

Kenneth F. Kellner

Curriculum Vitae

August 2020

Address: Camp Fire Program in Wildlife Conservation
SUNY ESF, Syracuse, NY

Email: kfkellner@esf.edu

Website: kenkellner.com

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

Education

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

Teaching

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

Publications

1. Gantchoff, M., Hill, J., **Kellner, K. F.**, Fowler, N., Petroelje, T., Conlee, L., Beyer, D., Belant, J. L., (2020). Mortality of a large wide-ranging carnivore largely caused by anthropogenic activities. *Scientific Reports* 10, 1–11. [\[view\]](#).
2. **Kellner, K. F.**, Hill, J. E., Gantchoff, M. G., Kramer, D. W., Bailey, A. M., Belant, J. L., (2020). Responses of sympatric canids to human development revealed through citizen science. *Ecology and Evolution*. [\[view\]](#) [\[code\]](#).
3. Ruhl, P. J., **Kellner, K. F.**, Dunning, J. B., (2020). Deciphering the Postfledging Habitat Associations of Mature Forest Songbirds in Clearcuts. *Wilson Journal of Ornithology* 132, 145–158. [\[view\]](#).
4. Timm, S., Wolf, A. J., Gao, X., **Kellner, K. F.**, (2020). Assessing multi-scale habitat relationships and responses to forest management for cryptic herpetofauna in the Missouri Ozarks, USA. *Forest Ecology and Management* 460, 117892. [\[view\]](#).
5. Brüniche-Olsen, A., **Kellner, K. F.**, DeWoody, A., (2019). Island area, body size, and demographic history shape genomic diversity and inbreeding. *Molecular Ecology* 28, 4914–4925. [\[view\]](#).

6. Fiske, I., Chandler, R., Miller, D., Royle, A., Kery, M., Hostetler, J., Hutchinson, R., Smith, A., **Kellner, K.**, (2019). unmarked: Models for Data from Unmarked Animals. R package version 0.12-3. [\[view\]](#) [\[code\]](#).
7. Greenler, S., Estrada, L., **Kellner, K. F.**, Saunders, M. R., Swihart, R. K., (2019). Prescribed fire and partial overstory removal alter an acorn-rodent conditional mutualism. *Ecological Applications* 29, e01958. [\[view\]](#).
8. **Kellner, K. F.**, Duchamp, J. E., Swihart, R. K., (2019). Niche breadth and vertebrate sensitivity to habitat modification: signals from multiple taxa across replicated landscapes. *Biodiversity and Conservation* 28, 2647–2667. [\[view\]](#) [\[code\]](#).
9. **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 from upland hardwood forests in Missouri, USA. *Ecological Applications* 29, e01993. [\[view\]](#) [\[code\]](#).
10. 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*. [\[view\]](#).
11. 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. [\[view\]](#).
12. 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. [\[view\]](#) [\[code\]](#).
13. **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. [\[view\]](#) [\[code\]](#).
14. 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. [\[view\]](#).
15. Swihart, R. K., Sundaram, M., Fe, S., **Kellner, K. F.**, (2018). Benchmarking scholarly performance by faculty in forestry and forest products. *Journal of Forestry* 116, 320–327. [\[view\]](#) [\[code\]](#).
16. 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. [\[view\]](#).
17. **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. [\[view\]](#) [\[code\]](#).
18. **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. [\[view\]](#) [\[code\]](#).
19. 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. [\[view\]](#) [\[code\]](#).
20. **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. [\[view\]](#) [\[code\]](#).
21. **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. [\[view\]](#) [\[code\]](#).
22. **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. [\[view\]](#) [\[code\]](#).
23. 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. [\[view\]](#).

24. 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. [\[view\]](#).
25. **Kellner, K. F.** (2015). Interactive effects of animals and silviculture on the early life history of oak. PhD thesis. Purdue University. [\[view\]](#) [\[code\]](#).
26. **Kellner, K. F.** (2015). jagsUI: a wrapper around rjags to streamline JAGS analyses. R package version 1.4.9. [\[view\]](#) [\[code\]](#).
27. 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. [\[view\]](#).
28. **Kellner, K. F.**, Riegel, J. K., Swihart, R. K., (2014). Effects of silvicultural disturbance on acorn infestation and removal. *New Forests* 45, 265–281. [\[view\]](#) [\[code\]](#).
29. **Kellner, K. F.**, Swihart, R. K., (2014). Changes in small mammal microhabitat use following silvicultural disturbance. *American Midland Naturalist* 172, 348–358. [\[view\]](#) [\[code\]](#).
30. **Kellner, K. F.**, Swihart, R. K., (2014). Accounting for imperfect detection in ecology: A quantitative review. *PLOS ONE* 9, e111436. [\[view\]](#) [\[code\]](#).
31. **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. [\[view\]](#) [\[code\]](#).
32. **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. [\[view\]](#) [\[code\]](#).
33. 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. [\[view\]](#).
34. **Kellner, K. F.** (2012). Temporal dynamics of mast and small mammals: short-term responses to silviculture. MS thesis. Purdue University. [\[view\]](#) [\[code\]](#).
35. **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. [\[view\]](#) [\[code\]](#).
36. 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. [\[view\]](#).
37. 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. [\[view\]](#).
38. 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., Bickham, J. W., Godard-Codding, C. A., Brykhov, V. A., **Kellner, K. F.**, Urban, J., DeWoody, J. A., (2020). Influence of Holocene habitat availability and commercial whaling on Pacific gray whale (*Eschrichtius robustus*) population dynamics as inferred from whole mitochondrial genome sequences and environmental niche modelling. *Journal of Mammalogy*.

2. **Kellner, K. F.**, Parsons, A. W., Kays, R., Millspaugh, J. J., Rota, C. T., (2020). A multispecies occupancy model with a continuous-time detection process reveals spatial and temporal interactions. *Journal of Agricultural, Biological, and Environmental Statistics*.
3. Strebel, N., Fiss, C., **Kellner, K. F.**, Larkin, J., Kery, M., Cohen, J., (2020). Estimating abundance based on time-to-detection data. *Methods in Ecology and Evolution*.
4. **Kellner, K. F.**, Hurst, J. E., Kramer, D. W., Belant, J. L., (2019). Effects of antler point restrictions on white-tailed deer harvest in New York State. *Journal of Fish and Wildlife Management*.
5. Parsons, A., **Kellner, K. F.**, Rota, C., Schuttler, S., Millspaugh, J., Kays, R., (2019). The effect of urbanization on spatiotemporal interactions between gray foxes and coyotes. *Oikos*.

Presentations

1. **Kellner, K. F.**, Hurst, J. E., Kramer, D. W., Belant, J. L., (2019). Effects of antler point restriction on white-tailed deer harvest in New York State. Presentation at the Wildlife Society Annual Conference, Reno, NV.
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.** (2018). Wildlife in managed forests: demographic patterns and trophic interactions. Invited seminar at West Virginia University, Morgantown, WV. [\[view\]](#) [\[code\]](#).
4. **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. [\[view\]](#).
5. **Kellner, K. F.** (2017). Wildlife in managed forests: demographic patterns and trophic interactions. Invited seminar at Indiana State University, Terra Haute, IN.
6. **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. [\[view\]](#).
7. **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. [\[view\]](#).
8. **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. [\[view\]](#).
9. **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.
10. **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. [\[view\]](#).
11. **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. [\[view\]](#).
12. **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. [\[view\]](#).
13. **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. [\[view\]](#).
14. **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. [\[view\]](#).
15. **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. [\[view\]](#).

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.**, 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. [\[view\]](#).
18. **Kellner, K. F.** (2012). Mast and small mammals: short-term responses to silviculture in southern Indiana. Invited seminar at Ball State University, Muncie, IN.
19. **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.
20. **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.
21. **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. [\[view\]](#).
22. **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. [\[view\]](#).
23. **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. [\[view\]](#).
24. **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. [\[view\]](#).
25. **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. [\[view\]](#).
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. Poster presented at the Wheaton College Summer Research Program Symposium, Wheaton, IL. [\[view\]](#).
27. **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 more than 20 journals, including Basic and Applied Ecology, Conservation Biology, Ecological Applications, Ecological Modelling, and PLoS ONE.