

Mark C. Urban

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Twitter

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EDUCATION	2006	Ph.D., Yale University
	2001	M.E.Sc., Yale University
	1998	B.S., Muhlenberg College
PROFESSIONAL EXPERIENCE	2020 –	Arden Chair in Ecology and Evolutionary Biology
	2019 –	Professor, University of Connecticut, Dept. of Ecology and Evolutionary Biology (EEB)
	2016 –	Founder and Director, Center of Biological Risk
	2014 – 2019	Associate Professor, University of Connecticut, Dept. of EEB
	2008 – 2014	Assistant Professor, University of Connecticut, Dept. of EEB
	2006 – 2008	Postdoctoral Fellow, National Center for Ecological Analysis and Synthesis
FELLOWSHIPS	2015	University of Leuven Visiting Professor Fellowship
	2006	National Science Foundation National Center for Ecological and Synthesis Postdoctoral Fellowship
	2004	Centers for Disease Control Fellowship in Vector-Borne Disease
	2001	National Science Foundation Graduate Research Fellowship
AWARDS AND HONORS	2022	Elected, Connecticut Academy of Science and Engineering
	2019, 2020	Institute for Scientific Information Highly Cited Researcher
	2016	Presidential Award, American Society of Naturalists
	2015	<i>Discover's</i> top-100 science stories of 2015
	2012	Research Promise Award, American Assoc. of University Professors
	2008	Young Investigator Award, American Society of Naturalists
	2006	All distinguished recommendations for Ph.D. thesis
	1998	Graduated <i>summa cum laude</i> with honors & highest honors (2 majors)
	1998	John E. Trainer Award in Biology
1998	Undergraduate Merit Award	
1997	Morris K. Udall Scholar	

PUBLICATIONS	83	peer-reviewed publications
	41	h-index (Google Scholar)
	154	mean citations per publication
	3	1000+ citation articles
	26	100+ citation articles
	10	Web of Science highly cited papers (top 1% in academic field)
	9	Faculty of 1000 citations

Gotelli, N. J., D. B. Booher, M. C. Urban, W. Ulrich, A. V. Suarez, D. K. Skelly, D. J. Russell, R. J. Rowe, M. Rothendler, N. Rios, S. M. Rehan, G. Ni, C. S. Moreau, A. E. Magurran, F. A. M. Jones, G. R. Graves, C. Fiera, U. Burkhardt, and R. B. Primack. 2023. Estimating species relative abundances from museum records. *Methods in Ecology and Evolution*. 14: 431-443.

Urban, M. C., J. M. J. Travis, D. Zurell, P. L. Thompson, N. W. Synes, A. Scarpa, P. R. Peres-Neto, A.-K. Malchow, P. M. A. James, D. Gravel, L. De Meester, C. Brown, G. Bocedi, C. H. Albert, A. Gonzalez, and A. P. Hendry. 2022. Coding for Life: Designing a Platform for Projecting and Protecting Global Biodiversity. *Bioscience*. 72: 91-104.

Verrelli, B. C., M. Alberti, S. Des Roches, N. C. Harris, A. P. Hendry, M. T. J. Johnson, A. M. Savage, A. Charmantier, K. M. Gotanda, L. Govaert, L. S. Miles, L. R. Rivkin, K. M. Winchell, K. I. Brans, C. Correa, S. E. Diamond, B. Fitzhugh, N. B. Grimm, S. Hughes, J. M. Marzluff, J. Munshi-South, C. Rojas, J. S. Santangelo, C. J. Schell, J. A. Schweitzer, M. Szulkin, M. C. Urban, Y. Zhou, and C. Ziter. 2022. A global horizon scan for urban evolutionary ecology. *Trends in Ecology & Evolution*. 37: 1006-1019.

Nadeau, C. P., A. Giacomazzo, and M. C. Urban. 2022. Cool microrefugia accumulate and conserve biodiversity under climate change. *Global Change Biology*. 28: 3222-3235.

Leibold, M. A., L. Govaert, N. Loeuille, L. De Meester, and M. C. Urban. 2022. Evolution and community assembly across spatial scales. *Annual Review of Ecology, Evolution, and Systematics*. 53: 299-326.

Rowland, F. E., E. S. Schyling, L. K. Freidenburg, M. C. Urban, J. L. Richardson, A. Z. A. Arietta, S. B. Rodrigues, A. D. Rubinstein, M. F. Benard, and D. K. Skelly. 2022. Asynchrony, density dependence, and persistence in an amphibian. *Ecology*. 103: e3696.

Evans, A. E., M. Zimova, S. T. Giery, H. E. Golden, A. L. Pastore, C. P. Nadeau, and M. C. Urban. 2022. An eco-evolutionary perspective on the Humpty-Dumpty effect and community restoration. *Oikos*: e08978.

- PUBLICATIONS** Giery, S. T., D. L. Drake, and M. C. Urban. 2021. Microgeographic evolution of metabolic physiology in a salamander metapopulation. *Ecology*. 102(11): e03488.
- Nadeau, C. P., T. E. Farkas, A. M. Makkay, R. T. Papke, and M. C. Urban. 2021. Adaptation reduces competitive dominance and alters community assembly. *Proceedings of the Royal Society B: Biological Sciences*. 288: 20203133.
- Urban, M. C., C. Merow, J. L. Wegrzyn, B. S. Maitner, and D. Corcoran. 2021. How to publish at pandemic speed. *Bioscience*. 71: 1001-1003.
- Golden, H. E., K. E. Holsinger, L. A. Deegan, C. J. MacKenzie, and M. C. Urban. 2021. River drying influences genetic variation and population structure in an Arctic freshwater fish. *Conservation genetics*. 22: 369-382.
- Giery, S. T., M. Zimova, D. L. Drake, M. C. Urban. 2021. Balancing selection and drift in a polymorphic salamander metapopulation. *Biology Letters*. 17: 20200901.
- Des Roches, S., K. I. Brans, M. R. Lambert, L. R. Rivkin, A. M. Savage, C. J. Schell, C. Correa, L. De Meester, S. E. Diamond, N. B. Grimm, N. C. Harris, L. Govaert, A. P. Hendry, M. T. J. Johnson, J. Munshi-South, E. P. Palkovacs, M. Szulkin, M. C. Urban, B. C. Verrelli, and M. Alberti. 2021. Socio-eco-evolutionary dynamics in cities. *Evolutionary Applications*. 14: 248-267.
- Highly Cited Paper (Web of Science)
- Top-10 cited article in *Evolutionary Applications*
- Govaert, L., F. Altermatt, L. De Meester, M. A. Leibold, M. A. McPeck, J. H. Pantel, and M. C. Urban. 2021. Integrating fundamental processes to understand eco-evolutionary community dynamics and patterns. *Functional Ecology*. 35: 2138-2155.
- Urban, M. C. 2020. Life without ice. *Science*. 367: 719-719.
- 99th percentile Altmetric attention score
- Urban, M. C., S. Y. Strauss, F. Pelletier, E. P. Palkovacs, M. A. Leibold, A. P. Hendry, L. De Meester, S. M. Carlson, A. L. Angert, and S. T. Giery. 2020. Evolutionary origins for ecological patterns in space. *Proceedings of the National Academy of Sciences*. 117: 17482-17490.
- 97th percentile Altmetric attention score
- Featured in *Science Daily*

- PUBLICATIONS** Merow, C. and M. C. Urban. 2020. Seasonality and uncertainty in global COVID-19 growth rates. *Proceedings of the National Academy of Sciences*: 117: 27456-27464.
- 99th percentile Altmetric attention score
- Featured in *The New York Times*, *Nature News*
- Urban, M. C. 2020. Climate-tracking species are not invasive. *Nature Climate Change*. 10:382-384.
- Invited commentary
- 98th percentile Altmetric attention score
- Featured in *Smithsonian*, *Ensi*a
- Urban, M. C., N. A. Freidenfelds, and J. L. Richardson. 2020. Microgeographic divergence of functional responses among salamanders under antagonistic selection from apex predators. *Proceedings of the Royal Society B: Biological Sciences*. 287:20201665.
- Alberti, M., Eric P. Palkovacs, Simone D. Roches, Luc D. Meester, Kristien I. Brans, L. Govaert, N. B. Grimm, N. C. Harris, A. P. Hendry, C. J. Schell, M. Szulkin, J. Munshi-South, M. C. Urban, and B. C. Verrelli. 2020. The Complexity of Urban Eco-evolutionary Dynamics. *Bioscience*. 70:772-793.
- Evans, A. E., M. C. Urban, and E. L. Jockusch. 2020. Developmental temperature influences color polymorphism but not hatchling size in a woodland salamander. *Oecologia*. 192:909-918.
- Arietta, A. Z. A., L. K. Freidenburg, M. C. Urban, S. B. Rodrigues, A. Rubinstein, and D. K. Skelly. 2020. Phenological delay despite warming in wood frog *Rana sylvatica* reproductive timing: a 20-year study. *Ecography*. 43:1791-1800.
- Jeliazkov, A. et al. 2020. A global database for metacommunity ecology, integrating species, traits, environment and space. *Scientific Data*. 7:1-15.
- Leibold, M. A., M. C. Urban, L. De Meester, C. A. Klausmeier, and J. Vanoverbeke. 2019. Regional neutrality evolves through local adaptive niche evolution. *Proceedings of the National Academy of Sciences of the United States of America*. 116: 2612 – 2617.
- Highlighted in *PNAS* commentary by M. Pinsky
- Urban, M. C., A. Scarpa, J. M. J. Travis, and G. Bocedi. 2019. Maladapted Prey Subsidize Predators and Facilitate Range Expansion. *American Naturalist*. 194: 590-612.
- Recommended by Adam Siepielski in the Faculty of 1000

- PUBLICATIONS** Nadeau, C. P. & Urban, M. C. 2019. Eco-evolution on the edge during climate change. *Ecography*. 42(7): 1280-1297.
- Invited E4 Award submission
- Urban, M. C. 2019. Projecting biological impacts from climate change like a climate scientist. *Wiley Interdisciplinary Reviews: Climate Change*. 10(4): e585.
- De Meester, L., K. I. Brans, L. Govaert, C. Souffreau, S. Mukherjee, H. Vanvelk, K. Korzeniowski, L. Kilsdonk, E. Decaestecker, R. Stoks, & M. C. Urban. 2019. Analysing eco-evolutionary dynamics – The challenging complexity of the real world. *Functional Ecology*. 33: 43 – 59.
- Top 10% most downloaded paper in *Functional Ecology*
- Urban, M. C. 2018. Escalator to Extinction. *Proceedings of the National Academy of Sciences of the United States of America*. 115: 11871 – 11873.
- Evans, A. E., B. R. Forester, E. L. Jockusch, and M. C. Urban. 2018. Salamander morph frequencies do not evolve as predicted in response to 40 years of climate change. *Ecography*. 41: 1687 – 1697.
- Urban, M. C. and R. Roehm. 2018. The road to higher permanence and biodiversity in exurban wetlands. *Oecologia*. 186: 291 – 302.
- Amburgey, S. M., D. A. Miller, E. H. Campbell Grant, T. A. Rittenhouse, M. F. Benard, J. L. Richardson, M. C. Urban, W. Hughson, A. B. Brand, and C. J. Davis. 2018. Range position and climate sensitivity: The structure of among-population demographic responses to climatic variation. *Global Change Biology*. 24: 439 – 454.
- Nadeau, C. P., M. C. Urban, and J. R. Bridle. 2017. Climates past, present, and yet-to-come shape climate change vulnerabilities. *Trends in Ecology & Evolution*. 32: 786 – 800.
- Nadeau, C. P., M. C. Urban, and J. R. Bridle. 2017. Coarse climate change projections for species living in a fine-scaled world. *Global Change Biology*. 23: 12 – 24.
- Urban, M. C., P. L. Zarnetske, and D. K. Skelly. 2017. Searching for biotic multipliers of climate change. *Integrative and Comparative Biology*. 57: 134 – 147.

- PUBLICATIONS** Urban, M. C., J. L. Richardson, N. A. Freidenfelds, D. L. Drake, J. F. Fischer, and P. P. Saunders. 2017. Microgeographic adaptation of Wood Frog tadpoles to an apex predator. *Copeia*. 105: 451 – 461.
- Urban, M. C. *et al.* 2016. Improving the forecast for biodiversity under climate change. *Science*. 353: 1113.
- Featured in *Washington Post*, *WNPR*, *Bloomberg*, *Radio New Zealand*, *CarbonBrief*, and others
- Highly Cited Paper (Web of Science)
- De Meester, L., J. Vanoverbeke, L. J. Kilsdonk, and M. C. Urban. 2016. Evolving perspectives on monopolization and priority effects. *Trends in Ecology & Evolution*. 31: 136 – 146.
- Highly Cited Paper (Web of Science)
- Cunningham, H. R., L. J. Rissler, L. B. Buckley, and M. C. Urban. 2016. Abiotic and biotic constraints across reptile and amphibian ranges. *Ecography*. 39: 1 – 8.
- Editor's choice
- Davies, T. J., M. C. Urban, B. Rayfield, M. W. Cadotte, and P. R. Peres-Neto. 2016. Deconstructing the relationships between phylogenetic diversity and ecology: a case study on ecosystem functioning. *Ecology*. 97: 2212 – 2222.
- Vanoverbeke, J., M. C. Urban, and L. De Meester. 2016. Community assembly is a race between immigration and adaptation: eco-evolutionary interactions across spatial scales. *Ecography*. 39: 858 – 870.
- Urban, M. C. 2016. Ecological genetics. In: eLS. John Wiley & Sons, Ltd: Chichester. DOI: 10.1002/9780470015902.a0021214.pub2.
- Urban, M. C. 2015. Accelerating extinction risk from climate change. *Science*. 348: 571 – 573.
- Main finding in Summary for policymakers of the global assessment report on biodiversity and ecosystem services of IPBES
- Modified figure used in The Royal Society's Climate updates: progress since the fifth Assessment Report (AR5) of the IPCC
- #15 of top-100 discoveries of 2015, *Discover Magazine*
- Highlighted by editors
- Highly Cited Paper (Web of Science)
- Recommended by B. Brook, D. Fordham in the Faculty of 1000
- Featured in *New York Times*, *Associated Press*, *BBC*, *The Guardian*, *Washington Post*, *CNN*, *National Geographic*, *The Independent*, *Irish Times*, *International Business Times*, and others

- PUBLICATIONS** Urban M.C. and Richardson J.L. 2015. The evolution of foraging rate across local and geographic gradients in predation risk and competition. *American Naturalist*. 186: E16–E32.
- Recipient of American Society of Naturalist’s President’s Award for best paper published in the journal in 2015
- Henriques-Silva, R., F. Boivin, V. Calcagno, M. C. Urban, and P. R. Peres-Neto. 2015. On the evolution of dispersal via heterogeneity in spatial connectivity. *Proceedings of the Royal Society B: Biological Sciences*. doi: 10.1098/rspb.2014.2879.
- Urban, M. C., L. A. Lewis, K. Fucikova, and A. Cordone. 2015. Population of origin and environment interact to determine oomycete infections in spotted salamander populations. *Oikos*. 124: 274 – 284.
- Richardson, J. L., M. C. Urban, D. I. Bolnick, and D. K. Skelly. 2014. Microgeographic adaptation and the spatial scale of evolution. *Trends in Ecology & Evolution*. 29: 165 – 176.
- Recommended by A. Hendry in the Faculty of 1000
- Highly Cited Paper (Web of Science)
- Urban, M. C., J. L. Richardson, and N. A. Freidenfelds. 2014. Plasticity and genetic adaptation mediate amphibian and reptile responses to climate change. *Evolutionary Applications*. 7: 88 – 103.
- Highly Cited Paper (Web of Science)
- Herstoff, E., and M. C. Urban. 2014. Will pre-adaptation buffer the impacts of climate change on novel species interactions? *Ecography*. 37: 111 – 119.
- Urban, M. C., R. Bürger, and D. I. Bolnick. 2013. Asymmetric selection and the evolution of extraordinary defenses. *Nature Communications*. 4: 1 – 8.
- Urban, M. C. 2013. Evolution mediates the effects of apex predation on aquatic food webs. *Proceedings of the Royal Society B: Biological Sciences*. doi: 10.1098/rspb.2013.0859.
- Featured in *NSF News*
- Urban, M. C., P. L. Zarnetske, and D. K. Skelly. 2013. Moving forward: Dispersal and species interactions determine biotic responses to climate change. *Annals of the New York Academy of Sciences*. doi: 10.1111/nyas.12184.

- PUBLICATIONS** Richardson, J. L. and M. C. Urban. 2013. Strong selection barriers explain microgeographic adaptation in wild salamander populations. *Evolution*. 67: 1729 – 1740.
- Jones, C. S. and M. C. Urban. 2013. Promise and pitfalls of a gender-blind faculty search. *Bioscience*. 63: 611 – 612.
- Zarnetske, P. L., D. K. Skelly, and M. C. Urban. 2012. Biotic multipliers of climate change. *Science*. 336: 1516 – 1518.
- Featured in *Science Daily*, *RedOrbit*, *Wissenschaft*, and others
- Norberg, J., M. C. Urban, M. Vellend, C. A. Klausmeier, and N. Loeuille. 2012. Eco-evolutionary responses of biodiversity to climate change. *Nature Climate Change*. 2: 747 – 751.
- Recommended by A. Baird, J. Figueiredo in the Faculty of 1000
- Urban, M. C., J. J. Tewksbury, and K. S. Sheldon. 2012. On a collision course: competition and dispersal differences create no-analogue communities and cause extinctions during climate change. *Proceedings of the Royal Society B*. 279: 2072 – 2080.
- Featured in *Nature Research Highlights*, *Christian Science Monitor*, *Business Week*, *The Atlantic Wire*, *Hartford Courant*, and others
- Highly Cited Paper (Web of Science)
- Recommended by B. Brook, D. Fordham in the Faculty of 1000
- Top-10 most cited *Proceedings of the Royal Society B* articles from 2012
- Urban, M. C., L. De Meester, M. Vellend, R. Stoks, and J. Vanoverbeke. 2012. A crucial step toward realism: responses to climate change from an evolving metacommunity perspective. *Evolutionary Applications*. 5: 154 – 167.
- Recommended by R. Sommaruga in the Faculty of 1000
- Top 10 highly cited articles in journal in 2013
- Urban, M. C. 2011. The evolution of species interactions across natural landscapes. *Ecology Letters*. 14: 723 – 732.
- Urban, M. C., Gilman, S. E., J. Tewksbury, and R. D. Holt. 2011. Heating up relations between cold fish: competition modifies responses to climate change. *Journal of Animal Ecology*. 80: 505 – 507.

- PUBLICATIONS** Bolnick, D. I., P. Amarasekare, M. S. Araujo, R. Burger, J. M. Levine, M. Novak, V. H. W. Rudolf, S. J. Schreiber, M. C. Urban, and D. A. Vasseur. 2011. Why intraspecific variation matters in community ecology. *Trends in Ecology & Evolution*. 26: 183 – 192.
- #2 most cited *Trends in Ecology & Evolution* article published since 2011
- Highly Cited Paper (Web of Science)
- Gilman, S. E., M. C. Urban, J. Tewksbury, G. W. Gilchrist, and R. D. Holt. 2010. A framework for community interactions under climate change. *Trends in Ecology & Evolution*. 25: 325 – 331.
- Highly Cited Paper (Web of Science)
- Buckley, L. B., M. C. Urban, M. J. Angilletta, L. Crozier, L. J. Rissler, and M. W. Sears. 2010. Can mechanism inform species' distribution models? *Ecology Letters*. 13: 1041 – 1054.
- Highly Cited Paper (Web of Science)
- Recommended by B. Brook, L. Traill in the [Faculty of 1000](#)
- Urban, M.C. 2010. Microgeographic adaptation of larval salamander morphological defenses in response to a predaceous salamander and beetle. *Oikos*. 119: 646 – 658.
- Urban, M.C., and L. De Meester. 2009. Community monopolization: local adaptation enhances priority effects in an evolving metacommunity. *Proceedings of the Royal Society B*. 276: 4129 – 4138.
- Urban, M. C., et al. 2008. The evolutionary ecology of metacommunities. *Trends in Ecology and Evolution*. 23: 311 – 317.
- #1 most cited article in TREE (Apr. – Sept. 2008)
- Urban, M. C., B. L. Phillips, D. K. Skelly, and R. Shine. 2008. The toad more traveled: the heterogeneous invasion dynamics of cane toads in Australia. *American Naturalist*. 171: E134 – E148.
- Urban, M. C. 2008. The evolution of prey body size reaction norms in diverse communities. *Journal of Animal Ecology*. 77: 346 – 355.
- Urban, M. C. 2008. Salamander evolution across a cline in gape-limited predation risk. *Oikos*. 117: 1037 – 1049.
- Urban, M. C. 2008. Ecological Genetics. In: Encyclopedia of Life Sciences. John Wiley and Sons, Ltd, Chichester.

- PUBLICATIONS** Urban, M. C. 2007. The growth-predation risk tradeoff under a growing gape-limited predation threat. *Ecology*. 88: 2587 – 2597.
- Urban, M. C. 2007. Predator size and phenology shape prey survival in temporary ponds. *Oecologia*. 154: 571 – 580.
- Urban, M. C. 2007. Risky prey behavior evolves in risky habitats. *Proceedings of the National Academy of Sciences of the USA*. 104: 14377 – 14382.
- Featured on *Science Online News, National Geographic News, The New Scientist, AAAS radio show Science Update,* and others
- Urban, M. C., B. L. Phillips, D. K. Skelly, and R. Shine. 2007. The cane toad's (*Chaunus [Bufo] marinus*) increasing ability to invade Australia is revealed by a dynamically updated range model. *Proceedings of the Royal Society B*. 274: 1413 – 1419.
- Featured on *Nature Online News, BBC News, Today Show-Australia, Discovery Channel News, Yahoo News,* and others
- Recommended by A. Hendry in the [Faculty of 1000](#)
- Urban, M. C. 2006. Maladaptation and mass-effects in a metacommunity: consequences for species coexistence. *American Naturalist*. 168: 28 – 40.
- Urban, M. C. and D. K. Skelly. 2006. Evolving metacommunities: Toward an evolutionary perspective on metacommunities. *Ecology*. 87: 1616 – 1626.
- Urban, M. C., D. K. Skelly, D. Burchsted, W. Price, S. Lowry. 2006. Stream communities across a rural-urban landscape gradient. *Diversity and Distributions*. 12: 337 – 350.
- Recommended by P. Kareiva in the [Faculty of 1000](#)
- Urban, M. C. 2006. Road facilitation of trematode infections in snails of northern Alaska. *Conservation Biology*. 20: 1143:1149.
- Skelly, D. K., M. A. Halverson, L. K. Freidenburg, and M. C. Urban. 2005. Canopy closure and amphibian biodiversity in forested wetlands. *Wetlands Ecology and Management*. 13: 261 – 268.
- Urban, M. C. 2004. Disturbance heterogeneity determines freshwater metacommunity structure. *Ecology*. 85: 2971 – 2978.
- Bradt, P., M. Urban, N. Goodman, S. Bissell and I. Spiegel. 1999. Stability and resilience in benthic macroinvertebrate assemblages. *Hydrobiologia*. 403: 123 – 133.

**POPULAR
PRESS**

Urban, M. C. Evolution on the smallest of scales. *The Conversation*. October 2nd, 2020

Urban, M. C. Ice will return but extinctions can't be reversed. *The Guardian*.
December 27th, 2017
- 10th most-read article in environment

Urban, M. C. How data is key to conserving wildlife in a changing climate.
CarbonBrief. September 14th, 2016

Urban, M. C. and Linda A. Deegan. T-shirt weather in the Arctic. Op-ed. *The New
York Times*. February 5th, 2016
- 9th most emailed article and 12th most tweeted article

Urban, M. C. and R. Capers. Climate change has come, time for leadership. Op-ed.
Hartford Courant. December 2nd, 2012.

Urban, M. C. 2004. The town that sold its sunset. *River Teeth*. 5: 90 – 102.
- Honorable mention in writer's competition of the *Atlantic Monthly*

**RESEARCH
GRANTS**

\$10.9M external

2022 -2024 National Aeronautics and Space Administration – Earth Science (PI)
Biodiversity Exposure Forecasts (BEFore): Anticipating Ecological Vulnerability to
Global Change
\$2,000,000

**2019 – 2021 National Aeronautics and Space Administration – Planetary Science –
Exobiology (PI)**
Overcoming adaptation: how colonization, evolution, and competition determine
the assembly of extremophile communities
\$953,472

2019 -2020 CT Institute of Water Resources (PI)
Forecasting the resilience of vernal pool ecosystems to climate-mediated
hydrological disruptions
\$25,000

2018 – 2019 Quebec Centre for Biodiversity Science (Co-PI)
OneModel: Forecasting Biodiversity Change
\$20,000

2016 – 2021 National Science Foundation – Div. of Environmental Biology (PI)
Ecological and evolutionary resilience of aquatic communities to the climate-
mediated expansion of an apex predator
\$823,650

RESEARCH GRANTS (cont.)

2016 – 2019 University of Connecticut Provost Academic Plan (PI)
Center of Biological Risk
\$300,000

2015 – 2017 National Science Foundation – Div. of Polar Programs (co-PI)
Adaptability of a key Arctic freshwater species to climate change
with Linda Deegan, Marine Biological Laboratory
\$1,200,000 + ~ \$750,000 in logistical support

2012 – 2017 James S. McDonnell Foundation Complex Systems Grant (PI)
Does evolution affect the assembly dynamics of biological communities?
\$450,000

2011 – 2015 National Science Foundation – Div. of Environmental Biology (PI)
Evolutionary and ecological feedbacks: Do locally adapted salamanders shape food web dynamics across natural landscapes?
\$500,000

2009 – 2010 University of Connecticut Foundation (PI)
Evolutionary feedbacks on species diversity
\$24,000

2006 – 2008 National Center for Ecological Analysis and Synthesis (co-PI)
Working group: Evolutionary and ecological sorting in space
with Mathew Leibold, University of Texas-Austin
\$105,000

2006 – 2008 National Center for Ecological Analysis and Synthesis (PI)
Postdoctoral Fellowship: Interaction traits and metacommunity gene flow
\$86,000

TEACHING & OTHER GRANTS

2020 – 2025 National Science Foundation Research Traineeship (NRT) (PI)
Building resilient landscapes for food, energy, water, and ecosystem services in America's original megalopolis
\$3,000,000

2020 National Science Foundation Coordination Network (co-PI)
Youth Environment Alliance in Higher Education (YEAH)
\$499,138 (\$50,000 to UConn)

2015 – 2018 National Science Foundation (Sr. Pers.)
NRT-IGE: Training STEM Graduates to Communicate in the Digital Age, and Measuring Whether It Works
PI: Margaret Rubega \$499,000

TEACHING	Environmental Risk Assessment (graduate)
	Environmental Risk Practicum (graduate)
	Climate Crisis: Take Action (all-campus pop-up course with 2600+ students)
	Global change ecology (undergraduate)
	Evolutionary ecology (graduate)
	Freshwater ecology (undergraduate)
	Ecology (undergraduate)
	Ecology writing intensive (undergraduate)
	Nature, Science, and Society seminar (undergraduate and graduate)
	Seminar in Vertebrate Biology (undergraduate and graduate)
	Spatial Evolution seminar (graduate)
	Co-led COP21, 22, 23, 24, 25, 26, 27 delegations to UN Climate Summit (undergraduate)
POSTDOC FELLOWS	2021 – 2022 Heather Kittredge
	2020 – 2021 Derek Corcoran (Senior data scientist, Aarhus University)
	2017 – 2019 Sean Giery (Postdoc., Penn State University)
	2014 – 2017 Timothy Farkas (Postdoc., Univ. of New Mexico)
	2012 – 2014 Jonathan Richardson (Asst. Prof., Richmond University)
	2011 – 2013 Phoebe Zarnetske (Assoc. Prof., Michigan State University)
VISITING SCHOLARS	2011 – 2012 Joost Vanoverbeke (Flemish Research Inst. for Nature and Forest)
GRADUATE STUDENTS	2021 – Peter Billman (Ph.D.)
	2021 – Katja Kwaku (Ph.D.)
	2020 – Amanda Pastore (M.S.)
	2019 – 2020 Samantha Pierce (B.S./M.S.)
	2014 – 2020 Annette Evans (Ph.D.)
	2014 – 2020 Christopher Nadeau (Ph.D.)
	2015 – 2016 Shannon Nardi (B.S./M.S.)
	2012 – 2018 Michael Hutson (Ph.D.)
	2010 – 2016 Heidi Golden (Ph.D.)
	2010 – 2016 Jessica Rack (Ph.D.)
	2010 – 2012 Robert Roehm (B.S./M.S.)

GRADUATE STUDENT COMMITTEES	2021 –	Jessica Espinosa (Ph.D.)
	2021 –	Swapna Subramanian (Ph.D.)
	2021 –	Ewaldo Leitao de Oliveira, Jr. (Ph.D.)
	2019 –	Grace Vaziri (Ph.D.)
	2018 –	Dipanjana Dalui (Ph.D.)
	2015 – 2022	Jason Lech (Ph.D.)
	2017 – 2021	Jacob Kasper (Ph.D.)
	2015 – 2020	Kristen Nolting (Ph.D.)
	2015 – 2019	Anna Sjodin (Ph.D.)
	2017 – 2019	Jackson Phillips (M.S.)
	2013 – 2016	Michael Smircich (M.S.)
	2013 – 2016	Johana Goyes (Ph.D.)
	2012 – 2014	Jason O'Connor (M.S.)
	2011 – 2016	Christopher Field (Ph.D.)
	2010 – 2014	Laura Cisneros (Ph.D.)
	2010 – 2014	Jonathan Velotta (Ph.D.)
	2010 – 2011	Andre Felton (M.S.)
2009 – 2015	Brian Klingbeil (Ph.D.)	
2009 – 2011	Tobias Landberg (Ph.D.)	
EXTERNAL PH.D. STUDENT COMMITTEES	2022 –	Noa Ratia, University of Nevada, Reno
	2017 –	Mary Burak, Yale University
	2018 – 2022	Muyang Lu, Yale University
	2022 – 2023	Patrick Moldowan, University of Toronto
	2015 – 2017	Samantha Schwab, Rutgers University
	2015 – 2016	Patrick Thompson, McGill University
	2014 – 2017	Lindsey Thurman, Oregon State University
	2013 – 2016	Daniel Wieczynski, Yale University
	2013 – 2015	Chris Dibble, Rice University
2011 – 2012	Sarah Rousseaux, University of Leuven	

INVITED KEYNOTE, SYMPOSIA, & PANEL LECTURES	2022	United Nations COP 27, Sharm el-Sheikh, Egypt (Panel) World Biodiversity Forum, Davos, Switzerland (2 keynote) British Ecological Society & Royal Meteorological Society Climate Science for Ecological Forecasting, Keynote, London, U.K. British Ecological Society, Panelist, Geneva, Switzerland
	2021	ASLO Understanding (mal)adaptations to environmental change, Keynote, virtual
	2020	Idaho EPSCoR GEM3 annual meeting, Keynote, virtual
	2019	UC Louvain Conference on How human activities cause biodiversity loss, Keynote, Louvain-La-Neuve, Belgium ASLO Adaptation of Aquatic Biodiversity Symposium, Keynote, San Juan, Puerto Rico UConn Law School, Food & Changing Climate Conference, Keynote, W. Hartford, CT
	2018	Yale University School of Forestry and Environmental Studies Leadership Council Alumni Panel, New Haven, CT American Society of Naturalists, Asilomar, CA
	2017	Society for Integrative and Comparative Biology, New Orleans, LA
	2016	EVENET Eco-evolutionary Symposium, Keynote, Ghent, Belgium Flanders Annual Meeting of Ecology, Keynote, Ghent, Belgium Ecological Society of America, Fort Lauderdale, FL Joint Meeting of Ichthyologists and Herpetologists, New Orleans TEDx-UConn, Storrs, CT Yale University Center for Biodiversity and Global Change Inaugural Lecture , New Haven, CT
	2014	American Society of Naturalists, Asilomar, CA Canadian Society for Ecology and Evolution, Montreal, Quebec Joint Aquatic Sciences Meeting, Portland, OR Climate Impacts, Mitigation & Adaptation Conference, Storrs, CT
	2013	Ecological Society of America, Minneapolis, MN Center for Integrative Biodiversity Research, Leipzig, Germany British Ecological Society INTECOL Congress, London, England
	2012	Association for the Advancement of Arts and Sciences, Vancouver Cary Conference on Climate Change and Species Interactions, Millbrook, NY Diversitas Workshop on Range Dynamics, Mont St. Hilaire, Quebec
	2011	European Platform for Biodiversity Research Strategy Conference on Evolution and Biodiversity Ecological Society of America, Austin, TX Quebec Centre for Biodiversity Science, Montreal, Quebec
	2010	Ecological Society of America, Pittsburgh, PA
	2009	University of Toronto EEB Colloquium Keynote, Toronto, Canada

INVITED KEYNOTE, SYMPOSIA, & PANEL LECTURES (cont.)	2008	Diversitas Workshop on Climate Change, Paris, France American Society of Naturalists Young Investigator's Symposium, Minneapolis, MN Ecological Society of America, Milwaukee, WI
	2006	Ecological Society of America, Nashville, TN
	2005	Ecological Society of America, Montreal, Quebec
INVITED LECTURES	2022	Carnegie Institute of Science University of Florida (Holt lecture; online) The Jackson Laboratory for Genomic Medicine
	2021	Cary Institute of Ecosystem Studies (online; pandemic) University of Potsdam (online; pandemic)
	2020	Binghamton University (online; pandemic) Rutgers University
	2019	KU Leuven Case Western Reserve University (Student's choice)
	2018	University of Connecticut Pathobiology
	2017	Jinan University, Guangzhou, China University of Missouri (Student's choice) Northeastern University University of Aberdeen University of Massachusetts – Amherst
	2016	Yale University University of California – Santa Cruz University of Maine-Orono University of Vermont
	2015	World Wildlife Fund (UK) Duke University Rutgers University Kellogg Biological Field Station Michigan State University North Carolina State University Eastern Connecticut State University
	2014	City College of New York Wesleyan University
	2013	University of Leuven Washington University in St. Louis (Student's choice) Pennsylvania State University

INVITED LECTURES	2013	Clark University University of Connecticut Alumni Association University of Connecticut Natural Resources and the Environment McGill University University of Illinois at Urbana-Champaign	
	2012	State University of New York at Stony Brook University of Leuven Universite du Quebec a Montreal	
	2011	University of California – Davis Trinity College University of Connecticut – Avery Point University of Massachusetts – Amherst University of Texas – Austin (Student’s choice)	
	2010	University of California – Riverside	
	2009	University of Connecticut Environmental Engineering National Center for Ecological Analysis and Synthesis Michigan State University	
	2008	University of Connecticut – Storrs	
	CONTRIBUTED CONFERENCE LECTURES	2023	American Society of Naturalists, Asilomar, CA
		2020	American Society of Naturalists, Asilomar, CA
		2018	Evolution, Montpellier, France
		2016	American Society of Naturalists, Asilomar, CA
		2011	Ecological Society of America, Austin, TX
		2008	Ecological Society of America, San Jose, CA
2004	Ecological Society of America, Portland, OR		
INVITED WORKSHOPS AND WORKING GROUPS	2019 –	NSF RCN on urban eco-evolution, Seattle, Washington	
	2018	INRA workshop on climate refugia, Bordeaux, France	
	2016 – 2018	FWO Research Network: An Eco-Evolutionary Network of Biotic Interactions	
	2013 – 2017	sDiv Climate Change and Range Dynamics Working Group, Leipzig, Germany	
	2014 – 2017	Workshop on Climate Change, Agriculture and Biodiversity, King's College, Cambridge, United Kingdom	
	2012	DIVERSITAS Workshop on Ecological Interactions and Range Evolution Under Climate Change, Montreal, Quebec	
	2011	Quebec Centre for Biodiversity Science Workshop on Community Phylogenetics, Montreal, Quebec	
	2008 – 2010	NCEAS Working Group on Mechanistic Range Models, Santa Barbara, CA and Raleigh, NC	
	2009 – 2011	NIMBioS Working Group on Intraspecific Niche Variation, Nashville, TN	
2009	DIVERSITAS/EU EVOLTREE Workshop, Paris, France		

ORGANIZER OF WORKSHOPS, WORKING GROUPS, & SYMPOSIA	2023	Urban Eco-Evo RCN, "Community Eco-Evo mechanisms in cities," Seattle, WA
	2022	U.N. COP 27, "Climate leadership across generations," Sharm el-Sheikh, Egypt
		Urban eco-evo RCN, "Does the strength of eco-evolutionary processes differ in the city?" online
		World Biodiversity Forum, Davos, Switzerland, convener on sessions on "A Model for Life" and "Harnessing Rapid Evolution to Conserve Global Biodiversity"
	2019	Quebec Centre for Biodiversity Science Working Group on Mechanistic Models, Montreal, Canada
	2018	Evolution Symposium on Evolution of Community Ecology, Montpellier, France
	2012	Workshop on Climate Change and Species Interactions, Millbrook, NY, Steering committee
	2008	ESA Symposium on Evolution in Metacommunities
	2006 – 2008	NCEAS Working Group: Evolving Metacommunities
	2005	ESA Oral Session on Evolving Metacommunities
EDITORIAL	2009 –	Subject Editor, <i>Ecology</i> and <i>Ecological Monographs</i>
	2013 – 2018	Editorial board, <i>Climate Change Responses</i>
	2014 – 2017	Subject Editor, <i>Axios Review</i>
INTER-NATIONAL SERVICE	2022 –	GEO BON Modeling Working group co-lead
	2020 –	IUCN SSC climate change working group for the Amphibian Conservation Action Plan (ACAP)
STATE SERVICE	2022 –	Governor's Council on Climate Change Science and Technology & Resilient Infrastructure and Nature-Based Solutions Working Groups
	2013 –	Connecticut Endangered Species Advisory Committee
	2019	Expert testimony on CT House Bill 7083: mandate to teach climate change in CT science curriculum
	2013 – 2016	Connecticut Strategic Water Planning Committee
SOCIETY SERVICE	2021 –	American Society of Naturalists Sewall Wright Award Committee
	2015 –	Ecological Society of America Publications Committee
	2010	Ecological Society of America Frost Award Committee
	2004 – 2006	Oversight board member for the Yale-Myers Research Forest

- CONSULTANT** 2019 BBC Sir David Attenborough documentary, *Climate Change – The Facts*
 2017 National Geographic Magazine – special feature on winners and losers of climate change
 2016 Documentary series – *Years of Living Dangerously* on impacts of climate change on species
- SELECTED MEDIA** Television and radio guest appearances
 WNPR *Where we Live*, *The Take with Sue O’Connell* on NECN-Boston, WBEZ-Chicago, MPR-Minnesota, WNPR, WILI-Willimantic, *Voice of America*
- Selected print and online media
The New York Times, *Washington Post*, *AP*, *The Guardian*, CBS, CNN, *National Geographic*, BBC, *Discover*, *Bloomberg*, *The Independent*, *Irish Times*, *International Business Times*, *Christian Science Monitor*, *Business Week*, *The Atlantic Wire*, *Hartford Courant*, *Nature Online News*, *Science Online*, *Today Show-Australia*, *Discovery Channel*, *The New Scientist*
- PUBLIC OUTREACH** High school teacher research fellowship (trained two K-12 science teachers)
 Developed lesson plans for high school students: *Amphibians on the Move: Predicting Why and When*:
 Developed amphibian tracker web site:
<http://hydrodictyon.eeb.uconn.edu/people/urban/tracker.html>
 Wilton Land Conservation Trust annual meeting speaker (2022)
 Branford Land Trust annual meeting speaker (2019)
 Joshua’s Land Trust annual meeting speaker (2019)
 CT State Museum of Natural History Public “Museum Walks” (2011)
 Kids Do Ecology, NCEAS (2008)
 Organizer, NCEAS Open House discussions (2007 – 2008)
- REVIEWS** **Journals** *American Naturalist*, *Amphibia-Reptilia*, *Animal Conservation*, *Annales de Limnologie* *International Journal of Limnology*, *Biological Journal of the Linnean Society*, *BioScience*, *Current Biology*, *Diversity and Distributions*, *Ecography*, *Ecological Applications*, *Ecological Applications*, *Ecology*, *Ecology Letters*, *Ecosystems*, *Evolution*, *Evolutionary Applications*, *Evolutionary Ecology*, *Functional Ecology*, *Global Ecology and Biogeography*, *Herpetological Notes*, *Hydrobiologia*, *Journal of Animal Ecology*, *Journal of Applied Ecology*, *Journal of Biogeography*, *Journal of Evolutionary Biology*, *Journal of Experimental Zoology: Ecological Genetics and Physiology*, *Herpetological Notes*, *Journal of Sustainable Forestry*, *Limnology and Oceanography*, *Marine and Freshwater Research*, *Nature*, *Nature Climate Change*, *Oecologia*, *Oikos*, *PLoS ONE*, *Population Ecology*, *Proceedings of the Royal Society: Biological Sciences*, *Science*, *Scientific Reports*, *Trends in Ecology & Evolution*, *Wildlife Research*

REVIEWS

Books

Island Press, Oxford University Press, Sinauer Associates, Yale U. Press

Grants

European Research Council, Flanders Research Foundation, Israel-US Binational Science Foundation, Knut And Alice Wallenberg Foundation, National Science Foundation, National Geographic Society, Natural Sciences and Engineering Research Council of Canada, Swiss National Science Foundation, University of Leuven Centres of Excellence

International governmental reports

Working Group II contribution to the IPCC Fifth Assessment Report (AR5)