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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. McGlenn, 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.

McGlenn, 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. Villasenor, 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. econullnetr: 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. Kryszevski, 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. Ovreas, 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.
- Gotelli, N.J., A.M. Ellison, N.J. Sanders, and R.R. Dunn. 2011. Counting ants (Hymenoptera: Formicidae): biodiversity sampling and statistical analysis for myrmecologists. **Myrmecological News** 15: 13-19.
- Gotelli, N.J., A.M. Smith, A.M. Ellison, and B.A. Ballif. 2011. Proteomic characterization of the major arthropod associates of the carnivorous pitcher plant *Sarracenia purpurea*. **Proteomics** 11: 2354-2358.
- Jenkins, C.N., N.J. Sanders, A.N. Andersen, X. Arnan, C.A. Bruhl, X. Cerda, A.M. Ellison, B.L. Fisher, M.C. Fitzpatrick, N.J. Gotelli, A.D. Gove, B. Guenard, J.E. Lattke, J.P. Lessard, T.P. McGluynn, S.B. Menke, C.L.

- Parr, S.M. Philpott, H.L. Vasconcelos, M.D. Weiser, and R.R. Dunn. 2011. Global diversity in light of climate change: the case of ants. **Diversity and Distributions** 17: 652-662.
- Hart, E.M. and N.J. Gotelli. 2011. The effect of climate change on density-dependent population dynamics of aquatic invertebrates. **Oikos** 120: 1227-1234.

2010

- Gotelli, N.J., G.R. Graves, and C. Rahbek. 2010. Macroecological signals of species interactions in the Danish avifauna. **Proceedings of the National Academy of Sciences, U.S.A.** 107: 530-535. [Science Perspectives by Brian McGill]
- Gotelli, N.J., R.M. Dorazio, A.M. Ellison, and G.D. Grossman. 2010. Detecting temporal trends in species assemblages with bootstrapping procedures and hierarchical models. **Philosophical Transactions of the Royal Society B** 365:3621-3631.
- Ulrich. W. and N.J. Gotelli. 2010. Null model analysis of species associations using abundance data. **Ecology** 91:3384-3397.
- Gotelli, N.J. and W. Ulrich. 2010. The empirical Bayes approach as a tool to identify non-random species associations. **Oecologia** 162:463-477.
- Wittman, S.E., N.J. Sanders, A.M. Ellison, E.S. Jules, J.S. Ratchford, and N.J. Gotelli. 2010. Species interactions and thermal constraints on ant community structure. **Oikos** 119:551-559.
- Buckley, H.L., T.E. Miller, A.M. Ellison, and N.J. Gotelli. 2010. Local- to continental-scale variation in the richness and composition of an aquatic food web. **Global Ecology and Biogeography** 19:711-723.
- Weiser, M.D., N.J. Sanders, D. Agosti, A.N. Andersen, A.M. Ellison, B.L. Fisher, H. Gibb, N.J. Gotelli, A.D. Gove, K. Gross, B. Guenard, M. Janda, M. Kaspari, J-P. Lessard, J.T. Longino, J.D. Majer, S.B. Mencke, T.P. McGlynn, C.L. Parr, S.M. Philpott, J. Retana, A.V. Saurez, H.L. Vasconcelos, S.P. Yanoviak, and R.R. Dunn. 2010. Canopy and litter ant assemblages share similar climate-species density relationships. **Biology Letters** 6:769-772.

2009

- Chao, A., R. K. Colwell, C. W. Lin, and N. J. Gotelli. 2009. Sufficient sampling for asymptotic minimum species richness estimators. **Ecology** 90:1125-1133.
- Colwell, R. K., N. J. Gotelli, C. Rahbek, G. L. Entsminger, C. Farrell, and G. R. Graves. 2009. Peaks, plateaus, canyons, and craters: the complex geometry of simple mid-domain effect models. **Evolutionary Ecology Research** 11:355-370.
- Dunn, R. R., D. Agosti, A. N. Andersen, X. Arnan, C. A. Bruhl, X. Cerda, A. M. Ellison, B. L. Fisher, M. C. Fitzpatrick, H. Gibb, N. J. Gotelli, A. D. Gove, B. Guenard, M. Janda, M. Kaspari, E. J. Laurent, J. P. Lessard, J. T. Longino, J. D. Majer, S. B. Mencke, T. P. McGlynn, C. L. Parr, S. M. Philpott, M. Pfeiffer, J. Retana, A. V. Suarez, H. L. Vasconcelos, M. D.

- Weiser, and N. J. Sanders. 2009. Climatic drivers of hemispheric asymmetry in global patterns of ant species richness. **Ecology Letters** 12:324-333.
- Ellison, A. M. and N. J. Gotelli. 2009. Energetics and the evolution of carnivorous plants: Darwin's 'most wonderful plants in the world'. **Journal of Experimental Botany** 60:19-42.
- Gotelli, N. J., M. J. Anderson, H. T. Arita, A. Chao, R. K. Colwell, S. R. Connolly, D. J. Currie, R. R. Dunn, G. R. Graves, J. L. Green, J. A. Grytnes, Y. H. Jiang, W. Jetz, S. K. Lyons, C. M. McCain, A. E. Magurran, C. Rahbek, T. Rangel, J. Soberon, C. O. Webb, and M. R. Willig. 2009. Patterns and causes of species richness: a general simulation model for macroecology. **Ecology Letters** 12:873-886.
- Lessard, J. P., J. A. Fordyce, N. J. Gotelli, and N. J. Sanders. 2009. Invasive ants alter the phylogenetic structure of ant communities. **Ecology** 90:2664-2669.
- Ulrich, W., M. Almeida-Neto, and N.J. Gotelli. 2009. A consumer's guide to nestedness analysis. **Oikos** 118: 3-17.

2008

- Butler, J.L., N.J. Gotelli, and A.M. Ellison. 2008. Linking the brown and green: Nutrient transformation and fate in the *Sarracenia* microecosystem. **Ecology** 89:898-904.
- Gotelli, N.J., P.J. Mouser, S.P. Hudman, S.E. Morales, D.S. Ross, and A.M. Ellison. 2008. Geographic variation in nutrient availability, stoichiometry, and metal concentrations of plants and pore-water in ombrotrophic bogs in New England, USA. **Wetlands** 28:827-840.
- Gruner, D.S., N.J. Gotelli, J.P. Price, and R.H. Cowie. 2008. Does species richness drive speciation? A reassessment with the Hawaiian biota. **Ecography** 31:279-285.
- Healy, C., N.J. Gotelli, and C. Potvin. 2008. Partitioning the effects of biodiversity and environmental heterogeneity for productivity and mortality in a tropical tree plantation. **Journal of Ecology** 96:903-913.
- Potvin, C. and N.J. Gotelli. 2008. Biodiversity enhances individual performance but does not affect survivorship in tropical trees. **Ecology Letters** 11:217-223. [Science *Editor's Choice* by Andrew Sugden]

2007

- Dunn, R.R., N.J. Sanders, M.C. Fitzpatrick, E. Laurent, J.-P. Lessard, D. Agosti, A. Andersen, C. Bruhl, X. Cerda, A.M. Ellison, B. Fisher, H. Gibb, N. Gotelli, A. Gove, B. Guenard, M. Janda, M. Kaspari, J.T. Longino, J. Majer, T.G. McGlynn, S. Menke, C. Parr, S. Philpott, M. Pfeiffer, J. Retana, A. Suarez, and H. Vasconcelos. 2007. Global ant biodiversity and biogeography - a new database and its possibilities. **Myrmecological News** 10: 77-83.
- Ellison, A.M., S. Record, A. Arguello, and N.J. Gotelli. 2007. Rapid inventory of the ant assemblage in a temperate hardwood forest: Species composition

- and assessment of sampling methods. **Environmental Entomology** 36:766-775.
- Hudman, S.P. and N.J. Gotelli. 2007. Intra- and intersexual selection on male body size are complimentary in the fathead minnow (*Pimephales promelas*). **Behaviour** 144:1065-1086.
- Rahbek, C., N. J. Gotelli, R. K. Colwell, G. L. Entsminger, T. F. L. V. B. Rangel, and G. R. Graves. 2007. Predicting continental patterns of bird species richness with spatially explicit models. **Proceedings of the Royal Society B** 274: 165-174. (supplemental material) [Science *Editor's Choice* by Andrew Sugden]
- Sanders, N.J., N.J. Gotelli, S.E. Wittman, J.S. Ratchford, A.M. Ellison, and E.S. Jules. 2007. Assembly rules of ground-foraging ant assemblages are contingent on disturbance, habitat and spatial scale. **Journal of Biogeography** 34:1632-1641.
- Ulrich, W. and N.J. Gotelli. 2007a. Disentangling community patterns of nestedness and species co-occurrence. **Oikos** 116:2053-2061.
- Ulrich, W. and N.J. Gotelli. 2007b. Null model analysis of species nestedness patterns. **Ecology** 88:1824-1831.

2006

- Gotelli, N. J., and A. M. Ellison. 2006. Food-web models predict species abundance in response to habitat change. **PLoS Biology** 44: e324. (supplemental material) [Science *Editor's Choice* by Andrew Sugden; Nature *News & Views* by Jonathan Shurin]
- Gotelli, N. J. and A. M. Ellison. 2006. Forecasting extinction risk with non-stationary matrix models. **Ecological Applications** 16: 51-61.
- Gotelli, N. J. and B. J. McGill. 2006. Null versus neutral models: what's the difference?. **Ecography** 29: 793-800.
- Morales, S. E., Mouser, P. J., Ward, N., Hudman, S. P., Gotelli, N. J., and T. A. Lewis. 2006. Comparison of bacterial composition and diversity in New England *Sphagnum* bogs using Terminal Restriction Fragment Length Polymorphism (T-RFLP). **Microbial Ecology** 52: 34-44.

2005

- Farrell-Gray, C. C. and N. J. Gotelli. 2005. Allometric exponents support a $\frac{3}{4}$ power scaling law. **Ecology** 86: 2083-2087.
- Wakefield, A. E., N. J. Gotelli, S. E. Wittman, and A. M. Ellison. 2005. Prey addition alters nutrient stoichiometry of the carnivorous plant *Sarracenia purpurea*. **Ecology** 86: 1737-1743.
- Dixon, P.M., A.M. Ellison, and N.J. Gotelli. Improving the precision of estimates of the frequency of rare events. **Ecology** 86: 1143-1123.
- Ratchford, J. S., S. E. Wittman, E. S. Jules, A. M. Ellison, N. J. Gotelli, and N. J. Sanders. 2005. The effects of fire, local environment, and time on ant assemblages in fens and forests. **Diversity and Distributions** 11: 487-497.

Colwell, R.K., C. Rahbek, and N. J. Gotelli. 2005. The mid-domain effect: there's a baby in the bathwater. **American Naturalist** 166: E149-E154.

2004

Gotelli, N.J. 2004. A taxonomic wish-list for community ecology. **Transactions of the Royal Society of London B** 359: 585-597.

Colwell, R.K. C. Rahbek, and N.J. Gotelli. 2004. The mid-domain effect and species richness patterns: what have we learned so far? **American Naturalist** 163: E1-E23.

Ellison, A.M., H.L. Buckley, T.E. Miller, and N.J. Gotelli. 2004. Morphological variation in *Sarracenia purpurea* (Sarraceniaceae): geographic, environmental, and taxonomic correlates. **American Journal of Botany** 91: 1930-1935.

Mouser, P.J., W. Cully Hession, D.M. Rizzo, and N.J. Gotelli. 2004. Hydrology and geostatistics of a Vermont, USA kettlehole peatland. **Journal of Hydrology** 301: 1-17.

2003

Arnett, A.E. and N.J. Gotelli. 2003. Bergmann's Rule in larval ant lions: testing the starvation resistance hypothesis. **Ecological Entomology** 28: 645-650.

Buckley, H.L., T.E. Miller, A.M. Ellison, and N.J. Gotelli. 2003. Reverse latitudinal trends in species richness of pitcher-plant food webs. **Ecology Letters** 6: 825-829.

McCabe, D.J. and N.J. Gotelli. 2003. Caddisfly diapause aggregations facilitate benthic invertebrate colonization. **Journal of Animal Ecology** 72: 1015-1026.

Gotelli, N.J. and G.L. Entsminger. 2003. Swap algorithms in null model analysis. **Ecology** 84: 532-535.

Sanders, N.J., N.J. Gotelli, N.E. Heller, and D.M. Gordon. 2003. Community disassembly by an invasive species. **Proceedings of the National Academy of Sciences, U.S.A.** 100: 532-535.

Ellison, A. M., N. J. Gotelli, J. S. Brewer, J. Kniel, T. E. Miller, L. Cochran-Stafira, A. C. Worley, and R. Zamora. 2003. Carnivorous plants as model ecological systems. **Advances in Ecological Research** 33: 1-74.

2002

Gotelli, N.J. and A.M. Ellison. 2002. Assembly rules for New England ant assemblages. **Oikos** 99: 591-599.

Gotelli, N.J. and A.M. Ellison. 2002. Nitrogen deposition and extinction risk in the northern pitcher plant, *Sarracenia purpurea*. **Ecology** 83: 2758-2765.

Gotelli, N.J. and D.J. McCabe. 2002. Species co-occurrence: a meta-analysis of J.M. Diamond's assembly rules model. **Ecology** 83: 2091-2096.

Gotelli, N.J. and A.M. Ellison. 2002. Biogeography at a regional scale: determinants of ant species density in New England bogs and forests. **Ecology** 83: 1604-1609.

- Ellison, A.M. and N.J. Gotelli. 2002. Nitrogen availability alters the expression of carnivory in the northern pitcher plant, *Sarracenia purpurea*. **Proceedings of the National Academy of Sciences, U.S.A.** 99: 4409-4412.
- Gotelli, N.J. and K. Rohde. 2002. Co-occurrence of ectoparasites of marine fishes: a null model analysis. **Ecology Letters** 5: 86-94.
- Ellison, A.M., E.J. Farnsworth, and N.J. Gotelli. 2002. Ant diversity in pitcher-plant bogs of Massachusetts. **Northeastern Naturalist** 9: 267-284.

2001

- Gotelli, N.J. and G.L. Entsminger. 2001. Swap and fill algorithms in null model analysis: rethinking the Knight's Tour. **Oecologia** 129:281-291.
- Gotelli, N.J. 2001. Research frontiers in null model analysis. **Global Ecology and Biogeography** 10: 337-343.
- Ellison, A.M. and N.J. Gotelli. 2001. Evolutionary ecology of carnivorous plants. **Trends in Ecology and Evolution** 16: 623-629.
- Gotelli, N.J. and R.K. Colwell. 2001. Quantifying biodiversity: procedures and pitfalls in the measurement and comparison of species richness. **Ecology Letters** 4: 379-391.
- Albrecht, M. and N.J. Gotelli. 2001. Spatial and temporal niche partitioning in grassland ants. **Oecologia** 126: 134-141.
- Arnett A.M. and N.J. Gotelli. 2001. Pit-building decisions of larval ant lions: effects of laval age, temperature, food and population source. **Journal of Insect Behavior** 14:89-97.

2000

- Gotelli, N.J. and A.E. Arnett. 2000. Biogeographic effects of red fire ant invasion. **Ecology Letters** 3: 257-261. (**Science news commentary**)
- Gotelli, N.J. 2000. Null model analysis of species co-occurrence patterns. **Ecology** 81: 2606-2621.
- McCabe, D.C. and N.J. Gotelli. 2000. Effects of disturbance frequency, intensity, and area on stream macroinvertebrate communities. **Oecologia** 124: 270-279.
- Arnett, A.E. and N.J. Gotelli. 2000. Geographic variation in body size of the ant lion *Myrmeleon immaculatus*: evolutionary implications of Bergmann's Rule. **Evolution** 53: 1180-1188.

1990s

- Gotelli, N.J. and C.M. Taylor. 1999. Testing metapopulation models with stream-fish assemblages. **Evolutionary Ecology Research** 1: 835-845.
- Gotelli, N.J. and C.M. Taylor. 1999. Testing macroecology models with stream-fish assemblages. **Evolutionary Ecology Research** 1: 847-858.
- Arnett, A.E. and N.J. Gotelli. 1999. Bergmann's Rule in the ant lion *Myrmeleon immaculatus* DeGeer (Neuroptera: Myrmeleontidae): geographic variation in body size and heterozygosity. **Journal of Biogeography** 26: 275-284.
- Gotelli, N.J. 1997. Competition and coexistence of larval ant lions. **Ecology** 78: 1761-1773.

- Gotelli, N.J., N.J. Buckley, and J.A. Wiens. 1997. Co-occurrence of Australian land birds: Diamond's assembly rules revisited. **Oikos** 80: 311-324.
- Moore, J. and N.J. Gotelli. 1996. Evolutionary patterns of altered behavior and susceptibility in parasitized hosts. **Evolution** 50: 807-819.
- Gotelli, N.J. 1996. Ant community structure: effects of predatory ant lions. **Ecology** 77: 630-638.
- Taylor, C.M. and N.J. Gotelli. 1994. The macroecology of *Cyprinella*: correlates of phylogeny, body size, and geographic range. **The American Naturalist** 144: 549-569.
- Moore, J., M. Freehling, and N.J. Gotelli. 1994. Altered behaviour in two blattid cockroaches infected with *Moniliformis moniliformis* (Acanthocephala). **Journal of Parasitology** 80: 220-223.
- Gotelli, N.J. and W.G. Kelley. 1993. A general model of metapopulation dynamics. **Oikos** 68: 36-44.
- Gotelli, N.J. 1993. Antlion zones: causes of high-density predator aggregations. **Ecology** 74: 226-237.
- Graves, G.R. and N.J. Gotelli. 1993. Assembly of avian mixed species flocks in Amazonia. **Proceedings of the National Academy of Sciences, U.S.A.** 90: 1388-1391.
- Gotelli, N.J. and H.R. Spivey. 1992. Male parasitism and intrasexual competition in a burrowing barnacle. **Oecologia** 91: 474-480.
- Gotelli, N.J. and J. Moore. 1992. Altered host behaviour in a cockroach-acanthocephalan association. **Animal Behaviour** 43: 949-959.
- Allely, Z., J. Moore, and N.J. Gotelli. 1992. *Moniliformis moniliformis* has no effect on some behaviors of the cockroach *Diploptera punctata*. **Journal of Parasitology** 78: 524-526.
- Moore, J. and N.J. Gotelli. 1992. *Moniliformis moniliformis* increases cryptic behaviors in the cockroach host *Supella longipalpa*. **Journal of Parasitology** 78: 49-53.
- Gotelli, N.J. 1991. Metapopulation models: the propagule rain, the rescue effect, and the core-satellite hypothesis. **The American Naturalist** 138: 768-776.
- Gotelli, N.J. 1991. Demographic models for *Leptogorgia virgulata*, a shallow-water gorgonian. **Ecology** 72: 457-467.
- Gotelli, N.J. and W.H. Bossert. 1991. Ecological character displacement in a variable environment. **Theoretical Population Biology** 39: 49-62.
- Gotelli, N.J. and M. Pyron. 1991. Life history variation in North American freshwater minnows: effects of latitude and phylogeny. **Oikos** 62: 30-40.
- Gotelli, N.J. 1990. Stochastic models of gregarious larval settlement. **Ophelia** 32: 95-108.
- Gotelli, N.J. and G.R. Graves. 1990. Body size and the occurrence of avian species on land-bridge islands. **Journal of Biogeography** 17: 315-325.

1980s

- Gotelli, N.J. 1988. Determinants of recruitment, juvenile growth and spatial distribution of a shallow-water gorgonian. **Ecology** 69: 157-166.

- Young, C.M. and N.J. Gotelli. 1988. Larval predation by barnacles: effects on patch colonization in a shallow subtidal community. **Ecology** 69: 624-634.
- Gotelli, N.J. and D. Simberloff. 1987. The distribution and abundance of tallgrass prairie plants: a test of the core-satellite hypothesis. **The American Naturalist** 130: 18-35.
- Gotelli, N.J. 1987. Spatial and temporal patterns of reproduction, larval settlement, and recruitment of the compound ascidian *Aplidium stellatum*. **Marine Biology** 94: 45-51.
- Gotelli, N.J., F.G. Lewis, and C.M. Young. 1987. Body-size differences in a colonizing amphipod-mollusc assemblage. **Oecologia** 72: 104-108
- Gotelli, N.J., S.L. Gilchrist, and L.G. Abele. 1985. The population biology of *Trapezia* spp. and other coral-associated decapods. **Marine Ecology Progress Series** 21: 89-98.
- Simberloff, D. and N. Gotelli. 1984. Effects of insularization on plant species richness in the prairie-forest ecotone. **Biological Conservation** 29: 63-80.
- Boecklen, W.J. and N.J. Gotelli. 1984. Island biogeographic theory and conservation practice: species-area or specious-area relationships? **Biological Conservation** 29: 90-111.
- Graves, G.R. and N.J. Gotelli. 1983. Neotropical land-bridge avifaunas: new approaches to null hypotheses in biogeography. **Oikos** 41: 322-333.
- Gotelli, N.J. and L.G. Abele. 1983. Community patterns of coral-associated decapods. **Marine Ecology Progress Series** 13: 131-139.
- Gotelli, N.J. and L.G. Abele. 1982. Statistical distributions of West Indian land bird families. **Journal of Biogeography** 9: 421-435.

BOOK CHAPTERS

- Gotelli, N.J. and R.K. Colwell. 2010. Estimating species richness. pp. 39-54 in: *Biological Diversity: Frontiers In Measurement And Assessment*. A.E. Magurran and B.J. McGill (eds.). Oxford University Press, Oxford. 345 pp.
- Gotelli, N.J. 2004. Assembly Rules. pp. 1027-1035 in: *Foundations of Biogeography: Classic Papers with Commentaries*. M.V. Lomolino, D.F. Sax, and J.H. Brown (eds.). University of Chicago Press, Chicago. 1291 pp.
- Moore, J.K. and N.J. Gotelli. 1990. A phylogenetic perspective on the evolution of altered host behaviours: a critical look at the manipulation hypothesis. pp. 193-233 in: *Parasitism And Host Behaviour*. C.J. Barnard and J.M. Behnke (eds.). Taylor and Francis, Limited.
- Simberloff, D. and N. Gotelli. 1983. Refuge design and ecological theory: lessons for prairie and forest conservation. pp. 66-71 in: *Proceedings of the Eighth International Prairie Conference*. R. Brewer (ed). Western Michigan University.

AUTHORED BOOKS

- Ellison, A.M., N.J. Gotelli, E.J. Farnsworth, G.D. Alpert. 2012. **A Field Guide To The Ants Of New England**. Yale University Press, New Haven, CT.

- Gotelli, N.J. and A.M. Ellison. 2012. **A Primer of Ecological Statistics**. 2nd. Edition. Sinauer Associates, Inc.
- Gotelli, N.J. 2008. **A Primer of Ecology**. Sinauer Associates, Inc., Sunderland, MA. 4th edition. [used by > 50,000 students at > 100 colleges and universities; translated into Portuguese]
- Gotelli, N.J. and G.R. Graves. 1996. **Null Models in Ecology**. Smithsonian Institution Press, Washington, D.C.

SOFTWARE

- Gotelli, N.J. E.M. Hart, and A.M. Ellison. 2014. EcoSimR, 0.1.0. **Null Model Analysis for Ecological Data** (R package).
<https://github.com/GotelliLab/EcoSimR>
- Gotelli, N.J., G.L. Entsminger, C. Rahbek, R.K. Colwell, and G.R. Graves 2007. **BioGeoSim: Biogeography software for ecologists. Version 1.0** Acquired Intelligence, Inc., Kesey-Bear.
- Gotelli, N.J. and G.L. Entsminger. 2000. **EcoSim. Null Models Software for Ecology**. Acquired Intelligence, Inc., Kesey-Bear.

BOOK REVIEWS, COMMENTARIES, & SCIENCE FICTION

- Gotelli, N.J. 2009. How to respond to requests to debate creationists. (submitted by P.Z. Myers). **American Atheist** 47: 10-11.
- Farnsworth, E., A. M. Ellison, and N. J. Gotelli. 2009. EvoSoap. **Nature** 458:938-938.
- Hochberg, M.E., J.M. Chase, N.J. Gotelli, A. Hastings, and S. Naeem. 2009. The tragedy of the reviewer commons. **Ecology Letters** 12: 2-4.
- Gotelli, N.J. 2008. Perspectives in biogeography: Hypothesis testing, curve fitting, and data mining in macroecology. **International Biogeography Society Newsletter** 6: 1-7.
- Hochberg, M.E. and N.J. Gotelli. 2005. An invasions special issue. **TREE** 20: 211.
- Taper, M.L. and S.R. Lele (eds). 2005. *The nature of scientific evidence: statistical, philosophical, and empirical considerations*. **EcoScience** 12: 149-150.
- Scott, J.M., P.J. Heglund, M.L. Morrison, et al. 2003. *Predicting species occurrences: issues of accuracy and scale*. **Auk** 120: 1199-1200.
- Vandermeer, J.H. and D.E. Goldberg. 2003. *Population ecology: first principles*. **Quarterly Review of Biology** 78: 499.
- Gotelli, N.J. 2002. Biodiversity in the scales. **Nature** 419: 575-576.
- Gotelli, N.J. 1999. How do communities come together? **Science** 286: 1684-1685.
- Resetarits, W.J., Jr., and J. Bernardo. 1999. *Experimental ecology: issues and perspectives*. **Bioscience** 49: 829-830.
- Maurer, B.A. 1999. *Untangling ecological complexity: the macroscopic perspective*. **American Zoologist** 24.
- den Boer, P.J. and J. Reddingius. 1998. *Regulation and stabilization paradigms in population ecology*. **Ecology** 79: 354-355.

- Iversen, E.S. 1997. *Living marine resources: their utilization and management*. **Quarterly Review of Biology** 72: 91.
- Grenfell, B.T. and A.P. Dobson. 1996. *Ecology of infectious diseases in natural populations*. **Quarterly Review of Biology** 71: 436.
- Brown, J.H. 1996. *Macroecology*. **The Condor** 98: 669-670.
- Edwards, P.J., R.M. May, and N.R. Webb (eds). 1994. *Large-scale ecology and conservation biology*. **Conservation Biology** 9: 468-469.
- Power, D.M. 1993. Current ornithology, volume 10. **Ecology** 75: 1194.
- Perrins, C.M., J.-D. Lebreton, and G.J.M. Hirons (eds). 1991. *Bird population studies: relevance to conservation and management*. **Ecology** 73: 1931-1932.
- Bakus, G. 1990. *Quantitative ecology and marine biology*. **Quarterly Review of Biology** 67: 382.

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 Rivières, 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

EDITORSHIIPS 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.