

**AMERICAN AGRICULTURAL  
ECONOMICS ASSOCIATION (AAEA)**

**and**

**AMERICAN COUNCIL ON CONSUMER  
INTERESTS (ACCI)**

**ANNUAL MEETING**

**July 27 – July 29, 2008  
Orlando, Florida**

**AERE SESSIONS**

*Chairs, Presenters and Discussants indicated in  
bold.*

**New Fisheries Bioeconomics**

Session chair: **James Wilen**  
University of California, Davis

The canonical bioeconomic model of the fishery lumps together a myriad of bio-physical and economic processes into a single state equation. The traditional approach provides potent conceptual insights but has limited practical use in real-world fisheries management. This session presents generalizations to the canonical fishery model that are motivated by contemporary research in marine ecology and biological oceanography as well as an emerging emphasis on marine ecosystem-based management. To that end, the papers address spatial considerations, age structure in population dynamics, interactions of multiple species, and the effects of climate variability on fishery productivity.

1. **Olli Tahvonen** (Finnish Forest Research Institute). “Optimal Harvesting of Age Structured Fish Populations”

Discussant: **Wolfram Schlenker** (Columbia University)

2. **Joshua Abbott** (Arizona State University) and **James Wilen** (University of California, Davis) “Competition, Spatial Choice and The Commons: Do Fishermen Bother with Bycatch Avoidance?”

Discussant: **Daniel Kaffine** (Colorado School of Mines)

3. Christopher Costello (University of California, Santa Barbara) and **Daniel Kaffine** (Colorado School of Mines) “Can Spatial Property Rights Fix Fisheries?”

Discussant: **Olli Tahvonen** (Finnish Forest Research Institute)

4. Richard T. Carson (University of California, San Diego), Clive Granger (University of California, San Diego), Jeremy Jackson (University of California, San Diego), and **Wolfram Schlenker** (Columbia University) “Fisheries Management Under Cyclical Population Dynamics”

Discussant: **Joshua Abbott** (Arizona State University)

**Renewable Energy: Intended and Unintended  
Consequences**

Session chair: **Michael Caputo**  
University of Central Florida

Concerns about climate change and energy security have sparked considerable interest in developing renewable energy sources. This session explores the economic and environmental consequences of policies that affect the renewable energy sector. The papers reveal that generating environmental benefits from renewable energy is not as simple as it may seem. The authors illustrate this point by incorporating price feedbacks into a traditional life cycle model, showing how conservation-driven limits to oil drilling impacts the market for biofuels, and measuring how growth in biofuels will affect regional water quality.

1. **Deepak Rajagopal** (University of California, Berkeley) and David Zilberman (University of California, Berkeley) “A New Micro-Economics Based Environmental Life Cycle Model”

Discussant: **Jinhua Zhao** (Iowa State University)

2. JunJie Wu (Oregon State University) and **Christian Langpap** (Oregon State University) “The Environmental Quality Effects of Increased Reliance on Bioenergy”

Discussant: **Sylvia Secchi** (Southern Illinois University)

3. **Jinhua Zhao** (Iowa State University) “Will Protecting ANWR Hurt the Growth of Biofuel and Solar Energies?”

Discussant: **Deepak Rajagopal** (University of California, Berkeley)

4. **Sylvia Secchi** (Southern Illinois University), **Lyubov Kurkalova** (North Carolina A&T State

University, Catherine Kling (Iowa State University), Phillip Gassman (Iowa State University), and Jha Manoj (Iowa State University) “Rotation and Water Quality Effects of Harvesting Corn Stover”

Discussant: **Christian Langpap** (Oregon State University)

### **Land Use: Amenities and Disamenities**

Session chair: **JunJie Wu**  
Oregon State University

The economics of land use presents numerous conceptual and empirical challenges. This session brings together two conceptual and two empirical papers that explore important linkages between land use and amenity values. In conceptual studies, features of the landscape drive land use and landowner decisions, and these decisions in turn feed back on landscape features. The empirical papers use property value data to isolate the value of environmental attributes, including a meta-analysis of hedonic studies that value marginal changes and a sorting model that values non-marginal changes.

1. **Yong Chen** (Ohio State University), Ciriya Jayaprakash (Ohio State University), and Elena G. Irwin (Ohio State University) “Ecological Feedbacks And Fast Slow Dynamics In A Model Of Amenity-Driven Regional Growth”

Discussant: **Gwenlyn M. Busby** (Oregon State University)

2. **H. Allen Klaiber** (North Carolina State University) and Daniel J. Phaneuf (North Carolina State University) “Valuing Open Space in a Locational Equilibrium Model of the Twin Cities”

Discussant: **John B. Braden** (University of Illinois at Urbana-Champaign)

3. **Gwenlyn M. Busby** (Oregon State University), Heidi J. Albers (Oregon State University), and Claire A. Montgomery (Oregon State University) “Public and private Fire Risk Management: Strategic Interaction and Spatial Interdependence”

Discussant: **Yong Chen** (Ohio State University)

4. **John B. Braden** (University of Illinois at Urbana-Champaign), Xia Feng (University of Illinois at Urbana-Champaign), Laura O. Taylor (North Carolina State University), and DooHwan Won (Korea Energy Economics Institute) “Noxious Sites And Property Values: A Meta Analysis”

Discussant: **H. Allen Klaiber** (North Carolina State University)

### **Issues in Climate Policy**

Session chair: **Wolfram Schlenker**  
Columbia University

Optimal climate change policy requires understanding society’s preferences and the characteristics of the policy environment. Two papers in this session explore the pure rate of time preference and the resulting implications for climate policy; one paper uses numerical methods to examine the implications of non-constant discounting while another considers issues associated with intergenerational equity and impatience. The two remaining papers examine alternative policy options for reducing carbon emissions, a revenue-neutral tax-subsidy policy, and a cap-and-trade policy in an alternating-current model of the power supply system.

1. **Daniel Shawhan** (Cornell University) and Ray Zimmerman (Cornell University) “A Regional Incentive-Based Carbon Dioxide Emission Regulation in the Power Sector: Impacts Predicted Using an Alternating-Current Model”

Discussant: **Hui Su** (West Virginia University)

2. **Gregmar I. Galinato** (Washington State University), Jonathan K. Yoder (Washington State University), and Joel Michalski (Washington State University) “Revenue-Neutral Tax-Subsidy Policy For Carbon Emission Reduction”

Discussant: **Larry Karp** (University of California, Berkeley)

3. **Hui Su** (West Virginia University), Haixiao Huang (West Virginia University), and Jerald J. Fletcher (West Virginia University) “Econometric Modeling of CO2 Emission Allowances under the European Union Emission Trading Scheme”

Discussant: **Daniel Shawhan** (Cornell University)

4. Tomokii Fujii (Singapore Management University) and **Larry Karp** (University of California, Berkeley) “Numerical Analysis of Non-Constant Pure Rate of Time Preference: A Model of Climate Policy”

Discussant: **Gregmar I. Galinato** (Washington State University)

## **Empirical Analyses of Environmental Health Risks**

Session chair: **Trudy Ann Cameron**  
University of Oregon

At least two dimensions of heterogeneity are potentially important in explaining variation in estimates of the willingness to pay for reduced mortality and morbidity risks: heterogeneity in terms of the attributes of individuals and heterogeneity in terms of the nature of the risk reductions. The session reports the results of stated and revealed preference analyses that examine these issues using data from developed and developing countries.

1. Carol R. Scotten (Knox College) and **Laura O. Taylor** (North Carolina State University) “Of Cab Drivers and Coal Miners: Accounting for Risk Heterogeneity in Value of Statistical Life Estimates”

Discussant: **Sonia N. Aziz** (Virginia Tech)

2. Trudy Ann Cameron (University of Oregon), J.R. deShazo (University of California, Los Angeles), and **Erica H. Johnson** (University of Oregon) “Willingness to Pay for Health Risk Reductions: Differences by Type of Illness”

Discussant: **Fei Yu**, (Mount Holyoke College)

3. **Sonia N. Aziz** (Virginia Tech) and Kevin J. Boyle (Virginia Tech) “Valuation of Avoiding Arsenic in Drinking Water in Rural Bangladesh: An Averting Behavior Analysis”

Discussant: **Erica H. Johnson** (University of Oregon)

4. **Fei Yu** (Mount Holyoke College) “Measuring Health Benefits From Interventions to Reduce Indoor Air Pollution in Rural China”

Discussant: **Laura O. Taylor** (North Carolina State University)

## **Conceptual Challenges in Nonmarket Valuation**

Session chair: **Kevin J. Boyle**  
Virginia Tech

The four papers in this session consider emerging methodological challenges in stated preference valuation studies. Three papers use data from field surveys to examine respondent choice difficulty, propose a method of estimating discount factors within a random utility model, and explore the empirical relevance of asymptotically bounded

preferences for the willingness to pay-willingness to accept disparity. A final paper applies experimental methods to examine payment and provision uncertainty as potential explanations for hypothetical bias.

1. **Eric Duquette** (University of Oregon), Trudy Ann Cameron (University of Oregon), and J.R. deShazo (University of California, Los Angeles) “Subjective Choice Difficulty in Stated Preference Surveys”

Discussant: **Yohei Mitani** (University of Colorado, Boulder)

2. **Andrew Meyer** (University of Colorado, Boulder) “Estimating Discount Factors Within a Random Utility Framework”

Discussant: **Sudip Chattopadhyay** (San Francisco State University)

3. **Yohei Mitani** (University of Colorado, Boulder) and Nicholas E. Flores (University of Colorado, Boulder) “A New Explanation for Hypothetical Bias: Subjective Beliefs of Hypothetical Aspects in Payment and Provision”

Discussant: **Eric Duquette** (University of Oregon)

4. **Sudip Chattopadhyay** (San Francisco State University) “Asymptotically Bounded Preference and the Difference Between Willingness to Pay and Willingness to Accept”

Discussant: **Andrew Meyer** (University of Colorado, Boulder)

## **Pollution and Firm Behavior**

Session chair: **Madhu Khanna**  
University of Illinois at Urbana-Champaign

A broadening empirical literature examines the responses of firms faced with environmental regulation and the implications of firm responses for environmental quality. The three papers in this session explore these responses, focusing in particular on the impacts of mandatory and voluntary programs on firm emissions and location choices.

1. Mary F. Evans (University of Tennessee), **Lirong Liu** (University of Tennessee), and Sarah Stafford (College of William and Mary) “Causes and

Consequences of Environmental Auditing: Evidence from Regulated Facilities in Michigan”

Discussant: **Donna Ramirez Harrington** (University of Vermont)

2. **Donna Ramirez Harrington** (University of Vermont), George Deltas (University of Illinois at Urbana-Champaign), and Madhu Khanna (University of Illinois at Urbana-Champaign) “Does Pollution Prevention Reduce Toxic Emissions? A Dynamic Panel Data Model”

Discussant: **Matthew Benton** (University of Colorado, Boulder)

3. **Matthew Benton** (University of Colorado, Boulder) “Environmental Regulation and Polluting Behavior of Firms: Identifying Spillover Effects”

Discussant: **Lirong Liu** (University of Tennessee)

### **The Economics of Conservation**

Session chair: **Erin O. Sills**

North Carolina State University

The session investigates the challenges faced by developing countries in allocating resources between conservation and economic development. Two papers present conceptual models of optimal conservation, one jointly modeling small-scale farmer decision making and land use, another allowing for a feedback between land conversion decisions and conservation benefits. Two remaining papers explore the incentives associated with and the effects of programs designed to encourage reforestation.

1. Luke Jones (University of Tennessee) and **Jill Caviglia-Harris** (Salisbury University) “Rethinking The Cycle Of Abandonment: A Dynamic Model Of Frontier Expansion And Environmental Degradation”

Discussant: **Timo Goeschl** (University of Heidelberg)

2. **Shinsuke Uchida** (University of Maryland) and Gregmar I. Galinato (Washington State University) “Evaluating Temporary Certified Emission Reductions in Reforestation and Afforestation Programs”

Discussant: **Rohit Jindal** (Michigan State University)

3. Anke D. Leroux (La Trobe University), Vance Martin (University of Melbourne), and **Timo Goeschl** (University of Heidelberg) “Optimal Conservation, Extinction Debt, and the Augmented Quasi-Option Value”

Discussant: **Jill Caviglia-Harris** (Salisbury University)

4. **Rohit Jindal** (Michigan State University) “Exploring the Demand for Forestry in Lake Victoria Basin (Western Kenya): An Econometric Approach”

Discussant: **Shinsuke Uchida** (University of Maryland)

### **Incentives and Water Quality Protection**

Session chair: **Marca Weinberg**

USDA, Economic Research Service

The session considers research and policy challenges associated with optimal water quality protection. One paper examines the value of water quality improvements in Canada and the United States. Two papers explore policy options for achieving improved water quality including best management practices for storm water management and a water quality trading program with nonpoint sources. A final paper investigates the impacts on water quality of changes in agriculture.

1. **Sergey Rabotyagov** (University of Washington), Philip W. Gassman (University of Washington), Manoj Jha (Iowa State University), and Todd Campbell (Iowa State University) “Energy Crops and Agricultural Conservation Practices: Implications for Optimal Water Quality Protection”

Discussant: **W. Bowman Cutter** (University of California, Riverside)

2. **Gaurav S. Ghosh** (The Pennsylvania State University) and James S. Shortle (The Pennsylvania State University) “Water Quality Trading Market Efficiency in a Stochastic Environment”

Discussant: **Paul J. Thomassin** (McGill University)

3. **W. Bowman Cutter** (University of California, Riverside), Kenneth A. Baerenklau (University of California, Riverside), Autumn DeWoody (University of California, Riverside), Ritu Sharma (University of California, Riverside), and Joong Gwang Lee (Tetra Tech) “Costs And Benefits Of Capturing Urban Runoff With Competitive Bidding For Decentralized Bmps”

Discussant: **Sergey Rabotyagov** (University of Washington)

4. **Paul J. Thomassin** (McGill University) and Robert J. Johnston (University of Connecticut)

“Systematic Patterns in Willingness to Pay for Water Quality Improvements in the United States and Canada: A Meta Analysis”

Discussant: **Gaurav S. Ghosh** (The Pennsylvania State University)