

William H. Schlesinger President Emeritus Cary Institute of Ecosystem Studies, Millbrook, NY

Research and Teaching Interests in Ecosystem Analysis, Global Change, and Biogeochemical Cycling

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Homepages:

http://www.caryinstitute.org/science-program/our-scientists/dr-william-h-schlesinger

https://nicholas.duke.edu/people/faculty/schlesinger

http://en.wikipedia.org/wiki/William_H._Schlesinger

Education:

2014-

A.B. Dartmouth College, Hanover, NH, 1972 (cum laude)

Ph.D. Cornell University, Ithaca, NY, 1976

Employment History:

1976-1980	Assistant Professor of Biology, University of California, Santa Barbara
1980-2001	Department of Botany/Biology, Duke University Assistant Professor (1980-1983), Associate Professor (1983-1988), Professor (1988-1994), and James B. Duke Professor (1994-2001)
1998	Visiting Professor of Biogeochemistry, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA; fall semester
2001-2007	Dean and James B. Duke Professor of Biogeochemistry, Nicholas School of the Environment and Earth Sciences, Duke University
2007-	James B. Duke Professor Emeritus, Duke University
2007-2014	President, Cary Institute of Ecosystem Studies, Millbrook, NY
2008-2014	Visiting Fellow, School of Forestry & Environmental Studies, Yale University

President Emeritus, Cary Institute of Ecosystem Studies, Millbrook, NY

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Hono	rs:	
1971	Milton Sims Kı	ramer Award, Dartmouth College
1972	Willard W. Egg	gleston Memorial Botany Prize, Dartmouth College
1995	American Acad	lemy of Arts & Sciences, Elected Fellow
1999	Aldo Leopold I	Leadership Program, Fellow
2003	National Acade	emy of Sciences, Elected Member
2006	American Geop	physical Union, Elected Fellow
2006	Soil Science Sc	ociety of America, Elected Fellow
2008	Intergovernmental Panel on Climate Change (IPCC) — Certificate of Recognition for participation in the Not Peace Prize, 2007	
2009	2009 American Association for the Advancement of Science, Elected Fellow	
2010	2010 Renewable Natural Resources Foundation, Sustained Achievement Award	
2012	2012 Einstein Professorship, Chinese Academy of Sciences, Xiamen Institute for the Urban Environment	
2012	2 Ecological Society of America, Elected Fellow	
2014	Text and Academic Authors Association (TAA), Textbook Excellence Award, for Schlesinger and Bernhardt (2013), <i>Biogeochemistry</i> , Elsevier Academic Publishers	
2014	Natural Resource Ecology Laboratory, Colorado State University, Distinguished Ecosystem Scientist Award	
2014	International Ecology Institute Prize in terrestrial ecology	
2014	Legislative Resolution 4493, New York State Senate, honoring Dr. William H. Schlesinger on the occasion of his retirement as President of the Cary Institute	
Profe	ssional Activi In Governmen	
	Executive Br	iefing
	1993	Before Vice President Al Gore, on the activities of the Environmental Task Force (ETF) pane on land cover and productivity. September 15, 1993, The White House, Washington, DC
	2009	Briefing for Former Vice President Al Gare "Carbon Sequestration" January 12, 2009, New

1993	Before Vice President Al Gore, on the activities of the Environmental Task Force (ETF) panel on land cover and productivity. September 15, 1993, The White House, Washington, DC
2009	Briefing for Former Vice President Al Gore, "Carbon Sequestration," January 12, 2009, New York, NY
2009	Briefing for U.S. Secretary for Agriculture, Thomas Vilsack, "Nitrogen and Climate Change," March 23, 2009, Washington, DC
2010	Briefing for President's Council of Advisors on Science and Technology (PCAST), <i>The Science of Carbon Offsets</i> . August 19, 2010, Washington, DC

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	Science of Carbon Offsets. August 19, 2010, Washington, DC
ongressional	Testimony
1970	Hearings for the Environmental Quality Education Act of 1970 (HR 14753) before the U.S. House of Representatives, Select Subcommittee on Education
1989	Hearings for the California Desert Protection Act (HR 780) before the U.S. House of Representatives, Subcommittee on National Parks and Public Lands
1991	Hearings for the California Desert Protection Act (HR 2929) before the U.S. House of Representatives, General Oversight Committee for Interior and Insular Affairs
1992	Hearings on global climate change and the biosphere, before the U.S. Senate, Subcommittee on Science, Technology, and Space (Guest of Senator Al Gore)

Professional Activities:

In Government (cont.):

Congressional Testimony

1997	Hearings on the EPA's proposed revisions to the Clean Air Act, before the U.S. House of
	Representatives, Committee on Government Reform and Oversight, Subcommittee on
	Economic Growth, Natural Resources and Regulatory Affairs

Hearings on The Future of Fossil Fuels: Geological and Terrestrial Sequestration of Carbon Dioxide, before the U.S. House of Representatives, Subcommittee on Energy and Mineral Resources

Judicial Briefing

Schlesinger, W.H. et al. 2009. Motion to file brief *Amici Curiae* in support of petitioners before the U.S. Supreme Court on Mountain-top removal/valley-fill mining practices in the Appalachian region.

Local and Regional Government Briefings

1997	Before the Riverside County (CA) Board of Supervisors on the impact of the proposed Eagle Mountain Landfill on Joshua Tree National Park
2004	Before the Environmental Review Commission of the General Assembly of North Carolina in hearings on greenhouse gas emissions and global climate change
2005	Before the North Carolina Senate Committee on Agriculture, Environment and Natural Resources on issues of global climate change
2006	Before the Legislative Commission on Global Climate Change, North Carolina General Assembly
2006	Before the North Carolina Utilities Commission, on the proposed Cliffside power plant

Service to Government Agencies

- 1986-1989 National Science Foundation, Ecosystem Studies Program, Panel member
- 1988-1989 National Research Council, Space Science Board, Committee on Earth Science
- 1990-1993 National Research Council, Committee on Global Change, Working Group on Terrestrial Ecosystems in Global Change
- 1991-1994 National Research Council, U.S. National Committee for SCOPE (Scientific Committee on Problems of the Environment)
- 1993-1996 North Atlantic Treaty Organization (NATO), Science Committee, Special Panel on Global Environmental Change
- 1994-1999 Universities Space Research Association (USRA), Earth Science Council
- 1997-1999 National Research Council, Climate Research Committee
- 1999-2000 Intergovernmental Panel on Climate Change (IPCC), Special Report on Land-Use, Land Use Change, and Forestry. (Lead Author), Chapter 3, "Implications of Different Definitions and Generic Issues"
- 1999 U.S. Department of Defense, Select Panel on the Environmental Effects of RF (Radiofrequency) Chaff.

Professional Activities (cont.):

In Government (cont.):

	1999	City of Durham	(NC), Greenhouse Gas Emissions Reduction Task Force
	1999-2000	White House Bl	ue Ribbon Panel for the National Climate Assessment
	1999-2002	National Research	ch Council, Committee on Global Change Research
	2002-2004	National Researc Strategic Plan	ch Council, Committee to Review the U.S. Climate Change Science Program
	2005-2007	National Research Systems Analysis	ch Council, U.S. National Committee for the International Institute for Applied is (IIASA)
2007-2010 U.S. Climate Change Science Program, Carbon Cycle Scientific Steering Group		ange Science Program, Carbon Cycle Scientific Steering Group	
2008-2010 National Research Council, Committee on Climate, Energy, and National Secur		ch Council, Committee on Climate, Energy, and National Security	
	2012-2018	Environmental F	Protection Agency, Science Advisory Board (SAB)
	2012-2015	U.S. Department (BERAC)	t of Energy, Biological, and Environmental Response Advisory Committee
	2014-2015	National Research	ch Council, Committee on Development of a Strategic Vision for Antarctic
	2012-	Environmental F	Protection Agency (EPA). Science Advisory Board (SAB)
In Scientific Organizations:			
<u>Co</u>	ommittees an	d Elected Offices	:
	A		A 1
	American F	2012-2015	e Advancement of Science (AAAS) Section of Geology and Geography (Chair)
	American (Geophysical Unio	n
	7 Innerreum C	2003-2004	Ad hoc Committee for the AGU Statement on Climate Change
		2006-2008	Union Budget Committee
		2008-2010	Union Audit and Legal Affairs Committee (Chair)
		2008-2010	President, Biogeosciences Section
	Ecological	Society of Ameri	Ca
	Leological	1988-1997	Publications Committee
		1991-1992	Chairman, Publications Committee
		1996-2002	Vice President for Finance
		2003-2004	President
	Geological	Society of Ameri	ca
	Geological	1971-1972	Committee on Environment and Public Policy
	National A	cademy of Scienc	es
	manonai A	2013-2016	Chair, Section 63, Environmental Sciences and Ecology
	Sigma Xi		
	2.5 711	2006-2007	Committee on Publications

Committee on Publications

2006-2007

Professional Activities (cont.):

In Scientific Organizations (cont.):

Editorial Service:

Wiley-Blackwell Scientific Publishers

1994-2001; 2014-2017 Board of Editors, Global Change Biology

Ecological Society of America

1982-1985 Board of Editors, *Ecology* 1987-1988 Managing Editor, *Ecology*

1989-1995 Board of Editors, Ecological Applications

Oxford University Press

Board of Editors, The Encyclopedia of Global Change

Springer-Verlag Publishers

1993-1998 Board of Editors, Ecological Studies Series

1983-2000; 2015- Board of Editors, *Biogeochemistry* 2016- Board of Editors, *Ecological Processes*

Annual Reviews Incorporated

2000-2002 Board of Editors, Annual Review of Ecology and Systematics

In Non-government/Not-for-Profit Organizations:

National Geographic Society

2000-2003 Committee on Research and Exploration

Environmental Defense, North Carolina

2004-2007 Board of Trustees

North Carolina State Museum of Natural Sciences

2004-2008 Advisory Commission

Southern Environmental Law Center

2006- Board of Trustees

Doris Duke Charitable Foundation

2007-2016 Board of Trustees

Natural Resources Defense Council (NRDC)

2009- Board of Trustees

Duke University, Center for Environmental Implications of NanoTechnology (CEINT)

2010-2015 External Advisory Board

Yale University

2011-2012 University Council Committee on Forestry and Environmental

Studies

Leonardo DiCaprio Foundation

2013- Advisory Committee

Duke University, Medical School, Environmental Scholars Program

2014- Advisory Committee

Downeast Coastal Conservancy

2015- Board of Directors

Professional Activities (cont.):

In Corporations:

North Carolina Green Power

2004-2007 Board of Directors

TerraPass Inc.

2005-2011 Technical Advisory Board

(Recent) Professional Meetings and Workshops:

2012	Gordon Conference, Aquatic & Environmental Sciences, Holderness, NH
2013	American Chemical Society, New Orleans, LA (invited paper)
2013	Ecological Society of America, Minneapolis, MN (contributed paper)
2013	American Geophysical Union, San Francisco, CA (invited paper)
2015	Ecological Society of America
2017	Soil Science Society of America (invited paper; 2017 Clark Lecture)

Significant Media Coverage of Research and Professional Activities:

Radio: BBC (January 1994; Leading Edge, January 15, 2004; Science in Action, February 20, 2004)

National Public Radio (Morning Edition, May 1995; All Things Considered, August 9, 2001,

September 13, 2006; Living on Earth, July 9, 2010)

WUNC (The State of Things, December 22, 2004) <u>John Bradshaw Layfield Show</u> (February 10, 2007)

WAMC (Albany, NY, with Alan Chartock, May 4, 2010; weekday broadcasts of Earth Wise program,

beginning January 2, 2012 to July 2014)

Television: CNN, August 1994, October 6, 1997, August 6, 1999

PBS/NOVA, April 18, 2000

WUNC-TV North Carolina People with Bill Friday, January 3, 2003

CSPAN, July 2, 2003

The Weather Channel, Forecast Earth with Heidi Cullen, October 8, 2006

FOX News, Hannity and Colmes Show, October 4, 2007

Book: Highlighted in Al Gore's 2009 book, pp. 204; 216, Our Choice, Rodale Publishers, Inc.

Magazines: Discover, April 1994, February 1995, May 2010

National Geographic, May 1995, February 2004

Scientific American, February 1998, September 23, 2009, June 21, 2010

U.S. News and World Report, February 10, 2003

Time, September 23, 2009 (Online)

Newspapers: Boston Globe (June 26, 2001)

Chronicle of Higher Education (September 20, 2002, August 15, 2008, September 21, 2010)

The Financial Times (May 4, 2014)

New York Times (March 13, 1990 (Science Watch); August 15, 1995, December 10 1996, May 24,

2001, February 26, 2003, January 11, 2005 (Science Times); June 4, 2006 (Week in Review);

March 31, 2013 (Sunday Review); April 22, 2018 (NY Times Magazine)

Raleigh News and Observer ("Tar Heel of the Week," October 27, 1996)

Washington Post (June 19, 1997, January 15, 2004, July 15, 2006, February 8, 2008, June 2, 2015,

April 4, 2017)

Media Coverage of Research and Professional Activities (cont.):

Web: World Wrestling Entertainment

http://www.wwe.com/inside/news/archive/jblglobalwarm

National Climate Conference, Ecology of a Hot Planet, January 27, 2010

www.bard.edu/CEP

Natural Resources Defense Council, OnEarth, August 3, 2011; September 6, 2011, February 1, 2012.

More than Scientists Project. Podcast

http://morethanscientists.org/scientist/william-schlesinger/

Millenium Alliance for Humanity and the Biosphere. Blog post, 23 October 2014

http://mahb.stanford.edu/post-author/william-h-schlesinger/

Citizen Scientist. Blog

http://blogs.nicholas.duke.edu/citizenscientist/

http://blog.nature.org/science/profiles/william-h-schlesinger/

Press Briefing: Briefing on the impacts of mountain-top removal mining at the National Press Club, Washington, DC,

January 2010

(Major) Research Support:

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1977-1979	Soil Nutrient Turnover in a Chaparral Ecosystem, \$72,300 from the National Science Foundation (Grant DEB-77-14415)
1979-1983	Soil Nutrient Turnover in a Chaparral Ecosystem, \$157,100 from the National Science Foundation (Grant DEB-79-11753). \$102,000 transferred to Duke University as Grant DEB-80-40484
1982-1983	Arid Zone Soil Carbonates in the Global Carbon Cycle, \$67,000 from the U.S. Department of Energy via subcontract from Oak Ridge National Laboratory
1983-1986	Processes of Soil Carbonate Deposition in Arid Ecosystems, \$450,000 from the National Science Foundation (Grant BSR-82-12466)
1985-1988	The Effects of Geologic Substratum on Origin and Maintenance of Disjunct Forest Ecosystems in a Desert Climate, \$170,883 from the National Science Foundation (Grant BSR-85-04859). (Coinvestigator with W.D. Billings)
1986-1987	Isotopic Composition of Sulfur in Surficial Gypsum Deposits in Deserts of the Southwestern United States, \$40,000 from Public Service Company of New Mexico
1988-1991	Desertification: Responses of Arid Landscapes and Ecosystems to Resource Redistribution. Coinvestigator in cooperative research as part of the Desert Long-term Ecological Research (LTER) Program at New Mexico State University, \$328,600 subcontract to Duke University from National Science Foundation Grants (BSR-86-12106 & 88-11160) to NMSU
1989-1992	Controls on Ecosystem-Level Functions in a Lichen-Oak Woodland, \$68,228 from the National Science Foundation (Grant BSR 89-07689)
1991-1992	Workshop for the Development of a Soil Warming Experiment, \$38,730 from the National Science Foundation (Grant BSR-91-01031)
1991-1994	Response of Western Montane Forest Ecosystems to Global Climate Change, \$381,000 from the U.S. Department of Agriculture (Grant 91-37101-6724)
1991-1994	Desertification: Responses of Arid Landscapes and Ecosystems to Resource Redistribution (Jornada LTER), \$1,199,947 from The National Science Foundation (Grant DEB-92-40261)
1993-1998	Soil Carbon Accumulation under CO ₂ Enrichment (FACE), \$500,000 from the National Science

	Foundation (Grant DEB 93-06295)
1994-1997	Impact of Climate on Plant-Soil Interactions and Carbon Budgets of Ponderosa Pine, \$98,136 from the U.S. Department of Agriculture (Grant 94-37101-0601)
1994-2000	Long-Term Ecological Studies in the Chihuahuan Desert (Jornada LTER), \$3,998,977 from the National Science Foundation (Grant DEB 94-11971). (Co-Principal Investigator with J.F. Reynolds, Botany)
1995-2000	Upgrading of Operations of the National Phytotron, \$1,373,612 from the National Science Foundation. (Grant DEB 94-15541) (Co-investigator with J.F. Reynolds, D.T. Patterson, J.N. Siedow and B.R. Strain)
1995-1998	Forest-Atmospheric Carbon Transfer and Storage (FACTS-I). \$2,455,000 from the U.S. Department of Energy (Grant DE-FG05-95ER62083)
1996-1999	Forest-Atmosphere Carbon Transfer and Storage (FACTS-1), \$422,318 from Brookhaven National Laboratory (Contract 725053)
1996-1998	The effects of global climate change on carbon transport to groundwater under forest vegetation in the Free-Air CO_2 - Enrichment (FACE) experiment in the Duke Forest, \$223,540 from the Electric Power Research Institute (EPRI) (Contract W08020-15)
1997-2000	Forest Succession in a $\rm CO_2$ -Enriched Environment: Growth Responses of Individuals, Species and Communities in the Forest-Atmosphere Carbon Transfer and Storage-1 (FACTS-1) Forest, \$297,971 from the U.S. Department of Energy (DE-FG02-97ER62463), (Co-Principal Investigator with J.S. Clark, Botany)
1998-2001	Forest-Atmosphere Carbon Transfer and Storage (FACTS-1), \$3,073,063 from U.S. Department of Energy. (Renewal of Grant DE-FG05–95ER62083), (Co Principal Investigator with R. Oren)
1999-2002	Nutrient cycling in response to forest growth at elevated CO ₂ (FACE). \$368,401 from The National Science Foundation (DEB-98-15350)
2000-2006	Jornada Basin Long-Term Ecological Research (LTER IV), \$328,760 subcontract from NSF Grant to New Mexico State University
2001-2004	Forest-Atmosphere Carbon Transfer and Storage (FACTS), \$ 3,211,960 from the U.S. Department of Energy (Renewal of Grant DE-FG02-95ER62083), (Co-Principal Investigator with R. Oren)
2001-2004	Assessing Ecological Models of Varying Complexity for Predicting Carbon Sequestration in Managed Pine Plantations, \$142,834 from NIGEC-Southeast, (Co-Principal Investigator with G. Katul and R. Oren)

Workshop on Landscapes, Genomics and Transgenic Conifer Forests, \$25,000 from the National

Energy (Renewal of Grant DE-FG02-95ER62083), (Co-Principal Investigator with R. Oren)

Forest-Atmosphere Carbon Transfer and Storage (FACTS), \$3,518,338 from the U.S. Department of

Frontiers in Sustainability Science: Biofuels as a Critical Test (Workshop), \$49,990 from the National Science Foundation (DEB-0733232), (Co-Principal Investigator with C. Canham, P. Groffman, and

Science Foundation (Co-Principal Investigator with Claire Williams)

2004-2005

2004-2007

2007-2008

2010-2012

M. Pace)

Publications:

Books:

As author or coauthor:

- Waring, R.H. and W.H. Schlesinger. 1985. Forest Ecosystems: Concepts and Management. Academic Press, San Diego, 338pp.
- Schlesinger, W.H. 1991. *Biogeochemistry: An Analysis of Global Change*. Academic Press, San Diego. 443 p. (Fifth printing, 1995)
- Schlesinger, W.H. 1997. *Biogeochemistry: An Analysis of Global Change*. 2nd edition. Academic Press, San Diego. 558 p. (Eighth printing, 2005; Spanish edition, 2000)
- Schlesinger, W.H. and E.S. Bernhardt. 2013. *Biogeochemistry: An Analysis of Global Change*. 3rd edition. Academic Press/Elsevier, New York. 664pp. (Chinese edition, 2016)
- Schlesinger, W.H. 2017. Translational Ecology. International Ecology Institute. Oldendorf/Luhe, Germany

As editor:

- Schlesinger, W.H., ed. 2003. *Biogeochemistry*. Volume 8 of the *Treatise of Geochemistry*. (H.D. Holland and K.K..Turekian, executive eds.). Elsevier Science Ltd., Amsterdam. (Second edition 2014)
- Havstad, K.M., L.F. Huenneke, and W.H. Schlesinger, eds. 2006. Structure and Function of a Chihuahuan Desert Ecosystem: The Jornada Basin Long-Term Ecological Research Site. Oxford University Press.
- Aneja, V.P., W.H. Schlesinger, R. Knighton, G. Jennings, D. Niyogi, W. Gilliam, and C. Duke, eds. 2006. *Proceedings of the Workshop on Agricultural Air Quality: State of the Science*. North Carolina State University, Raleigh.
- Ostfeld, R.S. and W.H. Schlesinger (eds.). 2008 2013. *The Year in Ecology and Conservation Biology*, 2008—2013. Annals of the New York Academy of Sciences, Volumes 1134, 1162, 1195, 1223, 1249, and 1286. Wiley-Blackwell, New York.

Scientific Articles and Book Chapters:

- Schlesinger, W.H. 1971. The vegetative composition of a beech-maple climax forest in the glaciated plateau of northeastern Ohio. Ohio Journal of Science 71: 174-180.
- Dethier, D.P. and W.H. Schlesinger. 1973. The copper, lead, and zinc content of metamorphic rocks on Mt. Moosilauke, New Hampshire. Ohio Journal of Science 73: 58-61.
- Schlesinger, W.H., W.A. Reiners, and D.S. Knopman. 1974. Heavy metal concentrations and deposition in bulk precipitation in montane ecosystems of New Hampshire, U.S.A. Environmental Pollution 6: 39-47.
- Schlesinger, W.H. and W.A. Reiners. 1974. Deposition of water and cations on artificial foliar collectors in fir krummholz of New England mountains. Ecology 55: 378-386.
- Schlesinger, W.H. and G.L. Potter. 1974. Lead, copper, and cadmium concentrations in small mammals in the Hubbard Brook Experimental Forest. Oikos 25: 148-152.
- Schlesinger, W.H. 1976. Toxic foods and vole cycles: additional data. American Naturalist 110: 315-317.
- Reiners, W.A., W.H. Schlesinger, and R.H. Marks. 1977. Horizontal interception in high-elevation ecosystems of New England. pp. 571-589. In: R.G. Semonin and R.W. Beadle (eds.). *Precipitation Scavenging 1974*. ERDA CONF-741003. National Technical Information Service, Springfield, Virginia.
- Schlesinger, W.H. 1977. Carbon balance in terrestrial detritus. Annual Review of Ecology and Systematics 8: 51-81.

- Schlesinger, W.H. and P.L. Marks. 1977. Mineral cycling and the niche of Spanish Moss, *Tillandsia usneoides* L. American Journal of Botany 64: 1254-1262.
- Schlesinger, W.H. and B.F. Chabot. 1977. The use of water and minerals by evergreen and deciduous shrubs in Okefenokee Swamp. Botanical Gazette 138: 490-497.
- Schlesinger, W.H. 1978. Community structure, dynamics and nutrient cycling in the Okefenokee cypress swamp-forest. Ecological Monographs 48: 43-65.
- Schlesinger, W.H. 1978. On the relative dominance of shrubs in Okefenokee Swamp. American Naturalist 112: 949-954.
- Schlesinger, W.H. and D.S. Gill. 1978. Demographic studies of the chaparral shrub, *Ceanothus megacarpus*, in the Santa Ynez Mountains, California. Ecology 59: 1256-1263.
- Schlesinger, W.H. and M.M. Hasey. 1980. The nutrient content of precipitation, dry fallout, and intercepted aerosols in the chaparral of southern California. American Midland Naturalist 103: 114-122.
- Jones, C.S. and W.H. Schlesinger. 1980. *Emmenanthe penduliflora* (Hydrophyllaceae): Further consideration of germination response. Madrono 27: 122-125.
- Schlesinger, W.H. and D.S. Gill. 1980. Biomass, production, and changes in the availability of light, water, and nutrients during the development of pure stands of the chaparral shrub, *Ceanothus megacarpus* after fire. Ecology 61: 781-789.
- St. Omer, L. and W.H. Schlesinger. 1980. Field and greenhouse investigations of the effect of increasing salt stress on the anatomy of *Jaumea carnosa* (Asteraceae), a salt marsh species. American Journal of Botany 67: 1455-1465.
- St. Omer, L. and W.H. Schlesinger. 1980. Regulation of NaCl in *Jaumea carnosa* (Asteraceae), a salt marsh species, and its effect on leaf succulence. American Journal of Botany 67: 1448-1454.
- Gray, J.T. and W.H. Schlesinger. 1981. Biomass, production, and litterfall in the coastal sage scrub of southern California. American Journal of Botany 68: 24-33.
- Schlesinger, W.H. and J.M. Melack. 1981. Transport of organic carbon in the world's rivers. Tellus 33: 172-187, 415.
- Schlesinger, W.H. and M.M. Hasey. 1981. Decomposition of chaparral shrub foliage: Losses of organic and inorganic constituents from deciduous and evergreen leaves. Ecology 62: 762-774.
- Nilsen, E.T. and W.H. Schlesinger. 1981. Phenology, productivity, and nutrient accumulation in the post-fire chaparral shrub, *Lotus scoparius*. Oecologia 50: 217-224.
- Gray, J.T. and W.H. Schlesinger. 1981. Nutrient cycling in Mediterranean type ecosystems. pp. 259-285. In: P.C. Miller (ed.). *Resource Use by Chaparral and Matorral*. Springer-Verlag, New York.
- Schlesinger, W.H., J.T. Gray, D.S. Gill, and B.E. Mahall. 1982. *Ceanothus megacarpus* chaparral: A synthesis of ecosystem processes during development and annual growth. Botanical Review 48: 71-117.
- Schlesinger, W.H., J.T. Gray, and F.S. Gilliam. 1982. Atmospheric deposition processes and their importance as sources of nutrients in a chaparral ecosystem of southern California. Water Resources Research 18: 623-629.
- Schlesinger, W.H. 1982. Carbon storage in the caliche of arid soils: A case study from Arizona. Soil Science 133: 247-255.
- Mahall, B.E. and W.H. Schlesinger. 1982. Effects of irradiance on growth, photosynthesis, and water use efficiency of seedlings of the chaparral shrub, *Ceanothus megacarpus*. Oecologia 54: 291-299.
- Gray, J.T. and W.H. Schlesinger. 1983. Nutrient use by evergreen and deciduous shrubs in southern California. II. Experimental investigations of the relationship between growth, nitrogen uptake, and nitrogen availability. Journal of Ecology 71: 43-56.

- Schlesinger, W.H. 1984. Soil organic matter: A source of atmospheric CO₂. pp. 111-127. In: G.M. Woodwell (ed.). *The Role of Terrestrial Vegetation in the Global Carbon Cycle: Measurement by Remote Sensing*. John Wiley and Sons, New York.
- Schlesinger, W.H. and C.S. Jones. 1984. The comparative importance of overland runoff and mean annual rainfall to shrub communities of the Mojave Desert. Botanical Gazette 145: 116-124.
- Schlesinger, W.H. 1985. The formation of caliche in soils of the Mojave Desert, California. Geochimica et Cosmochimica Acta 49: 57-66.
- Schlesinger, W.H. 1985. Decomposition of chaparral shrub foliage. Ecology 66: 1353-1359.
- Marion, G.M., W.H. Schlesinger, and P.J. Fonteyn. 1985. CALDEP: A regional model for soil CaCO₃ (caliche) deposition in southwestern deserts. Soil Science 139: 468-481.
- Houghton, R.A., W.H. Schlesinger, S. Brown, and J.F. Richards. 1985. Carbon dioxide exchange between the atmosphere and terrestrial ecosystems. pp. 113-140. In: J.R. Trabalka (ed.). *Atmospheric Carbon Dioxide and the Global Carbon Cycle*. U.S. Department of Energy, DOE, ER-0239, National Technical Information Service, Springfield, VA.
- Lajtha, K. and W.H. Schlesinger. 1986. Plant response to variations in nitrogen availability in a desert shrubland community. Biogeochemistry 2: 29-37.
- Schlesinger, W.H. 1986. Changes in soil carbon storage and associated properties with disturbance and recovery. pp. 194-220. In: J.R. Trabalka and D.E. Reichle (eds.). *The Changing Carbon Cycle: A Global Analysis*. Springer-Verlag, New York.
- Schlesinger, W.H., P.J. Fonteyn, and G.M. Marion. 1987. Soil moisture content and plant transpiration in the Chihuahuan Desert of New Mexico. Journal of Arid Environments 12: 119-126.
- Lajtha, K., J. Weishampel, and W.H. Schlesinger. 1987. Phosphorus and pH tolerances in the germination of the desert shrub *Larrea tridentata* (Zygophyllaceae). Madrono 34: 63-68.
- Fonteyn, P.J., W.H. Schlesinger, and G.M. Marion. 1987. Accuracy of soil thermocouple hygrometer measurements in desert ecosystems. Ecology 68: 1121-1124.
- Lajtha, K. and W.H. Schlesinger. 1988. The biogeochemistry of phosphorus cycling and phosphorus availability along a desert soil chronosequence. Ecology 69: 24-39.
- DeLucia, E.H., W.H. Schlesinger, and W.D. Billings. 1988. Water relations and the maintenance of Sierran conifers on hydrothermally altered rock. Ecology 69: 303-311.
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- Brown, J.H. 1995. Macroecology. University of Chicago Press. In: Quarterly Review of Biology 71: 145, 1996
- Walker, B.H. and W. Steffen (eds.). 1996. Global Change and Terrestrial Ecosystems. Cambridge University Press, Cambridge. In: *American Scientist* 86: 87, 1998
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- Kingsland, S.E. 2005. The Evolution of American Ecology, 1890-2000. Johns Hopkins University Press, Baltimore, MD. In: *Bioscience* 56: 269-270, 2006
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- Nelson, M. 2018. Pushing Our Limits insights from Biosphere 2. University of Arizona Press. In BioScience, 2018

Public Lectures and Seminars Presented:

Alberta:

University of Calgary, Biology, 1992

Arizona:

Arizona State University, Biology, 2000, 2005 University of Arizona, 1993

California:

California Institute of Technology, Geological and Planetary Sciences, 1998, 2010

Electric Power Research Institute (EPRI)

Occidental College, 2002

San Diego State University, Biology

Stanford University, Geology and Environmental Science, 1998, 2002, 2004

UC, Berkeley, (Hans Jenny Memorial Lecture), 1998

UC, Davis, Botany, 1978; Land, Air and Soil Resources, 2001

UC, Irvine, Biology, 1978; Earth System Science, 1998

UC, Riverside, Plant Biology, 1979, 2009

UC, Santa Barbara, Ecology Evolution and Marine Biology, 1998

Bren School of Environment, 2001

University of Southern California, 2014

Chile:

Pontificia Universidad Catolica de Chile, Santiago, Chile, 2013

China:

China Agricultural University, Beijing, 2011 Xiamen Institute for the Urban Environment, 2012

Colorado:

Colorado State University, (Eminent Ecologist Series), 1995 University of Colorado, 2006

Connecticut:

Hotchkiss School, Salisbury Forum, 2008

University of Connecticut, Ecology and Evolutionary Biology, 2007

Yale University, Biology, 1992; Geology and Geophysics, 2001; Institute for Biospheric Studies, 2008 The 1982 Club, Hartford, 2013

Delaware:

University of Delaware, 2009

District of Columbia:

Environmental Protection Agency/Department of Defense, 2009 National Geographic Society, 2000 Smithsonian Institution, 1998

France:

Agro-Paris Tech, Paris, France, GAIE Symposium, 2009

Florida:

Northwest Florida State University, 2012

University of Florida, School of Forest Resources and Conservation, (The 10th John Gray Lecture), 2005

Georgia:

Emory University School of Law, 2008 Georgia Tech, Earth Sciences, 1982, 2001, 2014 University of Georgia, Institute of Ecology, 1991; Odum Lecture, 2010 Valdosta State College, Biology, 1975

Illinois:

Northwestern University, Geology, 1998

University of Illinois, Chicago, Biology, 1997, 2002; Lussenhop Memorial Lecture, 2010

University of Illinois, Urbana, Plant Science, 1997

Idaho:

Inland Northwest Research Alliance, 2006

India:

Indian Institute of Technology (ITT), Kanpur, 2010

Indiana:

Notre Dame, Biology 2005

Purdue University, Agronomy, 2006

Kansas:

The Land Institute, 2005 University of Kansas, 2004

Louisiana:

Louisiana State University, (The 4th Annual Patrick Lecture), 2002

Maine:

Bowdoin College, 2001 Colby College, Geology, 2016 University of Maine, Orono, 2006 University of Maine, Machias, 2017 Schoodic Institute, 2016

Maryland:

Frostburg State University, Appalachian Environmental Laboratory, 1996 Johns Hopkins University, 2015 Smithsonian Environmental Research Center, 2009 University of Maryland, Baltimore County, 2004

Massachusetts:

Harvard University, School of Public Health, 2004, 2005, 2006 Marine Biological Laboratory, The Ecosystems Center, 2001 University of Massachusetts, Amherst, Biology, 2000

Michigan:

Michigan State University, W. K. Kellogg Biological Lab, Visiting Eminent Ecologist, 1992. 2004 University of Michigan, School of Natural Resources, 2012 Grand Valley State University, Annis Water Resources Institute, 2013

Minnesota:

University of Minnesota, Ecology and Evolutionary Biology (The Lindeman Lecture), 1998

Montana

University of Montana, Ecology, 2016 Montana State University, Institute of Ecosystems, 2016

Nevada:

University of Nevada, Las Vegas, Biology (The Juanita Greer White Distinguished Lecture), 2005 University of Nevada, Reno, Biology, 1986

New Jersey:

Princeton University, Ecology and Evolutionary Biology, 1995, 2010

New Hampshire:

New Mexico:

New Mexico State University, Biology, 1996 University of New Mexico, Biology, 1996

New York:

American Museum of Natural History, 2000

Bard College, 2009, 2012, 2014

Brookhaven National Laboratory, 1996

City University of New York (CUNY), Queens College Earth and Environmental Sciences, 2007

City University of New York (CUNY), The Graduate Center, 2007

City University of New York (CUNY), Science Center, 2016

Columbia University, Lamont Earth Observatory, 1999, 2007

Cornell University, Ecology and Systematics, 1985, 2001, 2007, 2010, 2014

Dutchess Community College, 2008

Fordham University, 2009

Garden Club of America, 2012

Marist College, 2010

New York Academy of Sciences, 2008

NYSERDA Conference, Environmental Monitoring, Albany, 2013

Pace University, 2009, 2010

Rockefeller University, 2008

Secret Science Club (The), Brooklyn, 2008

Skidmore College, 2009

State University of New York (SUNY), Syracuse, College of Environmental Science & Forestry, 2008

State University of New York (SUNY), Stony Brook, 2011

Union College, 2012

North Carolina:

Appalachian State University, Biology, 1998

Brevard College, 2007

Catawba College, 2004

Daniel Stowe Botanical Garden, 2000

Davidson College, 2002

Duke University, 2008 (H.J. Oosting Memorial Lecture); Integrated Toxicology Program, 2012

East Carolina, 2007

Elon University, 2009

Kenan Institute, 2016

Lenoir-Rhyne College, 2009

North Carolina A& T University, 2007

North Carolina State University, Botany 2002 (B.W. Wells Memorial Lecture); Agronomy, 2004, 2007 (Willie Woltz Lecture)

University of North Carolina, Chapel Hill; Botany, 1979; Geology, 1998; Marine Science, 2004;

Geography, 2007

Wake Forest University, Biology, 2000

Warren Wilson College, 2009

Western Carolina University, Biology, 1997, 2005

North Dakota:

University of North Dakota, 2002

Ohio:

Case Western Reserve University, Biology, 1976, 2005

Cleveland Museum of Natural History, 2005

Ohio State University, Botany, 1976

University of Toledo, 2005

University School, 2006

Ontario:

University of Toronto, 2007

Pennsylvania:

Lehigh University, Earth and Environmental Sciences, 2000 Pennsylvania State University, Biology, 1976; Earth System Science, 1998

Quebec:

McGill University, Biology, 1976

Rhode Island:

University of Rhode Island, Graduate School of Oceanography, 2009

South Carolina:

Furman College, Earth and Environmental Sciences, 2009 Savannah River Ecology Laboratory, 1982

Switzerland:

ETH-Zurich, Latsis Symposium, 2007

Tennessee:

Oak Ridge National Laboratory, Environmental Sciences Division

Texas:

Rice University, Ecology and Evolutionary Biology

Southwest Texas State University, Biology, 1985

Southwest University (The 16th Annual Brown Symposium), 1994

Texas A & M University, Oceanography, 1999; Range Science, (The Dyksterhuis Lecture) 2001; Bush School of Government and Public Service, 2001; Atmospheric Sciences, 2010

Texas Tech University, Lubbock, 2009

University of Texas, Austin, Geology, 1997; (Edwin Allday Lectureship) 2013

University of Texas, San Antonio, Biology, 1998

United Kingdom:

British Soil Science Society, London, 2002

University of Sheffield, Geography, (The Hart Lecture), 2008

Utah:

Brigham Young University, 2013

University of Utah, Biology, 1994

Utah State University, Institute of Ecology, 1992

Vermont:

Bennington College, (The Woodworth Lecture), 2008

Green Mountain College, 2013

Virginia:

George Mason University, Biology

Old Dominion University, Chemistry, 2018

Sweetbriar College, Lynchburg, (The Waxman Lecture), 2008

University of Virginia. Earth and Environmental Sciences, 2000, 2011 (Envirodays)

Virginia Tech University, Biology, 1984, 2004

Washington:

Environmental Protection Agency, Washington, DC, 2009

University of Washington, Quaternary Sciences 1981; Forestry, 1991

Washington State University, Botany, 1997; Biology, 2005

West Virginia:

West Virginia University, Biology, 1996

Wyoming:
University of Wyoming, Botany, 1986, 1991, 2007 (Campus Lecture)

Graduate Students of William H. Schlesinger

(With thesis/dissertation titles)

University of California, Santa Barbara, 1976-1980

Simms, Ellen L., M.A. 1977. (Degree fulfilled by course work)

Now Employed: Professor, University of California, Berkeley

Ball, J.T., M.A. 1977.

"Effects of fire on soil mineral nutrients in a southern California soft chaparral community."

Now Employed: Biological Sciences Center, Desert Research Institute, Reno

Wood, Janet Heyl (now, Janet Vail), M.A. 1980.

"Effects of thalli reticulations on water relations of Ramalina menziesii Tayl. along an altitudinal gradient."

Now Employed: Associate Research Scientist, Grand Valley State University, Michigan

St. Omer, Lucy, Ph.D. 1980.

"Field and greenhouse investigations of the effects of increasing salt stress on the anatomy and physiology of *Jaumea carnosa* (Asteraceae), a salt marsh species." (Joint Advisor with M.F. Moseley).

Now Employed: Professor, San Jose State University

Gray, John T., Ph.D. 1981.

"Production, nutrient cycling, and nutrient resource-use in Ceanothus chaparral and coastal sage scrub of southern California."

Now Employed: Deceased

Previous Positions: Dames and Moore Inc., Woodward and Clyde Environmental Consultants, and the URS

Corporation, Santa Barbara, CA

Duke University, 1980- present

Lajtha, Kathryn, Ph.D. 1986. Botany

"The biogeochemistry of phosphorus cycling and phosphorus availability in a desert ecosystem."

Now Employed: Professor (tenured), Crop and Soil Sciences, Oregon State University

Previous Positions: Postdoctoral (Ohio State); faculty (Boston University)

Peterjohn, William T., Ph.D. 1990. Botany

"Nitrogen loss from desert ecosystems in the southwestern United States."

Now Employed: Professor (tenured), Department of Biology, West Virginia University

Previous Positions: Postdoctoral (Marine Biological Laboratory, Woods Hole)

Cross, Anne F.S., Ph.D. 1994. Botany

"Biogeochemistry at the grassland-shrubland boundary: A case study of desertification in the northern Chihuahuan desert of New Mexico."

Now Employed: Tulsa (OK) Community College

Previous Positions: Teacher (NC School of Science and Math), Assistant Professor (Oklahoma State University),

The Nature Conservancy, Oklahoma

Megonigal, J. Patrick, Ph.D. 1996. Botany

"Methane production and oxidation in a future climate."

Now Employed: Research Biogeochemist, Smithsonian Institution, Environmental Laboratory, Edgewater,

Maryland

Previous Positions: Assistant Professor (George Mason University)

Hartley, Anne E., Ph.D. 1997. Botany

"Environmental controls on nitrogen cycling in northern Chihuahuan desert soils."

Now Employed: Associate Professor, Environmental Studies, Florida Gulf Coast University

Previous Positions: Postdoctorals (Marine Biological Laboratory, Ohio State University and Indiana

University); Assistant Professor (Florida International University, Florida Gulf Coast University)

Lawrence, Deborah, Ph.D. 1998. Botany

"Landscape structure, soil fertility, and tree diversity during 200 years of shifting cultivation in West Kalimantan,

Indonesia."

Now Employed: Professor, Department of Environmental Sciences University of Virginia Previous Position: Postdoctoral (Harvard Forest); Associate Professor, University of Virginia

Tice, Michael M., M.S. 1999. Geology

"The Precambrian Oxygen Cycle"

Now Employed: Associate Professor, Texas A&M University Previous Position: Doctoral Student, Stanford University

Allen, Andrew S., Ph.D. 1999. Botany

"Effects of elevated atmospheric CO₂ on soil nitrogen availability"

Now Employed: Montecito Public Library, Santa Barbara

Previous Positions: Postdoctoral (University of California, Santa Barbara)

Andrews, Jeffrey A., Ph.D. 1999. Botany

"Changes to belowground carbon dioxide dynamics under experimental CO₂ enrichment of a forest ecosystem"

Now Employed: Sutton McAughan Deaver PLLC

Previous Positions: Postdoctoral (Rice University); Technical Staff (Enron Corp); Law Student (U. Houston);

Locke, Liddell & Sapp, LLP (Houston)

Powers, Jennifer S., Ph.D. 2001. Biology

"Geographic variation in soil organic carbon dynamics following land-use change in Costa Rica"

Now Employed: Associate Professor, University of Minnesota

Previous Positions: Postdoctorals (The State University of New York, Stony Brook, and University of

Minnesota)

Wallenstein, Matthew D., Ph.D. 2004, Ecology

"Effects of increased nitrogen deposition on forest soil nitrogen cycling and microbial community structure"

Now Employed: Research Scientist, Colorado State University

Previous Positions: Postdoctoral Associate (University of California, Santa Barbara).

Hofmockel, Kirsten, Ph.D. 2005, Ecology

"Effects of elevated atmospheric carbon dioxide on soil nitrogen cycling" (Joint Advisor with R.B. Jackson)

Now Employed: Lead Scientist, Environmental Molecular Sciences Laboratory (EMSL) at the Pacific Northwest

National Laboratory

Previous Positions: Faculty, Iowa State University; Postdoctoral Associate, University of Michigan

Postdoctoral Associates of William H. Schlesinger

Evan H. DeLucia 1985-1986

Now Employed: Professor (tenured) and Department Chair (Plant Biology), University of Illinois

Antonio Gallardo 1989, 1991-1993

Now Employed: Professor (tenured) and Department Chair (Biology), Universidad de Pablo de

Olavide, Seville, Spain

Kevin Harrison 1995-1997

Now Employed: Assistant Professor (untenured) McDaniel College, Westminster, MD

Adrien Finzi 1996-1999

Now Employed: Professor (tenured), Boston University

Roser Matamala 1997-2000

Now Employed: Research Scientist, Argonne National Laboratory, Argonne, IL

John Lichter 1998-2000

Now Employed: Professor (tenured), Bowdoin College, Brunswick, ME

Emily Bernhardt 2001-2002

Now Employed: Professor of Biology (tenured), Duke University