

# Kenneth F. Kellner

## Curriculum Vitae

March 2019

Address: Camp Fire Program in Wildlife Conservation  
Department of Environmental and Forest Biology  
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### Interests

I am a biometrician interested in population and agent-based modeling, ecosystem responses to disturbance, wildlife disease, and open-source tools for reproducible research.

### Experience

2019-	<b>Research Scientist</b>	State University of New York ESF
2018	<b>Postdoctoral Fellow</b>	West Virginia University
2016-2017	<b>Postdoctoral Research Assistant</b>	Purdue University
2009-2015	<b>Graduate Research Assistant</b>	Purdue University

### Education

2015	<b>Ph.D.</b> , Forest Ecology	Purdue University
2015	<b>Graduate Teacher Certification</b>	Purdue University
2013	<b>Certificate</b> , Applied Statistics	Purdue University
2012	<b>M.S.</b> , Forest Ecology	Purdue University
2009	<b>B.S.</b> , Biology	Wheaton College

### Teaching

2018-	<b>Certified Instructor</b>	The Carpentries <a href="#">[info]</a>
2018	<b>Instructor</b>	Introductory R Workshop <a href="#">[materials]</a>
2017	<b>Instructor</b>	Elementary Statistical Methods <a href="#">[materials]</a>
2016	<b>Instructor</b>	Spatial Capture-Recapture
2016	<b>Instructor</b>	Systematics of Amphibians, Reptiles, and Birds
2014	<b>Instructor</b>	R and Bayesian Analysis for Ecologists <a href="#">[materials]</a>
2012, 2014	<b>Teaching Assistant</b>	Quantitative Methods for Ecologists
2012, 2014	<b>Teaching Assistant</b>	Systematics of Mammals
2010, 2011	<b>Teaching Assistant</b>	Wildlife Habitat Management
2009	<b>Teaching Assistant</b>	Invertebrate Zoology
2008	<b>Teaching Assistant</b>	General Ecology

### Publications

- Berl, J. L., Flaherty, E. A., **Kellner, K. F.**, Swihart, R. K., (2018). Spatial variation in density of white-footed mice along edges in fragmented habitat. *American Midland Naturalist* 179, 38–50. [\[view\]](#).
- Brüniche-Olsen, A., **Kellner, K. F.**, Anderson, C., DeWoody, A., (2018). Runs of homozygosity have utility in mammalian conservation and evolutionary studies. *Conservation Genetics* 19, 1295–1307. [\[view\]](#).
- Fiske, I., Chandler, R., Miller, D., Royle, A., Kery, M., Hostetler, J., Hutchinson, R., Smith, A., **Kellner, K.**, (2018). unmarked: Models for Data from Unmarked Animals. R package version 0.12-3. [\[view\]](#) [\[code\]](#).
- Kellner, K. F.**, Ruhl, P. J., Dunning, J. B., Barnes, K. W., Saunders, M. R., Swihart, R. K., (2018). Local-scale habitat components driving bird abundance in eastern deciduous forests. *American Midland Naturalist* 180, 48–61. [\[view\]](#) [\[code\]](#).

5. Ruhl, P. J., **Kellner, K. F.**, Pierce, J. M., Riegel, J. K., Swihart, R. K., Saunders, M. R., Dunning, J. B., (2018). Characterization of Worm-eating Warbler (*Helmitheros vermivorum*) breeding habitat and the landscape level and nest scale. *Avian Conservation and Ecology* 13, 11. [\[view\]](#).
6. Swihart, R. K., Sundaram, M., Fe, S., **Kellner, K. F.**, (2018). Benchmarking scholarly performance by faculty in forestry and forest products. *Journal of Forestry*. [\[view\]](#) [\[code\]](#).
7. Berl, J. L., Flaherty, E. A., Danielson, B., **Kellner, K. F.**, Swihart, R. K., (2017). Winter ecology of prairie deer mice (*Peromyscus maniculatus bairdii*) in cultivated habitats: Implications for agricultural ecosystem services. *Agriculture, Ecosystems & Environment* 249, 130–136. [\[view\]](#).
8. **Kellner, K. F.**, Swihart, R. K., (2017). Herbivory on planted oak seedlings across a habitat edge created by timber harvest. *Plant Ecology* 218, 213–223. [\[view\]](#) [\[code\]](#).
9. **Kellner, K. F.**, Swihart, R. K., (2017). Simulation of oak early life history and interactions with disturbance via an individual-based model, SOEL. *PLOS ONE* 12, e0179643. [\[view\]](#) [\[code\]](#).
10. Lichti, N. I., **Kellner, K. F.**, Smyser, T. J., Johnson, S. A., (2017). Bayesian model-based age classification using small mammal body mass and capture dates. *Journal of Mammalogy* 98, 1379–1388. [\[view\]](#) [\[code\]](#).
11. **Kellner, K. F.**, Lichti, N. I., Swihart, R. K., (2016). Midstory removal reduces effectiveness of oak (*Quercus*) acorn dispersal by small mammals in the Central Hardwood Forest region. *Forest Ecology and Management* 375, 182–190. [\[view\]](#) [\[code\]](#).
12. **Kellner, K. F.**, Ruhl, P. J., Dunning Jr. J. B., Riegel, J. K., Swihart, R. K., (2016). Multi-scale responses of breeding birds to experimental forest management in Indiana, USA. *Forest Ecology and Management* 382, 64–75. [\[view\]](#) [\[code\]](#).
13. **Kellner, K. F.**, Swihart, R. K., (2016). Timber harvest and drought interact to impact oak seedling growth and survival in the Central Hardwood Forest. *Ecosphere* 7, e01473. [\[view\]](#) [\[code\]](#).
14. Negreros-Castillo, P., Martínez-Salazar, I., **Kellner, K. F.**, Mize, C. W., Swihart, R. K., Navarro-Martínez, M. A., (2016). Survival of *Swietenia macrophylla* seed planted in slash and burn fields in Quintana Roo, Mexico. *Bois et Forêts des Tropiques* 329, 3–12. [\[view\]](#).
15. Swihart, R. K., Sundaram, M., Höök, T. O., DeWoody, J. A., **Kellner, K. F.**, (2016). Performance benchmarks for scholarly metrics associated with fisheries and wildlife faculty. *PLOS ONE* 11, e0155097. [\[view\]](#).
16. **Kellner, K. F.** (2015). Interactive effects of animals and silviculture on the early life history of oak. PhD thesis. Purdue University. [\[view\]](#) [\[code\]](#).
17. **Kellner, K. F.** (2015). jagsUI: a wrapper around rjags to streamline JAGS analyses. R package version 1.4.9. [\[view\]](#) [\[code\]](#).
18. Leonard, O. D., Moore, J. W., Riegel, J. K., Meier, A. R., Dunning, J. B., **Kellner, K. F.**, Swihart, R. K., (2015). Effect of variation in forest harvest intensity on winter occupancy of Barred Owls and Eastern Screech-Owls in deciduous forests of the east-central United States. *Journal of Field Ornithology* 86, 115–129. [\[view\]](#).
19. **Kellner, K. F.**, Riegel, J. K., Swihart, R. K., (2014). Effects of silvicultural disturbance on acorn infestation and removal. *New Forests* 45, 265–281. [\[view\]](#) [\[code\]](#).
20. **Kellner, K. F.**, Swihart, R. K., (2014). Changes in small mammal microhabitat use following silvicultural disturbance. *American Midland Naturalist* 172, 348–358. [\[view\]](#) [\[code\]](#).
21. **Kellner, K. F.**, Swihart, R. K., (2014). Accounting for imperfect detection in ecology: A quantitative review. *PLOS ONE* 9, e111436. [\[view\]](#) [\[code\]](#).
22. **Kellner, K. F.**, Riegel, J. K., Lichti, N. I., Swihart, R. K., (2013). Oak mast production and animal impacts on acorn survival in the Central Hardwoods. In: *The Hardwood Ecosystem Experiment: a framework for studying responses to forest management*. Gen. Tech. Rep. NRS-P-108. Ed. by R. K. Swihart, M. R. Saunders, R. A. Kalb, G. S. Haulton, and C. H. Michler. Newtown Square, PA: USDA Forest Service Northern Research Station, pp.176–190. [\[view\]](#).

23. **Kellner, K. F.**, Urban, N. A., Swihart, R. K., (2013). Short-term responses of small mammals to timber harvest in the United States Central Hardwood Forest Region. *Journal of Wildlife Management* 77, 1650–1663. [\[view\]](#) [\[code\]](#).
24. Smyser, T. J., Page, L. K., Johnson, S. A., Hudson, C. M., **Kellner, K. F.**, Swihart, R. K., Rhodes, O. E., (2013). Management of raccoon roundworm in free-ranging raccoon populations via anthelmintic baiting. *Journal of Wildlife Management* 77, 1372–1379. [\[view\]](#).
25. **Kellner, K. F.** (2012). Temporal dynamics of mast and small mammals: short-term responses to silviculture. MS thesis. Purdue University. [\[view\]](#) [\[code\]](#).
26. **Kellner, K. F.**, Page, L. K., Downey, M., McCord, S. E., (2012). Effects of urbanization on the prevalence of *Baylisascaris procyonis* in intermediate host populations. *Journal of Wildlife Diseases* 48, 1083–1087. [\[view\]](#) [\[code\]](#).
27. Page, K., Beasley, J. C., Olson, Z. H., Smyser, T. J., Downey, M., **Kellner, K. F.**, McCord, S. E., Egan, T. S., Rhodes, O. E., (2011). Reducing *Baylisascaris procyonis* roundworm larvae in raccoon latrines. *Emerging Infectious Diseases* 17, 90–93. [\[view\]](#).
28. Page, L. K., Gehrt, S. D., Cascione, A., **Kellner, K. F.**, (2009). The relationship between *Baylisascaris procyonis* prevalence and raccoon population structure. *Journal of Parasitology* 95, 1314–1320. [\[view\]](#).
29. Page, L. K., Anchor, C., Luy, E., Kron, S., Larson, G., Madsen, L., **Kellner, K. F.**, Smyser, T. J., (2009). Backyard raccoon latrines and risk for *Baylisascaris procyonis* transmission to humans. *Emerging Infectious Diseases* 15, 1530–1531. [\[view\]](#).

### Submitted Papers

1. Brüniche-Olsen, A., **Kellner, K. F.**, DeWoody, A., (2019). Island area, body size, and demographic history shape genomic diversity and inbreeding. *Molecular Ecology*.
2. Greenler, S., Estrada, L., **Kellner, K. F.**, Saunders, M. R., Swihart, R. K., (2019). The effect of prescribed fire and shelterwood harvests on acorn dispersal and survival. *Ecological Applications*.
3. **Kellner, K. F.**, Renken, R. B., Millspaugh, J. J., Porneluzi, P., Wolf, A. J., Fantz, D., Gitzen, R. A., Faaborg, J., Timm, S., Ehlers, S., Buchanan, M., Haslerig, J., George, A., Rota, C. T., (2019). Effects of forest management on vertebrate communities: Synthesizing two decades of data. *Ecological Applications*.
4. Nelson, D. L., **Kellner, K. F.**, Swihart, R. K., (2019). Rodent population density and survival respond to disturbance induced by timber harvest. *Journal of Mammalogy*.
5. **Kellner, K. F.**, Duchamp, J. E., Swihart, R. K., (2018). Niche breadth and vertebrate sensitivity to habitat modification: signals from multiple taxa across replicated landscapes. *Biodiversity and Conservation*.
6. Ruhl, P. J., **Kellner, K. F.**, Dunning, J. B., (2018). Deciphering the Postfledging Habitat Associations of Mature Forest Songbirds in Clearcuts. *Avian Conservation and Ecology*.

### Presentations

1. **Kellner, K. F.** (2018). Wildlife in managed forests: demographic patterns and trophic interactions. Invited seminar at West Virginia University, Morgantown, WV. [\[view\]](#) [\[code\]](#).
2. **Kellner, K. F.** (2018). Wildlife in managed forests: demographic patterns and trophic interactions. Invited seminar at Clemson University, Clemson, SC. [\[view\]](#) [\[code\]](#).
3. **Kellner, K. F.**, Rota, C. T., Renken, R., Porneluzi, P., Millspaugh, J., Wolf, A., Timm, S., Ehlers, S., (2018). Effects of forest management on vertebrate communities: synthesizing two decades of results from a long-term study. Presentation at the Wildlife Society Annual Conference, Cleveland, OH. [\[view\]](#).
4. **Kellner, K. F.** (2017). Wildlife in managed forests: demographic patterns and trophic interactions. Invited seminar at Indiana State University, Terra Haute, IN.

5. **Kellner, K. F.**, Swihart, R. K., (2017). Effects of species traits and landscape configuration on small mammal occurrence in human-dominated landscapes. Poster presented at the Annual Meeting of the American Society of Mammalogists, Moscow, ID. [\[view\]](#).
6. **Kellner, K. F.**, Swihart, R. K., (2017). Simulation of oak early life history and interactions with timber harvest via an individual-based model, SOEL. Poster presented at the Annual Meeting of the Indiana Society of American Foresters, Nashville, IN. [\[view\]](#).
7. **Kellner, K. F.**, Ruhl, P. J., Dunning, J. B., Riegel, J. K., Swihart, R. K., (2016). Multi-scale migratory bird responses to experimental forest management. Presentation at the Wildlife Society Annual Conference, Raleigh, NC. [\[view\]](#).
8. **Kellner, K. F.**, Swihart, R. K., (2016). Simulating early oak life history in managed forests: model overview and application. Poster presented at the Annual Meeting of the Indiana Wildlife Society, Bloomington, IN.
9. **Kellner, K. F.** (2015). If you give a mouse an acorn: trophic interactions driving the oak life cycle in managed forests. Invited seminar at Wheaton College, Wheaton, IL. [\[view\]](#).
10. **Kellner, K. F.** (2015). Interactive effects of animals and timber harvest on the early life history of oak. Ph.D. Dissertation Defense, Purdue University, West Lafayette, IN. [\[view\]](#).
11. **Kellner, K. F.**, Swihart, R. K., (2015). Accounting for imperfect detection in ecology: a quantitative review. Presentation at the Midwest Fish and Wildlife Conference, Indianapolis, IN. [\[view\]](#).
12. **Kellner, K. F.**, Swihart, R. K., (2015). Individual-based models at the intersection of wildlife and forestry: modeling impacts of seed predators, herbivores, and competitors on oak regeneration success. Presentation at the Midwest Fish and Wildlife Conference, Indianapolis, IN. [\[view\]](#).
13. **Kellner, K. F.**, Swihart, R. K., (2015). Oak seedling survival and growth in recently harvested hardwood stands. Presentation at the Midwest Fish and Wildlife Conference, Indianapolis, IN. [\[view\]](#).
14. **Kellner, K. F.**, Swihart, R. K., (2014). Small mammals as predators and dispersers of acorns: effects of silviculture. Presentation at the Wildlife Society Annual Conference, Pittsburgh, PA. [\[view\]](#).
15. **Kellner, K. F.**, Swihart, R. K., (2013). Effects of silviculture on predation and dispersal of oak (*Quercus*) acorns by small mammals. Presentation at the North American Forest Ecology Workshop, Bloomington, IN. [\[view\]](#).
16. **Kellner, K. F.**, Swihart, R. K., (2013). Effects of silviculture on predation and dispersal of oak (*Quercus*) acorns by small mammals. Poster presented at the Purdue FNR Research Symposium, West Lafayette, IN. [\[view\]](#).
17. **Kellner, K. F.** (2012). Mast and small mammals: short-term responses to silviculture in southern Indiana. Invited seminar at Ball State University, Muncie, IN.
18. **Kellner, K. F.**, Swihart, R. K., (2012). Short-term responses of small mammals to silviculture in southern Indiana. Presentation at the Annual Meeting of the Indiana Wildlife Society, Indianapolis, IN.
19. **Kellner, K. F.**, Swihart, R. K., (2012). Short-term small mammal responses to silviculture in the Central Hardwoods. Poster presented at the Purdue FNR Research Symposium, West Lafayette, IN.
20. **Kellner, K. F.**, Urban, N. A., Swihart, R. K., (2012). Short-term responses of small mammals to silviculture in southern Indiana. Poster presented at the Annual Meeting of the American Society of Mammalogists, Reno, NV. [\[view\]](#).
21. **Kellner, K. F.**, Swihart, R. K., (2011). Oak mast production and animal impacts on acorn survival in the Central Hardwood Forest. Poster presented at the Purdue FNR Research Symposium, West Lafayette, IN. [\[view\]](#).
22. **Kellner, K. F.**, Urban, N. A., Swihart, R. K., (2010). Responses of shrew populations to even-aged forest management. Poster presented at the Hardwood Ecosystem Experiment Annual Meeting, West Lafayette, IN. [\[view\]](#).

23. **Kellner, K. F.**, Maingi, J., Henry, M., (2008). Effects of urbanization on the hydrology of Southwestern Ohio watersheds: a comparative historical approach. Presentation at the Miami University ECO-REU Symposium, Oxford, OH. [\[view\]](#).
24. **Kellner, K. F.**, Downey, M. D., Girgis, P., (2007). Prevalence of *Baylisascaris procyonis* in intermediate host populations as a function of landscape attributes. Poster presented at the Wheaton College Summer Research Program Symposium, Wheaton, IL. [\[view\]](#).
25. **Kellner, K. F.**, Cascione, A., (2006). The effects of *Baylisascaris procyonis* on host population dynamics, and prevalence of *B. procyonis* in intermediate host populations. Poster presented at the Wheaton College Summer Research Program Symposium, Wheaton, IL. [\[view\]](#).
26. **Kellner, K. F.**, Cascione, A., (2006). The effects of *Baylisascaris procyonis* on host population dynamics, and prevalence of *B. procyonis* in intermediate host populations. Presentation at the Wheaton College Science Division Faculty Meeting, Wheaton, IL.

### Extension Products

1. **Kellner, K. F.** (2017). Experimental forest management at the HEE: impacts on oak early life history and the bird community. Invited seminar at the Annual Meeting of the Indiana Division of Forestry, Indianapolis, IN. [\[view\]](#).
2. **Kellner, K. F.**, Ruhl, P. J., Dunning, J. B., Swihart, R. K., (2017). Managing forests for birds in Indiana. *Indiana Woodland Steward* 25, 7–8. [\[view\]](#).
3. **Kellner, K. F.** (2016). The Hardwood Ecosystem Experiment and breeding bird responses to forest management. Extension presentation at the Indiana Natural Resources Commission field tour, Bloomington, IN.
4. **Kellner, K. F.**, Ruhl, P. J., Dunning, J. B., Swihart, R. K., (2016). Response of breeding birds to forest management practices in Indiana. Invited presentation at the Annual Meeting of the Indiana Forest Stewardship Coordinating Committee, Bloomington, IN. [\[view\]](#).
5. **Kellner, K. F.** (2013). Effects of silviculture on small mammals and acorn production. Extension presentation at the NAFEW HEE Field Tour, Bloomington, IN.
6. **Kellner, K. F.** (2013). Impacts of climate change on wildlife in Indiana. Invited presentation at the Annual Meeting of the Indiana Division of Nature Preserves, Indianapolis, IN. [\[view\]](#).
7. **Kellner, K. F.** (2011). Effects of timber harvesting on small mammals. Extension presentation at the Summer HEE Field Day, Bloomington, IN.

### Research Grants

1. **Kellner, K. F.** (2016). Multi-scale responses of breeding birds to experimental forest management in Indiana, USA. Purdue Graduate School Postdoc Travel Grant, \$749.
2. Swihart, R. K., **Kellner, K. F.**, (2016). Effects of silviculture on migratory birds. Indiana DNR Division of Forestry, \$36,265.
3. Alfaro-Murillo, J. A., **Kellner, K. F.**, (2012). Understanding the dynamics of acorn weevil infestations using a discrete-time population model: do small mammals play a role in regulating weevil populations? Purdue Graduate Student Government DEAL Grant, \$1,232.
4. **Kellner, K. F.** (2012). Short-term responses of small mammals to management for oak regeneration. Purdue Graduate Student Government Travel Grant, \$1,000.
5. **Kellner, K. F.**, Page, L. K., (2007). Prevalence of raccoon roundworm (*Baylisascaris procyonis*) in intermediate host populations as a function of land use. American Society of Parasitologists, \$500.

## Honors

- 2015 Kirkpatrick Memorial Graduate Student Award, Purdue University
- 2015 Teaching Academy Graduate Teaching Award, Purdue University
- 2014 Fischer Forestry Fund Scholarship, Purdue University
- 2010, 2011 NSF Graduate Fellowship Honorable Mention, National Science Foundation
- 2009 Frederick N. Andrews Fellowship, Purdue University
- 2009 David Bruce Memorial Research Award, Wheaton College
- 2009 Honors in Biology, Wheaton College
- 2009 Scholastic Honors Society, Wheaton College
- 2008 Beaver-Schmale Research Award, Wheaton College
- 2005 National Merit Scholarship, Wheaton College
- 2005 President's Award, Wheaton College

## Peer Review

I have reviewed papers for PLoS ONE, Canadian Journal of Forest Science, Ecological Research, Behavioral Ecology, Forest Science, Seed Science Research, New Forests, Basic and Applied Ecology, Plant Ecology, Conservation Biology, European Journal of Forest Research, Biodiversity and Conservation, Landscape Ecology, Forest Ecology and Management, Ecological Modelling, Western North American Naturalist, Ecological Applications, Forests, American Midland Naturalist, Journal of Mammalogy, Journal of Tropical Ecology, and the Scandinavian Journal of Forest Science.