Curriculum vitae

Bradley J. Cardinale, Professor and Director
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EDUCATION

2002	Ph.D. in Biology, University of Maryland
1996	M.S. in Fisheries and Wildlife, Michigan State University
1993	B.S. in Biology, Arizona State University

PROFESSIONAL HISTORY

2016-	Director, Cooperative Institute for Great Lakes Research, University of Michigan.
2015-	Professor, School for Environment and Sustainability, University of Michigan.
2015-16	Professor, Department of Ecology and Evolutionary Biology, University of Michigan.
2012-15	Associate professor, School of Natural Resources and Environment, University of Michigan.
2012-15	Associate professor, Department of Ecology and Evolutionary Biology, University of Michigan.
2012-14	Coordinator, Conservation Ecology Program, University of Michigan.
2011-12	Assistant professor, School of Natural Resources and Environment, University of Michigan.
2011-12	Assistant professor, Department of Ecology and Evolutionary Biology, University of Michigan.
2010-11	Associate professor, Department of Ecology, Evolution and Marine Biology, University of California-Santa Barbara.
2005-10	Assistant professor, Department of Ecology, Evolution and Marine Biology, University of California-Santa Barbara.
2002-05	Postdoctoral fellow, Department of Zoology, University of Wisconsin-Madison.

HONORS & AWARDS

2015-19	Clarivate Analytics Highly Cited Researcher, ranking among the top 1% of researchers for most cited documents in field of Environment/Ecology.
2017	Elected fellow, Ecological Society of America (ESA). ESA fellows are elected by their society peers for *"outstanding advances or applications of ecological knowledge in academics, government, nonprofit organizations, and the private sector."*
2015	Sierra Club Burton V. Barnes Award for Excellence in Academia. Awarded annually by the Michigan chapter of the Sierra Club for work leading to protection of Michigan's environment.
2014	Named by Thompson Reuters as one of *The World's Most Influential Scientific Minds* – a distinction for researchers who have written the greatest number of papers designated by Essential Science Indicators as Highly Cited Papers from 2002-12 (ranking in the top 1% of citations for subject field of Environment/Ecology).
2013	Elected fellow, American Association for the Advancement of Science (AAAS).
2013	Elected member, Science Committee of *Future Earth* - an International Council of Science (ICSU) initiative to unify the United Nation's Environmental Change Programs.
2010	Harold J. Plous Memorial Award. University of California-Santa Barbara's highest honor for junior faculty, given annually to an assistant professor for exceptional achievement in research, teaching, and professional service.
2010	Distinguished Ecologist - Rising Star Lecture. Invited by Colorado State University's Ecology Program to give the 'Distinguished Ecologist - Rising Star' lecture series.

2009 Hellman Fellow. The Hellman Family Foundation awards fellowships annually to select junior faculty in the core sciences who show great distinction in research and creative activities.

2009 Faculty Career Development Award. A fellowship awarded by the University of California-Santa Barbara to junior faculty who have demonstrated an outstanding research and creative work.

2003 Hynes Award for New Investigators. Annual award from the Society for Freshwater Science honoring the most influential paper published by a junior scientist.

2001 Distinguished Teaching Assistant Award. Awarded annually by the Center for Teaching Excellence, University of Maryland.

2000 Wildco Award for Best Oral Presentation in Basic Research. Society for Freshwater Science annual meeting.

1997 Wildco Award for Best Oral Presentation in Basic Research. Society for Freshwater Science annual meeting.

RESEARCH GRANTS (totaling more than $39M)

2020-22 National Oceanic and Atmospheric Association. *Amendment to the Cooperative Institute for Great Lakes Research (CIGLR): A New Regional Research Institute.* $10,000,000 (PI: B. Cardinale).

2020-21 National Oceanic and Atmospheric Association. *Great Lakes shoreline restoration evaluation and benchmarks.* $174,768 (PI: B. Cardinale).

2017-22 National Oceanic and Atmospheric Association. *The Cooperative Institute for Great Lakes Research (CIGLR): A New Regional Research Institute.* $20,000,000 (lead PI: B. Cardinale, co-PI's: J. Arvai, D. Brown, J. Diana, T. Johengen, B. Kerkez, M. Lemos, R. Norton, J. Read).

2018-21 U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy. *Tailored bioblendstocks with low environmental impact to optimize MCCI engines.* $2,500,000 (lead PI: A. Boehman, co-PI's: B. Cardinale, L. Thompson, D. Haworth, P. Savage).

2018-20 National Oceanic and Atmospheric Association. *Improving water cycle prediction in the WRF-Hydro national water model through regional calibration, data assimilation, and coastal coupling systems*. $549,408 (lead PI: B. Cardinale, co-PI's: Eric Anderson, Laura Read).

2016-18 University of Michigan Energy Institute. *Beyond Carbon Neutral: Can biodiversity help increase C-capture and storage?* $40,000 (sole PI: B. Cardinale).

2013-17 U.S. National Science Foundation. *EFRI-PSBR: Biodiversity & Biofuels: Finding win-win scenarios for conservation and energy production in the next century.* $2,100,000 original + supplements (lead PI: B. Cardinale, co-PI's: P. Savage, N. Linn, and T. Oakley).

2012-14 U.S. National Science Foundation. *NSF Postdoctoral Fellowship: Biodiversity and engineering function: integrating physical processes into biodiversity and ecosystem function research.* $123,000 (PI: D. Allen, Sponsors: B. Cardinale and T. Wynn).

2012-14 Socio-Environmental Synthesis Center (SESYNC). *Linking biodiversity and ecosystem services: From expert opinion to prediction and application.* $80,000 (co-PI's: B. Cardinale & E. Barbier).

2012-13 U.S. Forest Service McIntyre-Stennis Program. *Impacts of biodiversity on forest sediment erosion.* $60,000 (sole PI: B. Cardinale).

2011-12 School of Natural Resources & Environment, University of Michigan. *Does Biodiversity Reduce Rates of Sediment Erosion?* $7,000 (sole PI: B. Cardinale).

2011-13 U.S. National Science Foundation. *Dimensions of Biodiversity Distributed Graduate Seminar.* $33,095 (PI's: J. Paris and S. Andelman, UM participants: B. Cardinale, I. Perfecto).

2011-13 U.S. National Science Foundation. *Dissertation Research: Impacts of biological diversity on sediment transport conditions in streams.* $15,000 (lead PI: L. Albertson, co-PI: B. Cardinale).

2010-15 U.S. National Science Foundation. *Dimensions: Collaborative Research: Can evolutionary history predict how changes in how biodiversity impacts the productivity of ecosystems?* $2,089,104 original + supplements (lead PI: B. Cardinale, co-PI's: T. Oakley, C. Delwiche).

2010-12 National Center for Ecological Analysis and Synthesis (NCEAS). *Biodiversity and the functioning of ecosystems: From model experiments to functional reality.* $72,684 (co-PI's: B. Cardinale, E. Duffy, and D. Hooper).

2010-11 National Center for Earth-surface Dynamics (NCED). *Non-linear impacts of biological diversity on sediment transport in streams.* $14,936 (lead-PI: L. Albertson, co-PI: B. Cardinale).

2009-13 U.S. National Science Foundation, DEB-0842009. *Collaborative Research: Does productivity drive diversity or vice versa? Empirical and theoretical investigations of the multivariate productivity-diversity hypothesis in streams.* $555,423 (lead PI: B. Cardinale, co-PI: K. Gross).

2009-10 Hellman Faculty Fellowship, University of California-Santa Barbara. *Species extinction and the biological productivity of food-webs.* $50,000 (sole PI: B. Cardinale).

2009-10 Faculty Research Grant, Academic Senate, University of California-Santa Barbara. *Species extinction and the biological productivity of food-webs.* $7,345 (sole PI: B. Cardinale).

2008-13 U.S. National Science Foundation joint with the U.S. Environmental Protection Agency. *Center for the Environmental Implications of Nanomaterials (CEIN).* $24,000,000 (PI's: A. Nel, A. Keller, T. Holden, R. Nisbet. Cardinale's portion as co-investigator = $500,784).

2007-09 U.S. National Science Foundation, DEB-0614428. *Effects of algal diversity on the productivity of streams: Does diversity play a greater role in variable vs. constant environments?* $333,000. (sole PI: B. Cardinale).

2007-10 CalFed Delta Bay Program. *How do abiotic processes, biotic processes, and their interactions sustain habitat characteristics and functions in river channels and their floodplains*? $1,400,000. (PI's: T. Dunne, F. Davis, B. Kendall, H. Lenihan. Cardinale's portion as co-investigator = $228,750).

2007-08 Faculty Research Grant, Academic Senate, University of California-Santa Barbara. *Interactive effects of eutrophication and biodiversity loss on the productivity of ecosystems.* $6,865. (sole PI: B. Cardinale).

2005-06 UC MEXUS-CONACYT Research Grant. *Hotspots of biodiversity in central México: Implications for habitat conservation.* $25,000. (co-PI's: B. Cardinale, E. Pardo).

2005-06 Faculty Research Grant, Academic Senate, University of California-Santa Barbara. *Does disturbance moderate impacts of biodiversity on ecosystem processes?* $7,835. (sole PI: B. Cardinale).

2001-02 U.S. National Science Foundation, DEB. *Dissertation research: Putting the relationship between species diversity and ecosystem functioning into context.* $9,225. (sole PI: B. Cardinale).

1997-01 Chesapeake Bay Foundation Research Grant. *Species diversity and the productivity of streams in the Chesapeake Bay watershed.* $11,200. (sole PI: B. Cardinale).

PROFESSIONAL PUBLICATIONS

ISI Citation Report: Cited 13,881 times, h-index of 52, 29 papers with >100 citations. Lab [P]postdoc, [G]graduate student, [U]undergraduate, [T]technician, [H]high-school intern

Google Scholar F1000Prime **reviewed by Faculty *of* 1000** **ISI highly cited paper**

Papers in peer-reviewed journals

1. Moore, M. R., J. P. Doubek, H. Xu., and B. J. Cardinale. Hedonic price estimates of lake water quality: Valued attribute, instrumental variables, and ecological-economic benefits. *Ecological Economics*, in press.
2. [P]Godwin, C. M., [G]F. H. Chang, and B. J. Cardinale. An empiricist's guide to modern coexistence theory for competitive communities. *Oikos*, in press (doi: 10.1111/oik.06957).
3. [G]Chang, F. H., and B. J. Cardinale. 2020. Weak intra-guild predation facilitates consumer coexistence but does not guarantee higher consumer density. *Ecological Modeling*, 424:109019 (doi:10.1002/ecy.3012).

4. [G]Chang, F. H., and B. J. Cardinale. 2020. Intra-guild predation (IGP) can increase or decrease prey density depending on the strength of IGP. *Ecology*, e03012 (doi:10.1002/ecy.3012).
5. [P]Jackrel, S., K. Schmidt, B. J. Cardinale, and V. Denef. 2020. Microbiomes reduce their host's sensitivity to interspecific interactions. *mBio*, 11:e02657-19 (doi:10.1128/mBio.02657-19).
6. [P]Guo, T., D. Gill, T. Johengen, and B. J. Cardinale. 2019. What determines the public's support for water quality regulations to mitigate agricultural runoff? *Environmental Science and Policy*, 101:323-330 (doi:10.1016/j.envsci.2019.09.008).
7. Hietala, D. C., [P]C. M. Godwin, B. J. Cardinale, P. E. Savage. 2019. The individual and synergistic impacts of feedstock characteristics and reaction conditions on the aqueous co-product from hydrothermal liquefaction. *Algal Research*, 42:101568 (doi:10.1016/j.algal.2019.101568).
8. Carruthers, D. N., [P]C. M. Godwin, D. C. Hietala, B. J. Cardinale, X. N. Lin, and P. E. Savage. 2019. Biodiversity enhances multi-functionality in a life cycle assessment of microalgal biofuel production. *Environmental Science & Technology*, 53:9279-9288 (doi:10.1021/acs.est.9b00909).
9. [G]Albertson, L. K., L. S. Skylar, S. D. Cooper, and B. J. Cardinale. 2019. Aquatic macroinvertebrates stabilize gravel bed sediment: A test using silk net-spinning caddisflies in semi-natural river channels. *PLoS One* 14:e0209087 (doi:10.1371/journal.pone.0209087).
10. [G]Nolan, M. and B. J. Cardinale. 2019. Species diversity of resident algae slows the establishment and proliferation of the cyanobacterium *Microcystis aeruginosa*. *Limnologica,* 74:23-27 (doi:10.1016/j.limno.2018.09.002).
11. Costello, D. M., [P]K. J. Kulacki, [U]M. E. McCarthy, S. D. Tiegs, and B. J. Cardinale. 2018. Ranking stressor impacts on periphyton structure and function with mesocosm experiments and environmental-change forecasts. *PLoS One* 13:e0204510 (doi:10.1371/journal.pone.0204510).
12. Tonin, A. M., J. Pozo, S. Monroy, A. Basaguren, J. Perez, J. F. Gonçalves Jr, R. Pearson, B. J. Cardinale, L. Boyero. 2018. Interactions between large and small detritivores influence how biodiversity impacts litter decomposition. *Journal of Animal Ecology,* 87:1465-1474 (doi:10.1111/1365-2656.12876).
13. Hietala, D. C., [P]C. M. Godwin, B. J. Cardinale, P. E. Savage. 2018. The independent and coupled effects of feedstock characteristics and reaction conditions on biocrude production by hydrothermal liquefaction. *Applied Energy*, 235:714-728 (doi:10.1016/j.apenergy.2018.10.120).
14. [P]Godwin, C. M., A. R. Lashaway, D. C. Hietala, P. E. Savage, and B. J. Cardinale. 2018. Biodiversity improves the ecological design of sustainable biofuel systems. *Global Change Biology Bioenergy,* 10:752-765 (doi:10.1111/gcbb.12524).
15. [P]Jackrel, S., [P]A. Narwani, B. Bentlage, R. Levine, D. Hietala, P. Savage, T. Oakley, V. Denef, and B. Cardinale. 2018. Ecological engineering helps maximize function in algal oil production. *Applied and Environmental Microbiology*, 84:e00953-18 (doi:10.1128/AEM.00953-18).
16. [P]Allen, D. C., B. J. Cardinale, and T. Wynn-Thompson. 2018. Riparian plant biodiversity reduces stream channel migration rates. *Ecohydrology*, 11:e1972 (doi:10.1002/eco.1972).
17. [G]Nolan, M. P., N. D. Jacobson, T. A. McClung, and B. J. Cardinale. 2018. What scientific data are being used to justify the listing of endangered mammals on the IUCN's Red List? *Journal of Biodiversity and Endangered Species*, IJBES-103 (doi:10.29011/IJBES-103.100003).
18. Cardinale, B. J., A. Gonzalez, G. R. H. Allington, M. Loreau. 2018. Is local biodiversity in decline or not? A summary of the debate over analysis of species richness time trends. *Biological Conservation*, 219:175-183 (doi:10.1016/j.biocon.2017.12.021).
19. [P]Godwin, C. M., D. C. Hietala, [T]A. R. Lashaway, [P]A. Narwani, P. E. Savage, B. J. Cardinale. 2017. Ecological stoichiometry meets ecological engineering: Using algal polycultures to enhance the multi-functionality of algal biocrude systems. *Environmental Science & Technology*, 51:11450-11458 (doi:10.1021/acs.est.7b02137).
20. Duffy, J. E., C. M. Godwin, and B. J. Cardinale. 2017. Biodiversity effects in the wild are common and as strong as key drivers of productivity. *Nature*, 549:261-264 (doi:10.1038/nature23886).

21. Hietala, D. C., C. K. Koss, [P]A. Narwani, [T]A. R. Lashaway, [P]C. M. Godwin, B. J. Cardinale, and P. E. Savage. 2017. Influence of biodiversity, biochemical composition, and species identity on the quality of biomass and biocrude oil produced via hydrothermal liquefaction. *Algal Research*, 26:203-214 (doi:10.1016/j.algal.2017.07.020).
22. Carruthers, D. N., C. K. Byun, B. J. Cardinale, and X. N. Lin. 2017. Demonstration of transgressive over-yielding of algal mixed cultures in microdroplets. *Integrative Biology*, 9:687-694 (doi:10.1039/C6IB00241B).
23. [P]Narwani, A., B. Bentlage, M. A. Alexandrou, [T]K. J. Fritschie, C. Delwiche, T. H. Oakley, and B. J. Cardinale. 2017. Ecological interactions and coexistence are predicted by gene expression similarity in freshwater green algae. *Journal of Ecology*, 105:580-591 (doi:10.1111/1365-2745.12772).
24. Steinman, A. D., B. J. Cardinale, W. R. Munns Jr, M. E. Ogdahl, J. D. Allan, T. Angadi, S. Bartlett, K. Brauman, M. Byappanahalli, M. Dossi, D. Dupont, A. Johns, D. Kashian, F. Lupi, P. McIntyre, T. Miller, M. Moore, R. Logsdon Muenich, R. Poudel, J. Price, B. Provencher, A. Rea, J. Read, S. Renzetti, B. Sohngen, and E. Washburn. 2017. Ecosystem services in the Great Lakes. *Journal of Great Lakes Research*, 43:161-168 (doi:10.1016/j.jglr.2017.02.004).
25. Tonin, A. M., L. Boyero, S. Monroy, A. Basaguren, J. Pérez, R. G. Pearson, B. J. Cardinale, J. Francisco Gonçalves Jr., and J. Pozo. 2017. Stream nitrogen concentration, but not plant N-fixing capacity, modulates litter diversity effects on decomposition. *Functional Ecology*, 31:1471-1481 (doi:10.1111/1365-2435.12837).
26. Hungate, B. A. and B. J. Cardinale. 2017. Biodiversity: What should we value? Frontiers in Ecology and the Environment, 15:283 (doi:10.1002/fee.1511).
27. Hungate, B. A., E. B. Barbier, A. W. Ando, S. P. Marks, P. B. Reich, N. van Gestel, D. G. Tilman, J. M. H. Knops, B. J. Butterfield, and B. J. Cardinale. 2017. The economic value of grassland species for carbon storage. *Science Advances*, 3:e1601880 (doi:10.1126/sciadv.1601880).
28. O'Connor, M. I., A. Gonzalez, J. E. K. Byrnes, B. J. Cardinale, J. E. Duffy, L. Gamfeldt, J. N. Griffin, D. Hooper, B.A. Hungate, A. Paquette, P.L. Thompson, L.E. Dee and K.L. Dolan, 2017. A general biodiversity–function relationship is mediated by trophic level. Oikos, 126:18-31 (doi:10.1111/oik.03652).
29. [P]Godwin, C. M., D. C. Hietala, [T]A. R. Lashaway, [P]A. Narwani, P. E. Savage, and B. J. Cardinale. 2017. Algal polycultures enhance coproduct recycling from hydrothermal liquefaction. *Bioresource Technology*, 224:630-638 (doi:10.1016/j.biortech.2016.11.105).
30. [P]Narwani, A., [T]A. Lashaway, [G]D. Hietala, P. Savage, and B. J. Cardinale. 2016. The power of plankton: effects of algal biodiversity on biocrude production and stability. *Environmental Science and Technology*, 50:13142-13150 (doi:10.1021/acs.est.6b03256).
31. Gonzalez, A., B. J. Cardinale, G. R. H. Allington, J. Byrnes, K. A. Endsley, D. G. Brown, D. U. Hooper, F. Isbell, M. I. O'Connor, M. Loreau. 2016. Estimating local biodiversity change: a critique of papers claiming no net loss of local diversity. *Ecology*, 98:1949-1960 (doi:10.1890/15-1759.1).
32. Rakowski, C. and B. J. Cardinale. 2016. Herbivores control effects of algal species richness on community biomass and stability in a laboratory microcosm experiment. Oikos, 125:1627-1635 (doi:10.1111/oik.03105).
33. Boyero, L., R. G. Pearson, C. Hui, M. O. Gessner, J. Pérez, M. A. Alexandrou, M. A. S. Graça, B. J. Cardinale, R. J. Albariño, M. Arunachalam, L. A. Barmuta, A. J. Boulton, A. Bruder, M Callisto, E. Chauvet, R. G. Death, D. Dudgeon, A. C. Encalada, V. Ferreira, R. Figueroa, A. S. Flecker, J. F. Gonçalves Jr, J. Helson, T. Iwata, T. Jinggut, J. Mathooko, C. Mathuriau, C. M'Erimba, M. Moretti, C. M. Pringle, A. Ramírez, J. Rincon, and C. M. Yule. 2016. Biotic and abiotic variables influencing plant litter breakdown in streams: a global study. *Proceedings of the Royal Society B*, 283:20152664 (doi:10.1098/rspb.2015.2664).
34. [P]Allen, D. C., B. J. Cardinale, and T. Wynn-Thompson. 2016. Plant biodiversity effects in reducing fluvial erosion are limited to low species richness. *Ecology*, 97:17-24 (doi:10.1890/15-0800.1).

35. Cardinale, B. J. [P]P. Venail, K. Gross, T. H. Oakley, [P]A. Narwani, E. Allan, P. Flombaum, J. Joshi, P. B. Reich, D. Tilman, and J. van Ruijven. 2015. Further re-analyses looking for effects of phylogenetic diversity on community biomass and stability. *Functional Ecology*, 29:1607-1610 (doi:10.1111/1365-2435.12540).
36. [P]Narwani, A., M. A. Alexandrou, [U]A. Vouaux, [U]C. Zhou, T. H. Oakley and B. J. Cardinale. 2015. Common ancestry is a poor predictor of competitive traits in freshwater green algae. *PLoS One*, 10:18 (doi:10.1371/journal.pone.0137085).
37. Doubek, J. P., C. C. Carey, and B. J. Cardinale. 2015. Anthropogenic land use is associated with N-fixing cyanobacterial dominance in lakes across the continental United States. *Aquatic Science*, 77:681-694 (doi:10.1007/s00027-015-0411-x).
38. [G]Naughton, H. R., M. A. Alexandrou, T. H. Oakley, and B. J. Cardinale. Phylogenetic distance does not predict competitive ability in green algal communities. 2015. *Ecosphere*, 6:116 (doi:10.1890/ES14-00502.1).
39. [P]Venail, P., K. Gross, T. H. Oakley, [P]A. Narwani, E. Allan, P. Flombaum, F. Isbell, J. Joshi, P. B. Reich, D. Tilman, J. van Ruijven, and B. J. Cardinale. 2015. Species richness, but not phylogenetic diversity, influences community biomass production and temporal stability in a re-examination of 16 grassland biodiversity studies. *Functional Ecology*, 29:615-626 (doi:10.1111/1365-2435.12432).
40. Lefcheck, J. S., [P]J. E. K. Byrnes, F. Isbell, L. Gamfeldt, J. N. Griffin, N. Eisenhauer, M. J. S. Hensel, A. Hector, B. J. Cardinale, and J. E. Duffy. 2015. Biodiversity enhances ecosystem multi-functionality across trophic levels and habitats. *Nature Communications*, 6:6936 (doi:10.1038/ncomms7936).
41. Gamfeldt, L., J. S. Lefcheck, [P]J. Byrnes, J. E. Duffy, B. J. Cardinale, and J. N. Griffin. 2015. Marine biodiversity and ecosystem functioning: what's known and what's next? *Oikos*, 124:252-265 (doi:10.1111/oik.01549).
42. [P]Alexandrou, M. A., J. D. Hall, C. F. Delwiche, [T]K. Fritschie, [P]B. Bentlage, [P]A. Narwani, [P]P. A. Venail, [T]J. Herrin, [G]M. S. Pankey, B. J. Cardinale, and T. H. Oakley. 2015. Evolutionary relatedness does not predict competition and co-occurrence in natural or experimental communities of green algae. *Proc Roy Soc B*, 282:20141745 (doi:10.1098/rspb.2014.1745).
43. [G]Albertson, L. K., L. S. Sklar, and B. J. Cardinale. 2015. Reply to "Comment on A mechanistic model linking insect (Hydropsychidae) silk nets to incipient sediment motion in a gravel-bedded streams" by Sean P. Ferguson and Colin D. Rennie. *J. Geophysical Research*, 6:1151-1152.
44. [G]Albertson, L. K., L. S. Sklar, [U]P. Pontau, [U]M. Dow, and B. J. Cardinale. 2014. A mechanistic model linking insect (Hydropsychidae) silk nets to incipient sediment motion in gravel-bedded streams. *J. Geophysical Research*, 119:1833-1852 (doi:10.1002/2013JF003024).
45. Iverson, A., L. Marin, K. Ennis, D. Gonthier, B. Connor Barrie, J. Remfert, B. J. Cardinale, and I. Perfecto. 2014. Do polycultures promote win-wins or tradeoffs in agricultural ecosystem services? A meta-analysis. *J Applied Ecology*, 51:1593-1602 (doi:10.1111/1365-2664.12334).
46. Gonthier, D. J., K. K. Ennis, S. Farinas, H. Hsieh, A. L. Iverson, P. Batáry, J. Rudolphi, T. Tscharntke, B. J. Cardinale, I. Perfecto. 2014. Biodiversity conservation in agriculture requires a multi-scale approach. *Proc Roy Soc Lon B*, 281:20141358 (doi:10.1098/rspb.2014.1358).
47. Cardinale, B. J. 2014. Overlooked local biodiversity loss. *Science* (Letters), 344:1098 (doi:10.1126/science.344.6188.1098-a).
48. [G]Albertson, L., L. S. Sklar, and B. J. Cardinale. 2014. Non-additive increases in sediment stability are generated by macroinvertebrate species interactions in laboratory streams. *PLoS One*, 9:e103417 (doi:10.1371/journal.pone.0103417).
49. [P]Venail, P.A., [P]A. Narwani, [T]K. Fritschie, [P]M. A. Alexandro[u], T. H. Oakley, and B. J. Cardinale. 2014. The influence of phylogenetic relatedness on species interactions among freshwater green algae in a mesocosm experiment. *Journal of Ecology*, 102:1288-1299 (doi:10.1111/1365-2745.12271).
50. [T]Fritschie, K. J., B. J. Cardinale, [P]M. A. Alexandrou, and T. H. Oakley. 2014. Evolutionary history and the strength of species interactions: testing the phylogenetic limiting similarity hypothesis. *Ecology*, 95:1407-1417 (doi:10.1890/13-0986.1).

51. [P]Allen, D. C., B. J. Cardinale, and T. Wynn-Thompson. 2014. Toward a better integration of ecological principles into ecogeoscience research. *BioScience*, 64:444–454 (doi:10.1093/biosci/biu046).
52. Boyero, L., B. J. Cardinale, M. Bastian, and R. G. Pearson. 2014. Biotic vs. abiotic control of decomposition: A comparison of the effects of simulated extinctions and changes in temperature. *PLoS One*, 9:e87426 (doi:10.1371/journal.pone.0087426).
53. [P]Byrnes, J. E. K., L. Gamfeldt, F. Isbell, J. E. Duffy, J. S. Lefcheck, J. N. Griffin, A. Hector, B. J. Cardinale, D. U. Hooper, L. E. Dee. 2014. Investigating the relationship between biodiversity and ecosystem multi-functionality: Challenges and solutions. *Methods in Ecology & Evolution*, 5:111-124 (doi:10.1111/2041-210X.12143).
54. Gross, K., B. J. Cardinale, J. W. Fox, A. Gonzalez, M. Loreau, H. W. Polley, P. B. Reich, and J. van Ruijven. 2014. Species richness and the temporal stability of biomass production: a new analysis of recent biodiversity experiments. *American Naturalist,* 183:1-12 (doi:10.1086/673915).
55. [G]Zimmerman, E. and B. J. Cardinale. 2014. Is the relationship between algal diversity and biomass in North American lakes consistent with biodiversity experiments? *Oikos*, 123:267-278 (doi:10.1111/j.1600-0706.2013.00777.x).
56. Cardinale B. J., 2013. Towards a general theory of biodiversity for the Anthropocene. *Elementa,* 1:000014 (doi:10.12952/journal.elementa.000014).
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Manuscripts in review or revision

132. Qiu, J., and B. J. Cardinale. Scaling up biodiversity – ecosystem function relationships across space and over time. *Ecology*, in revision.
133. [P]Godwin, C. M., and B. J. Cardinale. Lifecycle and economic assessments greatly overestimate the potential of algal biofuel production compared to real-world cultivation. *Environmental Science and Technology*, in review.

Books, book chapters, and reports

134. Cardinale, B. J., R. B. Primack, and J. D. Murdock. 2019. Conservation Biology, 1st edition. Oxford University Press. New York, NY. 672 pages.
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biodiversity experiments, pages 14-29 *in* Biodiversity and Human Impacts, S. Naeem, D. Bunker, M. Loreau, A. Hector, C. Perring. Oxford University Press.

Magazine articles, editorials, and interviews (past 5 years)

2019 Radio Interview. WDET 101.9 FM. How the government shutdown leaves the Great Lakes in limbo. Interview with Associate Producer Alex McLenon about the impact of the government shut-down on Great Lakes research and management.

2019 News Article. WWMT.com. How the government shutdown impacts the Great Lakes. Interview with Mikenzie Frost, Sinclair Broadcast Group about the impact of the government shut-down on Great Lakes research and management.

2019 News Article. Crain's Detroit Business. Federal shutdown hits UM-affiliated environmental studies. Interview with Jay Green about the impact of the government shut-down on Great Lakes research and management.

2019 News Article. Bridge. Six things to know about the government shutdown in Michigan. Interview about the impact of the government shut-down on Great Lakes research and management.

2018 Radio Interview. Michigan Radio Environment Report. Algae in the gas tank? U of M researchers study problems holding back algal biofuel. Interview with Environment Report's Doug Tribou about the Godwin et al. *Global Change Biology Bioenergy* 2018 paper.

2017 Radio Interview. Michigan Radio Stateside. Ecologist says biodiversity could be planet's "insurance policy." Interview with Stateside's Cynthia Canty about recent Duffy et al. Nature 2017 paper.

2017 News article. BBC Future. The Animals Thriving in the Anthropocene. BBC Future. Quoted in an article written by BBC science writer, Chris Baraniuk.

2017 Radio Interview. Taped interview on Michigan Public Radio, 90.5FM WKAR, with Rebecca Williams Environment Report about the Cooperative Institute of Great Lakes Research summit on meteotsunamis in the Great Lakes. June 20.

2017 Newspaper article. Ann Arbor Observer. EPA in the crosshairs: Trump's assault on environmental protection targets local labs. Featured in article written by Observer writer, James Leonard.

2017 News article. Chronicle of Higher Education. From Alaska to Georgia, Why 6 Scientists Will March on Washington. Highlighted in article written by Lindsay McKenzie.

2017 News article. Detroit News. Trump's budget plan hurts Michigan, Great Lakes cleanup. Quoted in an article written by Detroit News writers, Melissa Nann Burke and Jonathan Oosting.

2017 News article. The Huffington Post. Trump proposal to gut Great Lakes funding could allow pollution to flourish. Quoted in an article written by Huffington Post science writer, Kate Abbey-Lambertz.

2017 News article. InquireFirst. Trump Could Drain Great Lakes Cleanup Budget. Quoted in an article written by InquireFirst science writer, Jennifer Lu.

2017 Magazine article. Time Magazine. How the endangered species act helps save humans, too. Quoted in an article written by Time Magazine science writer, Justin Worland.

PROFESSIONAL SPEAKING ENGAGEMENTS

Invited seminars & talks

1. Plenary address. Cardinale, B. J. 2019. Life in the Great Lakes: Towards sustainable use of Earth's largest freshwater ecosystem. Hosted by the Office of the Lieutenant Governor of Ontario and the Environmental Law and Policy Center, Toronto, Canada.
2. Plenary address. Cardinale, B. J. 2019. The Impact of Climate Change on Great Lakes Ecology. Environmental Law and Policy Center Science and Policy Conference, Loyola University, Chicago.
3. Invited talk. Cardinale, B. J. 2019. The Seeds of a Good Anthropocene. University of Kansas, Kansas Biological Survey.
4. Invited talk. Cardinale, B. J. 2019. The Impact of Biodiversity Loss on Humanity. Oakland Audubon Society.

5. Invited talk. Cardinale, B. J. 2018. The Cooperative Institute of Great Lakes Research – A new model for research and management. Great Lakes Cruising Club, Ann Arbor, MI.
6. Invited talk. Cardinale, B. J. 2018. The Cooperative Institute of Great Lakes Research – A new model for research and management of the Great Lakes. Michigan Congressional Roundtable, NOAA Great Lakes Environmental Lab, Ann Arbor, MI.
7. Invited talk. Cardinale, B. J. 2018. The future role of U.S.-Canadian partnerships in management of the Great Lakes. Launch of the Canadian Real-time Aquatic Ecosystem Observation Network (RAEON), University of Windsor, Windsor, Canada.
8. Plenary address. Cardinale, B. J. 2018. Science-based policy solutions for harmful algal blooms. Science-policy Confluence Conference – Jointly organized by the Cooperative Institute of Great Lakes Research and the Environmental Law and Policy Center.
9. Keynote address. Cardinale, B. J. 2017. Impacts of biodiversity change on societal goods and services. Conference on Biosphere Instability: Implications of Ecological Change for U.S. National Security. National Intelligence Council, Arlington, VA.
10. Departmental seminar. Cardinale, B. J. 2018. Does phylogeny predict ecology? Duke University, Program in Ecology.
11. Invited talk. Qiu, J., and Cardinale, B. J. 2017. Linking biodiversity to ecosystem services: Scaling up from ecological experiments to human-dominated landscapes. Ecological Society of America annual conference, Portland, OR.
12. Invited talk. Cardinale, B. J., J. E. Duffy, and ^{p}C. M. Godwin. 2017. Biodiversity effects in the wild are common and as strong as key drivers of productivity. Ecological Society of America annual conference, Portland, OR.
13. Departmental seminar. Cardinale, B. J. 2016. Does phylogeny predict ecology? Cornell University, Department of Ecology & Evolutionary Biology.
14. Invited talk. Cardinale, B. J. 2016. CILER and GLERL's alliance studying the Great Lakes. Where have we been, and where to from here? NOAA's Great Lakes Environmental Research Lab seminar-series, Ann Arbor, MI.
15. Plenary address. Cardinale, B. J. 2016. Yes we KAN: Towards a natural assets Knowledge Action Network. Global biodiversity assessment and monitoring science symposium. Organized by Future Earth, Monte Verita, Switzerland.
16. Plenary address. Cardinale, B. J. 2015. Biodiversity loss and its impact on humanity. First International Congress: Biodiversity and Conservation of the Tropical Andes and the Amazon Rainforest. Organized by the Peruvian NGO, Centro de Ecología y Biodiversidad (CEBIO), Lima, Peru.
17. Public lecture. Cardinale, B. J. 2015. Biodiversity loss and its impact on humanity. Sierra Club, Huron Valley Group Speaker Series.
18. Invited talk. Cardinale, B. J., G. Allington, D. Brown, J. Byrnes, J. E. Duffy, L. Gamfeldt, A. Gonzalez, D. U. Hooper, F. Isbell, J. S. Lefcheck, M. Loreau, M. I. O'Connor. 2015. Is biodiversity declining at local scales or not … and how can we know? FUTURE EARTH: A Symposium on Global Biodiversity Monitoring. Yale University, New Haven, CT.
19. Departmental seminar. Cardinale, B. J. 2015. Biodiversity & the functioning of ecosystems: One summary of, and vision for, a paradigm. Rutgers University, Department of Ecology, Evolution, and Natural Resources seminar series.
20. Public lecture. Cardinale, B. J. 2015. Biodiversity loss and its impact on humanity. Ann Arbor City Club, Dine & Discover Speaker Series.
21. Departmental seminar. Cardinale, B. J. 2014. Biodiversity & the functioning of ecosystems: One summary of, and vision for, a paradigm. Oxford University, Department of Zoology.
22. Invited talk. Cardinale, B. J. 2014. Biodiversity: The spice of life … or life support? Sponsored by the Michigan Botanical Club and Wild Ones, Matthaei Botanical Gardens, Ann Arbor, MI.

23. Invited talk. Hooper, D., E. C. Adair, A. Paquette, J. Byrnes, B. Hungate, and B. J. Cardinale. 2014. Why other metrics of biodiversity can tell more about ecosystem services than species richness. International Union of Forest Research Organizations (IUFRO).
24. Departmental seminar. Cardinale, B. J. 2014. Does evolutionary relatedness predict ecological uniqueness? University of Chicago, Department of Ecology & Evolution seminar series.
25. Invited talk. Cardinale, B. J. 2014. If a model is written in a forest, and no one hears it, does it make a sound? IGNITE Session: Theory vs. Empiricism in the Advancement of Science. Ecological Society of America annual conference, Sacramento, CA.
26. Webinar. Cardinale, B. J. 2014. Progress on *Future Earth*: The next generation of environmental change research. Presentation to the U.S. National Academy of Sciences Board on International Scientific Organizations (BISO).
27. Departmental seminar. Cardinale, B. J. 2014. Does evolutionary relatedness predict ecological uniqueness? A case study with freshwater algae. Columbia University, Department of Ecology, Evolution and Environmental Biology seminar series.
28. Webinar. Cardinale, B. J. 2013. Enhancing the foundation: the role of disciplinary research in Future Earth. Future Earth North American Webinar II.
29. Departmental seminar. Cardinale, B. J. 2012. Biodiversity, extinction, and their impacts on humanity. Stanford University, Department of Biology seminar series.
30. Departmental seminar. Cardinale, B. J. 2012. Biodiversity loss and its impact on humanity. University of Southern California, Wrigley Institute for Environmental Studies seminar series.
31. Departmental seminar. Cardinale, B. J. 2012. Biodiversity and the functioning of ecosystems. Grand Valley State University, Annis Water Resources Institute seminar series.
32. Symposium address. Cardinale, B. J. 2012. Biodiversity, Extinction, and their Impacts on Humanity. Planet under Pressure Conference, London, UK.
33. Symposium address. Cardinale, B. J. 2012. Biodiversity: The Spice of Life … or Life Support? Planet under Pressure Conference, London, UK.
34. Departmental seminar. Cardinale, B. J. 2012. Biodiversity & ecosystem functioning. Michigan State University. Kellogg Biological Station seminar series.
35. Smith Lecture. Cardinale, B. J. 2012. Biodiversity & the functioning of ecosystems. The Smith Lecture, Department of Earth and Environmental Sciences, University of Michigan.
36. Departmental seminar. Cardinale, B. J. 2011. Biodiversity & the functioning of ecosystems: The evolution of, and vision for, a paradigm. Cooperative Institute for Limnology and Ecosystems Research, seminar series.
37. Departmental seminar. Cardinale, B. J. 2011. Biodiversity & ecosystem functioning. Wayne State University. Department of Biological Sciences seminar series.
38. Departmental seminar. Cardinale, B. J. 2011. Biodiversity & ecosystem functioning. Iowa State University. Department of Ecology, Evolution and Organismal Biology seminar series.
39. Departmental seminar. Cardinale, B. J. 2011. Does diversity drive productivity or vice versa? Towards resolution of a chicken-or-egg paradox. University of Michigan, Department of Ecology & Evolution.
40. Symposium address. Duffy, J. E., B. J. Cardinale, D. U. Hooper, et al. 2011. The role of biodiversity in ecosystem functioning: Translating results from model experiments into functional reality. World Conference on Marine Biodiversity, Aberdeen, Scotland.
41. Plous Award Lecture. Cardinale, B. J. 2010. Biodiversity: The Spice of Life … or Life Support? The Harold J. Plous Memorial Award Lecture. University of California – Santa Barbara.
42. Distinguished Ecologist Lecture. Cardinale, B. J. 2010. Biodiversity and the functioning of ecosystems. Colorado State University's Graduate Program in Ecology.
43. Distinguished Ecologist Lecture. Cardinale, B. J. 2010. Does diversity drive productivity or vice versa: Towards resolution of a chicken-or-egg paradox. Colorado State University's Graduate Program in Ecology.

44. Departmental seminar. Cardinale, B. J. 2010. Biodiversity and the functioning of ecosystems. Department of Biological Sciences, Notre Dame University.
45. Departmental seminar. Cardinale, B. J. 2009. Biodiversity and the functioning of ecosystems. School of Natural Resources and Environment, University of Michigan.
46. Symposium address. [G]Albertson, L., and B. J. Cardinale. 2009. Impacts of biological diversity on sediment transport in streams. The American Geophysical Union (AGU) annual fall meeting. San Francisco, CA.
47. Symposium address. Cardinale, B. J., K. Kulacki, T. Klanjscek, K. Matulich, and R. Nisbet. 2009. TiO_2 nanoparticles stimulate biomass production in freshwater algae. International Conference on the Environmental Implications of Nanotechnology. Washington, D.C.
48. Symposium address. Cardinale, B. J. 2009. What fraction of species do we need to maintain a functioning ecosystem? Ecological Society of America 94th annual conference, Albuquerque, NM.
49. Public lecture. Cardinale, B. J. 2009. On the causes and consequence of extinction. Audobon Society's seminar series, co-sponsored by the Santa Barbara Museum of Natural History.
50. Public lecture. Cardinale, B. J. 2008. Causes and consequences of biodiversity loss in Sierra Nevada streams. Sierra Nevada Aquatic Research Lab (SNARL), Mammoth Lakes, CA.
51. Plenary address. Cardinale, B. J. 2008. Biodiversity and the functioning of ecosystems. 3rd Annual Meeting of Young Researchers in Earth Science, New Orleans, LA.
52. Symposium address. Cardinale, B. J. 2008. Biodiversity loss and the functioning of aquatic ecosystems: The rivet hypothesis revisited. North American Benthological Society 56th annual meeting, Salt Lake City.
53. Public lecture. Cardinale, B. J. 2008. On the causes and consequence of extinction. Santa Ynez Natural History Society seminar series, co-sponsored by UCSB's Sedgwick Natural Reserve.
54. Symposium address. Mulholland, P. J., W. K. Dodds, M. A. Palmer, and B. J. Cardinale. 2008. The Lotic Intersite Nitrogen eXperiment (LINX) and STReam Ecological Observatory Network (STREON): Long-term experimental networks for stream ecosystem studies. American Geophysical Union annual meeting, San Francisco.
55. Plenary address. Cardinale, B. J. 2008. Dynamic Interactions between life and its landscape. Young Researchers in Earth Science (MYRES). Liam Reinhardt & Douglas Jerolmack (organizers).
56. Departmental seminar. Cardinale, B. J. 2008. Effects of biodiversity on the functioning of ecosystems … one summary of, and vision for a paradigm. Department of Environmental Sciences, Policy and Management, University of California-Berkeley.
57. Symposium address. Cardinale, B. J. 2008. Cascading effects of predator diversity. Entomological Society of America, Pacific Coast Branch Meeting, Napa, CA.
58. Cardinale, B. J. 2008. What causes outbreaks of snotty algae in streams? Santa Barbara Channel Long-Term Ecological Research meeting, University of California - Santa Barbara, CA.
59. Departmental seminar. Cardinale, B. J. 2007. Effects of biodiversity on the functioning of ecosystems … one summary of, and vision for a paradigm. Department of Ecology & Environmental Science, Umeä University, Sweden.
60. Departmental seminar. Cardinale, B. J. 2007. Does productivity drive diversity or vice versa? Towards resolution of a chicken-or-egg paradox. Department of Ecology & Environmental Science, Umeä University, Sweden.
61. Departmental seminar. Cardinale, B. J. 2007. Emergent functional properties of a community: When does the whole exceed the sum of the parts? Department of Ecology & Environmental Science, Umeä University, Sweden.
62. Cardinale, B. J. 2007. Effects of biodiversity on the functioning of ecosystems … one summary of, and vision for a paradigm. National Center for Ecological Analysis and Synthesis, Santa Barbara, CA.

63. Departmental seminar. Cardinale, B. J. 2007. Effects of biodiversity on the functioning of ecosystems … one summary of, and vision for a paradigm. Department of Ecology & Evolution, University of California-Davis.
64. Departmental seminar. Cardinale, B. J. 2007. Effects of biodiversity on the functioning of ecosystems … one summary of, and vision for a paradigm. Bodega Marine Research Laboratory, University of California-Davis.
65. Departmental seminar. Cardinale, B. J. 2006. Biodiversity as both a cause and consequence of ecosystem functioning. Institute of Environmental Sciences, University of Zurich, Switzerland.
66. Cardinale, B. J. 2006. Effects of biodiversity on the functioning of ecosystems ... towards a food-web perspective. BioMERGE/Diversitas joint symposium on 'The Consequences of Changing Biodiversity - Solutions and Scenarios'. Ascona, Switzerland.
67. Departmental seminar. Cardinale, B. J. 2006. Effects of biodiversity on the functioning of ecosystems: Resolving the disparity between empiricism and theory. Department of Biology, University of Texas, Arlington, TX.
68. Departmental seminar. Cardinale, B. J. 2006. Effects of species diversity on resource capture and community production … when, why, and who cares? Department of Zoology, University of Oklahoma, Norman, OK.
69. Departmental seminar. Cardinale, B. J. 2006. Biodiversity, ecosystem functioning and scale … can species be redundant? University of British Columbia, Vancouver, Canada.
70. Symposium address. Cardinale, B. J. 2005. Biodiversity, ecosystem functioning and scale … can species be redundant? *DIVERSITAS: The next generation of biodiversity and ecosystem functioning research.* Kota Kinabalu, Borneo, Malaysia.
71. Cardinale, B. J. 2005. Biodiversity and the functioning of ecosystems. Chaos and Complex Systems Seminar Series, University of Wisconsin – Madison.
72. Tilmon, K. J., B. J. Cardinale, C. Harvey, A. Forbes. A. R. Ives. 2005. The role of biodiversity in pea aphid biological control. Entomological Society of America, 52nd annual meeting, Salt Lake City, Utah.
73. Departmental seminar. Cardinale, B. J. 2004. The influence of species diversity on ecosystem productivity: When, why, and who cares? Dartmouth College, Department of Biological Sciences.
74. Departmental seminar. Cardinale, B. J. 2004. Key extensions of the debate over biodiversity's role in ecosystem function. University of Chicago, Ecology & Evolution Seminar Series.
75. Departmental seminar. Cardinale, B. J. 2004. Effects of species diversity on ecosystem functioning … when, why, and who cares? University of North Carolina, Department of Biology.
76. Departmental seminar. Cardinale, B. J. 2004. The influence of species diversity on ecosystem productivity: When, why, and who cares? Indiana University, Department of Biology.
77. Departmental seminar. Cardinale, B. J. 2004. The consequences of extinction for community & ecosystem-level processes. University of California Santa Barbara, Department of Ecology, Evolution, and Marine Biology.
78. Departmental seminar. Cardinale, B. J. 2004. Linking biodiversity to ecosystem processes: When does community form precede function? University of Montana, Division of Biological Sciences.
79. Departmental seminar. Gross, K., and B. J. Cardinale. 2004. On the scope of inference for biodiversity-ecosystem function experiments. Department of Statistics, North Carolina State University.
80. Cardinale, B. J., K. Guslick, S. Langley, K. Erickson, K. J. Tilmon, R. Jameson, K. Paulson, and A. R. Ives. 2002. Biological control of the invasive soybean aphid: Insights from a transplant of natural enemies. Entomological Society of America, 50th annual meeting, Ft. Lauderdale, FL.
81. Cardinale, B. J., and M. A. Palmer, 2002. Historical flow regime determines algal diversity-productivity relationships in streams. International Conference on Aquatic Biodiversity and Ecosystem Functioning, Ascona, Switzerland.

82. Departmental seminar. Cardinale, B. J., 2002. Species diversity & ecosystem functioning … putting the relationships into context. University of Maryland, Behavior Ecology Evolution & Systematics seminar series.
83. Seminar. Cardinale, B. J., 2001. Species diversity & ecosystem functioning … putting the relationships into context. Academy of Natural Sciences, Philadelphia, PA.
84. Departmental seminar. Cardinale, B. J., 2001. Putting the diversity-function relationship into context. Kellogg Biological Station Seminar Series, Kalamazoo, MI.
85. Symposium address. Cardinale, B. J., and M. A. Palmer. 2000. Relating species diversity to the functioning of ecosystems: On the importance of environmental context. North American Benthological Society 48th annual conference, Keystone CO.
86. Symposium address. Cardinale, B. J., and T. M. Burton. 1995. Habitat coupling is key to understanding the structure and restoration of coastal wetland communities. International Association for Great Lakes Research 38th annual conference, East Lansing MI.

Submitted talks/posters

Lab [P]postdoc, [G]graduate student, [U]undergraduate, [T]technician, or [H]high-school intern

87. Carruthers, D. N., C. M. Godwin[P], D. C. Hietala, B. J. Cardinale, X. N. Lin, and P. E. Savage. 2018. Biodiversity enhances multifunctionality in a life cycle assessment of microalgal biofuel production. American Institute of Chemical Engineers (AIChE) annual conference, Orlando, FL.
88. [P]Godwin, C. M., and Cardinale, B. J. 2017. Ecological stoichiometry of algal biocrude production: Polycultures balance trade-offs in nutrient use efficiency. Ecological Society of America annual conference, Portland, OR.
89. [G]Carruthers, D. N., [P]C. K. Byun, B. J. Cardinale, and X. N. Lin. 2016. An ecological and engineering approach to optimizing algal biofuels. SNRE Capstone Conference.
90. [G]Carruthers, D. N, [P]C. K. Byun, B. J. Cardinale, and X. N. Lin. 2016. An ecological and engineering approach to optimizing algal biofuels. American Institute of Chemical Engineers annual student conference, San Francisco, USA.
91. [G]Hietala, D. C., [U]C. K. Koss, [P]A. Narwani, B. J. Cardinale, and P. E. Savage. 2016. Effects of microalgal polycultures on quality of biomass for biocrude oil production via hydrothermal liquefaction. American Institute of Chemical Engineers annual student conference, San Francisco, USA.
92. Gonzalez, A., B. J. Cardinale, G. R. H. Allington, J. Byrnes, K. A. Endsley, D. G. Brown, D. U. Hooper, F. Isbell, M. Loreau, M. I. O'Connor. 2015. Overcoming the challenges of estimating local biodiversity change. British Ecological Society annual meeting, Edinburgh, Scotland.
93. [P]A. Narwani, D. Hietala, P. Savage and B.J. Cardinale. 2015. Species diversity stabilizes biocrude production by freshwater green algae. Poster presentation at the 5th International Conference on Algal Biomass, Biofuels and Bioproducts. San Diego, USA.
94. [G]Rakowski, C., and B. J. Cardinale. 2015. Impacts of producer richness on community biomass and stability depend on herbivore selectivity: evidence from aquatic microcosms. Ecological Society of America annual conference, Baltimore, MD.
95. [G]Nolan, M., N. Jacobson, T. McClung, and B. J. Cardinale. 2015. Assessing the quality of data used to justify listing of mammals in the IUCN Red List. Ecological Society of America annual conference, Baltimore, MD.
96. [G]Chang, F. H., and B. J. Cardinale. 2015. Weak intra-guild predation promotes strong effects of biodiversity on ecosystem function. Ecological Society of America annual conference, Baltimore, MD.
97. Cardinale, B. J., G. Allington, D. Brown, J. Byrnes, J. E. Duffy, L. Gamfeldt, A. Gonzalez, D. U. Hooper, F. Isbell, J. S. Lefcheck, M. Loreau, M. I. O'Connor. 2015. Is biodiversity declining at local scales or not? A critique of recent high-profile claims of no net loss of local biodiversity. Ecological Society of America annual conference, Baltimore, MD.

98. Alexandrou, M. A., M. S. Pankey, [P]A. Narwani, B. Bentlage, B. Cardinale, C. Delwiche, T. Oakley. 2015. Algal polycultures enhance production and gene expression of lipids for biofuels. 5th International Conference on Algal Biomass, Biofuels and Bioproducts, San Diego, CA.
99. Doubek, J. P., C. C. Carey, and B. J. Cardinale. 2014. Anthropogenic land use increases N-fixing cyanobacterial dominance in lakes across the continental United States. Pacific Rim Applications and Grid Middleware Assembly (PRAGMA), Indiana University, Bloomington, IN.
100. Doubek, J. P., C. C. Carey, and B. J. Cardinale. 2014. Anthropogenic land use is associated with N-fixing cyanobacterial dominance in lakes across the continental United States. Global Lake Ecological Observatory Network (GLEON), Orford, Canada.
101. [G]Naughton, H., and B. J. Cardinale. 2014. Phylogenetic distance does not predict competitive interactions in freshwater green algal communities. 1st Joint Aquatic Sciences Meeting, Portland, OR.
102. [P]Narwani, A., [G]C. Hampton-Miller, [T]J. Herrin, [U]A. Vouaux, [U]C. Zhou, [P]M. A. Alexandrou, T. H. Oakley, and B. J. Cardinale. 2014. Phylogeny is a poor predictor of ecological traits of freshwater green algae. 1st Joint Aquatic Sciences Meeting, Portland, OR.
103. Griffin, J. N., [P]J. E. Byrnes, and B. J. Cardinale. 2013. Effects of predator richness on prey suppression: a meta-analysis. The 11th International Ecology (INTECOL) Congress, London, UK.
104. Cardinale, B. J., K. Gross, [T]K. Fritschie, P. Flombaum, J. Fox, C. Rixen, J. van Ruijven, P. Reich, M. Scherer-Lorenzen, B. J. Wilsey. 2013. Diversity of primary producers simultaneously increases the productivity and stability of ecosystems, but effects are independent. Ecological Society of America annual conference, Minneapolis, MN.
105. [P]Narwani, A., [P]M. A. Alexandrou, T. Oakley, [P]B. Bentlage, C. Delwiche, and B. J. Cardinale. 2013. Evolutionary relatedness does not influence the functioning of freshwater algae. Ecological Society of America annual conference, Minneapolis, MN.
106. Doubek, J., and B. J. Cardinale. 2013. Land use change and nutrient concentrations as drivers of cyanobacterial dominance in 474 U.S. lakes. Midwestern Ecology & Evolution annual conference, South Bend, IN.
107. Cardinale, B. J., [P]P.A. Venail, and [P]A. Narwani. 2012. What is biodiversity's role in providing ecosystem goods and services? A data synthesis. Ecological Society of America annual conference, Portland, OR.
108. [P]Venail, P. A., and B. J. Cardinale. 2012. Phylogenetic diversity affects the temporal stability of communities by altering species' functioning and competitive interactions. Ecological Society of America annual conference, Portland, OR.
109. Lefcheck, J.S., L. Gamfeldt, J.E.K. Byrnes, J.N. Griffin, M. O'Connor, B.J. Cardinale, and J.E. Duffy. 2012. Biodiversity effects on provision of multiple ecosystem functions in marine systems: A meta-analysis. 41st Benthic Ecology Meeting, Norfolk, VA.
110. [P]Narwani, A., and B. J. Cardinale. 2012. Can evolutionary history help explain coexistence and the mechanisms behind it? Ecological Society of America annual conference, Portland, OR.
111. [P]Kulacki, K. J., [T]N. He, [U]P. J. Parent, [U]M. E. McCarthy, D. M. Costello, S. D. Tiegs, [T]K. L. Fritschie, and B. J. Cardinale. 2012. Stressed out streams: Ranking the effects of stressors on stream periphyton. Ecological Society of America annual conference, Portland, OR.
112. [G]Albertson, L. K., and B. J. Cardinale. 2012. Impacts of biological diversity on sediment erosion in streams. Ecological Society of America annual conference, Portland, OR.
113. [T]Fritschie, K. J., and B. J. Cardinale. 2012. Phylogenetic diversity affects biomass production through two opposing forces. Ecological Society of America annual conference, Portland, OR.
114. [G]Zimmerman, E. K., and B. J. Cardinale. 2012. How does biodiversity relate to the functioning of 'real-world' ecosystems? Ecological Society of America annual conference, Portland, OR.
115. Ennis, K. K., L. Cline, D. J. Gonthier, D. W. Katz, B. Li, L. MacDonald, T. W. Ying Ong, Y. Su, I. Perfecto, and B. J. Cardinale. 2012. Diversity buffers agricultural yield under variable environmental conditions. Ecological Society of America annual conference, Portland, OR.

116. Marin, L., B. C. Berrie, K. K. Ennis, D. J. Gonthier, H. Hsieh, A. Iverson, J. Remfert, B. J. Cardinale, and I. Perfecto. 2012. Tradeoffs and synergies of ecosystem services in diverse and non-diverse agroecosystems. Ecological Society of America annual conference, Portland, OR.
117. Gonthier, D. J., K. K. Ennis, S. A. Farinas, H. Hsieh, A. Iverson, B. J. Cardinale, and I. Perfecto. 2012. The influence of local and landscape level agricultural factors on within farm biodiversity. Ecological Society of America annual conference, Portland, OR.
118. [P]Kulacki, K. J., [T]N. He, [U]P. J. Parent, [U]M. E. McCarthy, D. M. Costello, S. D. Tiegs, [T]K. L. Fritschie, and B. J. Cardinale. 2012. Stressed out streams: Ranking the effects of stressors on biofilm structure and function. Society of Freshwater Science annual conference. Louisville, KY.
119. [U]McCarthy, M. E., [P]K. J. Kulacki, B. J. Cardinale, and [T]N. He. 2012. Which environmental stressors have the greatest impacts on algal biodiversity? Society of Freshwater Science annual meeting. Louisville, KY.
120. [U]Parent, P. J., [P]K. Kulacki, [T]N. He, [U]M. E. McCarthy, D. M. Costello, S. D. Tiegs, [T]K. J. Fritschie, and B. J. Cardinale. 2012. Effects of Roundup® on the structure and function of freshwater periphyton. Society of Freshwater Science annual meeting. Louisville, KY.
121. [P]Kulacki, K., S. W. Bennett, and B. J. Cardinale. 2011. Investigating the mechanisms underlying the effects of titanium dioxide nanoparticles on two species of freshwater phytoplankton. Society of Environmental Toxicology and Chemistry (SETAC) annual conference, Boston, MA.
122. Hooper, D. U., E. C. Adair, L. Gamfeldt, A. Gonzalez, B. A. Hungate, M. I. O'Connor, B. J. Cardinale, and J. E. Duffy. 2011. Do the effects of species richness on ecosystem function rival other forms of environmental change? Ecological Society of America 96th annual conference, Austin, TX.
123. Gamfeldt, L., J. Lefcheck, J. Byrnes, J. Griffin, J. E. Duffy, M. O'Connor, and B. J. Cardinale. Marine species richness and ecosystem functioning – a meta-analysis. 2011. World Conference on Marine Biodiversity, Aberdeen, Scotland.
124. [P]K. Kulacki, B. J. Cardinale, T. Klanjscek, [T]K. Matulich, and R. Nisbet. 2010. Effects of nano-TiO_2 on freshwater phytoplankton: general impacts and specific mechanisms. Society of Environmental Toxicology and Chemistry (SETAC) annual conference, Portland, OR.
125. Cardinale, B. J., [P]K. Kulacki, T. Klanjscek, [T]K. Matulich, and R. Nisbet. 2010. TiO_2 nanoparticles stimulate biomass production in freshwater algae. North American Benthological Society annual conference, Santa Fe, NM.
126. [G]Albertson, L. K., and B. J. Cardinale. 2010. Impacts of biological diversity on sediment transport in streams. North American Benthological Society annual conference, Santa Fe, NM. Awarded *Best Oral Presentation in Applied Research.*
127. [U]Koenig, L., [G] L. K. Albertson, and B. J. Cardinale. 2010. Does drought alter the relative importance of top-down vs. bottom-up control in streams? North American Benthological Society annual conference, Santa Fe, NM. Awarded *Best Oral Presentation in Basic Research.*
128. [T]Bier, R., [H]C. Kwan, [T]K. Matulich, [P]K. Kulacki, and B. J. Cardinale. Effects of nano-Ti_{O2} on the growth and metabolsm of common freshwater algae. 2010. International Conference on the Environmental Implications of Nanotechnology, 2nd annual Los Angeles, CA.
129. [P]Kulacki, K., [T]R. Bier, [T]H. Dickson, B. J. Cardinale, A. Keller, R. Nisbet, P. Holden, T. Klanjscek, J. Priester, K. Clark, R. Thio. 2010. Effects of nano-TiO_2 on the structure and function of stream ecosystems: An ongoing experiment in freshwater mesocosms. International Conference on the Environmental Implications of Nanotechnology, 2nd annual Los Angeles, CA.
130. [P]Kurle, C. M, and B. J. Cardinale. 2009. Trophic cascade strength declines with increasing diversity in streams. Ecological Society of America 94th annual conference, Albuquerque, NM.
131. [U]Hardy, J. E., [H]A. M. Romanov, [P]S. C. Zeug, and B. J. Cardinale. 2009. Does prey availability limit the restoration of fish? Ecological Society of America 94th annual conference, Albuquerque, NM.
132. [U]Matulich, K., [G]I. T. Carroll, and B. J. Cardinale. 2009. Do priority effects help explain the coexistence of species? Ecological Society of America 94th annual conference, Albuquerque, NM.

133. [G]Albertson, L. K., [P]S. C. Zeug, H. Lenihan, and B. J. Cardinale. 2009. Impacts of gravel augmentation on invertebrates in a restored river. Ecological Society of America 94th annual conference, Albuquerque, NM.
134. [G]Carroll, I. T., and B. J. Cardinale. 2009. Consumer stability responds positively to both diversity and niche breadth when resources are variable. Ecological Society of America 94th annual conference, Albuquerque, NM.
135. [U]Matulich, K., [G]I. T. Carroll, and B. J. Cardinale. 2009. Do priority effects help explain the coexistence of species? College of Letters and Sciences Undergraduate Research Colloquium, University of California – Santa Barbara.
136. [U]Hardy, J. E., [H]A. M. Romanov, [P]S. C. Zeug, and B. J. Cardinale. 2009. Does prey availability limit the restoration of fish? College of Letters and Sciences Undergraduate Research Colloquium, University of California – Santa Barbara.
137. [P]Byrnes, J. E., D. C. Reed, S. Holbrook, and B. J. Cardinale. 2008. Long-term kelp removal at the Santa Barbara coastal LTER: A template to examine the consequences of climate change. Western society of Naturalists, Vancouver, BC, Canada
138. [G]Albertson, L. K., [P]S. C. Zeug, B. J. Cardinale, H. S. Lenihan, A. M. Wydzga, L. Harrison, and T. Dunne. 2008. Geomorphic constraints on the restoration of macroinvertebrate assemblages in the Merced River, CA. 5th Biennial CALFED Science Conference, Sacramento, CA.
139. [P]Zeug, S. C., [G]L. K. Albertson, B. J. Cardinale, and H. S. Lenihan. 2008. Predictors of Chinook salmon extinction in California. 5th Biennial CALFED Science Conference, Sacramento, CA.
140. Helmus, M. R., L. Allen, B. J. Cardinale, E. D. Pardo, O. D. Dominguez, A. R. Ives, J. Lyons, M. M. Nava, and N. M. Silva. 2008. Phylogenetically nonrandom extinction and replacement of native Mexican freshwater fishes. Ecological Society of America 93rd annual conference, Milwaukee, WI.
141. [T]Weis, J. J., [U]D. Madrigal, and B. J. Cardinale. 2008. Effects of algal diversity on the production of biomass in homogeneous and heterogeneous nutrient environments: A microcosm experiment. Ecological Society of America 93rd annual conference, Milwaukee, WI.
142. Wydzga, M. A., [G]L. Albertson, L. Harrison, [P]S. Zeug, B. J. Cardinale, H. Lenihan, and T. Dunne. 2008. Utilizing a Physics-Based Model to Predict the Impact of Bed Mobility on the Benthic Macroinvertebrate Community. 3rd Annual Meeting of Young Researchers in Earth Science, New Orleans, LA.
143. Cardinale, B. J., [T]D. Bennett, and K. Gross. 2007. Does community production drive species diversity drive or vice versa? Towards resolution of a diversity paradox. Ecological Society of America 92nd annual conference, San Jose, CA.
144. Gross, K. and B. J. Cardinale. 2007. Does species richness drive community production or vice versa? Reconciling historical and contemporary paradigms in models of competitive communities. Ecological Society of America 92nd annual conference, San Jose, CA.
145. [P]Cadotte, M. W., B. J. Cardinale, and T. H. Oakley. 2007. Can the functional consequences of species extinction be predicted by evolutionary history? Ecological Society of America 92nd annual conference, San Jose, CA.
146. [G]Carroll, I. T., and B. J. Cardinale. 2007. Balancing niche and neutral theory to predict the effects of biodiversity on ecosystem production. Ecological Society of America 92nd annual conference, San Jose, CA.
147. Cebrian, J., J. B. Shurin, E. T. Borer, B. J. Cardinale, and M. D. Smith. 2007. Bottom-up control of herbivore-producer biomass ratios across ecosystems. Ecological Society of America 92nd annual conference, San Jose, CA.
148. Cardinale, B. J., A. Downing, E. Duffy, C. Jouseau, M. Sankaran, D. Srivastava, and J. Wright. 2006. Effects of biodiversity on the functioning of ecosystems … what do the data say? Ecological Society of America 91st annual conference, Memphis, TN.

149. Cardinale, B. J., [U]J. J. Weis, K. J. Tilmon, A. E. Forbes, and A. R. Ives. 2005. Biodiversity as both a cause and consequence of resource density. Ecological Society of America 90th annual conference, Montreal, Canada.
150. Cardinale, B.J. 2005. Does functional redundancy exist? North American Benthological Society 51st annual conference, New Orleans, LA.
151. Gross, K., and B. J. Cardinale. 2004. On the generality of biodiversity ecosystem function patterns observed in random assembly experiments. Ecological Society of America 89th annual conference, Portland, OR.
152. Forbes, A., B. J. Cardinale, C. Harvey, M. Helmus, A. R. Ives, K. Tilmon, and C. Williams. 2004. Do ecologists have physics envy? Ecological Society of America 89th annual conference, Portland, OR.
153. Harvey, C., A. Forbes, B. J. Cardinale, and A. R. Ives. 2004. Impacts of invasive species that span ecosystems. Ecological Society of America 89th annual conference, Portland, OR.
154. Engelhardt, K., M. Solan, B. J. Cardinale, A. Downing, J. Ruesink, and D. Srivastava. 2004. Extinction scenarios and ecosystem effects in the marine benthos. Ecological Society of America 89th annual conference, Portland, OR.
155. [U]Langley, S. L., K. J. Tilmon, B. J. Cardinale, and A. R. Ives. 2003. The role of experience in the foraging behavior of *Aphidius ervi*. Entomological Society of America, 51st annual meeting, Cincinnati, OH.
156. Cardinale, B. J., A.R.Ives, and P. Incausti. 2003. The effect of species diversity on ecosystem productivity: extending our spatial and temporal scales of inference. Ecological Society of America 88th annual conference, Savannah, GA.
157. Cardinale, B. J., M. A. Palmer, S. S. Brooks, and A. R. Ives. 2003. The relationship between diversity and productivity in streams is influenced by the history of hydrologic variation. North American Benthological Society 49th annual conference, Athens, GA.
158. Cardinale, B. J., M. A. Palmer, and S. S. Brooks. 2002. Flow history moderates the relationship between algal diversity and productivity in stream ecosystems. Ecological Society of America 87th annual conference, Tucson, AZ.
159. Cardinale, B. J., and M. A. Palmer. 2001. An emergent property of species diversity increases resource consumption by suspension feeders in laboratory streams. North American Benthological Society 49th annual conference, LaCrosse WI.
160. Cardinale, B. J., and M. A. Palmer. 2000. Relating species diversity to the functioning of ecosystems: On the importance of environmental context. Ecological Society of America 85th annual conference, Snowbird UT.
161. Cardinale, B. J., and M. A. Palmer. 2000. Linking species diversity to the functioning of ecosystems: on the importance of environmental context. North American Benthological Society 48th annual conference, Keystone CO. Awarded *Wildco Award for Best Oral Presentation in Basic Research*.
162. Swan, C.S., B. J. Cardinale, M. A. Palmer, and S. Brooks. 2000. The influence of habitat heterogeneity on the rates of ecological processes: An experimental assessment in a stream ecosystem. Ecological Society of America 85th annual conference, Snowbird UT.
163. Cardinale, B.J., K. Nelson, and M. A. Palmer. 1999. The effects of spatial variation and disturbance on the relationship between species diversity and ecosystem function. Ecological Society of America 84th annual conference, Spokane WA.
164. Brady, V. J., B. J. Cardinale, J. P. Gathman, and T. M. Burton. 1999. Inoculum alters invertebrate community development in wetland mesocosms. Ecological Society of America 84th annual conference, Spokane WA.
165. Palmer, M. A., B. J. Cardinale, S. G. Riblett, and C. M. Swan. 1998. Streambed heterogeneity and the restoration of ecosystem structure and function. North American Benthological Society 46th annual conference, Prince Edward Island.

166. Smith, C., B. J. Cardinale, and M. A. Palmer. 1998. The effects of initial Trichopteran colonizers on the development of benthic communities. North American Benthological Society 46th annual conference, Prince Edward Island.
167. Brady, V. J., T. M. Burton, B. J. Cardinale, J. Gathman, S. Riffel, and M. Scalabrino. 1998. Invertebrate communities associated with various coastal zone wetland habitats of Saginaw Bay, Lake Huron. North American Benthological Society 46th annual conference, Prince Edward Island.
168. Cardinale, B. J., T. M. Burton, and V. J. Brady. 1997. The community dynamics of epiphytic midge larvae across the pelagic-littoral interface: Do animals respond to changes in the abiotic environment? North American Benthological Society 45th annual conference, San Marcos TX. Awarded *Wildco Award for Best Oral Presentation in Basic Research*.
169. Brady, V. J., T. M. Burton, and B. J. Cardinale. 1994. Ability of zebra mussels to establish colonies in a Saginaw Bay, Lake Huron, coastal emergent marsh. International Association for Great Lakes Research and Estuarine Research Federation 37th conference, Windsor Ontario.
170. Brady, V. J., T. M. Burton, and B. J. Cardinale. 1994. Zebra mussel colonization of Saginaw Bay coastal emergent marshes. Program. Fourth International Zebra Mussel Conference, Madison WI.
171. Brady, V. J., T. M. Burton, and B. J. Cardinale. 1994. Zebra mussel (*Dreissena polymorpha* Pallas) colonization and over-wintering in a Saginaw Bay, Lake Huron, Michigan, coastal emergent marsh. Society of Wetland Scientists 15th annual meeting, Portland OR.

PROFESSIONAL SERVICE

Memberships

- Member. Science Council of the Midwest's *Environmental Law and Policy Center* (2018-present).
- Member. National Oceanic and Atmospheric Administration (NOAA) *Great Lakes Regional Collaboration Team* (2019-present).
- Elected member. Science Committee of *Future Earth* (2013-16).
- Elected member. Freshwater Biodiversity Committee of *DIVERSITAS* - a United Nations Environment Program (UNEP) charged with summarizing biodiversity science to generate international policy recommendations for conservation (2010-13).
- Member. Science Working Group of the Stream Experimental and Observational Network (STREON, 2010-13).
- Member. Domain Science and Education Committee for the National Ecological Observatory Network (NEON, 2009-11).
- Member. Long-range Planning Committee, Society for Freshwater Science (2002-06).
- Member. *American Association for the Advancement of Science (AAAS)*, *Ecological Society of America (ESA), American Institute of Biological Sciences (AIBS),* and the *Society for Freshwater Science (SFS)*.

Reviewing

- Editorial board. *Ecology* and *Ecological Monographs* (2009-16)
- Panelist. U.S. National Science Foundation (Ecosystems Panel - 10/07, 4/08, 4/09, 6/11, 10/11, DIMENSIONS of Biodiversity panel 6/11).
- Referee for >60 manuscripts in the past five years submitted to *Science, Nature, Proceedings of the National Academy of Sciences, Trends in Ecology & Evolution, Frontiers in Ecology & Evolution, PLoS Biology, Ecology, Ecology Letters, Oikos, J. Animal Ecology, J. Ecology, Limnology and Oceanography, Freshwater Biology, J. Experimental Marine Biology and Ecology,* and *Marine Ecology Progress Series*.

Conferences, networks, and working groups

- U.S. co-chair, Binational conference: The ecosystem approach in the 21st century. 2020. C. Febria, D. Haffner, N. Munawar, J. Hartig. University of Windsor.

- Co-PI. Walter Dodds, Margaret Palmer and I wrote the original proposal to establish the Stream Experimental and Observational Network (STREON): A cross-continent set of experiments to study the causes and consequences of environmental change in streams throughout North America.
- Lead PI. Working group at the Socio-Environmental Synthesis Center (SESYNC). *"Linking biodiversity and ecosystem services: From expert opinion to prediction and application."* 2012-14. Bradley Cardinale & Edward Barbier (organizers).
- Lead PI. Working group at the National Center for Ecological Analysis and Synthesis (NCEAS). *"Biodiversity and the functioning of ecosystems: Translating results from model experiments into functional reality."* 2010-2012. Bradley Cardinale, J. Emmett Duffy, & David Hooper (organizers).
- Participant. Nominated by DIVERSITAS to represent biodiversity science at United Nation's planning workshop to merge the four global change programmes into *Future Earth*. UNESCO, Paris, 2012.
- Symposium speaker and participant. Young Researchers in Earth Science (MYRES) working group: *Dynamic Interactions between life and its landscape*. 2008. Liam Reinhardt & Douglas Jerolmack (organizers).
- Participant. NCEAS (National Center for Ecological Analysis and Synthesis) working group: *Trophic structure comparisons across ecosystems*. 2005-2007. Daniel Gruner, Jonathan Shurin, & Helmut Hillebrand (organizers).
- Participant. Long Term Ecological Research Network Science Strategic Planning Grant. 2005-2006. National Science Foundation (sponsor).
- Participant. BioMERGE (Biotic Mechanisms of Ecosystem Regulation in the Global Environment) Adaptive Synthesis Workshop IV. Ascona, Switzerland. 2006. Shahid Naeem, Daniel Bunker (organizers).
- Participant. DIVERSITAS (an international program of biodiversity science): *The Consequences of Changing Biodiversity - Solutions and Scenarios*. Locarno, Switzerland. 2006. Michel Loreau, Andy Hector (organizers).
- Participant. BioMERGE (Biotic Mechanisms of Ecosystem Regulation in the Global Environment) Adaptive Synthesis Workshop III. Borneo, Malaysia. 2005. Shahid Naeem, Daniel Bunker (organizers).
- Participant. DIVERSITAS (an international program of biodiversity science): *The next generation of biodiversity and ecosystem functioning research*. 2005. Borneo, Malaysia. Michel Loreau, Andy Hector (organizers).
- Participant. BioMERGE (Biotic Mechanisms of Ecosystem Regulation in the Global Environment) Adaptive Synthesis Workshop II. Aquatic Ecosystems Workgroup. St. Louis, MO. 2003. Shahid Naeem, Justin Wright (organizers).
- Participant. First International Conference on Aquatic Biodiversity and Ecosystem Functioning. Ascona, Switzerland. 2002. Mark Gessner, Pablo Inchausti, Lennart Persson, and Dave Raffaeli (organizers).

<u>University service</u>

- Director, Cooperative Institute for Great Lakes Research, CIGLR (2016 – present).
- Coordinator, Conservation Ecology Program, University of Michigan (2012-14).
- Member, Council of Fellows, Cooperative Institute for Limnology and Ecosystems Research (2011-15).
- Member, Executive Committee of the School for Environment and Sustainability (2015-18).
- Member, Executive Committee of the University of Michigan Biological Station (2011 - present).
- Spokesperson, Scientific expert for the University of Michigan's News Service about issues in environmental science (2011 - present).
- Co-organizer (with Ivette Perfecto), U of M's DIMENSIONS of Biodiversity Distributed Graduate Seminar, funded by the U.S. National Science Foundation (2011-13).

TEACHING & MENTORING

Courses taught (semester)

NRE 517 Conservation Biology (Winter semesters)
NRE 552 Ecosystem Services (Fall semesters)
NRE 589 Restoration ecology (Winter semesters)

Postdoctoral research associates (subsequent position)

Tian Guo 2017-present
Sarah Jackrel 2016-19 (Assistant Professor, Univ. California-San Diego)
Casey Godwin 2015-18 (Assistant Research Scientist, University of Michigan)
Shovon Mandal 2014-15 (Postdoc, Univ. California-San Diego)
Anita Narwani 2011-14 (Junior Group Leader, EAWAG Switzerland)
Daniel Allen 2012-14 (Assistant Professor, University of Oklahoma)
Konrad Kulacki 2009-13 (Biologist, Exponent Consulting, Boston, MA)
Patrick Venail 2011-13 (Assistant Professor, University of Geneva)
Ryan Utz 2010-11 (Assistant Professor, Chatham University)
Jarrett Byrnes 2008-10 (Assistant Professor, University of Massachusetts)
Carolyn Kurle 2008-10 (Assistant Professor, Univ. California-San Diego)
Steven Zeug 2007-09 (Fisheries biologist, Cramer Fish Sciences, CA)
Marc Cadotte 2006-07 (Assistant Professor, University of Toronto)

Graduate students (subsequent position)

Kia Billings, M.S. student, 2020-pesent
Spenser Widin, M.S. student, 2019-pesent
Adam Krieger[1], Ph.D. student, 2014-present
Oscar Chang, Ph.D. student, 2014-19 (Postdoc, National Taiwan University)
Kirby Mills[2], M.S. student, 2018-19 (Ph.D. student, Univ. Michigan)
Chase Rakowski, M.S. student, 2013-15 (Ph.D. student, Univ. Texas-Austin)
Madeline Pinsonneault, M.S. student, 2013-15 (Ph.D. student, Univ. California – Santa Barbara)
Celia Miller, M.S. student, 2012-14 (Research scientist, US Forest Service)
Hannah Naughton, M.S. student, 2012-14 (Ph.D. student, Stanford University)
Emily Zimmerman, M.S. student, 2011-13 (Ph.D. student, Iowa State University)
Lindsey Albertson, Ph.D. student, 2007-13 (Postdoc, Stroud Water Resources Institute)

[1]co-advised with Dr. Nina Lin, Department of Chemical Engineering, Univ. Michigan

[2]co-advised with Dr. Nyeema Harris, Department of Ecology and Evolutionary Biology, Univ. Michigan