to discuss ongoing ruffed grouse research. 10 September 2014 (<http://bangordailynews.com/video/maine-ruffed-grouse-get-their-chance-for-scientific-study/>)

The Maine Outdoors Radio Show – Invited on-air guest to discuss research on ruffed grouse 3 August 2014.

## **PROFESSIONAL MEMBERSHIPS**

American Ornithological Society 2016 – present

The Wildlife Society 2006 – present

TWS Western Section – 2011 to 2013

TWS Nevada Chapter – 2010 to 2013

TWS Northeast Section – 2015 to present

TWS Maine Chapter – 2015 to present

American Ornithological Society 2017 to present

UNR Student Chapter of The Wildlife Society - 2008 - 2012

URI Student Chapter of The Wildlife Society - 2006 - 2007

UWSP Student Chapter of The Wildlife Society - 2002 - 2005

## **PRE-GRADUATE FIELD EMPLOYMENT:**

2005 Greater Sage-grouse Field Assistant Summer  
2005 University of Montana, Missoula -Wildlife Biology Program.  
Supervisor – Dr. Brett Walker

2004 American Woodcock Research Technician Fall 2002, 2003,  
2004 University of Wisconsin - Department of Wildlife Ecology  
Supervisor – Dr. Jed Munier

Endangered Species Crew Leader (2004)/Technician Summer 2002, 2003,  
2004 Fort McCoy Military Reservation, Monroe County, WI  
Supervisor – Tim Wilder