Stanford

Pamela Matson

Richard and Rhoda Goldman Professor of Environmental Studies and Senior Fellow at the Woods Institute, Emerita

Earth System Science

Curriculum Vitae available Online

Bio

BIO

PAMELA MATSON is an interdisciplinary sustainability scientist, former academic leader, and organizational strategist. She served as dean of Stanford University's School of Earth, Energy and Environmental Sciences from 2002-2017, building interdisciplinary departments and educational programs focused on resources, environment and sustainability, as well as co-leading university-wide interdisciplinary initiatives. In her role as the Goldman Professor of Environmental Studies and Senior Fellow in the Woods Institute for the Environment, she lead the graduate program on Sustainability Science and Practice. Her research addressed a range of environment and sustainability issues, including sustainability of agricultural systems, vulnerability and resilience of particular people and places to climate change, and characteristics of science that can contribute to sustainability transitions at scale. as an emerita faculty member, she continues to engage in questions related to transformational change for sustainability goals, and advises Stanford's efforts in that realm.

Dr. Matson served as chair of the board of the World Wildlife Fund-US and as a board member of the World Wildlife Fund-International and several university advisory boards. She served on the US National Academy of Science Board on Sustainable Development and co-wrote the National Research Council's volume Our Common Journey: A transition toward sustainability (1999); she also led the NRC committee on America's Climate Choices: Advancing the Science of Climate Change. She was the founding chair of the National Academies Roundtable on Science and Technology for Sustainability, and founding editor for the Annual Review of Environment and Resources. She is a past President of the Ecological Society of America. Her recent publications (among around 200) include the books 'Seeds of Sustainability: Lessons from the Birthplace of the Green Revolution' (2012) and 'Pursuing Sustainability' (2016).

Pam is an elected member of the National Academy of Science and the American Academy of Arts and Sciences, and is a AAAS Fellow. She received a MacArthur Foundation Award, contributed to the award of the Nobel Prize to the Intergovernmental Panel on Climate Change, among other awards and recognitions, and is an Einstein Fellow of the Chinese Academy of Sciences.

Dr. Matson holds a Bachelor of Science degree with double majors in Biology and Literature from the University of Wisconsin (Eau Claire), a Master degree in Environmental Science and Policy from Indiana University's School of Public and Environmental Affairs, a Doctorate in Forest Ecology from Oregon State University, and honorary doctorates from Princeton, McGill and Arizona State Universities. She spent ten years as a research scientist with NASA-Ames Research Center before moving to a professorship at the University of California Berkeley and, in 1997, to Stanford University.

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Earth System Science

- Affiliate, Precourt Institute for Energy

ADMINISTRATIVE APPOINTMENTS

- Faculty Director for the Sustainability, Science, and Practice Master's Program, Stanford University, (2017-2023)
- Senior Fellow, Woods Institute for the Environment, (2005-2023)
- Naramore Dean of the School of Earth, Energy and Environmental Sciences, Stanford University, (2002-2017)
- Co-director Center for Environmental Science and Policy, Stanford University, (2000-2002)
- Sant Director of the Earth Systems Program, Stanford University, (1999-2002)
- Richard and Rhoda Goldman Professor in Environmental Sciences, Stanford University, (1997-2023)
- Professor, University of California, Berkeley, (1993-1998)
- Research Scientist, NASA-Ames Research Center, (1983-1993)
- Post-doctoral Fellow Department of Entomology, North Carolina State University, (1983-1983)

HONORS AND AWARDS

- Honorary Degree, University of Wisconsin Eau Claire (2023)
- Excellence in Teaching, Stanford Earth (2022)
- Foundation Fellow, International Science Council (2022)
- Faculty Women's Forum Deborah Rhode Lifetime Achievement Award, Stanford University (2021)
- Tellus Mater Distinguished Fellow, Cambridge University (2019)
- Honorary Doctorate, McGill University (2017)
- Honorary Doctorate, Princeton University (2017)
- Fellow, California Academy of Sciences (2015)
- Doctor of Science Honorary Degree, Arizona State University (2014)
- Honorary Member, British Ecological Society (2013)
- Sustainability Science Award, Ecological Society of America (2013)
- Top 100 Women of Influence, Silicon Valley Business Journal (2013)
- Fellow, Ecological Society of America (2012)
- Einstein Visiting Professor, Chinese National Academy (2011)
- Eminent Ecologist Award, Colorado State University (2009)
- Major contributor to Nobel Peace prize awarded to Intergovernmental Panel on Climate Change, Norwegian Nobel Committee (2007)
- The 2005 Richard W. Lyman Award, Stanford University (2005)
- McMurtry University Fellow for Undergraduate Education, McMurtry University (2002)
- National Associate, National Academy of Sciences (2002)
- Leopold Leadership Fellow, Leopold Leadership Program (1999)
- Richard and Rhoda Goldman Professorship, Stanford University (1999)
- Distinguished Alumni Award, Oregon State University (1998)
- School of Public and Environmental Affairs Distinguished Alumni Award, Indiana University (1998)
- AAAS Fellow, American Academy of Arts and Sciences (1997)
- Distinguished Alumni Award, University of Wisconsin-Eau Claire (1996)
- MacArthur Fellow, MacArthur Fellowship (1995-2000)

- Elected Member, National Academy of Sciences (1994)
- Exceptional Service Medal, NASA (1993)
- Elected Member, American Academy of Arts and Sciences (1992)
- Fellow, Ames (NASA) Associate (1992)
- Research Paper Award, Oregon State University (1984)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member and Chair, Emerita, World Wildlife Fund (2022 - present)
- External to Stanford, ---- (1992 - present)
- Member, ISC Board Subcommittee for Science, International Science Council (2021 - 2025)
- Ex-Officio, Board on International Scientific Organizations (2022 - 2025)
- Member, Board, World Resources Institute (2023 - 2025)
- Member and chair emerita, World Wildlife Fund (2022 - present)
- Member, ISC Governing Board, International Science Council (2021 - 2025)
- Chair, Advisory Board, Gund Institute (University of Vermont) (2018 - 2025)
- Member, National Council, World Wildlife Fund (2023 - present)
- Member, Flagship Institute of Sustainability, Strategic Planning Committee, Tohoku University (2022 - 2022)
- Chair, US Board of Trustees, World Wildlife Fund (2018 - 2022)
- Member, International Board of Directors, World Wildlife Fund (2018 - 2022)
- Member, Advisory Council, FutureEarth (2018 - 2020)
- Member, Board of Directors, FFAR (Foundation for Food and Agriculture Research) (2014 - 2015)
- Vice Chair, Board of Trustees, World Wildlife Fund (2012 - 2018)
- Member, Board of Trustees, ClimateWorks (2011 - 2020)
- Member, External Advisory Board for School of Global Environmental Sustainability, Colorado State University (2010 - 2016)
- Member, Advisory Board, National Park System (2010 - 2012)
- Member, Advisory Board, Climate Central, Inc. (2009 - 2012)
- Member, NAS Committee on America's Climate Choices, National Academy of Science (2009 - 2012)
- Member, NAS Committee on Climate, Energy and National Security, National Academy of Science (2009 - 2011)
- Member, NAS Science Ambassador Program Advisory Board, National Academy of Science (2009 - 2010)
- Member, NAS Certification Committee, National Academy of Science (2009 - 2009)
- Member, Board of Advisors, Global Institute of Sustainability, Arizona State University (2007 - 2021)
- Member, Advisory Board, Department of Ecology and Evolutionary Biology, Princeton University (2007 - 2019)
- Member, Editorial Board, Proceedings of the National Academy of Sciences (2006 - 2015)
- Founding Editor and Editorial Board Member, Annual Review of Environment and Resources (2002 - 2015)
- Member, Board of Trustees, World Wildlife Fund (2003 - 2022)
- Founding Editor and Editorial Board Member, Annual Review of Energy and the Environment (2001 - 2015)
- Founding Co-Chair, NAS Roundtable on Science and Technology for Sustainability, National Academy of Sciences (2001 - 2009)
- Advisory Committee for Environmental Program, Luce Foundation (2001 - 2007)
- Chair, Section on Ecology and Environmental Sciences, National Academy of Sciences (2001 - 2004)
- President, Ecological Society of America (2001 - 2003)

- Member, Board of Trustees, National Park Conservation Association (2000 - 2007)
- Member, National Academy of Sciences Temporary Nominating Group on Global and Human Environmental Science, National Academy of Sciences (2000 - 2004)
- Member, Coordinating Committee on the Sustainability Transition, National Academies of Science (2000 - 2002)
- President Elect, Ecological Society of America (2000 - 2001)
- Co-Chair, Section 27, National Academy of Sciences (1998 - 2001)
- Lead Author, Working Group 1, Chapter 4, IPCC (Intergovernmental Panel on Climate Change) (1998 - 2001)
- Liaison, Section 27, National Academy of Sciences (1998 - 2001)
- Member, Science Advisory Committee, Organization of Tropical Studies (1998 - 2001)
- Editorial Board, Annual Review of Energy and Environment (1998 - 2000)
- Member, International SCOPE project on nitrogen transport and transformations, SCOPE (1998 - 2000)
- Program Committee for the XVI International Botanical Congress, International Botanical Congress (1998 - 1999)
- Editorial Board, Ecosystems (1997 - 2002)
- Member, Vice Chair and Executive Committee Member, Scientific Advisory Committee, International Geosphere-Biosphere Program (1997 - 2001)
- Member, Advisory Committee, Natural Resource Ecology Laboratory (1996 - 2000)
- Member, U.S. National Committee, Scientific Committee on Problems of the Environment (SCOPE) (1996 - 1999)
- Member, Board of Trustees, Institute of Ecosystem Studies (1995 - 2004)
- Member, Board on Sustainable Development, National Academy of Sciences (1995 - 2000)
- Chair, Sustainable Biosphere Initiative Steering Committee, Ecological Society of America (1994 - 2000)
- Editorial Board, Ecological Applications (1994 - 2000)
- Member, Boreal Ecosystem-Atmosphere Exchange Study Advisory Committee, NASA (1994 - 1998)
- Member, Mission to Planet Earth Advisory Committee, NASA (1994 - 1997)
- Editorial Board, Global Change Biology (1994 - 1997)
- Member, Advisory Board, Aspen Global Change Institute (1992 - 2012)
- Visiting committee or review committee member, MIT, Cornell, Princeton, Utah, Colorado State, Colorado, etc
- Stanford:, __ (1997 - present)
- Chair, Provost's Committee on Sustainability, Stanford University (2012 - 2017)
- Member, Advisory Council, Woods Institute for the Environment (2006 - 2017)
- Science Director, Leopold Leadership Program, Stanford University (2004 - 2017)
- Stanford Environmental Initiative Leader, Stanford University (2004 - 2011)
- Ex Officio member of Stanford University Academic Senate, Stanford University (2002 - 2017)
- Member, Executive Committee of the Emmett Interdisciplinary Program in Environment and Resources, Stanford University (2001 - 2006)
- Sophomore Advisor, Stanford University (2001 - 2006)
- Chair, Ad hoc Committee for a Interdisciplinary Environmental Studies Graduate Program, Stanford University (2000 - 2001)
- Member, Provost's Task Force on University Needs, Stanford University (2000 - 2001)
- Provost's Committee on Environment, Stanford University (1999 - 2004)
- Provost's Committee to form Stanford Institute for the Environment, Stanford University (1999 - 2003)
- Director, Earth Systems Program, Stanford University (1999 - 2002)
- Dean of the School of Education Search Committee, Stanford University (1999 - 2000)
- Institute for International Studies Search Committee, Stanford University (1998 - 2001)

- Acting Director, Earth Systems Program, Stanford University (1998 - 1999)
- Goldman Honors Program faculty member, Stanford University (1997 - 2002)
- Sexual Harassment Advisor, School of Earth Sciences, Stanford University (1997 - 2001)
- Invited lectures, seminars, and speeches:, __ (1997 - present)
- Keynote Address, Resilience 2011 Conference, Arizona State University, Tempe (2011 - 2011)
- Betty Klepper Lecture, Crop Science Society of America Meeting, Long Beach, Crop Science Society of America (2010 - 2010)
- Distinguished Lecturer, University of Hawaii, Honolulu (2010 - 2010)
- Keynote speaker, Wallace Stegner Center for Land, Resources and the Environment Annual Symposium, University of Utah (2010 - 2010)
- Session speaker, Annual Meeting in San Francisco, American Geophysical Union (2010 - 2010)
- Invited speaker, "Climate Change: Global Risks, Challenges and Decisions" in Copenhagen, Denmark, University of Copenhagen and the International Alliance of Research Universities (2009 - 2009)
- Participant, NSF Conference "Towards a Science of Sustainability", National Science Foundation (2009 - 2009)
- Presenter at Symposium during AAAS Annual Meeting. Invited lecture at the University of Texas, Austin., The American Academy of Arts and Sciences (2008 - 2008)
- Speaker at Three Symposia at AAAS Annual Meeting in San Francisco. Invited lectures at Columbia University, Lamont-Doherty Earth Observatory, Duke University and Oregon State University., The American Academy of Arts and Sciences (2007 - 2007)
- Plenary Lecture at AAAS Annual Meeting, St. Louis. Invited lectures at Arizona State University, the U.S. Geological Survey and the Long-Term Ecological Research (LTER) All-Scientists Meeting. Panelist at Society of Petroleum Engineering Annual Technical Conference and Exhibition., The American Academy of Arts and Sciences (2006 - 2006)
- Invited lecturer, The University of Wisconsin, Eau Claire, and the University of Virginia, Charlottesville (2005 - 2005)
- Invited lecturer, University of Georgia, Athens, Brown University and Woods Hole Marine Biological Laboratory. (2004 - 2004)
- Invited lecturer, Yale University, Massachusetts Institute of Technology and Princeton University (2003 - 2003)
- Invited Seminars: Stanford Think Again in Washington, Vancouver,, Stanford Think Again (2002 - 2002)
- Invited Seminars, University of Illinois, Harvard University, UC Davis, University of Wisconsin, Stanford University (2001 - 2001)
- Invited Seminars, Carnegie Institution Global Ecology Lecturer, World Affairs Council of Northern California, Institute of Ecosystem Studies, Royal Swedish Academy of Sciences, National Academy of Sciences Presidents' Circle, Stanford Law School, Peninsula Geological Association (2000 - 2000)
- Invited Seminars, Carnegie Institution Capital Science Lecture, International Botanical Congress, UC Davis, IGBP Congress keynote speaker, University of Connecticut Teale Lecturer, Penn State Life Sciences Consortium Colloquium, State University of New York (1999 - 1999)
- Invited testimony, California Senate Environmental Quality Committee (1999 - 1999)
- Invited Seminars, National Academy of Sciences Symposium, USDA Anniversary Celebration, UCSC Resources in Environmental Education Program, SCOPE 10th General Assembly, University of Minnesota Lindeman Lecturer (1998 - 1998)
- Invited Seminars, Oregon State University; University of Texas, Austin; Colorado State University, Eminent Ecologists Series (3 seminars); UC Santa Cruz; Stanford University; Lawrence Berkeley National Laboratory; Greater Yellowstone Coalition, Boseman (1997 - 1997)

PROGRAM AFFILIATIONS

- Center for Latin American Studies

PROFESSIONAL EDUCATION

- Ph.D., Oregon State University , Forest Ecology (1983)
- M.S., Indiana University , Environmental Science (1980)
- B.S., University of Wisconsin-Eau Claire , Biology (magna cum laude) (1975)

LINKS

- Matson Sustainability Science Research Laboratory: http://pangea.stanford.edu/researchgroups/matsonlab/
- Pursuing Sustainability: http://pursuingsustainability.org

Research & Scholarship

PROJECTS

- Progress, Challenges, and Opportunities for Sustainability Science: A Workshop - The National Academies of Sciences, Engineering, and Medicine (11/30/2021 - 12/2/2021)
- The Nobel Prize Summit: - Nobel Foundation (4/26/2022 - 4/28/2022)

Teaching

COURSES

2024-25

- Pursuing Sustainability: Managing Complex Social Environmental Systems: SUST 210 (Aut)

2023-24

- Pursuing Sustainability: Managing Complex Social Environmental Systems: ESS 230, SUST 210 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Sierra Castaneda

Publications

PUBLICATIONS

- **What Is Endangered Now? Climate Science at the Crossroads** *AGU ADVANCES*
  Saleska, S. R., Wofsy, S. C., Battisti, D., Easterling, W. E., Field, C., Fung, I., Hansen, J. E., Harte, J., Kirk-Davidoff, D., Matson, P. A., McWilliams, J. C., Overpeck, J. T., Russell, et al
  2025; 6 (3)
- **CLIMATE-CHANGE-INDUCED TEMPORAL VARIATION IN PRECIPITATION INCREASES NITROGEN LOSSES FROM INTENSIVE CROPPING SYSTEMS: ANALYSIS WITH A TOY MODEL** *FRONTIERS OF AGRICULTURAL SCIENCE AND ENGINEERING*
  Vitousek, P. M., Chen, X., Cui, Z., Liu, X., Matson, P. A., Ortiz-monasterio, I., Robertson, G., Zhang, F.
  2022; 9 (3): 457-464
- **Systems-level partnerships for sustainability at scale** *NATURE SUSTAINABILITY*
  Matson, P.
  2021
- **A Core Curriculum for Sustainability Leadership** *SUSTAINABILITY*
  Novy, J., Banerjee, B., Matson, P.
  2021; 13 (19)
- **Globalization of nitrogen deposition and ecosystem response: A 20-year perspective : This article belongs to Ambio's 50th Anniversary Collection. Theme: Eutrophication.** *Ambio*
  Hall, S. J., Lohse, K. A., Matson, P. A.
  2021
- **Rainfall intensification increases nitrate leaching from tilled but not no-till cropping systems in the US Midwest** *AGRICULTURE ECOSYSTEMS & ENVIRONMENT*
  Hess, L. J. T., Hinckley, E. S., Robertson, G., Matson, P. A.
  2020; 290
- **Natural climate solutions are not enough.** *Science (New York, N.Y.)*
  Anderson, C. M., DeFries, R. S., Litterman, R., Matson, P. A., Nepstad, D. C., Pacala, S., Schlesinger, W. H., Shaw, M. R., Smith, P., Weber, C., Field, C. B.

2019; 363 (6430): 933–34

- **Interdisciplinary Teaching About Earth and the Environment for a Sustainable Future Foreword** *INTERDISCIPLINARY TEACHING ABOUT EARTH AND THE ENVIRONMENT FOR A SUSTAINABLE FUTURE*
  Matson, P.
  edited by Gosselin, D. C., Egger, A. E., Taber, J. J.
  2019: VII-VIII

- **Rainfall Intensification Enhances Deep Percolation and Soil Water Content in Tilled and No-Till Cropping Systems of the US Midwest** *VADOSE ZONE JOURNAL*
  Hess, L. J. T., Hinckley, E. S., Robertson, G., Hamilton, S. K., Matson, P. A.
  2018; 17 (1)

- **Evolution of the knowledge system for agricultural development in the Yaqui Valley, Sonora, Mexico.** *Proceedings of the National Academy of Sciences of the United States of America*
  McCullough, E. B., Matson, P. A.
  2016; 113 (17): 4609-14

- **Linking knowledge with action in the pursuit of sustainable water-resources management.** *Proceedings of the National Academy of Sciences of the United States of America*
  Jacobs, K., Lebel, L., Buizer, J., Addams, L., Matson, P., McCullough, E., Garden, P., Saliba, G., Finan, T.
  2016; 113 (17): 4591-6

- **Evidence for a historic change occurring in China** *Environmental Science and Technology*
  Liu, X., Vitousek, P., Chang, Y., Zhang, W., Matson, P., Zhang, F.
  2016; 50: 505-506

- **Pursuing Sustainability: A Guide to the Science and Practice**
  Matson, P. A., Clark, W. C., Andersson, K.
  Princeton University Press.2016

- **Towards seaport resilience for climate change adaptation: Stakeholder perceptions of hurricane impacts in Gulfport (MS) and Providence (RI)** *Progress in Planning*
  Becker, A., Matson, P., Fischer, M., Mastrandrea, M.
  2014

- **Agricultural Nutrient Use and Its Environmental Consequences** *The Evolving Sphere of Food Security*
  Vitousek, P. M., Matson, P. A.
  edited by Naylor, R. L.
  Oxford University Press.2014: 269–285

- **Energy in the Context of Sustainability** *DAEDALUS*
  Bierbaum, R. M., Matson, P. A.
  2013; 142 (1): 146-161

- **From Global Environmental Change to Sustainability Science: Ecosystem Studies in the Yaqui Valley, Mexico** *Fundamentals of Ecosystem Science*
  Matson, P. A.
  edited by Weathers, K. C., Strayer, D. L., Likens, G. E.
  Academic Press, Elsevier.2013: 233–241

- **Planetary Opportunities: A Social Contract for Global Change Science to Contribute to a Sustainable Future** *BIOSCIENCE*
  DeFries, R. S., Ellis, E. C., Chapin, F. S., Matson, P. A., Turner, B. L., Agrawal, A., Crutzen, P. J., Field, C., Gleick, P., Kareiva, P. M., Lambin, E., Liverman, D., Ostrom, et al
  2012; 62 (6): 603-606

- **Seeds of Sustainability: Lessons from the Birthplace of the Green Revolution in Agriculture**
  edited by Matson, P. A.
  Island Press, Washington DC.2012

- **Transformations, transport, and potential unintended consequences of high sulfur inputs to Napa Valley vineyards** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Hinckley, E. S., Matson, P. A.
  2011; 108 (34): 14005-14010

- **Integrated soil-crop system management for food security** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Chen, X., Cui, Z., Vitousek, P. M., Cassman, K. G., Matson, P. A., Bai, J., Meng, Q., Hou, P., Yue, S., Roemheld, V., Zhang, F.
  2011; 108 (16): 6399-6404

- **Short-term fates of high sulfur inputs in Northern California vineyard soils** *NUTRIENT CYCLING IN AGROECOSYSTEMS*
  Hinckley, E. S., Fendorf, S., Matson, P.
  2011; 89 (1): 135-142

- **Principles of Terrestrial Ecosystem Ecology**
  Chapin III, F. S., Matson, P. A., Vitousek, P.
  Springer: New York.2011

- **Narrowing the agronomic yield gap with improved nitrogen use efficiency: a modeling approach** *ECOLOGICAL APPLICATIONS*
  Ahrens, T. D., Lobell, D. B., Ortiz-Monasterio, J. I., Li, Y., Matson, P. A.
  2010; 20 (1): 91-100

- **Linking knowledge with action in the pursuit of sustainable water-resource management** *Proceedings of the National Academy of Sciences*
  Jacobs, K., Lebel, L., Buizer, J., Addams, L., Matson, P., McCullough, E., Garden, P., Saliba, G., Finan, T.
  2010

- **America's Climate Choices: Advancing the Science of Climate Change** *National Research Council of the National Academies Committee (Matson, co-chair)*
  Matson, P. A.
  National Aacademy Press, Washington, DC.2010

- **The Sustainability Transition** *ISSUES IN SCIENCE AND TECHNOLOGY*
  Matson, P.
  2009; 25 (4): 39-42

- **Nutrient Cycling and Biogeochemistry** *Princeton Guide to Ecology*
  Vitousek, P. M., Matson, P. A.
  edited by Levin, S. A.
  Princeton University Press.2009

- **Nutrient Balances in Agricultural Development** *Science*
  Vitousek, P. M., Naylor, R., Crews, T., David, M. B., Drinkwater, L. E., Holland, E., Jones, P. J., Katzenberger, J., Martinelli, L. A., Matson, P. A., Nziguheba, G., Ojima, D., Palm, et al
  2009; 324 (5934): 1519-1520

- **A synthesis of nitrogen transformations and transfers from land to the sea in the Yaqui Valley agricultural region of Northwest Mexico** *WATER RESOURCES RESEARCH*
  Ahrens, T. D., Beman, J. M., Harrison, J. A., Jewett, P. K., Matson, P. A.
  2008; 44

- **Ecosystem services: From theory to implementation** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Daily, G. C., Matson, P. A.
  2008; 105 (28): 9455-9456

- **Reconciling carbon-cycle concepts, terminology, and methods** *ECOSYSTEMS*
  Chapin, F. S., Woodwell, G. M., Randerson, J. T., Rastetter, E. B., Lovett, G. M., Baldocchi, D. D., Clark, D. A., Harmon, M. E., Schimel, D. S., Valentini, R., Wirth, C., Aber, J. D., Cole, et al
  2006; 9 (7): 1041-1050

- **A case study of land reform and coastal land transformation in southern Sonora, Mexico** *LAND USE POLICY*
  Luers, A. L., Naylor, R. L., Matson, P. A.
  2006; 23 (4): 436-447
- **The influence of tropical plant diversity and composition on soil microbial communities** *MICROBIAL ECOLOGY*
  Carney, K. M., Matson, P. A.
  2006; 52 (2): 226-238
- **Business strategies for conservation on private lands: Koa forestry as a case study** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Goldstein, J. H., Daily, G. C., Friday, J. B., Matson, P. A., Naylor, R. A.
  2006; 103 (26): 10140-10145
- **Agricultural intensification: Will land spared from farming be land spared for nature?** *CONSERVATION BIOLOGY*
  Matson, P. A., Vitousek, P. M.
  2006; 20 (3): 709-710
- **Variations in soil N cycling and trace gas emissions in wet tropical forests** *OECOLOGIA*
  Holtgrieve, G. W., Jewett, P. K., Matson, P. A.
  2006; 146 (4): 584-594
- **Plant communities, soil microorganisms, and soil carbon cycling: Does altering the world belowground matter to ecosystem functioning?** *ECOSYSTEMS*
  Carney, K. M., Matson, P. A.
  2005; 8 (8): 928-940
- **Analysis of wheat yield and climatic trends in Mexico** *FIELD CROPS RESEARCH*
  Lobell, D. B., Ortiz-Monasterio, J. I., Asner, G. P., Matson, P. A., Naylor, R. L., Falcon, W. P.
  2005; 94 (2-3): 250-256
- **Consequences of nitrogen additions for soil losses from wet tropical forests** *ECOLOGICAL APPLICATIONS*
  Lohse, K. A., Matson, P.
  2005; 15 (5): 1629-1648
- **Effects of a diel oxygen cycle on nitrogen transformations and greenhouse gas emissions in a eutrophied subtropical stream** *AQUATIC SCIENCES*
  Harrison, J. A., Matson, P. A., Fendorf, S. E.
  2005; 67 (3): 308-315
- **Agricultural runoff fuels large phytoplankton blooms in vulnerable areas of the ocean** *NATURE*
  Beman, J. M., Arrigo, K. R., Matson, P. A.
  2005; 434 (7030): 211-214
- **People, land use and environment in the Yaqui Valley, Sonora, Mexico** *Population, Land Use, and Environment*
  Matson, P., Luers, A., Seto, K., Naylor, R., Ortiz-Monasterio, I.
  edited by Entwisle, B., Stern, P.
  National Research Council, Washington, DC.2005: 238–264
- **Diversity and composition of tropical soil nitrifiers across a plant diversity gradient and among land-use types** *ECOLOGY LETTERS*
  Carney, K. M., Matson, P. A., Bohannan, B. J.
  2004; 7 (8): 684-694
- **Global change and the earth system: A planet under pressure (Book Review)** *NATURE*
  Book Review Authored by: von Storch, H.
  2004; 429 (6989): 244-245
- **A method for quantifying vulnerability, applied to the agricultural system of the Yaqui Valley, Mexico** *GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS*
  Luers, A. L., Lobell, D. B., Sklar, L. S., Addams, C. L., Matson, P. A.
  2003; 13 (4): 255-267

- **Erosion and the rejuvenation of weathering-derived nutrient supply in an old tropical landscape** *ECOSYSTEMS*
  Vitousek, P., Chadwick, O., Matson, P., Allison, S., Derry, L., Kettley, L., Luers, A., Mecking, E., Monastra, V., Porder, S.
  2003; 6 (8): 762-772

- **Nutrient losses over four million years of tropical forest development** *ECOLOGY*
  Hedin, L. O., Vitousek, P. M., Matson, P. A.
  2003; 84 (9): 2231-2255

- **Effect of land use change on soil carbon in Hawaii** *BIOGEOCHEMISTRY*
  Osher, L. J., Matson, P. A., Amundson, R.
  2003; 65 (2): 213-232

- **Patterns and controls of nitrous oxide emissions from waters draining a subtropical agricultural valley** *GLOBAL BIOGEOCHEMICAL CYCLES*
  Harrison, J., Matson, P.
  2003; 17 (3)

- **A framework for vulnerability analysis in sustainability science** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Turner, B. L., Kasperson, R. E., Matson, P. A., McCarthy, J. J., Corell, R. W., Christensen, L., Eckley, N., Kasperson, J. X., Luers, A., Martello, M. L., Polsky, C., Pulsipher, A., Schiller, et al
  2003; 100 (14): 8074-8079

- **Illustrating the coupled human-environment system for vulnerability analysis: Three case studies** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Turner, B. L., Matson, P. A., McCarthy, J. J., Corell, R. W., Christensen, L., Eckley, N., Hovelsrud-Broda, G. K., Kasperson, J. X., Kasperson, R. E., Luers, A., Martello, M. L., Mathiesen, S., Naylor, et al
  2003; 100 (14): 8080-8085

- **Nutrient status of tropical rain forests influences soil N dynamics after N additions** *ECOLOGICAL MONOGRAPHS*
  Hall, S. J., Matson, P. A.
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