

**MONICA G. TURNER**  
**Eugene P. Odum Professor of Ecology and Vilas Research Professor**

Department of Integrative Biology (iBio)  
University of Wisconsin-Madison  
Madison, WI 53706  
Email: [turnermg@wisc.edu](mailto:turnermg@wisc.edu)

Tel (608) 262-2592  
Fax (608) 265-6320  
Twitter: @MonicaGTurner  
Web: <http://landscape.zoology.wisc.edu/>

**Academic Record**

B.S.	Biology, 1980	Fordham University, Bronx, New York <i>summa cum laude, in cursu honorum</i> ; Phi Beta Kappa
Ph.D.	Ecology, 1985	University of Georgia, Athens, Georgia with honors; Phi Kappa Phi (Advisor: Frank B. Golley)

**Experience**

1999–	Professor, Department of Integrative Biology (formerly Zoology), University of Wisconsin
1995-99	Associate Professor, Department of Zoology, University of Wisconsin
1994-95	Assistant Professor, Department of Zoology, University of Wisconsin
1989-94	Research Staff Scientist, Environmental Sciences Division, Oak Ridge National Laboratory
1987-89	Hollaender Distinguished Fellow, Environmental Sciences Division, Oak Ridge National Laboratory
1985-87	Postdoctoral Research Associate, Institute of Ecology, Univ. Georgia (Advisor: Eugene P. Odum)
1983-85	Graduate Research Assistant, NPS Coop Unit, Univ. Georgia (2 yr)
1980-83	University-wide Graduate Non-teaching Assistant, Univ. Georgia (3 yr)
1982	Graduate Research Assistant, Virgin Islands National Park, St. John, USVI, National Park Service Cooperative Unit, Univ. Georgia (summer)
1981	Environmental Specialist (Federal Summer Intern), UNESCO Man and the Biosphere Programme, US National Park Service, Washington, D.C.
1978	Ranger-Naturalist, Interpretive Division, Student Conservation Association and National Park Service, Old Faithful, Yellowstone National Park (summer)

**Research Interests**

Causes and consequences of spatial heterogeneity in ecological systems; dynamics of natural disturbances and their effects on ecosystems; fire ecology; ecological effects of climate and land-use change; landscape ecology; forest ecosystem ecology; ecosystem services; ecological modeling.

**Honors and Awards**

2022	Elected as a fellow of AAAS (American Association for the Advancement of Science)
2021	Highly Cited Research for 2020, Institute for Scientific Information
2021	Benjamin Franklin Medal in Earth and Environmental Sciences, The Franklin Institute
2021	Named a Fellow of the American Association for the Advancement of Science (AAAS)
2020	Eminent Ecologist Award, Ecological Society of America
2018	Hood Fellowship, University of Auckland (for spring 2019 sabbatical, ~\$12,000 NZD))

- 2015 Named a Vilas Research Professor, UW-Madison
- 2014 Elected as President of the Ecological Society of America
- 2012 Named a Fellow of the Ecological Society of America
- 2010 Distinguished Service Award, US-IALE
- 2008 Robert H. MacArthur Award, Ecological Society of America
- 2008 ECI Prize in Terrestrial Ecology, Ecology Institute, Inter-Research Science Center, Oldendorf/Luhe, Germany
- 2008 Wisconsin Alumni Research Foundation professorship, UW-Madison
- 2005 Named the Eugene P. Odum Professor of Ecology, UW-Madison
- 2004 Elected to the US National Academy of Sciences
- 2004 Identified as a Highly Cited Researcher by Thompson ISI
- 2003 Distinguished Scholarship Award, International Association for Landscape Ecology (IALE), award given every 4 years
- 1999 Romnes Fellowship, Graduate School, UW-Madison
- 1998 Distinguished Landscape Ecologist Award, US-IALE
- 1993 Finalist (Science and Technology), Knoxville YWCA Tribute to Women
- 1991 Distinguished Scientific Achievement Award, East Tennessee Chapter, Association for Women in Science
- 1990 Scientific Achievement Award, Environmental Sciences Division, ORNL
- 1990 Sigma Xi
- 1987 Awarded an Alexander Hollaender Distinguished Fellowship from the US Department of Energy, Office of Health and Environmental Research
- 1985 Phi Kappa Phi National Honor Society
- 1984-85 University of Georgia Graduate School Merit Assistantship Supplement (awarded for outstanding achievement)
- 1980-83 University-Wide Graduate Non-Teaching Assistantship, University of Georgia (3 separate competitive awards)
- 1980 Graduated Summa Cum Laude, Fordham University
- 1980 Honorable Mention, National Science Foundation Graduate Fellowship
- 1980 Finalist, Danforth Graduate Fellowship Competition
- 1980 Certificate of Honor for Outstanding Accomplishment, American Institute of Biological Sciences, Fordham University Chapter
- 1979 Phi Beta Kappa (elected as 3rd year undergraduate)
- 1977-80 Fordham College Honors Program
- 1976-80 New York State Regents Scholarship

### **Professional Societies and Offices Held**

- Ecological Society of America (ESA), member since 1982
  - Executive Director Search Committee, 2017-18
  - Past president, 2016-17
  - President, 2015-16
  - President elect, 2014-15
  - Publication Transitions Committee, 2015
  - Awards Committee, MacArthur Award Subcommittee, 2009-10; 2013
  - Awards Committee, Eminent Scholar and Distinguished Service Citation awards, 2010
  - Rapid Response Team of the Public Affairs Office, 2004–
  - Ad hoc Visions Committee, 2002-04
  - Committee Chair, Odum Award for Excellence in Ecology Education, 2000–2002 awards
  - Ad hoc Committee on Land Use, 1996-99
  - Awards Committee, Mercer Award Subcommittee, 1994-96

Ad hoc Committee on Editorship of ESA Journals, 1994  
Local Arrangements Committee for 1994 Annual Meeting (Knoxville, TN)  
Ad hoc Committee on Ecosystem Management, 1993-94  
Ad hoc Visions Committee, 1990–1991  
Future Meetings Committee, 1989–1992

US Association of the International Association for Landscape Ecology (US-IALE)  
Co-local meeting host (with Phil Townsend), 2008, Madison, WI  
Nominating Committee, 2001-03  
President, 1994-1996  
Local meeting host, 1993, Oak Ridge, TN  
Councilor-at-Large, 1990-92  
Program Chair, 1986-89 (for four annual conferences)  
Local meeting host, 1986, Athens, GA (1<sup>st</sup> annual conference)

American Institute of Biological Sciences (AIBS)  
AIBS Publications Committee, 2001-02

### **Research Grants**

- 1988            Workshop: "Predicting Across Scales: Theory Development and Testing," with R. H. Gardner and V. H. Dale. November 8-11, Oak Ridge, Tennessee. National Science Foundation, Ecosystem Studies Program, \$27,080 and Department of Energy, Ecological Research Division, \$15,000.
- 1990            "Plant Recovery Following Fire in Yellowstone National Park," with W. H. Romme and R. H. Gardner. National Geographic Society, \$9,519.
- 1990-1991     "Consequences of Large-scale Fire on Plant Reestablishment in Yellowstone National Park, Wyoming," with W. H. Romme and R. H. Gardner. National Science Foundation, Ecosystem Studies Program, Small Grants for Exploratory Research. \$49,518.
- 1990-1992     "Landscape-Level Interactions Among Ungulates, Vegetation, and Large-Scale Fires in Northern Yellowstone National Park," with W. H. Romme and L. L. Wallace. University of Wyoming-National Park Service Research Center, \$168,000.
- 1990-1993     "Pattern, Process and Predictability," with R. H. Gardner and R. V. O'Neill. US Department of Energy, Ecological Research Division. \$230,000 per year.
- 1990-1992     "Land Use Patterns in the Olympic and Southern Appalachian Biosphere Reserves: Implications for Long-term Sustainable Development and Environmental Vitality," submitted by the US MAB Temperate Ecosystems Directorate, of which M. G. Turner is a member. US MAB National Committee, \$290,716.
- 1991-1994     "Causes and Consequences of Large-scale Fire in Yellowstone National Park," with W. H. Romme and R. H. Gardner. National Science Foundation, Ecosystem Studies Program. \$550,000.
- 1991-1992     "Comparing landscape patterns across forest ownership groups," with R. O. Flamm in cooperation with D. N. Wear. US Forest Service. \$20,000.

- 1993-1995 "Land Use Patterns in the Olympic and Southern Appalachian Biosphere Reserves: Implications for Long-term Sustainable Development and Environmental Vitality. Phase 2." Renewal proposal, with R. Lee, R. Naiman, R. Flamm, D. Wear, R. Gottfried and C. Bledsoe. US MAB National Committee, \$290,000.
- 1994-1995 "Effects of Land Use Change on Biodiversity in the USA," National Status and Trends Report, National Biological Service, \$13,596.
- 1994-1996 "Consequences of Land-cover Change for Terrestrial Species," with S. M. Pearson. \$90,124. Subcontract from the University of Georgia LTER Augmentation Proposal, "Causes and Consequences of Land-cover Change in the Southern Appalachians: Supplement to LTER Research at Coweeta Hydrologic Laboratory." National Science Foundation, Long Term Ecological Research Program, \$999,905.
- 1994-1996 "LTER Project Augmentation, Upper Midwest Lakes and their Landscapes: 1800 to 2100," with J. J. Magnuson and 11 co-PIs. National Science Foundation, Long Term Ecological Research Program, \$998,848.
- 1995-1996 "Land Use Patterns in the Olympic and Southern Appalachian Biosphere Reserves: Implications for Long-term Sustainable Development and Environmental Vitality. Phase 3" Renewal proposal, with R. Lee, R. Naiman, R. Flamm, D. Wear, R. Gottfried and C. Bledsoe. US MAB National Committee, \$100,000.
- 1995-1996 "Landscape-level foraging strategies of wintering ungulates." Research Committee, The Graduate School, University of Wisconsin-Madison, \$15,816.
- 1995-1998 "SERDP: Modeling effects of land management on biotic resources for Department of Defense and Department of Energy Lands." Subcontract from DoD grant to Oak Ridge National Laboratory, \$52,500.
- 1995-1998 "Mechanisms of persistence of aspen seedlings following the 1988 Yellowstone fires," with W. H. Romme and G. T. Tuskan. USDA National Competitive Grants Initiative, Forest/Crop/Rangeland Ecosystems Program, \$229,000.
- 1996 "Workshop: Comparing large, infrequent disturbances: what have we learned?", with V. H. Dale. National Center for Ecological Analysis and Synthesis, University of California-Santa Barbara, \$15,000.
- 1996 "Differences in succession following the 1988 Yellowstone fires," with W. H. Romme. National Geographic Society, \$22,000.
- 1996-2002 "Effects of land use on terrestrial biodiversity," with S. M. Pearson. \$276,657 subcontract from the University of Georgia LTER (Coweeta) Proposal, "Long-term studies of disturbances as they affect ecological processes in landscapes of the Southern Appalachians." National Science Foundation, Long Term Ecological Research Program, \$6,000,000.
- 1996-2002 "Long-term regional ecology of North Temperate Lakes," with J. J. Magnuson (PI) and 11 co-PIs. National Science Foundation, Long Term Ecological Research Program, \$6,000,000.

- 1998 "Spatial patterns of postfire vegetation in Yellowstone," USDI, Yellowstone National Park, Wyoming, \$12,812.
- 1998-1999 "Spatial patterns of postfire succession in Yellowstone: effects on ecosystem processes." Research Committee, The Graduate School, University of Wisconsin-Madison, \$15,750 (awarded but returned).
- 1998-2002 "Causes and consequences of spatial variation in initial postfire succession in the Yellowstone landscape," with W. H. Romme and D. H. Knight. National Science Foundation, Ecosystem Studies and Ecology Programs, \$400,000.
- 1998-2002 "Ecological indicators for large river-floodplain landscapes," with E. H. Stanley. Environmental Protection Agency, NCERQA, STAR program, \$677,351.
- 2000-2004 "Building a mechanistic basis for landscape ecology of ungulate populations," with P. Turchin (lead PI), J. Fryxell, M. Boyce and E. Merrill. National Science Foundation, IRCEB, \$2,000,000 (\$651,653 subcontract to UW-Madison).
- 2000-2006 "Divergent dynamics: complex interactions of riparian land, people, and lakes," with S. R. Carpenter (lead PI), W. A. Brock, A. R. Ives, T. K. Kratz, and others. National Science Foundation, Biocomplexity Program, \$2,998,607.
- 2001-2008 "How do disturbance-generated landscape patterns influence the spatial dynamics of ecosystem processes?" (with W. R. Romme and D. B. Tinker). Andrew W. Mellon Foundation, Conservation and Environment Program, \$690,000.
- 2002-2010 "Hydrologic and biogeochemical fluxes in regional land-water mosaics" (S. R. Carpenter, M. G. Turner, J. A. Foley). Andrew W. Mellon Foundation, Conservation and Environment Program, \$650,000
- 2002-2008 "Ecological consequences of land-use change in the southern Appalachian Mountains" (Coweeta LTER site; T. L. Gragson, J. M. Vose, B. D. Kloeppel and lots of co-PIs), National Science Foundation, LTER program, subcontract to UW-Madison is \$211,757 from overall \$6 million grant
- 2002-2008 "Comparative Study of a Suite of Lakes in Wisconsin" (North Temperate Lakes LTER site; S. R. Carpenter, lead PI, with 11 co-PIs), National Science Foundation, LTER program, \$6.72 million.
- 2003-2004 "Ecosystem function in heterogeneous landscapes: the tenth Cary Conference," G. M. Lovett, C. G. Jones, M. G. Turner, K. C. Weathers. National Science Foundation, Ecosystem Studies Program, \$50,000.
- 2003-2007 "Carbon cycling at the landscape scale: the effect of changes in climate and fire frequency on age distribution, stand structure, and net ecosystem production" with M. G. Ryan (lead PI), W. H. Romme and D. B. Tinker. Joint Fire Science Program, \$497,648 with \$142,953 to UW-Madison.
- 2005-2008 "Eutrophication thresholds – assessment, mitigation and resilience in landscapes and lakes" (S. R. Carpenter, M. G. Turner and J. A. Foley). US Environmental Protection Agency STAR Program, \$299,999.

- 2006-2009 “Reciprocal interactions between bark beetles and wildfire in subalpine forests: landscape patterns and the risk of high-severity fire.” (D. B. Tinker, M. G. Turner, W. H. Romme and P. Townsend). Joint Fire Science Program, Total award of \$299,951 of which \$209,443 is to UW-Madison.
- 2007-2010 “Fire, bark beetles and salvage logging in the Greater Yellowstone Ecosystem.” (M. G. Turner, K. F. Raffa, J. A. Griffin, M. Simard). USDA Forest Service, Western Wildland Environmental Threats Assessment Center, \$100,000.
- 2008-2014 “LTER: Comparative study of a suite of lakes in Wisconsin.” Renewal of North Temperate Lakes LTER site, S. R. Carpenter, lead PI, many co-PIs. NSF Long-term Ecological Research (LTER) Program. \$7.44 million total.
- 2008-2014 “Southern Appalachia on the edge: exurbanization and climate interaction in the southeast.” Renewal of Coweeta LTER site, T. Gragson, lead PI, many co-PIs. NSF Long-term Ecological Research (LTER) Program. Total award of \$7.44 million, of which \$267,011 is to UW-Madison.
- 2009-2010 “Effects of interacting disturbances on biogeochemistry in conifer forests of Greater Yellowstone.” Research Committee (Biological Sciences Division), Graduate School, University of Wisconsin-Madison, \$31,613 (one year graduate RA support).
- 2009-2010 “Climate, fire and carbon: tipping points and landscape vulnerability in Greater Yellowstone” (E. A. H. Smithwick, W. H. Romme, M. G. Ryan, M. G. Turner and A. Westerling). Joint Fire Science Program, \$140,653.
- 2009-2013 “Bark beetles, fuels and future fire hazard in contrasting conifer forests of Greater Yellowstone.” (M. G. Turner, W. H. Romme, P. A. Townsend, J. M. Griffin, M. Simard) Joint Fire Science Program, \$407,767.
- 2010-2014 “Wildlife consequences of biofuel production in Wisconsin landscapes.” Wisconsin Department of Natural Resources, \$165,000.
- 2010-2016 “Climate change, shifting land use and urbanization in a Midwestern agricultural landscape: challenges for water quality and quantity.” (C. A. Kucharik, S. R. Carpenter, S. P. Loheide, A. Rissman, and M. G. Turner). National Science Foundation (Water, Sustainability and Climate program), \$4,911,961.
- 2011-2014 “Paths of recovery: landscape variability in forest structure, function and fuels 25 years after the 1988 Yellowstone fires.” (M. G. Turner, W. H. Romme and D. B. Tinker). Joint Fire Science Program, \$391,776.
- 2012-2014 “Is spatial heterogeneity of burn severity changing with warming climate and increasing wildfire?” (M. G. Turner and B. J. Harvey). Graduate Research Innovation (GRIN) award for Brian Harvey, Joint Fire Science Program, \$22,433.
- 2012-2014 “Lake remote sensing and landscape analysis.” Wisconsin Department of Natural Resources, \$79,024.

- 2015-2016 “Climate change, fire and state changes in western conifer forests.” Research Committee, UW-Madison Graduate School, \$39,904.
- 2015-2017 “Regional scenarios, biodiversity and ecosystem services in southern Appalachia” (subcontract to UW-Madison from the Coweeta Long-term Ecological Research award, “LTER: The interacting effects of hydroclimate variability and human landscape modification in the Southern Appalachian Mountains”) from the National Science Foundation, T. Gragson, lead-PI, University of Georgia, \$101,196.
- 2015-2021 “LTER: Comparative study of a suite of lakes in Wisconsin” (E. H. Stanley, lead PI, numerous co-PIs). National Science Foundation, Long-term Ecological Research Program, \$6M.
- 2016 “Dissertation research: Origins of alternate ecosystem states? Effects of 21<sup>st</sup>-century drought on postfire tree regeneration and shifting dominance of western conifers” (M. G. Turner and W. D. Hansen). Doctoral Dissertation Improvement Grant, National Science Foundation, \$19,890.
- 2016-2018 “Anticipating abrupt ecological change in the 21<sup>st</sup> century” (M. G. Turner, S. R. Carpenter, A. R. Ives, C. J. Kucharik, and J. W. Williams). UW2020: WARF Discovery Initiative, UW-Madison Office of the Vice Chancellor, \$334,530.
- 2016-2020 “What makes for a resilient landscape? Climate, fire and forests in the Northern Rockies” (M. G. Turner, D. C. Donato, A. Rissman, R. Seidl, and A. L. Westerling) Joint Fire Science Program, \$418,249.
- 2016-2017 “Shifting baselines: the changing role of smaller stand-replacing fires in high-elevation and high-latitude conifer forests.” (M. G. Turner and W. D. Hansen). Award from the University of Alaska, \$12,901.
- 2017-2018 “RAPID: The 2016 Yellowstone Fires: Early indicators of ecosystem transitions in a more fiery future?” (M. G. Turner and B. J. Harvey). National Science Foundation, Ecosystem Studies Program. \$199,092 total, \$148,986 to UW-Madison.
- 2017-2018 “Suppression under average burning conditions in high-elevation and high-latitude conifer forests: impacts on subsequent fires and forest structure” (M. G. Turner and W. D. Hansen, student PI). US National Park Service 2017 Reserve Fund Research, \$19,066.
- 2017-2018 Field experiment equipment award (M. G. Turner). UW-Madison Vilas Trust, \$18,600 (direct costs).
- 2018-2019 Supplemental award for postdoctoral support (M. G. Turner). UW-Madison Vilas Trust, \$24,000 (direct costs).
- 2018-2020 “Testing LiDAR for mapping canopy and surface fuels in Grand Teton National Park” (M. G. Turner and K. H. Brazianas, student investigator). US National Park Service 2018 Reserve Fund Research, \$56,339.
- 2019-2021 “Drivers of early postfire tree regeneration and indicators of forest resilience in national parks of the northern Rocky Mountains” (M. G. Turner and T. J. Hoecker, student PI). US National Park Service 2019 Reserve Fund Research, \$69,716.

- 2019-2023 “Camp Monaco Prize 2019: Anticipating and envisioning future landscapes of Greater Yellowstone.” (M. G. Turner). Draper Museum of Natural History, Cody, Wyoming, and Prince Albert II of Monaco Foundation, \$100,000.
- 2019-2024 “INFEWS/T1: Sustaining food, energy, and water security in agricultural landscapes of the Upper Mississippi River Basin.” (C. J. Kucharik, S. C. Loheide, A. M. Rissman, and M. G. Turner.) National Science Foundation, Innovations in Food, Energy and Water Systems, \$2,499,683.
- 2020-2021 “Less fuel for the fire: How will drought amplify effects of short-interval fire?” (M. G. Turner and K. H. Braziunas, student investigator). Graduate Research Innovation (GRIN) award for KHB, Joint Fire Science Program, \$24,953.
- 2020-2025 “Collaborative research—Nitrogen recovery in postfire lodgepole pine forests: cryptic sources uncertain futures.” (M. G. Turner and C. C. Cleveland, University of Montana). National Science Foundation, Ecosystem Studies Program, \$1,273,210 total (\$806,831 to UW-Madison, \$466,379 to UM.)
- 2020-2026 “LTER: Collaborative study of a suite of lakes in Wisconsin.” (Stanley, E. H., C. Gries, P. C. Hanson, S. P. Loheide, M. G. Turner, with additional co-investigators). National Science Foundation LTER Program, \$7,680,000.
- 2021-22 Supplemental award for infrastructure upgrades (M. G. Turner). UW-Madison Vilas Trust, \$46,215 (direct costs).
- 2016– Vilas Research Professorship, UW-Madison Vilas Trust, \$50,000 annually until retirement (direct costs)

### **Professional Activities (in addition to professional society service)**

- 2021 Member, NSF site-review team for the Harvard Forest Long-term Ecological Research (LTER) site, September 20-22.
- 2021 Proposal review panel, Swiss Federal Research Institute for Forest, Snow and Landscape Research (WSL), May
- 2021 Panelist, National Academies Ford Foundation Fellowship (Ecology), February-March, with virtual panel meetings
- 2020 Member, NSF Ecosystem Studies Panel, Division of Environmental Biology, 21-23 October (virtual panel during COVID-19)
- 2019 Co-organizer (with N. S. Gill) and moderator of organized oral session, “Changing fire regimes and dispersal into post-fire landscapes” Ecological Society of America annual meeting, Louisville, KY, August.
- 2018 Steering Committee member, National Academy of Sciences and British Royal Society Sackler Forum, “Climate change and ecosystems,” US National Academy of Sciences, Washington, DC, 8-9 November, and guest editor of resulting special feature in Philosophical Transactions of the Royal Society B.
- 2018 Co-organizer (with S. R. Carpenter) of organized oral session, “Abrupt change in ecological systems: when, where, and why?” Ecological Society of America annual meeting, New Orleans, LA, August.
- 2018 Invited participant and speaker, US Department of Energy workshop, “Disturbance and vegetation dynamics in Earth Systems Models,” Gaithersburg, Maryland, 15-16 March.

- 2016-17 Planning committee member, National Academy of Sciences workshop, “A century of wildland fire research”, 27 March.
- 2015 Co-organizer (with Rose E. Graves) of symposium, “Meeting the challenge of landscape sustainability: balancing multiple ecosystem services in heterogeneous landscapes,” IALE World Congress, Portland, Oregon 5-10 July.
- 2015 Invited workshop participant, “Next generation models for ecosystem services and biodiversity,” Synthesis Centre sDiv, German Centre for Integrative Biodiversity Research (iDiv), Leipzig, 14-17 April.
- 2015 Keynote speaker, 2015 Summit, “Science for parks and parks for science: the next century”, University of California-Berkeley, 22-27 March.
- 2015 Invited participant, Program on Ecosystem Change (PECS) workshop, “Ecosystem service trade-offs and synergies: synthesizing and learning across case studies,” 28-31 January, Stockholm, Sweden.
- 2015-2018 Science advisory committee, ECO-POTENTIAL: Improving future ecosystem benefits through earth observations. Funded by the EU. Project website: <http://www.ecopotential-project.eu/>
- 2014 Co-organizer (with Jill F. Johnstone) of Organized Oral Session, “Climate warming, changing disturbance regimes, and forest resilience,” at the 2014 Ecological Society of America annual meeting
- 2014 Scientific co-leader, COMPASS workshop, Communicating fire science, Seattle, WA, April 23-26.
- 2013– Advisory Committee, Swiss Federal Research Institute for Forest, Snow and Landscape Research (WSL), Birmensdorf, Switzerland  
–Chaired the Advisory Board in 2019
- 1996– Co-Editor in Chief, *Ecosystems* (with S. R. Carpenter)
- 1996– Editorial Board, *BioScience*
- 2013 Class Membership Committee, Section 63, National Academy of Sciences
- 2012 Committee of Visitors, Division of Environmental Biology, NSF; June 5-7
- 2011 Participant, UFZ Roundtable, “Challenges to ecological theory and modeling in a changing world,” Liebenberg, Germany, October 10-14.
- 2010-13 Associate Editor, Encyclopedia of Biodiversity
- 2007-13 Associate Editor, *Quarterly Review of Biology*
- 2009 NSF workshop on Sustainability Science, 30 Nov.-2 Dec., Virginia
- 2009 Advisory Committee (DSECC 12), National Environmental Observatory Network (NEON), Northern Rockies domain
- 2008-09 Blue-ribbon science review panel for Isle Royale National Park
- 2007– Advisory Board, *Landscape Ecology*
- 2006-07 Chair, External Review Panel for wilderness research, US Forest Service Research; review was held February 20-22, 2007.
- 2006 Invited participant, GAO Workshop on Climate Change and Federal Lands, National Academy of Sciences, November 2-3.
- 2006 Participant, LTER All-Scientists Meeting, Estes Park, Colorado, Sept. 20-23
- 2006 Oosting Lecturer, Duke University, April 5-7.
- 2006 Congressional briefing to House and Senate science staffers on forest fire, sponsored by ESA and other scientific societies; March 9.
- 2006 Ecology Program, National Science Foundation, Workshop on Frontiers in Ecology, January 9-11
- 2005-08 Member, National Research Council, Board on Environmental Studies and Toxicology (BEST); working group chair, 2006-08.
- 2005-2009 Editorial Board, Terrestrial Ecology Series, Academic Press
- 2005 Visiting scholar, Umeå University, Umeå, Sweden, March 14-19

- 2004 Participant, LTER Planning "Meeting of 100", Cape Canaveral, FL, Nov. 9-12
- 2003 External reviewer, Landscape Department, Swiss Forest Research Institute, Birmensdorf, Switzerland. Program review, January 29-30.
- 2003 Co-organized symposium, "Reciprocal interactions between ungulates and landscapes," for the 2003 World Congress of the International Association for Landscape Ecology in Darwin, Australia with Dean Anderson.
- 2001-03 Co-organizer of the 2003 Cary Conference, "Ecosystem function in heterogeneous landscapes," Institute for Ecosystem Studies, Millbrook, NY
- 1998-02 Committee on Ungulate Management in Yellowstone National Park, National Research Council, National Academy of Sciences
- 2000 Organizer (with F. S. (Terry) Chapin) of Symposium, "Integrating ecosystem and landscape ecology: spatial heterogeneity in ecosystem processes," Ecological Society of America Annual Meeting, Snowbird, Utah.
- 1997-00 Ecosystems Panel, National Research Council, National Academy of Sciences
- 1992-04 Editorial Board, *Ecological Applications*
- 1995-03 Editorial Board, *Conservation Ecology*
- 1992-04 Editorial Board, *Landscape Ecology*
- 1995-97 Science Advisory Board, National Center for Ecological Analysis and Synthesis, University of California-Santa Barbara.
- 1993-96 Participant, Workshop on Land-use History of North America. National Biological Service, Patuxent, Maryland, 14-15 August.
- 1995-97 Science Advisory Committee, Oak Savanna Legacy Project, The Sand County Foundation, Madison, Wisconsin
- 1995 Participant, Sixth Cary Conference, "The Ecological Basis of Conservation," Institute of Ecosystem Studies, Millbrook, New York, May.
- 1994 Distinguished Ecologist Series, Colorado State University, February 8-10
- 1993 Keynote Speaker, Symposium on the Role of Fire in the Greater Yellowstone Area, Yellowstone National Park, Wyoming, 19-21 September
- 1993 Invited Panelist, International Workshop on Biodiversity Survey, Inventory and Data Management. Smithsonian Institution, Washington, DC, 11-15 January
- 1993 Terrestrial Ecology Technical Panel, NASA, 1-3 March
- 1993 Local host, 8th Annual Landscape Ecology Symposium, Oak Ridge, Tennessee, 24-27 March
- 1993 Invited speaker, Fifth Cary Conference: "Linking Species and Ecosystems," Institute of Ecosystem Studies, Millbrook, New York, 8-12 May.
- 1992-93 Steering Committee, Second International Conference/Workshop on Integrating GIS and Environmental Modeling, Breckenridge, Colorado, 26-30 September 1993.
- 1992 Workshop participant, "The Application of Spatially Explicit Models to Conservation and Management of Animal Populations," University of Georgia, Athens, 11-14 November
- 1992 Invited Participant, Ecological Society of America and Association of Ecosystem Research Centers, Workshop for the National Center for Ecological Synthesis and Analysis, Albuquerque, New Mexico, 24-28 October
- 1992 Keynote speaker, 7th Annual Landscape Ecology Symposium, Corvallis, Oregon, 7-11 April.
- 1990-1992 Committee on Federal Acquisition of Lands for Conservation, National Research Council, National Academy of Sciences
- 1990 Invited Participant, "Wetland and Riparian Ecotones in Landscape Dynamics: A Workshop on Applying Theory, Data, and Methods" (funded by MAB), Oak Ridge, Tennessee, 18-21 September.
- 1990 Organizer, Symposium on "Methodology in Landscape Ecology," V International Congress of Ecology, Yokohama, Japan. 23-30 August.

- 1990 Long-term Ecological Research (LTER) Panel, National Science Foundation
- 1989-04 Editorial Board, *Climate Research: Interactions of Climate with Organisms, Ecosystems and Man*.
- 1989-91 Member, Directorate for Temperate Ecosystems, US Man and the Biosphere Program
- 1989 National Science Foundation Site Review Team for the North Temperate Lake Long-Term Ecological Research (LTER) site, University of Wisconsin, Madison, 22-26 May.
- 1988 Invited participant, "Research priorities following the 1988 fires in Yellowstone National Park," Montana State University, Bozeman and University of Wyoming Research Station, Jackson, 14-19 October.
- 1988 Invited participant, "Women's Contributions to Future Directions of Ecosystem Sciences" workshop (funded by National Science Foundation), Colorado State University, Fort Collins, 11-14 October.
- 1988 Peer Review Board, EPA Program on Environmental Effects of Global Climate Change, Corvallis, Oregon, 20 April.
- 1987-89 Buell Award Judge, Ecological Society of America
- 1986 Invited participant, "Array and Parallel Processing in Landscape Dynamics" workshop on the use of supercomputers in landscape ecology. Colorado State University, Fort Collins, 14-20 September
- 1986 Convener, 1<sup>st</sup> annual US Landscape Ecology Symposium on "The Role of Landscape Heterogeneity in the Spread of Disturbance." University of Georgia, Athens, 15-17 January.
- 1985 Invited participant, SCOPE/INTECOL/ICSU Workshop on "Spatial and Temporal Variability of Biospheric and Geospheric Processes." St. Petersburg, Florida, 28 October - 1 November.
- 1984 Coordinator, Selection of Coastal Biosphere Reserves in the Carolinian-South Atlantic Region, US Man and the Biosphere Programme. Cumberland Island, Georgia, 19-20 January.
- 1983 Member, Coordinating Committee, INTECOL conference on "The Application of Ecosystem Theory to Park Management." Callaway Gardens, Georgia, 16-18 November.

### **Teaching Experience – University of Wisconsin**

#### Landscape Ecology (ZOO 665, co-taught with D. J. Mladenoff)

Spring 1996, 19 students

Spring 1998, 20 students

#### Principles of Landscape Ecology (ZOO 565, 1/3 lectures, course led by D. J. Mladenoff)

Spring 1999, 37 students

#### Advanced Landscape Ecology (ZOO 879)

Spring 2000, 20 students

Spring 2002, 13 students

Spring 2004, 18 students

Spring 2006, 21 students

Spring 2008, 17 students

Spring 2010, 16 students

Spring 2012, 17 students

Spring 2014, 16 students

Spring 2016, 16 students

Spring 2018, 16 students

Spring 2020, 20 students

Spring 2022, 18 students

Introductory Biology (ZOO152), Ecology section (one-third of semester)

Also was co-chair of the entire course sequence (Zoology 151/152, two semesters, 10 credits, ~1000 students/semester, ~24-30 faculty/year, 5 course coordinators) for five years, 2001-2006.

Fall 1994, 120 students  
Fall 1995, 190 students  
Fall 1996, 190 students  
Fall 1997, 190 students  
Fall 1998, 150 students  
Fall 1999, 170 students  
Fall 2000, 190 students  
Fall 2003, 200 students  
Fall 2006, 150 students  
Fall 2007, 160 students  
Fall 2008, 180 students  
Fall 2009, 330 students  
Fall 2011, 330 students  
Fall 2012, 360 students  
Fall 2013, 360 students  
Fall 2014, 450 students

General Ecology (ZOO 460, co-taught with T. Givnish)

Spring 1995, 125 students

Introduction to Ecology Research at UW-Madison (Graduate Seminar, ZOO 953, cross-listed with 6 departments). Assumed responsibility and re-organized this course in 2020. The seminar is aimed at new PhD students, campus wide, in any area of ecology.

Fall 2020, 25 students (1 credit)  
Fall 2021, 20 students (1 credit)

Ecology Graduate Seminars (ZOO 956)

Spring 1997, 21 students:

*Spatial Modeling* (1 credit)

Spring 2001, 24 students:

*Modeling Interactions between Terrestrial and Aquatic Ecosystems I* (Turner, Foley, Carpenter, Stanley; 2 credits)

Fall 2001, 12 students:

*Modeling Interactions between Terrestrial and Aquatic Ecosystems II* (Foley, Turner, Carpenter, Stanley; 2 credits)

Spring 2005, 12 students:

*Foundations of Landscape Ecology* (1 credit)

Spring 2007, 20 students:

*Landscape Disturbance and Biogeochemical Cycling* (1 credit)

Spring 2009, 30 students:

*Ecosystem Services* (with Carpenter, Kucharik, others; 2 credits)

Spring 2013, 17 students:

*Ecological Futures: Regional Scenarios and Models* (Turner and Carpenter; 2 credits)

Spring 2015, 16 students:

*Integrating Biodiversity and Ecosystem Services* (1 credit)

Fall 2016, 16 students:

*Abrupt Change in Ecological Systems* (Turner, Carpenter, Ives, Kucharik, Williams; 2 credits)  
 Spring 2017, 11 students, 2 postdocs:  
*Forest Resilience in a Changing World* (1 credit),  
 Fall 2017, 7 students, 2 postdocs:  
*Social and Ecological Dimensions of Changing Fire Regimes* (1 credit)  
 Spring 2021, 11 students, 1 academic staff, 1 faculty participant:  
*Forest Fires and Biogeochemical Cycling* (1 credit)

Guest lectures offered in the following UW-Madison courses:

General Ecology, Extinction of Species, Conservation Biology, Environmental Monitoring Seminar, Chaos and Complex Systems Theory, IGERT seminar, Response to Global Warming, Introduction to Wisconsin Ecology, BioHouse freshman biology seminar

### **Teaching Experience – Other Institutions**

Landscape Ecology, University of Tennessee (Ecology 510, co-taught with Hazel R. Delcourt).  
 Fall 1991, 14 students (2 credits)  
 Spring 1994, 10 students (3 credits)

Systems Analysis and Landscape Ecology, International Institute for Advanced Mediterranean Agronomic Studies, Zaragoza, Spain. Graduate-level 3-week intensive course, January 1989, 26 students, 60 contact hours.

General Ecology, University of Georgia (BIO 350; 5 credit hours).  
 1985-87, Independent Study Program, approximately 35 students. Included completely revising the course and workbook.

Vertebrate Zoology Lab (ZOO 226L), University of Georgia, graduate teaching assistant  
 1981, Winter quarter, 18 students  
 1982, Winter quarter, 10 students  
 1982, Fall quarter, 20 students

### **Graduate Students Trained (Major Advisor Only)**

*Completed:*

1. Daniel Rutledge MS, Ecology (University of Tennessee), 1993-95
2. Sarah E. Gergel MS (1994-96) and PhD (1996-2000), Zoology (EPA STAR Fellow)
3. Michael Stevens MS, Botany, 1995-98 (co-advisor)
4. Christopher Mitchell MS, Zoology, 1998-2000
5. Jill Schnaiberg MS, Institute for Environmental Studies, 1998-2000 (co-advisor)
6. Mark D. Dixon PhD, Zoology, 1996-2001 (WARF and EPA STAR Fellow)
7. Mark Wegener MS, Institute for Environmental Studies, 1998-2001 (co-advisor)
8. Mark A. Smith PhD, Zoology and Wildlife Ecology, 1995-2002
9. Daniel M. Kashian PhD, Zoology and Forest Ecology & Management, 1998-2002
10. Tania Schoennagel PhD, Botany and Zoology, 1998-2002 (DOE Graduate Fellow)
11. James D. Forester MS (2000-02) and PhD (2002-2005), Zoology
12. Jennifer M. Fraterrigo PhD, Zoology, 2001-05 (DOE Graduate Fellow)
13. Katie I. Predick MS (2000-02) and PhD (2002-06), Zoology
14. Anna E. Marburg MS (2001-04) and PhD (2004-06), Zoology (WARF Fellow)
15. Alysa J. Remsburg MS (2002-05) and PhD (2005-07), Zoology (NSF Graduate Fellow)
16. Elizabeth A. Levitt MS, Zoology, 2004-2006

17. Thomas P. Albright      PhD, Zoology, 2003-2007
18. Timothy R. Kuhman      PhD, Zoology, 2005-2009
19. Martin Simard            PhD, Zoology, 2005-2010 (NSERC Graduate Fellow)
20. Jacob M. Griffin         PhD, Zoology, 2006-2011
21. Heather A. Lumpkin      MS, Zoology, 2008-2011
22. Michelle M. Jackson     PhD, Zoology, 2008-2012
23. Brian J. Harvey         PhD, Zoology, 2010-2015
24. Catherine F. Frock      MS, Zoology, 2013-2015 (NSF Graduate Fellow)
25. Jiangxiao Qiu            PhD, Zoology, 2011-2016
26. Rose A. Graves          PhD, Zoology, 2012-2017
27. Amy V. Uhrin            PhD, Zoology, 2012-2018
28. Winslow D. Hansen      PhD, Zoology, 2013-2018 (NSF Graduate Fellow)
29. Carly Ziter              PhD, Zoology, 2014-2018 (NSERC Graduate Fellow)
30. Tyler J. Hoecker        PhD, Zoology, 2017-2021
31. Kristin H. Braziunas     MS, Zoology, 2016-2018; PhD, Integrative Biology, 2018-2021

*Current:*

- |                  |                                 |
|------------------|---------------------------------|
| Nathan G. Kiel   | PhD, Integrative Biology, 2019– |
| Ojaswee Shrestha | PhD, Integrative Biology, 2020– |
| Arielle Link     | PhD, Integrative Biology, 2021– |
| Timon Keller     | PhD, Integrative Biology, 2021– |

**Undergraduate Thesis Advisees**

- |                  |                                             |
|------------------|---------------------------------------------|
| Eleanor Erwin    | Senior Honors Thesis, Biochemistry, 1998-99 |
| Rebecca Nowak    | Senior Honors Thesis, Zoology, 2000-01      |
| Sarah Bassack    | Senior Thesis, Zoology, 2003-04             |
| Bridget Henning  | Senior Honors Thesis, Zoology, 2005-06      |
| Stephanie Hall   | Senior Honors Thesis, Zoology, 2006-07      |
| Aisha Ba         | Hilldale Research recipient, 2015-16        |
| Ryan Fitzsimmons | Holstrum Research recipient, 2017-18        |
| Harrison Bielski | Hilldale Research recipient, 2020-21        |

**Post-graduate Research Interns**

- |                      |               |
|----------------------|---------------|
| Timothy G. Whitby    | 2012-14       |
| Kristin H. Braziunas | Jan-Jun, 2016 |

**Postdoctoral Research Associates Advised and Current Professional Affiliation**

- |                         |         |                                          |
|-------------------------|---------|------------------------------------------|
| 1. Yegang Wu            | 1990-92 | Scientific consulting                    |
| 2. Scott M. Pearson     | 1991-93 | Mars Hill University (retired)           |
| 3. Richard O. Flamm     | 1991-94 | State of Florida DNR                     |
| 4. William W. Hargrove  | 1991-94 | USDA Forest Service                      |
| 5. Kimberly O. With     | 1993-95 | Kansas State University                  |
| 6. Rebecca A. Reed      | 1996-98 | Practicing attorney                      |
| 7. Daniel B. Tinker     | 1999-00 | University of Wyoming (retired)          |
| 8. Joan Riera           | 1998-01 | University of Barcelona                  |
| 9. Matthias Bürgi       | 1999-00 | WSL, Swiss Federal Research Institute    |
| 10. James R. Miller     | 1999-02 | University of Illinois, Champaign-Urbana |
| 11. Kristine L. Metzger | 2001-05 | US Fish and Wildlife Service             |

12. Jeffrey A. Cardille	2002-05	McGill University
13. Dean P. Anderson	2001-06	LandCare, New Zealand
14. Erica A.H. Smithwick	2001-07	Pennsylvania State University
15. Ishi Buffam	2007-10	University of Cincinnati
16. Tammy L. Wilson	2010-11	US National Park Service, Alaska
17. Daniel C. Donato	2010-12	Washington State Department of Natural Resources
18. Peter J. Blank	2012-14	The Nature Conservancy of Ohio
19. Kevin C. Rose	2014-15	Rensselaer Polytechnic Institute
20. Jien Zhang	2017-18	Iowa State University (postdoc)
21. M. Allison Stegner	2016-18	Stanford University (postdoc)
22. Tanjona Ramiadantsoa	2016-19	Madagascar
23. Nathan S. Gill	2018-19	Texas Tech University
24. Zak Ratajczak	2017-19	Kansas State University

## University Service

### University of Tennessee

1992-1994 Admissions Committee, Graduate Program in Ecology

### University of Wisconsin

#### *Department of Integrative Biology (formerly named Department of Zoology):*

1998-2019	Instructional Programs Committee, chair
1994-98	Instructional Programs Committee, member
1994-96	Co-chair, Department Colloquium weekly seminar series
1995-96	Chair, Graduate Student Awards Committee
1995-98	Co-chair (with A. W. Ives), Committee on Improving Instruction
1997-98	Honors and Rewards Committee
1998-00	Computer Committee, member
1999-00	Aquatic Ecologist Search Committee
2000-06	Biology Library Committee
2000-05	Mentoring committee for Emily Stanley
2001-06	Co-chair (with R. Goodman, then with Edgar Spalding) of Introductory Biology sequence (Zoology 151-152, with four year-long sections, 24 faculty, and ca. 800 students annually)
2001-06	Mentoring committee for Carol Lee
2002	Search committee for Department's Instructional Program Manager
2002-07	Mentoring committee for Jenny Boughman
2003-08	Mentoring committee for Lauren Riiters
2008-09	Aquatic Ecologist Search Committee
2008-09	Instructional Program Specialist Search Committee
2009-10	Terrestrial Ecologist Search Committee (chair)
2010-14	Mentoring committee for Ellen Damschen
2011-12	Committee for exploring Botany-Zoology department integration
2016-17	Aquatic Ecologist Search Committee
2018-	Mentoring committee for Hilary Dugan
2020-	Faculty Awards Committee
2021-	Mentoring committee for Robert Johnson
2021-	Director of the Graduate Program
2021-22	Post-tenure review committee for Prof. A. R. Ives

#### *College of Letters and Sciences:*

1995-00 Faculty Appeals Committee  
2019– Curriculum Committee (4-yr term)

*Campus-wide:*

1995-98 Madison Ecology Group (MEG, now Wisconsin Ecology), Activities Committee  
1997-98 Chair, MEG Committee for Graduate Student Recruiting  
1998-99 MEG, elected member at large  
1999-00 MEG, Acting Chair  
2000-01 MEG, Chair of Executive Committee  
2001-07 Mentoring committee for Volker Radeloff (Forest & Wildlife Ecology)  
2002-03 Lead successful (but unfunded) cluster hire initiative for new faculty positions in the biology and management of invasive species  
2001-05 Graduate School Research Committee, Biological Sciences (except 2002-03 sabbatical)  
2004-05 Member of the Institute for Cross-campus Biology Education (ICBE) Transition Advisory Committee  
2006-07 Member, Committee on Remote Sensing and GIS Curricular Needs  
2007-08 Member, Learning and Discovery Subcommittee of the 2008 Reaccreditation  
2007-09 Wisconsin Ecology (formerly MEG), Chair-elect  
2009-10 Wisconsin Ecology, Chair of Executive Committee  
2009-10 Department of Entomology, CALS, External Review Committee (member)  
2011-17 Mentoring Committee for Ben Zuckerburg, Forest and Wildlife Ecology  
2016-17 Search Committee for Director, UW-Madison Arboretum  
2016-20 Graduate Faculty Executive Committee (GFEC), member  
2016-17 Committee member, 10-yr review of Cellular and Molecular Pharmacology graduate programs  
2017-18 Committee member, 10-yr review of the Statistics Department (undergraduate and graduate programs)  
2019-20 Committee member, 5-yr review of Epidemiology graduate programs  
2018-20 Mentoring committee for Sarah Hart (Forest and Wildlife Ecology)  
2018– Mentor for Thea Whitman (Soils), Women's Faculty Mentoring Program  
2021 Member, Vilas Research Professors Review Committee

**Professional Presentations (first authored only)**

- Goigel, M. M. 1982. Impact of feral donkeys on the vegetation of St. John. Colloquium on Long-term Ecological Research in the Virgin Islands, Maho Bay, St. John, 27 July.
- Turner, M. G. 1985. Effects of feral horse grazing, clipping, trampling and a late winter burn on a salt marsh, Cumberland Island National Seashore, Georgia. Annual Meeting of the Ecological Society of America, University of Minnesota, Minneapolis, 16-20 June.
- Turner, M. G. 1985. Simulation model of a salt marsh, Cumberland Island, Georgia. Biennial Meeting, Estuarine Research Federation, University of New Hampshire, Durham, 29 July - 2 August.
- Turner, M. G. and S. P. Bratton. 1986. Fire, grazing and the landscape heterogeneity of a Georgia barrier island. Landscape Ecology Symposium, University of Georgia, Athens, 15-17 January.
- Turner, M. G. 1986. Effects of multiple disturbances on barrier island salt marshes. Symposium on Barrier Islands of the Southeastern United States, Southeastern Chapter of the Ecological Society of America, University of South Carolina, Columbia, 11 April. (Invited.)

- Turner, M. G. 1986. Ecological effects of multiple disturbances on a salt marsh, Cumberland Island National Seashore. Wetlands Session, Conference on Science in the National Parks, Colorado State University, Fort Collins, 14-20 July. (Invited.)
- Turner, M. G. 1986. Land use changes and net primary production in the Georgia landscape. Annual meeting, Ecological Society of America, Syracuse University, Syracuse, 11-16 August.
- Turner, M. G. 1986. Analysis and simulation of land use patterns in Georgia. Oak Ridge National Laboratory, Oak Ridge, Tennessee, 20 November. (Invited.)
- Turner, M. G. 1987. Changing land use patterns in Georgia: analysis and simulation. Geography Colloquium, University of Georgia, Athens, 11 February. (Invited.)
- Turner, M. G. 1987. A spatial simulation model of land use patterns in Georgia. Second Annual Landscape Ecology Symposium, University of Virginia, Charlottesville, 9-11 March.
- Turner, M. G. 1987. A spatial simulation model of landscape change in Georgia. College of Environmental Sciences and Forestry, SUNY-Syracuse, Syracuse, New York, April. (Invited.)
- Turner, M. G. 1987. Disturbance and landscape heterogeneity on a Georgia barrier island. Annual meeting, American Association of Geographers, Portland, Oregon, 23-26 April. (Invited.)
- Turner, M. G. 1987. Analysis and simulation of changing land use patterns in Georgia. Second International Seminar, International Association for Landscape Ecology, Munster, West Germany, 19-24.
- Turner, M. G. and E. P. Odum. 1987. Integration of landscape ecological theory and applications: a study of the state of Georgia, USA. Second International Seminar, International Association for Landscape Ecology, Munster, West Germany, 19-24 July.
- Turner, M. G. 1987. Analysis and simulation of landscape change in Georgia. Symposium on Changing Patterns in Landscapes. Annual meeting, Ecological Society of America, University of Ohio, Columbus, 9-13 August. (Invited.)
- Turner, M. G. 1988. Confronting spatial heterogeneity in ecosystem analysis. University of Maryland, Chesapeake Biological Laboratory, Solomons, Maryland, 13 February. (Invited.)
- Turner, M. G., R. V. O'Neill, R. H. Gardner and B. T. Milne. 1988. The effect of spatial scale on the analysis of landscape pattern. Third Annual Landscape Ecology Symposium, University of New Mexico, Albuquerque, 16-19 March.
- Turner, M. G. 1988. Analyzing landscape data and extrapolating across spatial scales. Symposium on Spatial and Temporal Analysis Using Geographic Information Systems. Annual meeting, Ecological Society of America, University of California at Davis, 14-18 August. (Invited.)
- Turner, M. G., R. H. Gardner, V. H. Dale and R. V. O'Neill. 1988. Landscape pattern and the spread of disturbance. VIIIth International Symposium on Problems of Landscape Ecological Research, Bratislava, Czechoslovakia, 3-7 October.

- Turner, M. G. 1989. Confronting spatial heterogeneity in ecological analyses. Zoology Department Colloquium, University of Wisconsin, Madison. 23-26 February. (Invited.)
- Turner, M. G., R. H. Gardner, V. H. Dale, and R. V. O'Neill. 1989. The effect of landscape structure on the spread of disturbance. Fourth Annual Landscape Ecology Symposium, Colorado State University, Fort Collins. 15-18 March.
- Turner, M. G. 1989. Pattern, process, and scale in landscape ecology. Zoology Department Seminar, University of Wyoming, Laramie. 21 March. (Invited.)
- Turner, M. G. 1989. Potential responses of landscape boundaries to global environmental change. Symposium on The Role of Landscape Boundaries in the Management and Restoration of Changing Environments, Annual meeting, Ecological Society of America, Toronto. August. (Invited.)
- Turner, M. G., R. H. Gardner and R. V. O'Neill. 1989. Potential responses of landscape structure to global climate change. First European Symposium on Landscape Ecological Impacts of Climate Change, Lunteren, The Netherlands. 2-8 December.
- Turner, M. G. 1990. Interactions between landscape pattern and ecological processes. Biology Department Seminar, University of Notre Dame, South Bend, Indiana. 6-7 February. (Invited.)
- Turner, M. G. 1990. Interactions between landscape pattern and ecological processes. Elroy Rice Lecture, Department of Botany and Microbiology, University of Oklahoma, Norman 26-27 February. (Invited.)
- Turner, M. G., W. H. Romme and R. H. Gardner. 1990. Spatial heterogeneity of burn severity and first-year plant responses to fire on subalpine plateaus in Yellowstone National Park. Fifth Annual Landscape Ecology Symposium, University of Miami, Oxford, Ohio. 21-24 March.
- Turner, M. G. 1990. Influence of fire size and heterogeneity on ecological processes in Yellowstone National Park. University of Wyoming-National Park Service Research Center, Moran, Wyoming. July 26. (Invited).
- Turner, M. G., W. H. Romme and L. L. Wallace. 1990. Simulated winter foraging by large ungulates in a heterogeneous landscape. Annual Meeting of the Ecological Society of America, Snowbird, Utah. 29 July - 3 August.
- Turner, M. G., R. H. Gardner and R. V. O'Neill. 1990. The effects of landscape pattern on ecological processes: theory and testing. Symposium: Methodology in Landscape Ecology, V International Congress of Ecology, Yokohama, Japan. 23-30 August. (Invited).
- Turner, M. G. 1990. Effects of landscape patterns on ecological processes. Ecosystem Seminar Series, College of Forest Resources, University of Washington, Seattle. 10 October. (Invited).
- Turner, M. G. 1990. Confronting spatial heterogeneity in ecological analyses. Botany Department Seminar, University of Tennessee, Knoxville. 24 October. (Invited).
- Turner, M. G., W. H. Romme and R. H. Gardner. 1991. Landscape disturbance models and the long-term dynamics of natural areas. Symposium: Application of Ecological Models to Natural Area

- Preserve Design and Management. Annual Meeting of the Ecological Society of America, San Antonio, Texas. 4-8 August. (Invited).
- Turner, M. G., R. O. Flamm, R. Gottfried, R. G. Lee, R. J. Naiman and D. Wear. 1991. Integrating socioeconomic and ecological processes to simulate land use change. Southern Appalachian Man and the Biosphere Conference, Gatlinburg, TN. 4-5 November.
- Turner, M. G., W. H. Romme, L. L. Wallace, Y. Wu and S. Pearson. 1992. Interactions among ungulates, vegetation and large-scale fire in northern Yellowstone National Park. Plenary Address, 7th Annual U. S. Landscape Ecology Symposium, Corvallis, Oregon. April. (Invited).
- Turner, M. G. 1992. Interactions among ungulates, vegetation and large-scale fire during winter in northern Yellowstone National Park. Summer Seminar Series, University of Wyoming-National Park Service Research Center, August. (Invited).
- Turner, M. G., R. O. Flamm, R. G. Lee, R. J. Naiman, D. N. Wear, R. Gottfried, N. Schumaker and C. D. Ferrari. 1992. Dynamics and sustainability of forested landscapes in the Southern Appalachians and Olympic Peninsula. Second Annual Southern Appalachian Man and the Biosphere (SAMAB) Conference, Gatlinburg, TN, 9-10 November.
- Turner, M. G. and S. M. Pearson. 1992. Simulating interactions among ungulates, vegetation and large-scale fire in northern Yellowstone National Park during winter. Invited address, workshop on "The Application of Spatially-explicit Models to Conservation and Management of Animal Populations," University of Georgia, Athens, 11-14 November. (Invited).
- Turner, M. G. 1993. When is fire scale important in Yellowstone National Park? Ecology Seminar Series, Utah State University, Logan, 17 February. (Invited).
- Turner, M. G. 1993. Pattern, process and theory in landscape ecology. Ecology Seminar Series, Utah State University, Logan, 17 February. (Invited).
- Turner, M. G., W. H. Romme, R. H. Gardner and W. W. Hargrove. 1993. Spatial heterogeneity in plant reestablishment following large-scale fire in Yellowstone National Park, Wyoming. 8th Annual Landscape Ecology Symposium, Oak Ridge, Tennessee, 24-27 March.
- Turner, M. G. and R. V. O'Neill. 1993. Exploring aggregation in space and time. Fifth Cary Conference: Linking Species and Ecosystems, Institute for Ecosystem Studies, Millbrook, New York, May 8-11. (Invited).
- Turner, M. G., R. O. Flamm, D. N. Wear and R. J. Naiman. 1993. Simulating change in forested landscapes by integrating socioeconomic and environmental factors. Symposium on Humans as Components of Ecosystems, Annual Meeting of the Ecological Society of America, University of Wisconsin-Madison, July 31-August 4. (Invited).
- Turner, M. G. 1993. Landscape-level consequences of the 1988 fires: are big fires qualitatively different? Keynote Address, Symposium on The Role of Fire in the Greater Yellowstone Area, Yellowstone National Park, September 19-21. (Invited).
- Turner, M. G. 1993. Scaling issues and global change. Symposium, Association of Ecosystem Research Centers. Washington, D. C., November 1. (Invited).

- Turner, M. G., S. M. Pearson and R. O. Flamm. 1993. Multidisciplinary modeling as a planning tool for the Little Tennessee River Watershed. Conference on the Little Tennessee River, Franklin, North Carolina, November 4.
- Turner, M. G. 1994. Ecological effects of the 1988 Yellowstone fires: are large fires qualitatively different? ORNL Showcase Lecture, January 14.
- Turner, M. G. 1994. Causes and consequences of fire-induced heterogeneity on the subalpine plateau of Yellowstone National Park. Distinguished Ecologist Lecture Series, Colorado State University, Fort Collins, February 8. (Invited).
- Turner, M. G. 1994. Interactions among ungulates, vegetation and large-scale fire in northern Yellowstone National Park. Distinguished Ecologist Lecture Series, Colorado State University, Fort Collins, February 9. (Invited).
- Turner, M. G. 1994. Integrating socioeconomic and environmental factors to predict landscape change: a comparative study of the Southern Appalachians and Olympic Peninsula. Distinguished Ecologist Lecture Series, Colorado State University, Fort Collins, February 10. (Invited).
- Turner, M. G., W. H. Romme, R. H. Gardner and W. W. Hargrove. 1994. Effects of fire size and heterogeneity on early succession in Yellowstone National Park. 9th Annual Landscape Ecology Symposium, Tucson, AZ, March 23-26.
- Turner, M. G. 1994. Land ownership and land cover change. US Man and the Biosphere Program, National Committee Meeting, Smithsonian Institution, Washington DC, July 28.
- Turner, M. G., R. H. Gardner and R. V. O'Neill. 1994. Ecological dynamics at broad scales: ecosystems and landscapes. Plenary Address, Symposium on Science and Public Policy, American Institute for Biological Sciences, Knoxville, Tennessee. (Invited).
- Turner, M. G., W. H. Romme, R. H. Gardner and W. W. Hargrove. 1994. Influence of patch size and shape on post-fire succession on the Yellowstone plateau. Annual Meeting of the Ecological Society of America, University of Tennessee-Knoxville, August 7-11.
- Turner, M. G. 1994. Conservation of biodiversity and landscape dynamics. National Biological Service, Washington, DC, December. (Invited).
- Turner, M. G. 1995. Effects of landscape heterogeneity on ecological processes: scale-dependent surprises from post-fire studies in Yellowstone National Park, Wyoming. Introductory Keynote Address, Congress of the International Association for Landscape Ecology, Toulouse, France, 27-31 August. (Invited).
- Turner, M. G. 1995. Landscape heterogeneity and ungulate dynamics: what spatial scales are important? Symposium on Managing Ungulates as Components of Ecosystems, The Wildlife Society Second Annual Conference, Portland, Oregon, 12-17 September. (Invited).
- Turner, M. G. 1995. Yellowstone National Park: A case study in landscape ecology. University of Tennessee-Knoxville, 16 November. (Invited).
- Turner, M. G. 1995. Surprises from postfire studies in Yellowstone National Park. University of Wisconsin-Stevens Point, 29 November. (Invited).

- Turner, M. G., S. M. Pearson, and D. L. Urban. 1996. Effective exercises for teaching landscape ecology. Eleventh Annual Landscape Ecology Symposium, Galveston, Texas, 27-30 March 1996. (Invited).
- Turner, M. G., W. H. Romme, R. A. Reed, and R. H. Gardner. 1997. Why is succession so variable across the Yellowstone landscape? Annual Meeting of the Ecological Society of America, Albuquerque, New Mexico, August 10-14.
- Turner, M. G. 1997. Concepts of scale in landscape ecology. Workshop on landscape ecology, Midwest Fish and Wildlife Symposium, Milwaukee, Wisconsin, 7 December. (Invited).
- Turner, M. G. 1997. Quantifying spatial pattern. Workshop on landscape ecology, Midwest Fish and Wildlife Symposium, Milwaukee, Wisconsin, 7 December. (Invited).
- Turner, M. G., S. M. Pearson, and P. Bolstad. 1998. Consequences of land use change for forests of the Southern Appalachians. Symposium on ecological effects of land use change in eastern North America. Annual meeting of the American Association for the Advancement of Science, Philadelphia, Pennsylvania, 17 February. (Invited).
- Turner, M. G. 1998. Bridging the gap between landscape ecology and natural resource management-- moderator. Annual Landscape Ecology Symposium, Michigan State University, 17-21 March. (Invited)
- Turner, M. G., R. A. Reed, and W. H. Romme. 1998. Implications of the spatial variability in postfire succession for nitrogen dynamics across the Yellowstone landscape. Annual Landscape Ecology Symposium, Michigan State University, 17-21 March.
- Turner, M. G., W. H. Romme, R. A. Reed and R. H. Gardner. 1998. Causes and consequences of spatial variability in postfire succession across the Yellowstone landscape. Symposium, "After the fires: the ecology of change in Yellowstone National Park." 125th Anniversary Conference for Yellowstone National Park. Montana State University, Bozeman, Montana, May 19-21. (Invited).
- Turner, M. G. 1998. Postfire succession and ecosystem function in the Yellowstone landscape: a study of pattern and process. Graduate Students' Invited Lecture, University of Georgia, Athens, June 4.
- Turner, M. G. 1999. Consequences of land-use change for Southern Appalachian forests. Appalachian Laboratory, University of Maryland, April 21. (Invited).
- Turner, M. G., W. H. Romme, D. B. Tinker, and D. B. Kashian. 1999. Ecosystem responses to postfire landscape heterogeneity in Yellowstone National Park. Symposium, The ecological consequences of spatial pattern: an integration of approaches from spatial and landscape ecology. International Congress of Landscape Ecology, Snowmass, Colorado, July 29-August 2. (Invited).
- Turner, M. G., W. H. Romme and G. A. Tuskan. 1999. Are postfire aspen seedlings likely to persist in the Yellowstone landscape? Annual Meeting, Ecological Society of America. August 6-12, Spokane, Washington.
- Turner, M. G. 2000. Ecological indicators for large river-floodplain landscapes. EPA STAR progress review meeting, May 8-10, Las Vegas, Nevada. (Invited).

- Turner, M. G., W. H. Romme, D. B. Tinker, D. M. Kashian and D. H. Knight. 2000. Effects of a fire-created landscape mosaic on ecosystem processes in Yellowstone National Park, Wyoming. Symposium: Integrating ecosystem and landscape ecology: spatial heterogeneity in ecosystem processes. Annual Meeting, Ecological Society of America, Snowbird, Utah, August 5-10. (Invited).
- Turner, M. G. 2000. Ecosystem ecology: where has it been, and where is it going? Invited seminar, University of Georgia, Athens, Georgia, 26 October. (Invited)
- Turner, M. G., J. M. Miller and M. Burgi. 2001. Influences of scale on understanding landscape legacies. Landscape Legacies Conference, Duke University, 8-10 January. (Invited).
- Turner, M. G. 2001. Burning questions: how do large infrequent fires affect vegetation and ecosystem processes in the Yellowstone landscape? State University of New York-Stony Brook, 11 April. (Invited.)
- Turner, M. G. 2001. Use of models for prediction and synthesis. Cary Conference, Institute for Ecosystem Studies, Millbrook, New York. May1-3. (Invited).
- Turner, M. G. and W. H. Romme. 2001. Designing basic research in national parks: landscape processes in Yellowstone National Park. Symposium: Science in National Parks: Basic Research and Application. Annual Meeting, Ecological Society of America, Madison, Wisconsin, August 6-10. (Invited).
- Turner, M. G. 2001. Disturbance, spatial heterogeneity and ecosystem function: postfire patterns in Yellowstone National Park. Institute of Ecosystem Studies, Millbrook, NY, 14 November. (Invited).
- Turner, M. G., S. E. Gergel, M. D. Dixon, and J. R. Miller. 2002. Effects of river flow and land-cover change on floodplain forests of the Wisconsin River. US-IALE Annual Meeting, University of Nebraska, Lincoln, April 24-26.
- Turner, M. G., W. H. Romme and D. B. Tinker. 2002. Landscape patterns, vegetation, and ecosystem processes following stand-replacing fire in Yellowstone National Park. International Workshop on Disturbance in the Boreal Forest, University of Northern British Columbia, Prince George, BC, Canada, August 10-15. (Invited keynote address).
- Turner, M. G. 2002. Landscape pattern, ecological processes, and critical thresholds. Workshop sponsored by EPA on Ecological Thresholds, Woodrow Wilson Center for Scholars, Washington, DC, November 4-5. (Invited).
- Turner, M. G. and F. S. Chapin, III. 2003. Causes and consequences of spatial heterogeneity in ecosystem function. Tenth Cary Conference, April 29-May 2. (Invited).
- Turner, M. G. 2003. Spatial heterogeneity and ecosystem processes. International Association for Landscape Ecology World Congress, Darwin, Australia, July 13-18. (Invited).
- Turner, M. G. 2004. Fire ecology in the Western US: Lessons from the 1988 Yellowstone fires. USDA Forest Service, Forest Products Laboratory, Madison, Wisconsin. 16 June. (Invited).

- Turner, M. G., K. L. Metzger, W. H. Romme, E. A. H. Smithwick, D. B. Tinker and J. Zhu. 2004. Spatial and temporal variation in net nitrogen mineralization following stand-replacing fire in the Greater Yellowstone Ecosystem. Annual Meeting of the Ecological Society of America, Portland, Oregon, August 1-6.
- Turner, M. G., E. H. Stanley, M. Burgi and D. J. Mladenoff. 2004. Changes in the Wisconsin River and its floodplain. Symposium, The Vanishing Present: Ecological Change in Wisconsin, Madison, Wisconsin, October 7-8. (Invited).
- Turner, M. G. 2005. Causes and consequences of post-fire heterogeneity in the Yellowstone landscape. Iowa State University, Ames, Iowa, February 5. (Invited).
- Turner, M. G. 2005. Disturbance, spatial heterogeneity and ecosystem function: effects of fire in Yellowstone National Park. Umeå University, Umeå, Sweden, March 16-18 (Invited).
- Turner, M. G. 2005. Landscape dynamics in floodplain forests of the Wisconsin River. Umeå University, Umeå, Sweden, March 16-18 (Invited).
- Turner, M. G. 2005. Landscape ecology: where has it been, and where is it going? Umeå University, Umeå, Sweden, March 16-18 (Invited).
- Turner, M. G., W. H. Romme, D. B. Tinker, E. A. H. Smithwick, K. L. Metzger and J. Zhu. 2005. Disturbance, spatial variability and cross-scale interactions in the post-fire Yellowstone landscape. Symposium on Spatial nonlinearities and cross-scale interactions: cascading effects in the Earth system. Annual Meeting of the Ecological Society of America, Montreal, Canada, August 7-12. (Invited).
- Turner, M. G. 2005. Linking time and space: ecological legacies of land use and natural disturbance. Keynote address at the annual meeting of the German, Austrian and Swiss Ecological Society, Regensburg, Germany, September 19-23. (Invited).
- Turner, Monica G. 2005. Fire in the Yellowstone landscape: lessons and surprises. Keynote address at the 8<sup>th</sup> conference on science in Yellowstone National Park, Mammoth Hot Springs, Yellowstone, October 17-19. (Invited).
- Turner, M. G. 2006. Disturbance, heterogeneity and ecosystem function: lessons from the 1988 Yellowstone Fires. Henry Oosting Lecture, Botany Department, Duke University, April 5-8. (Invited).
- Turner, M. G. 2006. Fire in Yellowstone: lessons and surprises. Glacier National Park Research Learning Center, West Glacier, Montana, June 27. (Invited).
- Turner, M. G. 2006. Surprises and lessons from the 1988 Yellowstone fires. Zoology Department Colloquium, University of Wisconsin, 6 October.
- Turner, M. G. 2007. Spatial pattern and temporal dynamics: the importance of heterogeneity for regulating ecosystems and maintaining ecosystem services. Symposium on Ecological foundations of sustainability in a constantly changing world. Annual Meeting of the Ecological Society of America, San Jose, California, August 5-10 (Invited).

- Turner, M. G. 2007. Disturbance, heterogeneity and ecosystem function: insights from the 1988 Yellowstone fires. Distinguished ecologists lecture series, University of Wyoming, Laramie. September 26. (Invited).
- Turner, M. G. 2007. Linking space and time: legacies of disturbance and land use. Distinguished ecologists lecture series, University of Wyoming, Laramie. September 27. (Invited).
- Turner, M. G. 2008. Ecological effects of the '88 fires: a story of surprise, constancy and change. Plenary address, "The '88 fires: Yellowstone and beyond," Joint conference of the International Association for Wildland Fire and Yellowstone Biennial Scientific Conference, September 22-27, Jackson Hole, Wyoming. (Invited).
- Turner, M. G. 2008. Ecological dynamics in heterogeneous landscapes. ECI Prize Lecture, Ecology Institute, Oldendorf, Germany. (Invited).
- Turner, M. G. 2009. Disturbance and landscape dynamics in a changing world. MacArthur Address, Annual Meeting of the Ecological Society of America, Albuquerque, NM, August 2-6. (Invited).
- Turner, M. G. 2009. Fire, vegetation and nitrogen dynamics in the Yellowstone landscape. Ecology Seminar Series, University of Minnesota, Minneapolis-St. Paul, October 21. (Invited).
- Turner, M. G. 2010. Twenty-five years of US landscape ecology: looking back and forging ahead. Plenary Address, US-IALE annual meeting, Athens, Georgia, April 5-8. (Invited).
- Turner, M. G. 2010. US-IALE then (1994-96) and now: things change and remain the same. Past-presidents symposium, US-IALE annual meeting, Athens, Georgia, April 5-8. (Invited).
- Turner, M. G. 2010. Climate change, disturbance and the future of northern forest landscapes. Keynote address, IUFRO International Landscape Ecology Conference, Braganca, Portugal, September 21-27. (Invited)
- Turner, M. G. 2010. Landscape heterogeneity, disturbance and ecosystem function. Marine Biological Laboratory, Woods Hole, MA, November 5. (Invited)
- Turner, M. G. 2011. Disturbance, landscape dynamics and climate change in Greater Yellowstone. Tester Symposium, University of Hawaii at Manoa, March 16. (Invited)
- Turner, M. G. 2011. Lessons from landscape ecology for sustainability science. Tester Symposium, University of Hawaii at Manoa, March 18. (Invited)
- Turner, M. G. W. H. Romme, E. A. H. Smithwick, D. B. Tinker and J. Zhu. 2011. Within-stand variation in aboveground cover and nitrogen availability following stand-replacing fire in forests of greater Yellowstone. US-IALE annual landscape ecology symposium, Portland, OR, April 4-7.
- Turner, M. G. 2011. Spatial ecological modeling at regional scales: challenges and opportunities. UFZ Roundtable, Challenges to ecological theory and modeling in a changing world, Liebenberg, Germany, October 10-14.
- Turner, M. G. 2011. Disturbance dynamics, landscape patterns and climate change in Greater Yellowstone. EEB Seminar Series, University of Illinois, Champaign-Urbana, Nov 9.

- Turner, M. G., D. C. Donato, W. H. Romme and D. B. Tinker. 2012. Warmer climate and increased fire frequency in Greater Yellowstone: Does field evidence suggest that forest resilience could change? Annual Meeting of the Ecological Society of America, Portland, OR, August 6-10.
- Turner, M. G. 2012. Climate change may produce novel climate-fire relationships in Greater Yellowstone during the 21<sup>st</sup> century. 5<sup>th</sup> International Congress on Fire Ecology and Management, Associate for Fire Ecology, Portland, OR, December 3-7.
- Turner, M. G. 2013. Natural disturbances: Lessons from Yellowstone. Natural Disturbance Conference, Bavarian Forest National Park, Germany, 29 April – 3 May. (Invited keynote speaker).
- Turner, M. G. 2013. Climate, fire and vegetation in Yellowstone National Park. US National Park Service monthly webinar series (Fire Series II: Changing fire regimes, management, and people in the Sierras and Yellowstone National Park.) Delivered service-wide from Grand Teton National Park, July 11.
- Turner, M. G. 2013. Landscape patterns of early postfire lodgepole pine regeneration dominate stand structure and function 24 years after the 1988 Yellowstone Fires. (Poster) Annual Meeting of the Ecological Society of America, Minneapolis, MN, August 4-9.
- Turner, M. G. 2013. Landscape in transition? Climate change, fire, and vegetation in Greater Yellowstone. Departmental Colloquium, Forest and Wildlife Ecology, UW-Madison, September 20.
- Turner, M. G. and J. F. Johnstone. 2014. Changing climate and novel fire regimes alter tree recruitment and postfire succession in northern conifer forests. Invited for Organized Oral Session, Annual Meeting of the Ecological Society of America, Sacramento, CA, August 10-15.
- Turner, M. G. 2014. Fires and beetles and climate, oh my! Science, management and conservation in Yellowstone. A. Starker Leopold Lecture (Invited), 12<sup>th</sup> Biennial Scientific Conferences on the Greater Yellowstone Ecosystem. 6-8 October 2014.
- Turner, M. G. 2015. Landscape in transition? Climate change and disturbance regimes in Yellowstone. Storer Life Sciences Endowment Speaker in “Major Issues in Modern Biology.” University of California-Davis. 25 February. (Invited)
- Turner, M. G. 2015. Climate change and novel disturbance regimes in national park landscapes. Plenary speaker, National Park Service Centennial Summit: Science for Parks, Parks for Science. University of California-Berkeley, 25-27 March. (Invited).
- Turner, M. G. 2015. Heterogeneity, scale and landscapes: Homage to a creative thinker. Symposium in honor of John Wiens. International Association for Landscape Ecology, World Congress, Portland, OR, July 6-10. (Invited)
- Turner, M. G., R. A. Graves, J. Qiu and C. Ziter. 2015. Sustaining multiple ecosystem services and biodiversity: lessons from landscape ecology. International Association for Landscape Ecology, World Congress, Portland, OR, July 6-10. (Symposium, invited).
- Turner, M. G. 2015. Much ado about landscapes. Ignite session on future directions in ecology. Annual Meeting of the Ecological Society of America, Baltimore, MD, August (Invited).

- Turner, M. G. 2015. Climate change, fire and the future of Greater Yellowstone. Public lecture, Jackson Hole Conservation Alliance, Jackson Hole, WY, 30 September. (Invited).
- Turner, M. G. 2015. Climate change, disturbance, and the future of Yellowstone. Wisconsin Ecology Fall Symposium, University of Wisconsin-Madison, 14 October. (Invited).
- Turner, M. G. 2016. Importance of spatial heterogeneity in sustaining biodiversity and ecosystem services in changing landscapes. Distinguished Lecture, Swiss Institute for Forest, Snow and Landscape Research (WSL), Birmensdorf, Switzerland, 2 March. (Invited).
- Turner, M. G. 2016. Protected areas in a changing world: insights from Greater Yellowstone (USA). ECOPOTENTIAL general assembly, Texel Island, Netherlands, 26-30 June. (Invited).
- Turner, M. G. 2016. ESA: The turn of the century. President's address, Annual Meeting of the Ecological Society of America, Fort Lauderdale, FL, August (Invited).
- Turner, M. G., R. Seidl, and D. C. Donato. 2016. Breaking the synchrony: Spatial variability in tree regeneration after wildfire delays and dampens future bark beetle outbreaks. 13<sup>th</sup> Biennial Yellowstone Scientific Conference, Moran, WY. 5-7 October.
- Turner, M. G. 2017. Natural disturbances and forest resilience: Lessons from Yellowstone. University of Montana, Systems Ecology Seminar Series, Missoula, MT, 16 February (Invited).
- Turner, M. G. 2017. Climate, fire, and forests of the Northern Rockies. Climate Change Symposium, University of Wisconsin-Madison. 27 April. (Invited).
- Turner, M. G. 2017. Spatial heterogeneity, biodiversity and ecosystem services in changing landscapes. ECOPOTENTIAL general assembly, Heraklion, Crete, 16-19 June. (Invited).
- Turner, M. G. 2017. Climate, fire, and forests of Yellowstone. Women's Philanthropy Council annual meeting, UW-Madison, 7 June. (Invited).
- Turner, M. G., T. G. Whitby, and W. H. Romme. 2017. Nitrogen cycling in 25-yr old postfire lodgepole pine: Who controls whom? Annual Meeting of the Ecological Society of America, Portland, OR. 6-11 August.
- Turner, M. G. 2017. Ecological resilience to natural disturbances: lessons learned from Yellowstone National Park (USA). IUFRO 125<sup>th</sup> Anniversary Congress, Freiburg, Germany. 19-22 September. (Invited).
- Turner, M. G. 2017. Natural disturbances and forest resilience: Lessons from Yellowstone. Barkalow Lecture, College of Natural Resources, North Carolina State University. 11 October (Invited).
- Turner, M. G. 2018. Changing ecosystems and the ecology of change. 50<sup>th</sup> Anniversary Celebration, Odum School of Ecology, University of Georgia, Athens, GA. 13 January (Invited).
- Turner, M. G. 2018. Disturbance-vegetation dynamics: Key needs for getting them right. US Department of Energy Workshop on Disturbance and Vegetation Dynamics in Earth System Models, Gaithersburg, MD. 15 March 2018. (Invited plenary talk).
- Turner, M. G. 2018. Fires in the West and forests of the future: Lessons from Yellowstone. Crossroads of Ideas (public lecture), Wisconsin Institute for Discovery, 20 March (Invited).

- Turner, M. G., B. J. Harvey, W. D. Hansen, and K. H. Braziunas. 2018. Is increased fire frequency likely to erode resilience of lodgepole pine forests in Yellowstone? US-IALE annual landscape ecology symposium, Chicago, IL, 8-11 April.
- Turner, M. G., B. J. Harvey, W. D. Hansen, and K. H. Braziunas. 2018. Changing fire regimes and resilience of lodgepole pine forests in Yellowstone. Annual Meeting of the Ecological Society of America, New Orleans, LA. 5-10 August.
- Turner, M. G. 2018. Interacting stressors, compound disturbances, and abrupt change in terrestrial ecosystems. Sackler Forum, Climate Change and Ecosystems, US National Academy of Sciences, Washington, DC. November 8-9. (Invited).
- Turner, M. G. 2019. Fire in Yellowstone and forests of the future. Hood Lecture, School of Environment, University of Auckland, New Zealand. March 7. (Invited).
- Turner, M. G. 2019. Understanding abrupt change in ecological systems. School of Biological Sciences, University of Auckland, New Zealand. March 14. (Invited).
- Turner, M. G., R. Seidl, and W. Rammer. 2019. Fire in Yellowstone and forests of the future. Institute of Silviculture, Department of Forest- and Soil Sciences, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria. May 7. (Invited).
- Turner, M. G. 2019. Fire in Yellowstone and forests of the future. Flathead Lake Biological Station, University of Montana. July 29. (Invited).
- Turner, M. G., Z. Ratajczak, K. H. Braziunas, W. D. Hansen, T. J. Hoecker, W. Rammer, R. Seidl, and A. L. Westerling. 2020. Abrupt changes in subalpine forest landscapes in a warmer world with more fire. American Geophysical Union annual meeting (virtual), December 1-17. (Invited).
- Turner, M. G., Z. Ratajczak, K. H. Braziunas, W. D. Hansen, T. J. Hoecker, W. Rammer, R. Seidl, and A. L. Westerling. 2021. The magnitude, direction and tempo of mountain forest change in a warmer world with more fire. International Association for Landscape Ecology - North America (IALE-NA) annual meeting (virtual/live) from Reno, NV. April 12-15.
- Turner, M. G., Z. Ratajczak, K. H. Braziunas, W. D. Hansen, T. J. Hoecker, W. Rammer, R. Seidl, and A. L. Westerling. 2021. The magnitude, direction and tempo of forest change in Greater Yellowstone in a warmer world with more fire. Ecological Society of America Annual Meeting (virtual) from Riverside, CA. August 2-6. (Invited).

## Publications

### Books

1. **Turner, M. G.**, editor. 1987. LANDSCAPE HETEROGENEITY AND DISTURBANCE. Springer-Verlag, New York.
2. **Turner, M. G.** and R. H. Gardner, editors. 1991. QUANTITATIVE METHODS IN LANDSCAPE ECOLOGY. Springer-Verlag, New York.

3. **Turner, M. G.**, R. H. Gardner and R. V. O'Neill. 2001. *LANDSCAPE ECOLOGY IN THEORY AND PRACTICE*. Springer-Verlag, New York. [Japanese translation published in 2004, Korean translation published in 2007.]
4. Gergel, S. E. and **M. G. Turner**, editors. 2002. *LEARNING LANDSCAPE ECOLOGY: A PRACTICAL GUIDE TO CONCEPTS AND TECHNIQUES*. Springer-Verlag, New York. [Korean translation published in 2007.]
5. Lovett, G. M., C. G. Jones, **M. G. Turner** and K. C. Weathers, editors. 2005. *ECOSYSTEM FUNCTION IN HETEROGENEOUS LANDSCAPES*. Springer-Verlag, New York.
6. Wiens, J. A., M. R. Moss, **M. G. Turner** and D. J. Mladenoff, editors. 2007. *FOUNDATION PAPERS IN LANDSCAPE ECOLOGY*. Columbia University Press, New York.
7. **Turner, M. G.** and R. H. Gardner. 2015. *LANDSCAPE ECOLOGY IN THEORY AND PRACTICE*, 2<sup>nd</sup> edition. Springer, New York.
8. Gergel, S. E. and **M. G. Turner**, editors. 2017. *LEARNING LANDSCAPE ECOLOGY: A PRACTICAL GUIDE TO CONCEPTS AND TECHNIQUES*, 2<sup>nd</sup> edition. Springer, New York.

#### **Journal Articles and Peer-reviewed Book Chapters**

ORCID identifier: 0000-0003-1903-2822

ISI Web Of Science Researcher ID: B-2099-2010

#### ***ISI Web of Knowledge Citation Statistics (July 2021):***

***n = 245 publications, average citations per item = 99.7; h-index = 80***

*To search journal articles and citation statistics using ISI Web of Science, please:*

*(1) choose "Web of Science Core Collection" to eliminate abstracts;*

*(2) use "(Turner MG or Turner Monica) not Turner Monica L" in the Author field; and*

*(3) use "Univ Wisconsin or Oak Ridge or Univ Georgia" in the Address field.*

1. **Goigel, M. M.**, and S. P. Bratton. 1983. Exotics in the parks. *National Parks* 57:24-29.
2. **Turner, M. G.**, and W. P. Gregg, Jr. 1983. The status of science activities in United States biosphere reserves. *Environmental Conservation* 10:231-237.
3. **Turner, M. G.** 1984. Habitat utilization by burros in Virgin Islands National Park. *Journal of Wildlife Management* 48:1461-1464.
4. Gregg, W. P., Jr. and **M. M. Goigel**. 1984. Putting the biosphere reserve concept into practice: the United States' experience. Pp. 460-484 *In* F. Dicastri, F. W. G. Baker and M. Hadley (editors.). *Ecology in Practice. Part 1: Ecosystem Management*. UNESCO, Paris, France.
5. **Turner, M. G.** 1985. National Ecological Research Area Systems. (Map, 1:7,500,000, color.) U. S. National Atlas, U.S. Geological Survey, Washington, D.C.
6. **Turner, M. G.** 1987. Land use changes and net primary production in the Georgia, USA, landscape: 1935-1982. *Environmental Management* 11:237-247.

7. **Turner, M. G.** 1987. Spatial simulation of landscape changes in Georgia: a comparison of 3 transition models. *Landscape Ecology* 1:29-36.
8. **Turner, M. G.** 1987. Effects of grazing by feral horses, clipping, trampling, and burning on a Georgia salt marsh. *Estuaries* 10:54-60.
9. **Turner, M. G.** and S. P. Bratton. 1987. Fire, grazing and the landscape heterogeneity of a Georgia barrier island. Pp. 85-101 *In* M. G. Turner, editor. *Landscape heterogeneity and disturbance*. Springer-Verlag, New York.
10. Gardner, R. H., B. T. Milne, **M. G. Turner** and R. V. O'Neill. 1987. Neutral models for the analysis of broad-scale landscape patterns. *Landscape Ecology* 1:19-28.
11. **Turner, M. G.** 1988. A spatial simulation model of land use changes in a piedmont county in Georgia. *Applied Mathematics and Computation* 27:39-51.
12. **Turner, M. G.** 1988. Simulation and management implications of feral horse grazing, Cumberland Island, Georgia. *Journal of Range Management* 41:441-447.
13. **Turner, M. G.** 1988. Multiple disturbances in a *Spartina alterniflora* salt marsh: are they additive? *Bulletin of the Torrey Botanical Club* 115:196-202.
14. **Turner, M. G.**, and C. L. Ruscher. 1988. Changes in landscape patterns in Georgia, USA. *Landscape Ecology* 1:241-251.
15. **Turner, M. G.**, E. P. Odum, R. Costanza, and T. M. Springer. 1988. Market and nonmarket values of the Georgia landscape. *Environmental Management* 12:209-217.
16. **Turner, M. G.**, R. H. Gardner, V. H. Dale and R. V. O'Neill. 1988. Landscape pattern and the spread of disturbance. Pp. 373-382 *In* M. Ruzicka, T. Hrciarova, and L. Miklos, eds. *Proc. VIIIth Intl. Symp. Probs. Landsc. Ecol. Res.*, Vol. 1. Institute of Experimental Biology and Ecology, CBES SAS, Bratislava, Czechoslovakia.
17. O'Neill, R. V., J. R. Krummel, R. H. Gardner, G. Sugihara, B. Jackson, D. L. DeAngelis, B. T. Milne, **M. G. Turner**, B. Zygmunt, S. Christensen, V. H. Dale and R. L. Graham. 1988. Indices of landscape pattern. *Landscape Ecology* 1:153-162.
18. O'Neill, R. G., B. T. Milne, **M. G. Turner**, and R. H. Gardner. 1988. Resource utilization scales and landscape pattern. *Landscape Ecology* 2:63-69.
19. **Turner, M. G.** 1989. Landscape ecology: the effect of pattern on process. *Annual Review of Ecology and Systematics* 20:171-197.
20. **Turner, M. G.**, R. Costanza and F. H. Sklar. 1989. Methods to compare spatial patterns for landscape modeling and analysis. *Ecological Modelling* 48:1-18.
21. **Turner, M. G.**, R. H. Gardner, V. H. Dale and R. V. O'Neill. 1989. Predicting the spread of disturbance across heterogeneous landscapes. *Oikos* 55:121-129.
22. **Turner, M. G.**, V. H. Dale and R. H. Gardner. 1989. Predicting across scales: theory development and testing. *Landscape Ecology* 3:245-252.

23. **Turner, M. G.**, R. V. O'Neill, R. H. Gardner and B. T. Milne. 1989. Effects of changing spatial scale on the analysis of landscape pattern. *Landscape Ecology* 3:153-162.
24. Gardner, R. H., R. V. O'Neill, **M. G. Turner** and V. H. Dale. 1989. Quantifying scale-dependent effects with simple percolation models. *Landscape Ecology* 3:217-227.
25. Graham, R. L., **M. G. Turner** and V. H. Dale. 1989. CO<sub>2</sub>-Induced climate change and forest resources. Pp. 233-241 In: R. D. Noble, J. L. Martin and K. F. Jensen, eds. *Air Pollution Effects on Vegetation*. USDA Forest Service, Northeastern Forest Experiment Station, Broomall, Pennsylvania.
26. **Turner, M. G.** 1990. Landscape changes in nine rural counties in Georgia, USA. *Photogrammetric Engineering and Remote Sensing* 56:379-386.
27. **Turner, M. G.** 1990. Spatial and temporal analysis of landscape patterns. *Landscape Ecology* 4:21-30.
28. Graham, R. L., **M. G. Turner**, and V. H. Dale. 1990. How increasing atmospheric CO<sub>2</sub> and climate change affect forests. *BioScience* 40:575-587.
29. Odum, E. P. and **M. G. Turner**. 1990. The Georgia landscape: a changing resource. Pp. 137 - 164 *In* I. S. Zonneveld and R. T. T. Forman, editors. *Changing landscapes: an ecological perspective*. Springer-Verlag, New York.
30. **Turner, M. G.** and V. H. Dale. 1991. Modeling landscape disturbance. Pp. 323-351 *In* M. G. Turner and R. H. Gardner, eds. *Quantitative methods in landscape ecology*. Springer-Verlag, New York.
31. **Turner, M. G.** and R. H. Gardner. 1991. Quantitative methods in landscape ecology: an introduction. Pp. 3-14 *In* M. G. Turner and R. H. Gardner, eds. *Quantitative methods in landscape ecology*. Springer-Verlag, New York.
32. **Turner, M. G.**, R. H. Gardner and R. V. O'Neill. 1991. Potential responses of landscape boundaries to global climate change. Pp. 52-75 *In* M. M. Holland, P. G. Risser and R. J. Naiman, eds. *Ecotones. The role of landscape boundaries in the management and restoration of changing environments*. Chapman & Hall, New York.
33. Gardner, R. H. and **M. G. Turner**. 1991. Future directions in quantitative landscape ecology. Pp. 519-525 *In* M. G. Turner and R. H. Gardner, eds. *Quantitative methods in landscape ecology*. Springer-Verlag, New York.
34. Gardner, R. H., **M. G. Turner**, R. V. O'Neill, and S. Lavorel. 1991. Simulation of the scale-dependent effects of landscape boundaries on species persistence and dispersal. Pp. 76-89 *In* M. M. Holland, P. G. Risser and R. J. Naiman, eds. *Ecotones. The role of landscape boundaries in the management and restoration of changing environments*. Chapman & Hall, New York.

35. O'Neill, R. V., R. H. Gardner, B. T. Milne, **M. G. Turner**, and B. Jackson. 1991. Heterogeneity and spatial hierarchies. Pp. 85-96 *In* J. Kolasa and S. T. A. Pickett, eds. *Ecological Heterogeneity*. Springer-Verlag, New York.
36. Romme, W. H. and **M. G. Turner**. 1991. Implications of global climate change for biodiversity in the Greater Yellowstone Ecosystem. *Conservation Biology* 5:373-386.
37. Gardner, R. H., V. H. Dale, R. V. O'Neill and **M. G. Turner**. 1992. A percolation model of ecological flows. Pp. 259-269 *In* A. J. Hansen and F. Di Castri, eds. *Landscape Boundaries: Consequences for Biotic Diversity and Ecological Flow*. Springer-Verlag, New York.
38. Lee, R. G., R. O. Flamm, **M. G. Turner**, C. Bledsoe, P. Chandler, C. DeFerrari, R. Gottfried, R. J. Naiman, N. Schumaker, and D. Wear. 1992. Integrating sustainable development and environmental vitality. Pp. 499-521 *In* R. J. Naiman, ed. *New Perspectives in Watershed Management*. Springer-Verlag, New York.
39. Milne, B. T., **M. G. Turner**, J. A. Wiens and A. R. Johnson. 1992. Interactions between the fractal geometry of landscapes and allometric herbivory. *Theoretical Population Biology* 41:337-353.
40. O'Neill, R. V., R. H. Gardner and **M. G. Turner**. 1992. A hierarchical neutral model for landscape analysis. *Landscape Ecology* 7:55-62.
41. O'Neill, R. V., R. H. Gardner, **M. G. Turner** and W. H. Romme. 1992. Epidemiology theory and disturbance spread on landscapes. *Landscape Ecology* 7:19-26.
42. **Turner, M. G.**, W. H. Romme, R. H. Gardner, R. V. O'Neill, and T. K. Kratz. 1993. A revised concept of landscape equilibrium: disturbance and stability on scaled landscapes. *Landscape Ecology* 8:213-227.
43. **Turner, M. G.**, Y. Wu, W. H. Romme and L. L. Wallace. 1993. A landscape simulation model of winter foraging by large ungulates. *Ecological Modelling* 69:163-184.
44. **Turner, M. G.**, R. V. O'Neill, R. H. Gardner and S. M. Pearson. 1993. Multiscale organization of landscape heterogeneity. Pages 81-87 in: M. E. Jensen and P. S. Bourgeron, eds. *Eastside Forest Ecosystem Health Report, Volume II. Ecosystem management: principles and applications*. U. S. Department of Agriculture, National Forest System, Forest Service Research, Washington, DC.
45. Gardner, R. H., R. V. O'Neill and **M. G. Turner**. 1993. Ecological implications of landscape fragmentation. Pages 208-226 *In* S. T. A. Pickett and M. J. McDonnell, eds. *Humans as components of ecosystems: subtle human effects and the ecology of populated areas*. Springer-Verlag, New York.
46. Hunsaker, C. T., R. A. Nisbet, D. Lam, J. A. Browder, **M. G. Turner**, W. L. Baker and D. B. Botkin. 1993. Spatial models of ecological systems and processes: the role of GIS. Pages 248-264 *In*: M. F. Goodchild, B. O. Parks and L. T. Steyaert, eds. *Environmental Modeling with GIS*. Oxford University Press, New York.

47. Wallace, L. L., **M. G. Turner**, W. H. Romme and Y. Wu. 1993. Bison and fire: landscape analysis of ungulate response to Yellowstone's fires. Pages 79-92 in: Proceedings of the North American Public Bison Herds Symposium, LaCrosse, WI, July 27, 1993.
48. **Turner, M. G.**, W. H. Hargrove, R. H. Gardner and W. H. Romme. 1994. Effects of fire on landscape heterogeneity in Yellowstone National Park, Wyoming. *Journal of Vegetation Science* 5:731-742.
49. **Turner, M. G.** and W. H. Romme. 1994. Landscape dynamics in crown fire ecosystems. *Landscape Ecology* 9:59-77.
50. **Turner, M. G.**, W. H. Romme and R. H. Gardner. 1994. Landscape disturbance models and the long-term dynamics of natural areas. *Natural Areas Journal* 14:3-11.
51. **Turner, M. G.**, Y. Wu, W. H. Romme, L. L. Wallace and A. Brenkert. 1994. Simulating winter interactions between ungulates, vegetation and fire in northern Yellowstone Park. *Ecological Applications* 4:472-496.
52. Flamm, R. O. and **M. G. Turner**. 1994. Alternative model formulations of a stochastic model of landscape change. *Landscape Ecology* 9:37-46.
53. Flamm, R. O. and **M. G. Turner**. 1994. Multidisciplinary modeling and GIS for landscape management. Pages 201-212 In: V. A. Sample, editor. *Forest Ecosystem Management at the Landscape Level: The Role of Remote Sensing and Integrated GIS in Resource Management Planning, Analysis and Decision Making*. Island Press.
54. Tinker, D. B., W. H. Romme, W. W. Hargrove, R. H. Gardner and **M. G. Turner**. 1994. Landscape-scale heterogeneity in lodgepole pine serotiny. *Canadian Journal of Forest Research* 24:897-303.
55. **Turner, M. G.** and R. V. O'Neill. 1995. Exploring aggregation in space and time. Pages 194-208 In C. G. Jones and J. H. Lawton, editors. *Linking Species and Ecosystems*. Chapman and Hall, New York.
56. **Turner, M. G.**, G. J. Arthaud, R. T. Engstrom, S. J. Hejl, J. Liu, S. Loeb and K. McKelvey. 1995. Usefulness of spatially explicit animal models in land management. *Ecological Applications* 5:12-16.
57. **Turner, M. G.**, R. H. Gardner and R. V. O'Neill. 1995. Ecological dynamics at broad scales. *BioScience: Supplement S-29 to S-35*.
58. O'Neill, R. H., C. T. Hunsaker, D. Jones, J. M. Klopatek, V. H. Dale, **M. G. Turner**, R. H. Gardner, and R. L. Graham. 1995. Sustainability at landscape and regional scales. Pages 137-143 in M. Munasinghe and W. Shearer, editors. *Defining and measuring sustainability*. The World Bank, Washington, DC.
59. Pearson, S. M., **M. G. Turner**, L. L. Wallace and W. H. Romme. 1995. Winter habitat use by large ungulates following fires in northern Yellowstone National Park. *Ecological Applications* 5:744-755.

60. Romme, W. H., **M. G. Turner**, L. L. Wallace and J. Walker. 1995. Aspen, elk and fire in northern Yellowstone National Park. *Ecology* 76:2097-2106.
61. Wallace, L. L., **M. G. Turner**, W. H. Romme, R. V. O'Neill and Y. Wu. 1995. Scale of heterogeneity of forage production and winter foraging by elk and bison. *Landscape Ecology* 10:75-83.
62. **Turner, M. G.**, D. N. Wear and R. O. Flamm. 1996. Land ownership and land-cover change in the Southern Appalachian Highlands and the Olympic Peninsula. *Ecological Applications* 6:1150-1172.
63. Christensen, N. L., Ann M. Bartuska, J. H. Brown, S. R. Carpenter, C. D'Antonio, R. Francis, J. F. Franklin, J. A. MacMahon, R. F. Noss, D. J. Parsons, C. H. Peterson, **M. G. Turner**, R. G. Woodmansee. 1996. The scientific basis for ecosystem management. *Ecological Applications* 6:665-691.
64. Gardner, R. H., W. W. Hargrove, **M. G. Turner**, and W. H. Romme. 1996. Climate change, disturbances and landscape dynamics. Pages 149-172 In: B. Walker and W. Steffen, editors. *Global change and terrestrial ecosystems*. Cambridge University Press, Cambridge, UK.
65. Pearson, S. M., **M. G. Turner**, R. H. Gardner and R. V. O'Neill. 1996. An organism-based perspective of habitat fragmentation. Pages 77-95 In R. C. Szaro, ed. *Biodiversity in managed landscapes: theory and practice*. Oxford University Press, Covelo, California.
66. Tuskan, G.A., K.E. Francis, S.L. Russ, W.H. Romme, and **M. G. Turner**. 1996. RAPDs demonstrates genetic diversity within and among aspen populations in Yellowstone National Park, USA. *Canadian Journal of Forest Research* 26:2088-2098.
67. Wear, D. N., **M. G. Turner** and R. O. Flamm. 1996. Ecosystem management with multiple owners: landscape dynamics in a Southern Appalachian watershed. *Ecological Applications* 6:1173-1188.
68. Wu, Y., **M. G. Turner**, L. L. Wallace, and W. H. Romme. 1996. Elk survival following the 1988 fires in Yellowstone National Park: A simulation experiment. *Natural Areas Journal* 16:198-207.
69. **Turner, M. G.**, V. H. Dale, and E. E. Everham, III. 1997. Fires, hurricanes and volcanoes: comparing large-scale disturbances. *BioScience* 47:758-768.
70. **Turner, M. G.**, S. M. Pearson, W. H. Romme, and L. L. Wallace. 1997. Landscape heterogeneity and ungulate dynamics: what spatial scales are important? Pages 331-348 In: J. A. Bissonette, editor. *Wildlife and landscape ecology*. Springer-Verlag, New York.
71. **Turner, M. G.**, W. H. Romme, R. H. Gardner and W. W. Hargrove. 1997. Effects of fire size and pattern on early succession in Yellowstone National Park. *Ecological Monographs* 67:411-433.
72. Magnuson, J. J., T. K. Kratz, T. F. Allen, D. E. Armstrong, B. J. Benson, C. J. Bowser, D. W. Bolgrien, S. R. Carpenter, T. M. Frost, S. T. Gower, T. M. Lillesand, J. A. Pike, and **M. G. Turner**. 1997. Regionalization of long-term ecological research (LTER) on north temperate lakes. *Verh. Internat. Verein. Limnol.* 26:522-528.

73. Naiman, R. J., P. A. Bisson, R. G. Lee and **M. G. Turner**. 1997. Approaches to management at the watershed scale. Pages 239-254 in: K. A. Kohm and J. F. Franklin, editor. *Creating a forestry for the 21st century*. Island Press, Washington, DC.
74. Romme, W. H., **M. G. Turner**, R. H. Gardner, W. W. Hargrove, G. A. Tuskan, D. G. Despain and R. A. Renkin. 1997. A rare episode of sexual reproduction in aspen (*Populus tremuloides*) following the 1988 Yellowstone fires. *Natural Areas Journal* 17:17-25.
75. With, K. A., R. H. Gardner, and **M. G. Turner**. 1997. Landscape connectivity and population distributions in heterogeneous environments. *Oikos* 78:151-169.
76. **Turner, M. G.** 1998. Landscape ecology. Pages 77-122 In: S. I. Dodson, editor. *Ecology*. Oxford University Press, New York.
77. **Turner, M. G.**, and V. H. Dale. 1998. Comparing large, infrequent disturbances: what have we learned? Introduction for special feature. *Ecosystems* 1:493-496.
78. **Turner, M. G.**, W. L. Baker, C. Peterson, and R. K. Peet. 1998. Factors influencing succession: lessons from large, infrequent natural disturbances. *Ecosystems* 1:511-523.
79. **Turner, M. G.**, S. R. Carpenter, E. J. Gustafson, R. J. Naiman, and S. M. Pearson. 1998. Land use. Pages 37-61 In: M. J. Mac, P. A. Opler, P. Doran, and C. Haecker, editors. *Status and trends of our nation's biological resources*. Volume 1. National Biological Service, Washington, D.C.
80. Ives, A. R., **M. G. Turner**, and S. M. Pearson. 1998. Local explanations of landscape patterns: can analytical approaches approximate simulation models of spatial processes? *Ecosystems* 1:35-51.
81. Meisel, J. E. and **M. G. Turner**. 1998. Scale detection in real and artificial landscapes using semivariance analysis. *Landscape Ecology* 13:347-362.
82. Naiman, R. J., P. A. Bisson, R. G. Lee, and **M. G. Turner**. 1998. Watershed management. Pages 642-661 in: R. J. Naiman and R. E. Bilby, eds. *River ecology and management*. Springer-Verlag, New York.
83. Pearson, S. M., A. B. Smith, and **M. G. Turner**. 1998. Forest fragmentation, land use, and cover-forest herbs in the French Broad River Basin. *Castanea* 63:382-395.
84. Wear, D. N., **M. G. Turner**, and R. J. Naiman. 1998. Institutional imprints on a developing forested landscape: implications for water quality. *Ecological Applications* 8:619-630.
85. **Turner, M. G.**, W. H. Romme, and R. H. Gardner. 1999. Prefire heterogeneity, fire severity and plant reestablishment in subalpine forests of Yellowstone National Park, Wyoming. *International Journal of Wildland Fire* 9:21-36.
86. Gardner, R. H., W. H. Romme, and **M. G. Turner**. 1999. Predicting forest fire effects at landscape scales. Pages 163-185 In: D. J. Mladenoff and W. L. Baker, eds. *Spatial modeling of forest ecosystems*. Cambridge University Press, New York.

87. Gergel, S. E., **M. G. Turner**, and T. K. Kratz. 1999. Dissolved organic carbon as an indicator of the scale of watershed influence on lakes and rivers. *Ecological Applications* 9:1377-1390.
88. Pearson, S. M., **M. G. Turner**, and J. B. Drake. 1999. Landscape change and habitat availability in the Southern Appalachian Highlands and the Olympic Peninsula. *Ecological Applications* 9:1288-1304.
89. Pearson, S. M., **M. G. Turner**, and D. L. Urban. 1999. Effective exercises in teaching landscape ecology. Pages 335-368 in: J. M. Klopatek and R. H. Gardner, editors. *Landscape ecological analysis*. Springer-Verlag, New York.
90. Reed, R. A., M. E. Finley, W. H. Romme, and **M. G. Turner**. 1999. Aboveground net primary production and leaf area index in initial postfire vegetation communities in Yellowstone National Park. *Ecosystems* 2:88-94.
91. Spies, T. P., and **M. G. Turner**. 1999. Dynamic forest mosaics. Pages 95-160 In: M. L. Hunter, Jr., editor. *Maintaining biodiversity in forest ecosystems*. Cambridge University Press, New York.
92. Stevens, M. T., **M. G. Turner**, G. A. Tuskan, W. H. Romme, and D. M. Waller. 1999. Genetic variation in postfire aspen seedlings in Yellowstone National Park. *Molecular Ecology* 8:1769-1780.
93. Dale, V. H., S. Brown, R. Haeuber, N. T. Hobbs, N. Huntly, R. J. Naiman, W. E. Riebsame, **M. G. Turner**, and T. Valone. 2000. Ecological principles and guidelines for managing the use of land. *Ecological Applications* 10:639-670.
94. Hargrove, W. W., R. H. Gardner, **M. G. Turner**, W. H. Romme and D. G. Despain. 2000. Simulating fire patterns in heterogeneous landscapes. *Ecological Modelling* 135:243-263.
95. Naiman, R. J. and **M. G. Turner**. 2000. A future perspective on North America's freshwater ecosystems. *Ecological Applications* 10:958-970.
96. Cardille, J. A., S. J. Ventura and **M. G. Turner**. 2001. Environmental and social factors influencing wildfires in the upper Midwest, USA. *Ecological Applications* 11:111-127.
97. Dale, V. H., S. Brown, R. A. Haeuber, N. T. Hobbs, N. J. Huntly, R. J. Naiman, W. E. Riebsame, **M. G. Turner** and T. J. Valone. 2001. Ecological guidelines for land use and management. Pages 3-36 In: V. H. Dale and R. A. Haeuber, editors. *Applying ecological principles to land management*. Springer-Verlag, New York.
98. Erwin, E. E., **M. G. Turner**, R. L. Lindroth and W. H. Romme. 2001. Secondary plant compounds in seedling and mature aspen in Yellowstone National Park, Wyoming. *American Midland Naturalist* 145:299-308.
99. Riera, J., P. R. Voss, S. R. Carpenter, T. K. Kratz, T. M. Lillesand, J. A. Schnaiberg, **M. G. Turner**, and M. W. Wegener. 2001. Nature, society and history in two contrasting landscapes in Wisconsin, USA: interactions between lakes and humans during the 20<sup>th</sup> century. *Land Use Policy* 18:41-51.

100. **Turner, M. G.**, T. R. Crow, J. Liu, D. Rabe, C. F. Rabeni, P. A. Soranno, W. W. Taylor, K. A. Vogt, and J. A. Wiens. 2002. Bridging the gap between landscape ecology and natural resource management. Pages 433-460 in Liu, J. and W. Taylor, editors. Integrating landscape ecology into natural resource management. Cambridge University Press.
101. **Turner, M. G.**, D. B. Tinker, S. E. Gergel and F. S. Chapin, III. 2002. Landscape disturbance: location, pattern and dynamics. Pages 147-165 In: S. E. Gergel and M. G. Turner, editors. Learning landscape ecology: a practical guide to concepts and techniques. Springer-Verlag, New York.
102. Bürgi, M. and **M. G. Turner**. 2002. Factors and processes shaping land cover and land cover changes along the Wisconsin River, USA. *Ecosystems* 5:184-201.
103. Cardille, J.A. and **M. G. Turner**. 2002. Understanding landscape metrics. Pages 85-100 In: S. E. Gergel and M. G. Turner, editors. Learning landscape ecology: a practical guide to concepts and techniques. Springer-Verlag, New York.
104. Dixon, M. D., **M. G. Turner** and C. Jin. 2002. Distribution of riparian tree seedlings on Wisconsin River sandbars: controls at different spatial scales. *Ecological Monographs* 72:465-485.
105. Gergel, S. E., M. D. Dixon and **M. G. Turner**. 2002. Consequences of human-altered floods: levees, floods and floodplain forests along the Wisconsin River. *Ecological Applications* 12:1755-1770.
106. Gergel, S. E., **M. G. Turner**, J. R. Miller, J. M. Melack and E. H. Stanley. 2002. Landscape indicators of human impacts to river-floodplain systems. *Aquatic Sciences* 64:118-128.
107. Gergel, S. E., **M. G. Turner** and D. J. Mladenoff. 2002. Collecting spatial data at broad scales. Pages 9-16 In: S. E. Gergel and M. G. Turner, editors. Learning landscape ecology: a practical guide to concepts and techniques. Springer-Verlag, New York.
108. Greenburg, J., S. E. Gergel, and **M. G. Turner**. 2002. Effects of changes in scale and classification scheme on landscape metrics. Pages 101-111 In: S. E. Gergel and M. G. Turner, editors. Learning landscape ecology: a practical guide to concepts and techniques. Springer-Verlag, New York.
109. Mitchell, C. E., **M. G. Turner** and S. M. Pearson. 2002. Effects of historical land use and forest patch size on myrmecochores and ant communities. *Ecological Applications* 12:1364-1377.
110. Schnaiberg, J., J. Riera, **M. G. Turner** and P. R. Voss. 2002. Explaining human settlement patterns in a recreational lake district: Vilas County, Wisconsin, USA. *Environmental Management* 30:24-34.
111. Smith, M. A., **M. G. Turner** and D. H. Rusch. 2002. The effect of military training activity on eastern lupine and the Karner blue butterfly on Fort McCoy, Wisconsin. *Environmental Management* 29: 102-115.

112. **Turner, M. G.** 2003. Modeling for synthesis and integration: forests, people, and riparian coarse woody debris. Pp. 83-110 *In*: Canham, C.D., J.J. Cole, and W.K. Lauenroth, editors. *Models in Ecosystem Science*. Princeton (NJ): Princeton University Press.
113. **Turner, M. G.**, S. Collins, A. Lugo, J. Magnuson, S. Rupp and F. Swanson. 2003. Long-term ecological research on disturbance and ecological response. *BioScience* 53:46-56.
114. **Turner, M. G.**, S. M. Pearson, P. Bolstad and D. N. Wear. 2003. Effects of land-cover change on spatial pattern of forest communities in the southern Appalachian Mountains (USA). *Landscape Ecology* 18:449-464.
115. **Turner, M. G.**, W. H. Romme, R. A. Reed and G. A. Tuskan. 2003. Postfire aspen seedling recruitment across the Yellowstone (USA) landscape. *Landscape Ecology* 18: 127-140.
116. **Turner, M. G.**, W. H. Romme and D. B. Tinker. 2003. Surprises and lessons from the 1988 Yellowstone fires. *Frontiers in Ecology and the Environment* 1(7):351-358.
117. Boyce, M. S., J. S. Mao, E. H. Merrill, D. Fortin, **M. G. Turner**, J. Fryxell, and P. Turchin. 2003. Scale and heterogeneity in habitat selection by elk in Yellowstone National Park. *EcoScience* 10:421-431.
118. Freeman, R. E., E. H. Stanley and **M. G. Turner**. 2003. Analysis and conservation implications of landscape change in the Wisconsin River floodplain, USA. *Ecological Applications* 13:416-431.
119. Schoennagel, T., **M. G. Turner** and W. H. Romme. 2003. The influence of fire interval and serotiny on postfire lodgepole pine density in Yellowstone National Park. *Ecology* 84:2967-2978.
120. **Turner, M. G.**, S. E. Gergel, M. D. Dixon and J. R. Miller. 2004. Distribution and abundance of trees in floodplain forests of the Wisconsin River: environmental influences at different scales. *Journal of Vegetation Science* 15:729-738.
121. **Turner, M. G.**, D. B. Tinker, W. H. Romme, D. M. Kashian and C. M. Litton. 2004. Landscape patterns of sapling density, leaf area, and aboveground net primary production in postfire lodgepole pine forests, Yellowstone National Park (USA). *Ecosystems* 7:751-775.
122. Kashian, D. M., D. B. Tinker, **M. G. Turner** and F. L. Scarpace. 2004. Spatial heterogeneity of lodgepole pine sapling densities following the 1988 fires in Yellowstone National Park, Wyoming, USA. *Canadian Journal of Forest Research* 34 2263-2276.
123. Miller, J. R., M. D. Dixon, and **M. G. Turner**. 2004. Response of avian communities in large-river floodplains to environmental variation at multiple scales. *Ecological Applications* 14:1394-1410.
124. Miller, J. R., **M. G. Turner**, E. A. H. Smithwick, C. L. Dent and E.H. Stanley. 2004. Spatial extrapolation: the science of predicting ecological patterns and processes. *BioScience* 54:310-320.
125. Palmer, M. A., E. S. Berhnhardt, E. A. Chornesky, S. L. Collins, A. P. Dobson, C. S. Duke, B. D. Gold, R. Jacobson, S. Kingsland, R. Kranz, M. J. Mappin, M. L. Martinez, F. Micheli, J. L.

- Morse, M. L. Pace, M. Pascual, S. Palumbi, O. J. Reichman, A. L. Simons, A. Townsend and **M. G. Turner**. 2004. Ecology for a crowded planet. *Science* 304:1251-1252.
126. Romme W. H., and **M. G. Turner**. 2004. Ten years after the 1988 Yellowstone fires: is restoration needed? Pages 318-361 In: L. L. Wallace, editor. *After the fires: the ecology of change in Yellowstone National Park*. Yale University Press, New Haven, Connecticut.
127. Romme, W. H., **M. G. Turner**, D. B. Tinker and D. H. Knight. 2004. Emulating natural forest disturbances in the wildland-urban interface of the Greater Yellowstone Ecosystem. Pages 243-250 In: A. H. Perera, L. J. Buse and M. G. Weber, editors. *Emulating natural forest landscape disturbances*. Columbia University Press, New York.
128. Schoennagel, T., D. M. Waller, **M. G. Turner** and W. H. Romme. 2004. The effect of fire interval on understory communities in Yellowstone National Park (USA). *Journal of Vegetation Science* 15:797-806.
129. Wallace, L. L., M. B. Coughenour, **M. G. Turner** and W. H. Romme. 2004. Fire patterns and ungulate survival in northern Yellowstone Park: the results of two separate models. Pages 299-317 in: L. L. Wallace, editor. *After the fires: the ecology of change in Yellowstone National Park*. Yale University Press, New Haven, Connecticut.
130. **Turner, M. G.** 2005. Landscape ecology in North America: past, present and future. *Ecology* 86:1967-1974.
131. **Turner, M. G.** 2005. Landscape ecology: what is the state of the science? *Annual Review of Ecology, Evolution and Systematics* 36:319-344.  
\*Identified in *Web of Science* as a *Highly Cited Paper*.
132. **Turner, M. G.** and S. R. Carpenter. 2005. Challenges for riparian science. Page 16 In: Naiman, R.J., H. Decamps, and M.C. McClain. *Riparia*. Academic Press, San Diego.
133. **Turner, M. G.** and F. S. Chapin, III. 2005. Causes and consequences of spatial heterogeneity in ecosystem function. Pages 9-30 in: G. M. Lovett, C. G. Jones, M. G. Turner, and K. C. Weathers, editors. *Ecosystem function in heterogeneous landscapes*. Springer-Verlag, New York.
134. Anderson, D. P., **M. G. Turner**, J. D. Forester, J. Zhu, M. S. Boyce, H. Beyer and L. Stowell. 2005. Scale-dependent summer habitat use by elk (*Cervus elaphus*) in Wisconsin, USA. *Journal of Wildlife Management* 69:298-310.
135. Anderson, D.P., J. D. Forester, **M. G. Turner**, J. L. Frair, E. H. Merrill, D. Haydon, D. Fortin, J. S. Mao, M. S. Boyce, J. Fryxell, and H. Beyer. 2005. Factors influencing seasonal home-range sizes in elk (*Cervus canadensis*) in North American landscapes. *Landscape Ecology* 20:257-271.
136. Cardille, J. A., **M. G. Turner**, M. Clayton, S. Price, and S. E. Gergel. 2005. METALAND: Characterizing spatial patterns and statistical context of landscape metrics. *BioScience* 55:983-988.
137. Fraterrigo, J. M., **M. G. Turner**, S. M. Pearson, and P. Dixon. 2005. Effects of past land use on spatial heterogeneity of soil nutrients in Southern Appalachian forests. *Ecological Monographs* 75:215-230.

138. Kashian, D. M., **M. G. Turner**, and W. H. Romme. 2005. Changes in leaf area and stemwood increment with stand development in Yellowstone National Park: Relationships between forest stand structure and function. *Ecosystems* 8:48-61.
139. Kashian, D. M., **M. G. Turner**, W. H. Romme and C. J. Lorimer. 2005. Variability and convergence in stand structure with forest development on a fire-dominated landscape. *Ecology* 86:643-654.
140. Lovett, G. M., C. G. Jones, **M. G. Turner** and K. C. Weathers. 2005. Conceptual frameworks: plan for a half-built house. Pages 463-470 in in: G. M. Lovett, C. G. Jones, M. G. Turner, and K. C. Weathers, editors. *Ecosystem function in heterogeneous landscapes*. Springer-Verlag, New York.
141. Palmer, M.A., E. Bernhardt, E. Chornesky, S.L. Collins, A. Dobson, C. Duke, B. Gold, R. Jacobson, S. Kingsland, R. Kranz, M. Mappin, M. L. Martinez, F. Micheli, J. Morse, M. Pace, M. Pascual, S. Palumbi, J. Reichman, A. Townsend, **M. G. Turner**. 2005. Ecological science and sustainability for the 21st Century. *Frontiers in Ecology and the Environment* 3:4-11.
142. Romme, W. H., **M. G. Turner**, G. A. Tuskan and R. A. Reed. 2005. Establishment, persistence and growth of aspen (*Populus tremuloides*) seedlings in Yellowstone National Park. *Ecology* 86:404-418.
143. Smithwick, E. A. H., M. C. Mack, **M. G. Turner**, F. S. Chapin III, J. Zhu and T. C. Balser. 2005. Spatial heterogeneity and soil nitrogen dynamics in a burned black spruce forest stand: distinct controls at different scales. *Biogeochemistry* 76:517-537.
144. Smithwick, E. A. H., **M. G. Turner**, M. C. Mack, and F. S. Chapin, III. 2005. Post-fire soil N cycling in northern conifer forests affected by severe, stand-replacing wildfires. *Ecosystems* 8:163-181.
145. Smithwick, E. A. H., **M. G. Turner**, K. L. Metzger, and T. C. Balser. 2005. Variation in  $\text{NH}_4^+$  mineralization and microbial communities with stand age in lodgepole pine (*Pinus contorta*) forests, Yellowstone National Park (USA). *Soil Biology and Biogeochemistry* 37:1546-1559.
146. Dixon, M. D. and **M. G. Turner**. 2006. Simulated recruitment of riparian trees and shrubs under natural and regulated flow regimes on the Wisconsin River, USA. *River Research and Applications* 22: 1057-1083.
147. Fraterrigo, J. M., T. C. Balser and **M. G. Turner**. 2006. Microbial community variation and its relationship with nitrogen mineralization in historically altered forests. *Ecology* 87:570-579.
148. Fraterrigo, J. M., **M. G. Turner** and S. M. Pearson. 2006. Plant allocation and growth in the herb layer of historically altered forests. *Journal of Ecology* 94:548-557.
149. Fraterrigo, J. M., **M. G. Turner** and S. M. Pearson. 2006. Interactions between past land use, life-history traits and understory spatial heterogeneity. *Landscape Ecology* 21:777-790.
150. Groffman, P.M., J. S. Baron, T. Blett, A. J. Gold, I. Goodman, L. H. Gunderson, B. M. Levinson, M. A. Palmer, H. W. Paerl, G. D. Peterson, N. L. Poff, D. W. Rejeski, J. F. Reynolds, **M. G.**

- Turner**, K. C. Weathers, and J.A. Wiens. 2006. Ecological thresholds: The key to successful environmental management or an important concept with no practical application? *Ecosystems* 9:1-13.
151. Kashian, D. M., W. H. Romme, D. B. Tinker, **M. G. Turner** and M. G. Ryan. 2006. Carbon cycling and storage across coniferous landscapes: linking fire frequency, post-fire recovery, and ecosystem processes. *BioScience* 56:598-606.
152. Marburg, A. E., **M. G. Turner** and T. K. Kratz. 2006. Natural and anthropogenic variation in coarse wood among and within lakes. *Journal of Ecology* 94:558-568.
153. Metzger, K. L., W. H. Romme and **M. G. Turner**. 2006. Foliar nitrogen in early postfire vegetation in the Greater Yellowstone Ecosystem (Wyoming, USA). *Forest Ecology and Management* 227:22-30.
154. Remsburg, A. J. and **M. G. Turner**. 2006. Amount, position and age of coarse wood influence litter decomposition within and among young post-fire *Pinus contorta* stands. *Canadian Journal of Forest Research* 36:2112-2123.
155. Sass, G. G., J. F. Kitchell, S. R. Carpenter, T. R. Hrabik, A. E. Marburg, and **M. G. Turner**. 2006. Fish community and food web responses to a whole-lake removal of coarse woody habitat. *Fisheries* 31:321-330.
156. Schoennagel, T., **M.G. Turner**, A. Fall and D. M. Kashian. 2006. Influence of fire regimes on lodgepole pine stand age and density across the Yellowstone National Park (USA) landscape. *Landscape Ecology* 21:1281-1296.
157. **Turner, M. G.** and J. A. Cardille. 2007. Spatial heterogeneity and ecosystem processes. Pages 62-77 in: J. Wu and R. J. Hobbs, editors. *Key topics in landscape ecology*. Cambridge University Press.
158. **Turner, M. G.**, E. A. H. Smithwick, K. L. Metzger, D. B. Tinker and W. H. Romme. 2007. Inorganic nitrogen availability following severe stand-replacing fire in the Greater Yellowstone Ecosystem. *Proceedings of the National Academy of Sciences* 104:4782-4789.
159. **Turner, M. G.**, D. M. Turner, W. H. Romme and D. B. Tinker. 2007. Cone production in young post-fire *Pinus contorta* stands in Greater Yellowstone (USA). *Forest Ecology and Management* 242:119-206.
160. Agrawal, A. A., D. D. Ackerly, F. Adler, B. Arnold, C. Caceres, D. F. Doak, E. Post, P. Hudson, J. Maron, K. A. Mooney, M. Power, D. Schemske, J. Stachowica, S. Strauss, **M. G. Turner**, E. Werner. 2007. Filling key gaps in population and community ecology. *Frontiers in Ecology and the Environment* 5:145-152.  
\*Identified in *Web of Science* as a *Highly Cited Paper*.
161. Bolliger, J., H. H. Wagner, and **M. G. Turner**. 2007. Identifying and quantifying landscape patterns in space and time. Pages 177-194 in: F. Kienast, O. Wildi and S. Ghosh, editors. *A changing world: challenges for landscape research*. Springer Landscape Series
162. Cardille, J. A., S. R. Carpenter, M. T. Coe, P. R. Hanson, J. A. Foley, **M. G. Turner** and J. A. Vano. 2007. Carbon and water cycling in lake-rich landscapes: landscape connections, lake

hydrology and biogeochemistry. Journal of Geophysical Research – Biogeosciences  
112:G02031, doi:10.1029/2006JF000200.

163. Carpenter, S.R., B.J. Benson, R. Biggs, J.W. Chipman, J.A. Foley, S.A. Golding, R.B. Hammer, P.C. Hanson, P.T.J. Johnson, A.M. Kamarainen, T.K. Kratz, R.C. Lathrop, K.D. McMahon, B. Provencher, J.A. Rusak, C.T. Solomon, E.H. Stanley, **M. G. Turner**, M.J. Vander Zanden, C.-H. Wu and H. Yuan. 2007. Understanding regional change: comparison of two lake districts. *BioScience* 57:323-335.
164. Forester, J. D., D. P. Anderson and **M. G. Turner**. 2007. Do high-density patches of coarse wood and regenerating saplings create browsing refugia for aspen (*Populus tremuloides*) in Yellowstone National Park (USA)? *Forest Ecology & Management* 253:211-219.
165. Forester, J. D., A. R. Ives, **M. G. Turner**, D. P. Anderson, D. Fortin, H. Beyer, D. W. Smith and M. S. Boyce. 2007. Using state-space models to link patterns of elk (*Cervus elaphus*) movement to landscape characteristics in Yellowstone National Park. *Ecological Monographs* 77:285-299.
166. Peters, D. P. C., B. T. Bestelmeyer and **M. G. Turner**. 2007. Cross-scale interactions and changing pattern-process relationships: consequences for system dynamics. *Ecosystems* 10:790-796.
167. Roth, B. M., I. C. Kaplan, G. G. Sass, P. T. Johnson, A. E. Marburg, A. C. Yannarell, T. D. Havlicek, T. V. Willis, **M. G. Turner** and S. R. Carpenter. 2007. Linking terrestrial and aquatic ecosystems: the role of coarse wood in lake food webs. *Ecological Modelling* 203:439-452.
168. **Turner, M. G.**, E. H. Stanley, M. Bürgi and D. J. Mladenoff. 2008. Changes in the Wisconsin River and its floodplain. Pages 229-249 In: D. M. Waller and T. P. Rooney, editors. *The vanishing present. Wisconsin's changing lands, waters and wildlife*. University of Chicago Press.
169. Anderson, D. P., J. D. Forester, and **M. G. Turner**. 2008. When to slow down? Elk residence rates on a heterogeneous landscape. *Journal of Mammalogy* 89:105-114.
170. Forester, J. D., D. P. Anderson and **M. G. Turner**. 2008. Landscape and local factors affecting northern white cedar (*Thuja occidentalis*) recruitment in the Chequamegon National Forest, Wisconsin (USA). *American Midland Naturalist* 160:438-453.
171. Metzger, K.L., E. A. H. Smithwick, D. B. Tinker, W. H. Romme, T. C. Balsler and **M. G. Turner**. 2008. Influence of pine saplings and coarse wood on nitrogen mineralization and microbial communities in young post-fire *Pinus contorta*. *Forest Ecology and Management* 256:59-67.
172. Moore, S., T. Wallington, R. Hobbs, P. Ehrlich, C. S. Holling, S. Levin, D. Lindenmeyer, C. Pahl-Wostl, H. Possingham, **M. Turner** and M. Westoby. 2008. Diversity in current ecological thinking: implications for environmental management. *Environmental Management*. Available online: DOI 10.1007/s00267-008-9187-2

173. Predick, K. I. and **M. G. Turner**. 2008. Landscape configuration and flood frequency influence invasive shrubs in floodplain forests of the Wisconsin River (USA). *Journal of Ecology* 96:91-102.
174. Raffa, K. F., B. H. Aukema, B. J. Bentz, A. L. Carroll, J. A. Hicke, **M. G. Turner** and W. H. Romme. 2008. Cross-scale drivers of natural disturbances prone to anthropogenic amplification: the dynamics of bark beetle eruptions. *BioScience* 58:501-517.  
\*Identified in *Web of Science* as a *Highly Cited Paper*.
175. Schoennagel, T., E. A. H. Smithwick and **M. G. Turner**. 2008. Landscape heterogeneity following large fires: insights from Yellowstone National Park, USA. *International Journal of Wildland Fire* 17:742-753.
176. **Turner, M. G.**, E. A. H. Smithwick, D. B. Tinker and W. H. Romme. 2009. Variation in foliar nitrogen and aboveground net primary production in young postfire lodgepole pine. *Canadian Journal of Forest Research* 39:1024-1035.
177. Cardille, J. A., S. R. Carpenter, J. A. Foley, P. C. Hanson, **M. G. Turner** and J. A. Vano. 2009. Climate change and lakes: Estimating sensitivities of water and carbon budgets, *Journal of Geophysical Research* 114:G03011, doi:10.1029/2008JG000891.
178. Fraterrigo, J. M., S. M. Pearson and **M. G. Turner**. 2009. Land-use history and the response of understory herbaceous plants to nitrogen fertilization. *Forest Ecology and Management* 257:2182-2188.
179. Fraterrigo, J. M., S. M. Pearson and **M. G. Turner**. 2009. Joint effects of habitat configuration and temporal stochasticity on population dynamics. *Landscape Ecology* 24:863-877.
180. Marburg, A. E., S. B. Bassak, T. K. Kratz and **M. G. Turner**. 2009. The demography of coarse wood in north-temperate lakes. *Freshwater Biology* 54:1110-1119.
181. Predick, K. I., S. E. Gergel and **M. G. Turner**. 2009. Effect of flood regime on tree growth in the floodplain and surrounding uplands of the Wisconsin River. *River Research and Applications* 25:283-296.
182. Remsburg, A. J. and **M. G. Turner**. 2009. Aquatic and terrestrial drivers of dragonfly (order Odonata) assemblages within and among north-temperate lakes. *Journal of the North American Benthological Society* 28:44-56.
183. Romme, W. H., D. B. Tinker, G. H. Stakes, and **M. G. Turner**. 2009. Does inorganic nitrogen availability limit plant growth 3-5 years after fire in a Wyoming lodgepole pine forest? *Forest Ecology & Management* 257:829-835.
184. Smithwick, E. A. H., M. G. Ryan, D. M. Kashian, W. H. Romme, D. B. Tinker and **M. G. Turner**. 2009. Modeling the effects of fire and climate change on carbon and nitrogen storage in lodgepole pine (*Pinus contorta*) stands. *Global Change Biology* 15:535-548.
185. Smithwick, E. A. H., D. M. Kashian, M. G. Ryan and **M. G. Turner**. 2009. Long-term ecosystem nitrogen storage and soil nitrogen availability in post-fire lodgepole pine ecosystems. *Ecosystems* 12:792-806.

186. Albright, T. P., D. P. Anderson, N. S. Keuler, S. M. Pearson and **M. G. Turner**. 2009. The spatial legacy of introduction: *Celastrus orbiculatus* in the southern Appalachians, USA. *Journal of Applied Ecology* 46:1229-1236.
187. **Turner, M. G.** 2010. Disturbance and landscape dynamics in a changing world. *Ecology* 91:2833-2849.  
\*Identified in *Web of Science* as a *Highly Cited Paper*.
188. Buffam, I., S. R. Carpenter, W. Yeck, P. C. Hanson and **M. G. Turner**. 2010. Filling holes in regional carbon budgets: predicting peat depth in a north-temperate lake district. *Journal of Geophysical Research* 115, G01005, doi:10.1029/2009JG001034.
189. Gleick, P. H., and many, many signers, including **M. G. Turner**. 2010. Climate change and the integrity of science. *Science* 328:689-690. (Letter)
190. Kuhman, T. R., S. M. Pearson and **M. G. Turner**. 2010. Effects of land-use history and the contemporary landscape on non-native plant invasion at local and regional scales in the forest-dominated southern Appalachians. *Landscape Ecology* 25:1433-1445.
191. **Turner, M. G.**, W. H. Romme, E. A. H. Smithwick, D. B. Tinker, and J. Zhu. 2011. Variation in aboveground cover influences soil nitrogen availability at fine spatial scales following severe fire in subalpine conifer forests. *Ecosystems* 14:1081-1095.
192. Albright, T. P., **M. G. Turner** and J. A. Cardille. 2011. Characterizing spatial pattern in biogeographic data. Pages 419-434 In: A. C. Millington, M. Blumler and U. Schickhoff, editors. *The SAGE Handbook of Biogeography*. SAGE Publications Ltd., London.
193. Buffam, I., **M. G. Turner**, A. Desai, P. J. Hanson, J. Rusak, N. Lottig and S. R. Carpenter. 2011. Integrating aquatic and terrestrial components to construct a complete carbon budget for a north temperate lake district. *Global Change Biology* 17:1193-1211.
194. Griffin, J. M., **M. G. Turner** and M. Simard. 2011. Nitrogen cycling following mountain pine beetle disturbance in lodgepole pine forests of Greater Yellowstone. *Forest Ecology and Management* 261:1077-1089.
195. Kuhman T. R., S. M. Pearson and **M. G. Turner**. 2011. Agricultural land-use history increases non-native plant invasion in a Southern Appalachian forest a century after abandonment. *Canadian Journal of Forest Research* 41:920-929.
196. Romme, W. H., M. S. Boyce, R. E. Gresswell, E. H. Merrill, G. W. Minshall, C. Whitlock and **M. G. Turner**. 2011. Twenty years after the 1988 Yellowstone fires: lessons about disturbance and ecosystems. *Ecosystems* 14:1196-1215.
197. Simard, M., W. H. Romme, J. M. Griffin and **M. G. Turner**. 2011. Do mountain pine beetle outbreaks change the probability of active crown fire in lodgepole pine forests? *Ecological Monographs* 81:3-24. (Open access: <http://esa.org/papers/>)  
\*Identified in *Web of Science* as a *Highly Cited Paper*.
198. Westerling, A. L., **M. G. Turner**, E. A. H. Smithwick, W. H. Romme and M. G. Ryan. 2011. Continued warming could transform Greater Yellowstone fire regimes by mid-21<sup>st</sup> century.

Proceedings of the National Academy of Sciences 108:13165-13170. (Open access: [www.pnas.org/cgi/doi/10.1073/pnas.1110199108](http://www.pnas.org/cgi/doi/10.1073/pnas.1110199108)).  
\*Identified in Web of Science as a Highly Cited Paper.

199. Griffin, J. M. and **M. G. Turner**. 2012. Bark beetle outbreak induces similar changes to the nitrogen cycle in contrasting conifer forests. *Oecologia* 170:551-565.
200. Jackson, M. M., **M. G. Turner**, S. M. Pearson and A. R. Ives. 2012. Seeing the forest and the trees: multilevel models reveal both species and community patterns. *Ecosphere* 3(9):79. <http://dx.doi.org/10.1890/ES12-00116.1>
201. Lumpkin, H. A., S. M. Pearson and **M. G. Turner**. 2012. Climate and exurban development affect nest predation and nest predator presence in the Southern Appalachians. *Conservation Biology* 26:679-688.
202. Simard, M., E. N. Powell, K. F. Raffa and **M. G. Turner**. 2012. What explains landscape patterns of bark beetle outbreaks in Greater Yellowstone? *Global Ecology and Biogeography* 21:556-567.
203. Simard, M., W. H. Romme, J. M. Griffin and **M. G. Turner**. 2012. Do mountain pine beetle outbreaks change the probability of active crown fire in lodgepole pine forests? Reply. *Ecology* 93:946-950.
204. Smithwick, E. A. H., K. J. Naithani, T. C. Balser, W. H. Romme and **M. G. Turner**. 2012. Post-fire spatial patterns of soil nitrogen mineralization and microbial abundance PLoS ONE 7(11):e50597.
205. **Turner, M. G.**, D. C. Donato and W. H. Romme. 2013. Consequences of spatial heterogeneity for ecosystem services in changing forest landscapes: priorities for future research. *Landscape Ecology* 28:1081-1097.
206. Anderson, D. P., **M. G. Turner**, S. M. Pearson, T. P. Albright, R. K. Peet and A. Wieben. 2013. Predicting *Microstegium vimineum* invasion in natural plant communities of the southern Blue Ridge Mountains, USA. *Biological Invasions* 15:1217-1230.
207. Donato, D. C., B. J. Harvey, M. Simard, W. H. Romme and **M. G. Turner**. 2013. Bark beetle effects on fuel profiles across a range of stand structures in Douglas-fir forests of Greater Yellowstone, USA. *Ecological Applications* 23:3-20.
208. Donato, D. C., M. Simard, W. H. Romme, B. J. Harvey and **M. G. Turner**. 2013. Evaluating post-outbreak management effects on future fuel profiles and stand structure in bark beetle-impacts forests of Greater Yellowstone. *Forest Ecology and Management* 303:160-174.
209. Franks, S., J. G. Masek and **M. G. Turner**. 2013. Monitoring forest regrowth following large scale fire using satellite data—A case study of Yellowstone National Park. Submitted to *European Journal of Remote Sensing* 46:561-569.
210. Griffin, J. M., M. Simard and **M. G. Turner**. 2013. Salvage harvest effects on advance tree regeneration, soil nitrogen, and fuels following mountain pine beetle outbreak in lodgepole pine. *Forest Ecology and Management* 291:228-239.

211. Harvey, B. J., D. C. Donato, W. H. Romme and **M. G. Turner**. 2013. Influence of recent bark beetle outbreak on wildfire severity and post-fire tree regeneration in montane Douglas-fir forests. *Ecology* 94:2465-2486.
212. Jackson, M. M., S. M. Pearson and **M. G. Turner**. 2013. Time since logging influences performance and population dynamics of a native understory herb in Southern Appalachian forests. *Forest Ecology and Management* 304:444-454.
213. Kashian, D. M., W. H. Romme, D. B. Tinker, **M. G. Turner** and M. G. Ryan. 2013. Post-fire changes in forest carbon storage over a 300-year chronosequence of *Pinus contorta*-dominated forests. *Ecological Monographs* 83:49-66.
214. Kuhman, T. R., S. M. Pearson and **M. G. Turner**. 2013. Why does land-use history facilitate non-native plant invasion? A field experiment with *Celastrus orbiculatus*. *Biological Invasions* 15:613-626.
215. Qiu, J. and **M. G. Turner**. 2013. Spatial interactions among ecosystem services in an urbanizing agricultural watershed. *Proceedings of the National Academy of Sciences* 110:12149-12154.
216. Stephens, S. L., J. K. Agee, P. Z. Fulé, M. P. North, W. H. Romme, T. W. Swetnam, and **M. G. Turner**. 2013. Managing forests and fire in changing climates. *Science* 342:41-42.
217. Blank, P. J., D. W. Sample, C. Williams and **M. G. Turner**. 2014. Bird communities and biomass yields in potential bioenergy grasslands. *PLoS ONE* 9(10):e109989. doi:10.1371/journal.pone.0109989
218. Chen, J., R. John, Ge Sun, S. McNulty, A. Noormets, J. Xiao, **M. G. Turner**, and J. F. Franklin. 2014. Carbon fluxes and storage in forests and landscapes. Pages 139-166 In: J. C. Azevedo, A. Perera and M.A. Pinto, eds. *Forest landscapes and global change: challenges for research and management*. Springer. 262 pp.
219. Harvey, B. J., D. C. Donato, W. H. Romme and **M. G. Turner**. 2014. Fire severity and tree regeneration following bark beetle outbreaks: the role of outbreak stage and burning conditions. *Ecological Applications* 24:1608-1625.
220. Harvey, B. J., D. C. Donato and **M. G. Turner**. 2014. Recent mountain pine beetle outbreaks, wildfire severity, and postfire tree regeneration in the US Northern Rockies. *Proceedings of the National Academy of Sciences* 111(42):15120-15125.  
\*Identified in *Web of Science* as a *Highly Cited Paper*.
221. Jackson, M. M., S. M. Pearson and **M. G. Turner**. 2014. Effects of stand age, logging roads, and elevation on pollinator communities in southern Appalachian forests. *Southeastern Naturalist* 13:317-336.
222. Westerling, A., T. Brown, T. Schoennagel, T. Swetnam, **M. Turner**, and T. Veblen. 2014. Briefing: climate and wildfire in western U.S. forests. Pages 81-102 In: A. Sample, P. Bixler and C. Miler, eds. *Forest conservation and management in the Anthropocene*. USDA Forest Service Rocky Mountain Research Station RMRS-P-71. Available at [http://www.fs.fed.us/rm/pubs/rmrs\\_p071.html](http://www.fs.fed.us/rm/pubs/rmrs_p071.html).

223. **Turner, M. G.** 2015. Twenty-five years of US landscape ecology: looking back and forging ahead. Pages 43-54 In: G. W. Barrett, T. Barrett and J. Wu, editors. History of landscape ecology in the United States. Springer, New York.
224. Carpenter, S. R., E. G. Booth, S. Gillon, C. J. Kucharik, S. Loheide, A. S. Mase, M. Motew, J. Qiu, A. R. Rissman, J. Seifert, E. Soylu, **M. G. Turner** and C. B. Wardropper. 2015. Plausible futures of a social-ecological system: Yahara Watershed, Wisconsin, USA. Ecology and Society 20 (2): 10. [online] URL: <http://www.ecologyandsociety.org/vol20/iss2/art10/>.
225. Chapin, F. S, III, S. T. A. Pickett, M. E. Power, S. L. Collins, J. S. Baron, D. W. Inouye, and **M. G. Turner**. 2015. Earth Stewardship: An initiative by the Ecological Society of America to foster engagement to sustain Planet Earth. Pages 173-194 in: Earth Stewardship: Linking ecology and ethics in theory and practice. Ricardo Rozzi, F. S. Chapin III, J. B. Callicott, S. T. A. Pickett, M. E. Power, J. J. Armesto and R. H. May, Jr., editors. Springer, New York.
226. Qiu, J. and **M. G. Turner**. 2015. Importance of landscape heterogeneity in sustaining hydrologic ecosystem services in an agricultural watershed. Ecosphere 6(11) Article 229. <http://dx.doi.org/10.1890/ES15-00312.1>
227. **Turner, M. G.**, D. C. Donato, W. D. Hansen, B. J. Harvey, W. H. Romme, and A. L. Westerling. 2016. Climate change and novel disturbance regimes in national park landscapes. Pages 77-101 In: S. R. Beissinger, D. D. Ackerly, H. Doremus, and G. Machlis, editors. Science, conservation, and national parks. University of Chicago Press, Chicago, IL.
228. **Turner, M. G.**, T. G. Whitby, D. B. Tinker, and W. H. Romme. 2016. Twenty-four years after the Yellowstone Fires: Are postfire lodgepole pine stands converging in structure and function? Ecology 97:1260-1273.  
\*Initially identified in Web of Science as a Highly Cited Paper.
229. Blank, P. J., C. L. Williams, D. W. Sample, T. D. Meehan, and **M. G. Turner**. 2016. Alternative scenarios of bioenergy crop production in an agricultural landscape and implications for bird communities. Ecological Applications 26:42-54.
230. Booth, E. G., J. Qiu, S. R. Carpenter, J. Schatz, X. Chen, C. J. Kucharik, S. P. Loheide II, M. M. Motew, J. M. Seifert, and **M. G. Turner**. 2016. From qualitative to quantitative environmental scenarios: Translating storylines into biophysical modeling inputs at the watershed scale. Environmental Modelling and Software 85:80-97.
231. Donato, D. C., B. J. Harvey, and **M. G. Turner**. 2016. Regeneration of lower-montane forests a quarter-century after the 1988 Yellowstone Fires: a fire-catalyzed shift in lower treelines? Ecosphere 7(8) Article e01410.
232. Graves, R. A., S. M. Pearson, and **M. G. Turner**. 2016. Landscape patterns of bioenergy production in a changing climate: implications for crop allocation and land-use competition. Ecological Applications 26:515-529.
233. Hansen, W. D., W. H. Romme, A. Ba, and **M. G. Turner**. 2016. Shifting ecological filters mediate postfire expansion of seedling aspen (*Populus tremuloides*) in Yellowstone. Forest Ecology and Management 362:218-230.

234. Harvey, B. J., D. C. Donato and **M. G. Turner**. 2016. High and dry: Postfire drought and large stand-replacing burn patches reduce postfire tree regeneration in subalpine forests. *Global Ecology and Biogeography* 25:655-669.  
*\*Identified in Web of Science as a Highly Cited Paper.*
235. Harvey, B. J., D. C. Donato and **M. G. Turner**. 2016. Burn me twice, shame on who? Interactions between successive forest fires across a temperate mountain region. *Ecology* 97:2272-2282.  
*\*Initially identified in Web of Science as a 'Hot' Paper.*
236. Harvey, B. J., D. C. Donato and **M. G. Turner**. 2016. Drivers and trends in spatial patterns of burn severity in forests of the US Northern Rocky Mountains (1984-2010). *Landscape Ecology* 31:2367-2383.
237. Johnstone, J. F., C. D. Allen, J. F. Franklin, L. E. Frelich, B. J. Harvey, P. E. Higuera, M. C. Mack, R. K. Meentemeyer, M. R. Metz, G. L. W. Perry, T. Schoennagel, and **M. G. Turner**. 2016. Changing disturbance regimes, climate warming and forest resilience. *Frontiers in Ecology and the Environment* 14:369-378. (*\*Johnstone and Turner co-led this manuscript*).  
*\*Identified in Web of Science as a Highly Cited Paper.*
238. Nelson, K. N., **M. G. Turner**, W. H. Romme, and D. B. Tinker. 2016. Landscape variation in tree regeneration and snag fall drive fuel loads in 24-yr old post-fire lodgepole pine forests. *Ecological Applications* 26:2424-2438.
239. Romme, W. H., T. G. Whitby, D. B. Tinker, and **M. G. Turner**. 2016. Deterministic and stochastic processes lead to divergence in plant communities during the first 25 years after the 1988 Yellowstone Fires. *Ecological Monographs* 86:327-351.
240. Seidl, R., D. C. Donato, K. A. Raffa, and **M. G. Turner**. 2016. Spatial variability in tree regeneration after wildfire delays and dampens future bark beetle outbreaks. *Proceedings of the National Academy of Sciences* 113:13075-13080.
241. Westerling, A. L., T. J. Brown, T. Schoennagel, T. W. Swetnam, **M. G. Turner**, and T. T. Veblen. 2016. Climate and wildfire in western U.S. forests. Pages 43-55 In: A. Sample, P. Bixler and C. Miller, eds. *Forest conservation in the Anthropocene*. University Press of Colorado, Boulder, CO.
242. **Turner, M. G.** and M. Simard. 2017. Using spatial statistics and landscape metrics to compare disturbance mosaics. Pages 175-190 in S. E. Gergel and M. G. Turner, editors. *Learning landscape ecology*, 2<sup>nd</sup> edition. Springer, New York.
243. Cardille, J. A. and **M. G. Turner**. 2017. Understanding landscape metrics. Pages 45-64 in S. E. Gergel and M. G. Turner, editors. *Learning landscape ecology*, 2<sup>nd</sup> edition. Springer, New York.
244. Cardille, J. A. and **M. G. Turner**. 2017. Regional and continental perspectives on landscape pattern. Pages 157-174 in S. E. Gergel and M. G. Turner, editors. *Learning landscape ecology*, 2<sup>nd</sup> edition. Springer, New York.

245. Graves, R. A., S. M. Pearson, and **M. G. Turner**. 2017. Landscape dynamics of floral resources affect the supply of a biodiversity-dependent cultural ecosystem service. *Landscape Ecology* 32:415-428.
246. Graves, R. A., S. M. Pearson, and **M. G. Turner**. 2017. Species richness alone does not predict cultural ecosystem service value. *Proceedings of the National Academy of Sciences* 114:3774-3779.
247. Nelson, K. N., **M. G. Turner**, W. H. Romme, and D. B. Tinker. 2017. Wind and fuels drive fire behavior in young, postfire lodgepole pine forests. *International Journal of Wildland Fire* 26:852-865.
248. Qiu, J. and **M. G. Turner**. 2017. Effects of non-native Asian earthworm invasion on temperate forests and prairies in the Midwestern US. *Biological Invasions* 19:73-88.
249. Qiu, J., C. B. Wardropper, A. R. Rissman, and **M. G. Turner**. 2017. Spatial fit between water quality policies and hydrologic ecosystem services in an urbanizing agricultural landscape. *Landscape Ecology* 32:59-75
250. Rose, K. C., R. A. Graves, W. D. Hansen, B. J. Harvey, J. Qiu, S. A. Wood, C. Ziter, and **M. G. Turner**. 2017. Historical foundations and future directions in macrosystems ecology. *Ecology Letters* 20:147-157.
251. Rose, K. C., S. R. Greb, M. Diebel, and **M. G. Turner**. 2017. Annual precipitation as a regulator of spatial and temporal drivers of lake water clarity. *Ecological Applications* 27:632-643.
252. Schoennagel, T., J. Balch, H. Brenkert-Smith, P. Dennison, B. Harvey, M. Krawchuk, N. Miekiewicz, P. Morgan, M. Moritz, R. Rasker, **M. G. Turner**, and C. Whitlock. 2017. Adapt to more wildfire in western North American forests as climate changes. *Proceedings of the National Academy of Sciences* 114:4582-4590.
253. Rieb, J. T., R. Chaplin-Kramer, G. C. Daily, P. R. Armsworth, K. Böhning-Gaese, A. Bonn, G. S. Cumming, F. Eigenbrod, V. Grimm, B. M. Jackson, A. Marques, S. K. Pattanayak, H. M. Pereira, G. D. Peterson, T. H. Ricketts, B. E. Robinson, M. Schröter, L. A. Schulte-Moore, R. Seppelt, **M. G. Turner**, and E. M. Bennett. 2017. When, where, and how nature matters for ecosystem services: challenges for the next generation of ecosystem service models. *BioScience* 67:820-833.
254. Spake, R., R. Lasseur, E. Crouzat, E. Bennett, J. Maes, M. Mulligan, M. Mouchet, G. Peterson, C. J. E. Schulp, W. Thuiller, **M. G. Turner**, P. H. Verburg, K. Parks, M. Schaafsma, J. M. Bullock, S. Lavorel, and F. Eigenbrod. 2017. Unpacking ecosystem service bundles: towards predictive mapping of synergies and trade-offs between ecosystem services. *Global Environmental Change* 47:37-50.
255. Braziunas, K. H., W. D. Hansen, R. Seidl, W. Rammer, and **M. G. Turner**. 2018. Looking beyond the mean: Drivers of variability in postfire stand development of conifers in Greater Yellowstone. *Forest Ecology and Management* 430:460-471.
256. Frock, C. F., and **M. G. Turner**. 2018. Microhabitat conditions and landscape pattern explain nocturnal rodent activity, but not seed removal, in burned and unburned lodgepole pine forests. *Landscape Ecology* 11:1895-1909.

257. Hansen, W. D., K. H. Braziunas, W. Rammer, R. Seidl, and **M. G. Turner**. 2018. It takes a few to tango: changing climate and fire regimes can cause regeneration failure of two subalpine conifers. *Ecology* 99:966-977.
258. Qiu, J., S. R. Carpenter, E. Booth, M. Motew, S. Zipper, C. Kucharik, X. Chen, S. Loheide, J. Seifert, and **M. G. Turner**. 2018. Scenarios reveal pathways to sustain future ecosystem services in an agricultural landscape. *Ecological Applications* 28:119-134.
259. Qiu, J., S. R. Carpenter, E. G. Booth, M. Motew, S. C. Zipper, C. J. Kucharik, S. P. Loheide III, and **M. G. Turner**. 2018. Understanding relationships among ecosystem services across spatial scales and over time. *Environmental Research Letters* 054020:1-15.
260. Ratajczak, Z., S. R. Carpenter, A. R. Ives, C. J. Kucharik, T. Ramiadantsoa, M. A. Stegner, J. W. Williams, J. Zhang, and **M. G. Turner**. 2018. Abrupt change in ecological systems: inference and diagnosis. *Trends in Ecology and Evolution* 33:513-526.
261. Sommerfeld, A., C. Senf, B. Buma, A. W. D'Amato, T. Després, I. Díaz-Hormazábal, S. Fraver, L. E. Frelich, A. G. Gutiérrez, S. J. Hart, B. J. Harvey, H. S. He, Tom's Hlásny, Andrés Holz, T. Kitzberger, D. Kulakowski, D. Linedmayer, A. S. Mori, Jörg Müller, J. Paritsis, G. Perry, S. Stephens, M. Svoboda, **M. G. Turner**, T. T. Veblen, and R. Seidl. 2018. Patterns and drivers of recent disturbances across the temperate forest biome. *Nature Communications* 9:4355. DOI: 10.1038/s41467-018-06788-9.
262. Uhrin, A. V., and **M. G. Turner**. 2018. Physical drivers of seagrass spatial configuration: the role of thresholds. *Landscape Ecology* 33:2253-2272.
263. Ziter, C., R. A. Graves, and **M. G. Turner**. 2018. How do land-use legacies affect ecosystem services in United States cultural landscapes? *Landscape Ecology* 32:2205-2218.
264. Ziter, C., and **M. G. Turner**. 2018. Current and historical land use influence soil-based ecosystem service supply in an urban landscape. *Ecological Applications* 28:643-654.
265. Graves, R. A., S. M. Pearson and **M. G. Turner**. 2018. Bird community dynamics change the seasonal distribution of a cultural ecosystem service in a montane landscape. *Ambio* 48:280-292.
266. **Turner, M. G.**, T. G. Whitby, and W. H. Romme. 2019. Feast not famine: Nitrogen pools recover rapidly in 25-yr old postfire lodgepole pine. *Ecology* 100(3): e02626.
267. **Turner, M. G.**, K. H. Braziunas, W. D. Hansen, and B. J. Harvey. 2019. Short-interval fire erodes the resilience of subalpine lodgepole pine forests. *Proceedings of the National Academy of Sciences* 116:11319-11328.
268. Hansen, W. D., and **M. G. Turner**. 2019. Origins of abrupt change? Postfire subalpine conifer regeneration declines nonlinearly with warming and drying. *Ecological Monographs* 89(1), e01340.
269. Motew, M., X. Chen, S. R. Carpenter, E. G. Booth, J. Seifert, J. Qiu, S. P. Loheide II, **M. G. Turner**, S. C. Zipper, and C. J. Kucharik. 2019. Comparing effects of climate and land use

- on surface water quality using future watershed scenarios. *Science of the Total Environment* 693, art. 133484.
270. Peery, M. Z., G. M. Jones, R. J. Gutiérrez, S. M. Redpath, A. B. Franklin, D. Simberloff, **M. G. Turner**, V. C. Radeloff, and G. C. White. 2019. The conundrum of agenda-driven science in conservation. *Frontiers in Ecology and the Environment* 17(2):80-82.
  271. Stegner, M. A., **M. G. Turner**, V. Iglesias, and C. Whitlock. 2019. Post-fire vegetation and climate dynamics in low-elevation forests over the last three millennia in Yellowstone National Park. *Ecography* 207:49-63.
  272. Ziter, C., and **M. G. Turner**. 2019. No evidence of co-facilitation between a non-native Asian earthworm (*Amyntas tokioensis*) and invasive common buckthorn (*Rhamnus cathartica*) in experimental mesocosms. *Biological Invasions* 21:111-122.
  273. Ziter, C., E. J. Pederson, C. J. Kucharik, and **M. G. Turner**. 2019. Scale-dependent interactions between tree canopy cover and impervious surfaces reduce daytime urban heat during summer. *Proceedings of the National Academy of Sciences* 116:7575-7580.
  274. Ziter, C., E. J. Pederson, C. J. Kucharik, and **M. G. Turner**. 2019. Reply to Drescher: Interdisciplinary collaboration is essential to understand and implement climate-resilience strategies in cities. (Letter) *Proceedings of the National Academy of Sciences* 116:26155-26156.
  275. **Turner, M. G.**, W. J. Calder, G. S. Cumming, T. P. Hughes, A. Jentsch, S. L. LaDeau, T. M. Lenton, B. N Shuman, M. R. Turetsky, Z. Ratajczak, J. W. Williams, A. P. Williams, and S. R. Carpenter. 2020. Climate change, ecosystems, and abrupt change: science priorities. *Philosophical Transactions of the Royal Society B* 375:20190105.
  276. Albrich, K., W. Rammer, **M. G. Turner**, Z. Ratajczak, K. H. Braziunas, W. D. Hansen, and R. Seidl. 2020. Simulating forest resilience: a review. *Global Ecology and Biogeography* 29:2082-2096.
  277. Hansen, W. D., D. Abendroth, W. Rammer, R. Seidl, and **M. G. Turner**. 2020. Can wildland fire management alter 21<sup>st</sup>-century fire patterns and forests in Grand Teton National Park? *Ecological Applications* 30(2), e02030.
  278. Hoecker, T. J., W. D. Hansen, and **M. G. Turner**. 2020. Landscape position amplifies consequences of novel short-interval stand-replacing fires on postfire tree establishment in subalpine conifer forests. *Forest Ecology and Management* 478, Article 118523.
  279. Malhi, Y., J. Franklin, N. Seddon, M. Solan, **M. G. Turner**, C. B. Field, and N. Knowlton. 2020. Climate change and ecosystems: threats, opportunities and solutions. *Philosophical Transactions of the Royal Society B* 375:20190104.
  280. McDowell, N. G., C. D. Allen, K. Anderson-Teixeira, B. H. Aukema, B. Bond-Lamberty, J. S. Clark, M. Dietze, C. Grossiord, A. Hanbury-Brown, R. B. Jackson, D. J. Johnson, L. Kueppers, J. W. Lichstein, K. Ogle, B. Poulter, R. Seidl, **M. G. Turner**, M. Uriarte, A. P. Walker, and C. Xu. 2020. Pervasive shifts in forest dynamics in a changing world. *Science* 368:1-10 (eaaz9463).

281. **Turner, M. G.**, K. H. Braziunas, W. D. Hansen, T. J. Hoecker, W. Rammer, Z. Ratajczak, A. L. Westerling, and R. Seidl. 2021. The magnitude, direction and tempo of forest change in Greater Yellowstone in a warmer world with more fire. *Ecological Monographs* (Available online at <https://doi.org/10.1002/ecm.1485>).
282. Braziunas, K. H., R. Seidl, W. Rammer, and **M. G. Turner**. 2021. Can we manage a future with more fire? Effectiveness of defensible space treatment depends on housing amount and configuration. *Landscape Ecology* 36:309-330.
283. Gill, N. S., T. J. Hoecker, and **M. G. Turner**. 2021. The propagule doesn't fall far from the tree, especially after short-interval fire. *Ecology* 102(1):e03194.
284. Pellegrini, A. F. A., T. Refsland, C. Averill, C. Terrer, A. C. Staver, D. G. Brockway, A. Caprio, W. Clatterbuck, C. Coetsee, J. D. Haywood, S. E. Hobbie, W. A. Hoffman, J. Kush, T. Lewis, W. K. Moser, S. T. Overby, B. Patterson, K. G. Peay, P. B. Reich, C. Ryan, M. A. S. Sayer, B. C. Scharenbroch, T. Schoennagel, G. R. Smith, K. Stephan, C. Swanston, **M. G. Turner**, T. M. Varner, and R. B. Jackson. 2021. Decadal changes in fire frequencies shift tree communities and functional traits. *Nature Ecology & Evolution* 5(4). DOI: 10.1038/s41559-021-01401-7
285. Qiu, J., C. Queiroz, E. M. Bennett, A. F. Cord, E. Crouzat, S. Lavorel, J. Maes, M. Meacham, A. V. Norstrom, G. D. Peterson, R. Seppelt, and **M. G. Turner**. 2021. Land-use intensity mediates ecosystem service tradeoffs across regional social-ecological systems. *Ecosystems and People* 17:264-278.
286. Rammer, W., K. H. Braziunas, W. D. Hansen, Z. Ratajczak, A. L. Westerling, **M. G. Turner**, and R. Seidl. 2021. Widespread regeneration failure in forests of Greater Yellowstone under scenarios of future climate and fire. *Global Change Biology* 27:4339-4351.
287. Ziter, C., B. M. Herrick, M. R. Johnston, and **M. G. Turner**. 2021. Ready, set, go: Community science field campaign reveals habitat preferences of non-native Asian earthworms in an urban landscape. *BioScience* 71:280-291.
288. Gill\*, N. S., **M. G. Turner\***, C. D. Brown, S. I Glassman, S. L. Haire, W. D. Hansen, E. R. Pansing, S. B. St. Clair, and D. F. Tomback. 2022. Limitations to propagule dispersal will constrain post-fire recovery of plants and fungi in many western coniferous forests. \*Co-leaders. *BioScience* (In press).
289. Hoecker, T. J., and **M. G. Turner**. 2022. A short-interval reburn catalyzes departures from historical structure and composition in a mesic mixed-conifer forest. *Forest Ecology and Management* 504:1-12. Article 119814.
290. Hoecker, T. J., and **M. G. Turner**. 2022. Interactions between climate and fire-driven vegetation change constrain the distributions of forest vertebrates during the 21<sup>st</sup> century. *Diversity and Distributions* 00:1-18. Early view: DOI: 10.1111/ddi.13470.

*Manuscripts in review/revision*

Braziunas, K. H., D. Abendroth, and **M. G. Turner**. Young forests and fire: Using lidar-imagery fusion to explore fuels and burn severity in a subalpine forest reburn. *Ecosphere* (In revision).

- Cleveland, C., K. Dynarski, S. Batterman, T. Crews, M. Gei, M. Gundale, D. Menge, M. Peoples, S. Reed, C. Reis, Carla, V. Salmon, F. Soper, Fiona; B. Taylor, **M. G. Turner**, N. Wurzbarger, and S. Perakis. Cryptic nitrogen fixers: An important frontier in terrestrial N cycling research. (In revision).
- Daniels, M. C., K. H. Braziunas, T. F. Ma, K. C. Short, **M. G. Turner**, and A. R. Rissman. Multiple social and environmental factors affect wildland fire response of full or less-than-full suppression. (In revision).
- Kucharik, C. J., E. G. Booth, S. P. Loheide III, R. Power, A. R. Rissman, J. Seifert, and **M. G. Turner**. Building food-energy-water resilience requires avoiding unintended consequences for ecosystems. *Frontiers in Ecology and the Environment* (In review).
- Ramiadantsoa, T., Z. Ratajczak, and **M. G. Turner**. Regeneration strategies and forest resilience to changing fire regimes: insights from a model that balances theory and realism. (In revision).

**National Research Council Publications** (Turner was member of each NRC committee)

- National Research Council. 1993. Setting priorities for land conservation. National Academy Press, Washington, DC.
- National Research Council. 2000. Global change ecosystems research. National Academy Press, Washington, DC.
- National Research Council. 2002. Ecological dynamics on Yellowstone's northern range. National Academy Press, Washington, DC.

**Journal articles for a general audience**

- Romme, W.H., and **M.G. Turner**. 1992. Global climate change in the Greater Yellowstone Ecosystem. *Yellowstone Science* 1(1):2-5.
- Turner, M. G.** 2009. Ecological effects of the '88 fires. *Yellowstone Science* 17(2):24-30.
- Romme, W. H. and **M. G. Turner**. 2015. Ecological implications of climate change in Yellowstone: moving into uncharted territory? *Yellowstone Science* 23(1):6-13.
- Turner, M. G.** 2019. Fire in Yellowstone. *Ranger* 35(4):10-12.  
(Invited article for the journal of the Association of National Park Rangers Fall 2019 issue.)

**Commentaries/Editorials, Book Reviews, Proceedings (not refereed)**

- Turner, M. G.** 1984. Review of: Trojan, P. 1984. Ecosystem homeostasis. *INTECOL Newsletter* 15(1):2.
- Gardner, R. H., **M. G. Turner** and V. H. Dale. 1989. A report on the workshop, "Predicting across scales: theory development and testing." *Bulletin of the Ecological Society of America* 70:153-155.

- Turner, M. G.** 1992. Review of THE MOSAIC-CYCLE CONCEPT OF ECOSYSTEMS. (Book Review). *Journal of Vegetation Science* 4:575-576.
- Carpenter, S. R., and **M. G. Turner**. 1998. At last: a journal devoted to ecosystem science. *Ecosystems* 1:1-5.
- Turner, M. G.** and S. R. Carpenter. 1999. How are we doing? Reflections on the first year of ECOSYSTEMS. *Ecosystems* 2:1-3.
- Turner, M. G.** and S. R. Carpenter. 1999. Tips and traps in interdisciplinary research. *Ecosystems* 2:275-276.
- Turner, M. G.** and S. R. Carpenter. 1999. Spatial variability in ecosystem function. *Ecosystems* 2:383.
- Carpenter, S. R. and **M. G. Turner**. 2000. Opening the black boxes: ecosystem science and economic valuation. *Ecosystems* 3:1-3.
- Carpenter, S. R. and **M. G. Turner**. 2000. Hares and tortoises: interactions of fast and slow variables in ecosystems. *Ecosystems* 3:495-497.
- Carpenter, S. R. and **M. G. Turner**. 2001. More issues, more impact, and more opportunity. *Ecosystems* 4:1-2.
- Carpenter, S. R. and **M. G. Turner**. 2001. Panarchy 101. *Ecosystems* 4:389.
- Turner, M. G.** 2003. Current understanding of succession. Book review of Primary succession and ecosystem rehabilitation by L. R. Walker and R. del Moral, 2003. *BioScience* 53:1129-1130.
- Carpenter, S. R., **M. G. Turner** and F. Westley. 2005. Surrogates for resilience of social-ecological systems. *Ecosystems* 8:841-944.
- Turner, M. G.** and W. H. Romme. 2006. Fire in the Yellowstone landscape: surprises and lessons. Pages 218-223 in A. Wondrak Biel, editor. Greater Yellowstone Public Lands: A Century of discovery, hard lessons and bright prospects. Proceedings of the 8<sup>th</sup> biennial science conference held in Yellowstone National Park, October 17-19, 2005. Yellowstone Center for Resources, Yellowstone National Park, Wyoming.
- Turner, M. G.**, G. W. Barrett, R. H. Gardner, L. R. Iverson, P. G. Risser, J. A. Wiens and J. Wu. 2007. In memoriam—Frank B. Golley (1930-2006). *Landscape Ecology* 22:1-3.
- Carpenter, S. R. and **M. G. Turner**. 2007. A decade of Ecosystems. *Ecosystems* 10:519-522.
- Turner, M. G.** 2008. Another perspective on Yellowstone's northern range. Book review of Yellowstone's destabilized ecosystem by F. H. Wagner, 2006. *BioScience* 58:173-175.
- Smithwick, E. A. H., A. L. Westerling, **M. G. Turner**, W. H. Romme, M. G. Ryan. 2011. Vulnerability of landscape carbon fluxes to future climate and fire in the Greater Yellowstone Ecosystem. In: Questioning Greater Yellowstone's Future: Climate, Land Use, and Invasive Species. Proceedings of the 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem. October 11–13, 2010, Mammoth Hot Springs Hotel, Yellowstone National Park. C. Andersen, ed., 131–134. Yellowstone National Park, WY, and Laramie, WY: Yellowstone Center for

Resources and University of Wyoming William D. Ruckelshaus Institute of Environment and Natural Resources.

McIntyre, N. E., L. R. Iverson and **M. G. Turner**. 2013. A 27-yr perspective on landscape ecology from the US-IALE annual meeting. (Editorial) *Landscape Ecology* 28:1845-1848.

**Turner, M. G.** 2015. Celebrating the past, embracing the future. (Invited editorial for centennial of the Ecological Society of America.) *Frontiers in Ecology and the Environment* 13:291.

**Turner, M. G.**, D. W. Inouye and J. S. Baron. 2015. Ecological Society of America response to Pope Francis' encyclical, LAUDATO SI: ON CARE FOR OUR COMMON HOME. News release, 29 June 2015. <http://www.esa.org/esa/ecological-society-of-america-responds-to-pope-francis-encyclical-laudato-si-on-care-for-our-common-home/>

Carpenter, S. R. and **M. G. Turner**. 2017. Twenty years of *Ecosystems*: Emerging questions and challenges. *Ecosystems* 20:1-3.

**Turner, M. G.** and S. R. Carpenter. 2017. Ecosystem modeling for the 21<sup>st</sup> century. *Ecosystems* 20:211-214.

### Technical Reports

Simon, D. M., **M. G. Turner**, K. L. Davison and S. P. Bratton. 1984. Habitat utilization by horses, deer and rabbits on Cumberland Island National Seashore. CPSU Tech. Rep. No. 8. National Park Service Coop Unit, Institute of Ecology, University of Georgia, Athens, 21 pp.

**Turner, M. G.** 1986. Effects of feral horse grazing, clipping, trampling and a late winter burn on a salt marsh, Cumberland Island National Seashore. CPSU Tech. Rep. No.23. National Park Service Coop Unit, Institute of Ecology, University of Georgia, Athens.

**Turner, M. G.**, W. H. Romme, L. L. Wallace, Y. Wu and S. M. Pearson. 1992. Landscape-level interactions among ungulates, vegetation, and large-scale fire in northern Yellowstone National Park. Final Report, University of Wyoming-National Park Service Research Center, P. O. Box 160, Moran, WY 83013. 237 pp.

Simard, M., E. N. Powell, J. M. Griffin, K. F. Raffa and **M. G. Turner**. 2008. Annotated bibliography for forest managers on fire-bark beetle interactions. US Forest Service, Western Wildlands Environmental Threats Assessment Center. <http://www.fs.fed.us/wwetac/publications.html>.

Tinker, D. B., **M. G. Turner**, W. H. Romme, P. A. Townsend, K. F. Raffa and R. A. Renkin. 2009. Reciprocal interactions between bark beetles and wildfire in subalpine forests: landscape patterns and the risk of high-severity fire. Final report, Joint Fire Science Program, Project No. 06-2-1-20. Submitted 30 September 2009 and available online.

**Turner, M. G.** 2010. A landscape perspective on sustainability science. Pages 79-82 in: S. A. Levin and W. C. Clark, editors. *Toward a science of sustainability*. University Services, Princeton University, Princeton, New Jersey.

Smithwick, E. A. H., A. L. Westerling, **M. G. Turner**, W. H. Romme and M. G. Ryan. 2011. Climate, fire and carbon: tipping points and landscape vulnerability in the Greater Yellowstone Ecosystem.

Final report, Joint Fire Science Program, Project No. 09-3-01-47. Submitted 31 January 2011 and available online.

**Turner, M. G.,** W. H. Romme, P. A. Townsend, and R. A. Renkin. 2013. Bark beetles, fuels and future fire hazard in contrasting conifer forests of Greater Yellowstone. Final report, Joint Fire Science Program, Project No. 09-1-06-3. Submitted 28 September 2013 and available online.

**Turner, M. G.,** W. H. Romme and D. B. Tinker. 2015. Paths of recovery: Landscape variability in forest structure, function and fuels after the 1988 Yellowstone Fires. Final report, Joint Fire Science Program, Project No. 11-1-1-7. Submitted 27 November 2015 and available online.

**Turner, M. G.,** A. R. Rissman, A. L. Westerling, and R. Seidl. 2021. What makes for a resilient landscape? Climate, fire and forests in the Northern Rockies. Final report, Joint Fire Science Program, Project No. 16-3-01-4. Submitted 25 August 2021 and available online.

### **Selected Outreach Activities**

- 2008 Co-led (with Bill Romme) a 2-day field trip on twentieth anniversary of the 1988 Yellowstone fires. Visited areas throughout Yellowstone as part of the joint meeting of the Yellowstone Biennial Science Conference
- 2015 Presented as part of a field trip for resource managers on the 1988 fires in Yellowstone. Organized by the Northern Rockies Fire Science Network.
- 2015 Invited public presentation on fires in Yellowstone, Teton County Library, Jackson Hole, Wyoming.
- 2017 Organized and led workshops for forest and fire managers in the Northern US Rocky Mountains on “Dimensions of forest resilience”, one day in Bozeman, MT and one day in Missoula, MT. Workshops were co-sponsored by the Northern Rockies Fire Science Network.
- 2018 Invited public presentation on “Fire in the West and Forests of the Future: Lessons from Yellowstone” in Crossroads of Ideas lecture series, Wisconsin Institutes of Discovery, Madison, 20 March.
- 2018 Released two mini-documentary videos on forest resilience research in Greater Yellowstone through University Communications, UW-Madison; these have been shared through UW-Madison’s social media accounts and by the Joint Fire Science Program (Friday Flash on 21 September 2018)  
  
Longer version (7.5 min), “Fires in the West may be changing the future of forests”  
<https://youtu.be/dD8VLS5F2Xo>  
  
Shorter version (4.5 min): “As wildfires burn, will the forests of Yellowstone remain?”  
<https://youtu.be/TvSK9sKHojk>
- 2018 Wrote an invited article, “Here’s how forests rebounded from Yellowstone’s epic 1988 fires – and why that could be harder in the future,” for THE CONVERSATION, published 28 August. Article was republished in numerous places, including SCIENTIFIC AMERICAN, SAN

FRANCISCO CHRONICLE, HOUSTON CHRONICLE, SEATTLE POST-INTELLIGENCER, POPULAR SCIENCE and others; >77,000 views recorded as of 26 September 2018.  
<https://theconversation.com/heres-how-forests-rebounded-from-yellowstones-epic-1988-fires-and-why-that-could-be-harder-in-the-future-101495>

- 2018 Presentation, “Yellowstone Fires and the American West” for *Science on Tap*, Nomad World Pub, Madison, 5 September.
- 2018 Co-led a 2-day event, “Long-duration Fire and Reburn Effects in Yellowstone National Park,” organized by Northern Rockies Fire Science Network for regional forest/fire managers, October 16-17. (Two oral presentations + full-day field trip into the 2016 Maple Fire).
- 2019 Presentation, “Forest and fire in Greater Yellowstone: What does the future hold?” American Alpine Club Climber’s Ranch, Grand Teton National Park, evening talk for guests, 19 July
- 2020 Organized and led 1.5-day workshops for forest and fire managers in the Northern US Rocky Mountains on “Learning about resilient futures”, workshops held in both Bozeman, MT and Missoula, MT. Workshops were co-sponsored by the Northern Rockies Fire Science Network.
- 2021 Facebook Live event, "A fiery future: Are widespread megafires the new normal?" Programmed by The Franklin Institute in Philadelphia, PA. Viewable on YouTube:  
<https://youtu.be/SkHY8OXsTPc>

### **Selected Media Reports and Research Features**

#### **General (chronological)**

- Radio interview, HERE ON EARTH, RADIO WITHOUT BORDERS with Jean Feraca, September 3, 2008 (one-hour show, live radio, titled “When nature and culture collide”). Archive at:  
<http://www.mefedia.com/entry/when-nature-and-culture-collide/11290730>
- Sakai, Jill. 2008. Rising from the ashes. On Wisconsin, summer 2008, pp. 22-27.  
<http://www.news.wisc.edu/on-wisconsin/rising-from-the-ashes/>
- Marris, Emma. 2011. The end of the wild. *Nature* 469:150-152.  
<http://www.nature.com/news/2011/120111/full/469150a.html>
- Weeks, Jennifer. 2012. Managing wildfires. *CQ Researcher* 22(39):941-964.  
(Congressional Quarterly publications provide science summaries to the US Congress)  
<http://www.cqpress.com/product/Researcher-Managing-Wildfires-v22-39.html>
- Wells, Gail. 2012. Bark beetles and fire: Two forces of nature transforming western forests. Joint Fire Science Program, Fire Science Digest, Issue 12.  
[http://www.firescience.gov/JFSP\\_publications.cfm](http://www.firescience.gov/JFSP_publications.cfm)
- Boyle, Alan. 2013. Will forests flourish after fires? In a warming world, not always. NBC News.com  
<http://www.nbcnews.com/science/environment/will-forests-flourish-after-fires-warming-world-not-always-f6C10534178>

- Campbell BIOLOGY, 10<sup>th</sup> edition. 2014. Featured scientist for Unit 8, Ecology. Page 1157.
- Carswell, Cally. 2014. Don't blame the beetles. *Science* 346(6206):154-156.  
<http://www.sciencemag.org/content/346/6206/154.summary>
- Ecological Society of America. 2014. Film commissioned for ESA's 100<sup>th</sup> anniversary; Turner is one of three US ecologists selected for featuring of their field research. Film crew spent 2.5 days in Yellowstone during July 2014; film was released August 2015.  
<https://vimeo.com/136015261>
- Preston, Penny. 2014. Fires and forest re-growth. Television interview, KULR 8, Billings, aired October 15, 2014 in Montana and Wyoming. <http://www.kulr8.com/story/26798686/fires-and-forest-re-growth>
- Puckett, Karl. 2015. What Yellowstone's '88 fires tell us about Glacier. *Great Falls Tribune*.  
<http://gftrib.com/1LiUtNy>
- Edmonds, Patricia. 2016. Yellowstone Fires, Past and Future. *National Geographic Magazine*, May issue, 229(5):16 – one-page illustration on effects of the 1988 Yellowstone Fires.
- Radio interview, 620 WTMJ in Milwaukee, WI, with Steve Ketelaar about 100<sup>th</sup> anniversary of our national parks. Airing on 17 July 2016.
- Abrahamson, Jake. 2016. Yellowstone 2.0. *Sierra* 101(4): 36-41. Included in a special issue on 100<sup>th</sup> anniversary of the National Park Service.
- Wisconsin Public Television. 2016. Interviewed by Zach Schultz on WPTV's "Here and Now" for segment promoting forthcoming documentary. Aired on 26 August.  
[http://wpt.org/Here\\_and\\_Now/look-future-yahara-watershed](http://wpt.org/Here_and_Now/look-future-yahara-watershed)
- Wisconsin Public Television. 2016. The Yahara Watershed: A Place of Change. Documentary (30 min) that aired on 1 September 2016. <http://video.wpt.org/video/2365830152/>
- Joint Fire Science Program. 2016. Friday Flash eNews, Issue 166, 9 September 2016. Recent JFSP-funded research aids fire managers in Greater Yellowstone. (Weekly email blast highlights real-time use of our post-1988 fire long-term data).  
<http://us2.campaign-archive1.com/?u=5f6de7b069a57255f980944b4&id=f4e5536fb6&e=d6b73d9b2c>
- Wisconsin State Journal, 2017. Forests and fires: Lessons from Yellowstone. Article in "Fueling Discovery" (supplement is a joint effort of UW-Madison College of Letters and Science and the Wisconsin State Journal), 6 May 2017.  
[http://host.madison.com/wsj/discovery/forests-and-fires-lessons-from-yellowstone/article\\_5cfde6e9-3c2a-52f5-ae5b-d3ecc31ad67d.html](http://host.madison.com/wsj/discovery/forests-and-fires-lessons-from-yellowstone/article_5cfde6e9-3c2a-52f5-ae5b-d3ecc31ad67d.html)
- Hamilton, Eric. 2017. Cultural value of natural world doesn't depend only on species diversity. *UW-Madison News*, 24 May 2017.  
<http://news.wisc.edu/cultural-value-of-natural-world-doesnt-depend-only-on-species-diversity/>

- Price, Michael. 2017. Fire on the mountain: two forests offer clues to Yellowstone's fate in a warming world. New York Times, 13 September 2017. (Based on 2 days in the field on the NSF Rapid grant to study the 2016 Yellowstone fires).  
[https://www.nytimes.com/2017/09/13/climate/yellowstone-western-fires-in-two-forests.html?\\_r=0](https://www.nytimes.com/2017/09/13/climate/yellowstone-western-fires-in-two-forests.html?_r=0)
- Tyrrell, Kelly A. 2017. All hands on deck to understand, predict, prevent abrupt ecological change. UW-Madison News, 25 October 2017.  
<https://news.wisc.edu/all-hands-on-deck-to-understand-predict-prevent-abrupt-ecological-change/>
- Verburg, Steven. 2017. Know Your Madisonian: UW-Madison professor examines abrupt ecosystem changes. Wisconsin State Journal. 18 November 2017.  
[http://host.madison.com/wsj/news/local/know-your-madisonian-uw-madison-professor-examines-abrupt-ecosystem-changes/article\\_2deac191-02ad-5b7a-b2a4-d09a21ca7491.html](http://host.madison.com/wsj/news/local/know-your-madisonian-uw-madison-professor-examines-abrupt-ecosystem-changes/article_2deac191-02ad-5b7a-b2a4-d09a21ca7491.html)
- Pope, Kristen. 2018. Multiple interviews for feature on the 1988 Yellowstone Fires in DISCOVER MAGAZINE, December issue. <http://discovermagazine.com/2018/dec/burn-notice>
- Holloway, Marguerite. 2018. New York Times (November 15, 2018) Your children's Yellowstone will be radically different. (Interviewed by phone and quoted in article on how climate change is altering Yellowstone National Park.)  
<https://www.nytimes.com/interactive/2018/11/15/climate/yellowstone-global-warming.html>
- NOVA. 2019. Three days of filming in Yellowstone, July 2018, by Miles O'Brien and his team for a NOVA episode on fires in the West, released May 8, 2019. (Yellowstone segment near end of show.) <https://www.pbs.org/wgbh/nova/video/inside-the-megafire/>
- McDermott, Amy. 2020. News feature: Foreseeing fires. PNAS September 8 117:21834-21838. (Quotes Turner, highlights PhD work by Winslow Hansen in the Turner lab).  
<https://www.washingtonpost.com/climate-environment/2020/09/16/fires-climate-change/>
- Kaplan, Sarah. 2020. Trump's plan for managing forests won't save us in a more flammable world, experts say. Washington Post, September 16. <https://www.washingtonpost.com/climate-environment/2020/09/16/fires-climate-change/>
- Koshmrl, Mike. 2020 What's in the forecast? Lots of fire, less forest. Jackson Hole New & Guide, September 23. [https://www.jhnewsandguide.com/special/conservation/what-s-in-the-forecast-lots-of-fire-less-forest/article\\_d3f7328c-bb3b-59c3-8868-bf4d0b5c7bfb.html](https://www.jhnewsandguide.com/special/conservation/what-s-in-the-forecast-lots-of-fire-less-forest/article_d3f7328c-bb3b-59c3-8868-bf4d0b5c7bfb.html)
- Urfan, Umair. 2020. Why we're more confident than ever that climate change is driving disasters. Vox, article posted September 30. <https://bit.ly/30C9B6v>
- Pennisi, Elizabeth. 2020. As wildfires continue in western United States, biologist fear for vulnerable species. Science 370(6512):18-19, 2 October.  
<https://www.sciencemag.org/news/2020/09/wildfires-continue-western-united-states-biologists-fear-vulnerable-species>

### **Media Reports by Research Publication**

**Simard et al. (2011, Ecological Monographs)**

- LA TIMES:
  - Bettina Boxall, Bark beetles may kill trees, but that may not raise fire risk.  
<http://articles.latimes.com/2010/sep/26/nation/la-na-beetle-fire-20100926>
  - <http://www.latimes.com/news/nationworld/nation/la-na-beetle-fire-20100926.0,3315977.story>
- BOZEMAN DAILY CHRONICLE:
  - Dead trees equal big fires? New study says no.  
[http://www.bozemandailychronicle.com/news/article\\_b38df774-c92f-11df-9c19-001cc4c002e0.html?mode=print](http://www.bozemandailychronicle.com/news/article_b38df774-c92f-11df-9c19-001cc4c002e0.html?mode=print)
- OREGON PUBLIC BROADCASTING
  - Doug Nadvornick, Scientists discount tie between beetles, huge wildfires  
<http://news.opb.org/article/13457-scientists-discount-tie-between-beetles-huge-wildfires/>
- NASA
  - Jennifer Schoemaker, NASA satellites reveal surprising connections between beetle attacks, wildfire <http://www.nasa.gov/topics/earth/features/beetles-fire.html>

**Westerling et al. (2011, PNAS)**

- NBC News.com. Yellowstone set for more fires as Earth warms, study finds.
  - <http://www.nbcnews.com/id/43885020/#.VDf14ecnE7g>
- DISCOVERY NEWS:
  - <http://news.discovery.com/earth/climate-change-yellowstone-fires.html>
- NATURE NEWS: Sid Perkins, Climate change ignites wildfire fears for Yellowstone.
  - <http://www.nature.com/news/2011/110725/full/news.2011.440.html>
- USA Today: Article: [Scientists warn that fires could consume Yellowstone forests](#)
  - *\*Also printed in many other newspapers.*
- MSNBC: Article: [Yellowstone set for more fires as Earth warms, study finds](#)
  - *\*Also appeared in [Our Amazing Planet](#) and [Live Science](#)*
- LA TIMES
  - Greenspace blog: [More big Yellowstone fires predicted with climate change](#)
- SAN FRANCISCO CHRONICLE:
  - Blog: [Yellowstone will change dramatically under Climate 2.0](#)
- ASSOCIATED PRESS:
  - Article: Study: Yellowstone fires will be worse by 2050
  - *\*Also appeared in many other papers.*
- UNITED PRESS INTERNATIONAL:
  - Article: [Climate change may drive Yellowstone fires](#)
- SCIENCE DAILY:
  - Article: [Climate Change to Increase Yellowstone Wildfires Dramatically](#)

**Qiu and Turner (2013, PNAS)**

- SCIENCE DAILY:
  - Article: Mapping the benefits of our ecosystems.  
<http://www.sciencedaily.com/releases/2013/07/130701163753.htm>

**Harvey et al. (2014, PNAS)**

- USA TODAY:

- Doyle Rice, Study: Bark beetles not a wildfire bugaboo.  
<http://www.usatoday.com/story/weather/2014/10/01/bark-beetles-western-wildfires/16544099/>
- SCIENCE:
  - Cally Carswell, Don't blame the beetles.  
<http://www.sciencemag.org/content/346/6206/154.summary>

**Blank et al. (2014, PLoS ONE)**

- SCIENCE DAILY:
  - Article: Balancing birds and biofuels: grasslands support more species than cornfields.  
<http://www.sciencedaily.com/releases/2014/10/141009154122.htm>
- WISCONSIN PUBLIC RADIO (10 October 2014)

**Harvey et al. (2016, Global Ecology and Biogeography)**

- UW-MADISON NEWS (picked up by many news outlets)
  - Kelly Tyrrell: Drought alters recovery of Rocky Mountain forests after fire.  
<http://news.wisc.edu/drought-alters-recovery-of-rocky-mountain-forests-after-fire/>

**Qiu and Turner (2016, Biological Invasions)**

- UW-MADISON NEWS:
  - Chris Barncard, Voracious Asian jumping worms strip forest floor and flood soil with nutrients. <http://news.wisc.edu/voracious-asian-jumping-worms-strip-forest-floor-and-flood-soil-with-nutrients/>
- WASHINGTON POST:
  - Ben Guarino, Invasive 'Jersey wriggler' jumping worms devouring forest floors, 9 Sept 2016 <https://www.washingtonpost.com/news/morning-mix/wp/2016/09/09/invasive-jersey-wiggler-jumping-worms-devouring-forest-floors/>
- WISCONSIN PUBLIC RADIO:
  - Interviewed by Brady Carlson, aired during All Things Considered on 12 September 2016 <http://www.wpr.org/listen/991501>
- ISTHMUS (weekly newspaper in Madison, WI):
  - Denise Thornton, Doug Hansmann, Worming their way into Wisconsin, 6 October 2016 <http://isthmus.com/news/news/invasive-jumping-worms-could-damage-habitat/>
- SCIENCE NEWS for STUDENTS:
  - Sharon Oosthoek, Earthworms: Can these gardeners' friends actually become foes? 7 October 2016 <https://www.sciencenewsforstudents.org/article/earthworms-can-these-gardeners-friends-actually-become-foes>

**Johnstone et al. (2016, Frontiers in Ecology and the Environment)**

- UW-MADISON NEWS (picked up by other outlets)
  - Kelly Tyrrell, Thrive or fail: Examining forest resilience in the face of fires.  
<http://news.wisc.edu/thrive-or-fail-examining-forest-resilience-in-the-face-of-fires/>

**Rose et al. (2016, Ecological Applications)**

- UW-MADISON NEWS
  - Jenny Seifert, Study shows many lakes getting murkier, but gives hope for improvement.  
<http://news.wisc.edu/study-shows-many-lakes-getting-murkier-but-gives-hope-for-improvement/>
- WXPB, a Wisconsin Public Radio Station

- Ken Krall, Lake study finds runoff, more rain affects water clarity  
<http://wxpr.org/post/lake-study-finds-runoff-more-rain-affects-clarity>

**Seidl et al. (2016, PNAS)**

- UW-MADISON NEWS
  - Kelly Tyrrell, Variable tree growth after fire protects forests from future bark beetle outbreaks. <http://news.wisc.edu/variable-tree-growth-after-fire-protects-forests-from-future-bark-beetle-outbreaks/>

**Ziter and Turner (2018, Ecological Applications)**

- UW-MADISON NEWS
  - Adam Hinterthuer, Green spaces in cities help control floods, store carbon  
<https://news.wisc.edu/green-spaces-in-cities-help-control-floods-store-carbon/>
- New York Times (March 6, 2018)
  - Kendra Pierre-Louis, A secret superpower, right in your backyard  
<https://www.nytimes.com/2018/03/06/climate/yard-garden-global-warming.html>

**Hansen and Turner (2019, Ecological Monographs)**

- UW-MADISON NEWS
  - Kelly Tyrrell, With fire, warming and drought, Yellowstone forests could be grassland by mid-century <https://news.wisc.edu/with-fire-warming-and-drought-yellowstone-forests-could-be-grassland-by-mid-century/>
- Bozeman Daily Chronicle (January 22, 2019)
  - Michael Wright, Study: Yellowstone's forests could be grasslands by mid-century  
[https://www.bozemandailychronicle.com/news/yellowstone\\_national\\_park/study-yellowstone-s-forests-could-become-grasslands-by-mid-century/article\\_501326d6-190d-5300-96be-84e82ab63bf4.html](https://www.bozemandailychronicle.com/news/yellowstone_national_park/study-yellowstone-s-forests-could-become-grasslands-by-mid-century/article_501326d6-190d-5300-96be-84e82ab63bf4.html)

**Turner et al. (2019, PNAS)**

- UW-MADISON NEWS
  - Kelly Tyrrell, Resilience of Yellowstone's forest tested by unprecedented fire.  
<https://news.wisc.edu/resilience-of-yellowstones-forests-tested-by-unprecedented-fire/>
- Bozeman Daily Chronicle (May 22, 2019)
  - Michael Wright, Study: Short-interval fire hampers Yellowstone forest recovery.  
[https://www.bozemandailychronicle.com/news/yellowstone\\_national\\_park/study-short-interval-fire-hampers-yellowstone-forest-recovery/article\\_81f44cc6-1372-551d-854f-793d33ba27e3.html](https://www.bozemandailychronicle.com/news/yellowstone_national_park/study-short-interval-fire-hampers-yellowstone-forest-recovery/article_81f44cc6-1372-551d-854f-793d33ba27e3.html)