

CURRICULUM VITA
G. PHILIP ROBERTSON

University Distinguished Professor
Dept. of Plant, Soil, and Microbial Sciences and
W. K. Kellogg Biological Station
Michigan State University
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Education

1976 B. A. Hampshire College, Amherst, Massachusetts
1980 Ph.D. Biology (Ecology & Evolutionary Biology), Indiana University (advisor P.M. Vitousek)

Professional Appointments

2009-now University Distinguished Professor, Dept. of Plant, Soil, and Microbial Sciences and W.K. Kellogg Biological Station (KBS), Michigan State University (50% from 2024)
2020-now Director, KBS Long-term Agroecosystem Research Program (KBS LTAR)
2017-2021 Science Director, DOE Great Lakes Bioenergy Research Center, UW/MSU
2008-2016 Research Lead for Sustainability, DOE Great Lakes Bioenergy Research Center, UW/MSU
1988-2016 Director, KBS Long-term Ecological Research Site (KBS LTER)
1996-2009 Professor, Dept. of Crop and Soil Sciences and KBS, Michigan State University
1990-1996 Associate Professor, Dept. of Crop and Soil Sciences and KBS, Michigan State University
1987-1990 Assistant Professor, Dept. of Crop and Soil Sciences and KBS, Michigan State University
1985-1987 Assistant Professor (Research), W. K. Kellogg Biological Station, Michigan State University

1981-1984 Postdoctoral Research Associate, Dept. of Crop and Soil Sciences and Dept. of Microbiology and Public Health, Michigan State University (advisor J.M. Tiedje)
1980-1981 SCOPE-Mellon Postdoctoral Fellow, UNEP International Nitrogen Unit, Royal Swedish Academy of Sciences, Stockholm (advisor T. Rosswall)
1976-1979 Associate Instructor, Dept. of Biology, Indiana University

Sabbatical Appointments

2018 Visiting Scholar, Cambridge University, UK
Visiting Scholar, Queensland University of Technology, Brisbane
2010-2011 Visiting Scholar, University of New Mexico
2001-2002 Visiting Scholar, Cooperative Research Center for Greenhouse Accounting, University of Queensland, Brisbane
1993-1994 Visiting Scholar, Waite Institute, University of Adelaide, South Australia

Professional Honors and Affiliations

Member, National Academy of Sciences (2025)
Fellow, Ecological Society of America (2024)
Fellow, AAAS (2015)
Fellow, Soil Science Society of America (2003)
Clarivate highly cited researcher beginning 2018
LTAR Founders Award, USDA Agricultural Research Service (2022)
Philip C. Hamm Memorial Lecture Award, University of Minnesota (2012)

William E. Larson and Raymond R. Allmaras Lectureship, University of Minnesota (2009)
 MSU William J. Beal Outstanding Faculty Award (2005)
 William E. Pierre Soil Science Lectureship, Iowa State University (2003)
 Member of AAAS, AIBS, Ecological Society of America, Soil Science Society of America, American Geophysical Union

Primary Grant Support

current USDA-ARS. Greenhouse gas dynamics in agricultural systems. PI; \$1.2M (awarded but paused).

current DOE Office of Science (Biological and Environmental Sciences Division): Great Lakes Bioenergy Research Center; co-PI with T. Donohue (PI; UW-Madison) and others; 60 co-I's. \$138M (2022-2027).

current USDA (ARS): Long-term Agroecosystem Research (LTAR): Ecosystem services from row-crop agriculture; PI with co-PI N. Haddad. \$5M (2025-2030).

current USDA (NIFA-DSFAS): Machine learning with multi-source data to improve quantitative models for agricultural nitrous oxide flux predictions. Co-PI with D. Saha (PI), C. Subhadeep, K. Armen. \$650,000 (2023-2026).

current Michigan Dept. of Agriculture and Rural Development. Ensuring the success of Michigan farms in the face of climate change. Co-PI with C. Sprunger (PI), 11 others; \$1.2M (2024-2027).

current NSF (Division of Environmental Biology): LTER: KBS – Ecological and social mechanisms of resilience in agroecosystems. Co-PI with N. Haddad (co-lead), S. Evans (co-lead), B. Basso, A. Kravchenko, J. Lau, S. Marquart-Pyatt, C. Sprunger, and P. Zarnetske; \$7.65M (2022-2028).

current NSF (Division of Environmental Biology): Expansion of Kellogg Biological Field Lab for archive, sample preparation, and outreach to support Long Term Research Programs; co-PI with N. Haddad, PI; \$513,420 (2023-2025).

2022-2025 NSF (Division of Biological Infrastructure). REU Site: Ecological and evolutionary dynamics in a changing world; S. Evans and F. Janzen (co-leads). \$398,004.

2020-2025 USDA (ARS): Collaborative Long-term Agroecosystem Research (LTAR): Ecosystem services from row-crop agriculture; PI with co-PIs S.K. Hamilton, N. Haddad. \$4.0M.

2023-2024 NASA. Evaluating the sensitivity of fine spatial resolution X-band SAR time series to the phenology of multiple crops using Capella Space products. Co-operator with G. M. Henebry, PI; \$99,910.

2022-2024 DOE (Lawrence Livermore National Lab): Road to Neutral. PI with co-PI B. Basso; subcontract \$50,000.

2018-2023 NSF (Division of Environmental Biology): The ecological significance of nitrogen fixation in perennial grasses; co-PI with S.S. Roley (PI; Washington State), D. Buckley (Cornell Univ); \$1.1M.

2018-2022 NSF (Division of Environmental Biology): LTER: KBS – Mechanisms of resilience in agricultural landscapes. Co-PI with N. Haddad (PI), S.E. Evans, S.H. Hamilton, D.A. Landis, J.A. Lau, S.T. Marquart-Pyatt, and S.M. Swinton; \$2.3M.

2018-2022 DOE Office of Science (Biological and Environmental Sciences Division): Great Lakes Bioenergy Research Center; co-PI with T. Donohue (PI; UW-Madison) and R. Landick (UW-Madison); 60 co-I's. \$125M.

2020-2021 NSF (Division of Biological Infrastructure): NEON LTAR Workshop: Identifying continent scale questions and approaches for advancing the sustainable intensification of US agriculture. PI; \$98,666.

- 2015-2020 USDA (ARS): Collaborative Long-term Agricultural Research (LTAR): Ecosystem services from row-crop agriculture; with co-PI S.K. Hamilton. \$97,182.
- 2017-2019 USDA (Foreign Agricultural Services): Nitrous oxide quantification and mitigation in Mexican grain crops; co-PI with postdoc N. Millar (PI); \$78,000.
- 2016-2018 NSF (Division of Environmental Biology): LTER: The ecology of row crop ecosystems and landscapes at the KBS LTER site. Co-PI with S.K. Hamilton (PI), S.E. Evans, D.A. Landis, J.A. Lau, S.T. Marquart-Pyatt, and S.M. Swinton; \$2.3M.
- 2013-2018 NSF (BCS Coupled Natural-Human Systems): A social-ecological analysis of nitrogen in agricultural systems of the Upper Midwest. Co-PI with D. Stuart (PI), D. Basso, S.T. Marquart-Pyatt, J. Zhao. \$1.5M.
- 2012-2017 DOE Office of Science (Biological and Environmental Sciences Division): Great Lakes Bioenergy Research Center; co-PI with T. Donohue (PI), K. Keegstra, B. Dale, J. Ralph, R. Landick; and ~50 co-I's. \$125M [Research Leader for Sustainability, \$20M].
- 2010-2016 NSF (Division of Environmental Biology): Long Term Ecological Research in field crop ecosystems. PI with co-PIs K.L. Gross, S.K. Hamilton, D.A. Landis, T.M. Schmidt, S. Snapp, S.M. Swinton; and 34 Co-I's; \$6.3M.
- 2015-2016 USDA (Foreign Agricultural Services): Nitrous oxide quantification and mitigation in Mexican grain crops; co-PI with postdoc N. Millar (PI); \$18,000.
- 2014-2016 NSF (DEB): EAGER: Development of a new technique to measure ecosystem-level soil nitrous oxide fluxes using micrometeorological towers. co-PI with postdoc I. Gelfand (PI), M. Zondlo (Princeton); \$150,000.
- 2010-2015 NSF (EHR Graduate Education Division); GK-12 Pre-doctoral Fellowship Program: Biofuel sustainability in K12 classrooms of rural Michigan; co- PI, with T. Getty (PI), C.W. Anderson, J. Lau, and K. Gross; \$2.7M.
- 2011-2015 USDA (AFRI Organic Transitions Program): Cover crops and N₂O emissions, N availability and carbon accumulation in organic versus conventionally managed systems. Co-PI with PI Dale Mutch; \$749,000).
- 2014-2015 USDA NIFA (SARE): Linking soil testing with farmer decision making – an interdisciplinary approach. co-PI with PhD student Brendan O'Neill; \$6,853
- 2014-2015 USDA NIFA (SARE): Assessing soil carbon pools across rotational and diversified cropping systems in experimental plots and on-farm. co-PI with PhD student Christine Sprunger; \$6,382
- 2010-2013 EPRI (Electric Power Research Institute): Developing greenhouse gas emission offsets by reducing nitrous oxide emissions in agricultural crop production (PI) \$406,000.
- 2011-2013 NSF (Division of Environmental Biology): Dissertation Research: Denitrification in subsurface soils. PI with graduate student Iurii Shcherbak; \$9,832.
- 2008-2012 DOE Office of Science (Biological and Environmental Sciences Division): Great Lakes Bioenergy Research Center; co-PI with T. Donohue (PI), K. Keegstra, B. Dale, R. Amasino, R. Landick, J. Ohlrogge; and ~50 co-I's. \$143M; 5y (Research Leader for Sustainability, \$5M/year).
- 2004-2010 NSF (Division of Environmental Biology): Long Term Ecological Research in field crop ecosystems. Lead PI with S.H. Gage, K.L. Gross, S.K. Hamilton, D.A. Landis, T.M. Schmidt, S.M. Swinton, and 25 Co-I's; \$5.1M.
- 2006-2010 EPRI (Electric Power Research Institute): Abatement of the non-CO₂ greenhouse gases in row-crop agriculture; Lead PI, with Ron Gehl, Peter Grace; \$800,000.
- 2005-2009 NSF (Social, Behavioral, and Economic Sciences): Ecosystem services from low-input cropping systems; co-PI with Scott Swinton (PI), Frank Lupi; \$400,000.

- 2006-2009 NSF (EHR Graduate Education Division): GK-12 Pre-doctoral Fellowship Program: Ecological literacy in the K-12 classrooms of rural Michigan; Lead PI, with Tom Getty, Andy Anderson, Jeff Conner, Gary Mittelbach; \$1.6M.
- 2006-2009 NSF (Division Biological Infrastructure Program): A field-based science and education facility at the Kellogg Biological Station; PI with K.L. Gross; \$249,500.
- 2006-2008 USDA-CSREES (MSU Sustainable Agriculture Award); Ecosystem services and economic benefits of reduced input agricultural systems; PI with student Sara Parr; \$50,000.
- 2006-2007 NSF (Division of Environmental Biology): Doctoral Dissertation Research: Soil resource aggregation and ecosystem function; PI with PhD Student Terrance Loecke; \$9,945.
- 2005-2007 NSF-DEB. Regional planning activities to support NEON. Co-PI with Todd Crowl (PI), David Breshears. \$220,000.
- 2005-2007 USDA: Soil organic matter dynamics in organic cropping systems: Managing for carbon sequestration and nitrogen uptake and retention; PI with student T. Loecke; \$53,644.
- 2005-2007 USDA-NCR-SARE (student competition). Crop residues: Balancing soil quality and farm profitability. Co-PI with student Terrance Loecke (PI); \$9,970.
- 2003-2005 USDA-CSREES (MSU Sustainable Agriculture Award); Scaling in agricultural landscapes; co-PI with Sasha Kravchenko and Alvin Smucker; \$98,000.
- 2003-2006 USDA (CSREES): Consortium for agricultural soils mitigation of greenhouse gases; PI with co-PI S.H. Gage, and 5 co-I's; \$1.3M.
- 2001-2006 NSF (Education and Human Resources Directorate, Teacher Retention and Renewal Program): Secondary science teaching in rural Michigan. Co-PI, with M.J. Klug (PI), J.J. Gallagher; \$1.2M (lead PI 2004-2006)
- 2004-2005 DOE (Regional Carbon Sequestration Partnership): PI, with P. Grace, S.H. Gage; \$53,000.
- 2001-2005 USDA (CSREES): Soil organic matter accumulation and persistence in sustainable farming systems. PI with student Stuart Grandy; \$62,000.
- 2004-2005 NSF (Division Biological Infrastructure Program): Renovation of laboratory instrumentation at KBS; PI with S.H. Hamilton; \$95,250.
- 2003-2004 NSF (Dissertation Improvement Award): Soil aggregation and ecosystem function; PI, with student Stuart Grandy; \$5,700.
- 1998-2004 NSF (Division of Environmental Biology): Long Term Ecological Research in field crop ecosystems. PI with K.L. Gross, S.H. Gage, S.K. Hamilton, R.R. Harwood (Co-PI's), 25 Co-I's; \$4.6M
- 2001-2002 NSF (Major Research Instrumentation): Acquisition of stable isotope ratio mass spectrometers; Co-PI, with N.E. Ostrom (PI) and P.H. Ostrom; \$325,000.
- 1998-2000 NSF (Dissertation Improvement Award): Leaching of dissolved carbon and nitrogen; co-PI with PhD student Jane Boles (PI). \$9,680.
- 1996-1999 USDA/NSF/NASA/DOE (Terrestrial Ecology and Global Change Program): Closing the global nitrous oxide cycle; PI with N.E. Ostrom and PhD student T. Bergsma; \$192,000.
- 1992-1998 NSF (Division of Environmental Biology): Long Term Ecological Research in agricultural ecology; PI with E.A. Paul, K.L. Gross, S.H. Gage, R.R. Harwood (co-PI's), and 16 collaborators; \$3.9M.
- 1995-1998 NSF (Division of Environmental Biology): Ecosystem responses to catastrophic defoliation of Populus. Co-PI with E.A. Paul (PI), M.J. Scriber, D. Dickmann, \$774,000.
- 1993-1996 NSF (Dissertation Improvement Award): The functional significance of denitrifier population diversity to nitrous oxide production in terrestrial ecosystems. Co-PI with PhD student Michel Cavigelli (PI); \$16,693.
- 1993-1996 USDA (NRI Competitive Grants Program): Nitrous oxide and methane fluxes in agricultural ecosystems. PI; no co-PIs; \$125,000.

- 1993-1996 DOE (National Institute of Global Environmental Change): Trace gas fluxes in agricultural ecosystems: Biospheric feedbacks. PI; no co-PIs; \$410,000.
- 1992-1994 NSF (Division of Environmental Biology): Soil-stream interfaces as control points for speciation and transformations of nitrogen in a heterogeneous landscape. Co-PI with L.O. Hedin (PI), N.E. Ostrom; \$98,179.
- 1992-1994 USDA (NRI Competitive Grants Program): Speciation of solution nitrogen losses from agricultural and forested landscapes. Co-PI with L.O. Hedin (PI); \$114,682.
- 1991-1993 DOE (National Institute for Global Environmental Change): Trace gas fluxes in the U.S. Midwest - Temporal dynamics and biospheric feedbacks in agricultural ecosystems; PI with K. Paustian, and M.J. Klug, \$273,500.
- 1991-1993 USDA (NRI Competitive Grants Program): Spatial patterning of nitrogen transformations in agricultural ecosystems. Co-PI with K. Paustian (PI). \$247,590.
- 1987-1992 NSF (Biotic Systems and Resources): Long Term Ecological Research in the agricultural landscape: Organism interactions; PI with co-PIs E.A. Paul, M.J. Klug, and 15 collaborators, \$2.25M.
- 1991-1994 EPA (Global Change Program): Agroecosystem carbon pools and dynamics in the Midwest corn belt; co-PI with E.A. Paul (PI), K. Paustian, K. Pregitzer; \$450,000.
- 1990-1991 NSF (Engineering Research): SGER – An exploratory study to extend the AI technique of functional reasoning to ecological modeling; Co-PI with J. Sticklen (PI); \$37,305.
- 1986-1990 NSF (Biotic Systems and Resources): Biological control of soil charge properties and nutrient retention in variable charge soils of the humid tropics; Co-PI with D.E. Stone (PI), P. Sollins; \$900k; GPR portion \$304,439.
- 1989-1990 NSF (Biotic Systems and Resources): Process-level interactions in agricultural ecosystems; PI with co-PI A.J.M. Smucker and 3 co-I's. \$250,000.
- 1986-1989 NSF (Biotic Systems and Resources): Process-level interactions in agricultural ecosystems: An experimental approach; PI with co-PIs A.J.M. Smucker, F.P. Pierce, E.A. Erickson, B.E. Ellis, O. Hesterman; \$700,000.
- 1986 All-University Research Initiation Grant: Sources of nitrous oxide in humid tropical soils; G.P. Robertson; \$7,250.
- 1984-1986 NSF (Biotic Systems and Resources): Nutrient availability at a tropical lowland site in Central America; Co-PI with D.E. Stone (PI), M. Huston, and P. Sollins; \$420,000; GPR portion \$120,000.
- 1980-1981 SCOPE-Andrew H. Mellon Foundation Postdoctoral Fellowship
- 1980 NSF-RIAS (Organization for Tropical Studies) Research Award
- 1979,1980 Brackenridge Fellowship, Indiana University
- 1977-1978 Indiana Academy of Sciences Research Award

Multi-authored Co-Investigator Grants

- 1991 - 2003 NSF (Biotic Systems and Resources): Research Training Grant – Linking levels of ecological organization; one of 10 co-I's, G.M. Mittelbach PI; \$2.5M [minor GPR funding]
- 1989-1999 NSF (Science and Technology Centers Program): STC in microbial ecology; one of 19 co-I's, J.M. Tiedje PI; \$8.5M [minor GPR funding]

Professional Service

- current Member, National Leadership Team, USDA LTAR Network (from 2019)
Secretary (past chair), AAAS Section on Agriculture, Food, and Renewable Resources (6000 members; from 2020)
- 2024 Panelist, DOE Distinguished Scientist Fellows Program

2020-2023 Member, Scientific Advisory Board, Center for Advanced Biofuels and Bioproducts (CABBI), University of Illinois (from 2020)

2023 Panelist, DOE Ernest Orlando Lawrence Award

2022 Member, DOE Office of Science BERAC Subcommittee on Integrative Science

2021 Member, NSF Panel on Open Environmental Data Centers
Member, NSF LTER Site Review team

2020-2021 Program chair, NSF NEON Workshop for Complex Landscapes

2010-2020 DOE Office of Science Biological and Environmental Research Advisory Committee (BERAC)

2020 Program chair and host, LTAR Network Annual Science Meeting (2020)

2018 Member and workshop organizer, BERAC Subcommittee on Scientific User Research Facilities, BER, DOE Office of Science

2017 Member, External Review Panel, New Zealand Agricultural Greenhouse Gas Research Center
Lead author and workshop organizer, Energy Sustainability Working Group of the BER Long-term Visioning Workshop, DOE Office of Science
Discussant, Environmental Defense Fund Workshop on Addressing Nitrogen Losses from Agriculture, Washington, D.C.

2013-2016 Member, U.S. National Climate Assessment Agricultural Indicators Team

2011-2016 Member, Science Advisory Board, Regional Approaches to Climate Change for Pacific Northwest Agriculture (USDA Wheat Climate Change Center)

2012-2016 Member, NSF DEB Ecosystems Panel (2012, 2013, 2014, 2015, 2016)

1988-2016 Member, NSF Long-Term Ecological Research Science Council

2015 Co-organizer, USDA LTAR Common Experiment Workshop, Minneapolis MN

2014-2015 Member, Scientific Program Committee for the 2015 Climate Change and Cereal Production Symposium, Minneapolis MN

2014 Member, Committee of Visitors, Biology Directorate, NSF
Chair, US LTER Network Chair Nominating Committee

2013 Review editor, U.S. National Climate Assessment

2011-2014 Lead Author, US National Climate Assessment (Midwest Chapter)

2011-2014 Member, USDA Chief Economist's Workgroup on Quantifying Greenhouse Gas Emissions from Agriculture

2013-2014 Chair, Organizing Committee and Writing Team, DOE BioEnergy Sustainability Workshop, October 2013

2011-2013 Member, Climate Action Reserve Science Advisory Board

2011-2012 Member, Advisory Committee, Walmart Jack-n-Coke Sustainability Project

2009-2012 Member, National Ecological Observatory Network (NEON) Domain Science and Education Coordination Committee

2011 Member, USDA Long-term Agricultural Research Network Review Panel

2010-2011 Member, Council on Agricultural Science and Technology (CAST) Task Force on the Role of Agriculture in Greenhouse Gas Fluxes and Carbon Sequestration

2007-2011 Chair (elected), NSF Long-term Ecological Research (LTER) Network Science Council and Executive Board

2001-2010 Member, Science Committee, Ecological Society of America

2005-2012 Member, Scientific Rapid Response Team, Ecological Society of America

2000-2009 Member, Advisory Board for Biosphere-Atmosphere IGERT, Univ. Michigan

2007 Member, NSF External Site Review Team, Central Arizona Phoenix LTER Site

2004-2009 Member, SCOPE North American Nitrogen Center Board of Directors

2004-2007 Member, U.S. Carbon Cycle Scientific Steering Group

2005-2007 co-Chair, Consortium of Regional Ecological Observatories for NEON (COREO)

2005-2007 co-Chair, Great Lakes Ecological Observatory for NEON (GLACEO)

2001-2006 Member, Executive Committee of the Consortium for Agricultural Soil Mitigation of Greenhouse Gases (CASMGs)

2006 Co-organizer (with 1 other), Taiwan Agricultural LTER Site Planning Workshop, Taipei

2005 Co-organizer (with 3 others), NSF Workshop on Ecosystem Services Valuation in Agriculture, KBS, October 2005 (35 participants)

Lead organizer (with 2 others), 3rd Congress of the Consortium of Regional Ecological Observatories, KBS, November 2005 (60 participants)

Lead organizer (with 2 others), 2nd Workshop for a Great Lakes Regional Ecological Observatory for NEON, University of Notre Dame Environmental Research Center, Land of Lakes WI, October 2005 (50 participants)

Lead organizer (with S. Gage), MSU NEON Forum, E. Lansing, October 2005 (45 participants)

Co-organizer (with T. Dietz), Michigan Congressional Aides Briefing on Climate Change, E. Lansing, August 2005 (30 participants)

Participant, Workshops to Design a National Ecological Observatory Network; Marino Del Ray, CA; Boston, MA; Estes Park, CO.

Member, NSF External Site Review Team, Konza Prairie LTER Site

2000-2004 Panelist, NSF Ecosystem Science Program (6 grant panels)

Member, CAST Taskforce on Agriculture's Response to Global Climate Change.

2004 Member, Steering Committee for International Antarctic Soil Biology Workshop

2004 Co-Organizer, National Ecological Observatory Network (NEON) Workshops for the Great Lakes Region, (1) KBS and (2) UMBS, Pellston, MI

2003 Panelist, NSF Coupled Biogeochemical Cycles Program

2000-2003 Chair, NAS/NRC Subcommittee to Evaluate the USDA Research, Extension, and Education Activities in Environmental Science

1999-2002 Member, US LTER Executive Committee

1999 Member, Steering Committee on Tropical Soil Biology for Africa, Rockefeller Foundation.

Participant, NSF Workshop on Biodiversity Observatories, Santa Barbara.

1998-1999 Member, NAS/NRC Committee to Evaluate the USDA NRI Competitive Grants Program.

1997 Panelist, NSF Environmental Geochemistry and Biogeochemistry Program

1996-1998 Director, USDA Fund for Rural America Environment Program

1996 Organizer, USDA Fund for Rural America Symposium on the Environment, Snowbird, UT

Rapporteur, SCOPE Workshop on Regional Nitrogen Cycles, Termas de Chillan, Chile.

Participant, NCEAS Workshop on Successes, Limitations, and Frontiers in Ecosystem Science. National Center for Ecological Analysis and Synthesis, Santa Barbara.

Participant, National Environmental Monitoring and Research Workshop, Smithsonian Institution, Washington D.C.

Participant, USDA Bioregional Research Meeting, Natural Resource Ecology Laboratory, Ft. Collins

Participant, SCOPE-NRC Workshop on Nitrogen in Agriculture, Washington, D.C.

1995-1998 Member, Steering Committee for the North American Trace Gas Network (TRAGNET).

1995-1996 Chair, Organizing Committee for the LTER Workshop on Soils Methods Standardization, Sevilleta, New Mexico

1995 Manager, USDA NRI Competitive Grants Program; Forest, Rangeland, Crop, and Aquatic Ecosystems Program (2 panels)

1994-1999 Member, Steering Committee for the Sustainable Biosphere Initiative, Ecological Society of America

Co-Chair, Organizing Committee for Regional Workshop on the Sustainability of Semi-Arid

- and Sub-Humid Ecosystems of Latin America, Oaxtepec, Mexico.
- 1993-1997 Scientific Advisory Committee, Grand Rapids Public Museum
- 1992-1997 Co-Chair, IGBP's International Global Atmospheric Chemistry (IGAC) Project Focus 5.2, Trace Gas Exchange Between Mid-Latitude Ecosystems and the Atmosphere (IGAC is a core project of the International Geosphere Biosphere Programme).
- 1992-1996 Environmental Advisory Committee, Fermilab Environmental Research Park, Batavia, IL
- 1992-1993 Chair, Organizing Committee for the International Conference on the Functional Significance and Regulation of Soil Biodiversity, E. Lansing.
- 1992 Consultant, Michigan Department of Natural Resources, Harbortown Project (*pro bono*)
Member, Organizing Committee for MAB Workshop on a North American Trace Gas Network, Pingree Park, Colorado.
- 1991-1995 Member, Steering Committee, SCOPE (ICSU's Scientific Committee on Problems of the Environment) Sustainable Land Management for the Semi-Arid and Sub-Humid Tropics Project.
- 1991-1992 Member, USDA NRI Competitive Grants Program; Forest, Rangeland, Crop, and Aquatic Ecosystems Program (2 panels)
Chair, IGBP's IGAC Project 5.3, Mid-Latitude Ecosystems as Sinks for Atmospheric CO₂.
- 1990 Workgroup Moderator, IGBP Symposium on Trace Gas Exchange, Stockholm.
- 1989 Rapporteur, Dahlem Conference on Trace Gas Exchange, West Berlin.
- 1988 Consultant, World Resources Institute, Washington, D.C. (*pro bono*).
- 1987 Member, Biogeochemistry Workgroup of the Biotechnology Scientific Advisory Committee, EPA, Washington, D.C.
- 1985 Member, NASA Panel on Priorities for Biospheric Research in Tropical Ecosystems
Participant, NSF Workshop on Research Priorities for Belowground Dynamics in Tropical Agroecosystems, Athens, Georgia

Editorships

- 1984-1989 *Plant and Soil*
- 1988-1992 *Ecology*
Ecological Monographs
- 2004-2009 *Biogeochemistry*
- 2009-now Guest Editor, *PNAS*

Invited Talks of Note

- 2025 Plant, Soil and Microbial Sciences, Michigan State University (East Lansing, Mar 2025)
Agriculture and Natural Resources Club, Lansing MI (Lansing, June 2025)
- 2024 Keck Workshop on Soil Organic Carbon for Climate Change Mitigation (Pasadena, Feb 2024)
Clean Air Task Force Series on Decarbonizing Agriculture with Bioenergy (June 2024)
- 2022 iFAST Microbial Ecology Symposium (keynote), Oklahoma (virtual; April 2022)
- 2021 Bayer Crop Science, International Sustainability Group (virtual; Jan 2021)
Iowa State University Carbon Forum (keynote), Ames (virtual; Apr 2021)
North Central Soil Health Nexus Workshop (keynote), Michigan (Sep 2021)
American Society of Agronomy Symposium on Carbon Farming, Salt Lake City (Nov 2021)
K12 Climate Series Symposium, Climate Change and Agriculture (virtual; Feb 2021)

- 2020 US-UK Forum on Sustainable Agriculture, National Academy of Science, Washington DC (Mar 2020)
 Biology Department, Kent State University (Jan 2020)
 Global Challenges in Food, Soil, & Environmental Quality, American Society of Agronomy (Nov 2020)
 North Central Soil Fertility Industry Conference, Des Moines (Nov 2020)
- 2019 Nobel Nitrogen Symposium, Nobel Research Institute, OK (Mar 2019)
 DOE Bioenergy Research Centers Modeling Workshop, Chicago (May 2019)
 CABBI Annual Science Meeting, University of Illinois Urbana-Champaign (June 2019)
 Bioenergy Symposium, Ecological Society of America Annual Meeting, Louisville KY (Aug 2019)
 DOE-BETO Bio-Restore Workshop, Chicago IL (Sep 2019)
 IChE Bioenergy Sustainability Symposium, Nashville TN (Oct 2019)
 American Society of Agronomy MegaSymposium, San Antonio TX (Nov 2019)
 Flagship Pioneering, Webinar (Dec 2019)
 Resilience Institute, Indiana University, Bloomington (Apr 2019)
- 2018 Conservation Research Institute, University of Cambridge, UK (2 talks; July 2018)
 US DOE, Biological and Environmental Research Advisory Committee, Washington DC (Oct 2018)
 GW Leeper Lecture, University of Melbourne (Nov 2018)
 Terrestrial Ecological Research Forum, Ecological Society of Australia, Brisbane (Nov 2018)
- 2017 University & Industry Consortium Symposium, Baltimore MD (May 2017)
 American Society of Plant Biology Plenary Symposium, Honolulu HI (June 2017)
 National Academies Science Breakthroughs 2030, Washington DC (Aug 2017)
 American Society of Agronomy Bioenergy Symposium, Tampa FL (Oct 2017)
 USDA SARE Extension Academy, Michigan (Sept 2017)
 American Chemical Society Keynote Speaker, Saginaw MI (Oct 2017)
 Kellogg Company Earth Day Speaker, Battle Creek MI (April 2017)
 Kellogg Biological Station, Michigan State University
- 2016 JASON Spring Meeting, McLean VA (April 2016)
 Sierra Club, Flint MI (May 2016)
 Regional Roundtable on Agricultural Nitrogen, KBS (June 2016)
 K-12 ICCARS (Investigating Climate Change and Remote Sensing) Series, Wayne County MI
 Climate Change Conversations, KBS (June 2016)
- 2015 IPCC Workshop on Climate Change and Agriculture, Dublin (May 2015)
 Temperate Agriculture Research Network Workshop, Paris (April 2015)
 Osher Lifelong Learning Lecture Series, Saginaw MI (June 2015)
 North Central Cropping Systems Extension Academy, KBS (September 2015)
 Agricultural Sustainability Workshop, China Agricultural University, Beijing (September 2015)
 Our Changing Earth Lecture Series, Midland MI (October 2015)
 K-12 Partnership Teacher Workshop, KBS (November 2015)
 USDA NIFA Science Outcome Series, Washington DC (November 2015)
- 2014 Fate of the Earth Symposium, MSU (March 2014)
 Climate Change and Midwest Agriculture Conference, Missouri Botanical Garden (Sept 2014)
 Brazilian Bioenergy Science and Technology Conference (October 2014)
 American Society of Agronomy Bioenergy Feedstock Symposium (November 2014)

- 2013 Philip C. Hamm Memorial Lecture, University of Minnesota (April 2013)
DOE Genome-Sustainability Workshop, Washington, DC (lead co-organizer; October 2013)
MSU Biotechnology Symposium, East Lansing (October 2013)
Biogeochemistry Program and Dept. of Crop and Soil Sciences, Cornell University
REEACH Program, Washington State University
- 2012 NSF Long-term Ecological Research Mini-Symposium, Washington, DC (March 2012)
USDA N₂O Cropping Practices Workshop, Ft. Collins, CO (organizer; February 2012)
American Society of Agronomy Symposium on Nitrogen and Climate Change, Cincinnati, OH
(October 2012)
SARE North Central Region Climate and Energy Conference, KBS (September 2012)
Society for Environmental Journalists Climate Change Workshop, KBS (June 2012)
China Agricultural University Workshop on Nitrogen Management, Beijing (September 2012)
Department of Plant, Soil, and Microbial Sciences, Michigan State University
- 2011 Plant Science Summit, American Society of Plant Biologists, Howard Hughes Medical Institute,
Washington, DC (September 2011)
EPRI Greenhouse Gas Emissions Offsets Workshop on Creating Nitrous Oxide (N₂O) Emissions
Offsets in U.S. Agriculture, Washington, DC (November 2011)
Soil and Water Conservation Society Conference on Conservation Science and Policy, Washington,
DC (with Neville Millar; July 2011)
American Chemical Society Symposium on Nitrogen and the Human Endeavor: Chemistry, Effects,
and Solutions; Denver, CO (with Ron Gehl; August 2011)
International Nitrogen Initiative Workshop on the Role of Nitrogen in Climate Change and the
Impacts of Nitrogen-Climate Interactions on Terrestrial and Aquatic Ecosystems, Agriculture and
Human Health in the United States, Ft. Collins, CO (July 2011)
Ecological Society of America Symposium on the Emergence and Future Role of Long-term Socio-
ecological Research for Earth Stewardship, Austin, TX (with S. Collins; August 2011)
Physics Department Soiree, California Polytechnic University
- 2010 AAAS Symposium on Integrated Science for Society and the Environment, San Diego (organizer;
February 2010)
DOE Biological Environmental Research Advisory Committee, Washington, DC (February 2010)
C-AGG Workshop on Trace Gas Emissions from Agriculture, Chicago (April 2010)
Ecological Society of America Symposium on NSF Graduate Education Programs (August 2010)
Soil and Water Conservation Society Symposium on Bioenergy Sustainability (with Richard
Lowrance, Virginia Dale; October 2010)
College of Natural Resources, Washington State University, Pullman
Environmental Science Program, University of Idaho, Moscow
- 2009 National Academy of Sciences Darwin Symposium, Washington, DC (February 2009)
AAAS Symposium on Biofuels: Consequences for Carbon, Landscapes, and Sustainability, Chicago
(with C. Izaurrealde; February 2009)
Global Systems Science Distinguished Speaker Series, NSF, Arlington, VA (March 2009)
Larson and Allmaras Distinguished Lecture Series, Univ. Minnesota (April 2009)
Workshop on Biofuels Sustainability, DOE GTL Conference, Bethesda, MD (February 2009)
International Soil Organic Matter Symposium, Colorado Springs, CO (July 2009; keynote)

- Long-term Ecological Research Network All Scientist Meeting, Estes Park, CO (September 2009; plenary speaker)
Symposium on Biofuel Landscapes, Entomological Society of America, Indianapolis, IN (December 2009; keynote)
- 2008 DOE-USDA Workshop on Biofuels Sustainability, Washington, DC (plenary)
National Conference on Ecological Dimensions of Biofuels Sustainability, Ecological Society of America, Washington, D.C. (plenary)
Workshop on a Midwest CO2 Cap and Trade Program, Midwest Governors Association, Detroit, MI (plenary)
Symposium on New Directions in Agricultural Ecology, Ecological Society of America, Milwaukee, WI (plenary)
College of Agriculture, University of Wisconsin, Madison
- 2007 Symposium on NSF Funding for Education, Ecological Society of America, San Jose, CA
International Long-term Ecological Research Symposium, Beijing (plenary)
Workshop on Frontiers in Sustainability Science, Cary Institute of Ecosystem Studies, NY
Department of Plant Biology, Michigan State University
- 2006 Symposium on Ecological Challenges of Organic Agriculture, Ecological Society of America, Memphis
Symposium on Soil Biophysical and Environmental Controls on Greenhouse Gas Emissions, American Society of Agronomy, Indianapolis, with A.S. Grandy
Workshop on Managing Agricultural Landscapes for Environmental Quality, Soil Water and Conservation Society, Kansas City (plenary)
USDA Workshop on Creating a Long-term Agricultural Research Network, Washington, DC
Ecology, Evolutionary Biology, and Behavior Program, Michigan State University
- 2005 Fourth Annual DOE Conference on Carbon Capture and Sequestration, Alexandria, VA (plenary)
Third USDA Symposium on Greenhouse Gases and Carbon Sequestration in Agriculture and Forestry, Baltimore, MD (plenary)
Fifteenth International Plant Nutrition Colloquium, Beijing (plenary)
Michigan Department of Environmental Quality, Lansing
Department of Crop and Soil Sciences, Michigan State University
- 2004 AAAS Symposium on the Scientific Basis of Sustainability, Seattle, WA (with T. Dietz)
Symposium on Applications of LTER Science, NSF, Arlington, VA
MSUE Symposium on Agricultural Air Quality: Challenges and Opportunities; St. Johns, Michigan.
American Seed Trade Association National Convention, Keynote address, Chicago.
Symposium on Carbon Sequestration in Agriculture, Indianapolis, IN
- 2003 William E. Pierre Soil Science Lecture, Iowa State University, Ames, IA.
SCOPE-GCP Workshop on CO2 Stabilization, Ubatuba, Brazil.
ASA Symposium on Soil-atmosphere N₂O, CH₄, and CO₂ exchange, Denver (with A.R. Mosier, presenter)
North Central Region Fertility Conference, Des Moines, IA
American Geophysical Union Symposium on Trace Gas Dynamics, San Francisco.
Canadian National Carbon and Greenhouse Gas Accounting and Verification Conference, Ottawa, Canada, with C. Izzaualde (presenter)

- 2002 Workshop on Greenhouse Accounting, Adelaide, Australia
 Workshop on Non-CO2 Greenhouse Gases, Canberra, Australia
 EPA-IEA-ECD Non-CO2 Network Project on Agricultural GHG Mitigation, Washington, DC.
 USDA Symposium on Natural Resource Management to Offset Greenhouse Gas Emissions, Raleigh, North Carolina, with S.H. Hamilton (presenter)
- 2001 Department of Biology, Western Michigan University, Kalamazoo
- 2000 ASA-ESA-NAS Symposia on Carbon Sequestration in Agricultural Soils, Washington, D.C.
 Ecological Society of America Symposium on Agricultural Ecology; with P. A. Matson (presenter)
 Ecology, Evolutionary Biology, and Behavior Program, Michigan State University
- 1999 International Geosphere-Biosphere Programme (IGBP) Focus Three Symposium, Reading, England
 Tropical Soil Biology and Fertility / Rockefeller Workshop on Tropical Soil Biology, Nairobi
- 1997 Smithsonian Workshop on Forces of Change, Washington, D.C.
 Cary Conference on Successes, Limitations, and Frontiers in Ecosystem Science, Millbrook, NY.
- 1996 White House National Environmental Monitoring and Assessment Workshop, Washington, D.C.
 National Institute of Global Environmental Change (NIGEC) Interregional Climate Change Conference, Tuscaloosa, Alabama
 Dept. of Ecology & Systematics, Cornell University
- 1995 American Society of Agronomy Symposium on Long-Term Studies in Agronomy, St. Louis, MO; with H.R. Harwood (presenter)
 Ecology and Evolutionary Biology Program, UC - Berkeley
- 1994 International Symposium on Management of the Soil Biota in Sustainable Farming Systems, Adelaide, South Australia
 Dept. of Geology, Michigan State University
 Dept. of Agronomy, UC-Davis
- 1993 International Global Atmospheric Chemistry (IGAC) Conference, Eilat, Israel, with K.A. Smith (presenter)
 Ecological Society of America Symposium on the Sustainability of Soil Resources, Madison, Wisconsin
 Ecological Society of America Symposium on the Practice and Potentials of Geostatistics in Ecology, Madison, Wisconsin, with K.L. Gross (presenter)
 International Symposium on Greenhouse Gas Emissions and Carbon Sequestration, Columbus, Ohio; with K. Paustian (presenter)
 Waite Institute, University of Adelaide, Australia
- 1992 AAAS Symposium on the Role of Microbial Ecology and World Food Production, Chicago
 Conference on Food, Conservation, and Global Environmental Change, Aspen Global Change Institute, Colorado
 AAAI Workshop on Artificial Intelligence in Natural and Agricultural Resource Development, San Jose, CA; with J. Sticklen (presenter)

Institute of Ecosystem Studies, Millbrook NY

- 1991 International Conference on Nitrogen, Phosphorus, and Organic Matter, Helsingor, Denmark
Ecological Society of America Symposium on Plant Exploitation of Environmental Heterogeneity, San Antonio
American Society of Agronomy Symposium on Agroecosystem Effects on Radiatively Important Trace Gases and Global Climate Change, Denver
Institute of Ecology, University of Georgia, Athens
Department of Biology, University of Munich
Department of Botany, Michigan State University
- 1990 International Geosphere-Biosphere Programme (IGBP) Workshop on Trace Gas Exchange in a Global Perspective, Stockholm.
National Root Workshop for LTER, East Lansing
Long-term Ecological Research Network All-Scientists Meeting, Estes Park, Colorado (keynote)
Sustainable Agriculture Symposium, Corvallis, Oregon (keynote)
School of Natural Resources, University of Michigan
Ecology and Evolutionary Biology Program, Michigan State University
Department of Biology, Colorado State University
Natural Resource Ecology Laboratory, Colorado State University
College of Engineering, University of Michigan
Department of Agronomy, Oregon State University
Botany and Plant Pathology Department., Michigan State University
Department of Agronomy, Washington State University
- 1989 Dahlem Workshop on the Exchange of Trace Gases between Terrestrial Ecosystems and the Atmosphere, Berlin
LTER/NRC Global Change Workshop, Denver
Department of Biology, Rice University
- 1988 International Workshop on Nitrification, Arnhem, The Netherlands
International Workshop on Tropical Soil Organic Matter, Maui, Hawaii
Department of Biology, Western Michigan University
Department of Crop and Soil Sciences, MSU
- 1987 British Ecological Society Symposium on Nutrients in Tropical Ecosystems, Stirling, Scotland
Biology Department, Boston University
Department of Crop and Soil Sciences, Michigan State University
- 1986 NSF Soil Organic Matter Symposium, Sapelo Island, Georgia
- 1985 Dept. of Forestry, North Carolina State University
W.K. Kellogg Biological Station, Michigan State University
- 1984 Symposium on Nitrogen in the Humid Tropics, Ibadan, Nigeria
Department of Agronomy, UC - Davis
Department of Biology, UC - Santa Barbara
Department of Biology, San Diego State University

- 1983 Institute of Ecology, University of Georgia, Athens
Savanna River Ecology Laboratory, South Carolina
Life Sciences Division, NASA-Ames Research Center
- 1982 COSPAR (ICSU) Symposium on the study of land transformations, Ottawa
The Ecosystem Center, Woods Hole Marine Biological Laboratory
Environmental Sciences Division, Oak Ridge National Laboratory
- 1981 The Royal Society Symposium on Nitrogen Cycling, London
SCOPE-UNEP Nitrogen Cycle Workshop, Cali, Columbia
Dept. of Biology, Rutgers University
Dept. of Microbiology, Swedish Univ. of Agricultural Sciences

Presentations to Congressional Committees

- 2022 Briefing for the U.S. Congress on Long-term Agroecosystem Research (virtual; principal organizer; sponsored by AIBS, National Sustainable Agriculture Coalition, and Society for Range Management)
- 2014 Briefing for the U.S. Senate on Long-term Ecological Research: Regional Data for Large Scale Environmental Issues (AIBS-sponsored).
- 2008 Briefings for the U.S. House Science and Technology Committee and the U.S. Senate Agriculture, Nutrition, and Forestry Committee on the Sustainability of Cellulosic Biofuels (lead organizer; ESA-sponsored) (described at www.esa.org/pao/policyActivities/briefing062008.php)
- 2005 Briefing for the U.S. House Science Committee on Broader Impacts of Long-Term Ecological Research Program (AIBS-sponsored)
- 2003 Briefings for 1) the U.S. Senate Agriculture, Nutrition and Forestry Committee and 2) the U.S. House Agriculture Committee on *Findings of the NRC Committee to Evaluate the USDA Research, Extension, and Education Activities (Frontiers in Agricultural Research)* (NRC-sponsored)
- 2002 Briefing for the U.S. House Agriculture Committee on Greenhouse Gas Mitigation Potentials for US Agriculture (CASMGs-sponsored)
- 2001 Testimony before the U.S. Senate Agriculture, Nutrition, and Forestry Committee on Research, Extension and Education in the Farm Bill for the National Academy of Sciences (available at <http://www4.nas.edu/ocga/testimon.nsf>) (NRC-sponsored)
- 2000 Briefing for the U.S. Senate Agriculture, Nutrition, and Forestry Committee on Carbon Sequestration Potentials in the US (participant, not presenter) (SSSA and ESA sponsored)

Contributed Papers at National Meetings (last 10 years; >400 published abstracts since 1980)

- 2025 9 total: **American Geophysical Union**, New Orleans (Chen et al.; Robertson and Falvo; Slessarev et al.); **American Society of Agronomy**, Salt Lake City (Dhaliwal et al.; Fortuna et al., Jayawardena et al.; Kahmark et al.; Rabin et al.; Tumbalam et al.).
- 2024 13 total: **American Geophysical Union**, Washington DC (Chakrawal et al.; Dai et al.; Datta et al.; Hussain et al.; Paustian et al.; Versteeg et al.); **American Society of Agronomy**, San Antonio (Datta and Robertson; Ebrahimi et al.; Hussain et al.; Kahmark et al.; Kravhchenko et al.; Thelen et al.; Fortuna et al.)
- 2023 12 total: **American Geophysical Union**, San Francisco (Falvo et al.; Guillevic et al.); **American Society of Agronomy**, St. Louis (Falvo and Robertson; Falvo et al.; Fortuna et al.; Guo et al.; Hussain et al.; Hussain et al.; Menefee et al.; Ulbrich et al.; Zhang et al.); **NASA**, College Park (Chen et al.)
- 2022 12 total: **American Geophysical Union**, Chicago (Falvo et al.; Hussain et al.; Ozlu et al.); **American Society of Agronomy**, Baltimore (Abraha et al.; Córdova et al.; Jayawardena et al.; Tejera et al.; Thelen et al.); **DOE Genomic Sciences Program**, virtual (Ozlu et al.); **LTAR All Scientists Meeting**, Asilomar CA (Falvo and Robertson; High et al.; Su et al.).
- 2021 14 total: **American Geophysical Union**, New Orleans (Kravchenko et al.); **American Institute of Chemical Engineers**, Boston (O'Neill et al.); **American Society of Agronomy** (Córdova et al.; Falvo and Robertson (2); Hussain et al.; Jayawardena et al.; Moore et al.; Ozlu and Robertson; Robertson; Saha et al.; Tejera et al.); **LTAR Annual Meeting**, Oxford (Doll et al.; Guo et al.)
- 2020 11 total: **DOE Genomic Sciences Program** (Córdova et al.); **Ecological Society of America**, virtual (Cordova et al.; D'Souza et al.; Lei et al.; Roley et al.; Vizza et al.); **American Society of Agronomy**, virtual (Belanger et al.; Córdova et al.; Falvo and Robertson; Robertson; Hussain et al.)
- 2019 16 total: **American Geophysical Union**, San Francisco (Basso et al.; Córdova and Robertson; Glanville and Robertson; Hockaday et al.); **Ecological Society of America**, Louisville (Glanville and Robertson; Liang and Robertson); **American Society of Agronomy** (Córdova et al.; Flores et al.; Glanville and Robertson; Hussain et al.; Liebig et al.; Locke et al., Saha et al., Wang et al.); **Soil Ecology Society**, Toledo (Glanville and Robertson); **4th Int'l Symposium on Nitrogen Nutrition**, Nanjing (Udvardi et al.)
- 2018 9 total: **American Geophysical Union**, Washington DC (Abraha et al.); **DOE Genomic Science**, Tysons VA (Chicoine et al.); **Ecological Society of America** (Castro Vega et al.; Glanville and Robertson); **EGU General Assembly 2018**, Vienna Austria (Gelfand et al.); **International Society for Microbial Ecology**, Leipzig, Germany (Liang and Robertson); **LTAR All Scientists Meeting**, Asilomar CA (Liang and Robertson; Glanville and Robertson; Millar and Robertson)
- 2017 12 total: **DOE Genomic Science Program**, Washington DC (Cole et al.; Liang and Robertson; Roley et al.); **Ecological Society of America**, Portland OR (Glanville and Robertson; Sánchez et al.); **Soil Ecological Society**, Fort Collins CO (Glanville and Robertson; Liang and Robertson; O'Neill et al.; O'Neill et al.); **American Society of Agronomy**, Tampa FL (Liang and Robertson, Millar and Robertson, Kahmark et al.)
- 2016 10 total: **American Society of Agronomy**, Phoenix AZ (Liang and Robertson; Millar and Robertson; Glanville and Robertson; Thelen et al.; Valdez et al.); **Ecological Society of America**, Fort Lauderdale FL (Roley et al.); **American Geophysical Union**, San Francisco CA (Abraha et al.; Gelfand et al.; Hess et al.); **Keystone Symposium Conference**, Santa Fe NM (Chicoine et al.).

College / University Service

- current Chair, KBS LTAR Steering Committee (from 2020)
2008-2025 Member, GLBRC Management Team (from 2008)

2021 Chair, Climate Resilience Center exploratory committee
 1988-2024 Member, KBS LTER Executive Committee (chair from 1988-2016)
 2015-2018 Member, MSU Provost Promotion and Tenure Advisory Committee
 2013-2014 Member, MSU Provost Search Committee
 2012-2013 Chair, Dean Search Committee, College of Agriculture and Natural Resources
 2009-2011 Member, Ecology, Evolutionary Biology and Behavior Program Steering Committee
 2005-2011 Member, Environmental Science and Policy Program Biogeochemistry Committee
 2002-2004 Member, Environmental Science & Policy Program Advisory Committee
 2002-2003 Member, Search Committee for C.S. Mott Chair in Sustainable Agriculture
 1999-2002 Member, C.S. Mott Graduate Fellowship Committee
 1989 Member, MSU Sustainable Agriculture Fellowship Program Committee

Department Service

current Member, KBS Farm Research Advisory Committee
 current Member, Mentor Committee for Lisa Tiemann (PSM; chair; since 2014), Hatem Roached
 (PSM; chair, since 2020), Christine Sprunger (PSM; since 2022)
 2019-2025 Member, Mentor Committee for Sarah Evans (IBIO)
 2017-2024 Member, KBS Space Committee (chair 2017-2023)
 2023 Chair, PSM Promotion and Tenure Committee
 2021-2023 KBS Faculty Advisory Committee (chair 2022-23)
 2020-2023 Member, Mentor Committee for Jessica Meisel (PSM)
 2016-2023 Member, PSM Research Committee
 2020-2021 Chair, PSM Search Committee for Isotope Biogeochemist
 2019, 2021 KBS Eminent Ecologist host
 2013-2019 Member, Mentor Committee for Andrey Guber (PSM)
 2012-2018 Member, Mentor Committee for Karim Maredia (PSM)
 2017-2018 Chair, KBS Information Technology Committee
 2016-2017 Member, KBS Outreach Committee
 2015-2016 Member, KBS Faculty Advisory Committee
 2015-2016 Chair, Search Committee for Cropping System Agronomist (PSM)
 2015-2016 Member, Mentor Committee for James Cole (PSM)
 2014-2015 Member, Mentor Committee for Bruno Basso (KBS)
 2013-2014 Member, PSM Soil Biology Search Committee
 2012-2013 Chair, PSM Promotion and Tenure Committee
 2012-2013 Chair, PSM Dept. Advisory Committee
 2011-2012 Member, CSS Dept. Advisory Committee
 2011-2012 Co-chair, PSM Promotion and Tenure Committee
 2010-2011 Chair, PSM Promotion and Tenure Committee
 2009-2010 Co-chair, CSS Promotion and Tenure Committee
 2007-2009 Co-chair, Search Committee for KBS/Dept. of Sociology senior and junior faculty positions
 2007-2009 Member, CSS Graduate Programs Committee
 2006 Member, Search Committee for CSS Soil Biologist
 2005 Chair, Search Committee for KBS Director (CANR/CNS)
 2005 Chair, Search Committee for KBS/CSS Cropping System Ecologist
 2005 Member, Search Committee for KBS/MMG Microbial Ecologist
 2002-2004 Member, Crop & Soil Sciences Department Advisory Committee
 2003-2004 Member, KBS Mission Review Committee
 2000-2002 Member, Plant Sciences Graduate Fellowship Committee

2002	Member, Search Committee for KBS Associate Director
1997-1999	Member, CSS Graduate Programs Committee
1991-1992	Member, CSS Social Committee
1992	Member, AES Agricultural Program Council for KBS
1990	Member, Search Committee for Aquatic Ecology
1988-1989	Chair, KBS Housing Committee
1989	Member, Search Committee for KBS Director
	Member, Search Committee for KBS Aquatic Position

Teaching Activities

Graduate Students Supervised

Michel Cavigelli (Ph. D., 1998; now at USDA, Beltsville MD)
 Timothy Bergsma (Ph.D. 2000; now at Pfizer, New London CT)
 Pongthep Sunwararee (Ph. D. 2003; now at Univ. of Technology, Thailand)
 A. Stuart Grandy (Ph.D. 2005; now at Univ. New Hampshire)
 Terry Loecke (Ph.D. 2007; now at Univ. Kansas)
 Sara Parr Syswerda (PhD.; 2009; now at Pierce-Cedar Creek Nature Center)
 John Hoben (M.Sc. 2009; now at Univ. Kentucky)
 Iurii Shcherbak (Ph.D. 2013; now at CiBO, Inc.)
 Leilei Ruan (Ph.D. 2014; now at Ford Motor Corp)
 Christine Sprunger (Ph.D. 2015; now at MSU)
 Brendan O'Neill (co-advised; Ph.D. 2016; now at Univ. Michigan)
 Di Liang (Ph.D. 2019; now at LLNL)
 Kathryn Glanville (Ph.D. 2020; now at NRCS)
 Grant Falvo (Ph.D. 2024; now at NAU)

Graduate Committees

Richard Losee, Botany and Plant Pathology (Ph.D. 1983)
 Bruce Johnson, Crop and Soil Sciences (M.Sc. 1990)
 Katherine Baird, Agricultural Economics (M.Sc. 1989)
 Maria Arnaiz, Resource Development (M.Sc. 1991)
 Ron Hendrick, Forestry (Ph.D. 1992)
 William Horwath, Crop and Soil Sciences (Ph.D. 1993)
 Timothy Lynam, Crop and Soil Sciences (Ph.D. 1993)
 Lisa Huberty, Botany and Plant Pathology (Ph.D. 1994)
 Samira Dahroub, Crop and Soil Sciences (Ph.D. 1994)
 Sue Ellen Johnson, Crop and Soil Sciences (Ph.D. 1995)
 Brent Simpson, Resource Development (Ph.D. 1995)
 Dana Barclay, Crop and Soil Sciences (M.Sc. 1996)
 Dawn Jenkins-Klus, Botany and Plant Pathology (Ph.D. 1995)
 Francisco Calderon, Crop and Soil Sciences (Ph.D. 1997)
 Daniel Rasse, Crop and Soil Sciences (Ph.D. 1997)
 Bryan Foster, Botany & Plant Pathology (Ph.D. 1997)
 Andrea Corbett, Botany & Plant Pathology (Ph.D. 1998)
 Thomas Mueller, Crop and Soil Sciences (Ph.D. 1998)
 Timothy Laatsch, Crop and Soil Sciences (M.Sc. 1998)
 Laura Schreeg, Forestry (M.Sc. 2002)
 Cindy Wan, Crop and Soil Sciences (M.Sc. 2002)

Brian Horvath, Plant Pathology (Ph.D. 2004)
Skip VanBloem, Plant Biology (Ph.D. 2004)
Costanza Zavalloni, Horticulture (Ph.D. 2004)
Greg Houseman, Plant Biology (Ph.D., 2005)
Meera Iyer, Forestry (Ph.D., 2005)
Michael Nyika, Crop and Soil Sciences (M.Sc 2005)
Alejandra Costamagna, Entomology (Ph.D., 2006)
Amanda Kurzman, Zoology (Ph.D., 2006)
Amy Burgin, Zoology (Ph.D., 2007)
Stephanie Eichorst, Microbiology and Molecular Genetics (Ph.D., 2007)
Courtney Gallaher, Crop & Soil Sciences, (MS, 2007)
Wendy Mahaney, Plant Biology (Ph.D., 2007)
Andrew Corbin, Crop and Soil Sciences (Ph.D., 2008)
Ryan Penton, Crop and Soil Sciences (Ph.D., 2008)
Eric Cardenas, Crop and Soil Sciences (Ph.D., 2008)
Senthil Subramanian, Crop and Soil Sciences (Ph.D., 2008)
Mariosol Quintannilla, Entomology (Ph.D., 2009)
Uri Levine, Microbiology and Molecular Genetics (Ph.D., 2009)
Christine Jolejole, Agricultural Economics (Ph.D., 2009)
Kristin Getter, Horticulture (Ph.D., 2009)
Brook Wilke, Crop and Soil Sciences (Ph.D., 2010)
Stephanie Smith, Crop and Soil Sciences (MSc, 2010)
Katherine O'Neil, Horticulture (Ph.D., 2012)
Pragnya Eranki, Chemical Engineering (Ph.D., 2012)
Aaron Yoder, Horticulture (MSc, 2014)
Moslem Ladoni, PSM (PhD, 2014)
Jeremy Jubenville, Entomology (MSc, 2015)
Caroyln Lowry, Horticulture (PhD, 2015)
Cynthia Kallenbach, Biology, University of New Hampshire (PhD, 2015)
Laura Hess, Biology, Stanford University (PhD, 2016)
Ellen Holste, Forestry (PhD, 2016)
Lucas Michelotti, Forestry (MSc, 2016)
Andrea Orjuela, Chemical Engineering (PhD, 2016)
Brendon O'Neill, PSM (PhD, 2017)
Bonnie McGill, Integrative Organismal Biology (PhD, 2017)
Yahn-Juah Su, Geography (PhD, 2017)
Molly Kreykes, PSM (MSc, 2017)
Patrick Schults, Forestry (MSc, 2017)
Riva Denny, Sociology (PhD, 2018)
Michelle Quigley, PSM (PhD, 2018)
Alyssa Kim, PSM (PhD, 2021)
Alexia Whitcomb, PSM (PhD, 2021)
Lindsey Kermmerling, IBIO (PhD, 2022)
Andrew Curtright, PSM (PhD, 2022)
Cheyenne Lei, Geography (PhD, 2022)
Jaron Adkins, PSM (PhD, 2022)
Guanyuan Shuai, EES (PhD, 2022)
Corrin Rutkoski, IBIO (PhD, 2024)

Etienne Herrick Sutton, Univ. Michigan (PhD, 2024)
Jinho Lee, PSM (PhD, 2024)
KC Rabin, PSM (PhD)
Prateek Sharma, EES (PhD)
Goutham Thotakuri, PSM (PhD)

Postdoctoral Scholars

Katherine M. Klingensmith (1988-1990; now Alfred Univ., NY)
Jacqueline Henrot (1989-1991; now IRRI, Philippines)
Keith Paustian (1989-1994; now Colorado State Univ.)
Harold Collins (1994-1996; now ARS)
Per Ambus (1996-1998; now RISO, Univ. of Copenhagen)
Craig Russell (1997-1999; now Univ. Western Australia)
Kevin Kosola (1997-2000; now Monsanto)
Ann-Marie Fortuna (2001-2002; now USDA-ARS)
Tim Parshall (2002-2004; now Springfield College)
Claire McSwiney (2002-2007; now Kalamazoo College)
Laurel Hartley (2006-2008; now Univ. Colorado)
Poonam Jasrotia (2007-2011; now Lucknow, India)
Neville Millar (2008-2016; now ESMC)
Ilya Gelfand (2007-2017; now Ben Gurion Univ. of the Negev)
Sarah Roley (2013-2017; now Washington State Univ.)
Brendon O'Neil (2018-2019; now Univ. Michigan)
Adam Reimer (2013-2019, now National Wildlife Federation)
Debasish Saha (2018-2019; now Univ. Tennessee)
Carmella Vizza (2019-2022 co-advisor; now Hawai'i Pacific Univ.)
Tian Guo (co-advisor 2021-2022; now Colorado State Univ.)
Carolina Cordova (2019-2022; now Univ. Nebraska Lincoln)
Samantha Mosier (2020-2022; now Colorado State Univ.)
Ekrem Ozlu (2019-2022; now North Carolina State Univ.)
Mir Zaman Hussain (2022-2024)
Ashim Datta (2023-2025)

Formal Courses

1987 CSS 412 Topics in Agronomy: Geostatistics (with J. Crum, 3 cr, 20 students)

1988 Zol 891 Graduate Seminar: Current Topics in Ecology (2 cr, 12 students)
CSS 412 Topics in Agronomy: Landscape Ecology (3 cr, 2 students)

1989 CSS 412/442 Agricultural Ecology (3 cr, 8 students)
CSS 411 Research in Agricultural Ecology (4 cr, 5 students)
EEB 891 Graduate Seminar: Root Resource Interactions (with K.L. Gross, K.S. Pregitzer; 1 cr, 5 students)
BOT 851 Quantitative Methods in Ecology and Evolution (1 week, with A. Tessier, 4 cr, 20 students)

1990 CSS 412/442 Agricultural Ecology (Spring term)
CSS 812 Global Change Seminar (Summer term)

- 1991 BOT 895 Quantitative Methods in Ecology and Evolution (1 week, with A. Tessier, 3 cr, 16 students)
 CSS 812 Global Change Seminar (2 cr, 8 students)
 CSS 412 Agricultural Ecology (3 cr, 8 students)
- 1992 BOT 895 Quantitative Methods in Ecology and Evolution (1 week; with A. Tessier, 3 cr, 18 students)
 ZOL 389 Animal Ecology (with T. Getty, S. Kalisz; 4 cr, 26 students)
 BOT 450 Plant Ecology (with S. Kalisz; 3 cr, 2 students)
 CSS/FOR 404 Agricultural and Forest Ecology (with K. Pregitzer; 4 cr, 29 students)
- 1993 BOT 860 Terrestrial Ecology and Evolution (with S. Kalisz, 4 cr, 7 students)
 ZOL 250 Ecology (with T. Getty, S. Kalisz; 4 cr, 22 students)
 (Sabbatical leave 1993-1994)
- 1994 FOR/CSS 404 Agricultural and Forest Ecology (with P. Nguyen, 4 cr, 32 students)
 BOT 851 Quantitative Methods in Biology (1 week; with A. Tessier, 3 cr, 24 students)
- 1995 FOR/CSS 404 Agricultural and Forest Ecology (with P. Nguyen, 4 cr, 49 students)
 BOT 809/ZOL 817 Advanced Terrestrial and Aquatic Ecology; with A. Tessier, 7 cr, 12 students)
 BOT 895 Quantitative Methods in Ecology and Evolution (1 week; with A. Tessier, 3 cr, 22 students)
- 1996 FOR/CSS 404 Agricultural and Forest Ecology (with P. Nguyen, 4 cr, 53 students)
 CSS/MIC 426 Biogeochemistry (with S. Hamilton, M. Klug, D. Long; 3 cr, 19 students)
 BOT 895 Quantitative Methods in Ecology and Evolution (1 week; with A. Tessier, 3 cr, 20 students)
 CSS/MPH 841 Advanced Soil Microbiology (1 lecture, 3 cr, 20 students)
- 1997 FOR/CSS 404 Agricultural and Forest Ecology (with R. Kobe, 4 cr, 28 students)
 CSS/MIC 426 Biogeochemistry (with S. Hamilton, M. Klug, D. Long; 3 cr, 19 students)
 BOT 895 Quantitative Methods in Ecology and Evolution (1 week; with A. Tessier, 3 cr, 18 students)
- 1998 FOR/CSS 404 Agricultural and Forest Ecology (with R. Kobe, 4 cr, 31 students)
 CSS/MIC 426 Biogeochemistry (with S. Hamilton, M. Klug, D. Long; 3 cr, 16 students)
 BOT 895 Quantitative Methods in Ecology and Evolution (1 week; with A. Tessier, 3 cr, 19 students)
 CSS 893 Scientific Presentations (1 week; with E. Paul, 1 cr, 14 students)
- 1999 FOR/CSS 404 Agricultural and Forest Ecology (with R. Kobe, 4 cr, 37 students)
 CSS/MIC 426 Biogeochemistry (with S. Hamilton, M. Klug, D. Long; 3 cr, 16 students)
 BOT 895 Quantitative Methods in Ecology and Evolution (1 week; with A. Tessier, 3 cr, 18 students)
- 2000 CSS/FOR 404 Forest and Agricultural Ecology (with R. Kobe; 4 cr, 37 students)
 CSS/MIC 426 Biogeochemistry (with S. Hamilton, M. Klug, D. Long; 3 cr, 16 students)
 BOT 895 Quantitative Methods in Ecology and Evolution (1 week, with A. Tessier, 3 cr, 20 students)
- 2001 CSS/MIC 426 Biogeochemistry (with S. Hamilton, M. Klug; 3 cr, 20 students)
 (Sabbatical leave Fall 2001)
- 2002 CSS/MMG 426 Biogeochemistry (with M. Klug, D. Long; 3 cr, 19 students)

- K12 Summer Science Institute, 2-week full-time course; 40 students (K-12 science teachers).
 Week 1 Ecology (with M. Klug); Week 2 Summer Leadership Institute (with J. Gallagher, A. Anderson, M. Klug). Also includes 6 schoolyear 1-day workshops
- 2003 CSS/MMG 426 Biogeochemistry (with S. Hamilton, M. Klug, D. Long; 3 cr, 20 students)
 K12 Summer Science Institute, 2-week full-time course; 40 K-12 science teachers). See above.
- 2004 CSS 893 Special Topics: Soil Organic Matter Dynamics (with S. Snapp; 1 cr, 9 students)
 CSS 893 Special Topics: The Biogeochemistry of Sustainable Agriculture (1 cr, 7 students)
 K12 Summer Science Institute, 2-week full-time course; 51 students (K-12 science teachers). See above.
- 2005 CSS 893 Special Topics: Agricultural Ecology; 1 cr, 6 students)
 K12 Summer Science Institute, 1-week full-time course; 26 students (K-12 science teachers). See above.
- 2006 CSS/MMG 426 Biogeochemistry (with S. Hamilton, M. Klug, D. Long; 3 cr, 11 students)
 K12 Summer Science Institute, 2-week full-time course; 40 K-12 science teachers). See above.
 CSS 360 Soil Biology (with S. Snapp; 3 cr, 18 students; first time offered)
- 2007 CSS/MMG 426 Biogeochemistry (lead instructor, with S. Hamilton, J. Lennon; 3 cr with lab, 8 students)
 CSS 360 Soil Biology (lead instructor, with A.S. Grandy, S. Snapp; 3 cr with lab, 28 students)
 K12 Summer Science Institute, 1-week full-time course; 40 K-12 science teachers). See above.
- 2011 CSS 442 Agricultural Ecology (3 cr; 29 students)
- 2012 CSS 442 Agricultural Ecology (3 cr; 22 students)
- 2013 CSS 442 Agricultural Ecology (3 cr; 20 students)
- 2014 CSS 442 Agricultural Ecology (3 cr; 27 students)
- 2015 CSS 442 Agricultural Ecology (lead instructor, with B. Basso; 3 cr; 24 students)
- 2016 CSS 442 Agricultural Ecology (lead instructor, with B. Basso; 3 cr; 25 students)
- 2020 CSS 442 Agricultural Ecology (lead instructor, with B. Basso; 3 cr; 22 students)
- 2021 CSS 442 Agricultural Ecology (lead instructor, with B. Basso; 3 cr; 25 students)

Lifelong Education Presentations

- 1988 Michigan Association of Teachers of Vocational Agriculture
 W.K. Kellogg Foundation Latin American Fellows
 Southwest Michigan Organic Growers Association
- 1989 Workshop for Secondary School Science Teachers
 KBS Summer Program for Gifted and Talented High School Students
- 1990 Southwest Michigan Agribusiness Council
 Kalamazoo Math and Science Center
 KBS Summer Program for Gifted and Talented High School Students
 LTER Field Day (organizer)
 UM College of Engineering, Global Environmental Change Course for Professional Engineers
- 1991 KBS Summer Program for Gifted and Talented High School Students
 NSF Workshop for Secondary School Science Teachers
- 1992 KBS Summer Program for Gifted and Talented High School Students
- 1995 MSU Science Education for K-5 Teachers
- 1996 Yield Monitor Training, Lapeer County
 International Agricultural Ecology Course (2 lectures)
- 1998 MSUE Soil Quality Workshops for Growers, Frankenmuth & Battle Creek

- Gypsy Moth Biology and Management Workshop for Local Leaders
International Agricultural Ecology Course (2 lectures)
- 2000 Co-organizer, Teacher Workshops (4) for K12 Partnership for Science Literacy
Professional Development Institute for Agriscience Educators
International Agricultural Ecology Course (2 lectures)
- 2001 Field Crop Ecology for Agriscience and Extension (AEE 891)
International Agricultural Ecology Course (2 lectures)
- 2002 Co-organizer, Teacher Workshops (6) for K12 Partnership for Science Literacy
International Agricultural Ecology Course (2 lectures)
- 2003 Co-organizer, Teacher Workshops (6) for K12 Partnership for Science Literacy
International Agricultural Ecology Course (2 lectures)
- 2004 MSUE Soil Quality Workshop for Growers, Frankenmuth
Co-organizer, Teacher Workshops (6) for K12 Partnership for Science Literacy
International Agricultural Ecology Course (2 lectures)
- 2005 Co-organizer, Teacher Workshops (2) for K12 Partnership for Science Literacy
International Agricultural Ecology Course (2 lectures)
- 2006 Co-organizer, Teacher Workshops (4) for K12 Partnership for Science Literacy
International Agricultural Ecology Course (2 lectures)
- 2007 Co-organizer, Teacher Workshops (4) for K12 Partnership for Science Literacy
International Agricultural Ecology Course (2 lectures)
- 2008 KBS Dessert with Discussion Public Lecture Series
Co-organizer, Teacher Workshops (4) for K12 Partnership for Science Literacy
International Agricultural Ecology Course (2 lectures)
- 2009 Smithsonian Museum of Natural History, Greenhouse Gas Calculator for the National Soils
Exhibit; PI
- 2010 International Agricultural Ecology Course (2 lectures)
- 2011 International Agricultural Ecology Course (2 lectures)
- 2012 International Agricultural Ecology Course (2 lectures)
- 2013 International Agricultural Ecology Course (2 lectures)
- 2014 International Agricultural Ecology Course (2 lectures)

Media Highlights (Recent)

- 2020 Farm Market Radio, (10 minute interview on LTAR)
Michigan Farmer, interview on LTAR
- 2019 Michigan Radio, StateSide (10 minute interview on No-till and climate change)
- 2018 News reports on research papers appeared in Science 360 News, NSF web site, DOE web site,
Morning Ag Clips, Environmental News Network, Phys.org, AAAS EurekAlert, Science Daily
- 2017 National Public Radio (Washington), interview on fertilizer nitrogen
Biofuels Journal, interview on sustainability
Science Magazine, interview on BECCS
- 2015 Futures Magazine article on soils research at KBS
Interview with Liz Pennisi, Science Magazine on nitrogen fixation
WGBH/NPR interview on food sustainability
Arizona Republic interview on agricultural sustainability
Mother Earth News interview on nitrogen fertilizers
- 2014 Michael Patrick Shiels Radio Show (10-minute statewide interview on National Climate
Assessment)
Stateside with Cynthia Canty on Michigan Public Radio (half-hour interview: How climate change

is impacting Michigan's farming future) <http://michiganradio.org/post/how-climate-change-impacting-michigans-farming-future>

Scientific American story on MSU-EPRI Carbon Credit Protocol
(<http://www.scientificamerican.com/article/copious-fertilizer-down-on-the-farm-means-more-global-warming-pollution-up-in-the-sky/>)

National Science Foundation website (How much fertilizer is too much for Earth's climate)
http://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=131642&org=NSF

Various blogs on BioScience Ecosystem Services paper, e.g.
<http://greatlakesecho.org/2014/06/03/decades-long-research-values-ecosystem-services-to-farming-environment/> ; <http://blueandgreentomorrow.com/2014/04/10/ecological-farming-is-economically-viable-new-study-says/>

Michigan MLive statewide newspaper interview on National Climate Assessment
http://www.mlive.com/weather/index.ssf/2014/05/risks_to_michigan_and_great_la.html

Michigan MLive statewide newspaper article West Michigan researchers cutting greenhouse gasses one farm at a time;
http://www.mlive.com/news/kalamazoo/index.ssf/2014/06/west_michigan_researchers_cutt.html

Publications (<https://scholar.google.com>)

Peer-Reviewed (underscore = supervised student, postdoc, or staff)

286. Roley, S.S., C. Vizza, K. Kahmark, S.J.L. Murphy, D.H. Buckley, and **G.P. Robertson**. (in review). In situ evidence for quantitative nitrogen fixation in a temperate perennial grass ecosystem.
285. Slessarev, E.W., J. Pett-Ridge, K. Min, A.A. Berhe, S. Das, R.D. Jackson, J. Jastrow, M. Kan, S. Kumar, D. Lang, T. Longbottom, K.J. McFarlane, E. Oerter, B.K. Richards, **G.P. Robertson**, G. Sanford, A. Visser, and E.E. Nuccio. (in revision). Tracing the effects of a deep-rooted grass, *Panicum virgatum* L, on soil organic carbon cycling: Results of paired-plot sampling across the USA.
284. Rabin, K.C., **G.P. Robertson**, and S. Snapp. (in revision). Identifying drivers of soil nitrogen mineralization in cover-cropped agroecosystems.
283. Guo, T., S.T. Marquart-Pyatt, and **G.P. Robertson**. (in revision). Sustaining and growing no-till use in the U.S. Midwest: Insights from consecutive years of survey data.
282. Sharma, P., B. Basso, A. Manuraj, M. S. Murillo, N. Millar, T. Tadiello, M. Sharma, M. Delandmeter, and **G.P. Robertson**. (in press). Coupled machine learning-ecosystem ensemble models substantially improve predictions of nitrous oxide (N₂O) fluxes from US croplands. *Proceedings of the National Academy of Sciences*
281. **Robertson, G.P.** 2026. Soil greenhouse gas emissions and their mitigation. Pages 38-53 in *Encyclopedia of Agriculture and Food Systems*, 3rd Edition. P. Alexander, Ed. Elsevier. doi:10.1016/B1978-1010-1443-15976-15973.00025-15978
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278. Datta, A., B. Wilke, C. Charles, M. Hasenick, T. Ulbrich, M. Singh, M. Sears, and **G.P. Robertson**. 2025. Crop performance and profitability for the initial transition years of a regenerative cropping system in the Upper Midwest United States. *Journal of Environmental Quality* 54:1572-1585. doi: 10.1002/jeq2.70084

277. Dai, T., N.C. Ellebracht, E.J.H. Sellars, A. Aui, H.M. Goldstein, W. Li, C.M. Hellwinckel, L. Price, A.A. Wong, P. Nico, B. Basso, **G.P. Robertson**, J. Pett-Ridge, M. Langholtz, S.E. Baker, S. Pang, and C.D. Scown. 2025. Land-based resources for engineered carbon dioxide removal in the United States exceed the expected needs. *One Earth* 8:101349. doi: [10.1016/j.oneear.2025.101349](https://doi.org/10.1016/j.oneear.2025.101349)
276. Basso, B., T. Tadiello, N. Millar, **G.P. Robertson**, K. Paustian, F.S. Maureira, S. Albarenque, B. Baer, L. Price, P. Sharma, C. Villalobos, A. Fowler, M. Delandmeter, M. Acutis, S. Archontoulis, K.R. Covey, L. Doro, B. Dumont, P.R. Grace, G. Hoogenboom, J.W. Jones, A. Perego, A. Ruane, C. O. Stöckle, and Y. Zhang. 2025. A multi model ensemble reveals net climate benefits from regenerative practices in US Midwest croplands. *Scientific Reports* 15:24881. doi: [10.1038/s41598-025-08419-y](https://doi.org/10.1038/s41598-025-08419-y)
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273. Lucas, M., J. Gil, **G.P. Robertson**, N.E. Ostrom, and A. Kravchenko. 2025. Changes in soil pore structure generated by the root systems of maize, sorghum and switchgrass affect in situ N₂O emissions and bacterial denitrification. *Biology and Fertility of Soils* 61:367-383. doi:[10.1007/s00374-023-01761-1](https://doi.org/10.1007/s00374-023-01761-1)
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270. Guo, T., S. Marquart-Pyatt, and **G.P. Robertson**. 2025. Building ties at multi-stakeholder engagement events to facilitate social learning about contentious issues in natural resource management. *Agriculture and Human Values* 42:983-996. doi:[10.1007/s10460-024-10648-2](https://doi.org/10.1007/s10460-024-10648-2)
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268. Falvo, G. and **G.P. Robertson**. 2025. Nature-based climate solutions can help mitigate the radiative forcing that follows deforestation. *Communications Earth and Environment* 6:425. doi: [10.1038/s43247-025-02291-4](https://doi.org/10.1038/s43247-025-02291-4)
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259. Mosier, S., L. Kelly, E. Ozlu, and G.P. Robertson. 2024. Switchgrass (*Panicum virgatum* L.) cultivars have similar impacts on soil carbon and nitrogen stocks and microbial function. *GCB Bioenergy* 16:e13125. doi:10.1111/gcbb.13125
258. Liebig, M. A., L. J. Abendroth, **G. P. Robertson,** D. Augustine, E. H. Boughton, G. Bagley, D. L. Busch, P. Clark, A. W. Coffin, B. J. Dalzell, C. J. Dell, A. Fortuna, A. Freidenreich, P. Heilman, C. Helseth, D. R. Huggins, J. M. F. Johnson, M. Khorchani, K. King, J. L. Kovar, M. A. Locke, S. B. Mirsky, M. C. Schantz, M. R. Schmer, M. L. Silveira, D. R. Smith, K. J. Soder, S. Spiegel, J. Stinner, D. Toledo, M. Williams, and J. Yost. 2024. The LTAR Common Experiment: Facilitating improved agricultural sustainability through coordinated cross-site research. *Journal of Environmental Quality* 53:787-801. doi:10.1002/jeq2.20636
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