

CURRICULUM VITAE

JOHN H. VANDERMEER

Asa Gray Distinguished University Professor

Arthur F. Thurnau Professor

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Academic and Professional Experience

Visiting scholar, Centre D'Ecolgie Fontionelle y Evolutive, CNRS, Montepellier, France
2012.

Senior Fellow, Michigan Society of Fellows, University of Michigan, 2010 – present

Asa Gray Distinguished University Professor of Ecology and Evolutionary Biology,
University of Michigan, 2009 – present.

Professor of Natural Resources and Environment (Courtesy Appointment) 2003- present.

Margaret Davis Collegiate Professor of Ecology and Evolutionary Biology, University of Michigan, 2002 - 2009.

Arthur F. Thurnau Distinguished Professor, University of Michigan 1994 - present.

Faculty Associate, Program in American Culture, University of Michigan, 1994 - present.

Faculty Associate, Michigan Center for Theoretical Physics, University of Michigan, 2001 – present

Faculty Associate, Center for the Study of Complex Systems, University of Michigan, 2000 – present.

Faculty Associate, Program in Latin American and Caribbean Studies, University of Michigan, 1993 - present.

Acting Chair, Department of Ecology and Evolutionary Biology, Sept 2006 –June 2007

Visiting Professor, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, 2004.

Fullbright Scholar, Department of Ecological Agriculture, Wageningen Agricultural University, the Netherlands, 1996-1997.

Sokal Scholar, University of Michigan, 1996-1997.

Visiting professor, University of Central America, Managua, Nicaragua, August, 1994

Visiting Professor, Centro de Investigaciones Ecologicas del Sureste, Chiapas, Mexico. January, 1991.

Collegiate Fellow, University of Michigan, 1989 - 1990.

Coordinator for field course, *Agroecología*, Organization for Tropical Studies, Costa Rica, summers, 1988, 1989.

Visiting Professor of Agroecology, Instituto Superior de Ciencias Agropecuarias (ISCA), Managua, Nicaragua, 1986-1987.

Fullbright Scholar, Instituto Superior de Ciencias Agropecuarias, Nicaragua, 1986-1987.

Chair, Department of Ecology and Evolutionary Biology, University of Michigan, 1985-1986.

Visiting Professor -- Autonomous University of Nicaragua, March 1984.

Full Professor of Biology, University of Michigan, 1981 - present.

EVIST Fellow, Interdisciplinary Incentive Award NSF, 1981.

Visiting lecturer , Colegio Superior de Agricultura Tropical, Tabasco, Mexico, 1978.

Associate Professor of Biology, University of Michigan, 1974-1981.

Visiting scientist , INPA, Manaus, Brazil, 1974.

Professor in special seminar for professors of Latin American Universities, Turrialba, Costa Rica, 1971.

Assistant Professor of Zoology, U. of Michigan, 1970-1974.

Visiting Scholar, Princeton University, 1969.

Assistant Professor of Biology, SUNY, Stonybrook, N.Y., 1969-1970.

Coordinator, full-time faculty, visiting scientist, various courses, Organization for Tropical Studies, 1969-1999.

Post Doctoral Fellow: Sloan Foundation, University of Chicago, 1969.

Grants and Awards

Rackham Faculty Research Grant (Laboratory Studies of the ecology of *Paramecium*) \$5000, 1972-1973.

Rackham Faculty Research Grant (Demographic studies of *Welfia georgii* and *Socratea durriissima* in Costa Rica) \$5000, 1974.

National Science Foundation (Ecology) Demography of *Welfia georgii* in Costa Rica) \$50,000, 1975-1977.

National Science Foundation (International Program) (Overyielding in a traditional corn-bean-squash system in southern Mexico) \$45,000, 1979-1981.

Ethics and Values in Science (NSF), Interdisciplinary Incentive Award (Social consequences of Agricultural Mechanization) \$20,000, 1981-1982.

National Science Foundation (Ecosystems) (Ecology of yield advantage in two intercrop ecosystems) \$109,000, 1982-1984.

National Science Foundation (International Program) (Plant competition theory and intercropping), \$16,000, 1983-1985.

Fullbright Award (Intercropping Studies), \$25,000, 1986-1987.

Research Partnership grant (University of Michigan) (with K. Nelson) \$ 21,000, 1989-1990.

Office of Vice President for Research University of Michigan (Coupled Predator Prey Equations), \$10,000, 1991-1992.

National Science Foundation (Rainforest Dynamics), \$160,000, 1989-1993.

Office of Vice President for Research, Univiersity of Michigan (Bridging funds for rain forest dynamics) \$10,000, 1994 - 1995.

Arthur Thurnau Distinguished Professorship. \$20,000, 1994.

National Science Foundation (Continued studies of rain forest dynamics) \$250,000, 1995 -1999.

Sokal Distinguished Faculty Award. \$25,000, 1996

Fullbright Senior Fellowship, the Netherlands, 1996-1997

Semper Verdens award (awarded to CIDCA from Ministry of Natural Resources) for best natural resources research project in Nicaragua, 1997

National Science Foundation (Role of agroecosystems in post agricultural succession). \$200,000. 1999 - 2002.

National Science Foundation (Continuing studies of hurricane-damaged rain forests in Nicaragua \$210, 000, 2002 - 2006.

Margaret Davis Collegiate Professor. 2002 - 2009.

MacIntyre Stennis grant (co PI with I. Perfecto, Forest succession in oak-dominated Michigan forests) -- \$10, 000, 2002 - Active.

National Science Foundation (co PI with I. Perfecto, Spatial scaling with an unusual food web structure: The case of *Azteca* spp. ants in the coffee agroecosystem of southern Mexico), \$500, 000, 2004 - 2009 .

Sarah Goddard Power Award (for distinguished service award recognizing the status of women within the University of Michigan), 2008.

Imes and Moore Faculty Award (for exceptional contributions toward recruiting and mentoring graduate students in the natural sciences who come from disadvantaged and non-traditional backgrounds), 2009.

Special recognition from La Sociedad Científica LatinoAmericana de Agroecología, 2011.

National Science Foundation (with co PIs J. Kurdziel and C. Badgley) ED-QUEST: Enhancing diversity, quality, and Understanding of the Ecological Sciences for Tomorrow. \$226,000, 2010-2012.

Harold R. Johnson Diversity Service Award, 2013.

Editorial Positions

Associate Editor: Theoretical Population Biology, 1970-1978.

Consulting Editor: Journal of Mathematical Biology, 1974-1979.

Associate Editor: Capitalism, Socialism, and Nature, 1989 - 1991.

Associate Editor: Agroforestry Systems, 1998 - 2001

Consulting Editor: Agriculture and Human Values, 1986 - present.

Consulting Editor: Wani, (Nicaragua), 1991 - present.

Board of editors: Sustainable food systems and agroecology, 2011 – present.

Recent advisory boards and consultantships

Advisory Member, Biodiversity Program, Centro de Investigaciones y Documentación de la Costa Atlantica (CIDCA - Nicaragua) -- 1995 - 2009.

Michigan Representative for Agriculture, Midwest University Consortium for International Activities (MUCIA) -- 1992- 2009.

Group Leader (co leader with C. Ong), Biodiversity in Agriculture Focus, Global Change in Terrestrial Ecosystems (GCTE) -- 1994 - 1999.

Board of Trustees, Institute for Food and Development Policy, San Francisco -- 1998 - 2003.

Board Member, Organization for Tropical Studies (OTS) -- 1990 - 1999.

Advisory Board, Institute for Responsible Genetics -- 1987 - present.

Advisory Board, Institute for Central American Development Studies -- 1987 - present.

Associated faculty – Interdisciplinary Training Progream in Infectious Disease (School of Public Health, University of Michigan). 2002 - present.

STRIDE committee (Science and Technology Recruiting for Diversity and Excellence), University of Michigan. 2002-2010.

Faculty associate, Agrarian University of Havana (Program on Agrarian Reform and Rural Development). 2005 – present.

Advisory Board, ADVANCE program, University of Michigan, 2010 - present

Recent Invited Seminars and Symposia (2000-2012)

Michigan State University (Department of Plants and Plant Pathology Seminar) 2000

University of Guelph, Guelph Ontario (Deparment of Zoology seminar) 2000

University of Miami, Miami Florida (Department of Biology seminar) 2000

William College, William Mass (General Seminar) 2000

International Crop Science Society Meetings, Hamburg, Germany (Plenary Speaker) 2000

- University of Minnesota (Sustainable development program – General seminar) 2000
- University of California at Santa Cruz, (General Seminar, Environmental Studies) 2001
- Center for agricultural research and development (Havana, Cuba) – (Plenary talk on agricultural development in the Third World), 2001.
- Colegio de la Frontera Sur (San Cristobal de las Casas, Mexico) – Plenary talk on Biodiversity 2001
- Colegio de la Frontera Sur (Tapachula, Mexico) -- (Diplomado en Cafecultura) 2002
- Ecological Society of America (Symposium on Agroecology) 2002
- Ecological Society of America (Workshop on Chaos in Ecological Systems) 2002
- University of Michigan (Shipman series – Rainforest preservation) 2002
- University of Amsterdam (Biodiversity and ecosystem dynamics group) – (Symposium on complex dynamics in ecosystems), 2002
- University of Florence (Department of Animal Biology) (Lecture series on Biodiversity), 2003.
- University of Florence (Department of Applied Mathematics) (Ecosystems as coupled oscillators), 2003.
- Miami of Ohio (Department of Biology) Public lecture on biodiversity and agroecosystems, March 2003
- Andrews University (Departments of Biology and Mathematics) – General seminar on complex systems in ecology, 2003.
- McGill (Department of Biology) – General seminar on ecosystems as coupled oscillators, 2003.
- Bodoin College (Department of Biology) – General seminar on conservation in agroecosystems 2003.
- International Symposium on Complex Systems (Havana, Cuba), Invited speaker on coupled oscillators. 2004.
- Agrarian University of Havana (Program on Agrarian Reform and Rural Development), Plenary Talk on agroecology and rural development. 2004.

Universidade Federal de Minas Gerais (Ecology Department), Brazil -- general seminar on conservation. 2004.

Universidade Federal de Vicosa, Minas Gerais (Agronomy Department), Brazil -- general seminar on conservation. 2004.

EMBRAPA (Brazilian Ministry of Agriculture), Seropegica, Brazil -- general seminar on matrix quality and agroforestry. 2004.

National Agroecological Meetings of Brazil, Porto Alegre, Brazil -- plenary speaker on conservation and agroecology. 2004.

University of Texas, general seminar on Women in Science, 2006.

Hope College (Joint Mathematics and Biology Seminar), 2006.

Colegio de la Frontera Sur, Tapachula, Mexico – general seminar, 2006.

Ecological Society of America, Annual Meeting – Symposium on Environmental Justice, 2006.

Colorado College – general seminar, 2006.

Rice University – General Seminar Biology Dept, 2007.

University of Minnesota – Seminar on Women in Science to Chairs and Directors of the Institute of Technology, 2007.

Howard University – General Seminar, Biology Department, 2007.

Ecological Society of America, Annual Meeting – Symposium on Agricultural Landscapes, 2007.

Wright State University -- Seminar on Women in Science. 2007.

EcoSummit, 2007, Beijing, China – Symposium on ecology in agricultural landscapes, 2007.

Association for Tropical Biology and Conservation – Plenary Speaker – Ecological theory, political reality and a new conservation paradigm, 2007.

Ohio State University – School of Environment and Natural Resources – General Seminar, 2007.

ATREE (Bangalore, India) – General Seminar. Ecological theory, political reality and a new conservation paradigm, 2008.

University of Chapingo – Texcoco Mexico -- Ecological theory, political reality and a new conservation paradigm, 2008.

University of Veracruz – Xalapa, Mexico -- Ecological theory, political reality and a new conservation paradigm, 2008.

University of Indiana – General seminar, Biology Dept. Agroecosystem complexity and pest control. 2008.

University of Vermont – Dept of Plant and Soil General seminar – agroecosystem complexity – 2008.

Eastern Michigan University – Dept of Biology General Seminar Agroecosystem complexity and pest control, 2008

University of Illinois – Deans and Dept. Chairs College of Engineering, Role of Women in Science – 2008

University of Illinois – Provost's special seminar, Role of Women in Science – 2008

Melbourne Australia – Plenary Speaker at the Encountering Darwin Symposium – 2009

Queensland University, Melbourne – General seminar, Biology Department – 2009

Michigan Technological University – Role of Women in Science -- 2009

ECOSUR -- General seminar to University Community – 2009

Morehouse College – General Seminar, Biology Department – 2009

University of Toledo – Graduate Student special speaker, Environmental Studies – 2009

Tropical Biology and Conservation Biology Symposium, Marburg, Germany – 2009

University of Kansas – Presentation of book “Nature’s Matrix” -- 2010

University of Chapingo – Symposium: biodiversity in agriculture – 2010

Agriculture and global change symposium, Ecological Society of America – 2010

Michigan State University – Entomology department general seminar -- 2010

Oakland University, General Seminar, Physics Department – 2010

University of California, Berkeley, Natural Resources – 2011

CSIRO, Queensland, Australia, general seminar – 2011

University of Michigan, Distinguished University Professor lecture – 2011

SOCLA (Latin American Scientific Society for Agroecology) symposium – 2011

University of Michigan, Saturday Morning Physics lecture -- 2011

CNRO, France. Symposium on human-dominated ecosystems, Paris. – 2011

Centre D'Ecolgie Fontionelle y Evolutive, general seminar, Montpellier, France – 2012

Ecological Society of America, Portland, Organized oral Session, -- 2012

Association of Tropical Biology and Conservation annual meeting, San Jose Costa Rica, invited symposium – 2013

INTECOL annual meeting, London, England, invited symposium -- 2013

Scripts College, invited seminar -- 2013

University of Mexico, invited seminar – 2013

Kellogg Biological Station, invited seminar – 2013

Benard College (Columbia University), invited seminar -- 2013

Former Doctoral Students

William Durham	Stanford University, Prof. of Anthropology
Marlene Palmer	Formerly with IBM
Les Real	Emory University, Prof. of Biology
Catherine Bach	Eastern Michigan University, Prof. of Biology
Steven Risch	University of California, Berkeley (deceased)
Robert Glesener	Brevard College, Prof. of Biology
Diane DeSteven	Univ. of Wis. at Milwaukee, Prof. of Biology
Kay Dewey	Univ. of Calif. at Davis, Prof. of Nutrition
Katherine Yih	Mass. Dept. of Pub. Health. (Epidemiologist)
Michael Hansen	Institute for Consumer Policy Studies
Brian Schultz	Professor, Hampshire College

Peter Rosset	Centro de Estudios para el Cambio en el Campo Mexicano (CECCAM) , Oxaca, Mexico
Hugh McGuinness	The Ross School, East Hampton, NY
Katherine Savoie	Coordinator, CASC, Detroit
Margaret Reeves	Coordinator, Latin American Program of Pesticide Action Network
Eduardo Somarriba	CATIE, Costa Rica, Professor of agroecology
Ed Russel	University of Kansas, Professor of History
Kristen Nelson	Associate Professor of Natural Resources, University of Minnesota
Gerald Urquhart	Asst. Prof., Lyman Briggs College, Michigan State Univ.
Chris Picone	Assistant Professor, Mount Holyoke College
Bruce Ferguson	Assistant Professor ECOSUR, Chiapas, Mexico
Dan Griffith	Post Doc, World Wildlife Institute, Nicaragua
Stacy Philpott	Associate Professor, University of Toledo
Krista McGuire	Assistant Professor, Barnard College
Javier Ruiz	Visiting Professor, URACCAN, Nicaragua
Jahi Chappell	Assistant Professor, Washington State University, Vancouver
Zach Miller	Post Doc, Montana State University
Shalane Jha	Assistant Professor, University of Texas
Heidi Liere	Post Doc, University of Wisconsin, Madison
David Allen	Assistant Professor: Middlebury College
Doug Jackson	Senior Analyst, NOAA

Current Graduate Students

Aaron Iverson	PhD, EEB (co-chair)
Senay Yitbarek	PhD, EEB (chair)
Theresa Ong	PhD, EEB (chair)
Paul Glaum	PhD, EEB (chair)
Mariana Valencia Mestre	PhD, EEB (chair)
Beatriz Otero Jimenez	Masters, EEB (co-chair)
Lizette Ramirez	Masters, EEB (chair)
Naim Edwards	Masters, EEB (chair)
Omar Bonillo	Masters, EEB (co-chair)
Gordon Fitch	Masters, EEB (Chair)

Recent teaching activities

Field Ecology (Co-taught with Ivette Perfecto, undergrad/graduate field course, offered every year, 1997 – 2003; 2006 - present)

Food, energy and the environment (large, 100+ student undergraduate non-majors course dealing with sociopolitical issues in biology, offered every year, 1980 - present)

The ecology of agricultural ecosystems (undergrad/graduate course offered every year, 1990 - present)

Biodiversity: Principles and applications (Co-taught with Ivette Perfecto, offered in 2001, 2002, 2003 and 2005 at the Colegio de la Frontera Sur, Chiapas, Mexico;,, University of Florence, 2003; Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, 2004; University of Prague, Prague, Czech Republic, 2005; Chapingo, Mexico, and ECOSUR, Mexico, 2008; University of Puerto Rico, Casa Puebla, Puerto Rico).

Dynamics of neotropical rainforests (Co-taught with Ivette Perfecto, 2 week field course, taught in Spanish in Nicaragua, offered every year, 1989 - 2007).

Issues on Women in Science (co-taught with Abby Stewart) – 2006.

Nonlinear dynamics in ecology (Undergrad/graduate course offered every other year, 1993-2004)

Elementary Biology (Bio 162) – Elementary course for Bio majors. 2001.

The ecology of populations (graduate course, offered every year, 1997 - 2000)

Books

Perfecto, I., and J. Vandermeer. (Expected 2013). Wake up and Smell the Coffee: the Coffee Ecosystem as a Complex System. under contract to Earthscan, London.

Vandermeer, J. and D. E. Goldberg. 2013. Elementary Population Ecology, 2nd Edition, Princeton University Press.

Vandermeer, J., 2010. The ecology of Agroecosystems, Bartlett and Jones, Sudbury, MA.

Perfecto, I., J. Vandermeer, and Angus Wright 2009. Nature's Matrix: Linking Agriculture, Conservation and Food Sovereignty, Earthscan, London.

Vandermeer, J., and I. Perfecto. 2005. A breakfast of biodiversity: The true causes of rain forest destruction (second edition). (Vandermeer and Perfecto). Institute for Food and Development Policy.

Vandermeer, J., and D. Goldberg. 2003. Elementary Population Ecology (with D. Goldberg) Princeton University Press.

Vandermeer, J., (ed). 2003. Tropical Agroecosystems (edited volume). CRC Press, Boca Raton.

Vandermeer, J., 1996. Reconstructing Biology: Genetics and Ecology in the New World Order. 478 pgs. Wiley and sons, NY.

Vandermeer, J. and I. Perfecto. 1995. A breakfast of biodiversity: The true causes of rain forest destruction 180 pgs. Institute for Food and Development Policy.

Carroll, R., J. Vandermeer and P. Rosset. 1990. Agroecology (coedited with Carroll and Rosset), 641 pgs., MacMillan.

Vandermeer, J. 1989. The Ecology of Intercropping Systems. Cambridge University Press. 237 pgs.

Rosset, P., and J. Vandermeer. (eds) 1986. Nicaragua: Unfinished Revolution. Grove Press, 505 pgs.

Rosset, P., and J. Vandermeer (eds). 1983. The Nicaraguan Reader. Documents of a Revolution Under Fire. Grove Press, 362 pgs.

Vandermeer, J. 1981. Elementary Mathematical Ecology. 294 pgs. Wiley and Sons.

Boucher, D., K. Dewey, S. Schneider, J. Stout and J. Vandermeer (eds). 1977. Biology as a social weapon. Burgess Press, Minneapolis. (1977)

Book reviews

Perspectives in ecological theory, Ramon Margalef. Quart. Rev. of Biol. 45:214-216. (1970)

Mathematics for biologists. Crow and Crow. Quart. Rev. of Biol. 45:231-232. (1970)

Geographical Ecology. MacArthur (Janzen and Vandermeer). J. Ecol. 61:621-622. (1973)

Theoretical Ecology: Principles and Applications. May, Mathematical Biophysics, 1978. (1978)

Environment, Principles and Applications. Bioscience 33:222. (1983)

Community Structure and the Niche. Quart. Rev. of Biol. 60:531-532. (1985)

Ecology of Tropical Food Crops. Norman et al. Quart. Rev. of Biol. 61:109-110. (1986)

An ecosystem worthy of study. Multiple cropping systems. Francis, Ecology 69:293-294. (1988)

Crop Ecology. Loomis and Conner, Quarterly Review of Biology, (1994)

Long-term Experiments in Agricultural and Ecological Sciences, Leigh, R. A. and A. E. Johnston (eds). Quarterly Review of Biology, 71:288-289 (1996).

Tree-Crop Interactions: A Physiological Approach. Ong and Huxley. Quarterly Review of Biology, 73:78-79 (1998).

Biodiversity in agroecosystems, Collins and Qualset, Quarterly Review of Biology, 75:210-211 (2000).

Chaos in ecology , Cushing et al. Quarterly Review of Biology, 79:104-106 (2004).

Niche construction. Olding-Smee et al., Science 303:472-474 (2004).

Yes, Ecology is Hard. Bioscience 61:485-487 (2011).

Climate Change Mitigation and Agriculture by Eva Wollenberg, Alison Nihart, Marja-Liisa Tapio-Biström and Maryanne Grieg-Gran, Routledge, New York, Earthscan, Routledge, 2011, 456 pages, ISBN 978-1-84971-393-1: Journal of Peasant Studies, in press

Laura Lappé. 2012. Diet for a small planet. The climate crisis at the end of your fork and what you can do about it. Journal of Agricultural and Environmental Ethics, 25:927-928.

Book chapters

Ecological determinism. In: Biology as a Social Weapon, Burgess Pub. Co., Minneapolis, Minn. (1977)

An ecological overview of the agroecosystems of Costa Rica and their potential use for studies. (Boucher et al.) in Janzen ed. Costa Rican Natural History, 66-73. Univ. Chic. Press. (1983)

Mathematical Ecology. McGraw Hill Encyclopedia of Science and Technology. 274-277. (1983)

African Oil Palm. in Janzen ed., Costa Rican Natural History, pp. 73-75. Univ. of Chic. Press. (1983)

Banana. in Janzen, ed., Costa Rican Natural History, pp. 75-77. Univ. of Chic. Press. (1983)

Coconut. in Janzen, ed., Costa Rican Natural History, pp. 85-86. Univ. of Chic. Press. (1983)

Pejibaye Palm. in Janzen, ed., Costa Rican Natural History, pp. 98-101. Univ. of Chic. Press. (1983)

Welfia georgii. in Janzen, ed., Costa Rican Natural History, pp. 346-349. Univ. of Chic. Press. (1983)

The evolution of mutualism. in Shorrocks, ed. Evolutionary Ecology. Blackweell. (1984)

Indirect mutualism (Vandermeer et al.). in D. Boucher, ed. Mutualism. Croom Helm, London. pp. 326-343. (1985)

Climate and the geography of agriculture (Rice and Vandermeer) in Carroll et al. eds. Agroecology. MacMillan (1990)

The origin of agriculture (Minc and Vandermeer). in Carroll et al. eds. Agroecology. MacMillan (1990)

The theory of intercropping. in Carroll et al. eds. Agroecology. MacMillan (1990)

The agroecosystem embedded in a complex system. (Levins and Vandermeer) in Carroll et al. eds. Agroecology. MacMillan (1990)

Variability, stability, and risk in intercropping: some theoretical explorations (Vandermeer and Schultz). in S. Gliessman (ed) Current topics in agroecology, Plenum Press. (1990).

Intercropping and Agroforestry: A perspective from ecological theory. Shinosi, ed. Ecological Processes in Agro-Ecosystems, Nat. Inst. of Agro-Environmental Sciences, Tukaba, Japan. (1993).

Agroecosystem complexity, productivity and sustainability (Anderson, Ong, and Vandermeer) in Swift, M. J. and J. S. I. Ingram (eds) Effects of Global Change on Multi-species Agroecosystems. GCTE Focus 3 office, Wallingford, UK (1996).

The human niche and rainforest preservation in southern Central America. in Sponsel, L. E., T. H. Headland, and R. C. Bailey (eds) Tropical Deforestation: The Human Dimension. Columbia Univ. Press, New York (1996).

Monitoring health risks and environmental change (Epstein, Dobson and Vandermeer) pp 60-86 in Grifo, F. and J. Rosenthal (eds), Biodiversity and Human Health. Island Press, Washington DC. 379pp. (1996)

Biodiversity loss in and around agroecosystems. pp. 111-127 in Grifo, F. and J. Rosenthal (eds), *Biodiversity and Human Health*. Island Press, Washington DC. 379pp. (1996)

Biological diversity and ecosystem processes. (Swift, Vandermeer, Ramakrishnan, Anderson, Ong, and Hawkins) In: Mooney, H. A., J. Lubchenco, R. Dirzo, ad O. E. Sala (eds) *Biodiversity and ecosystem functioning: Ecosystem analyses*. pp. 433-443. Global Diversity Assessment, Cambridge Univ. Press.(1996)

The agroecosystem: The modern vision in crisis, the alternative evolving. in Singh, R., C. Krimbas, D. Paul, and J. Beatty (eds) *Thinking about evolution: Historical, philosophical and political perspectives* Cambridge University Press, Cambridge (2000).

Effect of biodiversity on ecosystem function in managed ecosystems (Vandermeer, Lawrence, Symstad, Hobbie) in Laureau, Naeem, and Inchausti (eds) "Biodiversity and Ecosystem Functioning" Oxford U. press, (2002)

Perfecto, I. and J. Vandermeer.. Caficultura y biodiversidad: cafetales como reserves de biodiversidad y biodiversidad como benefactora de la caficultura. In Pohlan, J. (ed) México y la caficultura chiapaneca: Reflexiones y alternativas para los caficultores. Shaker; Verlag. (2003).

Vandermeer, J., and I. Perfecto. The diverse faces of ecosystem engineers in agroecosystems. in Cuddingham, K., J. E. Byers, W. G. Wilson, and A. Hastings (eds) *Ecosystem Engineering*, Academic Press (2007).

Vandermeer, J. H., I. Perfecto, S. Philpott, and M. Jahi Chappell. 2008. Refocusing conservation in the landscape: The matrix matters. In Harvey, C. (ed) *Conservation in tropical agricultural landscapes*. (2008).

Ferguson, B., H. Morales, Al Gonzales Rojas, F. de Jeuss Iniguez Perez, M. E. Martinez Torres, K. McAfee, R. Nigh, I. Perfecto, S. M. Philpott, L. SotoPinto, J. Vandermeer, R. M. Vidal, L. E. Avila Romero, H. Bernardino, R. Realpozo Reyes. Bosques, Agricultura y Sociedad: Cultivando Nuevas Alianzas. 2009. In Altieri, M. (ed) *Vertientes del pensamiento agroecológico: fundamentos y aplicaciones*. Sociedad Científica Latinoamericana de Agroecología (SOCLA) Medellin, Colombia.

Vandermeer, J., and I. Perfecto. 2012. Intensification of coffee production and its biodiversity consequences. In D. Lindenmayer Cunningham, S., , and A. Young (eds) *Land use intensification*. CSIRO, Publishing, Australia,

Perfecto, I., and J. Vandermeer. 2012. Paradigms lost: Tropical conservation under late Capitalism. In Hecht, S., K. Morrison and C. Padoch (eds), *The Social Life of Forests*. Univ. Chicago Press. In press.

Articles

Regional trends in geographic variation (Marcus and Vandermeer). *Syst. Zool.* 15:1-13. (1966)

A reformulation of alternative (b) of the broken stick model of species abundance (Vandermeer and MacArthur). *Ecology* 47: 139-140. (1966)

Statistical analysis of geographic variation of the fathead minnow, *Pimephales promelas*. *Copeia* 1966: 457-466. (1966)

Reproductive value in a population of arbitrary age distribution. *Amer. Nat.* 120: 586-589. (1968)

The relation between stability and diversity: an experimental approach using bacteria and protozoa (Hairston et al.). *Ecology* 49:1091-1101. (1968)

The competitive structure of communities: an experimental approach using protozoa. *Ecology* 50: 362-371. (1969)

The community matrix and the number of species in a community. *Amer. Nat.* 104:73-83. (1970)

The covariance of the community matrix. *Ecology* 53:187-189. (1972)

Observations on *Paramecium* occupying arboreal standing water in Costa Rica (Vandermeer et al.) *Ecology* 53: 291-293. (1972)

Niche Theory. *Ann. Rev. Ecol. and System.* 3:107-132. (1972)

Generalized models of two species interactions: A graphical analysis. *Ecology* 54:809-818. (1973)

On the regional stabilization of locally unstable predator-prey relationships. *J. Theor. Biol.* 41:161-170. (1973)

Relative isolation and seed predation in *Calliandra grandiflora*, a Mimosaceous legume from the highlands of Guatemala. *Biotropica* 6:267-268 (1974).

Growth rates of *Welfia georgii*, *Socratea durissima* and *Iriartia gigantea* under different light conditions in a natural forest in Costa Rica (Vandermeer et al.). *Principes* 18:148-154. (1974)

On the construction of the population projection matrix for a population grouped in unequal stages. *Biometrics* 31:239-242. (1975)

Comparison of species richness for stream-inhabiting insects in tropical and mid-latitude streams (Stout and Vandermeer). *Amer. Nat.* 100:263-280. (1975)

A graphical model of insect seed predation. *Amer. Nat.* 109:147-160. (1975)

Interspecific competition: a new approach to the classical theory. *Science* 188:253-255. (1975)

Notes on density dependence in *Welfia georgii*, a lowland rainforest palm from Costa Rica. *Brenesia* 10/11:1-15. (1977)

Is our biology to blame? (Schneider et al.). *Am. Biol. Teacher*, October, (1977)

Association of *Pheidole* ants with piper plants in Costa Rica (Risch et al.) *Am. Mid. Nat.* 98:433-444. (1977)

Observations on the root system of the Pejibaye palm (*Bactris gasipaes* H.B.K.) in Costa Rica. *Turrialba* 27:239-242. (1977)

Choosing category size in a stage projection matrix. *Oecologia* 32:79-84. (1978)

Varieties of mutualistic interaction in population models (Vandermeer and Boucher). *J. Theor. Biol.* 74:549-558. (1978)

Hoarding behavior of capitive *Heteromys desmarestianus* on the fruits of *Welfia georgii*, a rainforest dominant from Costa Rica. *Brenesia* 16:101-116. (1979)

Migration as a factor in the community structure of a macroarthropod litter fauna (Vandermeer et al.). *Amer. Nat.* 115:606-612. (1979)

Seed Dispersal in *Welfia georgii*, a lowland rainforest palm from Costa Rica (Vandermeer et al.). *Trop. Ecol.* 20:17-26. (1979)

Indirect mutualism: variations on a theme by Stephen Levine. *Amer. Nat.* 116:441-448. (1980)

An empirical equation for determining dry weights of water hyacinth (Vandermeer and Rice). *J. of Aquatic Plant Mngt.* 18:40-41. (1980)

- Saguaros and nurse trees: a new hypothesis to account for population fluctuations. Southwestern Nat. 25:357-360. (1980)
- Agricultura sobre campos elevados en el trópico: algunas consideraciones elementales de diseño. (Vandermeer and Gliessman) Agricultura Tropical (CSAT), I:33-40. (1980)
- A further note on community models. Amer. Nat. 117:379-380. (1981)
- The interference production principle: an ecological theory for agriculture. Bioscience 31:361-364. (1981)
- Science and Class Conflict: The role of agricultural research in the midwestern tomato industry. Studies in Marxism 12:41-57. (1982)
- To be rare is to be chaotic. Ecology. 63:1167-1168. (1982)
- On the resolution of chaos in population models. J. Theo. Pop. Biol. 22:17-27. (1982)
- Variation in Insect community structure in a tropical secondary habitat (Bach et al.). Brenesia 19/20: 171-179. (1982)
- Overyielding in a corn-cowpea system in southern Mexico (Vandermeer et al.). J. of Biol. Ag. and Hort. 1:83-96. (1983)
- An experiment in intercropping cucumbers and tomatoes in southern Michigan, U.S.A. (Schultz et al.). Scientia Horticulturae 18:1-8. (1983)
- Una teoria de sembrado intercalado en plantaciones jovenes. Cultivos Tropicales. Ciencias de la Agricultura 15:117-1323. (1983)
- El desarrollo de la tecnologia en Nicaragua. Algunos Principios Generales. Revolución y Desarrollo 1:53-64. (1984)
- Collaboration in Latin America in the development of rational agro-ecosystems: the New World Agriculture Group's collaborative efforts in Mexico and Nicaragua. INTECOL Bull. 10:15-22. (1984)
- Plant competition and the yield-density equation. J. Theo. Bio. 109:393-399. (1984)
- An ecologically-based approach to the design of intercrop agroecosystems: An intercropping system of soybeans and tomatoes in southern Michigan (Vandermeer et al.). Ecological Modelling, 25:121-150. (1984)
- The interpretation and design of intercrop systems involving environmental modification by one of the components: a theoretical framework. J. Bio. Ag. and Hort. 2: 135-156. (1984)

- Efecto del uso anterior de la tierra sobre la nodulación de *Pentaclethra macroloba*. (Boucher et al.). Agron. Costarricense 8:99-104. (1984)
- Human rights in Central America (Vandermeer et al.) Science (Letter to the Editor), 225:1093.
- Comments on rarity and chaos. Math. Biosci. 73:149. (1985)
- El frijol como trampa para el control de *Spodoptera sunia* Guenée in plantulas de tomate (Rosset et al.). Agronomía Costarricense 9:99-102. (1985)
- Towards an ecological theory for the design of intercrop agroecosystems. Silver Jubilee Symp., Soc. Trop. Ecol. 1:253-258. (1985)
- A computer-based technique for rapidly screening intercropping designs. Experimental Agriculture, 22:215-232 (1986)
- Mechanized agriculture and social welfare: the tomato harvester in Ohio. Ag. and Human Values. 3:21-25 (1986)
- The confrontation between processors and farm workers in the midwest tomato industry and the role of the agricultural research and extension establishment. (Rosset and Vandermeer). Ag. and Human Values. 3:26-32. (1986)
- Moving towards independent agriculture: Nicaragua struggles in the World Economy. Science for the People 18: 16-21. (1986)
- Prophylactic and responsive components of an Integrated Pest Management Program. (Vandermeer and Andow). J. Econ. Entom. 79:299-302. (1986)
- Effects of plant diversity and density on movement patterns of two ground beetles in a system of tomatoes and beans. (Perfecto et al.) Environ. Entom. 15:1028-1031. (1986)
- Effects of planting densities, irrigation, and hornworm larvae on yields in experimental intercrops of tomatoes and cucumbers. (Schultz et al.) J. Amer. Soc. Hort. Sci. 112:747-755. (1987)
- Age-size relationships and growth behavior of the palm *Welfia georgii* . (Liberman, et al.) Biotropica 20:270-273 (1988).
- Aquatic mulches in a reconstructed chinampa in tropical Mexico: Effects on crop plants and potential for weed control. (Yih and Vandermeer). J. Bio. Ag. & Hort. (1988)
- Root and shoot competition in *Phaseolus vulgaris* and *Cyperus rotundus* in Nicaragua. (Gamboa and Vandermeer). Tropical Ecol. (1988)

Observaciones preliminares en tres agroecosistemas y la presencia de Cercospora sp. en el Cyolillo, *Cyperus rotundus* L.(Gamboa and Vandermeer). Manejo Integrado de Plagas. 12:33-36. (1989).

Agriculture and the environment in Nicaragua. Nicaraguan Perspectives , Jan/Feb. (1989).

Notes on agroecosystem complexity: chaotic price and production trajectories deducible from simple one-dimensional maps. J. Biol. Ag. and Hort. 6:293-304 (1990).

Indirect and difuse interactions and the generation of complicated cycles in a population embedded in a large community. J. Theo. Biol. 142:429-442(1990).

The greening of Nicaragua: A struggle on two fronts. Green Letters, Spring :3,34-35,38. (1990).

Crecimiento y sobrevivencia de plántulas de *Welfia georgii* en un bosque lluvioso en la Costa Atlántica de Costa Rica. Rev. Biol. Tropical 38:7-20 (1990).

Epidemiology of the corn stunt system in Central America I: The basic model and some prospects for cultural control. (Vandermeer and Power). Ecol. Modelling. 52:235-248 (1990).

Contrasting hurricane damage in tropical rainforest and pine forest. (Boucher, Vandermeer, Yih, and Zamora) Ecology 71: 2022-2024 (1990).

El bosque devastado de Bluefields. (Vandermeer, Boucher, Perfecto, Roth, Will, and Yih) 1990. Wani 8:60-73. (1990)

Regeneracion inicial en una selva tropical en la costa caribeña de Nicaragua después del huracan Juana. (Vandermeer, Zamora, Yih and Boucher). Revista Biología Tropical (Costa Rica) 38:347-359 (1990).

Conservation in Nicaragua and Costa Rica: Indirect consequences of social policy (Vandermeer, Perfecto, and Boucher). INTECOL Bulletin, January, (1991).

Contributions to the global analysis of the Lotka Volterra equations: a system of two prey and a predator. J. Theo. Biol. 148:545-561 (1991).

Recovery of the rainforest of southeastern Nicaragua after destruction by Hurricane Joan (Yih, Boucher, Vandermeer, and Zamora) Biotropica 23:106-113 (1991).

Los bosques del caribe de Nicaragua tres años despues del huracan Joan. (Vandermeer and Perfecto). Wani 11:79-102 (1991).

Environmental problems arising from national revolutions in the Third World: The case of Nicaragua. *Social Text*, 28:39-45 (1991).

The political economy of sustainable development: The southern Atlantic Coast of Nicaragua. *The Centennial Review*, XXXV:265-294. (1991).

Loose coupling of predator prey cycles: entrainment, chaos, and intermittency in the classic MacArthur consumer-resource equations, *Am. Nat.* 141:687-716 (1993).

Cleptobiosis in the ant *Ectatomma ruidum* in Nicaragua. (Perfecto and Vandermeer). *Ins. Soc.* 40:295-299 (1993).

Distribution and turnover rate of a population of *Atta cephalotes* in a tropical rain forest in Costa Rica (Perfecto and Vandermeer), *Biotropica* 25: 316-321 (1993).

Successional patterns of understory palms in an old cacao plantation on the Caribbean coast of Costa Rica. *Principes* 37:73-79 (1993).

Cuba and the dilemma of modern agriculture (Vandermeer, Carney, Gesper, Perfecto and Rosset). *Agriculture and Human Values*, X:3-8 (1993).

Management of Insect Pests and Weeds. (Dlott, Perfecto, Rosset, Burkham, Monterrey, Vandermeer). *Agriculture and Human Values*, X:9-15 (1993).

The qualitative behavior of coupled predator prey oscillations as deduced from simple circle maps. *Ecol. Modelling* 73:135-148 (1994).

Effects of Hurricane Joan on the palm understory of the Caribbean coast rain forest of Nicaragua. *Principes* 38:182-189. (1994).

Resistance and resilience in a directly regenerating rainforest: Nicaraguan trees of the Vochysiaceae after hurricane Joan. (Boucher, Vandermeer, Mallona, Zamora, Perfecto). *J. of Forest Ecology*. 68:127-136 (1994).

Los recursos terrestres de la Costa Caribeña de Nicaragua: Hacia una filosofía de sostenibilidad. (Perfecto, Mallona, Granzow de la Cerda, Vandermeer). *Wani*, 15:46-59 (1994).

The ant fauna of a transforming agroecosystem in Central America. (Perfecto and Vandermeer). *Trends in Agricultural Science* 2:7-13 (1994).

Three years of ingrowth following catastrophic hurricane damage on the Caribbean Coast of Nicaragua: evidence in support of the direct regeneration hypothesis. (Vandermeer, Mallona, Boucher, Yih and Perfecto) *J. of Tropical Ecology*, 11:465-471 (1995).

Slicing up the rain forest on your breakfast cereal. (Vandermeer and Perfecto). The Humanist 55:24-30. (1995).

The ecological basis of alternative agriculture. Ann Review of Ecol. & Syst. 26:201-224 (1995).

Agroecosystems (Swift, Vandermeer, Anderson, Ramakrishnan, Hastings and Ong). pgs 443-446 in Hewyood, V. H. and R. T. Watson (eds) Global Biodiversity Assessment, UNEP, Cambridge University Press (1995).

El conocimiento ecologico y la complejidad para el manejo integrado de plagas, en el mundo postmoderno. Manejo Integrado de Plagas (Costa Rica) 41: 37-44. (1996)

Disturbance and neutral competition theory in rain forest dynamics. Ecol. Modelling, 85:99-111. (1996).

Mortalidad masiva y retardada de arboles después del huracan Juana (Boucher, Vandermeer, Mallona, Zamora, Perfecto, Granzow) Wani, 19:38-42 (1996)

Biodiversity and agroecosystem function. (Swift, Vandermeer, Ramakrishnan, Anderson, Ong, and Hawkins) in Mooney, H. A. J. H. Cushman E. Medina, O. E. Sala, and E. D. Schulze (eds) Functional Roles of Biodiversity: A Global Perspective. 1996 SCOPE, John Wiley and Sons, NY. (1996).

Tragedy of the commons: The meaning of the metaphor. Science and Society. 60:290-306. (1996).

Seasonal isochronic forcing of Lotka Volterra equations. Progress of Theoretical Physics, 96:13-28. (1996).

Agroecosystem complexity, productivity and sustainability (Anderson, Ong, and Vandermeer) in Swift, M. J. and J. S. I. Ingram (eds) Effects of Global Change on Multi-species Agroecosystems. GCTE Focus 3 office, Wallingford, UK (1996).

La recuperacion del bosque continua en la RAAS. (Vandermeer, Granzow de la Cerda, Perfecto). Wani, 20:38-45 (1996).

Theory of periodic disturbance and the preservation of species diversity: Evidence from the rain forst of Nicaragua subsequent to Hurricane Joan. (Vandermeer, Boucher, Perfecto, and Granzow) Biotropica 28:600-613 (1996).

Physical factors and the structure of an ant community in a tropical agroecosystem (Perfecto and Vandermeer). Oecologia, 108:577-582 (1996).

El conocimiento ecologico y la complejidad para el manejo integrado de plagas, en el mundo postmoderno. Manejo Integrado de Plagas (Costa Rica) 41:37-44 (1996).

Period "bubbling" in simple ecological models: pattern and chaos formation in a quartic model. *Ecological Modelling* 95:311-317 (1997).

The agroecosystem: A need for the conservation biologist's lens. (Vandermeer and Perfecto) *Conservation Biology*, 11:591-592 (1997).

Contrasting growth rate patterns in eighteen tree species from a post-hurricane forest in Nicaragua. (Vandermeer, Boucher, and Granzow) *Biotropica* 29:151-161 (1997).

Arthropod biodiversity loss and the transformation of a tropical agro-ecosystem (Perfecto, Vandermeer, Hansen, and Cartín). *Biodiversity and Conservation* 6:935-945 (1997).

Syndromes of production: an emergent property of simple agroecosystem dynamics. *J. of Environmental Management*. 51: 59-72 (1997).

Global change and Multi-species agroecosystems: Concepts and issues. (Vandermeer, van Noordwijk, Anderson, Ong, and Perfecto). *Agric. Ecosystems and Environment*, 67:1-22 (1998).

Indirect effects with a keystone predator: coexistence and chaos. (Vandermeer and Maruca). *Journal of Theoretical Population Biology* 54:38-43 (1998).

Maximizing crop yield in alley crops. *Agroforestry Systems* 40:199-206 (1998).

Acumulación de especies siete años después del huracán juana en Nicaragua. (Granzow, Zamora, Boucher and Vandermeer,). *Biología Tropical* 45:1409-1419 (1998).

Models of coupled population oscillators using 1-D maps (Vandermeer and Kaufmann). *J. of Math. Biol.* 37:178-202 (1998).

Biodiversity and pest control in agroforestry systems. (Vandermeer and Perfecto) *Agroforestry Forum* 9:2-6 (1998).

The political ecology of deforestation in Central America. (Vandermeer and Perfecto) *Science as Culture* 7:519-555. (1998)

Growth rates of tree height six years after hurricane damage at four localities in eastern Nicaragua. (Vandermeer, Brenner, and Granzow), *Biotropica* 30:502-509 (1999).

Basin Boundary Collision as a model of discontinuous change in ecosystems (Vandermeer and Yodzis). *Ecology* 80:1817-1827.(1999).

Bosques húmedos de Centroamérica. (Granzo de la Cerda, Vandermeer, and Perfecto) *Ecologista* 18:35-39 (1999).

- Vandermeer, J. H. and I. Perfecto. 2000. La biodiversidad y el control de plagas en sistemas agroforestales. Manejo Integrado de Plagas (Costa Rica) 55:1-5.
- Vandermeer, J. H., D. Boucher, I. Granzow de la Cerda, I. Perfecto, and J. Ruiz. 2000. Hurricanes and tropical species diversity. *Science*, 290:788-791.
- Huston, M. A., L. W. Aarssen, M. P. Austin, B. S. Cade, J.D. Fridley, E. Garnier, J. P. Grime, J. Hodgson, W. K. Lauenroth, K. Thompson, J. H. Vandermeer, D. A. Wardle. 2000. No consistent effect of plant diversity on productivity. *Science*, 289:1255a.
- Vandermeer, J. H., L. Stone, and B. Blasius. 2001. Categories of chaos and fractal basin boundaries in forced predator-prey models. *Chaos, solitons and fractals* 12:265-276 (2001).
- Vandermeer, J. H., B. Hoffman, S. L. Krantz-Ryan, U. Wijayratne, J. Buff and V. Franciscus. 2001. Effect of habitat fragmentation on gypsy moth dispersal: The quality of the matrix. *American Midland Naturalist* 145:188-192.
- Vandermeer, J. H., D. H. Boucher, I. Granzow de la Cerda, and I. Perfecto. 2001. Growth and development of the thinning canopy in a post hurricane tropical rain forest in Nicaragua. *Forest Ecology and Management* 148:221-242.
- Vandermeer, J. H., R. Carvajal. 2001. Metapopulation dynamics and the quality of the matrix. *Am. Nat.* 158:211-220.
- Ruiz, J., D. H. Boucher, J. H. Vandermeer, I. Granzow de la Cerda, I. Perfecto and V. Martinez Salgado. 2001. Recuperacion inicial de un bosque incendiado y previamente afectado por el huracan Juana en Nicaragua. *Encuentro XXXII(58)*:66-75.
- Perfecto, I. and J. H. Vandermeer. 2001. The quality of the agroecological matrix in a tropical montane landscape: Ants in coffee plantations in southern Mexico. *Conservation Biology*. 16: 174-182.
- Boucher, D. H., J. H. Vandermeer, I Granzow, M.A. Mallona, I. Perfecto, and N. Zamora. 2001. Post-agricultural versus post-hurricane succession in southeastern Nicaraguan rain forest . *Plant Ecology*, 156:131-137.
- Granzow de la Cerda, E. Lemos, N. Zamora y J. Vandermeer. 2001. Diccionario preliminar de nombres locales en español y nombres científicos de especies de Árboles de la RAAS. *Wani* 27:40-49.
- Vandermeer, J., M. A. Evans, P. Foster, T. Höök, M. Reiskind, and M. Wund. 2002. Increased competition may promote species coexistence. *PNAS* 99:8731-8736.

- Vandermeer, J., I. Perfecto, G. Ibarra Nuñez, S. Philppott, and A. Garcia Ballinas. 2002. Ants (*Azteca* sp.) as potential biological control agents in shade coffee production in Chiapas, Mexico. *Agroforestry Systems* 56:271-276.
- Perfecto, I., J. Vandermeer, T. Deitch, and A. Mas. 2003. Tritaxa comparison of species diversity in different coffee production systems in Chiapas, Mexico. *Biodiversity and Conservation* 12:1239-1252.
- Ferguson, B. G., J. Vandermeer, H. Morales and D. Griffith. 2003. Post agricultural succession in El Peten, Guatemala. *Conservation Biology* 17:818-828.
- Jedlica, J. , J. Vandermeer, K Aviles-Vazquez, O. Barros, and I. Perfecto. 2004. Gypsy moth defoliation of oak trees and a positive response of red maple and black cherry: An example of indirect interaction. *Am. Midl. Nat.* 152:231-236.
- Vandermeer, J. H., I. Granzow de la Cerda, I. Perfecto, D. H., Boucher, J. Ruiz and A. Kaufmann. 2004. Multiple basins of attraction in a tropical rain forest: evidence for non-equilibrium community structure. *Ecology* 85:575-579.
- Vandermeer, J. H. 2004. Wada basins and qualitative unpredictability in ecological models. *Ecol. Modelling* 176:65-74.
- Vandermeer, J. H. 2004. Coupled oscillations in food webs: Balancing competition and mutualism in simple ecological models. *Am. Nat.* 163:857-867
- Armbrecht, I., I. Perfecto, and J. Vandermeer. 2004. Enigmatic biodiversity correlations: litter ant biodiversity in a coffee landscape. *Science* 304:284-286.
- Philpott, S. M. , J. Maldonado, J. Vandermeer, I. Perfecto. 2004. Taking trophic cascades up a level: behaviorially-modified effects of phorid flies on ants and ant prey in coffee agroecosystems. *Oikos* 105:141-147.
- Vandermeer, J. H. and I. Granzow de la Cerda. 2004. Height dynamics of the thinning canopy of a tropical rain forest: 14 years of succession in a post-hurricane forest in Nicaragua. *Forest Ecology and Management*, 199:125-135.
- Perfecto, I., J. H. Vandermeer, G. Lolpez Bautista, G. Ibarra Nunez, R. Greenburg, P. Bicher, and S. Langridge. 2004. Greater predation in shaded coffee farms: The role of resident neotropical Birds. *Ecology* 85:2677-2681.
- Koelle, K. and J. Vandermeer. 2005. Dispersal-induced desynchronization: from metapopulations to metacommunities. *Ecol. Letters*, 8:167.
- Vandermeer, J. and I. Perfecto. 2005. The future of farming and conservation. *Letter to Science*, Vol 308:1257-1258.

- Perfecto, I., J. Vandermeer, L. Soto, y A. Mas. 2005. Biodiversity, yield and shade coffee certification. *Ecological Economics*, 54:435-446.).
- Mascaro, J., I. Perfecto, O. Barros, D. H. Boucher, I. Granzow de la Cerda, J. Ruiz, and J. Vandermeer. 2005. Aboveground biomass accumulation in a tropical wet forest in Nicaragua following a catastrophic hurricane disturbance. *Biotropica* 37: 600-608.
- Vandermeer, J. H., and M. Pascual. 2005. Competitive coexistence through intermediate polyphagy. *Ecological Complexity*, 3:37-43.
- Hooper, D. U., F. S. Chapin III, J. J. Ewel, A. Hector, P. Inchausti, S. Lavorel, J. H. Lawton, D. M. Lodge, M. Loreau, S. Naeem, B. Schmid, H. Setala, A. J. Symstad, J. Vandermeer, and D. A. Wardle. 2005. Effects of biodiversity on ecosystem functioning: A consensus of current knowledge. *Ecological Monographs* 75:3-35.
- Vandermeer, J. H. 2006. Omnivory and the stability of food webs. *J. Theor. Biol.* 238:497-504.
- Vandermeer, J., H. Liere, and B. Lin. 2006. Effects of predation pressure on species packing on a resource gradient: insights from nonlinear dynamics. *Theor. Pop. Biol.* 69:395-408.
- Vandermeer, J. and I. Perfecto. 2006. A keystone mutualism drives pattern in a power function. *Science*, 311:1000-1002.
- Perfecto, I. and J. Vandermeer. 2006. The effect of an ant/scale mutualism on the management of the coffee berry borer (*Hypothenemus hampei*) in southern Mexico. *Ag. Ecosyst. and Environ.* 117:218-221.
- Vandermeer, J., and I. Perfecto. 2006. Response to comments on “A keystone mutualism drives pattern in a power function. *Science* 313:1739.
- Vandermeer, J. 2006. Coupled oscillators and population dynamics. *BioScience* 56:967-975.
- Philpott SM, Perfecto I, Vandermeer J. 2006. Effects of management system and season on arboreal ant diversity and abundance in coffee agroecosystems. *Biodiversity and Conservation* 15: 139-155
- Vandermeer, J. 2006. Cascading thresholds to heteroclinicity in an ecosystem model. *Ecosystem Dynamics*, 1:373-379.
- Vandermeer, J. and I. Perfecto. 2007. The agricultural matrix and a future paradigm for conservation. *Conservation Biology* 21:274-277.

- Vandermeer, J., and I. Perfecto. 2007. Tropical conservation and grass roots social movements: Ecological theory and social justice. Bull. Ecol. Soc. Am. 88:171-175..
- Vandermeer, J., I. Perfecto, and S. M. Philpott. 2008. Clusters of ant colonies and robust criticality in a tropical agroecosystem. *Nature*, 451:457-459.
- Philpott SM, Perfecto I, Vandermeer J. 2008. Behavioral diversity of predatory ants in coffee agroecosystems. *Environmental Entomology*, 37:181-191.
- Perfecto, I., and J. Vandermeer. 2008. Spatial pattern and ecological process in the coffee agroecosystem. *Ecology* 89: 915-920. (Special Feature)
- Philpott SM, Perfecto I, Vandermeer J. 2008. Effects of predatory ants on lower trophic levels across a gradient of coffee management complexity *Journal of Animal Ecology* 77:505-511.
- Philpott, S. M., I. Perfecto, and J. Vandermeer 2008. Behavioral diversity of predatory ants in coffee agroecosystems. *Environmental Entomology* 37:181-191.
- Vandermeer, J., and B. Lin. 2008. The importance of matrix quality in fragmented landscapes: Understanding ecosystem collapse through a combination of deterministic and stochastic forces. *Ecological Complexity*, 5:222-227.
- Vandermeer, J. 2008. The niche construction paradigm in ecological time. *Ecol. Modeling*, 214:385-390.
- Perfecto, I. and J. Vandermeer. 2008. Biodiversity conservation in tropical agroecosystems: A new conservation paradigm. Ann.NY Acad. Sci. 1134:173-200.
- Williams-Guillen, K., I. Perfecto, and J. Vandermeer. 2008. Bats limit insects in a neotropical agroforestry system. *Science*, 320:70.
- Lin, B., I. Perfecto, and J. Vandermeer. 2008. Synergies between agricultural intensification and climate change could create surprising vulnerabilities for crop production. *BioScience*, 58:847-854.
- Philpott SM, Perfecto I, Vandermeer J, and Uno S. 2009. Spatial scale and density dependence in a host parasitoid system: an arboreal ant, *Azteca instabilis* and its *Pseudacteon* phorid parasitoid. *Environmental Entomology* 38:790-796.
- Vandermeer, J., I. Perfecto and H. Liere. 2009. Evidence for hyperparasitism of coffee rust (*Hemileia vastatrix*) by the entomogenous fungus, *Lecanicillium lecanii* through a complex ecological web. *Plant Pathology* 58:636-641.

- Garcia-Barrios, L., Y. M. Galvan-Miyoshi, I. A. Valdivieso-Pérez, O. R. Masera, G. Bocco, and J. Vandermeer. 2009. Agricultural intensification, and rural out-migration: The Mexican experience. BioScience 59:863-873.
- Jha, S. and J. Vandermeer. 2009. Contrasting bee foraging in response to resource scale and local habitat management. Oikos 118:1174-1180.
- Jha, S., Vandermeer, J. and Perfecto, I. 2009. Population dynamics of Coccus viridis, a ubiquitous ant-tended agricultural pest, assessed by a new photographic method. *Bull. Insectology* **62**, 183-189.
- Jackson, D., J. Vandermeer and I. Perfecto. 2009. Spatial and temporal dynamics of a fungal pathogen promote pattern formation in a tropical agroecosystem. The Open Ecology Journal 2:62-73.
- Allen, D., J. Vandermeer, and I. Perfecto 2009. When are habitat patches really islands? J. of Forest Ecology and Management 258:2033-2036.
- Goulart, F. F., J. Vandermeer, I. Perfecto, R. P. Matta-Machado. 2009. Análise agroecológica de dois paradigmas modernos. Revista Brasileira de Agroecologia 4:76-85.
- Ferguson, B. H. Morales, A. Gonzalez Rojas, F. de Jesus Iniguez Perez, M. E. Maerrtinez Torres, Kathleen McAfee, Ron Nigh, I. Perfeto, S. M. Philpott, L. Soto Pinto, J. Vandermeer, R. M. Vidal, L. E. Avila Romero, H. Bernardino, R. Realpozo Reyes. 2009. La soberania alimentaria: Cultivando nuevas alianzas entre ampo, bosque y ciudad. Agroecología. 4:49 – 58.
- Chappell, M. J., J. Vandermeer, C. Badgley and I. Perfecto. 2009. Wildlife-friendly farming versus land sparing (Peer-reviewed letter). *Frontiers in Ecology and the Environment* 7: 183.
- Vandermeer, J. and A. King. 2010. Consequential classes of resources: Subtle global bifurcation with dramatic ecological consequences in a simple population model. J. Theoretical Biology, J. Theor. Biol. 263:237-241.
- Perfecto, I., and J. Vandermeer. 2010. The agroecological matrix as alternative to the land-sparing/agriculture intensification model. PNAS 107:5786-5791.
- Vandermeer, J., I. Perfecto, and N. Schellhorn. 2010. Propagating sinks, ephemeral sources and percolating mosaics: Conservation in landscapes. Landscape Ecology, 25:509-518.
- Vandermeer, J., I. Perfecto and S. Philpott. 2010. Ecological complexity and pest control in organic coffee production: Uncovering an autonomous ecosystem service. BioScience 60:527-537.

- Jha, S., and J. Vandermeer. 2010. Impacts of coffee agroforestry management on tropical bee communities. *Biological Conservation*, 143:1423-1431.
- Vandermeer, J. 2010. How populations grow: The exponential and logistic equations. *Nature Education Knowledge* 1:15.
- Ruiz, J., J. Vandermeer, and I. Granzow de la Cerda. 2010. Growth and mortality patterns in a thinning canopy of post-hurricane regenerating rain forest in Eastern Nicaragua (1990 – 2005). *J. of Tropical Biology*, 58:1283-1297.
- Perfecto I, Vandermeer J, Philpott SM. 2010. Complejidad ecológica y el control de plagas en un cafetal orgánico: Desvelando un servicio ecosistémico autónomo. *Revista de Agroecología de la Universidad de Murcia* 5: 41-52
- Vandermeer, J. 2011. Intransitive loops in ecosystem models: from stable foci to heteroclinic cycles. *Ecological Complexity*, 8:92-97.
- Goulart, F. F., J. Vandermeer, I. Perfecto, and R. Pinto da Matta-Machado. 2011. Frugivory by five bird species in agroforest home gardens of Pontal do Paranapanema, Brazil. *Agroforestry Systems* 82:239-246.
- Yitbarek, S., J. Vandermeer, and D. Allen. 2011. The combined effects of exogenous and endogenous variability on the spatial distribution of ant communities in a forested ecosystem. *Environmental Entomology*, 40:1067-1073.
- Perfecto, I., and J. Vandermeer. 2011. Discovery Dominance Tradeoff: the case of *Pheidole subarmata* and *Solenopsis geminata* (Hymenoptera: Formicidae) in Neotropical Pastures. *Environmental Entomology*, 40: 999-1006.
- Vandermeer, J. 2011. Inevitability of surprise in agroecosystems. *Ecological Complexity*, 8:377-382.
- Fischer, J. P. Bataly, K.S. Bawa, L. Brussaard, M. J. Chappell, Y. Clough, G. C. Daily, J Dorrough, T. Hartel, L. E. Jackson, A. M. Klein, C. Kremen, T. Kuemmerle, D. B. Lindenmayer, H. A. Mooney, I. Perfecto, S. M. Philpott, T. Tscharntke, J. Vandermeer, T. C. Wanger, H. von Wehrden. 2011. Conservation: Limits of land sparing. *Science*, 334:593.
- Granzow-de la Cerda, I., F. Lloret, J. E. Ruiz, and J. H. Vandermeer. 2011. Tree mortality following ENSO-associated fires and drought in lowland rain forests of Eastern Nicaragua. *Forest Ecology and Management* 265:248-257.
- Lin, B.B., M. J. Chappell, J. Vandermeer, G. Smith, E. Qintero, R. Benzner-Kerr, D. M. Griffith, S. Ketcham, S. C. Latta, P. McMichael, K McGuire, R. Nigh, D. Rocheleau, J. Soluri and I. Perfecto. 2011. Effects of industrial agriculture on global warming and the potential of small-scale agroecological farming to mitigate those effects. *CAB Reviews*:

Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources 6 (20): 1-18.

Bell, A. R., R. L. Riolo, J. M. Doremus, D. G. Brown, T. P. Lyon, J. Vandermeer, and A. Agrawal. 2012. Fragmenting forests: the double edge of effective forest monitoring. *Env. Science and Policy* 16:20-30.

Vandermeer, J. and S. Yitbarek. 2012. Self-organized spatial pattern determines biodiversity in spatial competition. *J. of Theor. Biol.* 300:48-56.

Liere, H., D. Jackson, and J. Vandermeer. 2012. Ecological complexity in a coffee agroecosystem: Spatial heterogeneity, population persistence and biological control. *PLOS ONE*, 7(9): e45508. doi:10.1371/journal.pone.0045508.

Jackson, D., J. Skillman, and J. Vandermeer. 2012. Indirect biological control of the coffee leaf rust, *Hemileia vastratrix*, by the entomogenous fungus *Lecanicillium lecanii* in a complex coffee agroecosystem. *Biological Control*, 61:89-97.

Tscharntke, Teja, Y. Clough, L. Jackson, I. Motzke, I. Perfecto, J. Vandermeer, T. C Wanger, and A Whitbread 2012. Global food security, biodiversity conservation and the future of agricultural intensification. *Biological Conservation*, doi:10.1016/j.biocon.2012.01.068.

Jha, S., D. Allen, H. Liere, I. Perfecto, and J. Vandermeer. 2012. Mutualisms and population regulation: mechanism matters. *PLOS One*, 7(8): e43510.doi:10.1371/journal.pone.0043510.

Scheffer, M., S. Carpenter, T. M. Lenton, J. Bascompte, W. Brock, V. Dakos, J. van den Koppel, I. van de Leemput, S. Levin, E. H. van Nes, M. Pascual, J. Vandermeer. 2012. Anticipating critical transitions. *Science*, 338:344 - 348.

Vandermeer, J., and I. Perfecto. 2012. Complex traditions: Intersecting theoretical frameworks in agroecological research. *Agroecology and sustainable food systems*, 37:76-89.

Perfecto, I. and J. Vandermeer. 2012. Separación o integración para la conservación de biodiversidad: la ideología detrás del debate “land-sharing *versus* land-sparing.” *Ecosistemas* 21: 180-191.

Vandermeer, J. 2012. Forcing by rare species and intransitive loops creates distinct bouts of extinction events conditioned by spatial pattern in competition communities. *Theoretical Ecology*, DOI 10.1007/s12080-012-0175-z.

Vandermeer, J., and I. Perfecto. 2012. Syndromes of production in agriculture: Prospects for socioecological regime change. *Ecology and Society*, 17:39.

Perfecto, I., and J. Vandermeer. 2013. Ant assemblage on a coffee farm in southern Mexico: Spatial mosaic versus shifting patchwork. Env. Ent., in press.

Perfecto, I., and J. Vandermeer. 2013. Ant community structure and the ecosystem service of pest control in a coffee agroecosystem in southern Mexico. Neotropical Entomology, in press.

Jímenez-Soto, M. E., J. A. Cruz-Rodríguez, J. Vandermeer and I. Perfecto. 2013. *Hypothenemus hampei* (Coleoptera: Curculionidae) and its interactions with *Azteca instabilis* and *Pheidole synanthropica* (Hymenoptera: Formicidae) in a shade coffee agroecosystem. Environmental Entomology, in press.

Page, S., and J. Vandermeer. 2013. Inequality and Innovativeness. Social Sciences Research Network. <http://ssrn.com/abstract=2227002>

Cunningham, Saul; Simon J Attwood; Kamal S Bawa; Tim G Benton; Linda M Broadhurst; Raphael K Didham; Sue McIntyre; Ivette Perfecto; Michael J Samways; Teja Tscharntke; John Vandermeer; Marc-Andre Villard; Andrew G Young; David B Lindenmayer. 2013. To close the yield-gap while saving biodiversity will require multiple locally relevant strategies. Agriculture, Ecosystems and Environment, 173:20-27.

Gonthier, D. J., K. K. Ennis, S. M. Philpott, J. Vandermeer and I. Perfecto. 2013. Ants defend coffee from berry borer colonization. BioControl, DOI 10.1007/s10526-013-9541-z .