

## SPENCER R. PHILLIPS, PH.D.

### *CURRICULUM VITA*

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#### EDUCATION

Ph.D., Agricultural and Applied Economics, Virginia Tech, 2004. Thesis: *Windfalls for wilderness: land protection and land value in the Green Mountains.*

M.S., Agricultural and Applied Economics, Virginia Tech, 1991. Thesis: *Evaluating agricultural pesticide use and risk for the Chesapeake Bay.*

B.A., Economics, University of Virginia, 1985.

#### PROFESSIONAL EXPERIENCE

##### **Key-Log Economics, LLC**

Dec 2006 - Present

Founder of employee-owned consultancy devoted to helping NGO and other clients seeking, as Aldo Leopold wrote, to move the “key-log...to release the evolutionary process for [a land] ethic” by bringing economic information to bear on land use, ecosystem management and community development decisions.

##### *Principal*

- Supply ecological-economic research, expert testimony, and related analytical services
- Develop strategy, projects, and programs to help clients reach diverse stakeholders with solid information about the economic features of the natural landscape
- Lead and manage organizational development functions, including strategic and business planning, recruiting, and contracting.

##### **The Wilderness Society**

Dec 1992 – Dec 2005, & Jan 2007 – Sep 2013

Washington, DC-based NGO focused on science-based advocacy for the protection of America’s wild lands with a \$25mm budget, 150 employees, and 400,000 members and supporters

##### *Economist and Senior Director, Economics Research*

Dec 1992 – Dec 2005, & Jan 2007 – Sep 2013

- Led staff and contract economists in delivering research in natural resource economics that has helped conserve hundreds of thousands of wilderness acres throughout the United States and improve public land stewardship on millions more
- Improved understanding of the economies of rural communities in relation to the health of surrounding ecosystems among local, state, and national political leaders, businesses, land managers and the conservation community
- Developed and implemented innovative projects to foster sustainable forest-based enterprises in rural communities

##### *Vice President, Ecology & Economics Research*

Jul 2008 – Feb 2013

- Led and aligned efforts of as many as 22 staff scientists to define, guide, and support conservation objectives
- Integrated planning, budgeting, and fundraising for research efforts with those of policy, communications and general operations
- With president and other senior staff, managed organizational change for effectiveness and sustainability

##### *Senior Director for Organizational Development (Acting)*

Oct 2011 – Dec 2012

- Led strategic improvements in human resources, information technology and other operations
- Designed and implemented solutions to operational challenges that lowered costs and improved service

##### **University of Virginia**

Jan 2013 – Present

Charlottesville, Virginia

*Lecturer, Frank Batten School of Leadership and Public Policy, and Department of Economics (College of Arts and Sciences)*

- Design new courses in natural resource policy, ecological economics, and spatial analysis for policy, and teach and manage these course for graduate and undergraduate students from multiple disciplines
- Teach intermediate microeconomics, a core course for the economics major

**Goucher College**

Aug 2013 – Present

Baltimore, Maryland

*Lecturer, Master of Arts in Environmental Studies Program*

- Design, teach and administer a new on-line course in Environment, Development and Economics using the trans-disciplinary approach of ecological economics

**NorthWoods Stewardship Center**

Jan 2006 – Jan 2007

Regional (northeastern U.S.) environmental education, conservation service, scientific research and recreation organization with a budget of \$2mm employing nine full-time and 50-plus seasonal staff.

*Executive Director*

- Established and implemented a comprehensive strategic plan that continues to guide the organization today
- Built an integrated development system focused on annual giving and expanded major donor and foundation support
- Improved staff cohesion, community support, and board, donor and volunteer engagement
- Creatively solved problems to address multiple challenges facing a small organization with 1,500 acres to care for, tremendous passion, and very little money

**Executive Office of the President, Council on Environmental Quality**

May - Dec 1992

White House agency charged with advising the president on environmental policy, reporting on the state of the environment, and administering the National Environmental Policy Act

*Economist*

- Analyzed and developed recommendations in multiple policy areas, including the relationships between environmental protection and trade, agricultural, and energy policy, the use of economic instruments for environmental protection, and strategies for managing environmental risk and addressing global atmospheric change.
- Coordinated policy analyses with scientific, legal and other professionals from a range of government and non-government organizations

**Department of Agricultural & Applied Economics**

Aug 1988 - May 1992

**Virginia Polytechnic Institute & State University**

Blacksburg, Virginia

*Graduate Research Assistant*

- Designed, conducted and published research in natural resource and environmental economics, including a comprehensive evaluation of water quality risk associated with agricultural chemical use in the Chesapeake Bay region of Virginia. Later doctoral research established the positive relationship between public land protection and private land values, and explored solutions capable of tapping that relationship to provide economic incentives for further land conservation.
- Supported the New Environmentalism Roundtable in its effort to introduce economic policy tools to the Commonwealth of Virginia's environmental protection efforts.

**Virginia Department of Air Pollution Control**

Aug - Oct 1991

Richmond, Virginia

*Policy Analyst*

- Assisted DAPC staff in evaluating energy conservation and load management programs of state-regulated public utilities and by drafting the commissioner's testimony on these programs

**Resources for the Future**

Aug - Oct 1989

Washington, DC

*Consultant*

- Short-term contract to collect and compile information on pesticide application on Virginia cropland as part of an effort to estimate nationwide agricultural pesticide use.

**Pracon Incorporated / Center for Economic Studies in Medicine**

Jul 1986 - Jul 1988

Reston, Virginia

*Project Analyst*

- Designed and conducted research in health care economics, and on federal and state health policy

**Federal Trade Commission, Bureau of Economics**

Jul 1985 - Jun 1986

Washington, DC

Research Analyst

- Assisted staff economists in collecting, analyzing and presenting information pertaining to antitrust investigations.

HONORS, BOARDS AND PROFESSIONAL AFFILIATIONS

Edward A. Ames Award for Scholarship and Conservation Advocacy (2006)

Phi Kappa Phi, Academic Honor Society (Virginia Tech)

Gamma Sigma Delta, Agricultural Honor Society (Virginia Tech)

Northeast Wilderness Trust, Board Member (2007-2016)

Forest Stewardship Council-U.S., Board Member and Chair (1997-2000)

Global Forest Policy Project, Board Member (2002-2005)

Model Forest Policy Program, Advisor (2002-2005)

National Community Forestry Center, Northern Forest Region, Technical Advisor (2002-2005)

International Society for Ecological Economics

Association for Environmental and Resource Economics

COMMUNITY SERVICE

Blue Ridge Mountain Rescue Group, Charlottesville, Virginia (2013-present)

Firefighter, Manheim, Pennsylvania, and Charleston &amp; Craftsbury, Vermont (1999-2012)

Moderator, Town of Charleston, Vermont (2004-2009)

Captain, Northeast Kingdom Mountain Rescue (2006-2008)

Planning Commissioner, Town of Charleston, Vermont (2002-2005)

PUBLICATIONS

Phillips, S., and E. McGee. (2016). Ecosystem service benefits of a cleaner Chesapeake Bay. *Coastal Management*. 44(3): 241-58.

Holmes, T., M. Bowker, J. Englin, E., Hjerpe, J. Loomis, S. Phillips, and R. Richardson. (2016). A synthesis of the economic values of wilderness. *Journal of Forestry* 114(3): 320-328.

Phillips, S. (2015). The humbling power of wilderness. In G. Wuerthner, E. Crist, & T. Butler (Eds.), *Protecting the wild*. Washington D.C.: Island Press.

Hjerpe, E., A. Hussain, S. Phillips. (2015). Valuing the type and scope of ecosystem conservation: a meta-analysis. *Journal of Forest Economics* 21(1):32-50.

Esposito, V., S. Phillips, R. Boumans, A. Moulart, and J. Boggs. (2011). Climate change and ecosystem services: the contribution of and impacts on federal public lands in the United States. In Watson, Alan; Murrieta-Saldivar, Joaquin; McBride, Brooke, comps. Science and stewardship to protect and sustain wilderness values: Ninth World Wilderness Congress Symposium; November 6-13, 2009; Meridá, Yucatán, Mexico. Proceedings RMRS-P-64. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. pp. 155-164.

Phillips, S. (2000). Windfalls for wilderness: land protection and land value in the Green Mountains. In McCool, Stephen F.; Cole, David N.; Borrie, William T.; O'Loughlin, Jennifer, comps. *Wilderness science in a time of change conference—Volume 2: Wilderness within the context of larger systems; 1999 May 23–27; Missoula, MT*. Proceedings RMRS-P-15-VOL-2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Shabman, L., and S. Phillips. (1992). Making markets work for electric energy conservation. *Virginia Coal and Energy Journal*, Number 4:53-65.

Phillips, S., and L. Shabman. (1991). *Agricultural pesticide use and risk in Virginia's Chesapeake Bay region*. Virginia Cooperative Extension Publication 448-203. Blacksburg, VA: Virginia Polytechnic Institute and State University.

Phillips, S., N. Fox, J. Jacobs, and W.E. Wright. (1988). The direct medical costs of osteoporosis for American women aged 45 and older, 1986. *Bone* 9:271-279.

TECHNICAL PAPERS & TESTIMONY

- Phillips, S., S. Davis, and G. Grigsby-Rocca. (forthcoming). *Ecosystem services and the future of wetland forests in the U.S. South*. Report prepared for the Dogwood Alliance.
- Phillips, S., and S.Z. Wang. (2016). *Economic costs of unconventional natural gas drilling and transmission in Maryland: concepts, preliminary estimates, and policy implications*. Working Paper prepared for the Maryland Environmental Health Network. 46 pp.
- Phillips, S., S.Z. Wang, and C. Bottorff. (2016). *Economic costs of the Mountain Valley Pipeline: effects on property value, ecosystem services, and economic development in Virginia and West Virginia*. Report prepared for the POWHR Coalition. 58 pp.
- Phillips, S., C. Bottorff, and S.Z. Wang. (2016). *Economic costs of the Atlantic Coast Pipeline in central and western Virginia*. Report prepared for Virginia Organizing. 62 pp.
- Phillips, S. (2015). *Wood pellet manufacturing: risks for the economy of the U.S. South*. Report prepared for the Dogwood Alliance. Asheville, North Carolina. 11 pp.
- Phillips, S. (2015). *Ecosystem services in the Pisgah-Nantahala National Forest Region: Concepts, Estimation, and Application to National Forest Planning*. Report prepared for The Wilderness Society. Charlottesville, Virginia: Key-Log Economics LLC. 28 pp.
- Phillips, S., and E. McGee. (2014). *The Economic Benefits of Cleaning up the Chesapeake: A Valuation of the Natural Benefits Gained by Implementing the Chesapeake Clean Water Blueprint*. Annapolis, Maryland: Chesapeake Bay Foundation. October. 56 pp.
- Long, D., P. Coppolillo, and S. Phillips. (2014). *Regional research for North America to inform the High Level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020*. Wildlife Conservation Society: Bozeman, MT. March 4. 60 pp.
- Phillips, S. (2013). *User's Guide to ecosystem services, and Ecosystem services checklist (assessment tool)*. Charlottesville, Virginia: Key-Log Economics and Model Forest Policy Program. 15 pp.
- Phillips, S. (2011). Statement to U.S. House Subcommittee on National Parks, Forests, and Public Lands regarding economic benefits of wilderness. Washington, DC. October 25. 14 pp.
- Phillips, S., R. Silverman, and A. Gore. (2008). *Greater than zero: toward the total economic value of Alaska's national forest wildlands*. Washington, DC: The Wilderness Society. 46 pp.
- Morton, P., S. Phillips, and A. Gore, A. (2007). *Déjà vu on the Tongass: how overestimating timber demand prevents responsible stewardship*. Washington, DC: The Wilderness Society. 50 pp.
- Phillips, S. (2007). Pre-filed and rebuttal testimony in the matter of Zoning Petition, ZP 707: Plum Creek Maine Timberlands, L.L.C. and Plum Creek Land Company, before State of Maine Land Use Regulation Commission, on behalf of the Natural Resources Council of Maine and Maine Audubon. August and September.
- Ingerson, A., and S. Phillips. (2004). *Understanding and communicating forest-community interactions: a systems model for northern Maine*. Washington, DC: The Wilderness Society, January. 53 pp.
- Phillips, S., and A. Ingerson. (2002). *Community economic assessment workbook*. Washington, DC: The Wilderness Society. 91 pp.
- Ault, K., G. Cox, G. Kissinger, M. Lorenzo, S. Phillips, and M. Polak. (2002). *Shaping the Northern Forest economy: strategies for a sustainable future*. Montpelier, VT: Northern Forest Alliance, February. 32 pp.
- Pierce, A., and S. Phillips. (1999). *FSC-Certified: a new standard for environmentally responsible paper*. Washington, DC: The Wilderness Society, May.
- Phillips, S. (1994). *Toward a sustaining forest: development opportunities for the Maine woods*. Washington, DC: The Wilderness Society. 34 pp.
- Phillips, S. (1993). *Forest products manufacturing: factors and trends affecting the working forest*. Washington, DC: The Wilderness Society. 34 pp.

Shabman, L., and S. Phillips. (1991). *New environmentalism and electric energy resource planning*. Department of Agricultural Economics Paper SP-91-32, Virginia Polytechnic Institute and State University, October.

Phillips, S., and L. Shabman. (1991). *Agricultural pesticide application use and risk in Virginia's Chesapeake Bay Region*. Blacksburg, Virginia: Rural Economic Analysis Program, Virginia Cooperative Extension. 56 pp.

Jacobs, J., and S. Phillips. (1988). *The cost of late complications of diabetes to the Pennsylvania Medicaid program*. Report prepared for confidential client. Reston, Virginia: Center for Economic Studies in Medicine.

Phillips, S., J. Jacobs, and N. Fox. (1988). *Medicaid spending analysis: expected outlays for selected oncology products*. Report prepared for confidential client. Reston, Virginia: Center for Economic Studies in Medicine.

Fox, N., S. Phillips, and J. Jacobs. (1988). *Patient compliance with topical beta blockers*. Report prepared for confidential client. Reston, Virginia: Center for Economic Studies in Medicine.

#### WORKSHOPS & INVITED PRESENTATIONS

Prioritizing Bottomland Hardwood Forest Conservation. (up-coming). Presented at ACES and Ecosystem Markets 2016, Jacksonville, FL, USA, December 5-9.

National Forest Management and the Science and Practice of Ecosystem Services. (2012). Presented at ACES and Ecosystem Markets 2012, Ft. Lauderdale, FL, USA, December 10-14.

Wildland Conservation and Local Economies. (2012). Sigurd Olson Lecture Series. Various locations and audiences including University of Minnesota, Vermillion College and NGO groups throughout Minnesota.

Understanding Your Economy. (2000-2014). Economic module for Balancing Nature and Commerce in Communities that Neighbor Public Lands, an annual national workshop organized by the Conservation Fund and the US Fish and Wildlife Service. In the economics module, I provide an orientation to the economic relationships inherent in this balance, teach fundamental skills for understanding and interpreting economic trends information and coach teams through exercises that apply those skills to their individual communities.

Guest Lecturer in environmental/ecological economics and land conservation policy. Various dates. George Mason University, Green Mountain College, Georgetown University, Sterling College, University of Vermont, Macalester College.

Recreation and Ecosystem Health. (2010). Presented at National Science Forum for Forest Service Land Management Planning Rule, Washington, DC, March 29-30.

Climate Change and Ecosystem Services: Contribution of and Effect on the Public Lands. (2010). Presented at A Decade of Discovery: National Landscape Conservation System, Albuquerque, NM, May 24-28.

Climate change and ecosystem services: the contribution of wilderness and public lands in the United States. 2009. Presented at 9th World Wilderness Congress, Merida, Mexico, November 6 - 13.

Gateway Community Economics: It's Not Just for Tourism Anymore. (2009). Presented at Stimulating Economic Vitality and Resource Conservation in Gateway and Tribal Communities, Washington, DC, September 15, 2009.

Getting What You Value from Public Lands: How Over-valuing Timber and Under-valuing Ecosystem Services Limits Stewardship of Alaska's National Forests. (2009). Presented at US Society for Ecological Economics 2009 Conference: Science and Policy for a Sustainable Future, Washington, DC. June 1-4.

The Role of Protected Areas in Economic Development. (2007). Presented at Evolution of a Region, Changes & Opportunities for North Central Washington, Chelan, Washington, September 19.

Total Economic Value of Alaska Rainforest Wildlands. (2005). Presented at "Symposium on Science and Stewardship to Protect and Sustain Wilderness Values" at the 8th World Wilderness Congress, Anchorage, Alaska, September 30 – October 6.

Wilderness and Economic Development in the Eastern Forest of the United States. Presented at "Symposium on Science and Stewardship to Protect and Sustain Wilderness Values" at the 8th World Wilderness Congress, Anchorage Alaska, September 30 – October 6.

- Ecological Economics and Long-term Investments in Forest Management. (2004). Presented at "Moving Toward Sustainable Forestry: Lessons from Old Growth Forests," the 6<sup>th</sup> Eastern Old Growth Forest Conference, Moultonborough, New Hampshire, September 23-26.
- Getting Serious about Conservation. (2002). Presented at the "Wilderness Roundtable," the Centennial Conference of the Association for the Protection of the Adirondacks. October 18-20.
- The Value of Nothing: Economic Thoughts on Wilderness. 2000. Presented at "Something Wild, Something Managed: Wilderness in the Northeastern Landscape," the Bicentennial Conference on Environmental Studies, Middlebury College, October 5-6.
- Plain Members and Citizens: Wilderness, Forests, and the Land Community. (1999). Presented at the National Town Meeting for a Sustainable America, Detroit, Michigan, May.
- The Forest Stewardship Council System: Opportunities for Paper Manufacturing. (1999). Presented to the Annual Meeting of the American Pulpwood Association, Lake Buena Vista, Florida, April.
- Economic Trends in Downeast Maine: Opportunities for Sustainable Tourism. (1998). Presented at *Partnerships for Sustainable Tourism*, Bar Harbor, Maine, April.
- Forestry and Forest Products for a Sustainable Society. (1995). Keynote address to the National Particleboard Association, St. Petersburg Beach, Florida, April.
- Incentives for Conserving Biological Diversity on Private Lands. (1994). Presented at *Building Partnerships for Ecosystem Management on Forest and Range Lands in Mixed Ownership*, a workshop conducted by the Forest Policy Center of American Forests. Missoula, Montana, July.