# **JAY-TERRENCE LENNON**

Department of Biology, Indiana University, Bloomington, Indiana 47405 Phone: (812) 856-0962; Fax: (812) 855-6082, <a href="mailto:lennonj@indiana.edu">lennonj@indiana.edu</a> Lab website: <a href="mailto:indiana.edu/~lennongoogle-scholar:">indiana.edu/~lennongoogle-scholar:</a> https://goo.gl/qx4hHR

#### **EDUCATION:**

1995	BS	Environmental Forest Biology	SUNY-ESF at Syracuse
1999	MA	Ecology & Evolutionary Biology	University of Kansas
2004	Ph.D.	Ecology & Evolutionary Biology	Dartmouth College

# PROFESSIONAL EXPERIENCE:

2017-	Professor, Indiana University, Department of Biology, Core Faculty in the Evolution, Ecology & Behavior Section, Affiliated Faculty in Microbiology Section
2012-2016	Associate Professor, Indiana University, Department of Biology, Core Faculty in the Evolution, Ecology & Behavior Section, Affiliated Faculty in Microbiology Section
2016-2017	Whitman Center Associate, Marine Biological Laboratory (MBL), Woods Hole
2016-2017	Visiting Professor, Montana State University, Department of Microbiology and Immunology
2012-2015	Adjunct Professor, W.K. Kellogg Biological Station, Michigan State University
2012	Associate Professor, W.K. Kellogg Biological Station and the Department of Microbiology & Molecular Genetics, Michigan State University
2011-	Ad hoc Graduate Faculty, Michigan Technological University
2008-2012	Adjunct Professor, Plant Biology Department, Michigan State University
2006-2012	Assistant Professor, W.K. Kellogg Biological Station and the Department of Microbiology & Molecular Genetics, Michigan State University
2004-2006	Postdoctoral Research Associate, Brown University, Department of Ecology & Evolutionary Biology

# **PUBLICATIONS**

In Review, In Revision, and/or Preprint:

- Locey KJ, Lennon JT (2017) A modeling platform for the simultaneous emergence of ecological patterns. PeerJ Preprints. 5:e1469v3 https://doi.org/10.7287/peerj.preprints.1469v3
- Locey KJ, Lennon JT (2017) A residence-time framework for biodiversity. PeerJ Preprints 5:e2727v1 doi: http://dx.doi.org/10.1101/065128
- Lamit LJ, Romanowicz JH, Potvin LR, Rivers A, Singh K, Lennon JT, Tringe S, Kane E, Lilleskov E (In Revision) Patterns and drivers of fungal community depth stratification in Sphagnum peat.

- Nguyễn-Thuỳ D, Schimmelmann A, Nguyễn-Văn H, Drobniak A, Lennon JT, Tạ PH, Nguyễn N (In Revision) Subterranean microbial oxidation of atmospheric methane in cavernous tropical karst. Chemical Geology.
- Hall EK, Bernhardt ES, Bier R, Bradford MA, Boot CM, Cotner JB, del Giorgio PA, Evans SE, Graham EB, Jones SE, Lennon JT, Nemergut D, Osborne B, Rocca JD, Schimel JS, Waldrop MS, Wallenstein MW (2016) Reframing the use of microbial information in ecosystem science. bioRxiv Preprint doi: http://dx.doi.org/10.1101/065128.
- Peralta AL, Sun Y, Lennon JT (2016) Crop diversity enhances disease suppressive potential in soils. bioRxiv Preprint doi:http://dx.doi.org/10.1101/030528

# In Press and Published:

- Shoemaker WR, Locey KJ, Lennon JT (2017) A macroecological theory of microbial biodiversity. Nature Ecology and Evolution 1:0107
- Lennon JT, Locey KJ (2017) Macroecology for microbiology. Environmental Microbiology Reports. 9: 38-40.
- Locey KJ, Fisk MC, Lennon JT (2017) Microscale insight into microbial seed banks. Frontiers in Microbiology 7: 2040
- Webster KD, Rosales Lagarde L, Sauer PE, Schimmelmann A, Lennon JT, Boston PJ (In Press) Isotopic evidence for the migration of thermogenic methane in Cueva de Villa Luz cave, Tabasco, Mexico. Journal of Cave and Karst Studies.
- LaSarre B, McCully AL, Lennon JT, McKinlay JB (2017) Microbial mutualism dynamics governed by dose-dependent toxicity and growth-independent production of a cross-fed nutrient. ISMEJ. 11: 337–348
- Skelton J, Geyer KM, Lennon JT, Creed RP, Brown BL (2017) Multi-scale ecological filters shape crayfish microbiome assembly. Sybmiosis. DOI 10.1007/s13199-016-0469-9
- Lennon JT, Locey KJ (2016) The underestimation of global microbial diversity. mBio 7 e01298-16
- Lennon, JT, Nguyễn Thùy D, Phạm Đức N, Drobniak A, Tạ PH, Phạm NĐ, Streil T, Webster KD, Schimmelmann A (2016) Microbial contributions to subterranean methane sinks. Geobiology. 15: 254-258
- Locey KJ, Lennon JT (2016) Powerful predictions of biodiversity from ecological models and scaling laws. Proceedings of the National Academy of Science of the United States of America. doi/10.1073/pnas.1609635113
- Locey KJ, Lennon JT (2016) Scaling laws predict global microbial diversity. Proceedings of the National Academy of Science of the United States of America. 113: 5970–5975
- Lennon JT, Lehmkuhl (2016) A trait-based approach to biofilms in soil. Environmental Microbiology. 18: 2732–2742
- Muscarella ME, Jones SE, Lennon JT (2016) Species sorting along a subsidy gradient alters community stability. Ecology. 97: 2034-2043

- Kinsman-Costello LE, Hamilton SK, O'Brien J, Lennon JT (2016) Phosphorus release from the drying and reflooding of diverse wetland sediments. DOI 10.1007/s10533-016-0250-4. Biogeochemistry
- Aanderud ZT, Vert JC, Lennon JT, Magnusson TW, Breakwell DP, Harker AR. (2016) Bacterial dormancy is more prevalent in freshwater than hypersaline lakes. Frontiers in Microbiology 7:853. doi: 10.3389/fmicb.2016.00853
- Wiggington CH, Sonderegger DL, Brussard CPD, Buchan A, Finke JF, Fuhrman JA, Lennon JT, Middelboe M, Stock CA, Suttle CA, Wilson WH, Wommack EK, Wilhelm SW, Weitz JS (2016) Re-examining the relationship between virus and microbial cell abundances in the global oceans. Nature Microbiology 1: article 15024
- Wisnoski NI, Lennon JT (2016) Book Review. Principles of Microbial Diversity by James W. Brown. Quarterly Review of Biology 91: 98-99
- Lennon JT, Denef VJ (2016) Evolutionary ecology of microorganisms: from the tamed to the wild, p 4.1.2-1–4.1.2-12. In Yates MV, Nakatsu C, Miller R, Pillai S (ed), Manual of Environmental Microbiology, 4th ed. ASM Press, Washington, DC. [Epub ahead of print] doi:10.1128/9781555818821.ch4.1.2. PeerJ Preprint. DOI: 10.7287/peerj.preprints.1025v1
- Hall EK, Schoolmaster DR, Amado, AM, Stets, EG, Lennon JT, Domine L, Cotner JB (2016) Scaling relationships among drivers of aquatic respiration: from the smallest to the largest freshwater ecosystems. Inland Waters 6: 1-10
- Martiny JBH, Jones SE, Lennon JT, Martiny AC (2015) Microbiomes in light of traits: a phylogenetic perspective. Science 350: aac9323
- Bier RL, Bernhardt ES, Boot CM, Graham EB, Hall EK, Lennon JT, Nemergut D, Osborne BB, Ruiz-Gonzalez C, Schimel JP, Waldrop MP, Wallenstein MD (2015) Linking microbial community structure and microbial processes: an empirical and conceptual overview. FEMS Microbiology Ecology. doi: http://dx.doi.org/10.1093/femsec/fiv113
- Shoemaker WR, Muscarella ME, Lennon JT (2015) Genome sequence of the soil bacterium *Janthinobacterium* sp. KBS0711. Genome Announcements 3: e00689-15
- Treseder KK, Lennon JT (2015) Fungal traits that drive ecosystem dynamics on land. Microbiology and Molecular Biology Reviews 79: 243-262
- Solomon CT, Jones SE, Weidel BC, Buffam I, Fork ML, Karlsson J, Larsen S, Lennon JT, Read JS, Sadro S, Saros JE (2015) Ecosystem consequences of changing inputs of terrestrial dissolved organic matter to lakes: current knowledge and future challenges. Ecosystems 18: 376-389.
- Aanderud ZT, Jones SE, Fierer N, Lennon JT (2015) Resuscitation of the rare biosphere contributes to pulses of ecosystem activity. Frontiers in Microbiology 6: 24
- Rocca JD, Hall EK, Lennon JT, Evans SE, Waldrop MP, Cotner JB, Nemergut DR, Graham EB, Wallenstein MD (2015) Relationships between protein-encoding gene abundance and corresponding process are commonly assumed yet rarely observed. The ISME Journal 9: 1693–1699

- Weitz JS, Stock CA, Wilhelm SW, Bourouiba L, Buchan A, Coleman ML, Follows MJ, Fuhrman JA, Jover LF, Lennon JT, Middelboe M, Sonderegger DL, Suttle CA, Taylor BP, Thingstad TF, Wilson WH, Wommack EK (2015) A multitrophic model to quantify the effects of marine viruses on microbial food webs and ecosystem processes. The ISME Journal 9: 1352-1364
- Jones SE, Lennon JT (2015) A test of the subsidy-stability hypothesis: effects of terrestrial carbon in aquatic ecosystems. Ecology 96: 1550-1560
- Muscarella ME, Bird KC, Larsen ML, Placella SA, Lennon JT (2014) Phosphorus resource heterogeneity in microbial food webs. Aquatic Microbial Ecology 73: 259-272
- Peralta AL, Stuart D, Kent AD, Lennon JT (2014) A social-ecological framework for "micromanaging" microbial services. Frontiers in Ecology and the Environment. 12: 524-531
- terHorst CP, Lennon JT, Lau JA (2014) The relative importance of rapid evolution for plant-soil feedbacks depend on ecological context. Proceeding of the Royal Society B. 281: 20140028
- Krause S, Le Roux X, Niklaus PA, van Bodegom P, Lennon JT, Bertilsson S, Grossart HP, Philippot L, Bodelier P (2014) Trait-based approaches for understanding microbial biodiversity and ecosystem functioning. Frontiers in Microbiology 5: 251
- Dzialowski AR, Rzepecki M, Kostrzewska-Szlakowska I, Kalinowska K, Palash A, Lennon JT (2014) Are the abiotic and biotic characteristics of aquatic mesocosms representative of in situ conditions? Journal of Limnology. 73: 603-612
- Bertilsson S, Burgin A, Carey CC, Fey SB, Grossart HP, Grubisic L, Jones I, Kirillin G, Lennon JT, Shade A, Smyth RL (2013) The under-ice microbiome of seasonally frozen lakes. Limnology and Oceanography 58: 1998-2012
- Lennon JT, Hamilton SK, Muscarella ME, AS Grandy, K Wickings, SE Jones (2013) A source of terrestrial organic carbon to investigate the browning of aquatic ecosystems. PLOS ONE 8: e75771
- Ponsero AJ, Chen F, Lennon JT, Wilhelm SW (2013) Complete genome sequence of a non-lysogenizing cyanobacterial siphoviridae. Genome Announcements 1: e00472-13
- Lauber CL, Ramirez KS, Aanderud ZT, Lennon JT, Fierer N. (2013) Temporal variability in soil microbial communities across land-use types. The ISME Journal 7: 1641-1650
- Shade A, Peter H, Allison S, Baho D, Berga M, Bürgmann H, Huber D, Langenheder S, Lennon JT, Martiny JBH, Matulich K, Schmidt TM, Handelsman J (2012) Fundamentals of microbial community resistance and resilience. Frontiers in Microbiology. 3: 417
- Aanderud ZT, Jones SE, Schoolmaster DR, Fierer N, Lennon JT (2013) Sensitivity of soil respiration and microbial communities to altered snowfall. Soil Biology & Biochemistry. 57: 217–227
- Lau JA, Lennon JT (2012) Rapid responses of soil microorganisms improve plant fitness in novel environments. Proceedings of the National Academy of Science of the United States of America. 109: 14058–14062
- Lennon JT, Aanderud ZA, Lehmkuhl BK, Schoolmaster DR (2012) Mapping the niche space of soil microorganisms using taxonomy and traits. Ecology 93: 1867–1879

- Burgin AJ, Hamilton SK, Jones SE, Lennon JT (2012) Denitrification by sulfur-oxidizing bacteria in a eutrophic lake. Aquatic Microbial Ecology 66: 283–293
- O'Brien JM, Hamilton SK, Kinsman-Costello LE, Lennon JT, Ostrom NE (2012) Nitrogen transformations in a through-flow wetland revealed using whole ecosystem pulsed <sup>15</sup>N additions. Limnology and Oceanography 57: 221-234
- Treseder KK, Balser TC, Bradford MA, Brodie EL, Eviner VT, Hofmockel KS, Lennon JT, Levine UY, MacGregor BJ, Pett-Ridge J, Waldrop MP (2012) Integrating microbial ecology into ecosystem models. Biogeochemistry 109: 7-18
- Lau JA, Lennon JT (2011) Evolutionary ecology of plant-microbe interactions: soil microbial structure alters natural selection on plant traits. New Phytologist 192: 215-224.
- Aanderud ZT, Lennon JT (2011) Validation of heavy-water stable isotope probing for the characterization of rapid responding soil bacteria. Applied and Environmental Microbiology 13: 4589-4596
- Lennon JT, Jones SE (2011) Microbial seed banks: ecological and evolutionary implications of dormancy. Nature Reviews Microbiology 9:119-130
- Lennon JT (2011) Replication, lies, and lesser-known truths regarding experimental design in environmental microbiology. Environmental Microbiology 13: 1383-1386
- Fierer N, Lennon JT (2011) The generation and maintenance of diversity in microbial communities. American Journal of Botany 98: 439-448
- Aanderud ZT, Schoolmaster DR, Lennon JT (2011) Plants mediate the sensitivity of soil respiration to rainfall variability. Ecosystems 14: 156-167
- Jones SE, Lennon JT (2010) Dormancy contributes to the maintenance of microbial diversity.

  Proceedings of the National Academy of Science of the United States of America 107: 5881-5886
- Hall EK, Singer GA, Kainz MJ, Lennon JT (2010) Temperature acclimation in tow freshwater bacteria: an empirical test of a hypothesized membrane-mediated trade-off. Functional Ecology 24: 898-908
- Thum RA, Lennon JT (2010) Comparative ecological niche models predict the invasive spread of variable-leaf milfoil (*Myriophyllum heterophyllum*) and its potential impact on closely related native species. Biological Invasions 11: 1177-1188
- Jones SE, Lennon JT. (2009) Evidence for limited microbial transfer of methane in planktonic food webs. Aquatic Microbial Ecology 58: 45-53
- Lennon JT, Martiny JBH. (2008) Rapid evolution buffers ecosystem impacts of viruses in a microbial food web. Ecology Letters 11: 1178-1188
- Lennon JT, Cottingham KL (2008) Microbial productivity in variable resource environments. Ecology 89: 1001-1014
- Lennon JT, Khatana SAM, Marston MF, Martiny JBH (2007) Is there a cost of virus resistance in marine cyanobacteria? The ISME Journal 1: 300-312

- Lennon JT (2007) Diversity and metabolism of marine bacteria cultivated on dissolved DNA. Applied and Environmental Microbiology 73: 2799-2805.
- Reyns NB, Langenheder S, Lennon JT (2007) Specialization vs. diversification: a trade-off for young scientists? *Eos* 88: 343
- Dzialowski AD, Lennon JT, Smith VH (2007) Food web structure provides biotic resistance against plankton invasion attempts. Biological Invasions 9: 257-267
- Lennon JT, Faiia AM, Feng X, Cottingham KL (2006) Relative importance of CO<sub>2</sub> recycling and CH<sub>4</sub> pathways in lake food webs along a terrestrial carbon gradient. Limnology and Oceanography 51: 1602-1613
- Thum RA, Lennon JT (2006) Is hybridization responsible for invasive growth of non-indigenous water-milfoils? Biological Invasions 84: 1061-1066
- Cottingham KL, Lennon JT, Brown BL (2005) Regression versus ANOVA. Frontiers in Ecology and the Environment 3: 358
- Cottingham KL, Lennon JT, Brown BL (2005) Designing more informative ecological experiments. Frontiers in Ecology and the Environment 3: 145-152
- Lennon JT, Pfaff LE (2005) Source and supply of terrestrial carbon affects aquatic microbial metabolism. Aquatic Microbial Ecology 39: 107-119
- Thum RA, Lennon JT, Connor J, Smagula AP (2005) A DNA fingerprinting approach for distinguishing native and non-native milfoils. Lake and Reservoir Management 21: 1-6
- Lennon JT (2004) Experimental evidence that terrestrial carbon subsidies increase CO<sub>2</sub> flux from lake ecosystems. Oecologia 138: 584-591
- Lennon JT, Smith VH, Dzialowski AR (2003) Invasibility of plankton food webs along a trophic state gradient. Oikos 102: 191-203
- Dzialowski AR, Lennon JT, O'Brien WJ, Smith VH (2003) Predator-induced phenotypic plasticity in the exotic cladoceran *Daphnia lumholtzi*. Freshwater Biology 48: 1593-1602. (cover)
- Cottingham KL, Brown BL, Lennon JT (2001) Biodiversity may regulate the temporal variability of ecological systems. Ecology Letters 4: 72-85
- Lennon JT, Smith VH, Williams K (2001) Influence of temperature on exotic *Daphnia lumholtzi* and implications for invasion success. Journal of Plankton Research 23: 425-434

#### **GRANTS:**

NSF Ecosystems Panel. "Stoichiometric controls on the active fraction of the microbial community" Co-PI with MC Fisk and KJ Locey (In Review)

NSF Integrated and Organismal Systems Panel. "Preliminary proposal: Microbiome influences on the development of sociality in uni- and bi-parental rodents". Senior Personnel with GE Demas, JR Alberts, CLWellman. (In Review)

NSF Ecosystems Panel. "Dissertation Research: Metabolic resource partitioning: scaling microbial physiology from individual activity to ecosystem function". PI with ME Muscarella. \$19,004.

Multidisciplinary University Research Initiatives (MURI) Program, Department of Defense. "Mechanisms of prokaryotic evolution". Co-PI with M. Lynch, P. Fosters, J, McKinlay, A. Drummond. \$6,248,455. 2015-2020. Lennon oversees one of the four primary tasks.

NSF Dimensions of Biodiversity "Dimensions: Collaborative Research: Microbial seed banks: processes and patterns of dormancy-driven biodiversity". PI with K Locey and S Jones. \$1,997,144. 2015-2020.

Indiana Academy of Science "Metabolic fate of terrestrial carbon resources: anabolic vs. catabolic processes" Co-PI with M Muscarella. \$2,200.

Polish Ministry of Science and Higher Education. "Interactive effects of multiple regulating factors on cladoceran species richness and community structure". Co-PI with AR Dzialowski, P Dawidowicz, I. Feniov, IM Kostrzewska-Szlakowska, MZ Rzepecki, ID Jasser, VI Razloutski, JT Lennon, and JZ Uchmański. \$128,000, 2013 – 2015 (all funds are administered through the Centre for Ecological Research, Polish Academy of Sciences).

Center for Water Sciences (CWS) and Environmental Science and Policy Program (ESPP), Michigan State University, "Building partnerships in water research between Grand Valley State University and Michigan State University: the molecular genetic basis for invasiveness of milfoils and a time-series observatory for investigating metabolism in Muskegon Lake." Co-PI with P. Ostrom, N. Ostrom, B. Biddanda, and R. Thum, \$99,996, 2012-2014.

National Science Foundation (NSF) "Collaborative Research: PEATcosm: Understanding the interactions of climate, plant functional groups and carbon cycling in peatland ecosystems". Ecosystems Panel, Co-PI with E. Kane and others, \$677,185, 2012-2015.

United States Department of Agriculture (USDA) "Microbial seed banks: patterns and mechanisms of bacterial dormancy in soils." Agriculture and Food Research Initiative (AFRI), Microbial Communities in Soils Panel, PI, \$499,956, 2011-2014.

National Science Foundation (NSF), "Do biological processes result in the atmospheric <sup>17</sup>O mass independent anomaly in nitrous oxide? Resolution and establishment of <sup>17</sup>O as a tracer of microbial production." Geobiology and Low Temperature Geochemistry Panel, Co-PI with N Ostrom and others, \$677,366, 2011-2014.

Huron Mountain Wildlife Foundation (HMWF), "Browning of freshwater ecosystems: will terrestrial carbon loading alter the diversity and function of aquatic microbial communities?" PI, \$5,600, 2011-2012.

BEACON, Michigan State University, "Contemporary evolution of cyanobacteria and viruses: implications for marine nutrient cycling" PI, \$76,964, 2011-2012.

National Science Foundation (NSF), "Greenhouse facility to support field ecology and evolution research and teaching at the Kellogg Biological Station", Field Stations and Marine Laboratories Panel, Co-PI with K. Gross and others, \$200,000, 2010-2013.

National Science Foundation (NSF), "Field facilities improvements for terrestrial and aquatic ecology at the Kellogg Biological Station", Field Stations and Marine Laboratories Panel, Co-PI with K. Gross and others, \$176,000, 2010-2013

Polish Ministry of Sciences, "Zooplankton invasions: how do local and regional processes affect invasion success in relation to ecosystem productivity and intensity of disturbances." Co-PI with A.R. Dzialowski, I. Feneva, P. Dawidowicz, M. Rzepecki, J. Ejosmont-Karabin, K. Kalinowska, I. Kostrzewska-Szlakowski, B. Sosak-Swiderska, and J. Uchmanski, \$54,000, 2009-2012.

National Science Foundation (NSF) "Collaborative Research: Characterizing the constraints on virus infection of cyanobacteria," Biological Oceanography Panel, Co-PI with S. Wilhelm and others, \$500,000, 2009-2012.

Environmental Change Institute, University of Illinois, "Terrestrial carbon loss to aquatic ecosystems: pattern detection and hypothesis testing at the regional scale," Co-PI with J. Fraterrigo and others, \$25,000, 2008-2011.

Gordon & Betty Moore Foundation and the Broad Institute, "Identifying viral mechanisms involved in rapid co-evolutionary dynamics between marine Synechococcus and its phage", PI, payment in kind for virus genome sequencing, 2009-2010

National Science Foundation (NSF) "Terrestrial carbon in aquatic ecosystems: experimental tests of the subsidy-stability hypothesis." Ecosystems Panel, PI, \$350,695, 2009-2012.

United States Department of Agriculture (USDA) "Moisture variability as a master regulator of microbial diversity and soil respiration across an agricultural landscape." National Research Initiative (NRI), Soil Processes Panel, PI, \$324,000, 2008-2011

Center for Water Sciences, Michigan State University, "Microbial and ecosystem responses to landwater linkages: the energetic importance of terrestrial-derived dissolved organic carbon (DOC) in lakes." PI, \$142,318, 2008-2010

National Science Foundation (NSF) "Water level fluctuations and internal eutrophication in lakes and wetland." Ecosystems Panel, Co-PI with S. Hamilton and others, \$391,734, 2007-2010.

Michigan Agricultural Experiment Station, Rackham Foundation "Microbial responses to soil moisture variability in agricultural landscapes." PI, \$75,000, 2007-2010.

United States Department of Agriculture (USDA) "Pulsed ecosystem activity: Responses of soil microorganisms to variable water supply." National Research Initiative (NRI), Soils and Soil Biology Panel, PI, \$110,000, 2006-2009.

Center for Water Sciences, Michigan State University "Towards a mechanistic framework of how changing temperatures affect aquatic bacterial community structure and function." PI, \$28,254, 2007.

Center for Water Sciences, Michigan State University "Quantifying biogeochemical processes in flow-through wetlands." Co-PI with S. Hamilton, \$145,036, 2006-2009.

Environmental Protection Agency (EPA) and the NH Department of Environmental Services "Using dispersal and environmental variables to predict the occurrence and susceptibility to invasion by non-native milfoil." Co-PI with R. Thum, \$50,000, 2005-2007.

National Science Foundation (NSF) "Linking lakes with the landscape: fate of terrestrial carbon in plankton food webs." Doctoral Dissertation Improvement Grant (DDIG), Ecosystems Panel, Co-PI K. Cottingham, awarded \$8,075, 2002-2004.

United States Geological Survey (USGS) & National Institutes for Water Resources (NIWR) "Linking lakes with the landscape: fate of terrestrial carbon in planktonic food webs." PI, \$30,020, 2002-2004.

#### **HONORS AND AWARDS:**

2012	Kavli Fellow, National Academy of Sciences
2004	USDA National Research Initiative (NRI) Postdoctoral Fellowship Award

2004	Hannah T. Croasdale Graduate Scholar Award. College-wide award given to a graduating Ph.D. student that best exemplifies the qualities of academic scholarship, Dartmouth College.
2004	Milton L. Shifman Endowed Scholarship, Marine Biological Laboratory
2004	Albert Cass Fellowship, The Rockefeller University
2004	Nathan Jenks Biology Award, Dartmouth College
2003	Best student presentation, North American Lake Management Society, National Meeting
2002	NSF Doctoral Dissertation Improvement Grant (DDIG)
1999-2004	Dartmouth Fellowship, Dartmouth College, Hanover, New Hampshire, USA
1996	Undergraduate honors: <i>Magna Cum Laude</i> ; President's List; Alpha Sigma Xi, SUNY-ESF, Syracuse, New York, USA
1992	Outstanding first year history student, SUNY Oswego, Oswego, New York, USA

# INVITED KEYNOTE, SYMPOSIUM, AND CONFERENCE PRESENTATIONS:

2017	Gordon Research Conference (GRC), Microbial Population Biology, Andover, New Hampshire, USA
2017	Gordon Research Conference (GRC), Applied and Environmental Microbiology, South Hadley, Massachusetts, USA
2017	Special Session: "Eco-evo feedbacks in microbial communities". American Society of Microbiology, New Orleans, Louisiana, USA
2017	Special Session: "Integrating trait based ecology across plants and microbes to predict ecosystem functioning". ESA, Portland, Oregon, USA
2016	Invited speaker at the National Academies of Sciences, Engineering, and Medicine meeting on Microbiomes of the Built Environment: From Research to Application, Irvine, California, USA
2016	Special Session: "The role of microbes in biogeochemical cycles: linking responses to ecosystem processes and environmental change". American Geophysical Union, San Francisco, California, USA
2016	Guest speaker: 7th Annual Translational Plant Science Program. Theme: plant-soil microbiome, Virginia Tech, Blacksburg, Virginia, USA
2016	Invited presentation at workshop on "The skin microbiome - untold stories", Society of Cosmetic Chemists, Orlando, FL, USA (presentation given by Sarah Cummins)
2015	Guest presentation/instructor: "EDAMAME course: Explorations in Data Analysis for Metagenomic Advances in Microbial Ecology", Michigan State University, Hickory Corners, USA
2015	Introductory speaker and Guest Instructor: Summer Soil Institute at Colorado State University. Fort Collins, USA
2015	Special Session: "Rewetting dry soil: the century's unifying problem in soil microbial ecology". ESA, Baltimore, Maryland, USA

2014	Special Session entitled "Seeing the trees for the forest: deciphering the biodiversity of soils" ISME, Seoul, Korea
2014	Rouge roundtable panelist "Sleeping beauties: dormancy of bacteria in nature" ISME, Seoul, Korea
2014	Special symposium: "Communities writ small: Integrating microbial systems into community ecology", ESA, Sacramento, California, USA
2014	Guest presentation/instructor: "EDAMAME course: Explorations in Data Analysis for Metagenomic Advances in Microbial Ecology", Michigan State University, Hickory Corners, USA
2013	Keynote speaker, 5 <sup>th</sup> Annual Argonne Soil Metagenomics Meeting, Bloomingdale, Illinois, USA
2013	Keynote speaker, XIII Symposium on Aquatic Microbial Ecology, Stresa, Italy
2013	Special session: "Impact of bacteriophage in the environment". Society for General Microbiology (SGM) Sussex University, East Sussex, United Kingdom
2013	Special session: "Ecological theory in microbial ecology", ESA, Minneapolis, Minnesota, USA
2013	Special symposium: "Integrating soil biodiversity into discussions of global sustainability: the time is now". ESA, Minneapolis, Minnesota, USA
2013	Special symposium: "The plant microbiome", Canadian Society for Ecology and Evolution, Kelowna, British Columbia, Canada (declined)
2013	Keynote speaker, "Understanding, managing and protecting microbial communities in aquatic and terrestrial ecosystems: "Exploring the trait-based functional biodiversity approach". ESF Eurocores Ecological and Evolutionary Functional Genomics (EuroEEFG) workshop. Wageningen, The Netherlands
2013	Special session on "Microbial mediated retention/transformation of organic and inorganic materials in freshwater and marine ecosystems". ASLO, New Orleans, Louisiana, USA
2012	Aarhus University, Denmark, "Microbial life under extreme energy limitation"
2012	Introductory talk for special session on "Global browning of inland waters: implications of changing terrestrial dissolved organic carbon concentrations for aquatic ecosystems". ESA, Portland, Oregon, USA
2010	Gordon Research Conference, Speaker, Marine Microbes, Tilton, New Hampshire, USA
2010	Argonne Soils Workshop, Argonne National Laboratory, Argonne, Illinois, USA
2009	SCOR Viral Ecology Meeting, University of Delaware, Newark, Delaware, USA
2009	Plant Virus Ecology Network, Ca'Tron di Roncade, Italy
2009	Tutorial for special session on "Increased supply of external organic carbon: effects on food web structure and efficiency of carbon transfer" ASLO, Nice, France
2008	Special Session entitled "Have microbes read the book? Testing ecological theory in microbial communities". ESA, Milwaukee, Wisconsin, USA

2006	Special session on "Ecological Principles in Microbial Communities", International Symposium on Microbial Ecology, Vienna, Austria
2007	High latitude terrestrial and freshwater ecosystems: interactions and response to environmental change, Abisko, Sweden

# **INVITED SEMINARS:**

	INVITED SEMINARS:		
٠	2017	Yale University, Department of Ecology and Evolutionary Biology	
	2017	University of Idaho, Department of Biological Sciences	
	2016	Massachusetts Institute of Technology (MIT), Civil and Environmental Engineering	
	2016	University of Minnesota, Department of Ecology, Evolution, and Behavior	
	2016	University of British Columbia, BioDiversity Research Centre Seminar Series	
	2016	Michigan State University, Department of Plant, Soil and Microbial Sciences	
	2016	Uppsala University, Department of Ecology and Genetics	
	2016	Hope College, Department of Biology	
	2016	University of Montana, Flathead Lake Biological Station	
	2016	University of Montana, Program in Cell, Molecular and Microbial Biology	
	2016	Montana State University, Department of Microbiology and Immunology	
	2015	Duke University, University Program in Ecology	
	2015	East Carolina University, Department of Biology	
	2015	Hobart and William Smith Colleges (web-based seminar)	
	2015	Indiana University, Center for the Integrative Study of Animal Behavior (CISAB)	
	2015	Indiana University, Advance College Project	
	2015	Vietnam National University, Department of Microbiology	
	2014	University of Tennessee, Department of Ecology & Evolutionary Biology	
	2014	University of Louisville, Department of Biology	
	2014	University of Illinois, Program in Ecology, Evolution and Conservation Biology	
	2014	Indiana University East and Earlham College, School of Natural Science and Mathematics	
	2014	University of Kentucky, Department of Plant & Soil Sciences	
	2014	Loyola University Chicago, Department of Biology	
	2014	Miami University, Ecology, Evolution, and Environmental Biology	
	2014	Purdue University, Department of Biological Sciences, Ecology and Evolutionary Biology	
	2013	University of Texas at Austin, Section of Integrative Biology	

2013	University of Oregon, Institute of Ecology and Evolutionary Biology
2013	University of California Santa Barbara, Department of Ecology, Evolution, and Marine Biology
2013	The Netherlands Institute of Ecology (NIOO-KNAW),
2013	University of Michigan, Department of Ecology and Evolutionary Biology
2012	Virginia Tech, Department of Biological Sciences
2012	Northwestern University, Biological Sciences
2012	University of Jyväskylä, Finland, Department of Biological and Environmental Science
2012	University of Quebec at Montreal, Canada, Department of Biological Sciences
2011	Indiana University, Department of Biology
2011	University of Massachusetts, Amherst, Department of Microbiology
2011	Oregon State University, Center for Genome Research and Biocomputing (CGRB)
2011	California Academy of Sciences
2010	Michigan Technological University, School of Forest Resources and Environmental Science.
2010	Michigan State University, Ecosystems Biogeochemistry seminar series
2010	Wright State University, Biology and Earth & Environmental Sciences
2009	University of Illinois, Program in Ecology, Evolution and Conservation Biology
2008	University of Illinois at Springfield, Merck Science Seminar
2008	Western Michigan University, Department of Biological Sciences
2007	University of Tennessee, Knoxville, Haines-Morris Microbiology series
2007	Grand Valley State University, Annis Water Resources Institute
2005	Michigan State University, Microbiology and Molecular Genetics Department
2005	Kellogg Biological Station, Michigan State University
2005	Dartmouth College, Earth Science Department
2004	University of California, Berkeley, Division of Ecosystem Sciences
2004	Brown University, Department of Ecology & Evolutionary Biology
2002	Colby-Sawyer College, Biology Program

# ORGANIZER FOR SYMPOSIA, WORKSHOPS, AND CONFERENCES:

Special session co-organizer. "Trait-based ecology at the microscale". Ecological Society of America. Baltimore, Maryland, USA

2014	Special session co-organizer: Microbially mediated ecosystem services: The good, the bad and the ugly. Joint Aquatic Sciences Meeting. Portland, Oregon, USA
2013	Organizing committee: First Israel-U.S. Kavli Frontiers of Science symposium, Israel Academy of Sciences, U.S. National Academy of Sciences, and the Kavli Foundation, Irvine, California
2013	Special symposium organizer: "Next generation of ecological indicators: defining which microbial properties matter most to ecosystem function and how to measure them". ESA, Minneapolis, Minnesota, USA
2012-2015	Co-investigator: John Wesley Powell Center for Analysis and Synthesis, "Next generation of ecological indicators: defining which microbial properties matter most to ecosystem function and how to measure them". Fort Collins, Colorado, USA
2012	Round table co-organizer: "Frontiers in microbial ecosystem science: energizing the research agenda". ISME, Copenhagen, Denmark
2012	Invited co-convener: "The unknowns: rare ones and unculturables". International Symposium on Microbial Ecology. Copenhagen, Denmark
2012	Workshop co-organizer: "Answering ecological questions with metagenomic sequencing". ESA, Portland, Oregon, USA
2011	Special symposium organizer: "Micro-managing the planet: the role of microbial ecology in earth stewardship". ESA, Austin, Texas, USA
2010	Special session co-organizer: "Micro-managing the planet: the role of microbial ecology in earth stewardship". ESA, Pittsburgh, Pennsylvania, USA
2002	Special session co-organizer: "Ecological implications of terrestrial inputs into lakes and ponds". ASLO, Victoria, British Columbia, USA

# INVITED PARTICIPANT: WORKSHOPS, ROUNDTABLES, SYNTHESIS GROUPS

2017	Invited workshop participant: "Continuum of Persistence" – Ecology and Function of Persistent Virus Infections, Cascais, Portugal
2016	Invited workshop participant: PRO-MICROBES: Vision Theme meeting on the Microbiome, Marine Biological Laboratory (MBL), Woods Hole, Massachusetts, USA
2016	Invited working group participant: NSF Research Coordination Network, "Utilizing ongoing experiments to understand terrestrial ecosystem sensitivity to precipitation change and drought" Sevillleta National Wildlife Refuge, Socorro, New Mexico, USA
2015	Invited workshop participant: "Biocomplexity" Defense Advanced Research Projects Agency (DARPA), Arlington, Virginia, USA
2014	Invited workshop participant: "Advanced analysis of genomic data in microbial ecology research", National Ecological Observatory Network (NEON), Boulder, Colorado, USA

2014	Invited workshop participant: NSF workshop on the "Ecological implications of synthetic biology", MIT Center for International Studies and the Woodrow Wilson Center, Emeryville, California, USA
2012	Invited workshop participant: National Academy of Sciences, German-American Kavli Frontiers of Science, Potsdam, Germany
2012	Invited roundtable participant: "Frontiers in ecosystem science: energizing the research agenda". ESA, Portland, Oregon, USA
2011-2014	Invited working group participant: "Modeling viral effects on global carbon and biogeochemical cycles". National Institute for Mathematical and Biological Synthesis (NIMBioS), Knoxville, Tennesee, USA
2011	Invited technical expert: "Comprehensive Environmental Assessment (CEA) of potential ecological impacts of synthetic biology". Woodrow Wilson International Center for Scholars, Washington, District of Columbia, USA
2010	Invited roundtable participant: "Resilience in microbial communities: towards prediction and cross-system comparisons". ISME, Seattle, Washington, USA
2010	Invited workshop participant: "A synthesis of the importance of allochthonous and autochthonous support of consumers in aquatic ecosystems". ASLO, Santa Fe, New Mexico, USA
2009	Invited workshop participant: "Scientific Committee on Oceanographic Research (SCOR), role of viruses in marine ecosystems". University of Delaware, Newark, Delaware, USA
2009	Invited workshop participant: Plant Virus Ecology Network (PVEN), Ca' Tron di Roncade, Italy
2008	Invited workshop participant: SoilCritZone, Early Stage Researcher (ESR), Chania, Crete, Greece
2008	Invited workshop participant: DOE Joint Genome Institute (JGI), Microbial Genomics & Metagenomics, Walnut Creek, California, USA
2007	Invited workshop participant: LTER genomics: "Catalyzing cross-site comparisons of microbial diversity and function". East Lansing, Michigan, USA
2007	Invited workshop participant: DOE Joint Genome Institute (JGI) undergraduate research program in microbial genome annotation, Walnut Creek, CA.
2007	Invited workshop participant: Microscale approaches to macroscale issues in ecology, Washington, District of Columbia, USA
2007	Invited workshop participant: Early career faculty in ecoinformatics, science environment for ecological knowledge (SEEK), Albuquerque, New Mexico, USA
2005	Invited workshop participant: DIALOG VII, Dissertation Initiative for Advancement of Limnology & Oceanography, Dauphin Island Sea Lab, Alabama, USA

# **CONTRIBUTED PRESENTATIONS:**

Shoemaker WR, Lennon JT (2017) The contribution of dormancy to microbial evolution. Society for Molecular Biology and Evolution, Austin, Texas, USA

- Lennon JT, Jones SE (2017) Energy limitation in bacteria: a trait-based approach. Ecological Society of America, Portland, Oregon, USA
- Wisnoski NI, Lennon JT (2017) Dendritic metacommunities: a test of assembly using stream microbial communities. Ecological Society of America, Portland, Oregon, USA
- Salazar A, Lennon JT, Dukes JS (2017) Microbial activity is a better predictor of soil respiration than microbial biomass or composition. Ecological Society of America, Portland, Oregon, USA
- Lilleskov E, Kane E, Chimner R, Koka R, Lennon JT, Lamit J, Ontl T, Romanowicz K, Wiedermann L, Veverica T, Daniels A (2017) Hydrology and plant functional groups alter carbon cycling in Sphagnum peatlands: the PEATcosm experiment. Society of Wetland Scientists, San Juan, Puerto Rico
- Lennon JT, Aanderud ZT (2016) A trait-based approach to understanding the microbial moisture niche. Third International Workshop on Biological Soil Crusts (BioCrust 3), Moab, Utah, USA
- Webster KD, Schimmelmann A, Lennon JT (2016) Diversity and function of methanotrophic bacteria in caves. American Geophysical Union, San Francisco, California, USA
- Thomas P, Kuo V, Bray SR, Lehmkuhl BK, Lennon JT. The effects of a resuscitation promoting factor (Rpf) on bacterial activity and plant biomass. Kentucky Academy of Science, Louisville, Kentucky, USA
- Beatty J, Wisnoski NI, Bray SR, Lennon JT. Residence time as driver of abundance, activity, and resource-use in complex microbial communities. Kentucky Academy of Science, Louisville, Kentucky, USA
- Lilleskov EA, Lamit JL, Lennon JT, Romanowicz KR, Tringe S, Kane ES, Potvin LR, Wiedermann L, Chimner R, Kolka R (2016). Fungal community response to water table and plant functional group manipulations in the PEATcosm experiment: evidence for the Gadgil effect? Mycological Society of America, Berkeley, California, USA
- Wisnoski NI, Lennon JT (2016) Community assembly processes differ between surface water and sediment-associated communities in stream networks. Ecological Society of America, Fort Lauderdale, Florida, USA
- Schimmelmann A, JT Lennon, D Nguyen-Thuy, P Ta Hoa, A Drobniak, KD Webster, M Schimmelmann (2016) Vietnam's tropical karst is a sink for atmospheric methane greenhouse gas. 5th International Conference on Earth Science & Climate Change, Bangkok, Thailand
- Locey KE, Lennon JT (2016) Scaling laws predict global microbial diversity. International Society of Microbial Ecology, Montreal, Canada
- Lennon JT, Cummins S, Miller KI, Schoolmaster DK (2016) Metabolic activity of the skin microbiome: is our first line of defense sleeping on the job? International Society of Microbial Ecology, Montreal, Canada
- Wisnoski NI, Lennon JT (2016) Local and regional processes in stream microbial community assembly. International Society of Microbial Ecology, Montreal, Canada
- Shoemaker WR, Lennon JT (2016) Microbial population-genomics under extreme starvation. International Society of Microbial Ecology, Montreal, Canada

- Lennon JT, SE Jones (2015) Ecological and evolutionary insight into the persistence of soil bacteria. Argonne Soils Workshop, Argonne National Laboratory, Argonne, Illinois, USA
- Lamit LJ, Lennon JT, Lilleskov EA (2015) Peatland microbial community responses to plant functional group, water table and depth. Argonne Soils Workshop, Argonne National Laboratory, Argonne, Illinois, USA
- Wisnoski NI, Ward AS, Lennon JT (2015) Bacterial metacommunity structure across a stream network. Long-Term Ecological Research (LTER) All Scientist Meeting, Estes Park, Colorado, USA
- Lilleskov E, Kane E, Chmner R, Koka R, Lennon JT, Potvin L, Ontl T, Romanowicz K, Lamit JL, Daniels A (2015) PEATcosm: experimental insights into climate change effects on peatland carbon cycling and trace gas flux. Soil Science Society of America, Minneapolis, Minnesota, USA
- Peralta, AP, Sun Y, Lennon JT (2015) Effects of crop diversity on plant-soil-microbial interactions. AFRI NIFA Fellows Program. Washington, District of Columbia, USA
- Peralta, AP, Sun Y, Lennon JT (2015) Effects of crop diversity on plant-soil-microbial interactions. Long-Term Ecological Research (LTER) All Scientist Meeting, Estes Park, Colorado, USA
- Lau JA, Lennon JT, terHorst CP (2015) The interplay of ecology and evolution in aboveground-belowground response to environmental change. Ecological Society of America, Baltimore, Maryland, USA
- Aanderud ZT, Jones SE, Fierer N, Lennon JT (2015) Resuscitation of the rare biosphere contributes to pules of ecosystem activity following soil rewetting. Ecological Society of America, Baltimore, Maryland, USA
- terHorst CP, Lennon JT, Lau JA (2015) Plant evolution in response to drought alters the structure and function of soil microbial communities. Ecological Society of America, Baltimore, Maryland, USA
- Martiny JBH, Jones SE, Lennon JT, Martiny AC (2015) Microbiomes in light of traits: a phylogenetic perspective. Ecological Society of America, Baltimore, Maryland, USA
- Lennon JT, Jones SE (2015) A trait-based approach to microbial dormancy. Ecological Society of America, Baltimore, Maryland, USA
- Locey KJ, Lennon JT (2015) Residence time: An overlooked constraint on community assembly and structure. Ecological Society of America, Baltimore, Maryland, USA
- Treseder KK, Lennon JT (2015) Fungal traits that drive ecosystem dynamics. Ecological Society of America, Baltimore, Maryland, USA

- Muscarella ME, Lennon JT (2015) Bacterial growth efficiency: do consumer and resource diversity influence the fate of carbon in aquatic ecosystems? Ecological Society of America, Baltimore, Maryland, USA
- Hall EK, Schoolmaster DK, Amado AM, Stets EG, Lennon JT, Domine L, Cotner JB (2015) Controls on aquatic respiration from the smallest to the largest freshwater ecosystems. Association for the Sciences of Limnology and Oceanography, Granada, Spain.
- Larsen ML, Barrick JE, Lennon JT (2015) Rapid evolution in marine cyanobacteria: genetic and physiological responses to phage predation and resource stoichiometry. American Society of Microbiology, New Orleans, Louisiana, USA
- Lennon JT, Jones SE (2015) Bacterial persistence during starvation: dormancy, cannibalism, and adaptation. American Society of Microbiology, New Orleans, Louisiana, USA
- Cummins S, Miller KI, Lennon JT (2015) Metabolic activity of the skin microbiome: is our first line of defense sleeping on the job? American Society of Microbiology, New Orleans, Louisiana, USA
- Skelton J, Geyer K, Lennon JT, Brown (2015) Effects of multi-level controls and symbiont interactions on the crayfish microbiome. Society for Freshwater Science. Milwaukee, Wisconsin, USA
- Webster KD, Rosales-Lagarde L, Sauer PE, Schimmelmann A, Lennon JT, Boston PJ (2014)
  Hydrogen and carbon stable isotopic compositions and concentrations of methane in cave air of
  Cueva de Villa Luz, Tabasco, Mexico. American Geophysical Union, San Francisco, California,
  USA
- Elsenbroek KF, Miller KI, Lennon JT, Reynolds HL (2014) Roots of diversity: do soil microbes drive the success of prairie restoration? The Science, Practice & Art of Restoring Native Ecosystems. East Lansing, Michigan, USA
- Lennon JT (2014) Dormancy, dispersal, and the assembly of microbial communities. International Symposium on Microbial Ecology. Seoul, South Korea
- Lennon JT, Miller KI, Locey KJ (2014) Can dormancy account for patterns of microbial biogeography? Ecological Society of America, Sacramento, California, USA
- Muscarella ME, Locey KJ, Nevo E, Raz S, Lennon JT (2014) Microbial community assembly at Evolution Canyon: Does dormancy dilute the effects of dispersal and filtering? Ecological Society of America, Sacramento, California, USA
- Locey KJ, Lennon JT (2014) A macroecological investigation of the microbial "rare biosphere". Ecological Society of America, Sacramento, California, USA
- Muscarella ME, Bird KC, Larsen ML, Placella SA, Lennon JT (2014) Phosphorus resource heterogeneity affects the structure and function of microbial food webs. Joint Aquatic Sciences Meeting, Portland, Oregon, USA
- Lennon JT, Stuart D, Kent A, Peralta AL (2014) A social-ecological framework for micromanaging microbial services. Joint Aquatic Sciences Meeting, Portland, Oregon, USA

- Wetiz JS, Stock CA, Wilhelm SW, Bourouiba L, Buchan A, Coleman ML, Follows MJ, Fuhrman JA, Lennon JT, Middelboe M, Sonderegger DL, Suttle CA, Thingstad TF, Wilson WH, Wommack EK (2013) A multitrophic model to quantify the effects of marine viruses on microbial food webs and ecosystem processes. Aquatic Virus Workshop 7. St. Petersburg, Florida, USA
- Wilhelm SW, Sonderegger DL, Stock CA, Weitz JS, Suttle CA, Bourouiba L, Buchan A, Middelboe M, Coleman ML, Follows MJ, Fuhrman JA, Lennon JT, Thingstad TF, Wilson WH, Wommack KE (2013) Mapping global distributions and activity of marine viruses. Aquatic Virus Workshop 7. St. Petersburg, Florida, USA
- Webster KD, Schimmelmann A, Drobniak A, Mastalerz M, Etiope G, Lennon JT (2013) Methane dynamics in limestone caves. Geological Society of America, Denver, Colorado, USA
- terHorst CP, Lau JA, Lennon JT (2013) The relative importance of rapid evolution in plant-soil feedbacks depends on ecological context. Ecological Society of America, Minneapolis, Minnesota, USA
- Peralta AL, Lennon JT (2013) Legacy effects on soil microbial communities in human-dominated ecosystems. Ecological Society of America, Minneapolis, Minnesota, USA
- Muscarella ME, Jones SE, Lennon JT (2013) Species sorting along a subsidy gradient affects community stability. Ecological Society of America, Minneapolis, Minnesota, USA
- Larsen ML, Wilhelm SW, Lennon JT (2013) Nutrient stoichiometry drives eco-evolutionary feedbacks. Midwest Ecology and Evolution Conference, South Bend, Indiana, USA
- Lennon JT, Muscarella ME, Jones SE (2013) Bacteria and browning: implications of terrestrial carbon subsidies for aquatic ecosystems. American Society of Limnology and Oceanography, New Orleans, Louisiana, USA
- Muscarella ME, Jones SE, Lennon JT (2013) Life in brown waters: Aquatic bacterial responses to increased terrestrial carbon loading. American Society of Limnology and Oceanography, New Orleans, Louisiana, USA
- Romanowicz KJ, Tringe SJ, Lennon JT, Lilleskov EA (2012) Do plant functional groups alter microbial communities and soil carbon cycling in peatlands? Argonne Soils Workshop, Argonne National Laboratory, Argonne, Illinois, USA
- Lennon JT (2012) Can dormancy theory help us retrieve rare and uncultured microbes? International Symposium on Microbial Ecology, Copenhagen, Denmark
- Muscarella ME, Jones SE, Lennon JT (2012) Life in brown waters: aquatic microbial community response to increased terrestrial carbon. LTER All Scientists Meeting, Estes Park, Colorado, USA
- Placella SA, Brodie EL, Firestone MK, Lennon JT (2012) Soil water fluctuations: microbial community responses and CO<sub>2</sub> production. American Geophysical Union, San Francisco, California, USA
- Placella SA, Lennon JT (2012) Microbes, moisture, and metabolic activity: Is there a soil moisture threshold for microbial activity? Long-Term Ecological Research (LTER) All Scientists Meeting, Estes Park, Colorado, USA

- Hall EK, Pepe-Ranney CC, Lennon JT (2012) The effect of carbon subsidies on planktonic niche partitioning and recruitment of bacteria to marine biofilms. International Symposium on Microbial Ecology, Copenhagen, Denmark
- Larsen ML, Wilhelm SW, Lennon JT (2012) Nutrient stoichiometry influences rapid ecoevolutionary feedbacks in marine cyanobacteria and phage. International Symposium on Microbial Ecology, Copenhagen, Denmark
- Lennon JT (2012) Browning of freshwater ecosystems: culprits and consequences of global change. Ecological Society of America. Portland, Oregon, USA
- Peralta AL, Culman SW, Sprunger S, Lennon JT, Snapp SS (2012) Microbial contributions to carbon sequestration potential in response to perenniality. Soil Science Society of America, Cincinnati, Ohio, USA
- Campbell CE, Larsen ML, Lennon JT, Wilhelm SW (2011) The roles of inorganic nutrients and cyanophage in shaping heterotrophic microbial diversity. Aquatic Virus Workshop, Texel, Netherlands
- Larsen ML, Wilhelm SW, Lennon JT (2011) Nutrient stoichiometry generates rapid eco-evolutionary feedbacks between marine cyanobacteria and their phage. Aquatic Virus Workshop, Texel, Netherlands
- Lennon JT, Jones SE (2011) Metagenomics of dormancy: implications for microbial biodiversity. ESA, Austin, Texas, USA
- Larsen ML, Wilhelm SW, Lennon JT (2011) Eco-evolutionary dynamics of bacteria and phage in contrasting resource environments. ESA, Austin, Texas, USA
- Bird KC, Lennon JT (2011) Specialist and generalist utilization of phosphorus forms by aquatic microbes: a mechanism for maintaining microbial diversity? ASLO, San Juan, Puerto Rico
- Lennon JT (2011) Rapid response of rare microbes linked to pulses of ecosystem activity. National Cooperative Soil Survey Conference. Asheville, North Carolina, USA
- Larsen ML, Wilhelm SW, Lennon JT (2011) Eco-evolutionary dynamics of bacteria and virus in nitrogen- and phosphorus-limited environments. Midwest Ecology and Evolution Conference. Southern Illinois University, Carbondale, Illinois, USA
- Lennon JT, Jones SE, Fierer N, Aanderud ZT (2010) Rapid response of rare microbes linked to pulses of ecosystem activity. International Symposium on Microbial Ecology, Seattle, Washington, USA
- Jones SE, Lennon JT (2010) Microbial dormancy: theoretical expectations and a cross-ecosystem comparison. International Symposium on Microbial Ecology, Seattle, Washington, USA
- Suwa, T, Lennon JT, Lau JA (2011) Ecological and evolutionary effects of herbicide on plant-microbe interactions. Midwest Ecology and Evolution Conference, Carbondale, Illinois, USA
- Lennon JT, Jones SE (2010) Browning of the waters: Do terrestrial carbon subsidies alter aquatic ecosystem stability? ESA, Pittsburgh, Pennsylvania, USA
- Lau JA, Lennon JT (2010) Belowground microbial community structure influences plant evolution. ESA, Pittsburgh, Pennsylvania, USA

- Bird KC, Lennon JT (2010) Specialist and generalist utilization of phosphorus forms by aquatic microbes: a mechanism for maintaining microbial diversity? ESA, Pittsburgh, Pennsylvania, USA
- Lennon JT (2010) A traits-based approach for mapping the soil microbial niche. USDA Soil Processes Meeting, Washington, District of Columbia, USA
- Suwa T, Lennon JT, Lau JA (2010) Mutualisms in novel environments: ecological and evolutionary implications of herbicide on plant-rhizobia interactions. ESA, Pittsburgh, Pennsylvania, USA
- O'Brien JM, Hamilton SK, Kinsman LE, Ostrom N, Lennon JT (2010) Mechanisms of N retention and export in a through-flow wetland. ASLO, Santa Fe, New Mexico, USA
- Lennon JT, Jones SE (2010) Do terrestrial carbon subsidies really stabilize aquatic ecosystem functioning? ASLO, Santa Fe, New Mexico, USA
- Jones SE, Lennon JT (2010) Dormancy maintains diversity and structures composition of microbial communities (2010) ASLO, Santa Fe, New Mexico, USA
- Lennon JT, Jones SE (2009) Does Presence Equal Activity?: Contrasting RNA- and DNA-based Measures of Aquatic Microbial Communities. ESA, Albuquerque, New Mexico, USA
- Lennon JT (2009) Moisture as a "master variable" of microbial diversity and function in soils. USDA Soil Processes Meeting, East Lansing, Michigan, USA
- Suwa T, Lau JA, Lennon JT (2009) Ecological and evolutionary effects of herbicide on plantrhizobia mutualisms. ESA, Albuquerque, New Mexico, USA
- Aanderud ZT, Lennon JT (2009) Linking soil moisture variability, metabolically active bacteria, and CO<sub>2</sub> pulses through <sup>18</sup>O DNA stable-isotope probing. Soil Science Society of America, Pittsburgh, Pennsylvania, USA
- Lennon JT, Schoolmaster DR, Lehmkuhl B, Aanderud ZT (2009) Mapping the niche space of diverse microbial populations along an environmental gradient. American Society of Microbiology, Philadelphia, Pennsylvania, USA
- Jones SE, Lennon JT (2009) Does Presence Equal Activity?: Contrasting RNA- and DNA-based Measures of Aquatic Microbial Communities. American Society of Microbiology, Philadelphia, Pennsylvania, USA
- Suwa T, Lau JA, Lennon JT (2009) Effects of herbicide on rhizobia: how rapid evolutionary change may influence the outcome of plant-rhizobia mutualisms. Canadian Society of Ecology and Evolution, Halifax, Nova Scotia, Canada
- Burgin AJ, Hamilton SK, Lennon JT, Jones SE (2009) Nitrate use by sulfur bacteria in a stratified lake. North American Benthological Society, Grand Rapids, Michigan, USA
- Suwa T, Lau JA, Lennon JT (2009). Rapid evolution of rhizobia in response to glyphosate application. Midwest Ecology and Evolution Conference. Lincoln, Nebraska, USA
- Lennon JT (2009) The browning of freshwater ecosystems: implications for food webs and function. ASLO, Nice, France

- Kinsman LE, O'Brien J, Lennon JT, Hamilton SK (2009) High total phosphorus concentrations. in organic flocculent sediments of shallow freshwater ecosystems. American Society for Limnology and Ocanography, Nice, France
- Lennon JT, Aanderud ZT, Klausmeier CA (2008) Maintenance of microbial diversity in soils: assessing the importance of habitat heterogeneity and physiological stress with theory and experiments. Ecological Society of America. Milwaukee, Wisconsin, USA
- Aanderud ZT, Schoolmaster DR, Lennon JT (2008) Precipitation variability decreases the responsiveness of soil CO<sub>2</sub> evolution. Ecological Society of America. Milwaukee, Wisconsin, USA
- Lennon JT, Schoolmaster DR, Aanderud ZT (2008) Soil moisture variability: a "master variable" of microbial activity and diversity. SoilCritZone Workshop, Chania, Crete, Greece
- Lennon JT, Schoolmaster DR, Aanderud ZT (2008) Plants mediate the effects of soil moisture variability on soil CO<sub>2</sub> dynamics. USDA Soil Processes Meeting, Menlo Park, California, USA
- Lennon JT, Cottingham KL (2007) Microbial productivity in variable resource environments. Ecological Society of America, San Jose, California, USA
- Lennon JT, Marston MF, Martiny JH (2006) Direct and indirect effects of viruses on the ecology and evolution of marine microbial food webs. International Symposium on Microbial Ecology, Vienna, Austria
- Lennon JT, Luna GM (2006) Diversity and metabolism of DNA consuming marine bacteria. International Symposium on Microbial Ecology, Vienna, Austria
- Lennon JT, Marston MF, Martiny JH (2006) Direct and indirect effects of viruses on the ecology and evolution of microbial food webs. Ecological Society of America, Memphis, Tennessee, USA
- Lennon JT, Marston MF, Hughes JB (2005) Ecological and evolutionary implications of viruses in marine microbial food. Gordon Research Conference in Applied and Environmental Microbiology. New London, Connecticut, USA
- Lennon JT, Marston MF, Hughes JB (2005) Marine viruses influence evolution, population dynamics, and nutrient cycling in experimental microbial food webs. Ecological Society of America, Montrea Quebec, Canada
- Campbell E, Dawson A, Conner K, Lennon J, Faiia A, Feng X, Cottingham K (2005) Shifts in the relative importance of terrestrially versus aquatically produced carbon in lake ecosystems during the summer-to-fall transition. Ecological Society of America, Montreal, Quebec, Canada
- Thum RA, Lennon JT (2005) Ecological genetics of a milfoil invasion. Ecological Society of America. Montreal, Quebec, Canada
- Lennon JT (2005) Terrestrial DOM supply modifies carbon flow in lakes: evidence from stable isotopes and the composition of microbial communities. American Society for Limnology and Oceanography, Salt Lake City, Utah, USA
- Thum RA, Lennon JT (2004) Does hybridization confer aggressive growth in the invasive milfoil, *Myriophyllum heterophyllum*? Evolution. Fort Collins, Colorado, USA

- Lennon JT (2003) Trophic state and plankton nutrition along a terrestrial DOM gradient in New England lakes. North American Lake Management Society. Mashantucket, Connecticut, USA Recipient: Best student presentation award
- Thum RA, Lennon JT, Smagula A, Connor J (2003) Genetic identification of native, exotic and hybrid water milfoils in northern New England. North American Lake Management Society. Mashantucket, Connecticut, USA
- Lennon JT, Pfaff LE (2003) Microbial constraints on the flow of terrestrial subsidies in lake ecosystems. Ecological Society of America, Savannah, Georgia, USA
- Lennon JT (2003) Terrestrial subsidies in aquatic ecosystems: is carbon flow to higher trophic levels regulated by microbial metabolism? Cary Conference, Institute of Ecosystem Studies, Millbrook, New York, USA
- Lennon JT (2002) Experimental evidence that terrestrial organic matter modifies plankton metabolism. ASLO, Victoria, British Columbia, Canada
- Saraidaridis J, Lennon JT (2002) Terrestrial carbon in lakes: bacterial production of phenol oxidase. Dartmouth College Women in Science Annual Meeting, Hanover, New Hampshire, USA
- Lennon JT, Smith VH, Dzialowski AR (2000) Community resistance to an invasion attempt by *Daphnia lumholtzi*. Ecological Society of America, Snowbird, Utah, USA
- Lennon JT, Peterson BJ, Wollheim W (1999) Storage and transport of fine particulate organic matter in a phosphorus enriched river. American Society for Limnology and Oceanography, Santa Fe, New Mexico, USA
- deNoyelles FJ, Wang SH, Meyer JO, Huggins DG, Lennon JT, Kolln WS, Randtke SJ (1999) Water quality issues in reservoirs: some considerations from a study of a large reservoir in Kansas. Proceedings of the 49<sup>th</sup> Annual Environmental Engineering Conference, University of Kansas, Lawrence, Kansas, USA
- Lennon JT, Dzialowski AR, O'Brien WJ, Smith VH (1998) Morphological plasticity and life history characteristics of *Daphnia lumholtzi* in the presence of invertebrate and vertebrate predators. 1998 Joint meeting between the American Society for Limnology and Oceanography and the Ecological Society of America, St. Louis, Missouri, USA
- Lennon, J.T., and K. Williams (1998) Temperature and the invasion of an exotic cladoceran, *Daphnia lumholtzi*. Great Plains Limnological Society, Pittsburgh, Kansas, USA
- Lennon JT, Dzialowski AR (1998) The invasion of *Daphnia lumholtzi* into Kansas reservoirs. Kansas Academy of Sciences, Witchita, Kansas, USA
- Lennon JT, Boyer GL (1995) Toxin production by a cyanobacterium, *Aphanizomenon flos-aquae*, under different sources and supply of nitrogen. Northeastern Algal Symposium, Woods Hole, Massachusetts, USA

# **NON-DEGREE EDUCATION:**

2004	Microbial Diversity summer course, Marine Biological Laboratory (MBL), Woods Hole, Massachusetts, USA
2001	Fundamentals of Ecosystem Ecology, Institute of Ecosystem Studies (IES), Millbrook, New York, USA

1998	Advanced Zooplankton Ecology, Southwest Missouri State University, Springfield, Missouri, USA
1995	Research Experience for Undergraduates (REU) at Toolik Lake LTER (Alaska) through the Marine Biological Laboratory (MBL), Woods Hole, Massachusetts, USA
1994	Stream Ecology and Algal Ecology, University of Montana, Flathead Lake Biological Station, Yellow Bay, Montana, USA

# **SERVICE:**

#### **Science Advisor**

o Shedd Aquarium, Aquarium Microbiome Project, Chicago, Illinois, USA (2015- current)

#### **Executive Board Member**

 Biogeochemistry Environmental Research Initiative (BERI), Michigan State University (2006-2009)

# Ad hoc grant reviewer:

- o Austrian Science Fund (FWF)
- Czech Science Foundation (GA ČR)
- Chilean National Commission for Scientific and Technological Research (CONICYT), National Foundation of Science and Technology (FONDECYT)
- Human Frontier Science Program (HFSP)
- o International Institute for Applied Systems Analysis (IIASA), Austria
- Israel Science Foundation
- o National Environmental Research Council (NERC), UK
- Netherlands Organisation for Scientific Research (NWO)
- NSF Antarctic Organisms and Ecology Program
- NSF Biological Oceanography
- NSF Chemical Oceanography
- NSF Earth Cube
- NSF Ecology
- NSF Ecosystem Studies
- NSF Integrative Organismal Systems
- NSF Marine Geology and Geophysics
- NSF Microbial Genome Sequencing Program
- NSF Microbial Processes and Interactions/Microbial Observatories
- NSF Office of International Science and Engineering
- NSF Population and Evolutionary Processes
- NSF Research Coordination Networks in Biological Sciences
- MIT Sea Grant Program
- University of Wisconsin-Milwaukee, Research Growth Initiative (RGI)
- USGS National Institutes of Water Resources

- o US Army Research Office
- o US Civilian Research and Development Foundation (CART)
- Woods Hole Sea Grant

# **Grant review panels:**

- o DOE Foundational Scientific Focus Area (FSFA)
- NASA Exobiology, 2016 (declined)
- o NSF Dimensions of Biodiversity, 2015
- NSF Ecology and Evolution of Infectious Disease, 2014 (declined)
- o NSF Ecosystems, 2013 (declined)
- o NSF Ecosystems, 2012 (declined)
- o NSF Antarctic Organisms and Ecosystems, 2012 (declined)
- NSF Science and Technology Center, 2011
- USDA NIFA Plant-Associated Microorganisms, 2011
- o NSF Ecosystems, 2009
- o NSF Ecosystems, 2008
- o NSF Ecosystems, Doctoral Dissertation Improvement Grants (DDIG), 2007
- o NSF Ecology and Ecosystems, Doctoral Dissertation Improvement Grants (DDIG), 2006

#### Journal reviewer:

American Naturalist, Applied and Environmental Microbiology, Applied Soil Ecology, Aquatic Microbial Ecology, Aquatic Sciences, Biogeochemistry, Biology Letters, Canadian Journal of Fisheries and Aquatic Sciences, Computational and Structural Biotechnology Journal, Current Microbiology, Ecography, Ecology, Ecological Applications, Ecology Letters, Ecoscience, Ecosystems, Eco-DAS Symposium Proceedings, eLife, Environmental Engineering Science, Environmental Microbiology, Evolution, FEMS Microbiology Ecology, Frontiers in Microbiology, Fundamental and Applied Limnology (Archiv für Hydrobiolgie), Functional Ecology, Global Ecology and Biogeography, Hydrobiologia, Interface Focus, International Journal Of Environmental Health Research, Journal of Arid Environments, Journal of Biogeography, Journal of Eukaryotic Microbiology, Journal of Plankton Research, Limnology & Oceanography, Limnology & Oceanography Methods, mBio, Microbial Ecology, Microbes and Environments, Nature, Nature Communications, Oecologia, Oikos, PeerJ, PLOS Genetics, PLOS ONE, Proceeding of the National Academy of Sciences, Proceeding of the Royal Society B, Science, Royal Society Open Science, Science of the Total Environment, Soil Biology & Biochemistry, Soil Science Society of America Journal, The ISME Journal, Trends in Microbiology, Viruses

**Promotion and Tenure Letter-Writer:** University of Arizona, University of Tennessee, University of Maryland

#### **Editorial service:**

- Editor, Environmental Microbiology and Environmental Microbiology Reports (Society for Applied Microbiology)
- o Associate Editor, Frontiers in Terrestrial Microbiology
- o Editorial Board, Frontiers in Systems Microbiology

# **Society:**

- Chair-Elect of the Microbial Ecology (N) Division, American Society of Microbiology (2016 2017)
- Member, Council on Microbial Sciences (COMS), American Society of Microbiology (2017 2019)
- o Member, American Society of Microbiology, Committee for K-12 Outreach (2016 2018)
- Member, American Society for Microbiology, Communication Committee's Environmental Microbiology Taskforce (2015 - 2016)
- o Abstract Reviewer, American Society for Microbiology General Meeting, Ecological and Evolutionary Science Track (2016)
- o Chair, Microbial Ecology Section, Ecological Society of America (2010-2011)
- o Vice Chair, Microbial Ecology Section, Ecological Society of America (2009-2010)
- o Secretary, Microbial Ecology Section, Ecological Society of America (2008-2009)
- o Tom Frost Award Committee, Ecological Society of America (2011)

# **University:**

- o Interim EEB Graduate Program Director (2017)
- o Advisory Committee, Center for Genomics and Bioinformatics (2014 2020)
- o Executive Committee Member, IU Research and Training Preserve (2013 )
- o Member, Departmental Planning Committee (2013 )
- o Faculty Advisor, Ecolunch (2014 )
- o Member, Biology Graduate Admissions Committee (2014)
- o Member, Biology Graduate Recruiting Weekend (2012 2014)
- Site representative, LTER Science Council meeting, Jekyll Island, Georgia, USA (2011)
- Executive board Member, Biogeochemistry Environmental Research Initiative (BERI), Michigan State University (2006-2009)

# **TEACHING & MENTORSHIP:**

2012 -	Instructor: Microbial Ecology (BIO L472), Microbiomes (Z620), Quantitative Biodiversity (Z620) at Indiana University
2009 - 2012	Co-Director: summer course in Microbial Metagenomics at Michigan State University
2007 - 2012	Instructor: Microbial Ecology (MMG 425), Biogeochemistry (MMG426) at Michigan State University

Junior Faculty Mentoring Team: Ariane Peralta, East Carolina University

Graduate committee member for Michigan State University students: Zarraz May-Ping Lee (MMG), Molly Conlin (Plant Biology), Brian Campbell (MMG), Amy Burin (Zoology), Jason Martina (Plant Biology), Lauren Kinsman (Zoology), Micaleila Dell Desotelle (Zoology), Mridul K. Thomas (Zoology), Tomomi Suwa (Plant Biology), Stephanie Miller (Zoology), Ben Roller (MMG), Keara Towery (MMG)

External graduate committee member: Karl Romanowicz (Michigan Tech), Deborah Dila (Grand Valley State University)

<u>International Dissertation Opponent:</u> Sari Peura (University of Jyväskylä, Finland), Monica Ricoa (Uppsala University, Sweden)

Graduate committee member for IU students: Freddy Lee (Microbiology), Melissa Horton (Microbiology), Elise Morton (Microbiology), Geoffrey House (EEB), Elizabeth Czerwinski (Molecular and Cellular Biochemistry), Brian Steidinger (EEB), Kimberly Elsenbroek (EEB), Kevin Webster (Geology), Maja Šljivar (EEB), Steve Kannenberg (EEB), Ali McCully (Microbiology), Ryan Fritts (Microbiology), Brianna Whittaker (EEB), Maureen Onyeziri (Microbiology), Jessica Hite (EEB), Natalie Christian (EEB), Alex Strauss (EEB), Erik Parker (EEB).

2004-2005 Teaching Certificate Program, Harriet W. Sheridan Center for teaching and learning, Brown University.

Teaching assistant, Foreign Studies Program, Ecology of Tropical Ecosystems, 10-week course in Costa Rica and Jamaica, Dartmouth College

Women in Science Program (WISP) mentor, Dartmouth College

1997- Trained dozens of undergraduate students in ecological and microbiological research

#### PROFESSIONAL SOCIETY MEMBERSHIP:

Ecological Society of America (ESA)

International Society for Microbial Ecology (ISME)

American Society of Microbiology (ASM)

Indiana Academy of Sciences (IAS)

#### **ACADEMIC ADVISORS:**

2006 -

Jennifer B. Hughes Martiny, Brown University (Postdoc)

Kathryn L. Cottingham, Dartmouth College (Ph.D.)

Val H. Smith, University of Kansas (Masters)

Charles A. S. Hall, SUNY College of Environmental Science and Forestry (BS)

# **ACADEMIC ADVISEES:**

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# Postdocs:

- o Zachary Aanderud (Associate Professor, Brigham Young University)
- o Ed Hall (Assistant Professor starting Fall 2016, Colorado State University)
- o Evan Kane (Research Assistant Professor, Michigan Technological University)
- Stuart Jones (Associate Professor, University of Notre Dame)
- Sarah Placella (Postdoc, Servident, Inc.)
- o Ariane Peralta (Assistant Professor, East Carolina University)
- Ken Locey (current)
- Megan Behringer (current; co-advised with Michael Lynch)

# Graduate students:

- o Kali Bird (MS, Microbiology and Molecular Genetics, Michigan State University, 2012)
- o Megan Larsen (Ph.D., Biology, Indiana University, defended June 2016)
- o Mario Muscarella (Ph.D., Biology, Indiana University, defended June 2016)
- o Kevin Webster (Ph.D., Geology, Indiana University, defends August 2016; co-advisor)
- o Nathan Wisnoski (Ph.D., Biology, Indiana University, current)
- o William Shoemaker (Ph.D., Biology, Indiana University, current)
- o Venus Kuo (Ph.D., Biology, Indiana University, current)
- o Roy Moger-Reischer (Ph.D., Biology Indiana University, starting August 2016)