

Microbehavior and Macroresults: Proceedings of the Tenth Biennial Conference of the International Institute of Fisheries Economics and Trade Presentations

To Use this Table of Contents: Scroll down to move to a new location in this index.

Some of the material on this CD-ROM was created using supplied PDF files, while other content was converted from digital files. Viewing and printing of the text and graphics will depend largely on the accuracy with which each file was created.

Opening Session

Richard Johnston:

[Welcome to IIFET 2000: A Preface to the Proceedings](#)

John Ward:

[The Role of Economics in Fisheries Management: A Personal Perspective](#)

Aquaculture and Mariculture Production Issues

Chair: Ron Fleming

Margaret Caswell and David Zilberman:

[Algoculture](#)

Jacqueline D. Perkins and Ronald A. Fleming:

**[An Economic Evaluation of Commercial Paddlefish
\(Polyodon spathula\) Production](#)**

Ruamporn Sirirattrakul:

**[Dramatic Development of Shrimp Culture in Asian Countries, with
Particular Reference to Thailand](#)**

Ragnar Tveteras and George Battese:

**[Technical Change and Productive Inefficiency Change in Norwegian
Salmon Farming: The Influence of Regional Agglomeration Externalities](#)**

Diego Valderrama and Carol R. Engle:

[A Risk Programming Model for Shrimp Farming in Honduras](#)

Aquaculture, Fisheries, and Externalities

Chair: Hillary Egna

Frank Asche and Sigbjorn Tveteras:

[On the Relationship Between Aquaculture and Reduction Fisheries](#)

Peter Rawlinson and William Dalton:

[The Economics of Recirculation Aquaculture](#)

Gary D. Sharp:

**[A Brief Overview of the History of Fish Culture, and Its Relation to
Fisheries Science \(PowerPoint Presentation and Extended Abstract\)](#)**

Christopher S. Wright and Garfield Esmonde:

**[Developing an Environmentally Responsible Irritant for the British
Columbia Octopus Dive Fishery](#)**

Aquaculture: Incentives to Adopt and Impacts on Communities

Chair: Salvador Garcia-Martinez

Masudul Hoq Chowdhury and Keshav Lall Maharjan:

Increasing Efficiency of Pond Fish Production in Rural Bangladesh

Eunice Perez Sanchez:

Social and Economic Issues in Aquaculture Development for Coastal Communities of Tabasco, Mexico

Ruben C. Sevilleja:

Adoption and Economics of Tilapia Farming Technology in the Philippines

Paul M. Thompson, Parvin Sultana, Md. Nuruzzaman and AKM Firoz Khan:

Impacts of Aquaculture Extension on Pond Operators and the Rural Community

Asset Markets, Options, and Green Accounting

Chair: Ellen Burnes

Ellen Burnes:

A Comparison of Hedging Futures Contracts with Develop Versus Undeveloped Assets for Arbitrage-free Resource Harvest Contract Valuation (Extended Abstract)

Robert D. Cairns:

Green Accounting for a Commercial Fishery

Asgeir Danielsson:

Integrated Environmental and Economic Accounting for Commercial Exploitation of Wild Fish Stocks

Eyjolfur Gudmundsson and James L. Anderson:

Asset Pricing and Option Trading for Harvesting Rights to Renewable Resources

Arantza Murillas-Maza:

Investment and Development of Fishing Resources: A Real Option Approach

Back to the Future: Restoring Ecosystems Impacted by Fisheries

Chair and Organizer: Tony J. Pitcher

Ussif Rashid Sumaila, Tony Pitcher, Nigel Haggan, and Russ Jones:

Evaluating the Benefits from Restored Ecosystems: A Back to the Future Approach

Bioeconomic Modeling: Conceptual and Applied Issues

Chair: Trond Bjørndal

Lee G. Anderson:

Marine Reserves: A Closer Look at What they can Accomplish

Stephen Beare and Rosalyn Bell:

Flexible Seasonal Closures in the Northern Prawn Fishery

Trond Bjørndal, Daniel Gordon (presenter), Marko Lindroos,
and Veijo Kaitala:

**International Management Strategies for a Migratory Fish Stock:
A Bioeconomic Simulation Model of the Norwegian Spring-Spawning
Herring Fishery**

Deqin Cai:

**An Extension of the Classical Estimates of Dredge Efficiency and
Animal Stock Abundance and its Application to Sea Scallop Fishery
in Georges Bank (Extended Abstract)**

Kjetil Helstad:

**Management of Herring, Capelin and Cod in the Greater Barents Sea-
Economic Optimal Management from a Norwegian Point of View**

Jonathan Kaplan and Martin Smith (presenter):

**Optimal Fisheries Management in the Presence of an Endangered
Predator and Harvestable Prey**

Duncan Knowler:

**Nutrient Enrichment and Marine Ecosystem Disturbance:
A Deterministic and Stochastic Analysis**

Sherry Larkin, Michael Harte, Kate Quigley, and Gil Sylvia:

**Future Generations, Discount Rates and the Optimal Harvest of
Fisheries Resources**

Philip Rodgers, J. Paul. Hillis (presenter), Laurent Le Grel, Gunilla Greig, Andrew
Ryan, Brendan O'Mahony and Libby Woodhatch:

A Regional Management Model of Fisheries in the Irish Sea

Luca Rossetto and Vasco Boatto:

The Management of Fishery in Venice Lagoon

Micki Stewart and James E. Wilen:

Analysis of the Impacts of Marine Reserves in the Galapagos Islands

Biological, Environmental, and Social Processes

Chair: Jeffrey Dambacher

Alfons Balmann:

**Modeling Land Use with Multi-agent Systems - Perspectives for
the Analysis of Agricultural Policies**

David Calkin, Claire Montgomery (presenter) Nathan Schumaker,
Stephen Polasky, Jeffrey Arthur, and Darek Nalle:

**Modeling the Compatibility of Biological and Economic Objectives
on a Forested Landscape**

Ralf Doering:

Concepts of Sustainable Fisheries

David Finoff and John Tschirhart:

Fisheries in a Complex Ecosystem

Matthias E. Hummel:

**A Method of Analysis of Biological Resource Use Systems under the
Convention on Biological Diversity**

Howard T. Odum and Carolyn Boggess:

Emergy Evaluation Of Salmon Pen Culture

Alvin Smith and Douglas E. Skilling:

Can the Ocean Make you Sick?

Courtland L. Smith and Jennifer Gilden:

**Cultural and Natural Assets for Willamette Basin,
Oregon Sustainability**

Ussif Rashid Sumaila:

Biodiversity Conservation in a Game Theoretic Model of a Fishery

JunJie Wu:

The Economics of Conservation Targeting Strategies

Capacity: Data Envelope Analysis

Chair and Organizer: Rolf Fare

Louisa Coglan, Sean Pascoe (presenter) and Simon Mardle:

**Physical versus Harvest Based Measures of Capacity:
The Case of the UK Vessel Capacity Unit System**

Diane Dupont, R. Quentin Grafton, James Kirkley, and Dale Squires:

**Privatization and Regulation of Capacity in a Multi-Product Fishery:
A Purse from a Sow's Ear?**

Rolf Fare, Shawna Grosskopf, James Kirkley, and Dale Squires:

**Data Envelopment Analysis (DEA): A Framework for Assessing
Capacity in Fisheries When Data are Limited**

Rolf Fare, S. Grosskopf, K. Kerstens, J. Kirkley, and D. Squires:

**Assessing Short-Run and Medium Run Fishing Capacity at the
Industry Level and its Reallocation**

S. Todd Lee and Daniel Holland:

**The Impact of Noisy Catch Data on Estimates of Efficient Output
Derived From DEA and Stochastic Frontier Models:
A Monte Carlo Comparison**

John B. Walden and James Kirkley:

Measuring Capacity of the New England Otter Trawl Fishing Fleet

Chaos Theory and Other Non-linear Dynamics

Chair: Jon Hendricks

Maria Lucia D'Apice Paez:

**Innovation System in Agribusiness: New Institutional Economics,
Sustainable Equilibria and Chaos Theory (Part 1)**

Maria Lucia D'Apice Paez:

**Agribusiness Innovation System:
Applied Model to R&D Public Organization (Part 2)**

Collaboration Among Industry, Government and Education Partners

Lynn Wilson and Pam Lund (co-presenter):

Can Collaboration Occur Among Disparate Groups? A New Look at What “Interdisciplinary” Means in Practical Terms

Collaboration: Science and Industry

Chair: Catherine Durham

Roy G. Arnold:

University / Food Industry Partnerships for Human Resource Development and Technology Transfer (PowerPoint Presentation)

Columbia River Pastoral Letters Project

Chair: Frank Fromherz

Frank Fromherz:

The Columbia River Watershed: Notes on a Pastoral Letter Emerging

Steven Kolmes:

Remarks

Irene Martin:

Summary of Remarks: Columbia River Pastoral Letter

Compliance and Enforcement

Organizer and Chair: Jon Sutinem

Ronald Boostrom:

The Community-Oriented Policing and Problem Solving Paradigm- What Have We Learned?

William J. Furlong and Patrick M. Martin:

Observer Deployment in the Fishery and Regulatory Self-Enforcement

S. Garcia-Martinez and W.J. Nichols:

Sea Turtles of Bahia Magdalena, Baja California Sur, Mexico: Demand and Supply of an Endangered Species

Ronald B. Mitchell:

Making Treaties More Effective: Mechanisms to Induce Compliance (Extended Abstract)

Jesper Raakjaer Nielsen and Christoph Mathiesen:

Important Factors Influencing Rule Compliance in Fisheries - Lessons from Danish Fisheries

Hector Trinidad and James Wilson (presenter):

The Bio-economics of Sea-turtle Conservation Use in Mexico: History of exploitation and Conservation Policies for the Olive Ridley (*Lepidochelys olivacea*)

Steve Warner, Dr. Barry Crane and Dr. Melissa Kuchma:

Fisheries Law Enforcement: Assessment of Deterrence (PowerPoint Presentation)

Consumer Behavior: Food, Health, and Risk

Chair: John Edwards

Paul Slovic:

Trust, Emotion, Sex, Politics and Science: Surveying the Risk-Assessment Battlefield

Costs of Fisheries Management

Organized by: William Schrank

Ragnar Arnason:

Cost of Fisheries Management: Theoretical and Practical Implications

Ragnar Arnason, Palina M. Hafsteinsdottir and Asgerdur Ragnarsdottir:

Government Expenditures on Fisheries and Fisheries Management in Iceland

Anthony Cox:

Cost Recovery in Fisheries Management: The Australian Experience

Ola Flaaten and Paul Wallis:

Government Financial Transfers to Fishing Industries in OECD Countries

Rognvaldur Hannesson:

Management and Enforcement Costs in Norway's Fisheries

Sean Pascoe, Aaron Hatcher and Simon Mardle:

The Effects of Unilateral Cost Recovery in an International Fishery

William E. Schrank and Blanca Skoda:

The Cost of Marine Fishery Management in Eastern Canada: Newfoundland, 1989/90 to 1997/98

Rolf Willmann, Pongpat Boonchuwong and Somying Piumsombun:

Fisheries Management Costs In Thai Marine Fisheries

Nick Wyatt:

Cost Recovery and Fisheries Management in New Zealand (PowerPoint Presentation)

Direct Marketing

Chair: Dan Georgianna

Michael Washburn:

Direct Marketing of Seafood: A Fisherman's Perspective

Ecolabeling

Chair: Cathy Wessells

R. Tveteras, B Aarset, S. Beckmann, J. Bigne, M. Beveridge, T. Bjorndal, P. McDonagh, C. Mariojouis, J.F. Muir, A. Prothero, S. Reithe, A.P. Smith, S. Tveteras, and J.A. Young:

Demand for Organic Salmon in the European Union

B Aarset, S. Beckmann, J. Bigne, M. Beveridge, T. Bjorndal, M. J. Bunting, P. McDonagh, C. Mariojous, J.F. Muir, A. Prothero, S. A. Reisch, A.P. Smith, R. Tveteras, and J.A. Young (presenter):

The European Consumer's Understanding and Perceptions of Organic Salmon Production

Holger Donath, Cathy Wessels, Rob Johnston, and Frank Asche:

Consumer Preferences for Ecolabeled Seafood In the US and Norway: A Comparison

S. Jaffry, H. Pickering, P. Wattage, D. Whitmarsh, J. Frere, E. Roth, and M. Nielsen:

Consumer Choice for Quality and Sustainability in Seafood Products: Empirical Findings from United Kingdom

Jonathan Peacey:

The Marine Stewardship Council Fisheries Certification Program: Progress and Challenges

Ecology and Theology

Organizer and Chair: Alistair McIlgorm

Susan Power Bratton:

Is "Waste Not, Want Not" an Adequate Ethic for Managing By-catch?: Five Biblical Ethical Models for Addressing Incidental Fisheries Catch and Ecosystem Disturbance

Karim Hamdy:

Islamic Perspectives on Natural Resources Management and Sustainability

Alistair McIlgorm:

Towards an Eco-Theology of Fisheries Management?

Economic and Social Effects of Environmental Perturbations

Organizer and Chair: John Gates

Jung-Hee Cho and John Gates:

Environmental Factors and Natural Resource Stocks: Atlantic Herring Case

Christopher Costello, Steve Polasky (presenter) and Andrew Solow:

Fishery Management with Environmental Prediction

Tsuyoshi Kawasaki:

Global Warming Could have a Tremendous Effect on the World Fisheries Production

Giulio Pontecorvo:

ENSO, Regime Shifts, The Peruvian Anchovetta Catch: Some Preliminary Observations

Gary D. Sharp:

Climate and Fisheries: Costs and Benefits of Change

Economies in Transition

Chair: John P. Farrell

Matthew M Amano:

**Micro Actions, Macro Results: The Japanese Economic Bubble:
A Management View**

Clinton Atkinson:

Economic Change and the Fisheries of Russia (Extended Abstract)

John Farrell:

The Future of Capitalism Revisited

Audun Lem and Erhard Ruckes (presenter):

**Poland: A Study of the Development of New Trade Patterns in an
Economy in Transition: A Case Study of Poland's Seafood Sector**

Markus Vetemaa, Redik Eschbaum, Robert Aps, and Toomas Saat:

**Collapse of Political and Economical System as a Cause for
Instability in Fisheries Sector: An Estonian Case**

Jolanta Zieziula:

**Polish Distant-Water Fisheries in Nineties - Problems and
Possibilities of Overcoming Them**

Efficiency and Production Relationships

Chair: Gil Sylvia

Ikerne Del Valle Erkiaga, I. Astorkiza and K. Astorkiza:

**Estimating the Elasticity of Substitution among Inputs Making
Up Fishing Effort: An Application to the VIII Division European
Anchovy Fishery**

Håkan Eggert:

**Technical Efficiency in the Swedish Trawl Fishery for
Norway Lobster**

K. Kuperan Viswanathan, Yongil Jeon, Ishak Haji Omar, James Kirkley,
Dale Squires and Indah Susilowati:

**Technical Efficiency And Fishing Skill In Developing Country
Fisheries: The Kedah, Malaysia Trawl Fishery**

Endangered Species: Pacific Salmon

Chair: R. Bruce Rettig

Shepard Buchanan:

Power, Fish, and the Greenhouse on the Columbia River

Emery N. Castle:

**Economic and Social Change in the Fishery
(See also: Social Capital Session)**

Robert T. Lackey:

Policy Conundrum: Restoring Wild Salmon to the Pacific Northwest

Endangered Species: Steller Sea Lions and Alaska Pollock

Chair: Lewis Queirolo

Lewis Queirolo:

Endangered, Threatened, and Protected Species: Challenges of Managing Living Marine Resources in an Internally Conflicted Regulatory Environment and the Opportunities they Present

Equity, Efficiency, and Communities

Chair: Flaxen Conway

Christophe Bene, Tom Jolley, Koane Mindjimba, and Emma Belal:

Executing Livelihood Strategies and the Role of Inland Fisheries in Rural Development and Poverty Alleviation: The Case of the Yaere Floodplain in North Cameroon

Peter Britz, Warwick Sauer, Dinty Mather, and Lionel Philips:

Towards Equity, Sustainability and Stability: A Sector Planning Approach to Fishing and Mariculture Development in the Northern Cape Province, South Africa

Ching-Ta Chuang and Yao-Hsien Lee:

Co-management and Labor Stickiness in Fishing Communities: Determination of the Optimal Number of Vessels

Flaxen Conway:

Changes & Fishery Management: Impacts, Communication, and Fishing Communities

Friday Jack Njaya:

The Challenges and Potential of Fisheries Co-management in Malawi: Case of Lake Malombe Participatory Fisheries Management Programme

Marie-Therese Sarch and Edward Allison:

Fluctuating Fisheries in Africa's Inland Waters: Well-adapted Livelihoods, Maladapted Management

Parvin Sultana and Paul Thompson:

Community Fishery Management Implications for Food Security and Livelihoods

Ex-vessel Price Determination

Chair: Jim Anderson

Claire W. Armstrong, Derek J. Clark and Christian Riis:

Why Fish Auctions Differ- Theory and Practice

Shekar Bose:

An Empirical Investigation of Price-quantity Relations of the Quota Species of Australia's South-East Fishery

Thorolfur Matthiasson and Benedikt Valsson:

Ex-vessel Price of Cod in Iceland Empirical and Contract-Theoretical Consideration

Barbara Stevenson:

Portland's Auction Success

Fish as a Contributor to Food and Income in Developed Countries: Issues and Practical Approaches

Organized by: Mahfuzuddin Ahmed and Christopher L. Delgado

Chair: Stephen Cunningham

Mahfuzuddin Ahmed and Christopher Delgado:

**[Introduction to the Issues and Context of Rapid Changes in
World Demand for Fish](#)**

Christopher L. Delgado, Mark W. Rosegrant, Claude B. Courbois and
Mahfuzuddin Ahmed:

[Issues in Modeling Fish to 2020 within a Global Food Model](#)

Pamela Jagger and John Pender:

**[Markets, Marketing and Production Issues for Aquaculture in East
Africa: The Case of Uganda](#)**

Somying Piumsombun:

[Accessibility of Aquaculture Products in Thailand](#)

Fisheries and Trade: Industry and Government Perspectives

Chair: Greg Schneider

Erhard Ruckes:

**[Evolution Of The International Regulatory Framework Governing
International Trade In Fishery Products](#)**

Greg Schneider:

[Current Debate Over Potential Use of Trade Measures](#)

Fawzi Taha:

[Japan's Declining Fish Catch Raises Trade Prospects](#)

Fishery Economics: Dealing with Stock Uncertainty

Martin L. Weitzman:

[Landing Fees vs. Harvest Quotas with Uncertain Fish Stocks](#)

Ragnar Arnason:

**[Comments on M.L. Weitzman: Landing Fees vs. Harvest Quotas
with Uncertain Fish Stocks](#)**

William Jaeger:

**[Comment on Landing Fees versus Harvest Quotas with
Uncertain Fish Stocks](#)**

Fishery Economics: From Homo Economicus to Homo Sapiens?

Chair: Tony Charles

Philip Neher:

**[Comments on Richard H. Thaler, From Homo Economicus to Homo
Sapiens, Journal of Economic Perspectives 14-1, Winter 2000, 133-14](#)**

Bruce Rettig:

[From Home Economicus to Homo Sapiens](#)

Fishery Management and Producer Associations

Chair: Steve Buccola

Chuck Adams, Anicia E. Garcia Alvarez and Placido Sanchez Vega:

An Overview of the Cuban Commercial Fishing Industry and Recent Changes in Management Structure and Objectives

Steve Buccola:

Potential Roles for Marketing and Bargaining Cooperatives In the Pollock Fishery

Keith Criddle and Seth Macinko:

Political Economy and Profit Maximization in the Eastern Bering Sea Fishery for Walleye Pollock

Scott C. Matulich, Fred Inaba and Murat Sever:

Price-Induced Market Failure Under the American Fisheries Act

Joe Sullivan:

Harvesting Cooperatives and U.S. Antitrust Law - Recent Developments and Implications

Fishery Management: Case Studies

Chair: Stanley Wang

Roberto Enriquez-Andrade and Gabriela Batalla-Camargo:

Perspectives for Rights Based Fishery Management in Mexico

Demet Haksever, Deborah Hart, and Stanley Wang (presenter):

A Bio-economic Analysis of An Area Rotational Management Program in the US Atlantic Sea Scallop Fishery

Ruangrai Tokrisna:

Conflict in Fishery Resource Utilization: The Case of Light Luring Anchovy Fishery in Thailand

Christopher S. Wright and Peter Panek:

Effect of Trap Soak-Time on the Selectivity Profile and By-Kill in Prawn Trap Fisheries

Fishery Management: Dealing with Bycatch

Chair: James Crutchfield

Vicki Hoover Krutzikowsky, Robert Hannah, Gil Sylvia, and Michael T. Morrissey:

Bycatch Effects on Quality of Ocean Shrimp, *Pandalus jordani* (PowerPoint Presentation)

Yong Suhk Wui, Richard T. Woodward and Wade L. Griffin:

An Economic Analysis of a New Bycatch-Reduction Policy in the Gulf of Mexico

Fishery Management: Effort Control and Buyback

Chair: James Crutchfield

Joseph Catanzano, Stephen Cunningham (presenter) and Helene Rey:

Fishery Management in the Mediterranean: An Evaluation of Effort-Based Management Systems

Olivier Guyader, Fabienne Daures and Spyros Fifas:

**A Bio-Economic Analysis of the Impact of Buyback Programs:
Application to a Limited Entry French Scallop Fishery**

Dinty Mather, Warwick Sauer and Peter Britz:

**Redistribution and Transformation in the South African Fishing
Industry: The Case of the Squid Fishery**

Phil Smith:

**Limited Access Programs in the Federal Fisheries off Alaska -
An Overview (PowerPoint Presentation)**

Bruce Twomley:

**Commercial Fishing License Limitation in the State of Alaska:
A Controversial System of Grandfather Rights**

Anne M. Wakeford:

Fisheries Buyouts, An Appropriate Solution to Conservation?

Fishery Management: Experiences with Permits, Quotas, and License Limitation

Chair: Harry Campbell

Shekar Bose, H. Campbell (presenter) and A. McIlgorm:

**Model of the Market for ITQ in Australia's Multispecies
South East Fishery**

Assane Diagne and Walter Kiethly:

The Demand for Relaying by the Louisiana Oyster Industry

Sherry Larkin and J. Walter Milon:

**Tradable Effort Permits: A Case Study of the Florida Spiny Lobster
Trap Certificate Program**

Phil Smith:

**The Pacific Halibut and Sablefish Individual Fishing Quota (IFQ)
Program - Background, Elements, Performance, and Pending and
Proposed Changes (PowerPoint Presentation)**

Fishing Behavior and Institutions

Chair: James R. Wilson

Bertrand Le Gallic:

**Differences of Profitability Within a Multi-species Multi-gear Fishery:
How Much is Explained by Barriers to Entry?**

Sean Pascoe:

**Economic Performance of Fishers: Stochastic or Chaotic?
(PowerPoint Presentation)**

Martin D. Smith:

Two Econometric Approaches for Spatial Fisheries Management

Food Attributes: Consumer and Producer Perspectives

Chair: Scott Miller/Maria Paez

Jean Pierre Boude, Erwan Charles and Philippe Paquette:

**Improving the Quality of Fishing Products and Fishermen's Income,
Economic Incentives and Fishing Strategies**

Sophie Girard and Catherine Mariojouis (presenter):

Analysis of French Demand for Oysters and Mussels Within European Market

Elise Golan, Fred Kuchler and Stephen Crutchfield (presenter):

Labeling Genetically Modified Foods: An Economic Appraisal

Asmo Honkanen and Anssi Ahvonen:

Future Threats and Opportunities in Finnish Fisheries - A Study to Build up a Regular Follow-up Data Collection

The Food Industry

Organizer and Chair: David Lakey

David Lakey:

The Food Industry: Critical Business Issues (PowerPoint Presentation)

The Food Industry: Processing, Retailing, and the Institutional Market

Chair: Rod Moore

Robert Honson:

Overview of School Foodservice Market (Outline)

Jean Kinsey:

Retail Food Distribution: The Race to Efficiency (PowerPoint Presentation)

Rod Moore:

Markets and Management: You Need to Know Both

Food Safety and Risk: The HACCP Program

Chair: D.F. Farkas

Frank F. Busta:

Evolution and Current Trends in HACCP and Risk Assessment (Extended Abstract)

Amadou Tall:

Current Status of HACCP application in Africa

Food, Tastes, and Culture

Chair: Cathy Wessells

Ho-Shui Li, Jack E. Houston (presenter), Sue-Mei Wang, and Hwang-Jaw Lee:

Factors Affecting Consumer Preferences for Fish in Taiwan

E. Roth, H. Pickering, S. Jaffry, D. Whitmarsh, P. Wattage, and J. Frere:

The Value of Fish Quality

Jari Setälä, Kaija Saarni, and Asmo Honkanen:

The Quality Perceptions of Rainbow Trout Defined by Different Fish Market Sectors

Joaquin A. Millan:

Regional Preferences in the Spanish Meat and Seafood Consumption

Functional Foods

Chair: Jimmy Young

G. H. Constantine and Joe J. Karchesy:

Bioactive Compounds from the Forest (Outline)

Generic vs Brand Promotion

Chair: Walter Armbruster

Walter J. Armbruster:

Generic Advertising for the Seafood Industry

Klaus G. Grunert and Joachim Scholderer (presenter):

Generic Advertising for Fish: Results From a Research-Based Campaign

Oystein Myrland and Henry W. Kinnucan:

Measuring the Effects of the 1998/99 Pan- European Salmon Marketing Campaign in Germany and France

Health Benefits of Seafood Consumption

Chair: William F. Connor

Balz Frei:

Health Benefits of Seafood Consumption, Welcoming Remarks

Robert G. Ackman:

Fish is More than a Brain Food

William F. Connor:

The Importance of N-3 Fatty Acids in Health and Disease

William S. Harris:

Omega-3 Polyunsaturated Fatty Acids and Coronary Heart Disease Prevention

Joyce Nettleton:

Communicating Health Messages about N-3FA

Torbjorn Trondsen, Anne Elise Eggen and Oystein Myrland:

Health and Seafood Consumption Patterns among Women 45-69 Years: A Norwegian Seafood Consumption Study 1996

History of West Coast Fisheries

Organizer and Chair: Barry Fisher

Clinton Atkinson:

A Review of Fishery Research in the Pacific Area (Extended Abstract)

Joe Easley:

History of Trawling off the Pacific Coast

Nick Furman:

The Dungeness Crab Fishery: A Historical Perspective

Zeke Grader:

A Brief History of Fish Processing in California and Oregon

Susan Hanna:

Setting the Fishery Management Stage: Evolution of West Coast Groundfish Management

Paul Heikkila:

Ninety Years of Trolling

Robert Schoning:

Over 50 Years of Government Fishery Service: Then and Now

Glen Spain:

Charting a Path Through an Uncertain Future: Lessons From Our History

Lee Wiegardt:

A Short History of the West Coast Oyster Industry with Emphasis on Willapa Bay (Shoalwater Bay)

Indigenous Knowledge, Resource Management, and Research

Chair: Kurt Peters

William M. Alexander:

Gender Matters: Place Located Indigenous Knowledge: Finding the Value of Per Capita Earth Resource Consumption Necessary for Human Sustainability

Jesse Ford:

The Relevance of Indigenous Knowledge to Contemporary Sustainability

Industry Development, Innovations, and Product Forms

Chair: Howard Johnson

Herbert Aschkenasy:

Freeze-dried Products: The Process and the Markets (Outline)

Howard Johnson:

Retail Seafood: a New Paradigm (PowerPoint Presentation)

David Lancaster:

Seafood and E-commerce (PowerPoint Presentation)

Industry Sourcing

Chair: Ray Cesca

Ray Cesca:

Feeding the World in the New Millennium (PowerPoint Presentation)

Innovations in Fishery Management: Sustainable Mandates - Devolving Institutions

Organizers: Gil Sylvia and John Ward. Chair: Gil Sylvia

Michael Arbuckle:

Fisheries Management under ITQs - Innovations in New Zealand's Southern Scallop Fishery

Rene Cerda-D'amico and Mauro Urbina-Veliz:

**ITSQ in Chilean Fisheries: The Case of the Squat Lobster
(Pleuroncodes Monodon)**

Tony Craig:

**Devolution: Risk and Responsibility Transfer of
Fisheries Management**

John R. Gauvin and Craig S. Rose:

**The Effectiveness of a Halibut Excluder Device and Consideration of
Tradeoffs in its Application**

John Goodlad:

**Innovations in Fisheries Management: Community Based
Management Initiatives in Shetland**

Michael Harte:

**Collaborative Research: Innovations and Challenges for Fisheries
Management in New Zealand**

George Kailis:

Ownership and Innovations

Tom McClurg:

Return to the Nation: Resource Rentals and Cost Recovery

Anthony Scott:

Five Stages in the Evolution of the Market-Oriented Fishery

Paul Starr:

Fishery Management Innovations in New Zealand

Innovations in Microeconomics: Microbehavior and Macroresults

Chair: Casey Van Kooten

Alfons Balmann and Katrin Happe (presenter):

**Applying Parallel Genetic Algorithms to Economic Problems:
the Case of Agricultural Land Markets**

Cliff Bekar:

**Income Sharing Amongst Medieval Peasants: Usury Prohibitions
and the Non-Market Provision of Insurance**

International Trade: Theory, Empirical Analysis and Policy

Chair: Ali Emami

Bruce Blonigen:

**Antidumping Investigations and the Pass-Through of Antidumping
Duties and Exchange Rates (Extended Abstract)**

Colin A. Carter, David MacLaren and Alper Yilmaz (presenter):

How Competitive is the World Wheat Market?

Stephen Crutchfield, Jean Buzby, Paul Frenzen, Jane Allshose,
and Donna Roberts:

**The Economics of Food Safety and International Trade
in Food Products**

Munisamy Gopinath:

Foreign Direct Investment in Food and Agricultural Sectors

Ronald Jones:

A Framework for Fragmentation

Kenneth J. Roberts:

**Import and Consumer Impacts of U.S. Anti-Dumping Tariffs:
Freshwater Crawfish from China**

Market Competition and Channels

Chair: Ann Shriver

Anssi Ahvonen and Asmo Honkanen:

**Fishery Industry's Confidence Towards the Near Future in Different
Levels of Production Chain in Finland**

Stephane Gouin and André Fady:

**Seafood Products Enhancement: The Case of Artisanal
Fishing in France**

Audun Iverson and Lene Foss:

**Managers Network in the Norwegian Fishing Industry:
Do Organizational Size and Structure Matter?**

Keysuk (Steve) Kim:

**Interpersonal Dependence and Efficiency of Interfirm Exchange:
A Cross-national Study of Industrial Distributor-Supplier
Relationships**

Rune Lines:

**Determinants of Preferences For Suppliers in an Industrial Value
System: An Interactionist Perspective**

Massimo Spagnolo, Erhard Ruckes (presenter) and Audun Lem:

Growth and Competition in the Italian Seafood Chain

Market Structure, Conduct, and Performance

Chair: Ann Shriver

Hamady Diop, Wes R. Harrison and Walter R. Keithly, Jr.:

**Non-Stationary Markov Process Analysis of the Size Distribution
of Shrimp Processing Firms in Southeast United States**

Patrice Guillotreau and Frederic Le Roy:

Raising Rivals' Costs In The Tuna Industry

John R. Isaksen and Brent Dreyer:

The Impact of Vertical Integration On Performance

Josué Martínez-Garmendia and James L. Anderson:

An Examination of the Shrimp Futures Market

Measuring Capacity: Overview and Definitional Issues

Organized by: Rolf Fare and John M. Ward

Chair: Rolf Fare

Dominique Greboval:

The FAO International Plan of Action for the Management of Fishing Capacity

Catherine J. Morrison Paul:

Thoughts on Productivity, Efficiency, and Capacity Utilization Measurement for Fisheries

Daniel Primont:

Measures of Excess Capacity

Eric Thunberg:

Latent Effort and Vessel Ownership Transfer in the Northeast US Groundfish Fishery

John Ward:

Capacity, Excess Capacity, and Fisheries Management

Natural Resources: Perspectives of Indigenous Peoples

Chair: Judith Vergun

Tom Mexsis Happynook:

Cultural Biodiversity: Indigenous Relationships with their Environment

Helen Marie Redbird-Smith:

Taking the Pulse of the Universe

Non-market Valuation: Issues and Approaches

Chair: Mary Ahearn

Robert P. Berrens:

Internet Versus Telephone in Contingent Valuation: Application to the Kyoto Protocol (Extended Abstract)

Peter C. Boxall and W.L. Adamowicz:

Incorporating Endogenous Perceptions of Environmental Attributes in RUMS: The Case of Congestion

G. Cornelis Van Kooten and Emina Krcmar:

Fuzzy Logic and Non-market Valuation: A Comparison of Methods

Non-market Valuation: Recreational Fisheries

Chair: Steve Beare

Edi Defrancesco and Paolo Rosato:

Recreation Management in the Venice Lagoon

Diane Dupont:

Gender and Willingness-to-pay for Recreational Benefits from Water Quality Improvements

Frank Lupi, John P. Hoehn, Heng Zhang Chen, and Theodore D. Tomasi:

Michigan Recreational Angling Demand Model

Daniel L. McFadden:

**The Travel Cost Method for Valuing Recreational Fishing -
Issues of Sampling, Estimation and WTP for Site Improvements
(Extended Abstract)**

Political Economy

Chair: Gil Sylvia

John Boyce:

**Conservation for Sale: A Dynamic Common Agency Model of Natural
Resource Regulation**

Steve Edwards:

Rent-Seeking in the U.S. Atlantic Sea Scallop Fishery

Michael Healey and Tim Hennessey:

**Ludwig's Ratchet and the Collapse of New England Groundfish
Stocks (Extended Abstract)**

Frank Millerd:

**The Evolution of Management Institutions for the British Columbia
Salmon Fishery, 1900 to 1930**

Ernst-August Nuppenau:

**Cleaning of Eutrophic Inland Waters for Fishery and Amenities:
On the Treatment of Dynamic Aspects in Political Economy Modeling
of Statutory Regulations in Polluting Communities**

Erik Poole:

Income Subsidies and Incentives to Overfish

William E. Schrank:

Bureaucracy, Policy, Economics: The Pathology of Fisheries

Paul Wallis and Ola Flaaten:

Fisheries Management Costs: Concepts and Studies

Poster Session

Tim Bostock, Joan Baron and Greg Searle:

OneFish: One Internet Portal, All Fisheries Research

Dolores Garza Gil, Juan Surís Regueiro and Soledad Otero Giráldez:

**Cointegration and Causality: An Application to Fresh Hake in the
Spanish Market**

Jimi Jinadu:

**Small-Scale Fisheries of Lagos State, Nigeria:
Economic Sustainable Yield Determination**

Ho-Shui Li, Jack Houston (presenter), Kuo-Lon Chen, and Hwang-Jaw Lee:

Factors Affecting Consumer Choice of Canned Fish in Taiwan

Oumarou Njifonjou and Jean Calvin Njock:

African Fisheries: Major Trends and Diagnostic of the 20th Century

Manuel M. Varela-Lafuente, Dolores Garza-Gil (presenter)
and Carlos Iglesias Malvido:

**Fisheries Management Institutions: Perceptions of Economic Agents
in Galicia (Spain)**

Price Analysis and Demand Estimation

Chair: Scott Matulich

Jessica Hartmann and Jose Perez:

**Price Relationships Along the Value Chain: An Analysis of Hake
Markets in France**

Jack Houston and Ho-Shui Li:

Factors Affecting Consumer Preferences for Shrimp in Taiwan

Jeffrey T. LaFrance:

U.S. Income Distribution and Gorman Engel Curves for Food

Hwang-Jaw Lee:

Consumer Demand for Meat, Poultry, and Seafood in Taiwan

Joaquin A. Millan:

Interdependent Preferences for Seafood Consumption

Diane F. Primont:

On the Construction of Price Indexes

Minoru Tada:

Japanese Fish Demand and the Price Linkage with Foreign Markets

Terje Vassdal and Espen Sirnes:

Structural Breaks in the European and US Market for Salmon

Property Rights: Building Flexibility into Property Rights Systems

Organizer: Susan Hanna

James D. Hastie:

**Permit Stacking as an Approach to Implementing Harvest Rights
That Can Be Transferred and Accumulated**

Property Rights: Co-management/Self-management

Organizer: Susan Hanna

Henrik Bruun, Janne Hukkinen (presenter) and Erland Eklund:

**Scenarios as Radical Alternatives: The Case of Aquaculture in the
Finnish Archipelago Sea**

Khondker Murshed-e-Jahan, Nik Mustapha Raja Abdullah,
and Kuperan Viswanathan (presenter):

**Welfare Impacts and Transaction Costs of Fisheries Co-Management
at Oxbow Lakes in Bangladesh**

Pekka Salmi and Riku Varjopuro:

Private Water Ownership and Fisheries Governance in Finland

Olivier Thebaud:

**The Economics of Fisheries Self-regulation:
Analytical Issues and a Historical Case Study**

Property Rights: In the Wake of IFQs

Organizer: Susan Hanna

Thorolfur Matthiasson:

Changing Rules for Regulation of Icelandic Fisheries

Sevaly Sen, Barry Kaufmann, and Gerry Geen:

ITQs and Property Rights A Review of Australian Case Law

Property Rights: States and Other Interests

Organizer: Susan Hanna

Sara Singleton:

Cooperation or Capture? The Paradox of Comanagement and Community Participation in Natural Resource Management and Environmental Policymaking

Tadashi Yamamoto:

Collective Fishery Management Developed in Japan: Why Community Based Fishery Management Has been Well Developed in Japan

Property Rights: System Complexities

Organizer: Susan Hanna

Anthony T. Charles:

Use Rights in Fishery Systems

Steve Edwards:

An Elemental Basis of Property Rights to Marine Fishery Resources

Property Rights: The Social Context of Fisheries Management

Organizer: Susan Hanna

Robin Alden and Jennifer Brewer:

Apprenticeship and Conservation Incentives

Parzival Copes and Gísli Pálsson:

Challenging ITQs: Legal And Political Action In Iceland, Canada and Latin America: A Preliminary Overview

Michael Healey and Tim Hennessey:

The Paradox of Fairness: The Impact of Escalating Complexity on Fishery Management (Extended Abstract)

Torbjorn Trondsen:

Market Orientated Value Adding (MOVA) and Fisheries Management

Recreational Fisheries: Surveys and Allocation

Chair: David Campbell

David Campbell, Laurie West, Jeremy Lyle, David McGlennon, Anne Coleman, Gary Henry and Dennis Reid:

[The Australian National Recreational Fishing Survey: 2000-01](#)

Brad Gentner, Robert Hicks and Dave Van Voorhees:

[Economic Data Collection for Marine Recreational Angling: The U.S. Approach](#)

Chuck Hamel, Mark Herrmann, S. Todd Lee, and Keith R. Criddle:

[An Economic Discussion of the Marine Sport Fisheries in Central and Lower Cook Inlet](#)

Robert L. Hicks:

[Approaches for Measuring the Economic Value of Marine Recreational Angling: the U.S. Approach](#)

Khem R. Sharma and Pingsun Leung:

[Economic Impacts of Catch Allocation from Commercial Fishery to Recreational Fishery in Hawaii](#)

Scott Williamson:

[Economic Value of New Zealand Marine Recreational Fishing and its Use as a Policy Tool](#)

Reflections on Co-management, Consensus and Conditions for Labor

Chair: Patrick Corcoran

Steve Donda:

[Journey to Sustainable Fisheries Management: Organisational and Institutional Limitations in Fisheries Co-Management: The Cases of Lakes Malombe and Chiuta in Malawi](#)

Regional and International Fisheries Issues

Chairs: Trond Bjorndal and Gordon Munro

Trond Bjorndal and Gordon Munro:

[The Management of High Seas Fishery Resources and the Implementation of the U.N. Fish Stocks Agreement of 1995: Problems and Prospects](#)

Joseph Catanzano, Pierre Failler (presenter), Helene Rey and Sonia Carrier:

[Evaluation of Fishing Agreements Concluded by the European Community \(PowerPoint Presentation\)](#)

Kathleen Miller, Gordon Munro, Robert McKelvey, and Peter Tyedmers:

[Climate, Uncertainty And The Pacific Salmon Treaty: Insights On The Harvest Management Game](#)

Research and Teaching: Across Disciplines, Countries, and Universities

Chair: Gil Sylvia

George Kennedy:

New Directions in Interdisciplinary Teaching

Joseph Taylor:

Misplaced Concreteness: Prospects and Problems with Interdisciplinary Approaches to the Fisheries

Rethinking Resource Management

Chair: Carmel Finley

Kathleen S. Carter:

"The More Things Change...": Oysters, Public Policy, and Species Decline in the Pamlico Sound, 1880-1900

Christopher Corkett:

Fisheries Stock Assessment: an Inductive Science with the Logical Form of "Primitive Magic": Replacing an Inductive View with a Critical Rational One

Arthur McEvoy:

Fisheries Management and Rule of Law

William G. Robbins:

Species Extinction and Cultural Arrogance: The Perils of Ignoring History

Marie-Therese Sarch:

Institutional Evolution at Lake Chad: Traditional Administration and Flexible Fisheries Management

Steve Scannell:

Market Quota System: The Ultimate in Public Resource Management

Glen Spain:

Rethinking Fisheries Management: Why Fisheries Management Fails

Gregory Valatin:

On Demand-side Approaches to Solving the "Tragedy of High Prices" in Fisheries

Salmon: Industry and Research Perspectives

Chairs: James Anderson and Knut Heen

Stewart Anderson:

Salmon Color and the Consumer

Barbara Belknap:

Alaska Seafood Marketing Institute Research on Salmon Consumption (PowerPoint Presentation)

Joyce Nettleton:

Fatty Acids in Cultivated and Wild Fish

Science and Public Policy

Chair: Jeff Ramsey

Denise Lach and Peter List:

Credibility and Advocacy of Environmental Scientists in Resource Decision Making: A Regional Study

Bryan Norton:

Models as Languages: How Can Scientific Modeling Improve Environmental Policy Process? (Extended Abstract)

Seafood Markets and Fishery Management: Conceptual and Empirical Issues

Chair: Ken Roberts

Quentin S.W. Fong and James L. Anderson:

From Shark Fin Markets to Shark Populations: An Integrated Market Preference - Cohort Analysis of the Blacktip Shark (Carcharhinus Limbatus)

Charmaine Marie Gallagher, Gilbert Sylvia and Robert Hannah:

The Development of a Bioeconomic Model of the Oregon Ocean Shrimp Fishery

Daniel Georgianna and Joel Dirlam:

The Effect of Reduced Supply on Fish Processing in New England

Michelle James:

Industry Perspective on the Effect of Fisheries Management on Seafood Markets: The B.C. Geoduck Example

Patricia Koss:

Reciprocal Exposure and Holdup in Fisheries: Implications of Fishery Management Policy

Josué Martínez-Garmendia, James L. Anderson and Michael T. Carroll:

Incorporating Market Information in the Management of the US North Atlantic Bluefin Tuna

Yoshiaki Matsuda:

History of Fish Marketing and Trade with Particular Reference to Japan

Haruko Yamashita:

Problems of Export-Oriented Yellowfin Tuna Industry - Indonesia and the Philippines

Small Scale Fisheries and Fishery Development

Chairs: Hillary Eгна, Wade Griffin, and Stella Williams

Jimi Jinadu:

Economic Efficiency in the Coastal Small-Scale Fisheries in Lagos State, Nigeria

Razack-Bakari Lokina:

An Economic Analysis To Sustainable Fisheries Management

Carlisle A. Pemberton and Marsha A. Fridle:

Fishing Versus Farming in a Fresh Water Swamp in Trinidad in the Caribbean

David Whitmarsh, Carl James, Helen Pickering, Carlo Pipitone, Fabio Badalamenti and Giovanni D'Anna:

Economic Effects of Marine Protected Areas on Small-Scale Fisheries: A Case Study of the Trawl Ban in the Gulf of Castellammare, Sicily

Stella Williams:

Economic Potentials of Women in Small-scale Fisheries in West Africa

James R. Wilson and Jean Boncoeur:

Micro-economic Efficiencies and Macro-economic Inefficiencies: Theoretical Reflections on Renewable Resources Policy in Very Poor Countries

Social Capital: Communities and Fishery Management

Chair: Bruce Weber

Emery N. Castle:

Economic and Social Change in the Fishery

Jonathan Isham:

Can Investments in Social Capital Improve Well-Being in Fishing Communities? A Theoretical Perspective for Assessing the Policy Options

Subsistence Whaling

Organizer and Chair: Mark Herrmann

William Aron:

The International Whaling Commission- A Case of Malignant Neglect

Tom Mexsis Happynook:

The Social, Cultural and Economic Importance of "Subsistence" Whaling

Trade, Growth, Natural Resources, and the Environment

Chair: John Ward

Chi-Chur Chao and Eden S. H. Yu:

Environmental Impacts on Optimal Trade Policies

Ali Emami and Richard S. Johnston:

International Trade in Resource Goods and Returns to Labor in the Non-Resource Sectors

Carol McAusland:

Cross-Hauling of Polluting Factors (Extended Abstract)

Trees, Water, and Fish

Chair: K. Norman Johnson and John Sessions

John Sessions:

**Improving the Efficiency of Timber Supply While Saving the Fish:
The Umpqua Land Exchange Project**

Benno Warkentin:

**Changes in Decision-Making in Diffuse Water Pollution Control
(Extended Abstract)**

Valuing Indigenous Rights

Chair: David Campbell

Randall Bess:

New Zealand Maori Claims to Fisheries Resources

David Campbell:

Valuing of Indigenous Rights to the Sea Estate

David C. Natcher:

**Arriving at Appropriate Criteria and Indicators for Sustainable Forest
Management: A First Nation's Perspective**

What and How are we Measuring?

Chair: Gil Sylvia

Patty L. Clayton:

Using Fishermen's Expertise to Improve Fisheries Management

R.Quentin Grafton:

**A Guide to the Economic Evaluation of Individual Transferable
Quota Fisheries**

Michael G. Haby, Lawrence L. Falconer and John L. Parker:

**Developing An Economic Profile Of Texas Shrimp Trawling
Operations In The Gulf Of Mexico**

John Harms and Gil Sylvia (presenter):

**The Economics of Cooperative Fishery Research: A Survey of U.S.
West Coast Groundfish Industry and Scientists**

Ken Hughey, Ross Cullen (presenter), Ali Memon, Geoff Kerr, and Nick Wyatt:

**Developing a Decision Support System to Manage Fisheries
Externalities in New Zealand's Exclusive Economic Zone**

Mike Katz, Patricia Koss (presenter) and Jennifer Shawcross:

**Addressing Fish Uncertainty: The Quest for Rational
Decision-making**

Elizabeth Mitchell:

The Necessity of Observer Programs in the World's Fisheries

Roger Rose, Matthew Stubbs, Peter Gooday and Anthony Cox:

Economic Performance Indicators for Fisheries

Noel Taylor-Moore, Jeff Bibby, Elisa Burger, John Dexter, Tracy Henderson,
Wez Norris, and John Switala:

The Business of Fishing in Queensland, Australia, 1997-98

Why Not Merge the Social Sciences?

Chair: Courtland Smith

John Edwards:

**Notes from the IIFET 2000 Session on “Why Not Merge the
Social Sciences?”**

Roberta Hall:

Why Not Merge the Social Sciences?

Ronald B. Mitchell:

**Why Not Merge the Social Sciences? A Political Science
Perspective (Outline)**

Closing Session

Parzival Copes, James Anderson, and Ola Flaaten:

IIFET 2002: Invited Closing Comments