

Lauren C. Ponisio

CONTACT INFORMATION	Department of Biology Institute of Ecology and Evolution Data Science Initiative University of Oregon, Eugene, OR	<i>E-mail:</i> lponisio@uoregon.edu <i>Google scholar Website / Github</i>
ACADEMIC APPOINTMENTS	2020 – Assistant Professor, Department of Biology, University of Oregon 2017-2020 – Assistant Professor, Department of Entomology, University of California Riverside 2016-2017 – Moore/Sloan Data Science Postdoctoral Fellow, Berkeley Institute for Data Science	
EDUCATION	2016 – Doctorate of Philosophy, Department of Environmental Science Policy and Management, University of California Berkeley 2011 – Master of Science, Biology, Stanford University 2010 – Bachelor of Science, Biology, Honors in Ecology and Evolution, Stanford University	
FELLOWSHIPS & AWARDS (SELECTED)	2016 — Global Food Initiative 30 Under 30 in Food Systems 2016 — Moore/Sloan Data Science Postdoctoral Fellowship 2014 — National Institute for Food and Agriculture Fellowship 2014 — Garden Club of America Centennial Pollinator Fellowship 2014 — National Geographic Society Early Career Award 2014 — NSF GROW fellowship for study at U. São Paulo with P. Guimaraes 2011 — National Science Foundation Graduate Fellowship	
GRANTS	<ol style="list-style-type: none">[1] 2020 — National Science Foundation: Reconciling the interaction patterns of highly functional and resistant ecological communities. PI L. Ponisio, CO-PI S. Jha: 1 million[2] 2017-2021 — Foundation for Food and Agricultural Research: The effect of floral foraging traits on exposure of crop pollinators to the multiple interacting stressors of pesticides, parasites and inadequate nutrition, PI L. Ponisio, Co-PI Q. McFrederick, Co-PI S.H. Woodard: \$993,594[3] 2020 — USDA National Institute for Food and Agriculture: Ecological intensification for a productive oak-hazelnut savannah landscape, PI Hallet, L., Co-PI L. Ponisio, Co-PI Silva, L.: \$500,000[4] 2020 — USDA National Institute for Food and Agriculture: SmartCage: new automated system for collecting flight cage data on pollinators. PI-E. Rankin Wilson, Co-PI L. Ponisio, Co-PI Q. McFrederick, Co-PI N. Rafferty : \$60,000[5] 2019-2021 — USDA National Institute for Food and Agriculture: Identifying Barriers And Incentives To Adopting Bee-Friendly Management Practices On Pollinator-Dependent Farms PI-Jennie Durant (postdoc) Co-PI L. Ponisio: \$164,856[6] 2019-2021 —Hong Kong Research Council: Global consequences of land-use intensification for bee diversity, PI T. Bonebrake, Co-PI L. Ponisio: \$90,000[7] 2019-2021 —Organic Center Grant: Meta-analysis of soil health PI T. Bowles, Co-PI L. Ponisio: \$29,000[8] 2014-2016 — USDA National Institute for Food and Agriculture: Restoring stable pollinator communities and service provision in agricultural landscapes, PI L. Ponisio (graduate student), Co-PI C. Kremen: \$79,000	
PUBLICATIONS	Ponisio lab * Postdoc, ** undergraduate	

In in review/revision

- [1] Cohen, H.* , Smith, G.P.* , Sardinas, H., Zorn, J., McFrederick, Q.S., Woodard, S.H., **Ponisio, L.C.** Mass-flowering crops attract bees, amplifying parasitism (submitted)
- [2] Smith, G.P.* , Gardner, J., Gibbs, J., Griswold, T. , Hauser, M., Yanega D., **Ponisio, L.C.** Sex-associated differences in the network roles of pollinators (submitted)
- [3] Durant, J.* & **Ponisio, L.C.** Regional, honey-bee centered approach needed to incentivize grower adoption of bee-friendly practices in agriculture (in review, *Frontiers in Sustainable Agriculture*)
- [4] Cohen, H.* , **Ponisio, L.C.**, Russell, K., McFrederick, Q.M., Philpott, S.M. Floral context determines parasite and pathogen outcomes for wild bees. (in Revision *Molecular Ecology*)

Published

- [5] Gaiarsa, M.P.* , Kremen, C., **Ponisio, L.C.**, Interaction flexibility predicts pollinator population dynamics, (in press, *Nature Ecology and Evolution*)
- [6] S. H. Woodard, S. Federman, R. R. James, B. N. Danforth, T. L. Griswold, D. Inouye, Q. S. McFrederick, L. Morandin, D. L. Paul, E. Sellers, J. P. Strange, M. Vaughan, N. M. Williams, M. G. Branstetter, C. Burns, J. Cane, A. B. Cariveau, D. P. Cariveau, A. Childers, C. Childers, D. L. Cox-Foster, E. C. Evans, K. K. Graham, K. Hackett, K. T. Huntzinger, R. E. Irwin, S. Jha, S. P. Lawson, C. Liang, M. M. López-Urbe, A. Melathopoulos, H. M.C. Moylett, C. Otto, **L. C. Ponisio**, L. L. Richardson, R. Rose, R. Singh, W. Wehling. 2020. Toward a U.S. national program for monitoring native bees. *Biological Conservation*. 252: 108821
- [7] **Ponisio, L.C.**, 2020. Interaction flexibility and pyrodiversity increase pollinator population resistance, *Ecology and Evolution* <https://doi.org/10.1002/ece3.6210>
- [8] **Ponisio, L.C.**, de Valpine, P., Michaud, P., Turek, D. 2020. Boosting MCMC performance for complex hierarchical models using NIMBLE *Ecology and Evolution* <https://doi.org/10.1002/ece3.6053>
- [9] **Ponisio, L.C.**, Valdovinos, F.S., Allhoff, K.T., Gaiarsa M.P.* , Barner, B., Guimaraes, P.R. Jr., H. Hembry, D.H., Morrison, B., Gillespie, R. 2019. A network perspective for community assembly. *Front. Ecol. Evol.* 7:103
- [10] **Ponisio, L.C.**, de Valpine, P., M'Gonigle, L.K., and Kremen, C. 2019. Proximity of restored hedgerows interacts with local floral diversity and species' traits to shape long-term pollinator metacommunity dynamics. *Ecology Letters* 22:1048-1060
- [11] Kremen, C. M'Gonigle, L.K., and **Ponisio, L.C.** 2018. Pollinator community assembly tracks changes in floral resources as restored hedgerows mature in agricultural landscapes. *Front. Ecol. Evol.* 6:170
- [12] **Ponisio, L.C.**, Gariarsa, M.* , and Kremen, C. 2017. Major network reorganizations punctuate the assembly of plant-pollinator communities. 2017. *Ecology Letters*, 20:1261-1272
- [13] Wilkin, K.M., **Ponisio, L.C.**, Fry, D.L., Tubbesing, C. , Potts, J.B., Stephens, S.L. 2017. Fire hazard reduction has drawbacks for biodiversity. *Fire Ecology*, 13:105-136
- [14] **Ponisio, L.C.** and M'Gonigle, L.K. 2017. Coevolution leaves a weak signal on ecological networks. *Ecosphere* 8(4):e01798
- [15] **Ponisio, L.C.** and Ehrlich, P.R. 2016. Diversification, Yield and a New Agricultural Revolution: Problems and Prospects. *Sustainability*, 8(11):1118
- [16] Karp D., Moses, R., Gennet, S., Jones, M., Joseph, S., M'Gonigle, L., **Ponisio, L.C.**, Snyder, W., and Kremen, C. 2016. Farming Practices for Food Safety Threaten Pest-Control Services to Fresh Produce, *Journal of Applied Ecology* 53:1402-1412

- [17] Sardiñas, H., Tom, K.**, **Ponisio, L.C.**, Kremen, C. 2016. Sunflower (*Helianthus annuus*) pollination in California’s Central Valley is limited by native bee nest site location. *Ecological Applications* 26(2):438–447
- [18] Sardiñas, H., **Ponisio, L.C.** and Kremen, C. 2016. Hedgerow restoration does not enhance indicators of nest-site habitat quality or nesting rates of ground-nesting bees, *Restoration Ecology* 24(4):499–505
- [19] **Ponisio, L.C.**, Wilkin, K., M’Gonigle, L., Kulhanek, K.**, Cook, L.**, Thorp, R., Griswold, T., Kremen, C. 2016. Pyrodiversity begets plant-pollinator community biodiversity. *Global Change Biology* 22(5):1794–1808 (**This publication received media attention from NBC**)
- [20] **Ponisio, L.C.** and Kremen, C. 2016. System-level approach is needed to evaluate the transition to more sustainable agriculture. *Proceedings of the Royal Society: B* 283:20152913
- [21] Leong, M., **Ponisio, L.C.**, Kremen, C., Thorp, R., Roderick, G. 2016. Temporal dynamics of global change: bee community phenology in urban, agricultural, and natural landscapes. *Global Change Biology* 22:1046–1053
- [22] **Ponisio, L.C.**, M’Gonigle, L.K, Kremen, C. 2016. On-farm habitat restoration curbs biotic homogenization in intensive agricultural landscape, *Global Change Biology*, 22(2):704–715
- [23] M’Gonigle, L.K, **Ponisio, L.C.**, Kremen, C. 2015. Habitat restoration enhances pollinator diversity in agriculture, *Ecological Applications*, 25(6):1557–1565
- [24] **Ponisio, L.C.**, M’Gonigle, L.K., Mace, K. Palomino, J., de Valpine, P., Kremen, C. 2014. Diversification practices reduce organic to conventional yield gap. *Proceedings of the Royal Society: B*, 282(1799): 20141396 (**This publication received media attention from outlets such as CNBC, Huffingtonpost and the Union of Concerned Scientists**)
- [25] Bonebrake, T.C., **Ponisio, L.C.**, Boggs. C.L. and Ehrlich, P.R. 2010. More than just indicators: Tropical butterfly ecology and conservation. *Biological Conservation*, 143(8): 1831-1841

Software

- [26] Goldstein, B.R., Daniel Turek, D., **Ponisio, L.C.** and de Valpine, P. 2019. nimbleEcology: Distributions for Ecological Models in ‘nimble’. R package version 0.1.0. <https://CRAN.R-project.org/package=nimbleEcology>

Book chapters

- [27] Kremen, C., Albrecht, M., **Ponisio, L.C.**, Restoring pollinator communities and pollination services in hedgerows in intensively-managed agricultural landscapes. Chapter, *Ecology Hedgerows and Field Margins*. Eds. J.Dover.
- [28] Mission and Relevance of National Parks, *Science for Parks, Parks for Science: the next century*, section editor. University of Chicago Press

Popular Science Publications

- [29] Cannot see the forest for the bees, *National Geographic*
- [30] Organic farming techniques are closing gap on conventional yields, *The Conservation*
- [31] Changing the face of agriculture, *Landscapes for People, Food and Nature*

PROFESSIONAL
COURSES

- 2016 - Software Carpentry Instructor Certification
- 2016 - Santa Fe Institute Complex Systems Summer School
- 2013 - The Bee Course, American Museum of Natural History
- 2011 - São Paulo Advanced Science School on Ecological Networks

PRESENTATIONS

Invited

- 2020 - Entomological Society of America, virtual
- 2020 - The Wildlife Society, virtual
- 2020 - Ecological Society of America, virtual
- 2019 - Entomological Society of America, St. Louis, MO
- 2019 - International Association of Wildland Fire, Tucson, AZ
- 2019 - Half Earth Day Workshop and Symposium, E.O. Wilson Foundation, Berkeley, CA
- 2019 - Latin American Pollinator Conference, Buenos Aires, Argentina
- 2019 - University of Michigan Center for Complex Systems, Ann Arbor, MI
- 2019 - Chicago Botanical Garden, Chicago, IL
- 2019 - Institute for Ecology and Evolution, University of Oregon
- 2018 - International Congress of Entomology, Vancouver, Canada
- 2018 - How Science is Saving Bees, presentation to congressional staff during Pollinator Week, Washington D.C.
- 2018 - National Academy of Sciences, Drexel, departmental seminar, Philadelphia, Pennsylvania
- 2018 - The Fields Institute Workshop on Pollinators and Pollination Modeling, Toronto, Canada
- 2017 - UC Santa Barbara invited seminar, Santa Barbara, California
- 2017 - Santa Fe Institute Complex Systems Seminar
- 2017 - International Society of Mediterranean Ecology, Seville, Spain
- 2016 - US Regional Association of the International Association for Landscape Ecology, Asheville, North Carolina
- 2016 - Center for Agroforestry at the University of Missouri, Columbia, Missouri
- 2015 - Society of Conservation Biology Conference, Montpellier, France
- 2015 - Ecological Society of America Meeting, Baltimore, Maryland

Academic

- 2019 - New Phytologist Conference, Zurich Switzerland
- 2018 - Symbiosis Conference, Yosemite, California
- 2018 - Entomological Society of America, Denver, Colorado
- 2018 - Ecological Networks, Uppsala, Sweden item 2016 - Data Science Summit, New York, New York
- 2016 - XXV International Congress of Entomology, Orlando, Florida
- 2016 - Bay Area Conservation Biology Society Symposium, Stanford, California
- 2014 - Entomological Society of America Meeting, Portland, Oregon
- 2014 - Ecological Society of America Meeting, Sacramento, California
- 2014 - International Association of Wildland Fire, Missoula, Montana
- 2011 - Ecological Society of America meeting, Austin, Texas

WORKING GROUPS

- 2019 - Modeling bee and ant global distributions, E.O. Wilson Foundation
- 2018 - Santa Fe Institute Workshop on Next Generation of Ecological Networks
- 2018 - USDA National Native Bee Monitoring Workshop, Shepherdstown, West Virginia

ACADEMIC
SERVICE

University/department Service

- 2020-current – UO Biology Admissions Committee
- 2019-2020 – UCR Undergraduate Awards Committee
- 2018– UCR Biology Admissions Committee

- 2017-2020 – UCR Undergraduate Grants Committee
- 2017-2020 – UCR Outreach Departmental Committee
- 2017-2020 – Entomology Museum Departmental Committee
- 2017-2019 – Seminar Departmental Committee

Reviewing

- **Editorial activities:** Review Editor for *Frontiers in Sustainable Food Systems*(2018-)
- **Peer review:** manuscripts for *Science, PNAS, Ecology Letters, Ecology Letters, Annuals of Botany, Proceedings of the Royal Society B, Oecologia, Conservation Letters, Biological Conservation, Conservation Biology, Global Change Biology and Biodiversity and Conservation, New Phytologist, Plos one, Ecological Monographs, Nature Communications.*
- **Grants:**
 - JRS Biodiversity Foundation (2017)
 - ad hoc grants for the NSF (PCE) (2018, 2019, 2020).
 - NSF GRFP (2019, 2020)
- **Awards Committees:** ESA Sustainability Awards Committee (2017–present)

INTERVIEWS

- 2021–Wildfires Open Forests for Wildlife and Research – NPR All Things Considered
- 2020 – B ee biologist can't stop buzzing about her work – CBS Los Angeles
- 2014–Comparing organic and conventional yields – Food Chain Radio
- 2014–Comparing organic and conventional yields –German Public Radio