

CURRICULUM VITAE

Dr. Jonathan M. Levine

Department of Ecology and Evolutionary Biology
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Appointments

- 2022- Chair, Department of Ecology and Evolutionary Biology, Princeton University
- 2019- Full Professor, Department of Ecology and Evolutionary Biology, Princeton U.
- 2019- Associated Faculty, High Meadows Environmental Institute, Princeton U.
- 2011-2018 Full Professor of Plant Ecology, Institute of Integrative Biology, ETH Zurich
- 2003-2011 Assistant, Associate, and Full Professor, Department of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara
- 2002-2003 Assistant Professor, Department of Ecology and Evolutionary Biology, University of California, Los Angeles

Professional Preparation

- 2001-2002 Postdoctoral Research Associate, Centre for Population Biology, Imperial College, Silwood Park, United Kingdom
- 2001 Ph.D. in Integrative Biology, University of California, Berkeley, USA.
- 1995 B.S. in Biology, *Magna Cum Laude*, Brown University, Providence, USA.

Research Interests

The maintenance of species diversity
Plant community response to climate change
The controls over plant invasions

Teaching

Life on Earth: Mechanisms of Change in Nature
Fundamental Concepts in Ecology, Evolution, and Behavior

Awards and Honors

- 2022 Distinguished Ecologist Lecturer, University of Wisconsin
- 2018-2021 Highly Cited Researcher in Environment/Ecology, Web of Science
- 2020 Robert H. MacArthur Award from the Ecological Society of America. Among the highest honors given by the society, it is awarded in alternate years to “an established ecologist in mid-career for meritorious contributions to ecology, in the

expectation of continued outstanding ecological research.”

2019 Fellow of the Ecological Society of America

2017 George Mercer Award for an outstanding paper lead by an ecologist under 40* from the Ecological Society of America: Williams*, Kendall, & Levine 2016 in *Science*

2016 Odum Lecturer, University of Georgia

2010 Jenner Lecturer, University of North Carolina

2004 David and Lucile Packard Foundation Fellowship for Science and Engineering

2003 Young Investigators Prize- the American Society of Naturalists

2001 George Mercer Award for an outstanding paper lead by an ecologist under 40 from the Ecological Society of America for Levine 2000 in *Science*

1999 Honorable Mention, Ecological Society of America’s Best Presentation Buell Award

1996-2000 National Science Foundation Graduate Research Fellowship

Funding (1 CHF ≈ 1 USD)

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| 2020-2024 | U.S. NSF Ecology Panel Award DEB 2022810/2022213; Higher order interactions, functional trait changes, and species coexistence in an annual plant community. (PI on Collaborative Grant with UCLA PI Nathan Kraft, Princeton budget = \$540,899) | \$1,167,554 |
| 2019-2022 | Princeton University Carbon Mitigation Initiative; supporting research on biodiversity and land-based climate solutions | \$572,000 |
| 2021-2023 | Princeton HMEI Biodiversity Grand Challenges Grant; The maintenance of species diversity through the rapid evolution of competitive ability (PI) | \$100,000 |
| 2017-2021 | Swiss NSF Award 31003A_173210; Timescales of changing species interactions under warming climate (PI through 2018, funding was thereafter transferred to ETH Zurich PI J. Alexander) | CHF 904,000 |
| 2015-2019 | U.S. NSF Ecology Panel Award 1456246; Functional traits and the mechanisms of species coexistence in an annual plant community (co-PI, UCLA PI Nathan Kraft) | \$530,000 |
| 2014-2018 | Center for Adaptation to a Changing Environment funded by ETH Office of Research, proposal co-authored with PI A. Widmer | CHF 4,800,000 |
| 2015-2018 | ETH Research Grant ETH-14 15-1 Plant species coexistence on different forms of phosphorus (PI) | CHF 216,400 |
| 2012-2016 | Swiss NSF Award 31003A_141205; Patchy landscapes and the spatial advance of populations (PI) | CHF 599,940 |

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| 2012-2014 | GeneMig Award, from ETH Competence Center Environment and Sustainability (PI) | CHF 200,000 |
| 2008-2013 | U.S. NSF Ecology Panel Award 0743365/ 0743183; Niche and neutral controls over coexistence in a serpentine annual community. (Collaborative Grant with UW PI Janneke HilleRisLambers, UCSB budget = \$312,736) | \$390,000 |
| 2004-2014 | David and Lucile Packard Foundation Fellowship for Science and Engineering (PI). | \$675,000 |
| 2005-2009 | USDA National Research Initiative Grant 2005-02252; Plant-soil feedbacks and the regulation of native shrub recolonization of exotic grasslands (PI) | \$214,734 |
| 2003-2008 | U.S. NSF Ecology Panel Award 0353608; Environmental variation, dormancy, and rare plant persistence in invaded habitats (PI). | \$500,232 |
| 2004-2010 | U.S. NSF Research Experience for Undergraduates supplements | \$48,000 |

Service to the Ecological Community

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| 2018-present | Editor, <i>Ecology Letters</i> |
| 2019 | Panel Member for European Research Council, LS8 Starting Grants |
| 2015-2018 | Chair, Ecological Society of America (ESA) Awards Committee |
| 2007-2018 | Editor, <i>Ecology</i> and <i>Ecological Monographs</i> |
| 2014-2022 | Ad Hoc Editor, <i>Proceedings of the National Academy of Sciences</i> |
| 2012-2013 | American Society of Naturalists Symposium committee |
| 2007-2012 | ESA Mercer Award Subcommittee Chair and Member |
| 2007-2009 | National Science Foundation (USA) panel member |
| 2004 | USDA Biology of Weedy and Invasive Plants panel member |

Departmental and University Service

Princeton

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| 2022- | Department Chair, Ecology and Evolutionary Biology |
| 2019- | Leadership Team – Carbon Mitigation Initiative |
| 2019-2022 | Director of Undergraduate Studies- Department of Ecology and Evol. Biology |
| 2019-2020 | Chair of Search Committee for faculty position in Ecology |
| 2018-2019 | Search Committee member for faculty position in Ecology |

ETH Zurich

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| 2017-2018 | Chair, Department of Environmental System Sciences Tenure Committee |
| 2014-2018 | Steering Board, ETH initiative in Adaptation to a Changing Environment (ACE) |
| 2014-2015 | Revision of Bachelors and Masters curriculum in Ecology and Evolution |
| 2013-2014 | Chair, Institute of Integrative Biology (two year term) |

2013-2014 Resources and Ausschuss Committee, Environmental Sciences Department
2013-2015 Strategic Planning Committee, Environmental Sciences Department

Invited Seminars:

- 2022 University of Wisconsin, ESA MacArthur Award Lecture, Montreal
- 2021 CNRS Montpellier, International Forum on Advanced Environmental Sciences and Technology (iFast)
- 2020 Georgia Tech University, Florida State University, University of North Carolina, High Meadows Environmental Institute at Princeton
- 2019 Sun Yat-Sen University, University of Queensland, University of Tokyo
- 2018 Universidad de Sevilla, McGill University, Oxford University, Netherlands Institute of Ecology, University of Bern
- 2017 Jena Biodiversity Experiment Symposium, Princeton University, University of Grenoble, University of Chicago, Stanford University, University of Fribourg, University of Basel, University of British Columbia, University of California, Los Angeles
- 2016 University of Georgia (Odum Lecturer), EAWAG Duebendorf, University of Copenhagen
- 2014 Yale University, University of Pennsylvania, University of Lausanne
- 2013 University of Copenhagen, Smithsonian Tropical Research Institute, National Autonomous University of Mexico
- 2012 University of Fribourg
- 2011 National Center for Ecological Analysis and Synthesis, University of Arizona, University of Michigan, Case Western University, Washington University, Plant Science Symposium – ETH Zurich, EAWAG Duebendorf and Kastanienbaum, UFZ Halle, University of Bern.
- 2010 ETH Zurich, University of North Carolina (Jenner Lecture), Trinity University
- 2009 Brown University, National Center for Ecological Analysis and Synthesis, University of Texas
- 2008 University of Minnesota, Fort Hays State University, Texas A&M University, University of Pittsburgh, Louisiana State University, University of California, Davis, Utah State University, California State Northridge, University of Zurich
- 2006 Institute for Ecosystem Studies, University of Pennsylvania, University of California, Berkeley
- 2005 California State University, Fullerton, University of Montana, University of California, Irvine
- 2004 Duke University, National Center for Ecological Analysis and Synthesis
- 2003 University of Arizona, University of British Columbia, University of California, Santa Barbara, University of Colorado, University of California, Davis, University of California, Santa Cruz
- 2002 University of California, San Diego, Centre for Ecology and Hydrology, Banchory, Swedish Agricultural University, Cambridge University
- 2001 University of Zurich, Ecole Normal Superior, Paris, Princeton University
- 2000 University of California, Los Angeles

Workshops and international courses:

ICTP Winter School on Quantitative Systems Biology: Quantitative Approaches in Ecosystem Ecology, Trieste (3 Lectures delivered via Zoom), 2020
Eco-evolutionary Dynamics of Tipping Points, Kastanienbaum, Switzerland, 2016
Genomic Basis of Eco-evolutionary Change, Ascona, Switzerland (co-organizer), 2016
NIMBioS working group- Population and Community Ecology Consequences of Intraspecific Niche Variation, Tennessee 2009-2011
NCEAS working group - Modeling Invasive Ecosystem Engineers, Santa Barbara, 2004
GCTE Workshop on the Spread and Impacts of Biological Invasions, Barcelona 2001
Biodiversity and Ecosystem Functioning, Paris 2000

Publications:

Google Scholar: 25,994 citations, *h*-index = 63, 2938 citations in 2021
23 Papers selected by the Faculty of 1000 Biology / Faculty Opinions, as noted below

In review or revision:

Gibbs, T., S.A. Levin, **J.M. Levine**. Coexistence in diverse communities with higher-order interactions. *Proceedings of the National Academy of Sciences*.

Smith, J.R. and **J.M. Levine**. Failing to account for species' rarity undermines predictions of biodiversity responses to climate change. *Proceedings of the National Academy of Sciences*.

Van Dyke, M.N., **J.M. Levine**, and N.J.B. Kraft. Small changes in rainfall drive substantial changes in coexistence in an annual grassland. *Nature*.

Visakorpi, K., S. Block, L. Pellissier, **J.M. Levine**, and J.M. Alexander. Plant water use strategy determines winners and losers of climate change. *Functional Ecology*.

Published or in press:*

2022

Johnson, C.A., P. Dutt, and **J.M. Levine**. 2022. Competition for pollinators destabilizes plant coexistence. *Nature*.

Yamamichi, M., T. Gibbs, and **J.M. Levine**. 2022. Integrating eco-evolutionary dynamics and modern coexistence theory. *Ecology Letters*.

Block, S., M. Maechler, J.M. Alexander, L. Pellissier and **J.M. Levine**. 2022. Ecological lags govern the pace and outcome of plant community responses to 21st century climate change. *Ecology Letters*.

Kleinhesselink, A.R., N.J.B. Kraft, S.W. Pacala, and **J.M. Levine**. 2022. Detecting and interpreting higher order interactions in ecological communities. *Ecology Letters*.

Detto, M., **J.M. Levine**, and S.W. Pacala. 2022. Maintenance of high diversity in mechanistic forest dynamics models of competition for light. *Ecological Monographs* 92:e1500.

* Members of my group at the time the research was conducted are underlined

- Hess, C., **J.M. Levine**, M.M. Turcotte, and S.P. Hart. 2022. Phenotypic plasticity promotes species coexistence. *Nature Ecology and Evolution*.
- Yan, X., **J.M. Levine**, and G.S. Kandlikar. 2022. A quantitative synthesis of soil microbial effects on plant species coexistence. *Proceedings of the National Academy of Sciences* 119: e2122088119.
- Stump, S., **J.M. Levine**, S. Saavedra, C. Song, and D. Vasseur. 2022. Synthesizing the effects of individual-level variation on coexistence. *Ecological Monographs* 92: e01493.
- Levine, J.I., **J.M. Levine**, T. Gibbs, and S.W. Pacala. 2022. Competition for water and species coexistence in phenologically structured annual plant communities. *Ecology Letters* 25:1110–1125. **F1000 Recommended**
- Schreiber, S.J., **J.M. Levine**, O. Godoy, N.J.B. Kraft, and S. Hart. 2022. Does deterministic coexistence theory matter in a finite world? *Ecology*.
- Potter, A., M.C. Hutchinson, J. Pansu, B. Wursten, R.A. Long, **J.M. Levine**, and R.M. Pringle. 2022. Mechanisms of dietary resource partitioning in large-herbivore assemblages: A plant-trait-based approach. *Journal of Ecology* 110:817–832.
- Grainger, T.N., A. Senthilnathan, P. Ke, M.A. Barbour, N.T. Jones, J.P. DeLong, S.P. Otto, M.I. O'Connor, K.E. Coblenz, N. Goel, J. Sakarchi, M.C. Szojka, **J.M. Levine**, and R.M. Germain. 2022. An empiricist's guide to using ecological theory. *American Naturalist* 199:1-20. **F1000 Recommended**
- Grainger, T.N. and **J.M. Levine**, 2022. Rapid evolution of life history traits in response to warming, predation and competition: a meta-analysis. *Ecology Letters* 25:541-554. **F1000 Recommended**

2021

- Grainger, T.N., S.M. Rudman, P.R. Schmidt, and **J.M. Levine**. Competitive history shapes rapid evolution in a seasonal climate. *Proceedings of the National Academy of Sciences* 118: e2015772118.
- Block, S., and **J. M. Levine**. 2021. How dispersal evolution and local adaptation affect the range dynamics of species lagging climate change. *American Naturalist* 197: E173–E187.
- Letten, A.D., A. Hall, and **J.M. Levine**. 2021. Using ecological coexistence theory to understand antibiotic resistance and microbial competition. *Nature Ecology and Evolution* 5: 431–441
- Letten, A.D., M. Baumgartner, K.R. Pfrunder-Cardozo, **J.M. Levine**, and A.R. Hall. 2021. Human-associated microbiota suppress invading bacteria even under disruption by antibiotics. *ISME Journal* 15: 2809–2812.
- Usinowicz, J. and **J.M. Levine**. 2021. Climate-driven range shifts reduce persistence of competitors in a perennial plant community. *Global Change Biology* 27:1890–1903.
- Ke, P. and **J.M. Levine**. 2021. The temporal dimension of plant-soil microbe interactions: mechanisms promoting feedback between generations. *American Naturalist* 198: E80-E94.

2020

- Kandlikar, G.S., X. Yan, **J.M. Levine**, and N.J.B. Kraft. 2020. Soil microbes generate stronger fitness differences than stabilization among California annual plants. *American Naturalist* doi.org/10.1086/711662 **F1000 Recommended**
- Levine, J.M.** and S.P. Hart. 2020. The dimensions of species coexistence. Pages 145-159 in A. Dobson, R.D. Holt, and D. Tilman, editors. *Unsolved Problems in Ecology*. Princeton University Press, Princeton, USA.
- Richman, S.K., **J.M. Levine**, L. Stefan, and C.A. Johnson. 2020. Asynchronous range shifts drive alpine plant–pollinator interactions and reduce plant fitness. *Global Change Biology* 26: 3052-3064. **F1000 Recommended**
- Block, S., J.M. Alexander, and **J. M. Levine**. 2020. Phenological plasticity is a poor predictor of subalpine plant population performance following experimental climate change. *Oikos* 129: 184-193.

2019

- Hart, S.P., M.M. Turcotte, and **J.M. Levine**. 2019. The effects of rapid evolution on species coexistence. *Proceedings of the National Academy of Sciences* 116:2112-2117.
- Alexander, J.M., and **J.M. Levine**. 2019. Earlier phenology of a nonnative plant increases impacts on native competitors. *Proceedings of the National Academy of Sciences* 116:6199-6204.
- Kandlikar, G.S., C. Johnson, X. Yan, N.J.B. Kraft, and **J.M. Levine**. 2019. Winning and losing with microbes: how microbially mediated fitness differences influence plant diversity. *Ecology Letters* 22:1178-1191. **F1000 Score 2**
- Grainger, T.N., **J.M. Levine**, and B. Gilbert. 2019. The invasion criterion: a common currency for ecological research. *Trends in Ecology and Evolution* 34:925-935.
- Dakos, V., B. Matthews, A. Hendry, **J.M. Levine**, N. Loeuille, J. Norberg, P. Nosil, M. Scheffer, and L. De Meester. 2019. Ecosystem tipping points in an evolving world. *Nature Ecology and Evolution* 3:355-362.
- Lustenhouwer, N., J.L. Williams, and **J.M. Levine**. 2019. Evolution during population spread affects plant performance in stressful environments. *Journal of Ecology* 107:396-406.
- Block, S., J.M. Alexander, and **J.M. Levine**. 2019. Phenological plasticity is a poor predictor of subalpine plant population performance following experimental climate change. *Oikos* doi: 0.1111/oik.06667

2018

- Usinowicz, J. and **J.M. Levine**. 2018. Species persistence under climate change: a geographic scale coexistence problem. *Ecology Letters* 21:1589-1603.

Petry, W.K., G.S. Kandlikar, N.J.B. Kraft, O. Godoy, and **J.M. Levine**. 2018. A competition-defense trade-off both promotes and weakens coexistence in an annual plant community. *Journal of Ecology* 106:1806-1818.

Hart, S.P., R. Freckleton, and **J.M. Levine**. 2018. How to quantify competitive ability. *Journal of Ecology* 106:1902-1909.

Williams, J.L. and **J.M. Levine**. 2018. Experimental evidence that density dependence strongly influences plant invasions through fragmented landscapes. *Ecology* 99:876-884.

Rudman, S.M., M.A. Barbour, K. Csillery, P. Gienapp, F. Guillaume, N.G. Hairston Jr., A.P. Hendry, J.R. Lasky., M. Rafajlović, K. Räsänen, P.S. Schmidt, O. Seehausen, N.O. Therkildsen, M.M. Turcotte, and **J.M. Levine**. 2018. What genomic data can reveal about eco-evolutionary dynamics. *Nature Ecology and Evolution* 2:9-15.

Lustenhouwer, N., R. Wilschut, J.L. Williams, W. van der Putten, and **J.M. Levine**. 2018. Rapid evolution of phenology during range expansion with recent climate change. *Global Change Biology* 24: e534-544.

2017

Levine, J.M., J. Bascompte, P.B. Adler, and S. Allesina. 2017. Beyond pairwise mechanisms of species coexistence in complex communities. *Nature* 546:56-64. **F1000 Score 2**

Saavedra, S., R.R. Rohr, J. Bascompte, O. Godoy, N.J.B. Kraft, and **J.M. Levine**. 2017. A structural approach for understanding multispecies coexistence. *Ecological Monographs* 87: 470-486.

Hart, S.P., J. Usinowicz, and **J.M. Levine**. 2017. The spatial scales of species coexistence. *Nature Ecology and Evolution* 1: 1066-1073.

Gilbert, B. and **J.M. Levine**. 2017. Ecological drift and the distribution of diversity. *Proceedings of the Royal Society* 284: 20170507.

Gallien, L., N.E. Zimmerman, **J.M. Levine**, and P.B. Adler. 2017. The effects of intransitive competition on coexistence. *Ecology Letters* 20: 791-800.

Godoy, O., D. Stouffer, N.J.B. Kraft, and **J.M. Levine**. 2017. Intransitivity is infrequent and fails to promote annual plant coexistence without pairwise niche differences. *Ecology* 98: 1193-1200.

Lustenhouwer, N., E.V. Moran, and **J.M. Levine**. Trait correlations equalize spread velocity across plant life histories. *Global Ecology and Biogeography* 26:1398–1407.

Moran, E.V., A. Reid, and **J.M. Levine**. Population genetics and adaptation along elevation gradients in invasive *Solidago canadensis*. *PloS ONE* 12(9): e0185539.

2016

Williams, J.L., B.E Kendall, and **J.M. Levine**. 2016. Rapid evolution accelerates plant population spread in fragmented experimental landscapes. *Science* 353: 482-485. **F1000 Score 2**; Winner of ESA's 2017 George Mercer Award

Hart, S.P., S.J. Schreiber, and **J.M. Levine**. 2016. How variation between individuals affects species coexistence. *Ecology Letters* 19:825-838. **F1000 Score 4**

Turcotte, M.M. and **J.M. Levine**. 2016. Phenotypic plasticity and species coexistence. *Trends in Ecology and Evolution* 31:803-813.

Alexander, J.M., J.M. Diez, S.P. Hart, and **J.M. Levine**. 2016. When climate reshuffles competitors: a call for experimental macroecology. *Trends in Ecology and Evolution* 31:831-841.

Williams, J.L., R.E Snyder, and **J.M. Levine**. 2016. The influence of evolution on population spread through patchy landscapes. *American Naturalist* 188:15-26.

Levine, J.M. 2016. A trail map for trait-based studies (invited comment). *Nature* 529:163-164.

2015

Alexander, J.M., J.M. Diez, and **J.M. Levine**. 2015. Novel competitors shape species' responses to climate change. *Nature* 525:515-518.

Kraft, N.J.B., O. Godoy, and **J.M. Levine**. 2015. Plant functional traits and the multidimensional nature of species coexistence. *Proceedings of the National Academy of Sciences* 112:797-802. **F1000 Score 2**

Petchey, O.L., M. Pontarp, T.M. Massie, S. Kéfi, A. Ozgul, M. Weilenmann, G. Palamara, F. Altermatt, B. Matthews, **J.M. Levine**, D.Z. Childs, B.J. McGill, M.E. Schaepman, B.Schmid, P. Spaak, A.P. Beckerman, F. Pennekamp, I.S. Pearse. The ecological forecast horizon, and examples of its uses and determinants. *Ecology Letters* 18:597-611.

Kraft, N.J.B., P.B. Adler, O. Godoy, E. James, S. Fuller, **J.M. Levine**. 2015. Community assembly, coexistence, and the environmental filtering metaphor. *Functional Ecology* 29:592-599.

2014

Godoy, O., N.J.B. Kraft, and **J.M. Levine**. 2014. Phylogenetic relatedness and the determinants of competitive outcomes. *Ecology Letters* 17:836-844. **F1000 Score 2**

Godoy, O. and **J.M. Levine**. 2014. Phenology effects on invasion success: insights from coupling field experiments to coexistence theory. *Ecology* 95: 726-736.

Mayfield, M., J.M. Dwyer, A. Main, and **J.M. Levine**. 2014. The germination strategies of widespread annual plants are unrelated to regional climate. *Global Ecology and Biogeography* 23: 1430-1439.

Yelenik, S.G., B. Colman, **J.M. Levine**, J. HilleRisLambers. 2014. A mechanistic study of plant and microbial controls over R* for nitrogen in an annual grassland. *PLoS ONE* 9(8): e106059. doi:10.1371/journal.pone.0106059.

2013

Gilbert, B. and **J.M. Levine**. 2013. Plant invasions and extinction debts. *Proceedings of the National Academy of Sciences* 110:1744-1749. **F1000 Score 2**

Connolly, J., T. Bell, T. Bolger, C. Brophy, T. Carnus, J.A. Finn, L. Kirwan, F. Isbell, **J.M. Levine**, A. Lüscher, V. Picasso, C. Roscher, M.T. Sebastia, M. Suter and A. Weigelt. 2013. An improved model to predict the effects of changing biodiversity levels on ecosystem function. *Journal of Ecology* 101: 344–355.

Turnbull, L.A., **J. M. Levine**, M. Loreau, A. Hector. 2013. Coexistence, niches and biodiversity effects on ecosystem functioning. *Ecology Letters* 16:116-127. **F1000 Score 1**

2012

HilleRisLambers, J., P.B. Adler, W.S. Harpole, **J.M. Levine**, M.M. Mayfield. 2012 Rethinking community assembly through the lens of coexistence theory. *Annual Reviews of Ecology, Evolution, and Systematics* 43:227-248.

2011

Levine, J. M., A. K. McEachern, and C. Cowan. 2011. Seasonal timing of first rain storms affects rare plant population dynamics. *Ecology* 92:2236–2247.

Vasseur, D.A., P. Amarasekare, V.H.W. Rudolf, and **J.M. Levine**. 2011. Eco-evolutionary dynamics enable coexistence via neighbor-dependent selection. *American Naturalist* 178: E96–E109. **F1000 Score 2**

Allesina, S. and **J.M. Levine**. 2011. A competitive network theory of species diversity. *Proceedings of the National Academy of Sciences* 108:5638-5642. **F1000 Score 3**

Yelenik, S.G. and **J.M. Levine**. 2011. The role of plant-soil feedbacks in driving native species recovery. *Ecology* 92:66-74.

Bolnick, D., P. Amarasekare, M.S. Araújo, R. Bürger, **J.M. Levine**, M. Novak, V.H. Rudolf, S. Schreiber, M. Urban, D. Vasseur. 2011. Why intraspecific trait variation matters in community ecology. *Trends in Ecology and Evolution* 26:183-192.

Pachepsky, E. and **J.M. Levine**. 2011. Density dependence slows invader spread in fragmented landscapes. *American Naturalist* 177:18-28. **F1000 Score 1**

2010

Viola, D.V., E.A. Mordecai, A. Jaramillo, S.A. Sistla, L.K. Albertson, J.S. Gosnell, B.J. Cardinale, and **J.M. Levine**. 2010. Does a competition–defense tradeoff maintain plant diversity? *Proceedings of the National Academy of Sciences* 107:17217-17222.

Levine, J.M. and J. HilleRisLambers. 2010. The maintenance of species diversity. *Nature Education Knowledge* 1:67.

Mayfield, M.M. and **J.M. Levine**. 2010. Opposing effects of competitive exclusion on the phylogenetic structure of communities. *Ecology Letters* 13: 1085–1093. **F1000 Score 4**

Adler, P.B., S.P. Ellner, and **J.M. Levine**. 2010. Coexistence of perennial plants: an embarrassment of niches. *Ecology Letters* 13:1019-1029. **F1000 Score 2**

- Yelenik, S.G. and **J.M. Levine**. 2010. Processes limiting native shrub recovery in exotic grasslands after non-native herbivore removal. *Restoration Ecology* 18:418-425.
- HilleRisLambers, J., S.G. Yelenik, B.P. Colman, and J.M. Levine. 2010. California annual grass invaders: the passengers, not drivers of change. *Journal of Ecology* 98:1147–1156.
- Turnbull, L.A., **J.M. Levine**, A.J.F. Fergus, and J.S. Petermann. 2010. Species diversity reduces invasion success in pathogen regulated communities. *Oikos* 119:1040-1046.
- Yelenik, S.G. and **J.M. Levine**. 2010. Native shrub re-establishment in exotic annual grasslands: do ecosystem processes recover? *Ecological Applications* 20:716-727.
- Levine, J.M.**, A.K. McEachern, and C. Cowan. 2010. Do competitors modulate rare plant response to precipitation change? *Ecology* 91:130-140.

2009

- Levine, J.M.** and J. HilleRisLambers. 2009. The importance of niches for the maintenance of species diversity. *Nature* 461:254-257. **F1000 Score 4**
- Adler, P.B., J. Hille Ris Lambers, and **J.M. Levine**. 2009. Weak effects of climatic variability on coexistence in a sagebrush steppe community. *Ecology* 90:3303-3312.
- Adler, P.B., J. Leiker, and **J.M. Levine**. 2009. Direct and indirect effects of climate change on a prairie plant community. *PLOS One* 4:e6887.
- MacDougall, A.S., B. Gilbert, and **J.M. Levine**. 2009. Plant invasion and the niche. *Journal of Ecology* 97:609-615. **F1000 Score 1**
- Going B.M., J. HilleRisLambers, and **J.M. Levine**. 2009. Abiotic and biotic resistance to grass invasion in serpentine annual plant communities. *Oecologia* 159:839-847.

2008

- Levine, J.M.**, P.B. Adler, and J. HilleRisLambers. 2008. On testing the role of niche differences in stabilizing coexistence. *Functional Ecology* 22:934-936.
- Levine, J. M.**, A.K. McEachern, and C. Cowan. 2008. Rainfall effects on rare annual plants. *Journal of Ecology* 96:795-806.
- Levine, J. M.** 2008. Biological Invasions. *Current Biology* 18:R57-R60.

2007

- Adler, P.B., J. HilleRisLambers, and **J.M. Levine**. 2007. A niche for neutrality. *Ecology Letters* 10:95-104. **F1000 Score 6**
- Coleman, H.M. and **J.M. Levine**. 2007. Mechanisms underlying the impacts of exotic grasses in a coastal California meadow. *Biological Invasions* 9:65-71.
- Adler, P.B. and **J.M. Levine**. 2007. Contrasting relationships between resource availability and species richness in space and time. *Oikos* 116:221-232.

1997-2006

- Levine, J.M., E. Pachepsky, B. Kendall, J. HilleRisLambers, and S.G. Yelenik.** 2006. Plant-soil feedbacks and invasive spread. *Ecology Letters* 9:1005-1014. **F1000 Score 1**
- Adler, P.B., J. HilleRisLambers, P. Kyriakidis, Q. Guan, and J.M. Levine.** 2006. Climate variability has a stabilizing effect on the coexistence of prairie grasses. *Proceedings of the National Academy of Sciences* 103:12793-12798. **F1000 Score 3**
- Levine, J.M., P.B. Adler, S.G. Yelenik.** 2004. A meta-analysis of biotic resistance to exotic plant invasions. *Ecology Letters* 7: 975-989.
- Levine, J.M. and M. Rees.** 2004. Effects of temporal variability on rare plant persistence in annual systems. *American Naturalist* 164: 350-363.
- Suttle, K.B., M.E. Power, J.M. Levine, and C. McNeely.** 2004. How fine sediment in river beds impairs growth and survival of juvenile salmonids. *Ecological Applications* 14: 969-974.
- Williams, J.L. and J.M. Levine.** 2004. Small-scale variation in growing season length affects size structure of scarlet monkeyflower. *Oikos* 106: 131-137.
- Levine, J.M. and D. Murrell.** 2003 Community-level consequences of seed dispersal patterns. *Annual Reviews of Ecology and Systematics* 34: 549-574.
- Levine, J.M., C.M. D'Antonio, J.S. Dukes, K. Grigulus, S. Lavorel, and M. Vila.** 2003. Mechanisms underlying the impacts of exotic plant invasions. *Proceedings of the Royal Society* 270: 775-781.
- Levine, J.M.** 2003. A patch modeling approach to the community-level consequences of directional dispersal. *Ecology* 84:1215-1224.
- Levine, J.M. and C.M. D'Antonio.** 2003. Forecasting biological invasions with increasing international trade. *Conservation Biology* 17: 322-326.
- Levine, J.M. and M. Rees.** 2002. Coexistence and relative abundance in annual plant communities: the roles of competition and colonization. *American Naturalist* 160: 452-467.
- Levine, J.M.** 2002. Species diversity and relative abundance in metacommunities. *Trends in Ecology and Evolution* 17:99-100. (Review of *The Unified Neutral Theory of Biodiversity and Biogeography*, Hubbell).
- Levine, J.M., T. Kennedy, and S. Naeem.** 2002. Neighborhood scale effects of species diversity on biological invasions and their relationship to community patterns. Pages 114-124 in M. Loreau, S. Naeem, and P. Inchausti, editors. *Biodiversity and Ecosystem Functioning*. Oxford University Press, Oxford, UK.
- Bengtsson, J., K. Engelhart, P. Giller, S. Hobbie, D. Lawrence, J. Levine, M. Vila, J. Weiner, and V. Wolters.** 2002. Slippin' and slidin between the scales: the scaling components of biodiversity-ecosystem functioning relations. Pages 209-220 in M. Loreau, S. Naeem, and P. Inchausti, editors. *Biodiversity and Ecosystem Functioning*. Oxford University Press, Oxford, UK.

- D'Antonio, C.M., **J.M. Levine**, and M. Thomson. 2001. Ecosystem resistance to invasion and the role of propagule supply: a California perspective. *Journal of Mediterranean Ecology* 2: 233-245.
- Levine, J.M.** 2001. Local interactions, dispersal, and native and exotic plant diversity along a California stream. *Oikos* 95: 397-408.
- Levine, J.M.** 2000. Species diversity and biological invasions: relating local process to community pattern. *Science* 288: 852-854. Also profiled in the News section of *Science* 288: 785-786, and winner of ESA's 2002 George Mercer Award
- Levine, J.M.** 2000. Complex interactions in a streamside plant community. *Ecology* 81: 3431-3444.
- Levine, J.M.** 1999. Indirect facilitation: evidence and predictions from a riparian community. *Ecology* 80: 1762-1769.
- Levine, J.M.** and C.M. D'Antonio. 1999. Elton revisited: A review of evidence linking diversity and invasibility. *Oikos* 87: 15-26.
- Bertness, M.D., G.H. Leonard, **J.M. Levine**, P.R. Schmidt, and A.O. Ingraham. 1999. Testing the relative contribution of positive and negative interactions in rocky intertidal communities. *Ecology* 80: 2711-2726.
- Bertness, M.D., G.H. Leonard, **J.M. Levine**, and J.F. Bruno. 1999. Climate-driven interactions among rocky intertidal organisms caught between a rock and a hot place. *Oecologia* 120: 446-450.
- Levine, J.M.**, S.D. Hacker, C.D.G. Harley, and M.D. Bertness. 1998. Nitrogen effects on an interaction chain in a salt marsh community. *Oecologia* 117: 266-272.
- Levine, J.M.**, J.S. Brewer, and M.D. Bertness. 1998. Nutrients, competition, and plant zonation in a New England salt marsh. *Journal of Ecology* 86: 285-292.
- Leonard, G.H., **J.M. Levine**, P.R. Schmidt, and M.D. Bertness. 1998. Flow-driven variation in intertidal community structure in a Maine estuary. *Ecology* 79: 1395-1411.
- Brewer, J.S., T. Rand, **J.M. Levine**, and M.D. Bertness. 1998. Biomass allocation, clonal dispersal and competitive success in three salt marsh plants. *Oikos* 82: 347-353.
- Brewer, J.S., **J.M. Levine**, and M.D. Bertness. 1998. Interactive effects of elevation and burial with wrack on plant community structure in some Rhode Island salt marshes. *Journal of Ecology* 86: 125-136.
- Brewer, J.S., **J.M. Levine**, and M.D. Bertness. 1997. Effects of biomass removal and elevation on species richness in a New England salt marsh. *Oikos* 80: 333-341.

PhD Students

Stephanie Yelenik, Ph.D. 2008, Scientist at USGS

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Jacob Levine, Ph.D. in progress (joint with S. Pacala)
Theo Gibbs, Ph.D. in progress (joint with S. Levin)
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Postdoctoral Researchers and Senior Scientists

Peter Adler 2003-2006; Faculty at Utah State University
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Emily Moran 2012-2014; Faculty at University of California, Merced
Monique De Jager 2013-2014; Researcher at Netherlands Institute for Ecology
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Andrew Letten 2018-2019; Faculty at the University of Queensland
William Petry 2016-2020; Faculty at North Carolina State University
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Jeffrey Smith 2021-present
Evelyn Beaury 2022-present
Chuliang Song, summer 2022 start date