

January 2021

CURRICULUM VITAE

Nicholas J. Gotelli

PERSONAL INFORMATION

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EDUCATION

Florida State University, 1982 - 1985; Ph.D., December 1985 Advisor: D. Simberloff

Florida State University 1980 - 1982; M.S. June 1982 Advisor: L.G. Abele
University of California, Berkeley, 1976 - 1980; B.A. 1980 Phi Beta Kappa

POST-GRADUATE APPOINTMENTS

2000-present. Full Professor, Department of Biology, University of Vermont
2008-2010. Adjunct Professor, Xishuangbanna Tropical Botanical Garden,
Chinese Academy of Sciences

1995 - 2000. Associate Professor, Department of Biology, University of Vermont

1992-1994. Assistant Professor, Department of Biology, University of Vermont

1988 - 1992. Assistant Professor, Department of Zoology, University of
Oklahoma

1987 - 1988. Post-doctoral Associate, Department of Biology, Colorado State
University

1985 - 1987. Lecturer, Department of Organismic and Evolutionary Biology,
Harvard University

RESEARCH INTERESTS

Community ecology

Responses of populations and communities to altered nutrient regimes

Biogeography and island biology

Demography and extinction risk

Null models and species co-occurrence patterns

TEACHING INTERESTS

Theoretical, Community, Population, Experimental Ecology

Computational Biology

Ecological Modeling

TEACHING/RESEARCH AWARDS

Elected Fellow, Ecological Society of America 2020
University of Vermont Kroepsch-Maurice Award for Teaching Excellence 2018
Elected Member of Vermont Academy of Sciences & Engineering 2013
University of Vermont University Scholar 2005
University of Vermont Dean's Lecturer 1997
Fulbright Fellow 1993

PUBLICATIONS

Bibliometrics: Web of Science h-index: 61. Number of publications: 199; Total citation count: 19,629; Google Scholar ranking in discipline "Ecology": 73 of > 10,000 scholars (top 1%). Accessed 21 February 2021.

2020

Blowes, S. A., J. M Chase, A. Di Franco, O. Frid, N. J. Gotelli, P. Guidetti, T. M. Knight, F. May, D. J. McGlinn, F. Micheli, E. Sala, and J. Belmaker. 2020. Mediterranean marine protected areas have higher biodiversity via increased evenness, not abundance. **Journal of Applied Ecology** 57:578-589.

2019

Chao, A., R. K. Colwell, N. J. Gotelli, and S. Thorn. 2019. Proportional mixture of two rarefaction/extrapolation curves to forecast biodiversity changes under landscape transformation. **Ecology Letters** 22:1913-1922.

Dornelas, M., N. J. Gotelli, H. Shimadzu, F. Moyes, A. E. Magurran, and B. J. McGill. 2019. A balance of winners and losers in the Anthropocene. **Ecology Letters** 22:847-854.

Lau, M. K., A. M. Ellison, A. Nguyen, C. Penick, B. DeMarcos, N. J. Gotelli, N. J. Sanders, R. R. Dunn, and S. H. Cahan. 2019. Draft *Aphaenogaster* genomes expand our view of ant genome size variation across climate gradients. **Peerj** 7.

Ma, Z. S., L. W. Li, and N. J. Gotelli. 2019. Diversity-disease relationships and shared species analyses for human microbiome-associated diseases. **ISME Journal** 13:1911-1919.

McGlinn, D. J., X. Xiao, F. May, N. J. Gotelli, T. Engel, S. A. Blowes, T. M. Knight, O. Purschke, J. M. Chase, and B. J. McGill. 2019. Measurement of Biodiversity (MoB): A method to separate the scale-dependent effects of species abundance distribution, density, and aggregation on diversity change. **Methods in Ecology and Evolution** 10:258-269.

Nguyen, A. D., M. Brown, J. Zitnay, S. H. Cahan, N. J. Gotelli, A. Arnett, and A. M. Ellison. 2019. Trade-Offs in Cold Resistance at the Northern Range Edge of the Common Woodland Ant *Aphaenogaster picea* (Formicidae). **American Naturalist** 194: E151-E163.

Toth, A. B., S. K. Lyons, W. A. Barr, A. K. Behrensmeyer, J. L. Blois, R. Bobe, M. Davis, A. Du, J. T. Eronen, J. T. Faith, D. Fraser, N. J. Gotelli, G. R.

- Graves, A. M. Jukar, J. H. Miller, S. Pineda-Munoz, L. C. Soul, A. Villaseñor, and J. Alroy. 2019. Reorganization of surviving mammal communities after the end-Pleistocene megafaunal extinction. **Science** 365:1305-+.
- Ulrich, W., R. Puchalka, M. Koprowski, G. Strona, and N. J. Gotelli. 2019. Ecological drift and competitive interactions predict unique patterns in temporal fluctuations of population size. **Ecology** 100.
- Vaughan, I. P., and N. J. Gotelli. 2019. Water quality improvements offset the climatic debt for stream macroinvertebrates over twenty years. **Nature Communications** 10.
- 2018
- Chase, J. M., B. J. McGill, D. J. McGlinn, F. May, S. A. Blowes, X. Xiao, T. M. Knight, O. Purschke, and N. J. Gotelli. 2018. Embracing scale-dependence to achieve a deeper understanding of biodiversity and its change across communities. **Ecology Letters** 21:1737-1751.
- D'Amen, M., H. K. Mod, N. J. Gotelli, and A. Guisan. 2018. Disentangling biotic interactions, environmental filters, and dispersal limitation as drivers of species co-occurrence. **Ecography** 41:1233-1244.
- Lau, M. K., B. Baiser, A. Northrop, N. J. Gotelli, and A. M. Ellison. 2018. Regime shifts and hysteresis in the pitcher-plant microecosystem. **Ecological Modelling** 382:1-8.
- Strona, G., W. Ulrich, and N. J. Gotelli. 2018. Bi-dimensional null model analysis of presence-absence binary matrices. **Ecology** 99:103-115.
- Ulrich, W., Y. Kubota, B. Kusumoto, A. Baselga, H. Tuomisto, and N. J. Gotelli. 2018a. Species richness correlates of raw and standardized co-occurrence metrics. **Global Ecology and Biogeography** 27:395-399.
- Ulrich, W., Y. Kubota, A. Piernik, and N. J. Gotelli. 2018b. Functional traits and environmental characteristics drive the degree of competitive intransitivity in European saltmarsh plant communities. **Journal of Ecology** 106:865-876.
- Vaughan, I. P., N. J. Gotelli, J. Memmott, C. E. Pearson, G. Woodward, and W. O. C. Symondson. 2018. econullnet: An R package using null models to analyse the structure of ecological networks and identify resource selection. **Methods in Ecology and Evolution** 9:728-733.
- 2017
- Cahan, S. H., A. D. Nguyen, J. Stanton-Geddes, C. A. Penick, Y. Hernaiz-Hernandez, B. B. DeMarco, and N. J. Gotelli. 2017. Modulation of the heat shock response is associated with acclimation to novel temperatures but not adaptation to climatic variation in the ants *Aphaenogaster picea* and *A. rudis*. **Comparative Biochemistry and Physiology a-Molecular & Integrative Physiology** 204:113-120.
- Chao, A., C. H. Chiu, R. K. Colwell, L. F. S. Magnago, R. L. Chazdon, and N. J. Gotelli. 2017. Deciphering the enigma of undetected species, phylogenetic,

- and functional diversity based on Good-Turing theory. **Ecology** 98:2914-2929.
- Dambros, C. S., J. W. Morais, R. A. Azevedo, and N. J. Gotelli. 2017. Isolation by distance, not rivers, control the distribution of termite species in the Amazonian rain forest. **Ecography** 40:1242-1250.
- Diamond, S. E., L. Chick, C. A. Penick, L. M. Nichols, S. H. Cahan, R. R. Dunn, A. M. Ellison, N. J. Sanders, and N. J. Gotelli. 2017. Heat tolerance predicts the importance of species interaction effects as the climate changes. **Integrative and Comparative Biology** 57:112-120.
- Gibb, H., R. R. Dunn, N. J. Sanders, B. F. Grossman, M. Photakis, S. Abril, D. Agosti, A. N. Andersen, E. Angulo, I. Armbrrecht, X. Arnan, F. B. Baccaro, T. R. Bishop, R. Boulay, C. Bruhl, C. Castracani, X. Cerda, I. Del Toro, T. Delsinne, M. Diaz, D. A. Donoso, A. M. Ellison, M. L. Enriquez, T. M. Fayle, D. H. Feener, B. L. Fisher, R. N. Fisher, M. C. Fitzpatrick, C. Gomez, N. J. Gotelli, A. Gove, D. A. Grasso, S. Groc, B. Guenard, N. Gunawardene, B. Heterick, B. Hoffmann, M. Janda, C. Jenkins, M. Kaspari, P. Klimes, L. Lach, T. Laeger, J. Lattke, M. Leponce, J. P. Lessard, J. Longino, A. Lucky, S. H. Luke, J. Majer, T. P. McGlynn, S. Menke, D. Mezger, A. Mori, J. Moses, T. C. Munyai, R. Pacheco, O. Paknia, J. Pearce-Duvet, M. Pfeiffer, S. M. Philpott, J. Resasco, J. Retana, R. R. Silva, M. D. Sorger, J. Souza, A. Suarez, M. Tista, H. L. Vasconcelos, M. Vonshak, M. D. Weiser, M. Yates, and C. L. Parr. 2017. A global database of ant species abundances. **Ecology** 98:883-884.
- Gotelli, N. J., H. Shimadzu, M. Dornelas, B. McGill, F. Moyes, and A. E. Magurran. 2017. Community-level regulation of temporal trends in biodiversity. **Science Advances** 3.
- Gross, N., Y. Le Bagousse-Pinguet, P. Liancourt, M. Berdugo, N. J. Gotelli, and F. T. Maestre. 2017. Functional trait diversity maximizes ecosystem multifunctionality. **Nature Ecology & Evolution** 1.
- Lau, M. K., S. R. Borrett, B. Baiser, N. J. Gotelli, and A. M. Ellison. 2017. Ecological network metrics: opportunities for synthesis. **Ecosphere** 8.
- Nguyen, A. D., K. DeNovellis, S. Resendez, J. D. Pustilnik, N. J. Gotelli, J. D. Parker, and S. H. Cahan. 2017. Effects of desiccation and starvation on thermal tolerance and the heat-shock response in forest ants. **Journal of Comparative Physiology B-Biochemical Systemic and Environmental Physiology** 187:1107-1116.
- Northrop, A. C., R. K. Brooks, A. M. Ellison, N. J. Gotelli, and B. A. Ballif. 2017. Environmental proteomics reveals taxonomic and functional changes in an enriched aquatic ecosystem. **Ecosphere** 8.
- Ulrich, W., F. Jabot, and N. J. Gotelli. 2017a. Competitive interactions change the pattern of species co-occurrences under neutral dispersal. **Oikos** 126:91-100.
- Ulrich, W., W. Kryszewski, P. Sewerniak, R. Puchalka, G. Strona, and N. J. Gotelli. 2017b. A comprehensive framework for the study of species co-occurrences, nestedness and turnover. **Oikos** 126:1607-1616.

Vellend, M., M. Dornelas, L. Baeten, R. Beausejour, C. D. Brown, P. De Frenne, S. C. Elmendorf, N. J. Gotelli, F. Moyes, I. H. Myers-Smith, A. E. Magurran, B. J. McGill, H. Shimadzu, and C. Sievers. 2017. Estimates of local biodiversity change over time stand up to scrutiny. **Ecology** 98:583-590.

2016

- Agnarsson, I., N. J. Gotelli, D. Agostini, and M. Kuntner. 2016. Limited role of character displacement in the coexistence of congeneric *Anelosimus* spiders in a Madagascan montane forest. **Ecography** 39:743-753.
- Colwell, R. K., N. J. Gotelli, L. A. Ashton, J. Beck, G. Brehm, T. M. Fayle, K. Fiedler, M. L. Forister, M. Kessler, R. L. Kitching, P. Klimes, J. Kluge, J. T. Longino, S. C. Maunsell, C. M. McCain, J. Moses, S. Noben, K. Sam, L. Sam, A. M. Shapiro, X. P. Wang, and V. Novotny. 2016. Midpoint attractors and species richness: Modelling the interaction between environmental drivers and geometric constraints. **Ecology Letters** 19:1009-1022.
- Dambros, C.S., J.W. Morais, A. Vasconcellos, J.L.P. Souza, E. Franklin, and N.J. Gotelli. 2016. Association of ant predators and edaphic conditions with termite diversity in an Amazonian rain forest. **Biotropica** 48:237-245.
- Diamond, S. E., L. M. Nichols, S. L. Pelini, C. A. Penick, G. W. Barber, S. H. Cahan, R. R. Dunn, A. M. Ellison, N. J. Sanders, and N. J. Gotelli. 2016. Climatic warming destabilizes forest ant communities. **Science Advances** 2.
- Lyons, S.K., K.L. Amatangelo, A.K. Behrensmeyer, A. Bercovici, J.L. Blois, M. Davis, W.A. DiMichele, A. Du, J.T. Eronen, J.T. Faith, G.R. Graves, N. Jud, C. Labandeira, C.M. Looy, B. McGill, J.H. Miller, D. Patterson, S. Pineda-Munoz, R. Potts, B. Riddle, R. Terry, A. Toth, W. Ulrich, A. Villasenor, S. Wing, H. Anderson, J. Anderson, D. Waller, and N.J. Gotelli. 2016. Holocene shifts in the assembly of plant and animal communities implicate human impacts. **Nature** 529:80-83.
- Lyons, S. K., J. H. Miller, K. L. Amatangel, A. K. Behrensmeyer, A. Bercovici, J. L. Blois, M. Davis, W. DiMichele, A. Du, J. T. Eronen, J. T. Faith, G. R. Graves, N. Jud, C. Labandeira, C. V. Looy, B. McGill, D. Patterson, S. Pineda-Munoz, R. Potts, B. Riddle, R. Terry, A. Toth, W. Ulrich, A. Villasenor, S. Wing, H. Anderson, J. Anderson, and N. J. Gotelli. 2016b. How foreign is the past? Reply. **Nature** 538:E3-E4.
- Nguyen, A.D., N.J. Gotelli, and S.H. Cahan. 2016. The evolution of heat shock protein sequences, cis-regulatory elements, and expression profiles in the eusocial Hymenoptera. **BMC Evolutionary Biology** 16.
- Prevedello, J. A., N. J. Gotelli, and J. P. Metzger. 2016. A stochastic model for landscape patterns of biodiversity. **Ecological Monographs** 86:462-479.
- Stanton-Geddes, J., A. Nguyen, L. Chick, J. Vincent, M. Vangala, R.R. Dunn, A.M. Ellison, N.J. Sanders, N.J. Gotelli, and S.H. Cahan. 2016. Thermal

reactionomes reveal divergent responses to thermal extremes in warm and cool-climate ant species. **BMC Genomics** 17.

Ulrich, W., M. K. Zaplata, S. Winter, W. Schaaf, A. Fischer, S. Soliveres, and N. J. Gotelli. 2016. Species interactions and random dispersal rather than habitat filtering drive community assembly during early plant succession. **Oikos** 125:698-707.

2015

Cayuela, L., N. J. Gotelli, and R. K. Colwell. 2015. Ecological and biogeographic null hypotheses for comparing rarefaction curves. **Ecological Monographs** 85:437-455.

Chao, A., T. C. Hsieh, R. L. Chazdon, R. K. Colwell, and N. J. Gotelli. 2015. Unveiling the species-rank abundance distribution by generalizing the Good- Turing sample coverage theory. **Ecology** 96:1189-1201.

Dambros, C. S., N. C. Caceres, L. Magnus, and N. J. Gotelli. 2015. Effects of neutrality, geometric constraints, climate, and habitat quality on species richness and composition of Atlantic Forest small-mammals. **Global Ecology and Biogeography** 24:1084-1093.

Garcia-Valdes, R., N. J. Gotelli, M. A. Zavala, D. W. Purves, and M. B. Araujo. 2015. Effects of climate, species interactions, and dispersal on decadal colonization and extinction rates of Iberian tree species. **Ecological Modelling** 309:118-127.

Gotelli, N. J., and J. Stanton-Geddes. 2015. Climate change, genetic markers and species distribution modelling. **Journal of Biogeography** 42:1577-1585.

Lopes, G. N., M. F. Souza, N. J. Gotelli, L. J. U. Lemos, W. A. C. Godoy, and R. A. Zucchi. 2015. Temporal Overlap and Co-Occurrence in a Guild of Sub-Tropical Tephritid Fruit Flies. **Plos One** 10.

Magurran, A. E., M. Dornelas, F. Moyes, N. J. Gotelli, and B. McGill. 2015. Rapid biotic homogenization of marine fish assemblages. **Nature Communications** 6.

McGill, B. J., M. Dornelas, N. J. Gotelli, and A. E. Magurran. 2015. Fifteen forms of biodiversity trend in the Anthropocene. **Trends in Ecology & Evolution** 30:104-113.

2014

Blois, J.L., N.J. Gotelli, A.K. Behrensmeyer, J.T. Faith, S.K. Lyons, J.W. Williams, K.L. Amatangelo, A. Bercovici, A. Du, J.T. Eronen, G.R. Graves, N. Jud, C. Labandeira, C.V. Looy, B. McGill, D. Patterson, R. Potts, B. Riddle, R. Terry, A. Toth, A. Villasenor, and S. Wing. 2014. A framework for evaluating the influence of climate, dispersal limitation, and biotic interactions using fossil pollen associations across the late Quaternary. **Ecography** 37:1095-1108.

- Chao, A., N.J. Gotelli, T.C. Hsieh, E.L. Sander, K.H. Ma, R.K. Colwell, and A.M. Ellison. 2014. Rarefaction and extrapolation with Hill numbers: a framework for sampling and estimation in species diversity studies. **Ecological Monographs** 84:45-67.
- Dornelas, M., N.J. Gotelli, B. McGill, H. Shimadzu, F. Moyes, C. Sievers, and A.E. Magurran. 2014. Assemblage time series reveal biodiversity change but not systematic loss. **Science** 344:296-299.
- Ellison, A.M., N.J. Gotelli, N. Hsiang, M. Lavine, and A.B. Maidman. 2014. Kernel intensity estimation of 2-dimensional spatial poisson point processes from k-tree sampling. **Journal of Agricultural Biological and Environmental Statistics** 19:357-372.
- Dornelas, M., N.J. Gotelli, B. McGill, and A.E. Magurran. 2014. Overlooked local biodiversity loss- Response. **Science** 344:1098-1099.
- Ellison, A.M., N.J. Gotelli, B.D. Inouye, and D.R. Strong. 2014. P values, hypothesis testing, and model selection: it's deja vu all over again. **Ecology** 95:609-610.
- Pelini, S.L., S.E. Diamond, L.M. Nichols, K.L. Stuble, A.M. Ellison, N.J. Sanders, R.R. Dunn, and N.J. Gotelli. 2014. Geographic differences in effects of experimental warming on ant species diversity and community composition. **Ecosphere** 5.
- Resasco, J., S.L. Pelini, K.L. Stuble, N.J. Sanders, R.R. Dunn, S.E. Diamond, A.M. Ellison, N.J. Gotelli, and D.J. Levey. 2014. Using historical and experimental data to reveal warming effects on ant assemblages. **Plos One** 9.
- Ulrich, W., S. Soliveres, W. Kryszewski, F.T. Maestre, and N.J. Gotelli. 2014. Matrix models for quantifying competitive intransitivity from species abundance data. **Oikos** 123:1057-1070.
- Ulrich, W., S. Soliveres, F.T. Maestre, N.J. Gotelli, J.L. Quero, M. Delgado-Baquerizo, M.A. Bowker, D.J. Eldridge, V. Ochoa, B. Gozalo, E. Valencia, M. Berdugo, C. Escolar, M. Garcia-Gomez, A. Escudero, A. Prina, G. Alfonso, T. Arredondo, D. Bran, O. Cabrera, A. P. Cea, M. Chaieb, J. Contreras, M. Derak, C.I. Espinosa, A. Florentino, J. Gaitan, V.G. Muro, W. Ghiloufi, S. Gomez-Gonzalez, J.R. Gutierrez, R.M. Hernandez, E. Huber-Sannwald, M. Jankju, R.L. Mau, F.M. Hughes, M. Miriti, J. Monerris, M. Muchane, K. Naseri, E. Pucheta, D.A. Ramirez-Collantes, E. Raveh, R. L. Romao, C. Torres-Diaz, J. Val, J.P. Veiga, D.L. Wang, X. Yuan, and E. Zaady. 2014. Climate and soil attributes determine plant species turnover in global drylands. **Journal of Biogeography** 41:2307-2319.

2013

- Diamond, S.E., C.A. Penick, S.L. Pelini, A.M. Ellison, N.J. Gotelli, N.J. Sanders, and R.R. Dunn. 2013. Using physiology to predict the responses of ants to climatic warming. **Integrative And Comparative Biology** 53: 965-974.

- Sirota, J., B. Baiser, N.J. Gotelli, and A.M. Ellison 2013. Organic-matter loading determines regime shifts and alternative states in an aquatic ecosystem. **Proceedings Of The National Academy of Sciences** 110: 7742-7747.
- Fitzpatrick, M.C., N.J. Gotelli, and A.M. Ellison. 2013. Maxent vs. Maxlike: empirical comparisons with ant species distributions. **Ecosphere** 45: 55.
- Baiser, B., H.L., Buckley, , N.J., Gotelli, and A.M. Ellison. 2013. Predicting food-web structure with metacommunity models. **Oikos** 122: 492-506.
- Dornelas, M., A.E. Magurran, S.T. Buckland, A. Chao, R.L. Chazdon, R.K. Colwell, T.Curtis, K.J. Gaston, N.J. Gotelli, M.A. Kosnik, B. McGill, J.L. McCune, H. Morlon, P.J. Mumby, L. Ovrees, A. Studeny, and M. Velland. 2013. Quantifying temporal change in biodiversity: challenges and opportunities. **Proceedings of The Royal Society B** 280. DOI: 10.1098/rspb.2012.1931.
- Ulrich, W. and N.J. Gotelli. 2013. Pattern detection in null model analysis. **Oikos** 122: 2-18.

2012

- Baiser, B., N. J. Gotelli, H. L. Buckley, T. E. Miller, and A. M. Ellison. 2012. Geographic variation in network structure of a nearctic aquatic food web. **Global Ecology and Biogeography** 21:579-591.
- Borregaard, M. K., N. J. Gotelli, and C. Rahbek. 2012. Are range size distributions consistent with species-level heritability? **Evolution** 66:2216-2226.
- Colwell, R. K., A. Chao, N. J. Gotelli, S. Y. Lin, C. X. Mao, R. L. Chazdon, and J. T. Longino. 2012. Models and estimators linking individual-based and sample-based rarefaction, extrapolation and comparison of assemblages. **Journal of Plant Ecology** 5:3-21.
- Diamond, S. E., L. M. Nichols, N. McCoy, C. Hirsch, S. L. Pelini, N. J. Sanders, A. M. Ellison, N. J. Gotelli, and R. R. Dunn. 2012. A physiological trait-based approach to predicting the responses of species to experimental climate warming. **Ecology** 93:2305-2312.
- Gotelli, N. J., A. Chao, R. K. Colwell, W. H. Hwang, and G. R. Graves. 2012. Specimen-Based Modeling, Stopping Rules, and the Extinction of the Ivory-Billed Woodpecker. **Conservation Biology** 26:47-56.
- Gotelli, N. J., A. M. Ellison, and B. A. Ballif. 2012. Environmental proteomics, biodiversity statistics and food-web structure. **Trends in Ecology & Evolution** 27:436-442.
- Gotelli, N. J. and W. Ulrich. 2012. Statistical challenges in null model analysis. **Oikos** 121:171-180.
- Maestre, F. T., J. L. Quero, N. J. Gotelli, A. Escudero, V. Ochoa, M. Delgado-Baquerizo, M. Garcia-Gomez, M. A. Bowker, S. Soliveres, C. Escolar, P. Garcia-Palacios, M. Berdugo, E. Valencia, B. Gozalo, A. Gallardo, L. Aguilera, T. Arredondo, J. Blones, B. Boeken, D. Bran, A. A. Conceicao, O. Cabrera, M. Chaieb, M. Derak, D. J. Eldridge, C. I. Espinosa, A. Florentino, J. Gaitan, M. G. Gatica, W. Ghiloufi, S. Gomez-Gonzalez, J. R. Gutierrez, R. M. Hernandez, X. W. Huang, E. Huber-Sannwald, M. Jankju,

- M. Miriti, J. Monerris, R. L. Mau, E. Morici, K. Naseri, A. Ospina, V. Polo, A. Prina, E. Pucheta, D. A. Ramirez-Collantes, R. Romao, M. Tighe, C. Torres-Diaz, J. Val, J. P. Veiga, D. L. Wang, and E. Zaady. 2012. Plant Species Richness and Ecosystem Multifunctionality in Global Drylands. **Science** 335:214-218.
- Maestre, F. T., S. Soliveres, N. J. Gotelli, J. L. Quero, and M. Berdugo. 2012b. Response to Comment on "Plant Species Richness and Ecosystem Multifunctionality in Global Drylands". **Science** 337.
- Pelini, S. L., S. E. Diamond, H. MacLean, A. M. Ellison, N. J. Gotelli, N. J. Sanders, and R. R. Dunn. 2012. Common garden experiments reveal uncommon responses across temperatures, locations, and species of ants. **Ecology and Evolution** 2:3009-3015.
- Ulrich, W. and N. J. Gotelli. 2012. A null model algorithm for presence-absence matrices based on proportional resampling. **Ecological Modelling** 244:20-27.
- Ulrich, W., M. Piwczynski, F. T. Maestre, and N. J. Gotelli. 2012. Null model tests for niche conservatism, phylogenetic assortment and habitat filtering. **Methods in Ecology and Evolution** 3:930-939.
- 2011
- Pelini, S. L., F.P. Bowles, A.M. Ellison, N.J. Gotelli, N.J. Sanders, and R.R. Dunn. 2011. Heating up the forest: open-top chamber warming manipulation of arthropod communities at Harvard and Duke Forests. **Methods in Ecology and Evolution** 2: 534-540.
- Pelini, S. L., M. Boudreau, N. McCoy, A. M. Ellison, N. J. Gotelli, N. J. Sanders, and R. R. Dunn. 2011. Effects of short-term warming on low and high latitude forest ant communities. **Ecosphere** 2: art62.
- Gotelli, N.J. and W. Ulrich. 2011. Over-reporting bias in null model analysis: a reponse to Fayle and Manica (2010). **Ecological Modelling** 222: 1337-1339.
- Wittman, S.E. and N.J. Gotelli. 2011. Predicting community structure of ground-foraging ant assemblages with Markov models of behavioral dominance. **Oecologia** 166: 207-219.
- Jules, E.S., A.M. Ellison, N.J. Gotelli, S. Lillie, G.A. Meindl, N.J. Sanders, and A.N. Young. 2011. Influence of fire on a rare serpentine plant assemblage: a 5-year study of *Darlingtonia fens*. **American Journal of Botany** 98: 801-811.
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EXTERNAL FUNDING

- 2020-2024. National Science Foundation. RII Track-2 FEC: Harnessing Spatiotemporal Data Science to Predict Responses of Biodiversity and Rural Communities under Climate Change. \$1,998,290.00. Co-PI: Brian McGill, University of Maine.
- 2013-2020. National Science Foundation. Research Coordination Network: RCN: Synthesizing deep time and recent community ecology. \$400,000. Co-PIs: Sara Lyons, Kay Behrensmeyer, Smithsonian Institution.
- 2011-2016. National Science Foundation. Tipping points in ecological communities and proteomic diversity. NSF. \$350,000. Co-PIs Aaron Ellison, Bryan Ballif
- 2012-2015. National Science Foundation. Dimensions in Biodiversity: Collaborative Research: The climate cascade: functional and evolutionary consequences of climatic change on species, trait, and genetic diversity in a temperate ant community. (Total award: \$1,997,320. UVM component: \$687,559; UVM Biology Co-PIs: Sara Helms Cahan, Bryan Ballif)
- 2009-2011. National Science Foundation. 0909359. Dissertation Research: Evolutionary Responses of Daphnia to Climate Change in Vernal Ponds. \$10,000. Co-PI, Ted Hart.
- 2008-2011. Department of Energy. Impacts of elevated temperature on ant species, communities and ecological roles at two temperate forests in eastern North America. (UVM Component \$383,778). Co-PIs Rob Dunn, Nate Sanders, Aaron Ellison.
- 2006-2010. National Science Foundation. Moths, ants, and carnivorous plants: the spatial dimension of species interactions. \$645,000. UVM component: \$60,000. Co-PI Aaron Ellison.
- 2006-2008. National Center for Ecological Analysis and Synthesis (NCEAS). Working Group: Modeling Species Richness. Co-PIs Robert Colwell, Carsten Rahbek
- 2003-2006. National Science Foundation. Effects of nutrient stress on a co-evolved food web. \$350,000. UVM component: \$26,000. Co-PI, Aaron Ellison.

- 2003-2004. National Science Foundation. SGER: RUI: Collaborative. Mechanisms of community re-assembly after a catastrophic fire. \$100,000. UVM component: \$13,000. Co-PIs: Nate Sanders, Eric Jules, Aaron Ellison.
- 2000-2002. National Science Foundation (Education and Human Resources). Development of a multidisciplinary research culture in environmental science and engineering at the University of Vermont. \$300, 000. Co-PI, Chris Allen.
- 2000-2002. National Science Foundation. Biocomplexity Incubation Activity: A synthetic approach to phytotelmata communities. \$92,034. Co-PIs: Tom Miller, Aaron Ellison.
- 2001-2004. National Science Foundation. EcoSim: Null models software for ecologists. \$282,000.
- 2000-2002. Environmental Protection Agency. The role of natural vs. anthropogenic factors in assessing ecological risk in agricultural watersheds. \$537,266. Co-PIs Mary Watzin, Jim Hoffmann.
- 1998-2003. National Science Foundation. Inquiline communities in changeable pitchers: do nutrients link community assembly to dynamic habitats? \$200,000. UVM component \$50,000. Co-PI Aaron Ellison.
- 1998-2000. National Science Foundation. EcoSim: Null models software for ecologists. \$232,000.
- 1997-1999. National Science Foundation. DEB-9615708. Behavioral strategies of sit-and-wait foragers: models of ant lion foraging. \$110,000. Co-PI, N. Buckley.
- 1997-1998. National Science Foundation. DEB-9615708. Dissertation Research: Geographic variation in life history traits of the ant lion, *Myrmeleon immaculatus*. \$8000. Co-PI, Amy Arnett.
- 1996-1997. National Science Foundation. BIR-9612109. EcoSim: A Proposal for Null Models Software. \$50,000.
1993. Fulbright Foundation. The Evolution of Altered Host Behavior. Research Award, University of Oxford, Great Britain.
- 1992-1995. National Science Foundation BSR-9118962. Antlion Zones: Consequences of High-Density Predator Aggregations. \$144,000.
- 1989-1991. National Science Foundation BSR-8817495. The Evolution of Altered Behaviors in Parasitized Animals: A Cockroach-Acanthocephalan Model. \$81,000. Co-Pi with J. Moore.

INVITED SEMINARS, PLENARY TALKS, SYMPOSIA, WORKSHOPS

Complex Systems Workshop, Vienna Austria March 2020 (cancelled)

University of Illinois, Urbana-Champaign April 2020 (cancelled)

Ralph Yerger Distinguished Alumni Lectureship, Florida State University, November 2020 (virtual)

Northern Vermont University – Johnson, Johnson, September 2019

Rutgers Camden University, Camden, April 2019

College of Charleston, Charleston, April 2019

Bowling Green State University, Pavakarnis-Buchanan Endowed Lecture,
 Bowling Green, April 2019
 III International Ecology Conference, Foz Igacu, Brazil (keynote speaker)
 September 2018
 University of Vermont, Department of Geology, January 2017
 Ecological Society of America, Statistical Symposium, Portland, 2017
 University of Sherbrooke, Department of Biology, October 2017
 University of Vermont, Department of Plant Biology, Burlington, September 2016
 Ecological Society of America, Temporal Diversity Symposium, Baltimore,
 August 2016
 Oregon Institute of Marine Biology, Charleston, May 2016
 Auburn University, Auburn, April 2016
 Kent State University, Akron, March 2016
 NIMBIOS workshop, Pollen Reconstruction, Knoxville, November 2015
 University of Vermont, Rubenstein School Of Natural Resources, October 2015
 University of St. Andrews, Scotland, School of Biology, June 2015
 Biodiversity Workshop, German Center For Biodiversity Research (iDiv), Leipzig
 June 2015
 Eilat, Coral Reef Fish Ecology Workshop, December 2014
 University of Montana, Missoula, October 2014
 Vermont Institute of Natural Science, Queechee, May 2014
 Plenary Speaker, International Statistical Ecology Conference "The Well-
 Tempered Assemblage: Reducing Bias in the Estimation of Species Rank
 Abundance Distributions", Montpellier, France, August 2014
 Plenary Speaker, International Biogeography Society, "The Geography Of
 Species Associations", Montreal, November 2013
 National Ecological Observatory Network (NEON), Boulder, 2013
 University of Colorado, Boulder, October 2013
 Ceske Budjovice, Altitudinal Gradients Workshop August 2013
 Paul Smith's College, Brighton, April 2013
 Harvard Forest, Petersham, March 2013
 Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Brazil, November
 2012 (2 seminars)
 University of St. Andrews, Scotland, School of Biology, May 2012
 University of St. Andrews, Scotland, The Centre for Research into Ecological and
 Environmental Modelling (CREEM), May 2012
 Utah State University, Ecology Center, April 2012 (2 seminars)
 University of Massachusetts, Amherst, April 2011
 Michigan State University, Lansing, April 2011
 Louisiana State University, Baton Rouge, March 2011
 Plenary Speaker, Biology Symposium,. Universidad Autonoma Metropolitana,
 Mexico City, February 2011
 Royal Society, Kavli Institute, London, October 2010
 Royal Society, "Biodiversity in a Changing World", London, October 2010
 Cornell University, Ithaca, March 2010
 Boston University, Boston, February 2010

University of Central Florida, Orlando, January 2010
 NIMBioS Binary Matrices Workshop, Knoxville, December 2009
 Plenary Speaker, International Symposium on Quantitative Ecology &
 2nd Taiwan-Japan Ecology Workshop, Taipei, October 2009
 Universidad Rey Juan Carlos, Mostoles, June 2009
 NIMBioS Binary Matrices Workshop, Knoxville, May 2009
 University of Vermont, Burlington November 2008
 Plenary Speaker, 18th Italian Ecological Congress, Parma, September 2008
 Xishuangbanna Tropical Botanical Garden, May 2008
 Chinese Academy of Sciences, Kunming, May 2008
 University of Rhode Island, Providence, April 2008
 Plenary Speaker, 9th Ecological Integration Symposium, Texas A & M, College
 Station, March 2008
 Duke University, Durham, September 2007
 Bowdoin College, Brunswick, September 2007
 University of Arizona, Tucson, April 2007
 Iowa State University, Ames, April 2007
 Dartmouth College, Hanover, February 2007
 Plenary Speaker: Macroecology Symposium, Institute For Climate Research,
 Potsdam, Germany, August 2006
 ESA Symposium, Assembly Rules, Memphis, August 2006
 NorthWoods Stewardship Center, East Charleston, May 2006
 University of Tennessee, Knoxville, April 2006
 University of Colorado, Boulder, March 2006
 University of Nevada, Reno, December 2005
 University of Uppsala, Sweden, April 2005
 University of California, Davis, January 2005
 Yale University, New Haven, January 2005
 University of North Carolina, Chapel Hill, December 2004
 McGill University, Montreal, November 2004
 University of Montreal, Montreal, April 2004
 University of Mississippi, Starkeville, April 2004
 Yale University, New Haven, January 2004
 NSF Workshop: Statistical methods for ecologists, Jackson, December 2003
 Plenary Speaker, Venezuelan Ecological Society, Margarita, October 2003
 University of Connecticut, Storrs, April 2003
 Wake Forest University, January 2003
 Williams College, MA, November 2002
 University of Quebec, Trois Riveries, October 2002
 NCEAS Working Group: Productivity-diversity relationships, Santa Barbara,
 August 2002
 Utah State University, Logan, November 2001
 University of Washington, Seattle, May 2001
 Cornell University, Ithaca, April 2001
 Modeling Workshop, Oregon State University, Corvallis March 2001
 Texas A & M, Arlington, March 2001

Biocomplexity Workshop, Tallahassee, January 2001
 University of Delaware, December 2000
 NCEAS Workshop, Biogeography, September 2000
 ESA Symposium, Snowbird, Carnivorous Plants, August 2000
 University of Toronto, Toronto, April 2000
 University of California, Santa Barbara, January 2000
 Catholica University, Santiago, Chile November 1999
 Las Cruces Marine Laboratory, Las Cruces, Chile, November 1999
 Plenary Speaker: Chilean Biological Society Symposium, Santiago, Chile
 November 1999
 University of Wisconsin, Madison, October 1999
 Middlebury College, Middlebury, September 1999
 University of Nebraska, Lincoln, April 1999
 Complex Systems Conference, Nashua, NH, October 1998
 Endangered Species Conference, McGill University, October 1998
 University of Minnesota, Duluth, September 1998
 INTECOL Symposium, Florence, Species Interactions, July 1998
 McGill University, Montreal, March 1998
 SUNY Stony Brook, New York, December 1997
 Florida State University, Tallahassee, May 1997
 University of California, Santa Cruz, April 1997
 University of California, Davis, April 1997
 University of New Hampshire, Portsmouth, March 1997
 Tufts University, Medford, February 1997
 University of Missouri, St. Louis, January 1997
 Rocky Mountain Biological Laboratory, August 1996
 Bodega Bay Marine Laboratory, June 1996
 Mt. Holyoke College, Holyoke, April 1996
 University of Maryland, Baltimore, March 1996
 University of Southwestern Louisiana, Lafayette, November 1994
 University of Connecticut, Storrs, October 1994
 University of Oxford, May 1993
 University of Oxford, April 1993
 University of Oxford, March 1993
 Imperial College, Silwood Park, April 1993
 University of Vermont, Burlington, February 1993
 NSF Symposium, Nested Subsets, Chicago Field Museum, April 1992
 University of Vermont, Burlington, March 1992
 Entomological Society of America, Baltimore, December 1992
 University of Michigan, December 1991
 University of Kansas, November 1991
 Los Angeles County Museum of Natural History, May 1991
 Scripps Institute of Oceanography, May 1991
 New Mexico State University, April 1991
 Entomological Society of America, New Orleans, December 1990
 University of California, Berkeley, December 1990

ESA Symposium, Snowbird, Host-Parasite Ecology, August 1990
University of Arkansas, Fayetteville, September 1989
Harvard University, Cambridge, March 1989
Harbor Branch Oceanographic Institute, Ft. Pierce, February 1989
University of Oklahoma, Norman, March 1988, March 1991
Louisiana State University, Baton Rouge, February 1988
San Jose State University, San Jose, February 1988
Colorado State University, Ft. Collins, October 1987
Colorado State University, Ft. Collins, March 1987
Boston University, Boston, September 1986
Wood's Hole Oceanographic Institution, Woods Hole, June 1986
Harvard University, Cambridge, May 1986
The Nature Conservancy, Boston, January 1986
Northeastern University, Nahant, December 1985
Harvard University, Cambridge, November 1985
Hopkins Marine Station, June 1983
University of California, Berkeley, June 1983
Florida State University, Tallahassee, September 1982
University of California, Berkeley, December 1981

EDITORSHIPS AND MAJOR COMMITTEES

Associate Editor-In-Chief, Ecology (2015 – present)
Board of Editors, Ecology (2001 – present)
Board of Editors, Myrmecological News (2010 – present)

Board of Editors, Axios (2013 – 2017)
Deputy Editor-In-Chief, Journal of Biogeography (2010 – 2015)
Board of Editors, Scientific Reports (2010 – 2012)
E.O. Wilson Award Committee Chair, ASN (2003-2005)
Local Hosting Committee ESA Montreal Meeting (2005)
NCEAS Science Advisory Board (2002 – 2005)
Board of Editors, Oikos (2004-2009)
Board of Editors, Journal of Biogeography (2004 – 2010)
Associate Editor, Ecology Letters (2002 – 2008)
Board of Editors, Biodiversity Letters (1992 - 1997)
Board of Editors, The American Naturalist (1994 - 1998)
Mercer Awards Committee Member, ESA (1997 - 1999)
Mercer Awards Committee Chair, ESA (1999 - 2001)

REVIEWING

Journal Reviewing:

Acta Oecologia, American Journal of Botany, The American Naturalist,
Animal Behaviour, The Auk, Australian Journal of Ecology, Biodiversity
Letters, Biotropica, Behavioral Ecology, Biological Conservation,
Bioscience, Canadian Journal of Fisheries and Aquatic Sciences,
Cladistics, Conservation Ecology, Copeia, Coral Reefs, Ecology, Ecology

Letters, Diversity and Distributions, Ecological Applications, Ecological Entomology, Ecological Monographs, European Journal of Entomology, Evolution, Evolutionary Ecology (ad hoc editor), Hydrobiologia, Journal of Biogeography, Journal of Ecology, Journal of Insect Behavior, Journal of Parasitology, Journal of Theoretical Biology, Journal of Vegetation Science, Limnology & Oceanography, Marine Ecology Progress Series, Nature, Nature Communications, Oecologia, Oikos, Proceedings of the National Academy of Science USA, Science, Southeastern Naturalist (ad hoc editor), Theoretical Population Biology, Trends in Ecology and Evolution (ad hoc editor), Vegetatio

Proposal Reviewing:

National Science Foundation (Ecology, Population Biology, Behavior Panels); National Geographic Society

NSF PANEL SERVICE

Ecology Panel (Spring 2020)
Ecoogy Panel (Spring 2014)
Ecology Panel (Fall 1995 - Spring 1998)
Integrated Challenges Panel (Spring 1999 - Spring 2001)
Committee Of Visitors, DEB review panel (Summer 2012)

UNIVERSITY, COLLEGE AND DEPARTMENTAL SERVICE

Graduate Affairs Chair 2016 - present
Graduate Affairs Committee 2012-present
OSP Hiring Committee 1998
Curriculum Committee 1992
Committee on Retention of Majors 1992
Search Committee, Evolutionary Ecologist 1993
Search Committee, Signal Transduction 1993, 1994
Search Committee, Community Ecologist (Botany Department) 1993
Faculty Volunteer, Undergraduate Orientation 1994
Co-Director, Environmental Studies Program 1995-Present
Advisory Council 1995
Director, Biology Department Graduate Program 1995-2000
Search Committee Chair, Evolutionary Biologist, 2003
TRI Spires Committee 2009

GRADUATE STUDENTS

Marc Albrecht, Ph.D., 1996. University of Oklahoma, Insect Community Ecology.
Current position: Tenured Professor, Department of Biology, University of Nebraska at Kearney.
Amy Arnett, Ph.D., 1998. University of Vermont, Insect Life History Evolution.
Current position: Tenured Professor, Department of Biology, Unity College, Maine.

Jerry Johnson, Ph.D., 1999. University of Vermont, Fish Life History Evolution.
Current position: Tenured Professor, Brigham Young University.

Declan McCabe, Ph.D., 1999. University of Vermont, Insect Community Ecology.
Current position: Tenured Professor, Department of Biology, Saint Michael's College.

Amy Wakefield, MS., 2004. University of Vermont. Plant Ecology. Current position: State Biologist, Vermont.

Stephen Hudman, Ph.D., 2005. University of Vermont. Current position: Tenured Professor, Truman State College.

Kate Farrell, MS., 2006. University of Vermont, Theoretical Ecology. Current position: High school teacher, Vermont.

Sarah Wittman, Ph.D., 2007. University of Vermont. Inquiline Ecology. Current position: Post-doctoral Associate, Smithsonian Institution.

Ted Hart, Ph.D. 2011. University of Vermont. Climate Change, Aquatic Ecology. Current position: Senior Scientist, Apple Computer.

Cristian Dambros, Ph.D. 2015. University of Vermont. Tropical termite ecology, community phylogenetics.

Allyson Degrassi. Ph.D. 2016. University of Vermont. Small mammal population dynamics and community structure. Post-doctoral associate, University of New Hampshire

Andrew Nguyen. Ph.D. 2017. University of Vermont. Molecular evolution of heat shock proteins in ants. Post-doctoral associate, University of Florida.

Amanda Northrop, Ph.D. 2020. University of Vermont. Proteomics, eutrophication of aquatic ecosystems. Lecturer, Norwich University.

Lauren Ash. Ph.D. (current). University of Vermont. Transmission dynamics of Ranavirus in New England amphibians.

Lindsey Pett. Ph.D. (current). University of Vermont. Nutrient stoichiometry of pitcher plants.

Alex Burnham, Ph.D. (current). University of Vermont. Bee virus and disease transmission.

Emily Beasley, Ph.D. (current). University of Vermont. Occupancy modeling of small mammal assemblages and their ectoparasites.

George Ni (current). University of Vermont. Range expansion of invasive insects and their parasitoids.

POST-DOCTORAL ASSOCIATES

Dr. Neil Buckley, 1997. Current Position: Tenured Professor, Department of Biology, SUNY Plattsburg

Dr. Shannon Pelini. 2009 – 2012. Current Position: Tenure –track Assistant Professor, Department of Biology, Bowling Green University.

Dr. Irma Nieto 2009 – 2010. Current Position: Tenure-track Assistant Professor, University of Oaxaca, Mexico.

Dr. John Stanton-Geddes 2013-2014. Current Position: Data analyst,
Dealer.com.

INTERNATIONAL VISITORS

Eduardo Pacheco, University of Sao Paulo. January-March 2020
Ian Vaughn, University of Cardiff, December 2016
Jayme Prevedello, University of Sao Paulo, June-August 2014
Luis Cayuela, Universidad Rey Juan Carlos, June-August 2013
Gleidyane Lopes, ESALQ/USP, Departamento de Entomologia e
Acarologia, Sao Paulo, April – June 2013
Julia Oshima, Instituto de Biociências, UNESP, Campus Rio Claro,
February-August 2013
Raul Valdes, Museo Nacional de Ciencias Naturales, June-August 2009
Fernando Maestre Gil, Universidad Rey Juan Carlos, June-August 2007
Giorgio Mancinelli, University of Lecce, December 2007
Michael Borregaard, University of Copenhagen, October-December 2007

EXTERNAL PhD EXAMINER

Kevin Cazelles, University of Quebec Ph.D.
Grace Suerat, University of Missouri, St. Louis Ph.D.
Pablo Inchausti, SUNY, Stony Brook, Ph.D.
Pedro Peres-Neto, University of Toronto, Toronto Ph.D.
Tom Romdal, University of Copenhagen, Copenhagen Ph.D.
Angelika Studeny, University of St. Andrews, St. Andrews, Ph.D.