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VITAE
JAMES E. WILEN

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Education

Ph.D. Economics, 1973. University of California, Riverside. Specialty fields: Natural Resource Economics, Environmental Economics, Mathematical Economics.

B.A. Economics, 1970. California State University, Sonoma. Concentrations in Urban Economics, Regional Economics, Economic Development. Minor in Mathematics.

Honors and Awards

Fellow, Association of Environmental and Resource Economists, 2012

Fellow, International Institute for Fisheries Economics and Trade, 2012

Fellow, Beijer Institute of Ecological Economics, 2007

Distinguished Fellow, American Agricultural Economics Association, 2001

Publication of Enduring Quality, 2010; Association of Environmental/Resource Economists

S.Y.Hong Award for Outstanding Article in Marine Resource Economics, 2010.

Quality of Research Discovery Award, 2009: American Applied Economics Association

Quality of Research Discovery Award, 2004: American Agricultural Economics Association

Quality of Research Discovery Award, 2000: American Agricultural Economics Association

Quality of Research Discovery Award, 1998: American Agricultural Economics Association

Outstanding Published Research Award, 1998: Western Agricultural Economics Association

Distinguished Graduate Mentoring Award, 2004: University of California, Davis

Distinguished Graduate Teaching Award, 1998: American Agricultural Economics Assn.

Supervisor, Outstanding Ph.D. Dissertation, American Agricultural Economics Assn. (6 times)

Supervisor, Gordon King Dissertation Award, UC Davis, Ag & Res. Econ. Dept. (8 times)

Supervisor, Institute for Transportation Studies Outstanding Ph.D. Dissertation, 2006, UCD.

Distinguished Conservation Scholar, Duke University Marine Lab, August 2005

Resources for the Future, Inc. Doctoral Dissertation Fellowship, UCR, 1972-73

National Science Foundation Fellowship, UCR, 1970-72

B.A. with Honors and with Distinction in Economics, CSUS, 1970

Research Interests

bioeconomic modelling; dynamics of open access exploitation; micro foundations of entry-exit decisions; factor distortion in regulated common property industries; energy economics; recreation economics; transferable quotas; economics of search; economics of aquaculture; natural resource damage analysis; agricultural pollution; fisheries input/output markets; technical change and productivity in resource industries; economics of cooperation; economic development/natural resources; spatial-dynamic models of resource use; fisheries reform and poverty alleviation.

Teaching Experience

Natural Resource Economics - 40 years: Undergraduate and Graduate level
Dynamic Analysis
Environmental Economics
Introductory and Intermediate Micro Theory
Energy Economics
Environmental Policy Analysis
Fisheries Economics
Applied Research Methods

Work Experience

Research Assistant, California State University, Sonoma, Economics Department, Summers of 1968 and 1969.

Teaching Assistant, California State University, Sonoma, Economics Department, February 1970-June 1970.

Consultant, Department of Interior, Climatic Impact Assessment Program--economic impact of SST flights in the upper atmosphere, September 1973-December 1974.

Consultant, Mathematica, Inc.--analysis of costs and effectiveness of Clean Air Act of 1972 on air pollution in the United States, May 1974-August 1974.

Consultant, National Commission on Water Quality--conceptual foundations of benefit measurement, August 1975.

Assistant Professor of Economics, University of British Columbia, January 1974-June 1978.

Assistant Professor of Economics and of Environmental Studies, University of Washington, July 1978-June 1979.

Associate Professor of Agricultural Economics and of Environmental Studies, University of California, Davis, July 1979-June 1986.

Professor of Agricultural Economics and of Environmental Studies, University of California, Davis, July 1986-June 1996.

Professor of Agricultural and Resource Economics, University of California, Davis, July 1996 to present.

Director, Center for Natural Resource Policy Analysis., University of California, Davis, July 2002 to present.

Distinguished Professor, University of California, Davis, July 1, 2013 to present.

Publications and Completed Research

“A Model of Economic System-Ecosystem Interaction,” Environment and Planning, 5: 409=20, 1973.

“The Proposed Pure Air Tax Act of 1972: Some Cautionary Comments,” National Tax Journal, March 1974, (with R. J. Anderson, Jr).

“On Social Rates of Discount and the Preservation vs. Development Controversy,” in Foss, Phillip (ed.), Outdoor Recreation and Environmental Quality, Fort Collins: Colorado State University Press, 1973, pp. 113-135 (with Ralph C. d'Arge).

“Irreversibilities and Stratospheric Flight,” in U.S. Department of Interior, Department of Transportation, Social and Biological Impacts of Climatic Change, CGPA, 1975, pp. 102-124..

“Decision Making With Potentially Catastrophic Outcomes” in U.S. Department of Interior, Department of Transportation, Social and Biological Impacts of Climatic Change, CGPA, 1975, pp. 73-87.

“Governmental Control of Externalities, or the Prey Eats the Predator,” Journal of Economic Issues, 8(2), June 1974 (with Ralph C. d'Arge).

“The Clean Air Act of 1972: An Assessment of Impact and Costs,” Report submitted to EPA, June 1974 (with R. J. Anderson, Jr. and Edwin S. Mills).

“Option Value and Irreplaceable Assets,” in L. E. Coate and P. Bonner, Regional Environmental Management (New York: Wiley-Interscience, 1975).

“Economics of Policy Impact Analysis: Traditional Techniques and New Concepts of Benefits,” Report submitted to EPA, December 1975.

“Open Access Resources and the Dynamics of Overexploitation: The Case of the North Pacific Fur Seal,” UBC Natural Resource Economics Working Paper No. 3, September 1976.

“Depletion and Diplomacy: The North Pacific Seal Hunt, 1880-1910,” in Paul Uselding (ed.), Research in Economic History, 1977, (with D. G. Patterson).

“Expectations and Adjustment in Open Access Resource Use,” UBC Natural Resources Working Paper, June 1977, (with M. Eswaran).

“Rent Capitalization in a Regulated Fishery: The B.C. Salmon Fishery,” UBC Natural Resources Working Paper, January 1978.

“The Impact of Canada's Pacific Fleet Salmon Control Program,” The Journal of the Fisheries Research Board of Canada, 36(7), 1979 (with P. H. Pearse).

“Regulatory Implications of Alternative Models of Fishermen Behavior,” The Journal of the Fisheries Research Board of Canada, 36(7), 1979.

The Public Regulation of Commercial Fisheries, Vol. I. Economic Council of Canada, Queens Printer Ottawa, Canada. (with A. D. Scott, J. A. Crutchfield, P. H. Pearse, G. R. Munro, M. Tugwell), June 1981.

“Regulation of the British Columbia Herring Industry,” in: The Public Regulation of Commercial Fisheries, Vol. II June 1981. (with A. D. Scott et al.).

“Cyclic Covariation in the California King Salmon, Silver Salmon, and Dungeness Crab Fisheries,” Fishery Bulletin, 80(4), 1982, (with Louis Botsford and Richard Methot).

“Oil and Gas Royalty Recovery Policy on Federal and Indian Lands,” Natural Resources Journal, Vol. 23, April 1983, (with R. Davis and R. Jergovic).

“Royalty Management in the New Minerals Management Service: A Reply to Sant, Haspel, and Boldt,” Natural Resources Journal, Vol. 23, April 1983, (with R. Davis and R. Jergovic).

“Towards a Theory of the Regulated Fishery,” Journal of Marine Resource Economics, 1(4). 1985.

“Biological Models with Applications in Natural Resource Economics,” in A. V. Kneese and J. L. Sweeney (eds.), Handbook of Natural Resource and Energy Economics, North-Holland Publishing Co., 1985.

“Commercial Fisheries vs. Aquaculture: Conflicts in the Northwest Salmon Fishery,” in Richard Johnston (ed.), Fisheries Economics and Trade: Proceedings of the Second Conference, University of Oregon, July 1985, (with James L. Anderson).

“Estimating the Population Dynamics of Coho Salmon Using Pooled Time-Series and Cross Section Data,” in Canadian Journal of Fisheries and Aquatic Science, 42(3), 1985, (with James L. Anderson).

“Modeling Fishermen and Regulator Behavior in Schooling and Search Fisheries,” in A. D. Scott et al. (eds.), Progress in Natural Resource Economics, Oxford University Press, 1986.

“An Examination of Fishing Location Choice in the Pink Shrimp Fishery,” Journal of Marine Resource Economics, 2(4), 1986, (with James Eales).

“Modeling Lygus Hesperus Injury to Cotton Yields,” Journal of Economic Entomology, Vol. 78, 1985, (with Spiro Stefanou and Marc Mangel).

“Information in Agricultural Pest Control,” The Journal of Agricultural Economics, 37(1), 1986, (with Spiro Stefanou and Marc Mangel).

“Optimal Recovery Paths for Perturbations of Trophic Level Bioeconomic Systems,” Journal of Environmental Economics and Management, 13(3), 1986, (with Gardner Brown).

“Implications of Private Salmon Aquaculture Development on Prices, Production, and Management of Salmon Resources,” American Journal of Agricultural Economics, 68(4), 1986, (with James Anderson).

“Pricing Strategies for a Renewable Resource Industry Faced with Competing New Technology,” in M. Bellamy and B. Greenshields (eds.), Agriculture and Economic Instability, I.A.A.E. Occasional Paper No. 4, Gower Publishing Ltd., Aldershoot, England, 1987, (with James Anderson).

“Angler Response to Success in the California Salmon Sportfishery: Evidence and Management Implications,” Journal of Marine Resource Economics, 5(2), 1988, (with E. J. Andrews).

“Limited Entry Licensing: A Retrospective Assessment,” Journal of Marine Resource Economics, 5(4), 1988.

“Rent Generation in Limited Entry Fisheries,” in P.A. Neher, R. Arnason and N. Mollett (eds.), Rights-Based Fishing, Kluwer Academic Publishers, The Netherlands, 1989.

“Multiple Use Benefits on Public Rangelands: An Incentive-Based Fee System,” American Journal of Agricultural Economics, 71(3), August 1989. (with R. Huffaker and B.D. Gardner).

“Dynamics of Optimal Stocking in Plant/Herbivore Systems,” Natural Resource Modeling, 3(4), Fall 1989 (with R. Huffaker).

“A Bioeconomic Livestock/Wild Horse Trade-off Mechanism for Conserving Public Rangeland Vegetation” (with R. Huffaker and B.D. Gardner), Western Journal of Agricultural Economics, 15(1), July 1990.

“Fishermen and Labor Markets: Participation, Earnings, and Alternatives in Pacific Coast Fisheries,” National Marine Fisheries Service, Southwest Fisheries Center Report, (with Tzy-Ning Chen and Frances Homans), August 1991.

“Animal Stocking Under Conditions of Declining Forage Nutrients” (with R. Huffaker), American Journal of Agricultural Economics, 73(4), November 1991.

“License Values in Restricted Access Fisheries,” (with S. Stefanou), Bulletin of Mathematical Biology. 54(2/3), 1992.

“Technical Review: A Benefit Cost Analysis of the Alaska Salmon Enhancement Program. Report submitted to the Alaska State Department of Fish and Game.

“Inventory Dissipation in the Japanese Wholesale Salmon Market,”(with C. Wessells), in Carlos Wurmman and Lidia Vidal (eds.), Fisheries Economics and Trade: Proceedings of the Fifth Conference, Fundacion Chile, (1993).

“An Analysis of Policy Options for the Control of Agricultural Pollution in California's San Joaquin River Basin” (with M. Weinberg and C. Kling), in Jason Shogren and Clifford Russell (eds.), The Management of Nonpoint-Source Pollution, Kluwer Academic Publishers, The Netherlands (1993).

“Bioeconomic Analysis of Management Tactics in the Maine Fishery for the American Lobster (*Homarus americanus*)” Report submitted to the Maine State Department of Marine Resources, (with Louis Botsford, Edward Richardson, and John Brittnacher).

“Economic Analysis of Japanese Household Demand for Salmon” Journal of the World Aquaculture Society, 24(3), Sept. 1993 (with Cathy Wessells).

“Water Markets and Water Quality,” American Journal of Agricultural Economics, vol. 75, May 1993. (with Marca Weinberg and Cathy Kling).

“Inventory Dissipation in the Japanese Wholesale Salmon Market,” Journal of Marine Resource Economics, 8:1-16, 1993 (with Cathy Wessells).

“Enhancing Economic Analysis in Fishery Management: Discussion,” American Journal of Agricultural Economics, 75: 1198-1199, December 1993.

“U.S. Fishery Regulation Policy: Lessons for Peru,” in Eduardo Loayza,(ed.), Managing Fishery Resources, World Bank Discussion Paper No. 217, the World Bank, Washington, D.C., 1994.

“Seasonal Patterns and Regional Preferences in Japanese Household Demand for Seafood,” Canadian Journal of Agricultural Economics, March 1994 (with Cathy Wessells).

“Marketing Losses in Regulated Open Access Fisheries,” in M. Antona, J. Catanzano, and J. Sutinen (eds.) Fisheries Economics and Trade: Proceedings of the Sixth Conference, IFREMER-SEM, pp. 795-801, 1994 (with Frances Homans).

“Optimality Conditions and Comparative Statics for Horizon and Endpoint Choices in Optimal Control Theory,” Journal of Economic Dynamics and Control, 19: 351-69, 1995, (with M. Caputo).

“Optimal Clean-up of Hazardous Wastes,” International Economic Review, 36(1), Feb. 1995 (with M. Caputo).

“The Effects of Individual Transferable Harvest Quotas in the British Columbia Halibut Fishery,” Marine Resource Economics, 10(5), 1995 (with K. Casey, C. Dewees, B. Turriss).

“Principles for the Conservation of Wild Living Resources” Ecological Applications, 6(2) May 1995 (with Marc Mangel, Lee Talbot, Gary Meffe et. al.)

“Labor Costs May Offset Water Savings of Sprinkler Systems,” California Agriculture, Jan/Feb. 1996. (with Dennis Wichelns).

“Efficiency and Factor Productivity in Common Property Resource Use,” Proceedings, Global Science Policy for the Twenty-first Century, Melbourne, Australia, August 1996.

“A Model of Regulated Open Access Resource Use,” Journal of Environmental Economics and Management, 32(1), 1997, (with Frances Homans). Reprinted in L. Anderson (ed.) Fisheries Economics, Selected Essays, Ashgate Press, 2002. AAEA Quality of Research Discovery Award, 1998. AERE Publication of Enduring Quality, 2010.

“An Economic Analysis of the Market for Maine Sea Urchins,” Report prepared for the State of Maine, Department of Marine Resources, 1997, (with Cathy Wessells).

“Ecosystem Management and the 1996 Reauthorization of the Magnuson Act,” Ecological Law Quarterly, vol. 24, no. 4, 1997, (with Shi-Ling Hsu). excerpted in: J.C.Nagel and J.B.Ruhl (eds.) The Law of Biodiversity and Ecosystem Management, Foundation Press, New York, 1st Edition (2002) and 2d Edition (2006).

“Unraveling Rent Losses in Modern Fisheries: Production, Market, or Regulatory Inefficiencies?” in Daniel Huppert, Ellen Pitkitch, and Michael Sissenwine (eds), Fisheries Management: Global Trends, University of Washington Press, 1997 (with Frances Homans).

“Impacts of ITQs on Labor: Employment and Remuneration Effects,” in Gisli Palsson and Gudrun Petursdottir (eds.), Social Implications of Quota Systems in Fisheries, TemaNord, Copenhagen, 1997, pp.315-54 (with Keith Casey).

“What Do Regulators Do? “Dynamic Behavior of Resource Managers in the North Pacific Halibut Fishery,” Ecological Economics, 24:289-98, 1998, (with Frances Homans).

“Research Trends and Opportunities in Environmental and Natural Resource Economics,” Environmental and Resource Economics, 11(3/4): 383-97, 1998, (with Robert Deacon et. al.).

“Marine Reserves: Is There a Free Lunch?”, Resources for the Future Discussion Paper No. 99-09, December 1998, (with James Sanchirico).

“Marine Reserves and Management of the Northern California Red Sea Urchin Fishery” California Cooperative Oceanic Fishery Investigations, vol. 30, October 1999 (with Lou Botsford, Lance Morgan, and Dale Lockwood).

“Bioeconomics of Spatial Exploitation in a Patchy Environment,” Journal of Environmental Economics and Management, 37: 129-50, 1999, (with James Sanchirico). Reprinted in L.

Anderson (ed.) Fisheries Economics, Selected Essays, Ashgate Press, 2002. AAEA Quality of Research Discovery Award, Honorable Mention 2000.

“Public Policy and Private Incentives for Livestock Disease Control,” Journal of Agricultural Economics, 43(4), 1999, (with Katherine Blackman Bicknell and Richard Howitt).

“Alaska Fisheries Management: A Case Study of Power and Politics”, in Harry Scheiber (ed.), Emerging Issues in National Ocean and Coastal Policy, Center for Study of Marine Policy, University of Delaware, Newark, 1999.

“Economic Analysis of the Galapagos Marine Reserve Resources Management Plan”, Report submitted to the Inter-American Development Bank, May 2000 (with Micki Stewart, David Layton).

“Spatial Dynamics of Overexploitation: A Metapopulation Approach”, Resources for the Future Discussion Paper No. 00-25, June 2000 (with James Sanchirico).

“Renewable Resource Economists and Policy: What Differences Have We Made?” invited paper for the 25th Anniversary Issue of the Journal of Environmental Economics and Management, 39(3), 2000.

“Introducing Space into Fisheries Models”, American Journal of Agricultural Economics, 82(5), 2000.

“Impacts of Marine Reserves in the Galapagos Islands: Some Considerations” in R. Johnston (ed.) Microbehavior and Macroresults: Proceedings of the 10th Biennial Conference of the Institute of Fisheries Economics and Trade, Corvallis, Oregon, 2000 (with Micki Stewart).

“The Sea Urchin Fishery: Harvesting, Processing, and the Market,” Marine Resource Economics, 15(2), 2000, (with Julie Reynolds).

“A Bioeconomic Model of Marine Reserves Creation” Journal of Environmental Economics and Management, 42(3), 2001 (with James Sanchirico).

“Measuring Total Factor Productivity in Regulated Open Access Industries” in Julian Alston, Philip Pardey, and Michael Taylor (eds.), Agriculture Science Policy, Johns Hopkins Press, 2001.(with Frances Homans).

“The Dynamics of Overexploitation: A Spatial Approach”, Natural Resources Modeling, 14(3), Fall 2001, (with James Sanchirico).

“Crutchfield and Zellner on Ex-vessel Price Determination in the Pacific Halibut Fishery” in J.A. Crutchfield and Arnold Zellner (eds.), The Economics of Marine Resources and Conservation Policy, University of Chicago Press, 2002 (with Frances Homans).

“Avoiding Surprises: Incorporating Fishermen Behavior into Management Models”, Bulletin of Marine Science, 70(2): 553-575, 2002 (with Marty Smith, Dale Lockwood, Lou Botsford).

“The Impacts of Marine Reserves in Limited Entry Fisheries”, 15(3), Fall 2002, Natural Resource Modeling, (with James Sanchirico). (reprinted in Spatial Aspects of Environmental Policy, Geoghegan J. and W. Gray, eds., Ashgate Publishing Company, 2005).

“Dynamics of Antibiotic Use: Ecological versus Interventionist Strategies” in Ramanan Laxminarayan (ed.) Economics of Antibiotic Resistance, Johns Hopkins Press, 2002 (with Siwa Msangi).

“The Marine Environment: Fencing the Last Frontier”, (runner up winner: AAEA 21st Century Essay Contest), Review of Agricultural Economics, 24(1): 31-42, 2002 (with Marty Smith).

“Global Marine Fisheries Resources: Status and Prospects”, Resources for the Future Issues Brief, 02-17, August 2002 (with James Sanchirico).

“Economic Impacts of Marine Reserves: the Importance of Spatial Behavior” Journal of Environmental Economics and Management, 46, 2003, (with Marty Smith). (reprinted in Spatial Aspects of Environmental Policy, Geoghegan J. and W. Gray, eds., Ashgate Publishing Company, 2005). AAEA Quality of Research Discovery Award, 2004.

“Property Rights and the Texture of Rents in Fisheries” in Donald Leal (ed.) Evolving Property Rights in Marine Fisheries, Rowman & Littlefield Publishers, Inc., 2004.

“State Dependence and Heterogeneity in Fishing Location Choice” Proceedings of 11th Biannual Conference of the International Institute for Fisheries Economics and Trade, Wellington, New Zealand, 2003 (with Marty Smith).

“Analysis of Options to Restructure the Bristol Bay Salmon Fishery”, report submitted to the Joint Legislative Salmon Industry Task Force, Alaska Legislature, (with M. Link, M. Hartley, S. Miller, R. Waldrop, and J. Barnett), March 2003.

“Spatial Management of Fisheries” Marine Resource Economics 19(1): 7-20 (2004).

“Marine Reserves with Endogenous Ports: Empirical Bioeconomics of the California Sea Urchin Fishery” Marine Resource Economics, 19(1): 85-112 (2004), (with Marty Smith).

“Rationality or Chaos? Global Fisheries at a Crossroads”, in Linda Glover and Sylvia Earle (eds.), Defying Oceans End, Island Press, 2004 (with Andy Solow, Rod Fujita, Steve Polasky, Jim Cannon, Kate Bonzon).

Uchida, Hiro and James Wilen. “Japanese Coastal Fisheries Management and Institutional Design: A Descriptive Analysis” Proceedings: 12th Biennial Conference of the International Institute of Fisheries Economics and Trade, July 20-30, 2004, Tokyo, Japan.

Uchida, Hiro, James Wilen and Douglas Larson. "Individual Household Quotas in a Household Economy: Will the System Work?" Proceedings: 12th Biennial Conference of the International Institute of Fisheries Economics and Trade, July 20-30, 2004, Tokyo, Japan.

"Markets and Rent Dissipation in Regulated Open Access", Journal of Environmental Economics and Management, 49(2): 381-404, 2005 (with Frances Homans).

"Correlated Risk Preferences and Behavior of Commercial Fishermen: The Perfect Storm Dilemma", Journal of Risk and Uncertainty, 31(1): 53-71 2005, (with Marty Smith)

"Bioeconomics of Metapopulations: Sinks, Sources and Optimal Closures", in Frontiers in Resource Economics: Essays in Honor of Gardner Brown, R. Halvorson, and D. Layton (eds.) Edward Elgar Press, 2006 (with James Sanchirico).

"Optimal Spatial Management of Metapopulations: Matching Policy Scope to Ecosystem Scale", Journal of Environmental Economics and Management, 50(1): 23-46, 2005, (with James Sanchirico). Reprinted in Charles Perrings (ed.) Ecological Economics, Sage Library of Economics, Sage Publishing, 2008. Most Cited Article in JEEM, 2005-2009.

"Why Fisheries Management Fails: Treating Symptoms Rather than Causes", Bulletin of Marine Science, 78: 529-546, 2006.

"When are no-take zones an economically optimal fishery management strategy?", Ecological Applications, 16(5), 2006 (with Jim Sanchirico, Alan Hastings, and Ludmilla Malvadka).

Dynamic Changes in Marine Ecosystems: Fishing, Food Webs, and Future Options, National Research Council, The National Academies Press, Washington, D.C. 2006 (with James Cowan, Larry Crowder, Dorinda Dallmeyer, Richard Deriso, John Magnuson, Ana Parma, and Andrew Rosenberg).

"Prohibited Species Bycatch in the Eastern Bering Sea Flatfish Fisheries—An Analysis of Institutions and Incentives" Proceedings of the 2005 North American Fisheries Economists Forum, Fisheries Centre, U. British Columbia, 2006.

"Global Marine Fisheries Resources: Status and Prospects", International Journal of Global Environmental Issues, 7(2): 106-18, 2007 (with James Sanchirico).

"Quick Fixes for Environmental Problems: Part of the Solution or Part of the Problem?" Environment, December 2006, 48(10), (with T. Sterner, M. Troell, J. Vincent, S. Aniyar, S. Barrett, W. Brock, S. Carpenter, K. Chopra, P. Ehrlich, M. Hoel, S. Levin, K-G. Maler, J. Norberg, L. Pihl, T. Soderqvist, A. Xepapadeas).

"Thoughts on Capacity Analysis: Is Capacity Analysis Giving Policy Makers Information They Need?", Marine Resource Economics, 22(1): 79-82, 2007.

“TURFs and ITQs: Coordinated versus Decentralized Decision Making”, Marine Resource Economics, 22(4): 391-406, 2007 (with Jose Cancino and Hiro Uchida).

“Economics of Spatial-dynamic Processes” AAEA 2007 Fellows Address, American Journal of Agricultural Economics, 89(5): 1134-1144.

“The Pollock Conservation Cooperative” in Case Studies in Fisheries Self-Governance, R. Townsend, R. Shotton and H. Uchida (eds.), FAO Fisheries Technical Paper #504, 2008, FAO (with Ed Richardson).

“Sustainable Use of Renewable Resources: Implications of Spatial-Dynamic Ecological and Economic Processes”, International Review of Environmental and Resource Economics, 1(4): 367-405, 2008. (with James Sanchirico).

“Poverty and Spatial Dimensions of Non-timber Forest Extraction”, Environment and Development, 13(5): 621-642, 2008, (with Alejandro Lopez-Feldman).

“Sports charterboat quota systems: predicting impacts on anglers and the industry” in Donald Leal (ed.) Rights based management for recreational fisheries, Rowman and Littlefield, 2008.

“Dynamically Optimal Strategies to Manage Resistance to Genetically Modified Crops” Journal of Economic Entomology, 101(3): 921-956, 2008, (with Fangbin Qiao, Scott Rozelle).

“Regulation of Fisheries Bycatch Under Common-Pool Output Quotas”, Journal of Environmental Economics and Management, 57(2): 195-204, 2009. (with Josh Abbott).

“Stranded Capital in Fisheries: the Pacific Coast Groundfish/Whiting Case” Marine Resource Economics, 24(1): 1-18. April 2009.

“Ralph Clair d’Arge Obituary: June 20, 1941-June 27, 2009” Journal of Environmental Economics and Management, 58(3): 251-252.

“A Reply to ‘Stranded Capital in Fisheries: the Pacific Coast Groundfish/Whiting Case’ (The Comment)” Marine Resource Economics, 25(1): 129-132. April 2010.

“Economically Optimal Management of a Metapopulation” in Steve Cantrell (ed.), Spatial Ecology, Chapman and Hall, (with James Sanchirico), 2009.

“Economics of Spatial-dynamic Processes: Applications to Renewable Resource Use” Journal of Environmental Economics and Management, 57(1): 104-121, 2009. (with Marty Smith and James Sanchirico). AAEA Quality of Research Discovery Award, 2010.

“TURFs and ITQs: Coordinated versus Decentralized Decision Making”, in Advances in Rights Based Fishing: Extending the Role of Property Rights in Fishing, R. Arnason and B. Runolfsson (eds.) Uglu Publishing, Reykjavik, Iceland. 2009. (with Jose Cancino and Hiro Uchida).

“Dynamically Optimal Strategies for Managing the Joint Resistance of Pests to Bt Toxin and Conventional Pesticides in a Developing Country”, European Review of Agricultural Economics, 36:253-279, 2009, (with Fangbin Qiao, Jikun Huang, Scott Rozelle)

“Rent Dissipation and Efficient Rationalization of For-Hire Recreational Fishing”, Journal of Environmental Economics and Management, 58(3): 300-314, 2009 (with Josh Abbott).

“Designing ITQ Programs for Commercial Recreational Fishing” Marine Policy 33: 766-774 2009 (with Josh Abbott and Vishwanie Marahaj).

“Analysis of Alternative Incentive Plans for Reducing Salmon Bycatch in the Pollock Fishery”, submission prepared for the North Pacific Fisheries Management Council, March 2009

“Voluntary Cooperation in the Commons? Evaluating Sea State with Reduced Form and Structural Models” Land Economics, 86(1): 131-154, 2010, (with Josh Abbott).

“Natural Resource Economics and Conservation: Contributions of Agricultural Economics and Agricultural Economists”, American Journal of Agricultural Economics, (with Erik Lichtenberg, James Shortle and David Zilberman) 92(2): 469-489, 2010.

“Optimal Rebuilding of a Metapopulation”, American Journal of Agricultural Economics, 92(4): 1087-1102, 2010, (with James Sanchirico and Conrad Coleman).

“Natural Refuge Crops, Buildup of Resistance, and Zero-refuge Strategy for BT Cotton in China” Science China: Life Sciences, 53(10): 1227-1238, 2010, (with Fangbin Qiao, JiKun Huang, and Scott Rozelle).

“Employment and remuneration effects of ITQs in the Bering Sea/Aleutian Islands Crab Fisheries”, Marine Resource Economics, 25(4): 333-354, December 2010, (with Josh Abbott and Brian Garber-Younts). 2010 S-Y.Hong Award for Outstanding Article in Marine Resource Economics.

“Dissecting the Tragedy: A Spatial Model of Behavior in the Commons” Journal of Environmental Economics and Management, 62(3): 386-401, 2011, (with Josh Abbott).

“Optimal Spatial Control of Biological Invasions”, Journal of Environmental Economics and Management, 63(2): 260-270, 2012, (with Becky Epanchin-Niell).

“Fishing Down the Food Chain Revisited: Modeling Exploited Trophic Systems” Ecological Economics, 79: 80-88, 2012, (with Christopher Wilen).

“A Linear Programming Model to Optimize Diets in Environmental Policy Scenarios” Journal of Dairy Science, 95(3): 1267-82, 2012, (with Luis Moraes, Peter Robinson, and James Fadel).

“Economics of TURFs, or Territorial Use Rights Fisheries”, Review of Environmental Economics and Policy, 6(2): 237-257, 2012.

“Regulated Open Access and Regulated Restricted Access Fisheries” in J. Shogren (ed.) Encyclopedia of Energy, Natural Resource and Environmental Economics, Elsevier, Oxford. 2013. (with Matt Reimer).

“Behavior of the Galapagos Fishing Fleet and Its Consequences for the Design of Spatial Management Alternatives for the Red Spiny Lobster Fishery”, Ocean and Coastal Management, 78:88-100, 2013, (with Santiago Bucaram, W. White and J. Sanchirico).

“The Challenges of Pro-poor Fisheries Reform”, Marine Resource Economics, 28: 203-220, 2013.

“Market Integration and Natural Resource Use in Developing Countries: a Linked Agrarian-Resource Economy in Northern Honduras” Environment and Development Economics, 19(2): 133-55, October 2013. (with Dale Manning and J.E. Taylor).

“Identifying the Multiple Margins of Rent Generation from Individual Transferable Quotas” Land Economics, 90(3): 538-559. 2014 (with Matt Reimer, Josh Abbott).

“Climate Engineering Reconsidered” Nature Climate Change, 4: 527-29. (with S. Barrett, T. M. Lenton, A. Millner, A. Tavoni, S. Carpenter, J. M. Anderies, F.S. Chapin, A-S Crepin, G. Daily, P. Ehrlich, C. Folke, V. Galaz, T. Hughes, N. Kautsky, E. Lambin, R. Naylor, K. Nyborg, S. Polasky, M. Scheffer, A. Xepaadeas, A. de Zeeuw).

“The Microeconomics of Beekeeping” Environmental and Resource Economics, Ecological Economics, forthcoming 2104 (with Antoine Champetier, and Daniel Sumner).

“Individual and Cooperative Management of Invasive Species in Human Mediated Landscapes”, American Journal of Agricultural Economics, forthcoming 2014 (with Becky Epanchin-Niell).

“The Political Economy of Chile’s Nearshore Fisheries Reform”, in M. Arbuckle and D. Leal (eds), Currents of Change: Rights-Based Fisheries Reform for Developing Countries, World Bank, Washington D.C., forthcoming 2014. (with L.S.Jarvis).

“Tapping the Potential of Artisanal Fisheries: Prospects for Rights-Based Fisheries Reform”, in M. Arbuckle and D. Leal (eds), Currents of Change: Rights-Based Fisheries Reform for Developing Countries, World Bank, Washington D.C., forthcoming 2014.

Theses Supervised and co-Chaired

Mukesh Eswaran, "Models of the British Columbia Salmon Vessel Market," M.A. 1978.

James L. Anderson, "Bioeconomic Interaction Between Aquaculture and the Common Property Fishery with Application to Northwest Salmon Resources," Ph.D. 1983 (1983 AAEA Outstanding Dissertation Award).

James S. Eales, "Modeling Searching Behavior in the Pink Shrimp Fishery: Area Choice and Information Gathering," Ph.D. 1983.

Spiro Stefanou, "Impact of Scouting Information on Pesticide Application Decisions: Cotton in the San Joaquin Valley of California and *Lygus hesperus*," Ph.D. 1983. co-chair

Ray Huffaker, "The Distribution of Economic Rents When Irrigated Farmland Is Leased," Ph.D. 1983. co-chair

Elizabeth J. Andrews, "Angler Participation Response to Success in the California Salmon Sportsfishery," M.S. Ecology, 1984.

Luanne Lohr, "Spatial and Intertemporal Aspects of Short-Rotation Biomass Cropping," Ph.D. 1989.

John Boyce, "Microeconomics of Entry, Exit, and Spatial Mobility in the Pacific Salmon Fishery," Ph.D. 1989.

Keith Criddle, "Management Modeling of Multispecies Fisheries in the Bering Sea," Ph.D. 1989.

Cathy Wessells, "An Economic Analysis of the Japanese Salmon Market: Consumption Patterns, the Role of Inventories and Trade Implications," Ph.D. 1990.

Marca Weinberg, "Salinity, Drainage and Non-Point Source Pollution in the San Joaquin Valley," Ph.D. 1991 (1991 AAEA Outstanding Dissertation Award and UC Davis Agricultural Economics Gordon A. King Dissertation Research Award). co-chair

Frances Homans, "Modeling Regulated Open Access Resource Use," Ph.D. 1993 (1993 AAEA Outstanding Dissertation Award and UC Davis Agricultural Economics, Gordon A. King Dissertation Research Award).

Julie Reynolds, "Economic Analysis of Factors Affecting Prices and Costs in the California Sea Urchin Fishery," M.S. Ecology, 1994.

Katherine Blackman Bicknell, "A Bioeconomic Model of Bovine Tuberculosis Control," Ph.D., 1995. (1995 AAEA Outstanding Dissertation Award (Honorable Mention) and UC Davis Agricultural Economics Gordon A. King Dissertation Research Award). co-chair

Keith Casey, "Issues in the Design of Individual Transferable Quotas," Ph.D. 1997.

Mark Evans, "An Examination of Vessel Performance and Mobility in the California Commercial Salmon Fishery," Ph.D. 1997.

Steve Hampton, "Patterns of Deforestation and the Decline of Agroforestry in Two African Villages," Ph.D. 1997.

T.J.Wyatt, "Determinants of Investment in Soil Erosion Reduction by Malagasay Farmers," Ph.D. 1998.

James Sanchirico, "The Bioeconomics of Spatial and Intertemporal Exploitation: Implications for Management," Ph.D., 1998, (1999 AAEA Outstanding Dissertation Award and UC Davis Agricultural Economics Department Gordon A. King Dissertation Research Award).

Sam Benin, "Efficiency and Productivity Implications of Alternative Land Inheritance Systems in Ghana," Ph.D. (1998).

Shi-Ling Hsu. "A Model of Environmental Compromise between Regulators and Landowners under the Endangered Species Act," Ph.D. (1998).

Lore Ruttan, "Cooperation and the Conservation of Common Pool Resources" Ph.D. Ecology (1999), co-chair.

Tzy Ning Chen, "Off-Season Labor Opportunities and Choices by Commercial Fishermen," Ph.D. (dropped).

Dawn Parker. "Spatial Externalities in Agriculture and the Use of Buffers," Ph.D., 2000.

Martin Smith, "Spatial Behavior, Marine Reserves, and the Northern California Red Sea Urchin Fishery", Ph.D., 2001, (2001 AAEA Outstanding Dissertation Award and UC Davis Agricultural Economics Department Gordon A. King Dissertation Research Award).

Stephen Newbold, "An Integrated Modeling Framework for Analyzing Watershed Management Strategies", Ph.D. Ecology, 2002.

Doreen Hansen. "Estimating Costs in the California Commercial Salmon Fishery", M.S. 2003.

Deborah Salon, "Cars and the City: An Investigation of Transportation and Residential Location Choices in New York City", Ph.D., 2006 (2006 Outstanding Ph.D. Dissertation, Institute for Transportation Studies, UCD).

Fangbin Qiao, "BT Cotton, Resistance, and Optimal Pesticide Use in China", Ph.D. 2006.

Emi Uchida, “Forestry Policy in China: Balancing Siltation and Forestry Benefits in a Spatial/Dynamic System”, Ph.D., 2006, co-chair.

Joshua Abbott, “Impacts of Voluntary and Market Mechanisms for Reducing By-catch” Ph.D. 2007.

Jose Cancino, “The Biological and Economic Impacts of Cooperative Harvesting Organizations in the Chilean Loco Fishery”, Ph.D. 2007.

Hiro Uchida, “Sharing Rules in Japanese Coastal Cooperative for Fisheries: Efficiency and Equity Impacts”, Ph.D. 2007.

Rosa Catala-Luque. “Controlling the Diffusion of Subsurface Contaminants”, Ph.D. 2007, co-chair.

Micki Stewart, “An Analysis of the Galapagos Islands Marine Management Plan” Ph.D. 2008.

Julie Witcover, “Shaping Land Use Along an Agricultural Frontier: A Dynamic Household Model for Early Small-Scale Settlers in the Brazilian Amazon”, Ph.D. 2008.

Rebecca Niell, “Spatial-dynamics, Micro Behavior, and the Control of Invasive Species”, Ph.D. 2009.

David Heres de Valle, “Impacts of California’s AB 32 Greenhouse Gas Initiative” PhD. 2009, co-chair.

Antoine Champetier de Ribes, “Economics of Pollination Services”, Ph.D., 2010, co-chair.

Sharon Shewmake, “Economics of High Occupancy Vehicle Lanes: the California Experience” PhD., 2010.

Santiago Bucaram. “Analysis of Fisheries Management Options for Galapagos Nearshore Fisheries”, PhD, 2012.

Matthew Reimer, “Revisiting the Fishery Production Function: Space, Time and Policy Invariant Relationships” PhD, 2012. (2012 Department of Agricultural and Resource Economics Gordon A. King Dissertation Research Award). co-chair.

Joeri de Witt, “Economics of Geothermal Energy: Exploitation of the California Geysers Steam Field”, PhD. 2013. (2013 Department of Agricultural and Resource Economics Gordon A. King Dissertation Research Award).

Dale Manning, “Design of Fisheries Management Institutions for Poverty Reduction: Efficiency, Rents, and Insurance” PhD 2013, co-chair.

Jay Abolofia, "Economics of Sea Lice Management in the Norwegian Aquaculture Industry" PhD 2014. co-chair.

Amanda Faig, "Economic Impact of Fishery-Induced Evolution" PhD. (expected 2015).

Gabe Sampson, "Scale and Organizational Economies in Artisanal Fisheries" PhD. (expected 2016). Co-chair

Theses: Committee Membership

Christopher Dewees, "Technical Innovation in the Pacific Coast Commercial Trawling and Salmon Trolling Fisheries", Ph.D. Ecology, 1985.

Dennis Wichelns, "Economic Impacts of Salinity: Farm Level Effects and Regional Analysis", Ph.D. 1986.

Hui-Shung Chang, "Measuring the Effects of Advertising in Food Demand Systems", Ph.D., 1987.

Robert Glenn Kope, "Analysis of Factors Influencing the Population Dynamics of Chinook Salmon, in Central California", Ph.D. Ecology, 1987.

Jon Brodziak, "Theoretical Aspects of Genetic Stock Identification", Ph.D. Applied Mathematics, 1990.

Iraj Deilami, "Utilization of a Common Oil Pool: Theory and Evidence", Ph.D. Economics, 1991.

Miguel A. Cisneros, "Population Viability Analysis of Age-Structured Populations: Applications to Totoaba Macdonaldi in the Gulf of California, Mexico" Ph.D. Ecology, 1995.

Lance Morgan, "Spatial Variability in Growth, Mortality, and Recruitment in the Northern California Red Sea Urchin Fishery", Ph.D. Ecology, 1997.

Ragnar Tveteras, "Econometric Modeling of Production Technology under Risk: The Case of the Norwegian Salmon Aquaculture Industry", Ph.D. Economics, Norwegian School of Economics and Business, 1998.

Adrienne Kandel, "Instrumented Decomposition: A New Method to Estimate the Net Energy Savings Caused by Efficient Appliance Rebate Programs", Ph.D., 1999

Daniel Hallstrom, "Climate Fluctuations and Improved Climate Information in International Grain Markets", Ph.D. 1999.

Jukka Peltola, "Three Essays on CO₂ Emission Reduction Management" Ph.D., 2001.

Yuha Siikamaki, "Discrete Choice Experiments for Valuing Biodiversity Conservation in Finland", Ph.D. Ecology, 2001.

Ron Felthoven. "An Analysis of Capacity Utilization and Economic Performance: An Application to North Pacific Groundfish Fisheries", Ph.D., 2001.

Alan DeBrau. "Essays on Migration in China", Ph.D. 2002.

Dan Lew, "Valuing Attributes in Multi-trip Models of Beach Use", Ph.D. 2002.

Dale Lockwood, "The Effects of Dispersal Patterns on Marine Reserves", Ph.D., Ecology, 2002.

Siwa Msangi, "Managing Groundwater in the Presence of Asymmetries: Three Essays" Ph.D. 2004.

Alejandro Lopez-Feldman, "Rural Households, Natural Resources and Poverty: Three Essays on the Economics of Extraction in the Lacandona Rainforest, Mexico" , 2006.

Kent Kovacs, "Natural Amenity Benefits and Urban Spatial Structure" Ph.D., 2006.

Qiuqiong Huang. "Three Essays on Irrigation Water Pricing Policies and the Joint Management of Water Quantity and Quality", Ph.D., 2006.

Wayne Leighty. "Modeling of Energy Production Decisions: An Alaska Oil Case Study" Institute for Transportation Studies, UCD, 2008.

Amelia Blanke, "Essays on Chinese Labor Migration" , PhD 2011.

David Kling, "Three Essays on Management of Marine Bioinvasives" PhD 2013.

Boon-Ling Yeo, "Interactions Between Pollution Regulation Programs", PhD. 2013.

Kailin Kroetz, "Costs and Benefits of Restrictions in Created Markets", PhD 2014.