Curriculum Vitae
Mercedes Pascual

Department of Ecology and Evolution
University of Chicago
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Academic Training

Postdoctoral, Ecology and Evolutionary Biology, Princeton University, Princeton, NJ (1995-97)

Ph.D, Biological Oceanography, Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program, Woods Hole, MA (1989-95)

M.Sc., Mathematics, New Mexico State University, Las Cruces NM (1987-89)

Second Autumn Course on Mathematical Ecology, International Center for Theoretical Physics, Trieste, Italy (1986)

Visiting Student, Section of Ecology and Systematics, Cornell University, Ithaca, NY (1985-86)

Licenciatura Degree, Biology, Universidad de Ciencias Exactas y Naturales, Buenos Aires, Argentina (1985)

Undergraduate Student, Mathematics, P.U.C. University, Rio de Janeiro, Brazil (1980) and Marine Biology, U.S.U. University, Rio de Janeiro, Brazil (1978-79)

Professional Experience

Professor, Department of Ecology and Evolution, University of Chicago (February 2015 - present)

Rosemary Grant Collegiate Professor, Department of Ecology and Evolutionary Biology, and Center for Computational Biology and Bioinformatics, University of Michigan, Ann Arbor, MI (September 2008 - December 2014)

Investigator, Howard Hughes Medical Institute (September 2008 - November 2015)

Associate Professor, Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI (June 2004 - August 2008)

Assistant Professor, Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI (January 2001- May 2004)

External faculty, Santa Fe Institute, Santa Fe, NM (April 2003 - present)

Invited Professor, Ecole Normale Supérieure, Paris (June 2006 and June 2007)

Adjunct Scientist, Biology Department, WHOI, Woods Hole, MA (1999-2001)

Research Assistant Professor, Center of Marine Biotechnology, University of Maryland Biotechnology Institute, Baltimore, MD (1997-2000)

Affiliated Faculty, Program on Health Effects of Global Environmental Change, Johns Hopkins University, MD (1997-2000)

Affiliate Research Assistant Professor, Department of Zoology, University of Maryland, College Park, MD (1997-1998)

Visiting Scholar, Center of Environmental and Applied Fluid Mechanics, Johns Hopkins University, MD (1997)

Graduate Research Assistant, Biology Department, WHOI, Woods Hole, MA (1989-95)

Awards and Recognition

Board of Directors, the American Association for the Advancement of Science (2015-present)

Fellow of the Ecological Society of America (2015)

Robert H. MacArthur Award of the Ecological Society of America (2014)

Astor Visiting Lectureship, University of Oxford (Oxford) (2013)

Distinguished Lecturer, University of Miami, The Rosenstiel School of Marine and Atmospheric Science (Miami, FL) (2011)

Division R (Evolutionary and Genomic Microbiology) Lecturer, American Society for Microbiology (San Diego, CA) (2010)

Howard Hughes Medical Institute, Investigator (2008)

Collegiate Professor, University of Michigan (2008)

Faculty Recognition Award, University of Michigan (2004)

Fellow of the American Association for the Advancement of Science (2003)

Discover Magazine: Top 50 Women in Science (2003)

James S. McDonnell Centennial Fellowship in Global and Complex Systems (1999-2008)

U.S. Department of Energy Alexander Hollaender Distinguished Postdoctoral Fellowship (1995-97)

Ocean Ventures Fund Award, MIT/WHOI Joint Graduate Program (1991-95)

Manuscripts

Day, K., Y. Artzy, K. Tiedje, V. Rougeron, D. Chen, T. Rask and **M. Pascual**. Evidence of strain structure in *Plasmodium falciparum* Var repertoires in children from Gabon, West Africa, PNAS. (*In revision*).

Rorick, M.M., Y. Artzy-Randrup, S. Ruibal-Pesantez, K.E. Tiedje, T.S. Rask, A. Oduro, A. Ghanshah, K. Koram, K. Day and **M. Pascual**. Signatures of competition and strain structure within blod-stage antigen of *P. falciparum* in a local community in Ghana. *Submitted*).

Du, X., A.A. King, R. Woods and **M. Pascual**. Evolution-informed incidence forecasting of seasonal influenza A (H3N2). (*In preparation*).

Zinder, D., M. Rorick and **M. Pascual**. Conservation of single amino-acid polymorphisms in *Plasmodium falciparum* Erythrocyte Membrane Protein 1 and association with severe pathophysiology. (*In preparation*).

Zinder, D., M. Riolo, R. Woods and **M. Pascual**. Role of competition in the strain structure of rotavirus under invasion and reassortment. (*In preparation*).

Dobson, A.P., D. Alonso, J.K. Peterson, and **M. Pascual**. Emerging vector-borne diseases: potential problems arising from the control of Zika virus. (*In preparation*).

Ngonghala, C.N., G. De Leo, **M. Pascual**, D.C. Keenan, A. Dobson, and M. Bonds. General ecological models for human subsistence, health and poverty. (*in preparation*).

Publications

Pilosof S., M. Porter, **M. Pascual** and S. Kefi. 2017. The multilayer nature of ecological networks. Nature Ecology and Evolution. (*In press*).

Baeza A., M. Santos-Vega, A.P. Dobson and **M. Pascual**. 2017. The rise and fall of malaria under land-use change in frontier regions. Nature Ecology and Evolution. (*In press*).

Perez-Saez J., A.A. King, A. Rinaldo, M. Yunus, A.S.G. Faruque and **M. Pascual**. 2017. Climate-driven endemic cholera is modulated by human mobility in a megacity. Advances in Water Resources. (*In press*).

Baracchini, T., A.A. King, M.J. Bouma, X. Rodó, E. Bertuzzo and **M. Pascual**. 2017. Seasonality in cholera dynamics: A rainfall-driven model explains the wide range of patterns in endemic areas. Advances in Water Resources. (*In press*).

Tiedje K., S. Ruibal-Pesantez, A. Oduro, A. Ghanshah, K. Koram, **M. Pascual** and K. Day. 2017. Spatio-temporal variatio in the epidemiology of asymptomatic *Plasmodium falciparum* infections in Bongo District, Ghana. American Journal of Tropical Medicine and Hygiene. (*In press*).

Martinez P.P., R.C. Reiner, B.A. Cash, X. Rodó, M.S. Mondal, M. Roy, M. Yunus, A.S.G. Faruque, S. Huq, A.A. King and **M. Pascual**. 2017. Cholera forecast for Dhaka, Bangladesh, with the 2016 El Niño: lessons learned. PloS ONE 12(3): e0172355.

Santos-Vega M., M.J. Bouma, V. Kohli and **M. Pascual**. 2016. Population density, climate variables, and poverty synergistically structure spatial risk in urban malaria. PLoS Neglected Tropical Diseases 10(12): e0005155.

Santos-Vega M., P.P. Martinez and **M. Pascual**. 2016. Climate forcing and infectious disease transmission in urban landscapes: integrating demographic and socio-economic heterogeneity. Ann. NY Acad. Sci. 1382(1):44-55.

Martinez, P., A. King, Md. Yunus, A.S.G. Faruque and **M. Pascual**. 2016. Differential and enhanced response to climate forcing in diarrheal disease due to rotavirus across a megacity of the developing world. Proceedings of the National Academy of Sciences USA 113 (15) 4092-4097.

Bouma, M.J., A. Siraj, X. Rodó and **M. Pascual**. 2016. El Niño based malaria epidemic warning for Oromia, Ethiopia, for August 2016 to July 2017. Trop Med Int Health 21(11):1481-1488.

Golubski A.J., E.E. Westlund, J. Vandermeer and **M. Pascual**. 2016. Ecological networks over the edge: hypergraph TMII structure. Trends in Ecology and Evolution 31(5): 344-354.

M. Pascual. 2015. Climate and population immunity in malaria dynamics: harnessing information from endemicity gradients. (Spotlight Article). Trends in Parasitology 31(11): 532534

Siraj, A.S., M.J. Bouma, M. Santos-Vega, A.K. Yeshiwondim, D.S. Rothman, D. Yadeta, P.C. Sutton, **M. Pascual**. 2015. Temperature and population density determine reservoir regions of seasonal persistence in highland malaria. Proceedins of the Royal Society of London B 282: 20151383.

D´Souza, K., B. Epurneau and **M. Pascual**. 2015. Forecasting critical transitions from large perturbation recoveries in feedback ecosystems. PloS One 10(9): e0137779.

Artzy, Y, A. Dobson and **M. Pascual**. 2015. Synergistic, complementary and antagonistic interactions between bednets and vaccines in the control of malaria. Proceedings of the National Academy of Sciences USA 112(10): 3014-3019.

Cash, B., X. Rod, M. Emch, Md. Yunus, A.S.G. Faruque and **M. Pascual**. 2014. Cholera and shigellosis: different epidemiology but similar responses to climate variability. PLoS ONE 9(9): e107223.

Siraj, A. S., M. Santos-Vega, M.J. Bouma, D. Yadeta, D. Ruiz Carrascal and **M. Pascual**. 2014. Altitudinal changes in malaria incidence in highlands of Ethiopia and Colombia. Science 343: 1154. doi: 10.1126/science.1244325.

Artzy, Y. and **M. Pascual**. 2014. Composite temporal strategies in pathogen evolution: balancing invasion and persistence. Theoretical Ecology 7(4): 325-334.

Roy, M., R. Zinck, M.J. Bouma and **M. Pascual**. 2014. Epidemic cholera spreads like wildfire. Nature Scientific Reports 4: 3710.

Baeza A., M. J. Bouma, R. Dhiman and **M. Pascual**. 2014. Malaria control under unstable dynamics: reactive vs. climate-based strategies. Acta Tropica, Special Section on Human Infectious Diseases and Environmental Changes 129: 42-51.

Rorick, M.M., T.S. Rask, E.B. Baskerville, K.P. Day and **M. Pascual**. 2013. Homology blocks of *Plasmodium falciparum* var genes and clinically distinct forms of severe malaria in a local population. BMC Microbiology 13:

Baeza, A., M. J. Bouma, R. C. Dhiman, E. B. Baskerville, P. Ceccato, R.S. Yadav and **M. Pascual**. 2013. Long- lasting transition towards sustainable elimination of desert malaria under irrigation development. Proceedings of the National Academy of Sciences USA 110(37): 15157-15162.

Rodó, X., **M. Pascual**, F. J. Doblas-Reyes, A. Gershunov, D.A. Stone, F. Giorgi, P.J. Hudson, J. Kinter, M. Rodriguez-Arias, N. Stenseth and A.P. Dobson. 2013. Climate change and infectious diseases: Can we meet the needs for better prediction? Climate Change 118(3-4): 625-640.

Cash B., X. Rodó, J. Ballester, M.J. Bouma, A. Baeza, R.C. Dhiman and **M. Pascual**. 2013. Malaria epidemics highlight the influence of the Tropical South Atlantic on the Indian monsoons. Nature Climate Change 3: 502-207.

Roy, M., M.J. Bouma, E. Ionides, R.C. Dhiman and **M. Pascual**. 2013. The potential elimination of *Plasmodium vivax* malaria by relapse treatment: insights from a transmission model and surveillance data from NW India. PLoS Neglected Tropical Diseases 7(1): e1979.

Zinder, D., T. Bedford, S. Gupta and **M. Pascual**. 2013. The roles of competition and mutation in shaping antigenic and genetic diversity in influenza. PLoS Pathogens 9(1): e1003104.

Rorick M.M. and **M. Pascual**. 2013. Influenza protein evolution navigates stability valleys. eLife 2: e00842. (Insight article).

Artzy, Y., M. Rorick, K. Day, D. Chen, A. Dobson, **M. Pascual**. 2012. Population structuring of multi-copy, antigen-encoding genes in *Plasmodium falciparum*. eLife 1: e00093.

Scheffer M., S.R. Carpenter, T.M. Lenton, J. Bascompte, W. Brock, V. Dakos, J. van de Koppel, I. van de Leemput, S. Levin, E.H. van Nes, **M. Pascual** and J. Vandermeer. 2012. Anticipating critical transitions. Science 338(6105): 344-8.

Bedford, T., A. Rambaut and **M. Pascual**. 2012. Canalization of the evolutionary trajectory of the

human influenza virus. BMC Biology 10: 38.

Reiner, R.C., A. King, M. Emch, Md. Yunus, A.S.G. Faruque and **M. Pascual**. 2012. Highly localized sensitivity to climate forcing drives endemic cholera in a megacity. Proceedings of the National Academy of Sciences USA 109(6): 2033-2036.

Baskerville, E., A. Dobson, T. Bedford, S. Allesina and **M. Pascual**. 2011. Spatial guilds in the Serengeti food web revealed by a Bayesian group model. PLoS Computational Biology 7(12): e1002321.

Bouma, M.J., A. Baeza, A. terVeen and **M. Pascual**. 2011. Global malaria maps and climate change: a focus on East African highlands. Trends in Parasitology 27(10): 421-422.

Bush, K.F. *et al.* (20 co-authors). 2011. Impacts of climate change on public health in India: future research directions. Environmental Health Perspect 119(6): 765-70.

Zinck, R., **M. Pascual** and V. Grimm. 2011. Understanding shifts in wildfire regimes as emergent threshold phenomena. The American Naturalist 178: 6.

Baeza, A., M. Bouma, A. Dobson, R. Dhiman and **M. Pascual**. 2011. Climate forcing and epidemic malaria in desert regions of India: the effect of irrigation. Malaria Journal 10: 190.

Bedford, T., S. Cobey and **M. Pascual**. 2011. Strength and tempo of selection revealed in viral gene genealogies. BMC Evolutionary Biology 11: 220.

Pascual, M., M. Roy and K. Laneri. 2011. Simple models for complex systems: exploiting the relationship between local and global densities. Theoretical Ecology 4: 211-222.

Bhadra, A., E.L. Ionides, K. Laneri, **M. Pascual**, M. Bouma, and R.C. Dhiman. 2011. Malaria in Northwest India: Data analysis via partially observed stochastic differential equation models driven by Levy noise. Journal of the American Statistical Association 106: 440-451.

Cobey, S. and **M. Pascual**. 2011. Consequences of host heterogeneity, epitope immunodominance, and immune breadth for strain competition. Journal of Theoretical Biology 270(1): 80-87.

Kefi, S., M. Rietkerk, P.C. de Ruiter, M. Roy, A. Franc, and **M. Pascual**. 2011. General indicators of extinction thresholds in spatial ecologies. Ecology Letters 14: 29-35.

Alonso, D., M. Bouma and **M. Pascual**. 2011. Epidemic malaria and warmer temperatures in recent decades in an East African highland. Proceedings of the Royal Society B 278(1712): 1661-9.

Cobey, S., **M. Pascual**, and U. Dieckmann. 2010. Ecological factors driving the long term evolution of influenza's host range. Proceedings of the Royal Society of London 227(1695): 2803-2810.

Laneri, K., A. Bhadra, E. Ionides, M.J. Bouma, R. Dhiman, R. Yadav and **M. Pascual**. 2010. Forcing vs. feedback: epidemic malaria and monsoon rains in NW India. PLoS Computational Biology 6(9): e1000898.

Artzy, Y., D. Alonso and **M. Pascual**. 2010. Transmission intensity and drug resistance in malaria population dynamics: implications for climate change. PLoS One 5(10): e13588.

Warren, C., **M. Pascual**, K.D. Lafferty, and A. Kuris. 2010. The inverse niche model for food webs with parasites. Theoretical Ecology 3(4): 285-294.

Bedford, T., S. Cobey, P. Beerli and **M. Pascual**. 2010. Global migration dynamics underlie evolution and persistence of human influenza A (H3N2). PLoS Pathogens 6(5): 1-9.

Allesina, S. and **M. Pascual**. 2009. Googling food webs: can an eigenvector measure species' importance for co-extinctions? PLoS Computational Biology 5(9): 1-6.

Chaves, L.F., A. Kaneko, A. Bjorkman, and **M. Pascual**. 2009. Random, top-down or bottom-up co-existence of parasites: malaria population dynamics in multi-parasitic settings. Ecology 90(9): 2414-2425.

Pascual, M., A.P. Dobson, and M.J. Bouma. 2009. Underestimating malaria risk under variable temperatures. PNAS 106(33): 13645-13646.

Allesina, S. and M. Pascual. 2009. Food web models: a plea for groups. Ecology Letters 12(7): 652-662.

Dobson, A., S. Allesina, K. Lafferty and **M. Pascual** (eds.). 2009. Food web assembly and collapse: mathematical models and implications for conservation. Theme Issue. Philosophical Transactions of the Royal Soc. London B. 364(1524): 1643-6.

Pascual, M. and M.J. Bouma. 2009. Do rising temperatures matter? Ecology 90(4): 906-912.

Koelle, K. and **M. Pascual**. 2009. Understanding the dynamics of rapidly evolving pathogens through modeling the tempo of antigenic change: influenza as a case study. Epidemics 1(2): 129-137.

Allesina, S., A. Bodini and **M. Pascual**. 2009. Functional links and robustness in food webs. Philosophical Transactions of the Royal Soc. London B. Theme Issue on Food Web Assembly and Collapse: Mathematical Models and Implications for Conservation 364(1524): 1701:1709.

King, A.A., E.L. Ionides, **M. Pascual**, M.J. Bouma. 2008. Inapparent infections and cholera dynamics. Nature 454(7206): 877-880.

Allesina, S., D. Alonso, and **M. Pascual**. 2008. A general model of food web structure. Science 320: 658-661.

Pascual, M., L.F. Chaves, X. Rodó, B. Cash and Md. Yunus. 2008. Predictability of endemic cholera: the role of climate variability and disease dynamics. Climate Research 136: 131-140.

Lafferty, K. *et al.* (15 authors). 2008. Parasites in food webs: the ultimate missing link. Ecology Letters (Ideas and Perspectives) 11(6): 533-546.

Pascual, M., B. Cazelles, M.J. Bouma, L.F. Chaves, and K. Koelle. 2008. Shifting patterns: malaria dynamics and climate variability in an East African highland. Proc. R. Soc. London B 275(1631): 123-132.

Chaves, L.F., J.M. Cohen, **M. Pascual**, and M. Wilson. 2008. Social exclusion modifies climate and deforestation impacts on a vector-borne disease. PLoS Neglected Tropical Diseases 2(2): 1-8.

Allesina, S. and **M. Pascual**. 2008. Network structure, predator-prey modules, and stability in large food webs. Theoretical Ecology 1: 55-64.

Chaves, L.F., and **M. Pascual**. 2007. Comparing models for early warning systems of neglected tropical diseases. PLoS Neglected Tropical Diseases 1: e33.

Chaves, L.F., M.J. Hernandez, A.P. Dobson, and **M. Pascual**. 2007. Sources and sinks: revisiting the criteria for identifying reservoirs in American Cutaneous Leishmaniasis. Trends in Parasitology 23: 311-316.

Ruiz-Moreno, D., **M. Pascual**, M. Bouma and A. Dobson. 2007. Cholera seasonality and rainfall in historical Madras: epidemic and endemic patterns. EcoHealth 4(1): 52-62.

Aparicio, J. and **M. Pascual**. 2007. Building epidemiological models from R_0: an implicit treatment of transmission in networks. Proc. R. Soc. London B 274: 505-512.

Koelle, K., S. Cobey, B. Grenfell, and **M. Pascual**. 2006. Epochal evolution shapes the phylodynamics of interpandemic influenza. Science 314: 1898-1903.

Alonso D., A. McKane and **M. Pascual**. 2006. Stochastic amplification in epidemics. Journal of the Royal Society Interface 4(14): 575-582.

Koelle, K., **M. Pascual**, and Md. Yunus. 2006. Serotype cycling in cholera dynamics. Proceedings of the Royal Soc. London B 273(1603): 2876-2889.

Peacor, S.D., S. Allesina, R.L. Riolo, and **M. Pascual**. 2006. Phenotypic plasticity opposes species invasion by altering fitness landscape. Public Library of Science (PLoS) Biology 4(11): 2114-2120.

Alonso, D. and **M. Pascual**. 2006. Comment on "A keystone mutualism drives pattern in a power function". Science 313: 1739.

L.F. Chaves and **M. Pascual**. 2006. Climate cycles and forecasts of Cutaneous Leishmaniasis, a non-stationary vector borne disease. Public Library of Science (PLoS) Medicine 3(8): 1320-1328. (See commentary by B. Cazelles and S. Hales, Infectious diseases, climate influences and nonstationarity, p. 1212).

Pascual M., J. Ahumada, L.F. Chaves, X. Rodó and M. Bouma.2006. Malaria resurgence in East African Highlands: temperature trends revisited. Proceedings of the National Academy of Sciences USA 103(15): 5829-5834.

Pascual M., Koelle K. and Dobson A.P. 2006. Hyperinfectivity in cholera: a new mechanism for an old epidemiological model? Public Library of Science (PLoS) Medicine 3(6): 931-932.

Roy, M. and **M. Pascual**. 2006. On representing network heterogeneities in the incidence rate of simple epidemic models. Ecological Complexity 3(1): 80-96.

Altizer, S., A. Dobson, P. Hosseini, P. Hudson, **M. Pascual** and P. Rohani. 2006. Seasonality and the dynamics of infectious diseases. Ecology Letters 9(4): 467-484.

Vandermeer, J. and **M. Pascual**. 2006. Competitive coexistence through intermediate polyphagy. Ecological Complexity 3(1): 37-43.

Pascual, M. and J. Dunne (editors). 2005. Ecological Networks: Linking Structure to Dynamics in Food Webs. (Proceedings of workshop at the Santa Fe Institute). SFI and Oxford University Press.

Pascual, M.. 2005. Computational ecology: from the complex to the simple and back. PLoS Computational Biology 1(2): 101-105.

Koelle, K., X. Rodó, **M. Pascual**, Md. Yunus, and G. Mostafa. 2005. Refractory periods to climate forcing in cholera dynamics. Nature 436(4): 696-700.

Pascual, M. and F. Guichard. 2005. Criticality and disturbance in spatial ecological systems. Trends in Ecology and Evolution 20(2): 88-95.

Pascual, M., and A. Dobson. 2005. Seasonal patterns of infectious diseases. PLoS Medicine 2(1): 18-19 *Invited commentary.*

Palmer M.A. *et al.* (19 co-authors from the ESA Visions Committee). 2005. Ecological Science and Sustainability for the 21st century. Frontiers in Ecology and the Environment 3(1): 4-12.

Koelle, K., **M. Pascual**, and Md. Yunus. 2005. Pathogen adaptation to seasonal forcing and climate change. Proc. R. Soc. London B 272(1566): 971-977. doi:10.1098/rspb.2004.3043.

Boushaba, K. and **M. Pascual**. 2005. Dynamics of the 'echo' effect in a phytoplankton system with

nitrogen fixation. Bulletin of Mathematical Biology 67(3): 487-507.

Cole V.J., R.R. Hood, **M. Pascual**, and D.G. Capone. 2004. Modeling the impact of *Trichodesmium* and nitrogen fixation in the Atlantic Ocean. Journal of Geophysical Research–Oceans 109(C6) (Art n. C06007).

Roy, M., **M. Pascual**, and S.A. Levin. 2004. Competitive coexistence in a dynamic landscape. Theoretical Population Biology 66: 341-353.

Koelle, K. and **M. Pascual**. 2004. Disentangling extrinsic from intrinsic factors in disease dynamics: a nonlinear time series approach with an application to cholera. The American Naturalist 163(6): 901-913.

Coulson, T., P. Rohani, and **M. Pascual**. 2004. Skeletons, noise, and population growth: the end of an old debate. Trends in Ecology and Evolution 19(7): 359-364.

Palmer, M. (and 20 other members of the ESA Visions Committee). 2004. Ecology for a crowded planet. Science 304: 1251-1252.

Harvell, C.D, R. Aronson, N. Baron, J. Connell, A. Dobson, S. Ellner, L. Gerber, K. Kim, A. Kuris, H. McCallum, K. Lafferty, B. McKay, J. Porter, **M. Pascual**, G. Smith, K. Sutherland, J. Ward. 2004. The rising tide of ocean diseases: unsolved problems and research priorities. Frontiers in Ecology 2(7):375-382.

Roy M., **M. Pascual** and A. Franc. 2003. Broad scaling region in a spatial ecological system. Complexity 8(5): 19-27.

Pascual, M. and P. Mazzega. 2003. Quasicycles revisited: apparent sensitivity to initial conditions. Theoretical Population Biology 64(3): 385-395.

Rodó, X., **M. Pascual**, G. Fuchs, and S. Faruque. 2002. ENSO and cholera: a nonstationary link related to climate change? Proceedings of the National Academy of Sciences 99(20): 12901-12906.

Pascual, M., M. Roy, and A. Franc. 2002a. Simple models for ecological systems with complex spatial patterns. Ecology Letters 5: 412-419.

Pascual, M., M.J. Bouma, and A. Dobson. 2002. Cholera and climate: revisiting the quantitative evidence. Microbes and Infection 4: 237-245.

Pascual, M., M. Roy, F. Guichard, and G. Flierl. 2002b. Cluster size distributions: signatures of self-organization in spatial ecologies. Philosophical Transactions of the Royal Society of London B 357: 657-666.

J.S. Clark, S.R. Carpenter, M. Barber, S. Collins, A. Dobson, J.A. Foley, D.M. Lodge, **M. Pascual**, P. Pielke Jr., W. Pizer, C. Pringle, W.V. Reid, K.A. Rose, O. Sala, W.A. Schlesinger, D.H. Wall, D. Wear. 2001. Ecological forecasts: an emerging imperative. Science 293: 657-660.

Bouma, M.J., and **M. Pascual**. 2001. Contributions of climate and geography to seasonal and interannual cycles of endemic cholera in Bengal 1891-1940. Hydrobiologia (Special Edition on 'Diseases in the Ocean') Hydrobiologia 460: 147-156.

Pascual, M., P. Mazzega, and S. Levin. 2001. Oscillatory dynamics and spatial scale in ecological systems: the role of noise and unresolved pattern. Ecology 82(8): 2357-2369.

Pascual, M. and S.P. Ellner. 2000. Linking ecological patterns to environmental forcing via non-linear time series models. Ecology 81(10): 2767-2780.

Pascual, M., X. Rodó, S.P. Ellner, R. Colwell and M.J. Bouma. 2000. Cholera dynamics and the

El Niño Southern Oscillation. Science 289(5485): 1766.

Pascual, M. and S.A. Levin. 1999. From individuals to population densities: searching for the intermediate scale of nontrivial determinism. Ecology 80(7): 2225-2236.

Pascual, M. and S.A. Levin. 1999. Spatial scaling in a benthic population model with density-dependent disturbance. Theoretical Population Biology 56: 106-122.

Pascual, M. and H. Caswell. 1997. From the cell cycle to population cycles in phytoplankton-nutrient interactions. Ecology 78(3): 897-912.

Pascual, M. and H. Caswell. 1997. Environmental heterogeneity and biological pattern in a chaotic predator-prey system. Journal of Theoretical Biology 185: 1-13.

Little, S.A., S. Ellner, **M. Pascual**, M. Neubert, D.T. Kaplan, T. Sauer, A. Solow, and H. Caswell. 1996. Detecting nonlinear dynamics in spatio-temporal systems: examples from ecological models. Physica D 96: 321-333.

Pascual, M., F.A. Ascioti, and H. Caswell. 1995. Intermittency in the plankton: a multifractal analysis of zooplankton biomass variability. Journal of Plankton Research 17: 1209-1232.

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Pascual, M. 1993. Diffusion-induced chaos in a spatial predator-prey system. Proceedings of the Royal Society of London B 25: 1-7.

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Chapters

Bouma, M.J., and **M. Pascual**. Global warming and malaria in tropical highlands – An estimation of Ethiopias 'unmitigated' annual malaria burden in the 21st century *In C. Butler, Ed.* Climate Change and Global Health, CABI. 2014.

Pascual, M. and J. Dunne. 2005. From small to large networks in a dynamic world. *In* M. Pascual and J. Dunne (eds.). Ecological networks: linking structure to dynamics in food webs. SFI and Oxford University Press.

Pascual, M., J. Dunne, and S.A. Levin. 2005. Challenges for the future *In* M. Pascual and J. Dunne (eds.). Ecological networks: linking structure to dynamics in food webs. SFI and Oxford University Press.

Ruiz-Moreno D., **M. Pascual**, and R. Riolo. 2005. Exploring network space with genetic algorithms: modularity, resilience, and reactivity. *In* M. Pascual and J. Dunne (eds.). Ecological networks: linking structure to dynamics in food webs. SFI and Oxford University Press.

Peacor S., R.L. Riolo, and **M. Pascual**. 2005. Phenotypic plasticity and species coexistence: modeling food webs as complex adaptive systems. *In* M. Pascual and J. Dunne (eds.). Ecological networks: linking structure to dynamics in food webs. SFI and Oxford University Press.

Dobson A., S. Kutz, **M. Pascual**, and R. Winfree. 2003. Pathogens and parasites in a changing climate. *In* L. Hannah and T. Lovejoy (eds.), Climate Change and Biodiversity: Synergistic Impacts. Advances in Applied Biodiversity Science 4. Conservation International, Washington DC.

Pascual, M. 2001. Scales that matter: untangling complexity in ecological systems. *In* Carving Our Destiny: Scientific Research Faces a New Millennium. Commemorative volume, James S. McDonnell Centennial Fellowships, NAS and Joseph Henry Press.

Deutschman, D., G.A. Bradshaw, W.M. Childress, K. Daly, D. Grunbaüm, **M. Pascual**, and J. Wu. 1993. Mechanisms of patch formation, pp. 184-209. *In* Levin, S.A., T. Powell, and J.H. Steele (eds.), Patch Dynamics, Lecture Notes in Biomathematics, Springer-Verlag, New York.

Teaching

Mathematical Models of Climate Variability, Environmental Change and Infectious Diseases (co-organizer). The International Center for Theoretical Physics (ICTP), Trieste, Italy, 2017.

Biological Systems BIOS 20235, University of Chicago (Winter quarter 2016 and 2017)

Lecturer (and co-organizer), School on Pathogen Dynamics, Climate and Global Change. International Center for Theoretical Physics- South American Institute for Fundamental Research (ICTP-SAIFR), Sao Paulo, Brazil.(January 2015)

Lecturer (and co-organizer), Workshop on Mathematical models of Climate Variability, Environmental Change and Infectious Diseases, sponsored by the International Center for Theoretical Physics (ICTP), Trieste, Italy (May 2013).

Lecturer (and co-organizer), School on Mathematical Models of Infectious Diseases sponsored by the International Center for Theoretical Physics (ICTP, Trieste), Arusha, Tanzania (January 2012).

Lecturer (and co-organizer), Theoretical Ecology course, International Center for Theoretical Physics, Trieste, Italy (March 2009).

Lecturer, Complex Systems Summer School, sponsored by the Santa Fe Institute, Bariloche, Argentina (December 2008).

Population and Community Ecology, Department of Ecology and Evolutionary Biology, University of Michigan (Fall 2006).

Population Dynamics, Department of Ecology and Evolutionary Biology, University of Michigan (2001-2005).

The Ecology and Evolution of Diseases, Department of Ecology and Evolutionary Biology and Program in the Environment, University of Michigan (2003-2007).

Graduate Teaching Assistant, Mathematics Learning Center, New Mexico State University (1988-1989).

Graduate Teaching Assistant (Field Ecology, Introductory Biology Laboratory), Department of Biology, New Mexico State University (1987-88).

Course Assistant, Marine Ecology Course, Marine Biological Laboratory, Woods Hole, MA (Summer 1986).

Membership in Professional Societies

The Ecological Society of America

The American Association for the Advancement of Science

Society for Industrial and Applied Mathematics

Invited Seminars

2017

University of Illinois, Urbana-Champaign, IL.

2016

UC Santa Cruz, Climate and Science Policy Conference 2016, Earth's Climate Future: Uncharted Territory, Santa Cruz, CA.

Columbia University, New York, NY.

Harvard University, Boston, MA.

Conference on Mathematical Modeling and Control of Communicable Diseases, Rio de Janeiro, Brasil. (Plenary).

2015

Epidemics[5], Fifth International Conference on Infectious Disease Dynamics, FL (Plenary).

MacArthur Lecture, Annual meeting of the Ecological Society of America, Baltimore, MD. (Plenary).

Human Health in the Face of Climate Change, The New York Academy of Sciences, Barcelona, Spain. (Plenary).

Impact of environmental changes on infectious diseases (IECID), Sitges, Spain. (Plenary).

Impacts of climate change on ecosystem services. Politecnico di Milano, Italy. (Plenary).

2014

Santa Fe Institute, Santa Fe, NM.

University of Chicago, Chicago, IL.

University of California Davis (Major Issues in Modern Biology), Davis, CA.

2013

Oxford University, Astor Lectureship Seminar, Oxford, UK.

Institut Pasteur, Statistical and Mathematical Modeling in Biological Applications, Paris.

Indian Institute of Technology, Gandhinagar, Gujarat.

Cornell University, Ithaca, NY.

Yale University (Forum on the Integration of Climate Science and Infectious Disease), New Haven, CT.

Penn State University, University Park, PA.

2012

EEID 10th Annual Conference at University of Michigan, Ann Arbor, MI.

Fall Meeting of the American Geophysical Union, San Francisco, CA.

Institut Pasteur and Fondation Prince Albert II de Monaco, Environmental changes and impacts on human health, Monaco.

University of Tennessee (Baker Center Interdisciplinary Forum on Environmental Policy), Knoxville, TN.

Mathematical Biosciences Institute, Columbus, OH.

Fiocruz - Fundao Instituto Oswaldo Cruz, Observatory on Climate and Health, Rio, Brazil.

The Great Lakes Bioinformatics Conference, Ann Arbor, MI.

The 12th Conference on experimental chaos and complexity, Ann Arbor, MI.

2011

Denver University, Denver, CO.

Universidad de los Andes (Latin American Congress of Parasitology), Bogota, Colombia.

University of California Santa Barbara, EEID (Ecology and Evolution of Infectious Diseases) Meeting, Santa Barbara, CA.

ASLO (American Society of Limnology and Oceanography), Ecology of Marine Infectious Diseases (EMID) Workshop, San Juan, Puerto Rico.

2010

University of Miami, The Rosenstiel School of Marine and Atmospheric Science (2010-2011 Distinguished Lecturer), Miami, FL.

Cornell University, EEID (Ecology and Evolution of Infectious Diseases) Meeting, Ithaca, NY.

ASM (American Society for Microbiology) Annual Meeting, Division R (Evolutionary and Genomic Microbiology) Lecturer, San Diego, CA.

Harvard University, Boston MA.

2009

Institut Catala de Ciencies del Clima Scientific Advisory Board (IC3R), Barcelona, Spain.

Duke University, NC.

University of Amsterdam, Amsterdam, The Netherlands.

Centennial Fellows 10 Year Reunion Conference, J.S. McDonnell Foundation, St. Louis, MO.

2008

EcoHealth, Biennial meeting, Merida, Mexico (plenary).

National Institute of Malaria Research, Delhi, India.

University of California, Santa Barbara, CA.

Oxford University, Oxford, UK.

Princeton University, Princeton, NJ.

2007

University of Chicago, Chicago, IL.

Princeton University, Princeton, NJ.

Brown University, Providence, RI.

The Santa Fe Institute, Santa Fe, NM.

Graham Environmental Sustainability Institute, University of Michigan, Ann Arbor, MI.

Harvard University, Cambridge, MA.

Yale University, New Haven, CT.

2006

Science Museum, Barcelona, Spain.

Ecole Normale Supérieure, Paris, France.

2005

Columbia University, New York, NY.

Kellogg Biological Station, Michigan State University, MI.

Massachusetts Institute of Technology, Department of Civil and Environmental Engineering, Boston, MA.

Scripps Institution of Oceanography, Conference on The Future of Biodiversity (plenary speaker),

San Diego, CA.

University of California San Diego, Section of Ecology, Behavior and Evolution, San Diego, CA.

2004

National Institute of Health, 5^{th} Annual NIH Hispanic Scientist Day, Bethesda, MD.

Santa Fe Institute, 2004 Public Lecture Series, Santa Fe, NM.

Princeton Environmental Institute, Princeton, NJ.

2003

University of Chicago, Department of Ecology and Evolution, Chicago, IL.

Cornell University, Center for Applied Mathematics, Ithaca, NY.

Pennsylvania State University, Biology Department, University Park, PA.

2002

UCLA, Department of Biomathematics, Los Angeles, CA.

Gordon Conference in Mathematical Biology, NH.

21st Century Initiative Meeting, McDonnell Foundation, Tarrytown, NY.

2001

Isaac Newton Institute, Cambridge, England.

2000

Scripps Institution of Oceanography, University of California, San Diego, CA.

Massachusetts Institute of Technology, Department of Civil and Environmental Engineering, Boston, MA.

Florida State University, Department of Biological Sciences, Tallahassee, FL.

Emory University, Department of Environmental Studies, Atlanta, GA.

University of Michigan, Department of Biology, Ann Arbor, MI.

University of Washington, Department of Zoology, Seattle, WA.

University of Oxford, Department of Zoology, Oxford, England.

Yale University, Department of Ecology and Evolutionary Biology, New Haven, CT.

University of North Carolina, Department of Marine Sciences, Chapel Hill, NC.

Boston University, Department of Biology, Boston, MA.

1999

Institute of Global Environment and Society, Center for Ocean-Land-Atmosphere Studies, Calverton, MD.

Massachusetts Institute of Technology, Department of Earth, Atmospheric, and Planetary Sciences, Boston, MA.

University of Utah, Department of Biology and Dept. of Mathematics, Salt Lake City, UT.

National Academy of Sciences, James S. McDonnell Foundation Centennial Fellowship Symposium, Washington D.C.

Laboratoire d'Etudes en Geophysique et en Océanographie Spatiales, Toulouse, France.

University of Minnesota, Institute for Mathematics and its Applications, Minneapolis, MN.

University of California, Department of Ocean Sciences, Santa Cruz, CA.

University of Florida, Department of Zoology, Gainesville, FL.

1998-1997

Center for Coastal Physical Oceanography, Norfolk, VA.

Johns Hopkins University, Center for Environmental Fluid Dynamics, Baltimore, MD.

University of Maryland, Department of Biology, College Park, MD.

Woods Hole Oceanographic Institution, Sloan Foundation lecture series on Limits to Knowledge in Oceanography, Woods Hole, MA.

1996-1995

University of Maryland Biotechnology Institute, Center of Marine Biotechnology, Baltimore, MD.

University of Rhode Island, Graduate School of Oceanography, Narragansett, RI.

Princeton University, Department of Ecology and Evolutionary Biology, Princeton, NJ.

1994-1993

Oregon State University, Zoology Department, Corvallis, OR.

Summer Institute for Geophysical Fluid Dynamics, Bio-Physical Models of Oceanic Population Dynamics, Woods Hole, MA.

Yale University, Seminar Series on Nonlinear Dynamics and Computational Ecology, New Haven, CT.

Professional Service

Member, Strategic Advisory Committee, Biological Sciences Division, UC (2016-present).

Faculty working group on Shared Administrative Services, UC (2017).

Participant, Burroughs Wellcome Fund, meeting on interdisciplinary training (2016).

Chair, Committee for the review of graduate courses in quantitative biology, UC (2015).

Chair, Science Board (2016-present) and member, Science Steering Committee (2012-present), Santa Fe Institute (SFI), NM.

Member, Board of Directors, American Association for the Advancement of Science (AAAS), (2015-present).

Advisory Board, Complex Systems, James S. McDonnell Foundation (2005-present).

Science advisory board, Institut Catala de Ciencies del Clima (IC3), Barcelona, Spain (2008-2014).

Panel Member, NSF Ecology of Infectious Diseases (2006, 2014).

Participant, Consultation on Multisectoral Action Framework for Malaria, World Health Organization, WHO, Geneva (2013).

Participant, external review, The International Research Institute for Climate and Society (IRI), Columbia University (2013).

Chair, Cluster Faculty Search on 'Networks and Diversity' (UM 2011).

Chair, Faculty Search committee for joint position (Ecology and Evolutionary Biology and Center for the Sudy of Complex Systems) (2009).

Advisory Panel, OHHI (Oceans and Human Health Initiative), NOAA (2006-2012).

Co-organizer of NSF Workshop on Theoretical Biology. (2006).

Chair, Faculty Search committee for Ecology position (2004).

Chair of the Theoretical Section of the Ecological Society of America (2003-04).

Vice Chair of the Theoretical Section of the Ecological Society of America (2002-03)

Member of the Visions Committee of the Ecological Society of America (2003-04).

Co-chair of special sessions/symposia at scientific meetings: 'Climate and Disease: Quantitative Insights and Interdisciplinary Challenges' (AAAS 2007); The assembly and disassembly of ecological networks' (ESA 2007) ; 'The rising tide of ocean plagues' (AAAS 2006); 'Death of determinism? Noise in a nonlinear world' (ESA 2003); 'New developments in marine and freshwater epidemiology' (ASLO 1999); 'Long term time series in ecology: novel approaches for a new synthesis' (INTECOL 1998).

Scientific Committee, Second International Conference on Mathematical Ecology, Alcala de Henares, Spain (2003).

Executive committee member: Department of Ecology and Evolutionary Biology, University of Michigan (fall 2001-2003).

Executive committee member: Center for the Study of Complex Systems, University of Michigan (spring 2001-present).

Editorial board (academic editor): eLife, PLoS Computational Biology, Theoretical Ecology, and Ecohealth (current). Subject-matter editor, Ecological Letters (January 2001-2004).

Member of the National Academy of Sciences/National Research Council Committee on Strengthening the Linkages between the Sciences and the Mathematical Sciences (1998).

Journal Article Reviews (within last five years): PLoS Medicine; PLoS Neglected Tropical Diseases; Proceedings of the Royal Society B; Proceedings of the Royal Society Interface; BioMedCentral Ecology; American Naturalist; Frontiers in Ecology and the Environment; Ecology; Theoretical Population Biology; Geophysical Research Letters; Journal of Mathematical Biology; Proceedings of the National Academy of Sciences; Nature; Nature Climate Change; Acta Tropica; Mathematical Biosciences.

Book Reviews: Bulletin of Mathematical Biology; Princeton University Press; Oxford University Press.

Proposal Reviews (within the last five years): NSF-NIH Panel on the Ecology of Infectious Diseases (EID); Climate Change and Health (CCH) Special Emphasis Panel (SEP), NIH.

Workshops/Working Groups

Cities, Climate Forcing and Infectious Disease Dynamics (organizer). The University of Chicago Center in Delhi, Delhi, India, 2016.

Land Use Change and Infectious Disease Dynamics (working group). The National Socio-Environmental Synthesis Center (SESYNC). Annapolis, MD. 2014.

Land Use Change and Infectious Disease Dynamics (working group). National Center for Ecological Analysis and Synthesis (NCEAS). Santa Barbara, CA. 2013.

Challenges in Modeling the Spatial and Temporal Dimensions of the Ecology of Infectious Diseases. Mathematical Biosciences Institute, Columbus, OH. 2012.

Spatial Models of Micro and Macro Systems. Mathematical Biosciences Institute, Columbus, OH. 2012.

Theory and models for infectious disease dynamics: from the land to the sea. Ecology of Marine Infectious Diseases (EMID) Workshop. San Juan, Puerto Rico. 2011.

Climate and Disease (co-organizer). Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), Rutgers, NJ. 2008.

Parasites and Food Webs (co-director of working group). National Center for Ecological Analysis and Synthesis. Santa Barbara, CA. 2007-2010.

Models of Emergent Behavior in Complex Adaptive Systems. Santa Fe Institute (SFI) and ICAM. Santa Fe, NM. 2007.

Linking Structure and Dynamics in Complex Ecological Networks (co-director). Santa Fe Institute. Santa Fe, NM. 2004.

Seasonality and the Population Dynamics of Infectious Diseases (co-director of working group). National Center for Ecological Analysis and Synthesis. Santa Barbara, CA. 2003-2004.

Global Change and Infectious Disease. National Center for Ecological Analysis and Synthesis (working group). Santa Barbara, CA. January 2004.

The Spatial Dynamics of Diseases. National Center for Ecological Analysis and Synthesis (working group). Santa Barbara, CA. 2000-2001.

Ecological Forecasting. National Center for Ecological Analysis and Synthesis (working group). Santa Barbara, CA. 2001.

Macroscopic Organisation from Microscopic Behavior in Immunology, Ecology, and Epidemiology. Newton Institute, Cambridge, England. 2001.

Robustness in Ecological and Biological Systems (co-organizer) Center for the Study of Complex Systems, UM, Ann Arbor, MI. 2001.

Ocean Carbon Transport, Exchanges and Transformations (OCTET). Washington DC. 2000.

Health, Climate, and Infectious Disease: a Global Perspective. American Academy of Microbiology, Tucson, AZ. 1999.

Mixing and Reactive Turbulence. National Center for Atmospheric Research, Boulder, CO. 1999.

Climate and Health Diagnostic Workshop. NOAA, North Falmouth , MA. 1999.

From Individual to Aggregation: Modelling Animal Grouping. Institute for Mathematics and its Applications, Minneapolis, MN. 1999.

The Ecology and Evolution of Biodiversity. Princeton University, Princeton, NJ. 1997.

Climate Variability and Human Health: An Interdisciplinary Perspective. American Academy of Microbiology, Montego Bay, Jamaica. 1997.

Exploring Nonlinearities in Simple Plankton Models. ONR University Research Initiative Program. University of California, Berkeley. 1996.

Ecomachines and Spatial Modeling in Ecology and Biology. Santa Fe Institute. Santa Fe, NM. 1996.

Nonlinear Data Analysis in Marine Ecology. ONR University Research Initiative Program. Woods Hole, MA. 1994.

Biological/Physical Modelling of Upper Ocean Processes. ONR University Research Initiative Program. Woods Hole, MA. 1993.

Student and Postdoctoral Mentoring

Gregory Foakes (graduate student, EE, fall 2016-present);
Victoria Romeo Aznar (postdoc,EE, fall 2016-present);
Oscar Mauricio Santos Vega (graduate student, EE, fall 2013-present);
Pamela Martinez (graduate student, EE, fall 2012-present);
Qixin He (postdoc, EE, spring 2015-present);
Xiangjun Du (postdoc, EE, fall 2014-present);
Shai Pilosof (postdoc, EE, fall 2015-present);
Mary (Molly) Rorick (postdoc, HHMI, fall 2011-spring 2015);
Daniel Zinder (graduate student, Bioinformatics, fall 2010-fall 2015; at present: postdoc, University of Chicago);
Robert Woods (postdoc, UM Medical School, spring 2012-fall 2014; at present: faculty member, UM Medical School);
Robert Reiner (postdoc, EEB, spring 2010-summer 2011; at present: Assistant Professor, Indiana University);
Richard Zinck (postdoc, EEB, winter 2010-spring 2011; at present: private sector);
Trevor Bedford (postdoc, HHMI, fall 2008-summer 2011; at present: Assistant Professor, Fred Hutchinson Cancer Center, University of Washington, Seattle, WA);
Andres Baeza (graduate student, EEB, fall 2008-2013; at present: postdoc, ASU);
Ed Baskerville (graduate student, EEB, fall 2008-2013; at present: data/software engineer, Mt Sinai Medical School);
Karina Laneri (postdoc, EEB, winter 2008-2010; at present: Investigator, Statistics Group, Balseiro Institute, Argentina);
Yael Artzy (postdoc, HHMI, winter 2008-2013; at present: Assistant Professor, University of Amsterdam, Amsterdam, The Netherlands);
Sarah Cobey (graduate student, EEB, fall 2004-2009; at present: Assistant Professor, University of Chicago);
Diego Ruiz-Moreno (graduate student, EEB, fall 2004-2009; at present: private sector);
Luis Fernando Chaves (graduate student, EEB, fall 2004-winter 2008; at present: Assistant Professor, Nagasaki University, Nagasaki, Japan);
Katia Koelle (graduate student, EEB, fall 2002-fall 2005; at present: Professor, Duke University),
David Alonso (postdoc, EEB, winter 2003-summer 2007; at present: Ramon and Cajal Fellow, CSIC, Spain);
Stefano Allesina (postdoc, EEB, 2005-summer 2007; at present: Professor, University of Chicago);
Christopher Warren (postdoc, EEB, Fall 2003-December 2004; at present: Research Fellow at Mayo Clinic);
Khalid Boushaba (postdoc, EEB, September 2001 - August 2003; at present: Research Scientist, Johns Hopkins University);
Manojit Roy (postdoc, EEB, 2000-December 2003; at present: Consultant).

Selected Outreach / Radio and Press Coverage

2016: Interview in newspaper O Globo (Rio de Janeiro, Brasil). **2014:** Malaria climbs mountains as the climate warms: Time; Malaria cases could rise with temperatures, study says: Newsweek; Malaria spreading to new altitude': BBC; Climate change could mean more malaria in Africa, South America: Reuters, Chicago Tribune; As temperatures rise, Malaria will invade higher elevations: Smithsonian; Millions potentially at risk for this: The Weather Channel; Malaria on the move as temperatures warm: study: The Times of India; Global warming amplifying malaria risk: Channel NewsAsia; Climate change may increase the risk of malaria: Business Standard; Global warming increases the spread of malaria in mountainous regions: Noticias Mundo Los Angeles, Fox TV Spanish; Climate change multiplied cases of malaria in Africa and South America: La Vanguardia; Climate change spreads malaria to higher ground: El Tiempo; **2013: (1):** Malaria dogs newly irrigated areas for a decade: scidev.net; Irrigating arid regions in Gujarat increased malaria risk for a decade: ANI (Asian News International); Business Standard; Think India Foundation; News Medical; Med India; Yahoo News India; Global Malaria News (Malaria World); **(2):** India should look to Atlantic for increased malaria risk: research: The China Post; Topix; I4U News; Ocean temperatures give early warning of Indian malaria: Reuters; South Atlantic Ocean temperatures can predict India malaria epidemics: Livemint; The Wall Street Journal; Hindustan Times; The Telegraph; South Atlantic's low temperature enhances malaria risk in India: TopNews New Zealand; Cooler South Atlantic causes malaria rise in India: The Times of India; Atlantic warming points to malaria risk in India: The Economic Times; Channel News Asia; NY Daily News; The Hindu; Yahoo! News UK; **2012:** BBC News (report on influenza) **2011:** Understanding Shifts in Wildfire Regimes as Emergent Threshold Phenomena: German Public Radio; **2010:** Flu doesn't die out, it hides out: U.S. News & World Report; U.S. Department of Health and Human Services; Science Daily; Reuters; Post Chronicle; MSNBC; India Times; Health Care Weekly Review; Centre For Infectious Disease Research and Policy. **2009:** The New York Times Magazine (The 9th Annual Year in Ideas); BBC; Discovery News; Australian Broadcasting Corporation (ABC News); ABC Radio National, The Health Report; Inter Press Service (IPS); La Jornada (Mexico City); SciDvNet; Scientific American; **2007:** La Nación (Argentinian newspaper); cholera research featured in exhibit on Climate Change at The Museum of Zoology (UM); Spanish TV; **2006:** Time Magazine (Special issue on global climate change); BBC News; BBC Spanish; United Press International, Daily India, Madrid Newspaper ABC, Folha de Sao Paulo, La Vanguardia (Barcelona). **2005:** BBC Word Series; Radio 10 (Argentina); LA Times. **2003:** Detroit Free Press; Discover Magazine; Earthwatch Radio. **2002:** The Todd Mundt Show (NPR, MI); Ann Arbor News; Folha de Sao Paulo. **2000:** Baltimore Sun.