

Charles B. Sims

Department of Applied Economics
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RESEARCH INTERESTS

General: Applied Microeconomic Theory

Focus: Management of renewable resources, coupled human and natural systems, risk and uncertainty, invasive species, native pests, public land management, optimal control theory, dynamic programming, real options, computable general equilibrium

PROFESSIONAL EXPERIENCE

Utah State University Department of Applied Economics *Logan, UT*
Assistant Professor *2009-Present*

University of Wyoming Department of Economics and Finance *Laramie, WY*
Graduate Teaching and Research Assistant *2006-2009*

University of Tennessee Department of Forestry, Wildlife & Fisheries *Knoxville, TN*
Research Associate *2004-2005*

University of Tennessee Department of Forestry, Wildlife & Fisheries *Knoxville, TN*
Graduate Teaching and Research Assistant *2002-2004*

EDUCATION

University of Wyoming **Laramie, WY**
PhD, Economics *August 2009*

University of Tennessee **Knoxville, TN**
M.S. Forestry, Environmental Policy minor *May 2004*

University of Tennessee **Knoxville, TN**
B.S. Forest Resource Management *May 2001*

RESEARCH

JOURNAL ARTICLES

Sims, C., D. Finnoff. 2011. The role of spatial scale in the timing of uncertain environmental policy. *Journal of Economic Dynamics and Control* doi: 10.1016/j.jedc.2011.09.001.

Sims, C. 2011. Optimal timing of salvage harvest in response to a stochastic infestation. *Natural Resource Modeling* 24(3): 383-408.

- Sims, C.**, D. Aadland, D. Finnoff. 2010. A Dynamic Bioeconomic Analysis of Mountain Pine Beetle Epidemics. *Journal of Economic Dynamics and Control* 34(12): 2407-2419.
- Finnoff, D., C. McIntosh, J. Shogren, **C. Sims**, T. Warziniack. 2010. Invasive Species and Endogenous Risk. *Annual Review of Resource Economics* 2: 77-100.
- Sims C. B.**, D. G. Hodges, J. M. Fly, B. Stephens. 2005. Modeling acceptance of a shuttle system in the Great Smoky Mountains National Park. *J Park Recreation Admin* 23:25–44.

ARTICLES IN SUBMISSION

- Sims, C. and D. Finnoff. When is a “go slow” approach to invasive species policy justified? Under review at *Resource and Energy Economics*
- Sims, C., D. Aadland, D. Finnoff, J. Powell. Mountain pine beetle outbreaks and shifting preferences for ecosystem services. Under review at *Land Economics*
- Aadland, D., C. Sims, D. Finnoff. Spatial dynamics of optimal management in a predator-prey system: An application to mountain pine beetle epidemics. Under review at the *American Journal of Agricultural Economics*
- Sims, C. The disconnect between hypothetical and observed values for green energy. Under review at *Society and Natural Resources*

WORKING PAPERS

- “The effect of group size and earned income in provision point public goods” Under preparation for the *Journal of Public Economics*
- “Does salvage harvesting lead to more dead trees?: The relationship between salvage harvesting and natural forest disturbance processes.” Under preparation for *Land Economics*
- “Optimal forest management in response to an endogenously determined forest disturbance regime” Under preparation for the *Journal of Environmental Economics and Management*
- “Modeling a Filterable Externality in Invasive Species Control Decisions” with David Finnoff. Under preparation for *Environmental and Resource Economics*
- “Prioritizing invasive species control based on expected bioeconomic rates of return” with David Finnoff. Under preparation for *The Proceedings of the National Academy of Sciences*
- “Environmental Policy with Multiple Sources of Uncertainty and Irreversibility: An application to habitat loss and species extinction” with David Finnoff. Under preparation for *Resource and Energy Economics*

REPORTS AND PROCEEDINGS

- Sims, C. 2011. Optimal Timing of Salvage Harvest in Response to Stochastic Infestation. In Proceedings, 86th Annual Conference of the Western Economics Association,

- San Diego, CA, June 29-July 3.
- Sims, C. and D. Finnoff. 2011. The Role of Spatial Scale in the Timing of Uncertain Environmental Policy. In Proceedings, Annual Allied Social Sciences Conference, Denver, CO, January 7-9.
- Sims, C. and D. Finnoff. 2010. The Role of Environmental and Economic Uncertainty in Invasive Species Control Decisions. In Proceedings, Fourth World Congress of Environmental and Resource Economists, Montreal, Canada, June 28-July 2.
- Finnoff, D. and C. Sims. 2010. Optimal Control of a Bounded Invasive Species Diffusion Process: An Application to the Emerald Ash Borer. In Proceedings, Fourth World Congress of Environmental and Resource Economists, Montreal, Canada, June 28-July 2.
- Sims, C. and D. Finnoff. 2009. Optimal Stochastic Environmental Policies: Implications for Invasive Species Management. In Proceedings, 52nd Annual Conference on Great Lakes Research, Toledo, OH, May 18-22.
- Hodges, Donald G., Charles B. Sims, and Aaron R. Wells. 2008. Incorporating non-timber objectives in forest management planning on private lands: A case study of the Cumberland Plateau, Tennessee, USA. In: Managerial Economics and Accounting in an Evolving Paradigm of Forest Management, Proceedings of International Symposium organized by IUFRO Group 4.05.00, S. Kant, W. Tzschukpe, J-L Peyron, and H. A. Jobstl, eds. Schriftenreihe der Hochschule für Forstwirtschaft Rottenburg, Band Nr. 22. Pp. 174-185.
- Sims, C., D. Hodges, M. Fly, B. Stephens. 2007. The Disconnect Between Hypothetical and Observed Values for green energy in Tennessee. In Proceedings, Int. Symposium on Society and Resource Management, Park City, UT. June 17-21.
- Sims, Charles B. and Donald G. Hodges. 2004. Use, Demographics, and Economic Impacts of Rock Climbing in the Obed Wild and Scenic River Area. Final Report submitted to National Park Service.
- Sims, Charles B., Donald G. Hodges, Burt English, J. Mark Fly, and Becky Stephens. 2004. Modeling the demand for and value of OHV recreation in Tennessee. In: Proceedings, 2003 Southern Forest Economics Workers Annual Meeting, S. O. Moffet, editor. Pp. 221-230.
- Sims, Charles B. and Donald G. Hodges. 2004. Assessing the Role of Outdoor Recreation in Rural Economic Development: A Case Study for the Obed Wild and Scenic River, TN. In Proceedings, Int. Symposium on Society and Resource Management, Keystone, CO. June 2-6.
- Sims, Charles B., Donald G. Hodges, and Del Scruggs. 2004. Linking outdoor recreation and economic development: A feasibility assessment of the Obed Wild and Scenic River, Tennessee. In Proceedings, Social Aspects and Recreation Research Symposium, San Francisco. Feb 4-6.
- Sims, Charles B. and Donald G. Hodges. 2004. Travel cost modeling of the demand for rock climbing: An application to the Obed Wild and Scenic River. In Proceedings, Annual Southern Forest Economics Workshop, St. Augustine. March 14-16.

Sims, Charles B., Donald G. Hodges, Burt English, J. Mark Fly, and Becky Stephens.
2003. Demand and value of off-highway vehicle recreation in Tennessee. In
Proceedings, Annual Southern Forest Economics Workshop, New Orleans March
17-18.

FUNDED RESEARCH

Title: The Role of Forest Management Objectives in Mountain Pine Beetle Outbreaks.

Funding Agency: Utah Agricultural Experiment Station

Award: \$14,000

Duration: 11/1/09-11/1/14

Title: Modeling the coupled nature of forest management and forest disturbance regimes
impacted by climate change

Funding Agency: Utah Agricultural Experiment Station

Award: \$19,040

Duration: 6/1/11-6/30/13

Title: Hydrologic and Ecological Impacts of Changes in Human Water Resource
Management in Response to Climate Change and Urbanization.

Funding Agency: NSF Water Sustainability and Climate Program

Award: \$149,943

Duration: 9/1/10 - 9/1/11

Title: Use, Demographics, and Economic Impacts of Rock Climbing in the Obed Wild
and Scenic River Area.

Funding Agency: National Park Service

Award: \$12,465

Duration: 9/01/02 – 8/31/04.

TEACHING

University of Tennessee

*FOR 314 Economics of Forest and Wildland Resources**

*FOR 420 Forest Resource Management**

**team taught with Donald Hodges*

University of Wyoming

ECON 440 Environmental Economics

Utah State University

APEC 6500 Natural Resource Economics

APEC 5560 Natural Resource and Environmental Economics

APEC 6510 Environmental Economics

SERVICE

SERVICE TO THE PROFESSION

Referee for the following journals:

Journal of Environmental Economics and Management, Ecological Economics, Resource and Energy Economics, Western Economics Forum, Environmental and Resource Economics, Natural Resource Modeling, Society and Natural Resources, European Journal of Operational Research

Invited Participant, 2011 Camp Resources XIX, Wilmington, NC

Discussant on the paper “Spatial Externalities and Vector-Borne Plant Diseases: Pierce’s Disease and the Blue-Green Sharpshooter in the Napa Valley” at the 2011 Annual Conference of the Western Economics Association, San Diego, CA

Discussant on the paper “Investigating the optimality of proactive management of an invasive forest pest” at the Fourth World Congress of Environmental and Resource Economists, Montreal, Canada

Conference participant reviewer for the Agricultural and Applied Economics Annual Meetings, Denver 2010

SERVICE TO THE DEPARTMENT AND UNIVERSITY

Graduate Students Supervised

Yanxu Liu (PhD Economics – Utah State University)	Advisor
Augustina Odame (PhD Economics – Utah State University)	Advisor
Hao Li (PhD Economics – Utah State University)	Committee Member
Lassina Coulibaly (PhD Economics – Utah State University)	Committee Member
Abhinav Pathak (MS Applied Economics – Utah State University)	Advisor
Benjamin Crabb (MS Applied Economics – Utah State University)	Advisor
Anvar Suyundikov (MS Applied Economics – Utah State University)	Committee Member
Jarod Dunn (MS Applied Economics – Utah State University)	Committee Member

Departmental Committees

Graduate admissions committee

ENR degree planning committee

Assistant professor in regional economics search committee

Assistant Professor Panelist, New Faculty Teaching Academy, Utah State University, August 2011

HONORS AND ACTIVITIES

Western Economics Association

Association of Environmental and Resource Economists

University of Wyoming Best Economics PhD Graduate Student Award (2009)

University of Wyoming William E. Morgan Graduate Award (2008)

School of Environment and Natural Resources Plummer Scholarship (2005-2008)

Awarded full research grants to The University of Tennessee (2001)

Arch E. McClanahan academic scholarship to The University of Tennessee (1998)

National Forestry Honor Society, Xi Sigma Pi, Alpha Kappa Chapter

National Honor Society of Agriculture, Gamma Sigma Delta

Society of American Foresters

International Association for Society and Natural Resources