

JESSICA L. BURNETT

📧 trashbirdecology 📞 +1 352 792 5425 ✉ jburnett@usgs.gov | Updated: October 22, 2019

Education

- Ph.D., Natural Resource Sciences, Specialization Applied Ecology** 2015 - 19
School of Natural Resources, University of Nebraska-Lincoln, Nebraska USA
- M.Sc., Wildlife Ecology & Conservation** 2013 - 15
Department of Wildlife Ecology & Conservation, University of Florida, Florida USA
- B.Sc. Wildlife Ecology & Conservation** 2010 - 13
Department of Wildlife Ecology & Conservation, University of Florida, Florida USA

Skills Highlight

Languages: R, LaTeX, MatLab, HTML, English
Reproducibility and open science
Applied statistics
Data quality assessment and quality control, data management
Citizen science and long-term monitoring
Avian community and population ecology
Population trend and parameter estimation

Positions Held

- Research Ecologist & Mendenhall Postdoctoral Fellow** September 2019 - present
Science Analytics and Synthesis, Core Science Systems
U.S. Geological Survey, Lakewood, Colorado, USA
- Graduate Research Assistant** August 2015 - August 2019
Nebraska Cooperative Fish & Wildlife Research Unit
School of Natural Resources University of Nebraska-Lincoln, Nebraska, USA
- Young Scholar** May 2018 - September 2018
Applied Systems Analysis Research Group
International Institute for Applied Systems Analysis Laxenburg, Austria
- Graduate Teaching Assistant** August 2013 - August 2015
Department of Wildlife Ecology & Conservation
University of Florida, Florida, USA

Select Publications (10 published, 3 in review, 1 published book chapter)

1. **Burnett, J.L.**, N.B. Price, A.J. Tyre, D.G. Angeler, T. Eason, D. Twidwell., and C.R. Allen. Deconstructing the steps for calculating Fisher Information as a measure of abrupt change in ecological systems. *in review at Ecological Modelling*
2. **Burnett, J.L.**, G. Munoz-Palomo, and L. Wszola. *under review at Journal of Open Source Software* bbsAssistant. 2019. An R package for downloading and manipulating the North American Breeding Bird Survey data. https://github.com/TrashBirdEcology/bbsAssistant/blob/master/man/bbsAssistant_0.0.1.pdf Github:trashbirdecology/bbsAssistant
3. **Burnett, J.L.** and C.R. Allen (2020) Continental Analysis of Invasive Birds: North America *in* Downs, C.T. and Hart, L.A. (eds) Global trends and impacts of alien invasive birds. CABI, Wallingford, U.K., pp. XX-XX.

4. Roberts, C.P., D. Twidwell, **J.L. Burnett**, V.M. Donovan, C. Wonkka, C.H. Bielski, A.S. Garmestani, D.G. Angeler, T. Eason, B.W. Allred, M.O. Jones, D.E. Naugle, S. Sundstrom, C.R. Allen, (2018) Early warnings for state transitions. *Rangeland Ecology and Management* DOI:10.1016/j.rama.2018.04.012
5. La Sorte, F.A., C.A. Lepczyk, **J.L. Burnett**, A. Hurlbert, M. Tingley, and B. Zuckerberg. 2018. Opportunities and challenges for big data ornithology. *The Condor* 120(2): 414-426 DOI:0.1650/CONDOR-17-206.1
6. Chuang, W.C., A.S. Garmestani, T. Eason, T.L. Spanbauer, H.B. Fried-Peterson, C. Roberts, S. Sundstrom, **J.L. Burnett**, D. G. Angeler, B. Chaffin, L. Gunderson, D. Twidwell, C.R. Allen. 2018. Enhancing quantitative approaches for assessing ecological and community resilience. *Journal of Environmental Management* 213: 353-362 DOI:10.1016/j.jenvman.2018.01.083
7. **Burnett, J.L.**, C.R. Allen, C.P. Roberts, M.Bomberger Brown, and M.P. Moulton. 2017. Eurasian Tree Sparrow (*Passer montanus*) range expansion in North America. *Biological Invasions* 19(1): 5-9 DOI:10.1007/s10530-016-1273-4

Software Development & Maintenance

1. **Burnett, J.L.**, G. Munoz-Palomo, and L. Wszola. *under review at Journal of Open Source Software* bbsAssistant. 2019. An R package for downloading and manipulating the North American Breeding Bird Survey data. https://github.com/TrashBirdEcology/bbsAssistant/blob/master/man/bbsAssistant_0.0.1.pdf Github:trashbirdecology/bbsAssistant
2. **Burnett, J.L.**, G. Munoz-Palomo, and L. Wszola. *under review at Journal of Open Source Software* bbsAssistant. 2019. An R package for downloading and manipulating the North American Breeding Bird Survey data. https://github.com/TrashBirdEcology/bbsAssistant/blob/master/man/bbsAssistant_0.0.1.pdf Github:trashbirdecology/bbsAssistant
3. **Burnett, J.L.**, N.B. Price. 2019. regimeDetectionMeasures. An R package for calculating univariate and multivariate regime detection methods using community time series. Github:trashbirdecology/regimedetectionmeasures
4. **Burnett, J.L.**, N.B. Price, and A.J. Tyre. 2018. distanceTravelled. An R package for calculating the distance traveled by a multispecies community along a time series. Github:trashbirdecology/distancetravelled
5. Price, N.B. and **J.L. Burnett**. tvdiff. 2019. An R package for numerical differentiation of noisy, non-smooth data. Github:natbprice/tvdiff
6. Price, N.B., C. Chizinski, and **J.L. Burnett**. radsets. 2019. An R package for interactive, network-based visualizations of overlapping sets. Github:natbprice/radsets

Select Grants & Awards

Mendenhall Postdoctoral Fellowship, U.S. Geological Survey ~\$222,000	2019 - 21
Meritorious Graduate Student, School of Natural Resources, UNL \$500	2018
Fling Fellow, University of Nebraska-Lincoln \$20,000	2016 - 17
National Academy of Sciences research award \$5,500	2018
Othmer Fellow, University of Nebraska-Lincoln \$24,000	2015 - 19
Big Ten Academic Alliance Travelling Scholar	2017
AAAS/Science Program for Excellence in Science Award	2016
NSF Diversity Award, Southeastern Ecology and Evolution Conference \$650	2015

Journal Referee

Bioinvasions Records (1), *Ecological Modelling* (5), *Journal of Molluscan Studies* (3), *Journal of Open Source Software* (2), *PLOS One* (1), *Wilson Journal of Ornithology* (3)