

CURRICULUM VITAE

(updated: January 2009)

I. Personal Information

Name : Richard T. Woodward
Current Position: Associate Professor
Department of Agricultural Economics
Texas A&M University
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Date of Appointment: August 1, 1997

II. Education

Ph.D. University of Wisconsin, Madison, WI
Major: Agricultural and Applied Economics
Degree Date: May 1997
Thesis Title: "Sustainability, Efficiency and Economic Analysis: A Macroeconomic Framework with Microeconomic Implications"

M.A. University of Wisconsin, Madison, WI
Major: Agricultural Economics
Degree Date: May 1994

B.A. Middlebury College, Middlebury, VT
Major: Economics
Degree Date: April 1984
Thesis Title: "The Economics of Philanthropic Behavior"
Honors: Cum Laude and Highest Honors in Department of Economics.

III. Experience

8/2007- 6/2008 Fulbright Fellow, Latin American and Caribbean Environmental Economics Program, Tropical Agricultural Research and Higher Education Center, Turrialba, Costa Rica.

9/2003 - Present Associate Professor, Department of Agricultural Economics, Texas A&M University (appt: 50% teaching, 50% research)
Responsibilities include teaching and research in applied economics with emphasis in the area of natural resource and environmental economics.

8/1997 - 8/2003 Assistant Professor, Department of Agricultural Economics, Texas A&M University (appt: 50% teaching, 50% research)

- 9/1992 - 5/1997 Research Assistant to Drs. Richard C. Bishop and Jay Coggins, Department of Agricultural and Applied Economics, University of Wisconsin, Madison
Major projects included the analysis of the economics of sustainability for the U.S. Environmental Protection Agency and the sustainability of the Lake Superior fisheries for University of Wisconsin Sea Grant.
- 5/1994 - 8/1994 Consultant for the World Resources Institute
Reviewed natural resource and environmental accounting studies as part of an effort to develop indicators of sustainable development.
- 12/1989 - 7/1991 Research Associate for the World Resources Institute/Tropical Science Center, San José, Costa Rica
In-country representative of the World Resources Institute on a one-year natural resource accounting study valuing forestry, fishery, soils and mangroves. Also conducted research on the relationship between internal human migration and natural resource degradation.
- 9/1988 - 12/1989 World Resources Institute, Washington D.C.
Assisted in analysis of issues including forestry policy, ozone depletion and natural resource accounting.
- 1/1985 - 5/1987 Peace Corps volunteer, Costa Rica
Worked in the establishment and management of student cooperatives in rural high schools.

IV. Publications and Professional Output

A. Books

Penson, John B. Jr., Oral Capps, Jr., C. Parr Rosson III and Richard T. Woodward.
Introduction to Agricultural Economics, fourth edition. Upper Saddle River, New Jersey: Prentice Hall, 2006.

B. Refereed Journal Articles

Following the convention of Agricultural Economics, the seniority of authorship is indicated by the order of the names unless otherwise indicated.

(* *invited papers*)

*Woodward, Richard T. and Richard C Bishop. "Efficiency, Sustainability and Global Warming." *Ecological Economics* 14(August 1995):101-11.

- *Woodward, Richard T. and Richard C Bishop. "How to Decide When Experts Disagree: Uncertainty-Based Choice Rules in Environmental Policy." *Land Economics* 73(November 1997):492-507. Also presented at the annual meeting of the American Agricultural Economics Association, San Antonio, TX, July 28-31, 1996 with abstract published in the *American Journal of Agricultural Economics* 78(December 1996):1406.
- Woodward, Richard T. and Richard C. Bishop. "Optimal-Sustainable Management of Multi-Species Fisheries: Lessons from a Predator-Prey Model." *Natural Resource Modeling* 12(Fall 1999):355-377.
- Shively, Gerald, Richard Woodward and Denise Stanley. "Strategy and Etiquette for Graduate Students Entering the Academic Job Market." *Review of Agricultural Economics* 21(Fall 1999):513-26.
- Woodward, Richard T. "Sustainability as Intergenerational Fairness: Efficiency, Uncertainty and Numerical Methods." *American Journal of Agricultural Economics* 82(August 2000): 581-593.
- Woodward, Richard T., Wade Griffin, Dhazn Gillig and Teofilo Ozuna. "The Welfare Impacts of Unanticipated Trip Limitations in Travel Cost Models." *Land Economics* 77(August 2001): 327-338.
- Woodward, Richard T. and Yong-Suhk Wui. "The Economic Value of Wetland Services: a Meta-analysis." *Ecological Economics* 37(May 2001):257-270.
- Woodward, Richard T. and Ronald A. Kaiser. "Market Structures for U.S. Water Quality Trading." *Review of Agricultural Economics* 24(Fall/Winter 2002):366-383.
- Woodward, Richard T., Ronald A. Kaiser and Aaron-Marie Wicks. "The Structure and Practice of Water-Quality Trading Markets." *Journal of the American Water Resources Association* 38(August 2002):967-979.
- Woodward, Richard T. and Richard C. Bishop. "Sector-level Decisions in a Sustainability-constrained Economy." *Land Economics* 79(February 2003):1-14.
- Woodward, Richard T. "Lessons About Effluent Trading from a Single Trade." *Review of Agricultural Economics* 25(Spring/Summer 2003):235-245.
- Gillig, Dhazn, Richard T. Woodward Teofilo Ozuna, Jr. and Wade L. Griffin. "Joint Estimation of Revealed and Stated Preference Data: An Application to Recreational Red Snapper Valuation." *Agricultural and Resource Economics Review* 32(October 2003):209-221.
- Woodward, Richard T. and Wade L. Griffin. "A Theoretical and Empirical Analysis of Size and Bag Limits in Recreational Fisheries." *Marine Resource Economics* 18(2003):235-45.
- Wipon Aiew, Rodolfo M. Nayga, Jr. and Richard T. Woodward. "The Treatment of Income Variable in Willingness to Pay Studies." *Applied Economics Letters* 11(July 2004):581-585.

- Woodward, Richard T., Yong-Suhk Wui and Wade L. Griffin. "Living with the Curse of Dimensionality: Closed-Loop Optimization in Large-scale Fisheries Simulation Model." *American Journal of Agricultural Economics* 87(February 2005):48-60.
- Nayga, Jr., Rodolfo M., Richard Woodward and Wipon Aiew. "Experiments on the Divergence between Willingness to Pay and Willingness to Accept: The Issue Revisited," *Economics Bulletin* 17 (January. 2005):1-5.
- *Woodward, Richard T. "Overview: Markets for the Environment." *Choices* 20(First Quarter 2005):49-51.
- Woodward, Richard. "Do Americans Desire Homogeneity? Evidence from Names from 1900–2000." *Economics Bulletin* 4(August 31, 2005):1-6.
- Nayga, Rodolfo M., Jr., Richard T. Woodward and Wipon Aiew. "Willingness to Pay for Reduced Risk of Food-borne Illness: A Non-Hypothetical Artefactual Field Experiment." *Canadian Journal of Agricultural Economics* 54(December, 2006):461-476.
- Kim, Hwa Nyeon, Richard T. Woodward, W. Douglass Shaw and Wade L. Griffin "Distributional Consequences of Fees in a Discrete Choice Model of Recreation Demand with Incomplete Data: An Application to Mode-Specific Fishing," *Land Economics*, 83 (November 2007):561-574.
- Nguyen, To N., W. Douglass Shaw, Richard T. Woodward, Robert Paterson and Kevin Boyle. "An Empirical Study of Option Prices for Hunting Permits," *Ecological Economics*. 63(August 2007): 476 - 484
- Shaw, W. Douglass and Richard T. Woodward (senior authorship shared) "On why environmental and resource economists should care about non-expected utility models" *Resource and Energy Economics* 30(Jan. 2008): 66-89.
- Nguyen, To N. and Richard T. Woodward. "NutrientNet: An Internet-based Approach to Teaching Market-Based Policy for Environmental Management." *Journal of Economic Education* (Forthcoming, winter 2009)
- Woodward, Richard T. and W. Douglass Shaw. 2008. "Allocating Resources in an Uncertain World: Water Management and Endangered Species" *American Journal of Agricultural Economics* 90(3): 593-605.
- Moeltner, Klaus, and Richard T. Woodward. 2009. "Meta-Functional Benefit Transfer for Wetland Valuation: Making the Most of Small Samples," *Environmental and Resource Economics*. 42 (1): 89-109.
- Baker, Justin, W. Douglass Shaw, Mary Riddel and Richard Woodward. "Changes in Subjective Risks of Hurricanes as Time Passes: Analysis of a Sample of Katrina Evacuees." *Journal of Risk Research*. Forthcoming.
- Baker, Justin, W Douglass Shaw, David Bell, Samuel D Brody, William Neilson, Mary Riddel and Richard Woodward. "Explaining Subjective Risks of Hurricanes and the Role of Risks in Intended Moving and Location Choice Models" *Natural Hazards*. Forthcoming

C. Journal Articles (not refereed)

- Woodward, Richard T. "Market-Based Solutions to Environmental Problems: Discussion." *Journal of Agricultural and Applied Economics* 32(August 2000):259-266.
- Shaw, W. Douglass and Richard T. Woodward. "Three Ships that Pass in the Night: Risk, Ambiguity and the WTP/WTA Disparity" *Newsletter of the Association of Environmental Resource Economists*. (November 2007):.

D. Book Chapters

- Bishop, Richard C. and Richard T. Woodward. "Valuation of Environmental Amenities Under Certainty." *Handbook of Environmental Economics*, Daniel W. Bromley, ed. pp. 543-567. Oxford: Blackwell Publishers, 1995.
- Bishop, Richard C. and Woodward, Richard T. "Sustainability, Economy and Environment." *Environmental Economics: Theory, Application, and Policy*. Chapman, D., pp. 373-394. Reading Mass.: Addison Wesley, 1999. (*one of four invited guest chapters in a twenty-chapter text book*)
- Woodward, R.T., Griffin, W.L. and Wui, Y.-S. *DPSIM Modelling: Dynamic Optimization in Large Scale Simulation Models*. Chapter 14 pages 275-294, in Scarpa R. and Alberini, A. (eds.). *Applications of simulation methods in environmental and resource economics*. Springer Publisher, Dordrecht, The Netherlands, 2005.
- Riechers, Robin, Wade Griffin, and Richard Woodward. "The Texas Inshore Bay and Bait License Buyback Program." *Fisheries Buybacks*. Rita Curtis and Dale Squires (Editors). Blackwell Publishing, 2121 State, Ames, Iowa 50014 USA. 2006.
- Kim, Hwa Nyeon, Richard T. Woodward and Wade L. Griffin. 2009. "Can Transferable Rights Work in Recreational Fisheries" in D.R. Leal and V. Majaraj (eds.) *Evolving approaches to managing marine recreational fisheries*. Lexington Books: Lanham, MD.

E. World Resources Institute Reports

- Hammond, Allen L. Albert Adrianse, Eric Rodenburg, Dirk Bryant and Richard Woodward. "Environmental Indicators: A Systematic Approach to Measuring and Reporting on Environmental Policy Performance in Context of Sustainable Development." 1995. World Resources Institute, Washington, DC.
- Cruz, Maria Concepcion, Carrie A. Meyer, Robert Repetto and Richard Woodward. "Population Growth, Poverty, and Environmental Stress: Frontier Migration in the Philippines and Costa Rica." 1992. World Resources Institute, Washington, DC.

Tropical Science Center and the World Resources Institute. “Accounts Overdue: Natural Resource Depreciation in Costa Rica.” 1991. World Resources Institute, Washington, DC. (Woodward was the principal WRI representative on this research project and oversaw the research and writing of the final report in both English and Spanish).

F. Contracts and Grants

1. External

Funded

“Effluent Trading: A Policy Review for Texas,” Texas Natural Resources Conservation Commission carried out in conjunction with the Center for Public Leadership Studies, George Bush School of Government and Public Service, Arnold Vedlitz (PI), Mark A. Fossett, Ronald A. Kaiser, Marty D. Matlock, and Richard T. Woodward (Co-Investigators), 5/1999 - 11/1999, \$121,069.

“An Integrated Economic Analysis of Alternative Bycatch, Commercial, and Recreational Policies for the Recovery of Gulf of Mexico Red Snapper,” NOAA Marine Fisheries Initiative (MARFIN), Richard T. Woodward and Wade L. Griffin (Co-PIs) and Teofilo Ozuna (collaborating), 1/1999 - 12/2001, \$147,649 (competitive).

“Bioeconomic Analysis of the Red Snapper Rebuilding Plan and Transferable Rights Policies in the Gulf of Mexico.” Wade L. Griffin and Richard T. Woodward, Co-PI’s. 1/2003 - 12/2005. \$183,464. National Marine Fisheries Service under the Marine Fisheries Initiative Program (Marfin). (competitive)

“Cost and Effectiveness of Sequential License Buyback Programs in the Gulf of Mexico’s Shrimp Fishery.” Richard T. Woodward and Wade L. Griffin, Co-PI’s. 2/2004 - 1/2006. \$185,416. National Marine Fisheries Service under the Marine Fisheries Initiative Program (Marfin). (competitive)

“Trading for Land-Based Environmental Services: Overlapping Opportunities and Challenges in Greenhouse Gasses and Water Quality.” PI: Richard T. Woodward, Co-PI: Bruce McCarl. 2/2005 - 2/2007. \$25,779. U.S.E.P.A. Environmental and Resource Economics Workshops (competitive).

“Perceived Risks and Willingness to Pay for Hurricane Protection” PI: W. Douglass Shaw, Co-PI’s Samuel D. Brody (Landscape Architecture and Urban Planning), William Neilson (Economics), Mary Riddel (University of Nevada, Las Vegas) and Richard T. Woodward. 2/2006 - 1/2007. \$96,638. National Science Foundation, Small Grants for Exploratory Research Proposal (competitive).

“Economic Analysis of Red Snapper Bycatch Reduction Management Alternatives for Directed and Non-directed Fisheries.” Wade L. Griffin (PI) and Richard T. Woodward (Co-PI). \$190,158. 9/2006 - 8/2008. National Marine Fisheries Service under the Marine Fisheries Initiative Program (Marfin). (competitive)

Fulbright Scholar Program. Richard T. Woodward. 1/2008-6/2008.

“Efficiency and Design Lessons from the Great Miami River Watershed Water Quality Credit Trading Program.” Richard T. Woodward and W. Douglas Shaw. 1/2007 - 1/2010. \$185,796. USEPA/Market Mechanisms and Incentives. (competitive).

Pending

V. Service

A. Budgeted Time

None.

B. Professional and Honorary Societies and Associations

- Member American Agricultural Economics Association
- Member American Economics Association
- Member Association of Environmental and Resource Economists

C. Service to Profession

Editorial Responsibilities

Guest Editor, *Choices*, series of articles on “Markets for the Environment.” First Quarter, 2005, Volume 20(1).

Associate Editor, *Marine Resources Economics*, April 2005- present.

Review Panels

Peer reviewer of proposals for USEPA’s 2001 STAR program, “Socioeconomic Causes & Consequences of Future Environmental Changes.” November 1, 2001, Washington D.C.

Peer reviewer of proposals for USEPA’s 2001 STAR program, “Market Mechanisms and Incentives” November 7-8, 2002, Washington D.C.

Ad hoc Journal Reviewer and Referee

1. *American Journal of Agricultural Economics*
2. *Aquaculture Economics Review*
3. *Conservation Biology*
4. *Ecological Economics*
5. *Environmental and Resource Economics*
6. *Forest Science*
7. Illinois-Indiana Sea Grant College Program Proposal
8. *Journal of Agricultural and Resource Economics*
9. *Journal of Environmental Economics and Management*
10. *Journal of Environmental Management*
11. *Journal of Soil and Water Conservation*
12. *Journal of the American Water Resources Association*
13. *Land Economics*

14. Maryland Sea Grant
15. Michigan Great Lakes Protection Fund, Michigan Department of Environmental Quality
16. *Natural Resource Modeling*
17. *Operations Research*
18. *Resource & Energy Economics*
19. *Society and Natural Resources*
20. United States- Israel Binational Agricultural Research and Development Fund
21. *Water Resources Research*

Professional Conferences

1. Selected paper reviewer for the 2004 Meetings of the Western Agricultural Economics Association.
2. Selected paper reviewer for the 2002 Meetings of the American Agricultural Economics Association.
3. Discussant, Invited Paper session on “Market-Based Solutions to Environmental Problems.” Annual Meetings of the Southern Agricultural Economics Association, February 2000.
4. Discussant, Selected Paper Session on “Efficiency of Environmental Policy.” Annual Meetings of the American Agricultural Economics Association, Salt Lake City, UT, August 1998.
5. Chair, Selected Paper session on “Climate Change Policies.” First World Congress of Environmental and Resource Economists, June 1998.

D. Service to University

1. Participated in the symposium, “Private Land Stewardship and Conservation: Partnerships for Collaborative,” jointly sponsored by the George Bush School's Center for Public Leadership Studies and the College of Agriculture and Life Sciences' Institute of Renewable Natural Resources, April 2-4, 2000.
2. Provided substantial editorial and substantive input into an article for *Texas Water Resources*, “What is the Future of Rice Irrigation?” by Ric Jensen. January, 2001.
3. Search committee member for The Caroline and William N. Lehrer Distinguished Chair, Water Engineering Biological and Agricultural Engineering Department 2003-2005.
4. Member of the Association of Former Students' Distinguished Achievement Award Selection Committee, College Level Teaching Awards, May, 2004.

E. Service to Department

Committee Assignments

1. Seminar Committee: Spring 1998- Summer 2000. Chair: Fall 1998 – Summer 2000
 - Organized 25 seminars over four semesters
 - Oversaw the development of a successful \$2,500 Professional and Career Development Grant for Spring 2000 seminar series (five of eleven proposals were funded).
 - Initiated the Department's Alumni Seminar Series, inviting Dr. Stan Johnson and Fredrick McClure in the first two years.
2. Awards Committee, research awards subcommittee: Fall 1998-present. Chair 2000 - present.
3. Graduate Advisory Committee. Fall 2000 – present (chair 2005 – present)
4. Ph.D. Qualifier Examination Committees: May 2001 - present
5. Chair of the Department's Resources Workgroup Fall 2001 – 2006.
6. Faculty Advisory Committee Fall 2001 – 2003, 2006-present.
7. Organizer of Resources brownbag seminars 2003 – present (6 seminars from April – December 2003)
8. Resource and Environmental Economics Prelim Committee: 2003 – 2006.
9. Chair of search committee, Assistant/Associate Professor in Water Resources Policy and Economics, 2003-2004.
10. Search committee, Computer Systems Manager, December 2006 – January 2007.

Other activities in service to the department

1. Ad-hoc committee of the Graduate Advisory committee to supervise a re-examination of students who failed the qualifying exam. June 2000.
2. Visited with potential graduate students and faculty from the University of Costa Rica and CATIE to promote the Department's graduate curriculum in Costa Rica, July 21, 2000.
3. With Dr. Bruce McCarl, organized a biweekly seminar series on the economics of climate change attended by Department faculty and graduate students. 2002 - 2003.