

David A.W. Miller

Assistant Professor of Wildlife Population Ecology
Department of Ecosystem Science and Management
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Education

- 2009** Ph.D , Iowa State University.
2004 M.S. , Auburn University.
2000 B.S. , University of Wisconsin – Stevens Point.

Professional Experience

- 2013-present** Assistant Professor. Department of Ecosystem Sciences and Management. Pennsylvania State University.
2009-2012 Post-Doctoral Research Associate. USGS – Amphibian Research and Monitoring Initiative – Patuxent Wildlife Research Center.
2004-2009 Graduate Research Assistant. Department of Natural Resource Ecology and Management, Iowa State University.
2001-2004 Graduate Research Assistant. Department of Forestry and Wildlife Science, Auburn University.
1998-2004 Wildlife Biologist. Alaska Science Center, USGS-Biological Resources Division, Anchorage, Alaska.

Publications

22. Miller, D.A.W., L. Rich., K. Podruzny, J. Gude, J.D. Nichols, J.E. Hines, and M.S. Mitchell. 2013. Range dynamics of gray wolves in Montana: accounting for false positive errors in multiseason occupancy models. *PLoS One* 8:E65808.
21. Adams, M.J., D.A.W. Miller, et al. 2013. Trends in amphibian occupancy in the United States. *PLoS One* 8:e64347.
20. Fellers, G.M., P.M. Kleeman, D.A.W. Miller, and B.J. Halstead. 2013. Population size, survival, growth, and movements of the Sierra Nevada yellow-legged frog, *Rana sierrae*. *Herpetologica* 69:147-162.

19. Miller, D.A.W., C.S. Brehme, J.E. Hines, J.D. Nichols, and R.N. Fisher. 2012. Community ecology of southwest arroyo toads: joint dynamics of toads, predators, and habitat. *Journal of Animal Ecology* 81:1288-1297.
18. Miller, D.A.W., B.L. Talley, E.H. Campbell Grant, and K.R. Lips. 2012. Accounting for detection in wildlife epidemiological studies: estimating Bd prevalence and infection intensity in amphibians. *Methods in Ecology and Evolution* 3:850-859.
17. Miller, D.A.W., L.A. Weir, B.T. McClintock, E.H. Campbell Grant, L.L. Bailey, and T.R. Simons. 2012. Experimental investigation of false positive errors in auditory species occurrence surveys. *Ecological Applications* 22:1675-1688.
16. Miller, D.A.W. 2012. General methods for sensitivity analysis of equilibrium dynamics in patch occupancy models. *Ecology* 93:1204-1213.
15. Miller, D.A., W.R. Clark, S.J. Arnold, and A.M. Bronikowski. 2011. Stochastic population dynamics in populations of western terrestrial garter snake with divergent life-histories. *Ecology* 92:1658-1671.
14. Miller, D.A., J.D. Nichols, B.T. McClintock, E.H. Campbell Grant, L.L. Bailey, and L.A. Weir. 2011. Improving estimates of occupancy when two forms of observation error occur: non-detection and species misidentification. *Ecology* 92:1422-1428.
13. Miller, D.A. 2011. Immediate and delayed effects of poor developmental conditions on growth and flight ability of juvenile mourning doves. *Journal of Avian Biology* 42:151-158.
12. Miller, D.A., and D.L. Otis. 2010. Calibrating recruitment estimates of mourning doves from harvest age ratios. *Journal of Wildlife Management* 74:1070-1079.
11. Miller, D.A. 2010. Morphological plasticity reduces the effect of poor developmental conditions on fledging age in mourning doves. *Proceedings of the Royal Society B* 277:1659-1665.
10. Miller, D.A., C.M. Vleck, and D.L. Otis. 2009. Individual variation in baseline and stress-induced corticosterone and prolactin predicts reproductive investment by nesting mourning doves. *Hormones and Behavior* 56:457-464.
9. Fondell, T.F., J.B. Grand, D.A. Miller, and R.M. Anthony. 2008. Predators of Dusky Canada Goose goslings and the effect of transmitters on gosling survival. *Journal of Field Ornithology* 79:399-407.
8. Fondell, T.F., D.A. Miller, J.B. Grand, and R.M. Anthony. 2008. Survival of dusky Canada goose goslings in relation to weather and annual nest success. *Journal of Wildlife Management* 72:1614-1621.
7. Otis, D.L., J.H. Schulz, D.A. Miller, R.E. Mirarchi, and T. S. Baskett. 2008. Mourning Dove (*Zenaidura macroura*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology.
6. Miller, D.A., J.B. Grand, T.F. Fondell, and R.M. Anthony. 2007. Optimizing nest survival and female survival: consequences of nest site selection for Canada geese. *Condor* 109:769-780.
5. Anthony, R.M., J.B. Grand, T.F. Fondell, and D.A. Miller. 2006. Techniques for identifying predators of goose nests. *Wildlife Biology* 12:249-256.

4. Fondell, T.F., J.B. Grand, D.A. Miller, and R.M. Anthony. 2006. Renesting by dusky Canada geese on the Copper River Delta. *Journal of Wildlife Management* 70:955-964.
3. Grand, J.B., T.F. Fondell, D.A. Miller, and R.M. Anthony. 2006. Nest survival of dusky Canada geese (*Branta canadensis occidentalis*): use of discrete time models. *Auk* 123:198-210.
2. Miller, D.A., J.B. Grand, T.F. Fondell, and R.M. Anthony. 2006. Predator functional response and prey survival: direct and indirect interactions affecting a marked prey population. *Journal of Animal Ecology* 75:101-110.
1. Hupp, J.W., J.M. Pearce, D.M. Mulcahy, and D.A. Miller. 2006. Effects of abdominally implanted transmitters with percutaneous antennas on migration, reproduction, and survival of Canada geese. *Journal of Wildlife Management* 70:812-822.

Workshops and Working Groups

- 2013** Ecological Society of America Early Career Scientists Workshop – *Scaling-up: Population and Community Ecology*. (participant)
- 2013-2015** Powell Center Working Group – *Elucidating mechanisms underlying amphibian declines in North America using hierarchical spatial models*. (co-leader)
- 2014** National Research Council of the National Academies workshop – *Advances in Biondemography: Cross-species comparisons of social environments and social behaviors, and their effects on health and longevity*. (invited contributor)

Grants

- 2013-2015** USGS Powell Center Working Group. Elucidating mechanisms underlying amphibian declines in North America using hierarchical spatial models. \$148,098 (co-PI)
- 2013-2017** USFWS - Webless Migratory Game Bird Research Program. \$115,775 (PI)
- 2013-2015** USGS – A temporally and spatially explicit model of mourning dove recruitment for harvest management. \$53,000 (PI)
- 2011** USFWS - Pilot Study to develop sampling design for monitoring Bd and Ranavirus in Northeast refuges. \$55,000. (co-PI)
- 2011-2015** USFWS - Webless Migratory Game Bird Research Program. Development of a temporally and spatially explicit model of mourning dove recruitment for harvest management. \$98,000. (PI)
- 2005-2009** USFWS – Webless Migratory Game Bird Research Program. Development and evaluation of methods for regional monitoring of mourning dove recruitment. \$110,000. (co-PI)

Graduate Students

Students Advised

Courtney Davis – Ecology (M.S. in progress)

David Munoz – Wildlife (M.S. in progress)

Jerod Skebo – Wildlife (M.S. starting Jan. 2014)

Committees

Evan Faulk – Fisheries (M.S. in progress)

Nicholas Forman – Wildlife (M.S. in progress)

Shelly Picket – Fisheries (M.S. in progress)

James Grazio – Fisheries (PhD in progress)

Selected Awards

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| 2007 | Donald H. Rusch Memorial Research Scholarship – The Wildlife Society. |
| 2004 | Outstanding M.S. Student – Graduate Council, Auburn University 2004. |
| 2002 | George C. Moore Fellowship– Wildlife Sciences Graduate Program, Auburn University. |
| 1999 | Morris K. Udall Scholar– Morris K. Udall Foundation and Excellence in Environmental Policy. |