

MARTIN D. SMITH

Nicholas School of the Environment
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Education

UNIVERSITY OF CALIFORNIA, DAVIS

Ph.D. in Agricultural and Resource Economics, 2001

Fields: Environmental and Resource Economics, Econometrics

Dissertation: "Spatial Behavior, Marine Reserves, and the California Red Sea Urchin Fishery"

Committee: James E. Wilen (chair), Douglas M. Larson, David F. Layton, Jeffrey C. Williams

STANFORD UNIVERSITY

B.A. in Public Policy with a concentration in Environmental Policy, 1992

Honors and Awards

- 2018 Quality of Research Discovery, Agricultural and Applied Economics Association (w/ A. Oglend, J. Kirkpatrick, F. Asche, L. Benneer, J.K. Craig, and J. Nance)
- 2016 The AquaFish Prize for Best Aquaculture Economics Paper, International Institute of Fisheries Economics and Trade (w/ C. Fischer and A. Guttormsen)
- 2012 Outstanding Article in *Marine Resource Economics* (w/ L. Huang, L. Nichols, and J.K. Craig)
- 2011 Aldo Leopold Leadership Fellowship
- 2010 Quality of Research Discovery, Agricultural and Applied Economics Association (w/ J.N. Sanchirico and J.E. Wilen)
- 2008 Dr. S.-Y. Hong Award for Outstanding Article in *Marine Resource Economics* (w/ J. Zhang and F.C. Coleman)
- 2004 Quality of Research Discovery, American Agricultural Economics Association (w/ J.E. Wilen)
- 2002 American Agricultural Economics Association Outstanding Dissertation
- 2001 American Agricultural Economics Association Outstanding Essay for the 21st Century, Honorable Mention (w/ J.E. Wilen)
- 2001 Gordon A. King Outstanding Dissertation Award in Agricultural and Resource Economics, U.C. Davis
- 2000 Best Student Paper, International Institute for Fisheries Economics and Trade
- 1999 Jastro Shields Research Fellowship
- 1998 California Sea Grant College Traineeship
- 1996 Giannini Foundation Fellowship
- 1991 Krupp Foundation Fellowship

Professional Positions and Appointments

Duke University, Nicholas School of the Environment (NSOE)

- 2016 – present George M. Woodwell Distinguished Professor of Environmental Economics
- 2014 – 2016 Professor of Environmental Economics
- 2011 – 2014 The Dan and Bunny Gabel Associate Professor of Environmental Economics
- 2008 – 2011 Associate Professor of Environmental Economics
- 2001 – 2008 Assistant Professor of Environmental Economics

Appointment History at Duke

2017 – present	Primary Appointment, Division of Marine Science and Conservation, NSOE
2001 – 2017	Primary Appointment, Division of Environmental Science and Policy, NSOE
2003 – present	Secondary Appointment, Department of Economics
2005 – 2017	Secondary Appointment, Division of Marine Science and Conservation, NSOE

Editorial Appointments

2018 – present	Features Editor, <i>Review of Environmental Economics and Policy</i>
2012 – 2017	Editor-in-Chief, <i>Marine Resource Economics</i>
2012 – present	Editorial Council, <i>Journal of Environmental Economics and Management</i>
2016 – present	Editorial Council, <i>Journal of the Association of Environmental and Resource Economists</i>
2013 – 2016	Co-Editor, <i>Journal of the Association of Environmental and Resource Economists</i>
2007–09, 2010-11	Co-Editor, <i>Journal of Environmental Economics and Management</i>
2006 – 07, 2009-10	Editorial Council, <i>Journal of Environmental Economics and Management</i>
2010 – 2014	Editorial Advisory Board, <i>The Open Fish Science Journal</i>
2004 – 2007	Associate Editor, <i>Marine Resource Economics</i>

Other Appointments in Service to Society

2018 – present	President-elect, International Institute of Fisheries Economics and Trade
2013 – 2019	Ocean Studies Board, U.S. National Academies of Sciences, Engineering, and Medicine
2017 – 2018	Panel Member, National Academies of Sciences, Engineering, and Medicine Study, Long-term Coastal Zone Dynamics: Interactions and Feedbacks between Natural and Human Processes along the U.S. Gulf Coast
2008 – 2016	Scientific and Statistical Committee, Mid-Atlantic Fishery Management Council
2013 – 2015	Technical Advisory Group on International Water, Global Environment Facility

Previous Professional Experience

1996 – 2001	Post Graduate Researcher; Instructor; Research Assistant; Teaching Assistant University of California, Davis
1993 – 1996	Associate; Research Analyst Law and Economics Consulting Group, Inc. (LECG), Emeryville, CA
1986 – 1990, 1992	Data Analyst (summers), Del Mar Thoroughbred Club, Del Mar, CA
1991	Intern (summer), United Nations Environment Programme, Washington, D.C.

PROFESSIONAL WRITING

Journal Articles

* Indicates first author is student advisee or lab visitor of M.D. Smith when research was completed

+ Indicates first author is a student or post-doc advisee of another Duke faculty member

In Review or Preparing to Submit

Banzhaf, S., Y. Liu, F. Asche, **M.D. Smith**. “Non-parametric tests of the tragedy of the commons” (Working Paper, preparing to submit)

*Bronnmann, J., **M.D. Smith**, J. Abbott, C.J. Hay, and T.F. Næsje. “Integration of a local fish market in Namibia with the global seafood trade: Implications for fish traders and sustainability” (In Review)

+ Li, Q., and **M.D. Smith**. “Fishery Collapse Revisited,” 2019 (Revision Requested)

*Birkenbach, A., A. Cojocar, F. Asche, A.G. Guttormsen, and **M.D. Smith**. “Seasonal Harvest Patterns in Multispecies Fisheries,” 2018 (Revision Requested)

*Birkenbach, A., D. Kaczan, **M.D. Smith**, G. Ardini, D. Holland, M-Y. Lee, D. Lipton, and M. Travis, “Revenue margins in a cap and trade system: evidence from US fisheries.” (Revision Requested)

+ Li, Q., Karasik, R., **M.D. Smith**, J. Bronnmann, and M. Quaas. “An age-structured backward-bending supply of fish: implications for conservation of bluefin tuna,” 2019 (Preparing to Submit)

*Petesch, T., **M.D. Smith**, and B. Dubik, “Disease in Farmed Shrimp and the Market for Wild-Caught Shrimp,” 2019 (Revision Requested)

Published or In Press

Garlock, T., F. Asche, J. Anderson, T. Bjørndal, G. Kumar, K. Lorenzen, A. Ropicki, **M.D. Smith**, and R. Tveterås, “A Global Blue Revolution: Aquaculture Growth across Regions, Species, and Countries,” *Reviews in Fisheries Science and Aquaculture* 2019 (In Press), <http://doi.org/10.1080/23308249.2019.1678111>

Smith, M.D. "Subsidies, efficiency, and fairness in fisheries policy." *Science* 364.6435: 34-35, 2019.

*Birkenbach, A., **M.D. Smith**, and S. Stefanski, “Catch Shares and the Future of Fishing Communities,” *Review of Environmental Economics and Policy* 13:1, 130-39, 2019

Asche, F., T.M. Garlock, J. Anderson, S. Bush, **M.D. Smith**, C. Anderson, J. Chu, K. Garrett, A. Lem, K. Lorenzen, A. Øglend, S. Tveterås, and S. Vannuccini, “The three pillars of sustainability in fisheries,” *Proceedings of the National Academy of Sciences* 115 (44), 11221-11225, 2018

Ferraro, P.J., J.N. Sanchirico, and **M.D. Smith**, “Causal inference in coupled human and natural systems,” *Proceedings of the National Academy of Sciences* 116 (12), 5311-5318, <https://doi.org/10.1073/pnas.18055631152>, 2019 (co-lead)

Mullin, M., **M.D. Smith**, and D. McNamara, “Paying to Save the Beach: Effects of Local Finance Decisions on Coastal Management,” *Climatic Change* 152 (2), 275-289, <https://doi.org/10.1007/s10584-018-2191-5>, 2019

Abbott, J.K., J.N. Sanchirico, and **M.D. Smith**, “Common Property Resources and the Dynamics of

Overexploitation: The Case of the North Pacific Fur Seal.’ – A 42 Year Legacy,” Editorial, *Marine Resource Economics* 33(3):209-212, 2018 (not peer-reviewed)

Asche, F. and **M.D. Smith**, “Induced innovation in fisheries and aquaculture.” *Food Policy* 76:1-7, 2018 (co-lead)

*Gopalakrishnan, S., C. Landry, and **M.D. Smith**, “Coastal Climate Adaptation: Modeling Challenges for Resource and Environmental Economists.” *Review of Environmental Economics and Policy* 12(1): 48-68, 2018

+Purcell, K.M., J.K. Craig¹, J.M. Nance, **M.D. Smith**, L.S. Benneer, “Fleet Behavior Is Responsive to a Large-Scale Environmental Disturbance: Hypoxia Effects on the Spatial Dynamics of the Northern Gulf of Mexico Shrimp Fishery,” *PLoS ONE*, 12(8): e0183032. <https://doi.org/10.1371/journal.pone.0183032>, 2017

*Birkenbach, A., D. Kaczan, and **M.D. Smith**, “Catch Shares Slow the Race to Fish,” *Nature* 544(7649):223-226, 2017

Smith, M.D., “The Breadth of Ocean and Coastal Economics,” Editorial, *Marine Resource Economics* 32(2):119-21, 2017 (not peer-reviewed)

+Miteva, D.A., Z. Brown, R.A. Kramer, **M.D. Smith**, “A spatial model of household fuelwood extraction in northern Uganda,” *American Journal of Agricultural Economics*, 99 (4):1008-1026, <https://doi.org/10.1093/ajae/aax027>, 2017

Smith, M.D., A. Oglend, F. Asche., J. Kirkpatrick, L.S. Benneer, J.K. Craig, J.M. Nance, “Seafood prices reveal impacts of a major ecological disturbance.” *Proceedings of the National Academy of Sciences* 114(7): 1512-1517, doi: 10.1073/pnas.1617948114, 2017

Fischer, C., A.G. Guttormsen, **M.D. Smith**, “Disease Risk and Market Structure in Salmon Aquaculture,” *Water Economics and Policy* 3(2), DOI: <http://dx.doi.org/10.1142/S2382624X16500156>, 2017

*Gopalakrishnan, S., D. McNamara, **M.D. Smith**, and A.B. Murray, “Decentralized Management Hinders Coastal Climate Adaptation: The Spatial Dynamics of Beach Nourishment,” *Environmental and Resource Economics*, 67 (4), 761-787, doi:10.1007/s10640-016-0004-8, 2017

*Gopalakrishnan, S., C. Landry, **M.D. Smith**, and J.C. Whitehead. “Economics of Coastal Erosion and Adaptation to Sea Level Rise.” *Annual Review of Resource Economics* 8:13.1-13.21, 2016.

Asche, F., C. Roheim, and **M.D. Smith**, “Trade Intervention: Not a Silver Bullet to Address Environmental Externalities in Global Aquaculture,” *Marine Policy* 69:194-201, 2016

*Cunningham, S., L.S. Benneer, and **M.D. Smith**, “Spillovers in regional fisheries management: do catch shares cause leakage?” *Land Economics* 92(2):344-362, 2016

*Asche, F., T.A. Larsen, **M.D. Smith**, G. Sogn-Grundvåg, and J.A. Young “Pricing of eco-labels with retailer heterogeneity,” *Food Policy* 53: 82-93, 2015

+McNamara, D.E., S. Gopalakrishnan, **M.D. Smith**, and A.B. Murray. “Climate Adaptation and Policy-Induced Inflation of Coastal Property Value,” *PLoS ONE* 10.1371/journal.pone.0121278, 2015

Anderson, J.L, C.M. Anderson, J. Chu, J. Meredith, F. Asche, G. Sylvia, **M.D. Smith**, D. Anggraeni, R. Arthur, A. Guttormsen, J.K. McCluney, M. Schmid, T. Ward, W. Akpalu, H. Eggert, J. Flores, M.A. Freeman, D.S. Holland, G. Knapp, M. Kobayashi, S. Larkin, K. MacLauchlin, K. Schnier, M. Soboil, S.

Tveteras, H. Uchida, and D. Valderrama, “The Fishery Performance Indicators: A Management Tool for Triple Bottom Line Outcomes,” *PLoS ONE* 10.1371/journal.pone.0122809, 2015

*Asche, F., Y. Chen, and **M.D. Smith**, “Economic incentives to target species and fish size: prices and fine-scale product attributes in Norwegian fisheries,” *ICES Journal of Marine Science*, doi: 10.1093/icesjms/fsu208 (Editor’s Choice), 2015

*Asche, F., M.F. Bellemare, C. Roheim, **M.D. Smith**, and S. Tveteras, “Fair Enough? Food Security and the International Seafood Trade,” *World Development* 67:151-160, 2015

*Huang, L. and **M.D. Smith**, “The Dynamic Efficiency Costs of Common-pool Resource Exploitation,” *The American Economic Review* 104(12): 4071-4103, 2014

Smith, M.D., “Fauna in decline: Management risks,” Letter, *Science* 346: 819-819, November 14, 2014 (not peer-reviewed)

Smith, M.D., F. Asche, F., L.S. Benneer, A. Oglend, “Spatial-dynamics of Hypoxia and Fisheries: The Case of Gulf of Mexico Brown Shrimp,” *Marine Resource Economics* 29:111-131, 2014

Campbell, L.M., N. Boucquey, J. Stoll, H. Coppola, and **M.D. Smith**, “From vegetable box to seafood cooler: applying the Community Supported Agriculture model to fisheries,” *Society and Natural Resources* 27(1):80-96, 2014

Abbott, J., J.L. Anderson, L. Campling, R. Hannesson, E. Havice, M.S. Lozier, **M.D. Smith**, M.J. Wilberg, “Steering the Global Partnership for Oceans,” Special Feature, *Marine Resource Economics* 29: 1-16, 2014 (not peer-reviewed)

Smith, M.D., F. Asche, L.S. Benneer, E. Havice, A.J. Read, and D. Squires, “Will a catch share for whales improve social welfare?” *Ecological Applications* 24(1): 15-23, 2014

+Williams, Z.C., D. McNamara, S. Gopalakrishnan, **M.D. Smith**, and A.B. Murray “Coupled economic-coastline modeling with suckers and free riders,” *Journal of Geophysical Research – Earth Surface*, 118(2): 887–899, 2013

A.B. Murray, S. Gopalakrishnan, D.E. McNamara and **M.D. Smith**, “Progress in Coupling Models of Human and Coastal Landscape Change,” *Computers and Geosciences* 53:30-38, 2013

Klinger, D.H., M. Turnipseed, J.L. Anderson, F. Asche, L.B. Crowder, A.G. Guttormsen, B.S. Halpern, M.I. O’Connor, R. Sagarin, K.A. Selkoe, G. Shester, **M.D. Smith**, and P. Tyedmers, “Moving beyond the fished or farmed dichotomy,” *Marine Policy*, 28: 369–374, 2013

Smith, M.D., “Reflections on Marine Resource Economics: Editor’s Introduction,” Editorial, *Marine Resource Economics* 27:197-201, 2012 (not peer-reviewed)

Tveterås, S., F. Asche, M.F. Bellemare, **M.D. Smith**, A.G. Guttormsen, A. Lem, K. Lien, S. Vannuccini, “Fish Is Food - The FAO Fish Price Index,” *PLoS ONE* 7(5): e36731. doi:10.1371/journal.pone.0036731, 2012

Smith, M.D., “The New Fisheries Economics: Incentives Across Many Margins” *Annual Review of Resource Economics* 4:379-402, doi 10.1146/annurev-resource-110811-114550, 2012

*Asche, F., L.S. Benneer, A. Oglend, **M.D. Smith**, “U.S. Shrimp Market Integration,” *Marine Resource Economics* 27:181-192, 2012

*Huang, L., L.A.B. Nichols, J.K. Craig, and **M.D. Smith**. “Measuring Welfare Losses from Hypoxia: The Case of North Carolina Brown Shrimp,” *Marine Resource Economics* 27:3-23, 2012

Conrad, J.M. and **M.D. Smith**, “Non-spatial and Spatial Models in Bioeconomics,” *Natural Resource Modeling* 25: 52-92, 2012

*Zhang, J. and **M.D. Smith**, “Estimation of a Generalized Fishery Model: A Two-Stage Approach,” *The Review of Economics and Statistics* 93(2):690-699, 2011

+McNamara, D.E., A.B. Murray, and **M.D. Smith**, “Coastal Sustainability Depends on How Economic and Coastline Responses to Climate Change Affect Each Other,” *Geophysical Research Letters* 38(L07401): 1-5, 2011

Smith, M.D. and L.B. Crowder, “Valuing Ecosystem Services with Fishery Rents: A Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary,” *Sustainability* 3(11), 2229-2267; doi:10.3390/su3112229, 2011

+Lazarus, E. D., D. E. McNamara, **M. D. Smith**, S. Gopalakrishnan, and A. B. Murray “Emergent behavior in a coupled economic and coastline model for beach nourishment,” *Nonlinear Processes in Geophysics* 18:989-999, 2011

*Gopalakrishnan, S., **M.D. Smith**, J.M. Slott, and A.B. Murray, “The Value of Disappearing Beaches: A Hedonic Model with Endogenous Beach Width,” *Journal of Environmental Economics and Management* 61:297-310, 2011.

*Huang, L., **M.D. Smith**, “Management of an Annual Fishery in the Presence of Ecological Stress: The Case of Shrimp and Hypoxia,” *Ecological Economics* 70:688-697, 2011

*Zhang, J. and **M.D. Smith**, “Heterogeneous Response to Marine Reserve Formation: A Sorting Model Approach,” *Environmental and Resource Economics* 49 (3), 311-325, 2011

Smith, M.D., F. Asche, A.G. Guttormsen, and J.B. Wiener, “Genetically Modified Salmon and Full Impact Assessment,” *Science* 330:1052-53, 19 November 2010

Smith, M.D., C.A. Roheim, L.B. Crowder, B.S. Halpern, M. Turnipseed, J.L. Anderson, F. Asche., L. Bourillón, A.G. Guttormsen, A. Khan, L.A. Liguori, A. McNevin, M.I. O’Connor, D. Squires, P. Tyedmers, C. Brownstein, K. Carden, D.H. Klinger, R. Sagarin, and K.A. Selkoe. “Sustainability and Global Seafood,” *Science* 327:784-786, 12 February 2010

*Huang, L., **M.D. Smith**, and J.K. Craig, “Quantifying the Economic Effects of Hypoxia on a Fishery for Brown Shrimp *Farfantepenaeus aztecus*,” *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 2:232–248, 2010

Smith, M.D., J. Lynham, J.N. Sanchirico, and J. Wilson, “The Political Economy of Marine Reserves: Understanding the Role of Opportunity Costs,” *Proceedings of the National Academy of Sciences* 107(43): 18300-18305, 2010
PNAS Early Edition, www.pnas.org/cgi/doi/10.1073/pnas.0907365107.

Smith, M.D., “Toward an Econometric Foundation for Marine Ecosystem-based Management,” *Bulletin of Marine Science* 86(2): 461–477, 2010.

Smith, M.D., J.N. Sanchirico, and J.E. Wilen, “The Economics of Spatial-Dynamic Processes: Applications

to Renewable Resources,” *Journal of Environmental Economics and Management* 57: 104-121, 2009

Smith, M.D., J.M. Slott, D. McNamara, and A.B. Murray, “Beach Nourishment as a Dynamic Capital Accumulation Problem,” *Journal of Environmental Economics and Management* 58: 58-71, 2009

Smith, M.D., J. Zhang, and F.C. Coleman, “Econometric Modeling of Fisheries with Complex Life Histories: Avoiding Biological Management Failures,” *Journal of Environmental Economics and Management*, 55:265-280, 2008

+Slott, J.M., **M.D. Smith**, and A.B. Murray, “Synergies Between Adjacent Beach-Nourishing Communities in a Morpho-economic Coupled Coastline Model,” *Coastal Management* 36:374-91, 2008.

Smith, M.D., “Bioeconometrics: Empirical Modeling of Bioeconomic Systems,” *Marine Resource Economics*, 23:1-23, 2008

Sanchirico, J.N. and **M.D. Smith**, and D.W. Lipton, “An empirical approach to ecosystem-based fishery management,” (Sanchirico and Smith co-lead authors), *Ecological Economics* 64(3):586-96, 2008

Smith, M.D., J. Zhang, and F.C. Coleman, “Structural Modeling of Marine Reserves with Bayesian Estimation,” *Marine Resource Economics*, 22:131-46, 2007

Smith, M.D., “Generating Value in Habitat-dependent Fisheries: The Importance of Fishery Management Institutions,” *Land Economics* 83(1): 59-73, February 2007

+Liese, C., **M.D. Smith**, and R.A. Kramer, “Open Access in a Spatially Delineated Artisanal Fishery: The Case of Minahasa, Indonesia,” *Environment and Development Economics* 12(1): 123-143, February 2007

Smith, M.D., J. Zhang, and F.C. Coleman, “Effectiveness of Marine Reserves for Large-Scale Fisheries Management,” *Canadian Journal of Fisheries and Aquatic Sciences* 63:153-164, 2006

Smith, M.D., “State Dependence and Heterogeneity in Fishing Location Choice,” *Journal of Environmental Economics and Management* 50(2):319-340, 2005

Smith, M.D. and J.E. Wilen, “Heterogeneous and Correlated Risk Preferences and Behavior of Commercial Fishermen: *The Perfect Storm* Dilemma,” *The Journal of Risk and Uncertainty* 31(1):53-71, 2005

Smith, M.D., “Fishing Yield, Curvature, and Spatial Behavior: Implications for Modeling Marine Reserves,” *Natural Resource Modeling* 17(3):273-298, 2004

Smith, M.D., “Limited Entry Licensing: Insights from a Duration Model,” *American Journal of Agricultural Economics* 86(3):605-618, 2004

Saterson, K.A., N.L. Christensen, R.B. Jackson, R.A. Kramer, S.L. Pimm, **M.D. Smith**, and J.B. Wiener, “Disconnects in Evaluating the Relative Effectiveness of Conservation Strategies,” Editorial, *Conservation Biology* 18(3):1-3, June 2004 (not peer-reviewed).

Smith, M.D. and J.E. Wilen, “Marine Reserves with Endogenous Ports: Empirical Bioeconomics of the California Sea Urchin Fishery,” *Marine Resource Economics* 19(1):85-112, 2004

Smith, M.D. and J.E. Wilen, “Economic Impacts of Marine Reserves: The Importance of Spatial Behavior,” *Journal of Environmental Economics and Management* 46(2), 183-206, 2003

Reprinted in J. Geoghegan and W. Gray (eds.) *Spatial Aspects of Environmental Policy*,

The International Library of Environmental Economics and Policy, Ashgate, 2006

Smith, M.D., “Two Econometric Approaches for Predicting the Spatial Behavior of Renewable Resource Harvesters,” *Land Economics*, 78(4), 522-538, 2002

Wilén, J.E., **M.D. Smith**, D. Lockwood, and L. Botsford, “Avoiding Surprises: Incorporating Fishermen Behavior into Management Models,” *Bulletin of Marine Science* 70(2), 553-575, 2002

Smith, M.D. and J.E. Wilén, “The Marine Environment: Fencing the Last Frontier,” *Review of Agricultural Economics* 24(1), 31-42, 2002

Smith, M.D., “Breeding Incentives and the Demand for California Thoroughbred Racing: Is there a Quality/Quantity Tradeoff?” *Applied Economics* 33, 1755-1762, 2001

Smith, M.D., “Spatial Search and Fishing Location Choice: Methodological Challenges of Empirical Modeling,” *American Journal of Agricultural Economics* 82(5), 1198-1206, 2000, proceedings issue (not peer-reviewed).

Books and Book Chapters

National Academies of Sciences, Engineering, and Medicine. 2018. *Understanding the Long-Term Evolution of the Coupled Natural-Human Coastal System: The Future of the U.S. Gulf Coast*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25108>. (peer-reviewed, equal author contributions)

Smith, M.D., A.B. Murray, S. Gopalakrishnan, A.G. Keeler, C.E. Landry, D. McNamara, L. Moore, “Geoengineering Coastlines? From accidental to intentional,” in J. Baztan, O. Chouinard, B. Jorgensen, P. Tett, J-P Vanderlinden, and L. Vasseuer (eds.), *Coastal Zones: Solutions for the 21st Century*, Elsevier 2015 (peer-reviewed)

Smith, M.D., “Fisheries Management,” in *Encyclopedia of Environmental Economics*, T. Haab and J. Whitehead (editors), Greenwood, 2014

*Asche, F., C. Roheim, and **M.D. Smith**, “Markets, Trade and Seafood,” *Encyclopedia of Natural Resources*, Taylor and Francis, 2014.

Smith, M.D., “Value Tradeoffs in Fisheries Management,” in J.D. Gilden (Ed.), *Managing Our Nations Fisheries 3: Advancing Sustainability*, Pacific Fishery Management Council, 2014

Klonsky, K. and **M.D. Smith**, “Entry and Exit in California’s Organic Farming Sector,” in D.C. Hall and L.J. Moffitt, editors, *Economics of Pesticides, Sustainable Food Production and Organic Food Markets*, Advances in the Economics of Environmental Resources Volume 4, New York: Elsevier Science, 2002 (peer-reviewed)

Other Published Articles, Op-Eds, Comments, and Reviews (not peer-reviewed in entirety)

Keeler, A.G., D.E. McNamara, M. Mullin, and **M.D. Smith**. “Comment: The case for strategic and managed climate retreat,” *Science* (E-letter), <https://science.sciencemag.org/content/365/6455/761/tab-e-letters>, 2019

Smith, M.D. “How not to fish: New rule would turn back clock for US fishing industry,” Op-Ed, *The Hill*, April 19, 2019, <https://thehill.com/opinion/energy-environment/437974-how-not-to-fish-new-rule-would->

[turn-back-clock-for-us-fishing](#)

Smith, M.D. “The seafood trade deficit is a diversionary tactic,” Op-Ed, *The Hill*, September 20, 2018, <https://thehill.com/opinion/energy-environment/407575-the-seafood-trade-deficit-is-a-diversionary-tactic>

Havice, E. and **M.D. Smith**. “False Equivalence in Footprints,” *Science* (E-letter), <http://science.sciencemag.org/content/359/6378/904/tab-e-letters>, 2018

Smith, M.D., Review of *American Catch: The Fight for Our Local Seafood* (by Paul Greenberg, Penguin, 2014), *Marine Resource Economics* 31:117-119, 2016

Smith, M.D., Review of *Demon Fish: Travels through the Hidden World of Sharks* (by Juliet Eilperin, Pantheon Press, 2011) *Marine Resource Economics* 28: 201-02, 2013

*Huang, L., L.A.B. Nichols, J.K. Craig, and **M.D. Smith**. “Economic Impacts of Hypoxia on North Carolina Brown Shrimp” *CD ROM Proceedings of the 15th Biennial Conference of the International Institute for Fisheries Economics and Trade*, 2011

Smith, M.D., and S. Gopalakrishnan “Combining Property Rights and Landings Taxes to Mitigate the Ecological Impacts of Fishing,” *CD ROM Proceedings of the 15th Biennial Conference of the International Institute for Fisheries Economics and Trade*, 2011

*Gopalakrishnan, S., D. McNamara, A.B. Murray, J.M. Slott, and **M.D. Smith**. 2011. “Shifting Shorelines: Adapting to the Future,” *Proceedings of the Coastal Society's 2010 International Conference*, Wilmington, NC.

Smith, M.D., Review of *Fisheries Management: Pandemic Failure and Workable Solutions* (by Giulio Pontecorvo and William Schrank., Emerald Group Publishing, Bingley UK 2009), *International Journal of Maritime History* 22:351-52, 2010

Smith, M.D., Review of *Climate Change and the Economics of the World's Fisheries: Examples of Small Pelagic Stocks* (Edited by Rögnvaldur Hannesson, Manuael Barange, and Samuel F. Herrick Jr., Northampton, MA: Edward Elgar, 2006), *International Journal of Maritime History* 19:476-78, 2007

Sanchirico, J.N. and **M.D. Smith**, and D.W. Lipton, “Managing Fish Portfolios,” *Resources* Winter 2007

Smith, M.D. and J.E. Wilen, “State Dependence in Modeling the Spatial Behavior of Renewable Resource Users,” *CD ROM Proceedings of the 11th Biennial Conference of the International Institute for Fisheries Economics and Trade*, 2003

Smith, M.D., Review of *The Economics of Conserving Wildlife and Natural Areas* (by C. Tisdell), *Australian Journal of Agricultural and Resource Economics* 47(3), 418-420, 2003.

Kaplan, J.D. and **M.D. Smith**, “Optimal Fisheries Management in the Presence of an Endangered Predator and Harvestable Prey,” *CD ROM Proceedings of the 10th Biennial Conference of the International Institute for Fisheries Economics and Trade*, 2001

Smith, M.D., “Two Econometric Approaches for Spatial Fisheries Management,” *CD ROM Proceedings of the 10th Biennial Conference of the International Institute for Fisheries Economics and Trade*, 2001

Unpublished Working Papers and Technical Reports

*Birkenbach, A., D. Kaczan, and **M.D. Smith**. “Do Catch Shares End the Race to Fish and Increase Ex

Vessel Prices? Evidence from U.S. Fisheries”

Squires, D. K. Carden, A. Khan, **M.D. Smith**, and N. Vestergaard, "Rethinking Marine Conservation from Solving the Commons Problem to Provision of Impure Public Goods," 2014

Smith, M.D. and S. Gopalakrishnan, “Prices and Quantities to Control Overfishing,” Revise-and-resubmit, *Resource and Energy Economics*, 2011 (revision not submitted)

Benneer, L.S. and **M.D. Smith**, “Success or Selection? An economic perspective on fisheries co-management,” 2011

*Asche, F. and **M.D. Smith**, “Trade and Fisheries: Key Issues for the World Trade Organization,” Technical Report Commissioned by the WTO, 61 pp., 2009.

Smith, M.D., “Combining Property Rights and Landings Taxes to Mitigate the Ecological Impacts of Fishing,” working paper, 2008

Smith, M.D., “Endogenous Fishing Mortality in Fish Life History Models: Relaxing Some Implicit Assumptions,” working paper available at <http://agecon.lib.umn.edu/>, 2007

*J. Zhang and **Smith, M.D.**, “Evaluating the Effectiveness of Marine Reserves with a Simplified Biological Process,” Working Paper, 2006

Wilén, J.E., J.N. Sanchirico, and **M.D. Smith**, “Marine Reserves: The Importance of Economic and Biological Spatial Processes,” Working Paper, 2005

Smith, M.D. and B. Provencher, “Spatial Search in Marine Fisheries: A Discrete Choice Dynamic Programming Approach,” Proceedings of the AERE 2003 Summer Workshop: Spatial Theory, Modeling, and Econometrics in Environmental and Resource Economics, 2003

Sanchirico, J.N. and **M.D. Smith**, “Trophic Portfolios in Marine Fisheries: A Step Towards Ecosystem Management,” working paper available at <http://agecon.lib.umn.edu/>, 2003

Smith, M.D., “Rapporteur Report on Natural Resource Scarcity: From Non-renewable to Renewable Resource Scarcity” originally to be submitted as a book chapter in a special collection of essays in honor of the 50th anniversary of Resources for the Future, edited by R.T. Carson, W.M. Hanemann, and V.K. Smith, 2002

Smith, M.D., J. Zhang, and F.C. Coleman, “Empirical Approaches to Evaluate the Effectiveness of Marine Reserves for Fisheries Management,” Working Paper, Duke University, 2005

Smith, M.D. and J.E. Wilén, “Analysis of a Spatial Rotation Plan for the Tule Lake National Wildlife Refuge,” working paper available at <http://agecon.lib.umn.edu/>, 2000

Smith, M.D., “Statistical Models of Catch Per Unit Effort: Localized Depletions of Pacific Cod in the Eastern Bering Sea,” Report to the Alaskan Fisheries Science Center, NOAA, 2000

Smith, M.D., “Statistical Models of Catch Per Unit Effort: Assessing Localized Depletions of Alaskan Atka Mackerel,” Report to the Alaskan Fisheries Science Center, NOAA, 1999

Smith, M.D., “Report on Leslie Regressions of Alaskan Atka Mackerel Populations,” Report to the Alaskan Fisheries Science Center, NOAA, 1998

Papers in Preparation (Results with Partial Draft)

*Birkenbach, A., F. Asche, and **M.D. Smith**. “The Isomorphism of Fishing and Landings Location Choice.”

Anderson, C., T. Garlock, J. Meredith, J. Anderson, F. Asche, M. De Alessi, **M.D. Smith**, “Pathways to Fishery Development.”

*Colson-Leaning, D., D. Dietz, **M.D. Smith**, Y. Liu, and S. Vallury, “The Global Seafood Trade and Human Nutrition”

Old (> 2 years) Partial Draft Papers in Preparation

Smith, M.D., F. Asche, and C. Roheim. “The Rise of Aquaculture and Fishing Behavior.”

Benneer, L.S., E. Kociolek, and **M.D. Smith**, “The short-run causal impacts of hypoxia on the Gulf of Mexico shrimp fishery.”

Smith, M.D., L. Huang, and R. Felthoven, “The race to fish and the Alaskan crab rationalization.”

Smith, M.D., “Fisherman Behavior 101: What to fish for, with what, where, when, and how hard.”

Smith, M.D., “Numerical Experiments in Empirical Spatial Fisheries Modeling.”

Smith, M.D. and Z. Brown, “A Two-state Two-control Model of Bycatch Avoidance when Compensatory Mitigation is Possible.”

Smith, M.D. and L. Huang, “Linking Hypoxia, Population Dynamics, and Spatial Fishing Choices”

Working Paper Versions of Subsequently Published Articles

Smith, M.D. and L.B. Crowder, “Valuing Ecosystem Services with Fishery Rents: A Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary,” Fondazione Eni Enrico Mattei, Nota Di Lavoro 115.2005, September 2005

Smith, M.D. and J. Zhang, “Sorting Models in Discrete Choice Fisheries Analysis,” working paper available at <http://agecon.lib.umn.edu/>, 2007

Sanchirico, J.N. and **M.D. Smith**, and D.W. Lipton, “An Approach to Ecosystem-Based Fisheries Management,” (Sanchirico and Smith share lead authorship), Resources for the Future Discussion Paper 06-40, 2006

Smith, M.D., “Generating Value in Habitat-dependent Fisheries: The Importance of Fishery Management Institutions,” Duke University, Department of Economics, Working Paper 05-12, 2005

+Liese, C., **M.D. Smith**, and R.A. Kramer, “Open Access with Product and Labor Market Failure: The Case of Artisanal Fishing in Indonesia,” Duke University, Department of Economics, Working Paper 03-11, 2003

Media Attention

October 18, 2019--Midwestern Farm Runoff Creates Headache for Louisiana Shrimpers – *St. Louis Public Radio (NPR)*

April 14, 2019—Overfishing doesn't just hurt the fish—*Toronto Star*

June 29, 2017—Protecting fish and fishers: Economists say catch shares work—*Mongabay*

April 10, 2017—The Risk Of Fishing Takes Over Fishermen, Race To Fish Slows—*The Science Times*

April 6, 2017—Slow Fishing—*Nature Podcast*

April 6, 2017 —The Race To Fish Slows Down. Why That's Good For Fish, Fishermen And Diners—*NPR*

February 8, 2017—Gulf Dead Zone Makes for Shrimpier Shrimp (podcast) —*Scientific American*

February 3, 2017—Shrimp price fluctuations help pinpoint the economic effects of pollution—*ars Technica*

January 31, 2017—High price of shrimp linked to water pollution: study—*Yahoo News*

January 30, 2017—Price spikes for jumbo shrimp blamed on GoM dead zone —*The Times-Picayune*

January 30, 2017—Price of Shrimp Impacted by GoM “Dead Zone” —*NOAA NCCOS News and Features*

March 4, 2016—podcast on coastal climate adaptation—*Duke University Campaign Stop 2016*

December 30, 2015—radio interview with Scott Briggaman on NC flounder closure—*WPTF AM 680*

November 24, 2015—radio interview with Scott Briggaman on GM salmon—*WPTF AM 680*

November 20, 2015 – radio interview on GM Salmon—*BBC Radio 5 Live*

November 19, 2015 – Genetically Modified Salmon Wins FDA Approval – *Science*

May 1, 2015—Sand Cents—*Carteret County News-Times*

Mar 31, 2015—WATCH OUT! Oceanfront property values could crash—*Asbury Park Press*

Mar 26, 2015—Study: Beach property values depend on feds—*Florida Today*

Mar 26, 2015—Study: Loss of Federal Sand Dollars Equals Loss in Property Values—*Time Warner Cable News*

Mar 25, 2015—UNCW professor: Lack of beach nourishment funding could cause property values to drop *WECT 6 (NBC)*

Mar 25, 2015—Coastal property values could erode if nourishment subsidies end – *Science Daily*

Feb 04, 2015—Cautionary fish tale from Australia’s Great Barrier Reef marine reserve – *Science*

Dec 15, 2014 – Study: Patient Fishermen Could See Bigger Revenue, Healthier Shrimp Fisheries – *WUNC (NPR local affiliate)*

Dec 12, 2014 – New model helps boost fishery profits and sustainability – *Technology.org*

Dec 10, 2014 – Bioeconomic model helps increase fishermen's profits, sustainability – *FIS.com*

Dec 09, 2014 – Fishery Model Helps Boost Profits, Sustainability – *Marine Technology News*

May 12, 2014 – World Needs GM Food, Claims Monsanto Scientist – *Times of London*

January 2014 – Psst. Wanna Buy a Whale? – *Science*

November 2012 – The Tricky Academics of Eating – *Duke Magazine*

January 11, 2012 - Researchers Propose Putting a Price on Whales – *Science*

November 11, 2011 - Seafood Eco-Label Grapples With Challenge of Proving Its Impact – *Science*

May 26, 2011 - Will genetically modified salmon be labelled? – *High Country News*

April 06, 2011 - The Rich Are Different: They Can Buy More Sand – *NY Times (blog)*

Spring 2011- Duke Researcher Achieves Academic Trifecta- *Duke Environment Magazine* (cover feature)

December 03, 2010 - Genetically modified fish review flawed: economist - - *CBC News*

November 30, 2010 - Officials question safety of genetically altered fish - - *CaliforniaWatchBlog*

November 22, 2010 - FDA Puts Transgenic Fish on the Scales -(Transcript of 5-minute radio interview) -- *Living on Earth (NPR)*

November 19, 2010 - U.S. Regulators Omit Wider Implications of GM Salmon - - *IPS News*

November 18, 2010 - FDA Must Take Wider look at GM Salmon, Economists Say - - *Live Science*

November 18, 2010 - Feds' Transgenic Salmon Rview Ignores Big Picture - - *Wired Science*

August 12, 2010- *Bloomberg News* and *Business Week Online*, “Gulf of Mexico `Dead Zone' Grows as Spill Impact Is Studied,” Leslie Patton,

August 3, 2010- *Houston Chronicle*, “Gulf dead zone now deeper into Texas,” Eric Berger,

September 23, 2010 - Fishing for success - Developing sustainable fisheries might be a way to combat future global hunger - - *Ourfutureplanet.org*

February 12, 2010- “More aid needed for sustainable seafood,” *United Press International*

February 11, 2010 “Sustainable fisheries needed for global food security,” *Genetic Engineering and*

Biotechnology News, , <http://www.genengnews.com/news/bnitem.aspx?name=75300448>
December 2006- *Duke Magazine*, “Green Energy Viable?” November-, p. 5.
August 8, 2005- *The Christian Science Monitor*, “Off Florida, a fight over a kettle of fish: sport fishermen decry a US decision to bar them from grouper grounds in Gulf this winter,” Patrik Jonsson
(Correspondent of *The Christian Science Monitor*),
January 26, 2004- *Charlotte Observer*, “Marine Refuges Spawn Debate,” Bruce Henderson (staff writer),

New Media

Twitter

@MartySmithDuke

Blog Posts

Behind the Paper: Slowing the Race to Fish, *Nature Ecology and Evolution* (w/ A. Birkenbach and D. Kaczan), April 5, 2017, <https://natureecoevocommunity.nature.com/users/37209-martin-d-smith/posts/15980-slowing-the-race-to-fish>

Catch shares slow the fisheries frenzy: Some confirmatory evidence, *Environmental Economics Blog* (Kaczan, Birkenbach, and Smith), April 7, 2017, <http://www.env-econ.net/2017/04/catch-shares-slow-the-fisheries-frenzy-some-confirmatory-evidence.html>

Fish, Sustainability, and Used Cars, *SeaMonster*, January 31, 2012
<http://theseamonster.net/2012/01/fish-sustainability-and-used-cars-guest-post-by-dr-martin-smith/>

Progress in Solving Fisheries Problems Threatened, *The Green Grok*, October 3, 2011
<http://www.nicholas.duke.edu/thegreengrok/catchshares>

New legislation (HR 2772) threatens to roll back progress in solving fisheries problems, *Environmental Economics Blog*, October 3, 2011, <http://www.env-econ.net/2011/10/new-legislation-hr-2772-threatens-to-roll-back-progress-in-solving-fisheries-problems.html>

YouTube

2017 From Discoveries to Solutions – Our Oceans
https://www.youtube.com/watch?v=_pe7q-9WqvY&t=3s

2011 Aldo Leopold Leadership Fellows Environmental Science Videos
<http://www.youtube.com/user/2011ALLP>

Published Abstracts

*L. Huang and **M.D. Smith**. 2010. Abstract of “Measuring the dynamic efficiency costs of common-pool resource exploitation.” *Economics of fish resources and aquatic ecosystems: balancing uses, balancing costs*, The Fifteenth Biennial Conference of the International Institute of Fisheries Economics and Trade Book of Abstracts

*L. Huang, L.A.B. Nichols, J.K. Craig, and **M.D. Smith**. 2010. Abstract of “Economic Impacts of Hypoxia on North Carolina Brown Shrimp.” *Economics of fish resources and aquatic ecosystems: balancing uses, balancing costs*, The Fifteenth Biennial Conference of the International Institute of Fisheries Economics and Trade Book of Abstracts

Smith, M.D. and S. Gopalakrishnan. 2010. Abstract of “Combining property rights and landings taxes to mitigate the ecological impacts of fishing.” *Economics of fish resources and aquatic ecosystems: balancing uses, balancing costs*, The Fifteenth Biennial Conference of the International Institute of Fisheries Economics and Trade Book of Abstracts

Smith, M.D. Abstract of “Toward a microbehavioral foundation for ecosystem-based management,” Program of the Seventh William R. and Lenore Mote International Symposium, Spatial Dimensions of Fisheries: Putting it All in Place, November 2008

*Huang, L. and **M.D. Smith.** Abstract of “Spatial assessment of a fish stock: a sorting method approach with commercial fishery data,” Program of the Seventh William R. and Lenore Mote International Symposium, Spatial Dimensions of Fisheries: Putting it All in Place, November 2008

Smith, M.D. Abstract of “Fishermen Behavior 101: What to fish for, with what, where, when, and how hard,” *Program of the American Fisheries Society 137th Annual Meeting (CD ROM)*, 2007

Smith, M.D. and J. Zhang. Abstract of “Sorting Models in Discrete Choice Fisheries Analysis,” *Program of the American Fisheries Society 137th Annual Meeting (CD ROM)*, 2007

Smith, M.D. and L. Huang, Abstract of “Effects of Hypoxia on Fishery Productivity,” *Program of NAAFE 2007: The Role of Economics in Mitigating Unsustainability of Fisheries*, Mérida, Yucatán, México, 2007.

Smith, M.D., Abstract of “Numerical Experiments in Empirical Spatial Fisheries Modeling,” *Program of NAAFE 2007: The Role of Economics in Mitigating Unsustainability of Fisheries*, Mérida, Yucatán, México, 2007.

Smith, M.D. and J. Zhang, Abstract of “Sorting Models in Discrete Choice Fisheries Analysis,” *Program of NAAFE 2007: The Role of Economics in Mitigating Unsustainability of Fisheries*, Mérida, Yucatán, México, 2007.

Smith, M.D., Abstract of “Endogenous fishing mortality in life history models: Relaxing some implicit assumptions,” *Program of NAAFE 2007: The Role of Economics in Mitigating Unsustainability of Fisheries*, Mérida, Yucatán, México, 2007.

Smith, M.D., Abstract of “Bioeconometrics: Empirical Modeling of Bioeconomic Systems,” *IIFET 2006: Rebuilding Fisheries in an Uncertain Environment Book of Abstracts*, The Thirteenth Biennial Conference of the International Institute of Fisheries Economics and Trade, Portsmouth, UK, 2006.

Sanchirico, J.N., **M.D. Smith**, and D.W. Lipton, Abstract of “Ecosystem Portfolios: A Finance-based Approach to Ecosystem Management,” *IIFET 2006: Rebuilding Fisheries in an Uncertain Environment Book of Abstracts*, The Thirteenth Biennial Conference of the International Institute of Fisheries Economics and Trade, Portsmouth, UK, 2006.

Smith, M.D., J. Zhang, and F.C. Coleman, Abstract of “A Hierarchical Bayes Approach to Discrete Choice Fisheries Modeling: The Effects of Marine Reserves on Fishing Behaviour,” program for the 2005 Forum of the North American Association of Fisheries Economists, *Fisheries Benefits to All Generations: The Role of Economics*

Smith, M.D. and L.B. Crowder, Abstract of “Valuing Ecosystem Services with Fishery Rents: A Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary,” program for the 2005 Forum of the North American Association of Fisheries Economists, *Fisheries Benefits to All Generations: The Role of Economics*

Smith, M.D. and J.E. Wilen, Abstract of “State Dependence and Heterogeneity in Fishing Location Choice,” *International Institute for Fisheries Economics and Trade Book of Abstracts*, Wellington, New Zealand, August 2002

Smith, M.D., Abstract of “Limited Entry Licensing and Adaptive Management,” *International Institute for*

Fisheries Economics and Trade Book of Abstracts, Wellington, New Zealand, August 2002

Smith, M.D. and J.E. Wilen, Abstract of “Economic Impacts of Marine Reserves: The Importance of Spatial Behavior,” *2nd World Congress of Environmental and Resource Economists Book of Abstracts*

Smith, M.D. and J.E. Wilen, Abstract of “Correlated Risk Preferences and Behavior of Commercial Fishermen: *The Perfect Storm Dilemma*” *2nd World Congress of Environmental and Resource Economists Book of Abstracts*

Smith, M.D. and J.E. Wilen, Abstract of “Spatial Patterns of Renewable Resource Exploitation: The Case of the California Sea Urchin Fishery,” *American Journal of Agricultural Economics* 81(5), 1291, 1999

Smith, M.D., Abstract of “Breeding Incentive Programs and Demand for California Thoroughbred Racing: The Trade-off Between Quantity and Quality,” *American Journal of Agricultural Economics* 81(5), 1316, 1999

Consulting

“Market Interactions between Wild and Farmed Fish: Fisheries Governance, the Expansion of Aquaculture, and Resulting Effects on Fishing Behavior,” (with C. Roheim and F. Asche), January 31, 2016 (90 pp.), funded by the Walton Family Foundation and the David and Lucile Packard Foundation

“Supplemental Declaration of Martin D. Smith,” October 22, 2012 (24 pp., 1 exhibit), In Re: Oil Spill by the Oil Rig “Deepwater Horizon” in the Gulf of Mexico, on April 20, 2010

“Declaration of Martin D. Smith,” August 12, 2012 (26 pp., 9 exhibits, 1 appendix), In Re: Oil Spill by the Oil Rig “Deepwater Horizon” in the Gulf of Mexico, on April 20, 2010

RESEARCH FUNDING

Grants, Contracts, and Funded Working Groups

Smith, M.D. (PI), \$129,491, “Property Rights and the Value of Marine Natural Capital: A Comparative Study of Three Property Rights-based Management Systems in Fisheries,” The Knobloch Family Foundation, **FUNDED**, 2018-2020

McNamara, D. (PI), S. Gopalakrishnan, L. Moore, A.B. Murray, **M.D. Smith** (Co-PI and Duke PI), \$1,499,752, “Climate Change Adaptation in a Coupled Economic-Geomorphologic Coastal System,” NSF Coupled Natural Human Systems, **FUNDED**, 2017-21

Smith, M.D. (PI), \$38,000, “Market Interactions between Wild and Farmed Bluefin Tuna: Critical Research Needs,” Pew Charitable Trusts, **FUNDED**, 2017-2018

Smith, M.D. (PI) and A. Birkenbach (student fellowship recipient), \$76,666, “Structural Modeling of Transitions to Catch Shares,” NOAA/Sea Grant Marine Resource Economics Fellowship, **FUNDED**, 2016-2018

Smith, M.D. (PI), \$56,546, “Revenue Impacts of Policy Reform: A Comparative Analysis of U.S. Catch Share Fisheries,” NOAA (through ECS Federal), **FUNDED**, 2015-2016

Smith, M.D. (PI), \$56,038, “Do Catch Shares Increase Ex-vessel Prices in U.S. Fisheries?,” NOAA (through NC Sea Grant), **FUNDED**, 2014-2015

Smith, M.D. (PI), \$14,500, “CATCH: Market-oriented and Sustainable Value Chains for Cod,” Research Council of Norway (through University of Stavanger), **FUNDED**, 2015

Smith, M.D. (PI), \$135,000, “Modelling Fishery Landing Locations and Product Forms,” Research Council of Norway (through University of Stavanger), **FUNDED**, 2013-2015

Smith, M.D. (PI), \$40,000, “Contributing new functionality to the Fisheries Spatial Economics Toolbox,” NOAA (through Pacific States Marine Fisheries Commission), **FUNDED**, 2013-14.

Murray, A.B. and **M.D. Smith** (Co-PI), \$460,036, “Modeling New Behaviors Emerging from Coupling Physical Coastal Processes and Coastal Economies,” NSF ESE Collaborative Research, **FUNDED**, 2010-2013.

Craig, J.K. (PI), **M.D. Smith** (PI), L.S. Benneer, J. Nance, \$702,700, “Effects of hypoxia on harvest dynamics and economics of the shrimp fishery in the northwestern Gulf of Mexico,” NOAA NGOMEX, **FUNDED**, 2009-14

Smith, M.D. (PI), \$5,000, “Spatial behavior of Pacific cod catcher vessels and oceanographic indicators: an exploratory analysis using a horizontal sorting model,” NOAA Alaska Fisheries Science Center (through Oak Management), **FUNDED**, 2010-2011.

Smith, M.D. (PI) and M.S. Lozier, \$30,000, “Towards an Empirical Foundation for Marine Ecosystem-based Management: Fishing Behavior, Fish Abundance, and Climate Change,” Duke Center for Global Change, Internal Funding for a Working Group, **FUNDED**, 2009-10

Crowder, L.B. and **M.D. Smith** (Co-PI), \$110,600, “Sustainable Global Seafood Markets,” Working Group, National Center for Ecological Analysis and Synthesis, **FUNDED**, 2009-10

Smith, M.D. (PI), \$50,053, “Dynamic Search Behavior and the Alaskan Crab Rationalization Program,” Pacific States Marine Fisheries Commission, **FUNDED**, 2008-09

Murray, A.B., T. Crowley, M. Orbach, J. Ramus, and **M.D. Smith** (Co-PI), \$1,198,000, “Coupling Human and Natural Influences on Coastline Evolution as Climate Changes,” NSF Biocomplexity – Coupled Human Natural Systems Program, **FUNDED**, 2005-2010

Craig, J.K., L.B. Crowder, and **M.D. Smith** (Co-PI), \$575,000, “Linking hypoxia-induced habitat degradation to fishery outcomes: a bioeconomic approach based on brown shrimp,” NOAA Coastal Oceans Program, **FUNDED**, 2005-2008

Smith, M.D. (PI), \$15,000, “A Pilot Analysis of Size-based High-grading and the Potential for Individualized Landings Taxes to Embed Size-based Incentives: A Case Study of the U.S. West Coast Sablefish Fishery,” Subcontract from UC Santa Barbara, **FUNDED**, 2007-2008.

Smith, M.D. (PI), J.N. Sanchirico (PI), and D.W. Lipton, \$200,000, “Trophic Portfolios in Commercial Fishing: A Finance-based Approach to Ecosystem Management with and Application to the Chesapeake Bay,” Chesapeake Bay Fisheries Research Program, National Marine Fisheries Service, NOAA, **FUNDED**, July 2004 – October 2006

Smith, M.D. (PI) and F.C. Coleman (PI), \$224,000, “Incorporating Fisher Behavior Into Management Models: A Case Study of the Reef Fish Fishery of the Eastern Gulf of Mexico,” Saltonstall-Kennedy (National Marine Fisheries Service), NOAA, **FUNDED**, 2003-2007

Smith, M.D.(PI), “Renewable Resource Production Surfaces, Bioeconomic Steady States, and Space,” Fishery Statistics and Economics Division, National Marine Fisheries Service, NOAA, 2002, **FUNDED**, \$10,000

Smith, M.D. (PI), “Statistical Models of Catch Per Unit Effort: Localized Depletions of Pacific Cod in the Eastern Bering Sea,” Alaska Fisheries Science Center, National Marine Fisheries Service, NOAA , 2000, **FUNDED**, \$5,000

Smith, M.D. (PI), “Statistical Models of Catch Per Unit Effort: Assessing Localized Depletions of Alaskan Atka Mackerel,” Alaska Fisheries Science Center, National Marine Fisheries Service, 1999, **FUNDED**, \$5,000

Smith, M.D. (PI), “Report on Leslie Regressions of Alaskan Atka Mackerel Populations,” Alaska Fisheries Science Center, National Marine Fisheries Service, NOAA, 1998, **FUNDED**, \$1,400

Travel Awards and Honoraria

Honorarium for External Opponent in a PhD Defense, University of Stavanger, Norway, 2016
Honorarium for *Micro-econometric Modeling in Environmental and Resource Economics*, EPA-sponsored Workshop, Washington DC, May 2009
Honorarium for Keynote Address, Workshop on Choice Modeling, Centre for Fisheries & Aquaculture Management & Economics, University of Southern Denmark, June 2008
Honorarium for Contributed Paper to *The Frontiers in Environmental Economics*, Resources for the Future, Washington, D.C., 2007
Honorarium for *Micro-econometric Modeling in Environmental and Resource Economics*, EPA-sponsored Workshop, Research Triangle Park, NC, Fall 2006
Honorarium for Contributed Paper to *Linking Economic and Ecological Models for Environmental Policy Analysis: Challenges and Research Strategies*, NSF-EPA Biocomplexity Workshop, 2005
University of Maryland Department of Agricultural and Resource Economics Seminar Honorarium, 2003
Honorarium for Natural Resource Scarcity Session, 2nd World Congress of Env. and Resource Econ., 2002
International Travel Award for Junior Faculty, Duke University International Affairs Committee, 2002
Duke Marine Lab Speaker Series Honorarium, 2001
American Agricultural Economics Association Student Travel Award, Summer 1999
U.C. Davis Graduate Student Association Travel Award, Summer 1999

TEACHING and ADVISING

Courses Taught or in Progress

ENV 155 Principles of Economics and the Environment (Undergrad, lower-division) (Spring 2019)
ENV 521 Natural Resource Economics (Masters-level), Fall 2013, 2017, 2018, 2019
ENV 391 (now 834S) Research Seminar in Environmental Policy, Fall 2011, 2012, 2017
ENV 186S (now ENV350) Should I Eat Fish? Economics, Ecology, and Health (marine conservation leadership certificate capstone course), Spring 2011, 2012, 2013
ENV 529 Should I Eat Fish? (Masters level) Fall 2015, 2016, 2017, 2019
ENV 829 (ECON Cross-list, formerly ENV 379): Natural Resource Economics (PhD-level) Fall 2005, 2008, 2010, 2015, 2016, 2018, Spring 2007, 2013, 2014
ENV 252 (formerly 298.32): Sustainability and Renewable Resource Economics, Spring 2002, 2003, 2004, 2007, 2008, 2011, 2012, Fall 2005
ENV 270 (ECON/PPS Cross-list): Resource and Environmental Economics, Fall 2001, 2002, 2003, 2007, 2008
ENV 395.05S (ENV 895.05): Masters Project Seminar for Resource Economics and Policy (Environmental Economics and Policy), 2003-04, 2010-2011, 2015-16, 2019-20

ENV 298.22: Clean Electricity (with R. Harkrader), Fall 2003
ARE 100A: Intermediate Microeconomics (U.C. Davis), Fall 1999

Planned Courses

ENV Economic Perspectives on Marine and Coastal Resource Policy (undergrad/masters)
ENV Environmental Catastrophe in Film and Literature

Mini-courses and Guest Lectures

The Commons Problem in Fisheries, Global Seafood Markets, and More Money from the Same Fish (Duke, Undergrad Environmental Science and Policy, Fall 2019)
Modeling Coupled Human-Natural Systems (Duke, Marine Science and Conservation PhD Seminar, Fall 2019)
Getting Published in Environmental Economics (University of Rhode Island, Spring 2019)
Property Markets and Coastal Adaptation, Bass Connections (Spring 2019)
Migration and Coastal Climate Change Adaptation, Bass Connections (Spring 2019)
Induced Innovation in Fisheries and Aquaculture (Duke, Spring 2018, 2019)
Fishy Food, 3-day Duke Alumni Course, Duke Marine Lab, Spring 2018) (co-taught with T. Schultz)
Rights-based Management and Multispecies Fisheries (Tufts University, Spring 2018)
Causality in Natural Resource Economics (Duke History Dept., Fall 2011)
Navigating an Interdisciplinary Research Career (Duke, Spring 2011)
Simulation in Renewable Resource Economics (Duke, Spring 2007)
Fishing for Chocolates (Duke, Fall 2006, 2007, 2008, 2010)
Fossil Fuel Scarcity and the Environment (Duke, Spring 2004)
Economics of Water and Water Markets (Duke, 2001, 2002, 2003)
Economics of Marine Protected Areas (Duke, Fall 2002)
Nicholas School Mathematics Review (Duke, Fall 2001, 2002, 2003, 2005, 2006, 2007, 2008, 2010, 2011)
Nicholas School Microeconomics Review (Fall 2002, 2003, 2007, 2008)
Discounting in Environmental Economics (U.C. Davis, Spring 2001)

Teaching Assistant

Intermediate Microeconomics (U.C. Davis, Fall 1997)
Linear Programming (U.C. Davis, Spring 1997)
Econometrics (U.C. Davis, Winter 1997 and Fall 1996)

Ph.D. Student Advising

Supervisor for 6 Ph.D. Students

Junjie Zhang, Nicholas School, (2003- 2008)

Dissertation Title: “Production from Natural Resources with a Latent Stock: The Case of the Fishery”

Joseph L. Fisher Doctoral Dissertation Award, Resources for the Future, 2007-08

Assistant Professor of Environmental Economics, 2008-2015

Associate Professor of Environmental Economics, 2015-2016

School of International Relations and Pacific Studies

University of California, San Diego

Director, Environmental Policy Program, Duke Kunshan University (2016-present)

Ling Huang, NSEES, (2004-2009)

Dissertation Title: “Analyses of Marine Resources Management with Micro-data”

Best Student Paper Honorable Mention, 2010 Conference of the International Institute

of Fisheries Economics and Trade, Montpellier, France
Post-doctoral Fellow (January 2010-July 2011), Fisheries Centre, University of British Columbia
Assistant Professor, Department of Economics, University of Connecticut, 2011-2017
Associate Professor, Department of Economics, University of Connecticut, 2017-present

Sathya Gopalakrishnan (2005- 2010)

Dissertation Title: “Shifting Shorelines: Combining Economics and Geomorphology in Beach Management”

AAEA Outstanding Dissertation Honorable Mention, 2011

Sea Grant Association Award for the Best Student Paper/Presentation at the Coastal Society's International Conference, Wilmington, NC 2010

Post-doctoral Fellow, Duke University, 2010-2011

Assistant Professor, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, 2011- 2017

Associate Professor, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, 2017-present

Anna Birkenbach (2013-2018)

Dissertation Title: “More Value from the Same Fish: Catch Shares, Fishing Behavior, and Revenues”

Assistant Professor, School of Marine Science and Policy, University of Delaware

Best Student Paper, 2016 Conference of the International Institute of Fisheries Economics and Trade, Aberdeen, Scotland

NOAA-Sea Grant Marine Resource Economics Fellowship, 2016-18

Nicholas School Dean’s Award for Outstanding Graduate Student Manuscript, 2018

Stephanie Stefanski (2014-2019)

National Science Foundation Graduate Research Fellowship, 2014-19

Matthew Reale-Hatem (2019-present)

Member of 24 Ph.D. Committees

Christopher Liese, Duke, Nicholas School, DESP (completed in 2003)

Jon Eisen-Hecht, Duke, Nicholas School, DESP (completed in 2005)

James Abbott, Duke, Nicholas School, CSSP (completed in 2005)

Katie Hansen Dickinson, Duke, Nicholas School, DESP (completed in 2008)

Jordan Slott, Duke, Nicholas School, EOS (completed in 2008)

Bentley Coffey, Duke, Economics Department (completed in 2004)

Kelly Bishop, Duke, Economics Department, (completed in 2008)

Chris Moore, NC State, Economics Department (completed in 2008)

Peter Maniloff, Duke, Nicholas School, DESP (completed in 2013)

Zachary Brown, Nicholas School (completed in 2011), 2012 AAEA Outstanding Dissertation

Nujin Prasertsom, Duke, Economics Department (completed in 2011)

Daniela Miteva, Duke, Nicholas School (completed in 2013)

Kenny Ells, Nicholas School (completed in 2014)

Xiaomei (Barbara) Chen, NCSU (completed in 2013)

Sanja Lutzeyer, NCSU (completed in 2013)

Steven Dundas, NCSU (completed in 2015)

Elizabeth Clark, Nicholas School, MSC, (completed in 2017)

Bradford Dubik, Nicholas School, MSC, (completed in 2019)

James Rising, Columbia University, (completed in 2015)

Arne Sorvig, University of Stavanger, Norway (completed in 2016)
Justin Kirkpatrick, UPEP, (completed in 2019)
David Kaczan, UPEP, (completed in 2017)
Yaqin Liu (Georgia State), (completed in 2019)
Qingran Li, UPEP, (2018-present)

Advisor for 3 Visiting PhD Students

Atle Oglend, University of Stavanger, Norway (2011)
Andreea Cojocaru, University of Stavanger, Norway (2015)
Knut Anders Johansen, University of Stavanger, Norway (2016)

Masters Student Advising

MA Student Advising

Lun Ou (2018)
Lijun Liu (2017)

Supervisor for 47 Masters Student Projects (44 completed), Duke, Nicholas School

Alejandro Escobar (2002)	Susannah Vale (2009)
Christopher Frangione (2002)	Ting Lei (2011)
Miwa Fujinuma (2002)	Xiaoyuan Gu (2011)
Jason Hummel (2002)	Eliza Davis (2012)
Michelle Pugliese (2002)	Sam Cunningham (2012)
Helik Shemer (2002)	Paul-Harvey Wiener (2012)
Jennifer Shweky (2002)	Anthony Rogers (2013)
Shufang Zhang (2002)	Keith Carlisle (2013)
Makato Hamatani (2003)	Jiaxi Wang (2013)
Yuhki Kushiro (2003)	Gabriela Anhalzer (2014)
Emily Woglom (2003)	Roxanne Nanninga (2014)
Takaharu Funatomi (2004)	Shumin Zheng (2014)
Lena Hansen (2004)	Rachel Karasik (2016)
Andrew Hecht (2004)	Spencer Talmage (2016)
Shinsuke Murikame (2004)	Theresa Petesch (2017)
Sarah Darley (co-advisor, 2006)	Esteban Arenas (2017)
Kevin Dudley (2007)	Alexander Klonick (co-adv., 2017)
Douglas Gorecki (2007)	Austin Thompson (2018)
Bradley Strode (2007)	Amanda Bushell (2018)
Oliver Ferrari (2007)	Yue Lin (2019)
Carla Frisch (2008)	David Dietz (2019)
Lauren Nichols (2008)	Dustin Colson Leaning (2019)
Bo Zhong (2009)	Kunxin Zhu (in progress)
Michael Press (2009)	Corey Sugerik (in progress)
Mary Greene (2009)	Sarah Naghavi (in progress)

Course Advisor for 80+ Masters of Environmental Management Students, Duke, Nicholas School
Exams Committee, 3 Master of Arts, Duke, Nicholas School, 2002, 2008, 2011
Committee Member for 2 Master of Public Policy, Duke, Sanford Institute, 2001, 2012
Exams Committee, 4 UPEP PhD Students
Exams Committee, 2 MSC PhD Students

Undergraduate Student Advising

Advisor for 2 Undergraduate Senior Theses, Duke, Environmental Science and Policy
Kayla Morton (completed in 2017)
Aaron Windecker (completed in 2003)
Major Advisor for 7 Undergraduate Environmental Science and Policy Majors, Duke 2002-present
Supervisor for 4 Undergraduate Independent Studies, Duke
Second Committee Member for 2 honors students, Duke, Environmental Science and Policy 2017,2019
Second Reader, Duke Economics Department Undergraduate Honors Thesis, 2006, 2012

OTHER PROFESSIONAL INFORMATION

University Service

Duke University and Surrounding Area

Triangle-wide

Co-Coordinator, Triangle Resource and Environmental Economics (TREE) Seminar, 2008-09, 2010-2014
External Review Committee, NC State Center for Environmental and Resource Economic Policy, 2014

University-wide

Duke Advisory Committee on Appointment, Promotion, and Tenure (APT), August 2019-present
Duke Advisory Committee on Investment Responsibility (ACIR), 2006-2009, 2015-2019
ACIR Subcommittee on Fossil Fuel Divestment, 2018-2019
Provost's Academic Programs Committee, 2012-2015
Faculty Diversity Standing Committee (FDSC), 2008 - 2011
Faculty Participant, Duke Up Close Program, Spring 2003, 2004, 2005, 2006
Duke University Greening Initiative Board of Advisors, 2003-2010
Computer and Data Committee, Social Science Research Institute, 2004 – 2005

Nicholas School

Distinguished Chairs Committee, 2016-present
PhD Program Small Grants Committee, 2018-present
Placement Director, University Program in Environmental Policy, 2017-present
Admissions Committee, University Program in Environmental Policy, 2017-present
Budget Committee 2015-2016
Search Committee, Marine Lab Director, 2015-2016
Promotion Committee, Assistant to Associate (MSC Division), 2015
Promotion Committee (Acting Chair), Associate to Full Professor (MSC Division), 2014
Program Chair, Environmental Economics and Policy (~80 students enrolled), Nicholas School MEM Degree, 2010-2014 (co-chair in 2013-14), Fall 2015
Search Committee, Assistant/Associate Professor of Marine Policy and Governance, 2013-2014
School (Strategic) Priorities Committee, Nicholas School, 2011-2012
Faculty Council, Nicholas School, 2010-2012 (Chair, Fall 2011-Spring 2012)
Education Committee, Nicholas School, 2010-2014
Admissions and Awards Committee, Nicholas School, 2010-2014
Social Science Disciplinary Representative, Nicholas School, 2010-2011
Chair, Nicholas School New Building Classrooms Subcommittee, 2011-2014
Seminar Coordinator, Nicholas Institute for Environmental Policy Solutions, 2005 – 2007
Energy Program Task Force, 2005-2009
Presidential Management Interns Program Selection Committee, Nicholas School, 2002
Executive Committee, Duke Center for Marine Conservation, 2005-2011
Executive Committee, Duke Center for Environmental Solutions, 2003-2005

Division of Environmental Sciences and Policy

Search Committee (chair), Visiting Assistant Professor of Environmental Economics, 2018-19
Reappointment Committee (chair), Research Professor, 2015-2016
Tenure Committee (chair), Assistant to Associate Professor of Environmental Economics and Policy, 2012
Search Committee, Assistant/Associate Professor of Environmental Politics, 2011-2012
Chair, Ad Hoc Search Committee, Visiting Assistant Professor of Environmental Economics, 2011
Reappointment Committee, Assistant Professor of Energy Systems, 2011
Ad hoc Committee on Incentives and Compensation, ESP Division, 2007-08
Search Committee for Gendell Chair in Energy and the Environment, 2005 – 2006
Graduate Admissions Committee, Environment PhD, 2002-04
Search Committee for Assistant Professor of Environmental Policy, 2003-04
Ad Hoc Statistics Teaching Committee, 2003

Division of Marine Science and Conservation

Tenure Committee (chair), Associate, 2018-2019
Promotion Committee, Associate to Full, 2017

University of California, Davis

Student Member, Search Committee for Assistant Professor of Agricultural Economics
Graduate Student Seminar Co-Chair, Ag. and Resource Economics, 1999-2001
Graduate Student Association President, Ag. and Resource Economics, 1998-1999
Teaching Assistant Retreat Organizer, Ag. and Resource Economics, 1998 and 1999
Computer Committee, Ag. and Resource Economics, 1997-1999

Professional Affiliations and Service

Member

American Association for the Advancement of Science
American Economic Association
Association of Environmental and Resource Economists
Agricultural and Applied Economics Association
International Institute for Fisheries Economics and Trade
North American Association of Fisheries Economists

Program Committee

Association of Environmental and Resource Economists, 2008 – 2010 (Chair in 2010)
Conference of the Association of Environmental and Resource Economists, 2012, 2013, 2015, 2017
Scientific Committee, World Congress of Environmental and Resource Economists, 2018
Scientific Committee, International Institute of Fisheries Economics and Trade, 2018

Journal Reviewing

American Journal of Agricultural Economics
Applied Economics
Aquaculture Economics & Management
The B.E. Journal of Economic Analysis and Policy
Bulletin of Marine Science
Canadian Journal of Agricultural Economics
Canadian Journal of Fisheries and Aquatic Sciences
Climatic Change
Conservation Biology
Conservation Ecology
Conservation Letters

Ecological Economics
Environmental and Resource Economics
Environment and Development Economics
Environmental Health Perspectives
Environmental Management
Environmental Modeling and Assessment
European Economic Review
Fish and Fisheries
Fisheries Research
Food Policy
Frontiers in Ecology and the Environment
Growth and Change
Journal of Agricultural and Applied Economics
Journal of Agricultural and Resource Economics
Journal of the Association of Environmental and Resource Economists
Journal of Business and Economic Statistics
Journal of Economic Behavior and Organization
Journal of Environmental Economics and Management
Journal of Political Economy
Journal of Risk and Uncertainty
Land Economics
Marine Policy
Marine Resource Economics
Natural Resource Modeling
Nature
Nature Climate Change
Nature Sustainability
PLoS ONE
Proceedings of the National Academy of Sciences
Proceedings of the Royal Society: Biological Sciences
Resource and Energy Economics
The Review of Economics and Statistics
Review of Environmental Economics and Policy
Science
Sustainability
Theoretical Ecology

Guest Editor

Ecological Applications

Other Reviewing

Addison-Wesley
American Agricultural Economics Association Annual Meetings
Cambridge University Press
Congressional Research Service
Encyclopedia of Energy, Natural Resource and Environmental Economics
Island Press
Maine Sea Grant College Program
MIT Press
National Science Foundation (Economics Proposals)
National Science Foundation Graduate Research Fellowship Panel
National Oceanic and Atmospheric Administration
Pew Environment Group

Research Council of Norway
Rowan and Littlefield
Stanford University Press
Triangle Census Data Research Center
Rhode Island Sea Grant
U.S. Department of State
U.S. Environmental Protection Agency
Virginia Marine Resources Commission

Rapporteur

Natural Resource Scarcity Session in Honor of Resources for the Future, 2nd World Congress of Environmental and Resource Economists, Monterey, June, 2002

Session Moderator

American Agricultural Economics Association Annual Meeting, Long Beach, CA, 2002
North American Association of Fisheries Economists 2005 Forum, Vancouver, BC Canada
International Institute for Fisheries Economics and Trade (2 sessions), Portsmouth, UK, 2006
North American Association of Fisheries Economists, Halifax, Nova Scotia, Canada, May 2019
Association of Environmental and Resource Economists, North Lake Tahoe, NV, May 2019

Paper Discussant

Association of Environmental and Resource Economists (AERE) Sessions (2 papers) at American Agricultural Economics Association Annual Meeting, Montreal, Canada, July 2003
AERE Workshop: Natural Resources at Risk, Jackson, WY, June 2005
AERE Sessions at American Agricultural Economics Association Annual Meeting, Providence, RI, July 2005
3rd World Congress of Environmental and Resource Economists, Kyoto, Japan, 2006
AERE Sessions at Southern Economic Association Annual Meetings, Charleston, SC, November 2006
AERE Sessions at Allied Social Science Associations Annual Meeting, San Francisco, CA, January 2009
AERE Sessions at Allied Social Science Associations Annual Meeting, Denver, CO, January 2011
Economics of Water and Energy, San Diego, CA, March 2017
World Congress of Environmental and Resource Economists, Gothenburg, Sweden, July 2018
Association of Environmental and Resource Economists, North Lake Tahoe, NV, May 2019

Judge

Undergraduate Student Paper Contest, American Agricultural Economics Association Annual Meetings, Portland, OR, 2007

PRESENTATIONS AND ORGANIZED SESSIONS

Organized Sessions

1. *Session in honor of contributions by James Wilen to marine resource economics*, (with J. Abbott and J. Sanchirico) Organized Session, International Institute of Fisheries Economics and Trade, Seattle, WA, July 2018
2. *Seafood markets, fishing behavior, and fisheries management*, (with F. Asche) Organized Session, International Institute of Fisheries Economics and Trade, Seattle, WA, July 2018
3. *Economics of Beach Management and Coastal Hazard Mitigation*, (with C. Landry), Organized Symposium, American Agricultural Economics Association, Portland, OR, July 2007

4. *Modeling Risk and Uncertainty in Capture Fisheries*, (with L.Pendleton), 2nd World Congress of Environmental and Resource Economists, Monterey, June 2002

Presentations at Professional Meetings (selection based on peer review of abstracts or full papers, all presented by M.D. Smith unless otherwise indicated)

1. “Teaching the Dismal Science with Humorous Verse: Double Dactyls on Natural Resource Scarcity,” International Society for Humor Studies Conference, Austin, TX, June 2019
2. “An Age-structured Backward-bending Supply of Fish: Implications for Conservation of Bluefin Tuna,” Selected Paper, Association of Environmental and Resource Economists Annual Meeting, North Lake Tahoe, NV, May 2019
3. “Fishery Collapse Revisited,” Selected Poster, Association of Environmental and Resource Economists Annual Meeting, North Lake Tahoe, NV, May 2019
4. “The U.S. Experience with Catch Shares,” Selected Paper, North American Association of Fisheries Economists Bi-annual Meeting, Halifax, Nova Scotia, Canada, May 2019
5. “An Age-structured Backward-bending Supply of Fish: Implications for Conservation of Bluefin Tuna,” Selected Paper, North American Association of Fisheries Economists Bi-annual Meeting, Halifax, Nova Scotia, Canada, May 2019
6. “Seasonal Harvest Patterns in Multispecies Fisheries,” Selected Paper, World Congress of Environmental and Resource Economists, Gothenburg, Sweden, July 2018
7. “Quantities that Matter, Might Matter, and Don’t Matter in Fisheries Economics,” Track Session Paper, Agricultural and Applied Economics Association Annual Meeting, Chicago, IL, July 2017
8. “Induced Innovation in Global Seafood Production,” Selected Paper, Conference of the North American Association of Fisheries Economists, La Paz, Baja California Sur, Mexico, March 2017
9. “Disease Risk and Market Power in Salmon Aquaculture,” International Institute of Fisheries Economics and Trade, Aberdeen, Scotland, July 2016
10. “Do Catch Shares End the Race to Fish and Increase Ex-Vessel Prices? Evidence from U.S. Fisheries,” AERE Session, ASSA, San Francisco, CA, January 2016
11. “Do Catch Shares Increase Ex-vessel Prices in U.S. Fisheries?” Selected Paper Presentation, AERE Summer Conference, San Diego, CA, June 2015 (presented by Anna Birkenbach)
12. “Do Catch Shares Increase Ex-vessel Prices in U.S. Fisheries?” Selected Paper Presentation, Conference of the North American Association of Fisheries Economists, Ketchikan, AK, May 2015 (presented by David Kaczan)
13. “Discrete Choice Modeling of Landings Locations” Selected Paper Presentation, Conference of the North American Association of Fisheries Economists, Ketchikan, AK, May 2015 (presented by Anna Birkenbach)
14. “Spillovers in Regional Fisheries Management,” Selected Paper Presentation, AERE Summer Conference, Banff Canada, June 2013
15. “Spillovers in Regional Fisheries Management,” Conference of the North American Association of Fisheries Economists, St. Petersburg, FL, May 2013

16. "Detecting Ecological Disturbances from Natural Resource Prices," Conference of the North American Association of Fisheries Economists, St. Petersburg, FL, May 2013
17. "Timing of Harvest: A Numerical Bioeconomic Model of Multispecies Fisheries," Conference of the North American Association of Fisheries Economists, St. Petersburg, FL, May 2013 (presented by A. Guttormsen)
18. "Pricing of Eco-labels for Salmon in UK Supermarkets," Conference of the North American Association of Fisheries Economists, St. Petersburg, FL, May 2013 (presented by F. Asche)
19. "Resource Prices and Ecological Regime Shifts," AERE Summer Conference, Asheville, NC, June 2012
20. "The Effects of Stochastic Storms on Optimal Beach Management," AERE Summer Conference, Asheville, NC, June 2012 (presented by S. Gopalakrishnan)
21. "The Short-run Impacts of Hypoxia on the Gulf of Mexico Shrimp Fishery" AERE Summer Conference, Seattle, WA, June 2011 (presented by L.S. Benneer)
22. "The Dynamic Efficiency Costs of Common-pool Resource Exploitation," AERE Summer Conference, Seattle, WA, June 2011
23. "Coastline Defense Against Rising Sea Level and the Nourishment Dilemma," AERE Summer Conference, Seattle, WA, June 2011 (presented by S. Gopalakrishnan)
24. "Economic Impacts of Hypoxia on North Carolina Brown Shrimp" *Conference of the International Institute for Fisheries Economics and Trade*, Montpellier, France, July 2010
25. "Combining Property Rights and Landings Taxes to Mitigate the Ecological Impacts of Fishing," *Conference of the International Institute for Fisheries Economics and Trade*, Montpellier, France, July 2010
26. "Economic Impacts of Hypoxia on North Carolina Brown Shrimp," Coasts and Estuaries Research Federation Conference, Portland, OR, November 4, 2009 (presented by L. Huang)
27. "The Value of Disappearing Beaches in North Carolina: Incorporating feedbacks between housing markets and the coastal system," AERE Session, 2009 American Agricultural Economics Association Annual Meeting, Milwaukee, WI, July 26– 28, 2009 (presented by S. Gopalakrishnan)
28. "Measuring the Dynamic Efficiency Costs of Common-pool Resource Exploitation," AERE Session, 84th Annual Conference of the Western Economics Association International, Vancouver, BC, Canada, June 29-July 3, 2009 (presented by L. Huang)
29. "The Value of Disappearing Beaches in North Carolina: A Hedonic Pricing Model with Endogenous Beach Width," AERE Session, 84th Annual Conference of the Western Economics Association International, Vancouver, BC, Canada, June 29-July 3, 2009 (presented by S. Gopalakrishnan)
30. "Empirical Impacts of MPAs: Lessons from Econometrics," International Marine Conservation Congress, George Mason University, May 2009
31. "Combining Property Rights and Landings Taxes to Mitigate the Ecological Impacts of Fishing," AERE Session, Allied Social Science Associations Annual Meeting, San Francisco, CA, January 2009
32. "Towards an Econometric Foundation for Marine Ecosystem-based Management," (Invited Lecture) Seventh William R. and Lenore Mote International Symposium, Spatial Dimensions of Fisheries: Putting it

All in Place, November 2008

33. "Spatial assessment of a fish stock: a sorting method approach with commercial fishery data," Seventh William R. and Lenore Mote International Symposium, Spatial Dimensions of Fisheries: Putting it All in Place, November 2008 (presented by L. Huang)
34. "Optimal Beach Nourishment with Strategic Interaction Between Adjacent Communities," Camp Resources XV, Wilmington, NC, August 2008 (presented by S. Gopalakrishnan).
35. "Dynamic Modeling of Beach Management," Triangle Resource and Environmental Economics Workshop, NCSU, September 27-28, 2007
36. "Fishermen Behavior 101: What to fish for, with what, where, when, and how hard." in *Modeling Fisher Behavior: State of the Art*, American Fisheries Society 137th Annual Meeting, San Francisco, CA September 2007
37. "Sorting Models in Discrete Choice Fisheries Analysis," (with J. Zhang), in *Modeling Fisher Behavior: State of the Art*, American Fisheries Society 137th Annual Meeting, San Francisco, CA September 2007
38. "Economic Modeling and the Dynamics of Coastal Change,"(with J.M. Slott, A.B. Murray, and S. Gopalakrishnan), in *Economics of Beach Management and Coastal Hazard Mitigation*, Organized Symposium, American Agricultural Economics Association, Portland, OR, July 2007
39. "Endogenous Fishing Mortality in Life History Models: Relaxing Some Implicit Assumptions," Selected Paper, American Agricultural Economics Association, Portland, OR, July 2007
40. "Sorting Models in Discrete Choice Fisheries Analysis," (with J. Zhang), Selected Paper, American Agricultural Economics Association, Portland, OR, July 2007
41. "Numerical Experiments in Empirical Spatial Fisheries Modeling," *The Role of Economics in Mitigating Unsustainability of Fisheries, Dealing with Ecosystems, Environmental Fluctuations, Governance, and Trade*, Forum of the North American Association of Fisheries Economists, Mérida, Yucatán, México, March 27-30, 2007.
42. "Sorting Models in Discrete Choice Fisheries Analysis," (with J. Zhang) *The Role of Economics in Mitigating Unsustainability of Fisheries, Dealing with Ecosystems, Environmental Fluctuations, Governance, and Trade*, Forum of the North American Association of Fisheries Economists, Mérida, Yucatán, México, March 27-30, 2007.
43. "Effects of Hypoxia on Fishery Productivity," (with L. Huang) *The Role of Economics in Mitigating Unsustainability of Fisheries, Dealing with Ecosystems, Environmental Fluctuations, Governance, and Trade*, Forum of the North American Association of Fisheries Economists, Mérida, Yucatán, México, March 27-30, 2007.
44. "Endogenous Fishing Mortality in Life History Models: Relaxing Some Implicit Assumptions," *The Role of Economics in Mitigating Unsustainability of Fisheries, Dealing with Ecosystems, Environmental Fluctuations, Governance, and Trade*, Forum of the North American Association of Fisheries Economists, Mérida, Yucatán, México, March 27-30, 2007.
45. "The Economics of Spatial-Dynamic Processes: Applications to Renewable Resources," (with J.N. Sanchirico and J.E. Wilen), *The Frontiers of Environmental Economics*, Washington, D.C., February 26, 2007, 1 of 9 papers selected out of 175 submissions

46. "Endogenous Fishing Mortality in Life History Models: Relaxing Some Implicit Assumptions," Sixth William R. and Lenore Mote International Symposium: Life History in Fisheries Ecology and Management, Sarasota, FL, November 2006
47. "Bioeconometrics: Empirical Modeling of Bioeconomic Systems," Selected Paper, Southern Economic Association Annual Meetings, AERE Sessions, Charleston, SC, November 2006
48. "Structural Econometric Modeling of Fisheries with Complex Life Histories: Avoiding Biological Management Failures," Selected Paper, Camp Resources Conference, Wilmington, NC, August 2006
49. "Dynamic Harvest Strategies: Building a Stable Ecosystem," (with L. Huang), Selected Paper, Camp Resources Conference, Wilmington, NC, August 2006, (presented by L. Huang)
50. "Bioeconometrics: Empirical Modeling of Bioeconomic Systems," Selected Paper, 3rd World Congress of Environmental and Resource Economics, Kyoto, Japan, July 2006
51. "Ecosystem Portfolios: A Finance-based Approach to Ecosystem Management," (with J.N. Sanchirico and D.W. Lipton), Selected Paper, 3rd World Congress of Environmental and Resource Economics, Kyoto, Japan, July 2006
52. "Bioeconometrics: Empirical Modeling of Bioeconomic Systems," Selected Paper, International Institute for Fisheries Economics and Trade Conference, Portsmouth, England, July 2006
53. "Ecosystem Portfolios: A Finance-based Approach to Ecosystem Management," (with J.N. Sanchirico and D.W. Lipton), Selected Paper, International Institute for Fisheries Economics and Trade Conference, Portsmouth, England, July 2006
54. "Estimating a Generalized Gordon-Schaefer Model with Heterogeneous Fishing Data," (with J. Zhang), Selected Paper, International Institute for Fisheries Economics and Trade Conference, Portsmouth, England, July 2006 (presented by J. Zhang)
55. "Bayesian Bioeconomics of Marine Reserves," (with J. Zhang, and F.C. Coleman), Selected Paper, American Agricultural Economics Association Annual Meetings, Providence, RI, July 2005
56. "Ecosystem Portfolios: A Finance-based Approach to Ecosystem Management," (with J.N. Sanchirico and D.W. Lipton), Selected Paper, Association of Environmental and Resource Economists 2005 Workshop: Natural Resources at Risk, Jackson, WY, June 2005
57. "A Hierarchical Bayes Approach to Discrete Choice Fisheries Modeling," (with J. Zhang, and F.C. Coleman), Selected Paper, 2005 Forum of the North American Association of Fisheries Economists, Vancouver, BC Canada, May 2005
58. "Valuing Ecosystem Services with Fishery Rents," (with L.B. Crowder), Selected Paper, 2005 Forum of the North American Association of Fisheries Economists, Vancouver, BC Canada, May 2005
59. "Empirical Approaches to Evaluate the Effectiveness of Marine Reserves for Fisheries Management" (with J. Zhang, and F.C. Coleman), AERE Sessions, Allied Social Science Associations Annual Meetings, Philadelphia, PA, January 2005
60. "Marine Reserves: The Importance of Economic and Biological Spatial Processes," presented by J.E. Wilen and with J.N. Sanchirico, AERE Sessions, Allied Social Science Associations Annual Meetings, Philadelphia, PA, January 2005

61. "Do Marine Protected Areas Enhance Fisheries in the Gulf of Mexico?" (with J. Zhang, and F.C. Coleman) Camp Resources Conference, Wilmington, NC, August 2004
62. "Trophic Portfolios in Marine Fisheries," (with J.N. Sanchirico), Selected Paper, American Agricultural Economics Association Annual Meetings, Montreal, Canada, July 2003
63. "Spatial Search in Marine Fisheries: A Discrete Choice Dynamic Programming Approach," (with B. Provencher) AERE Workshop on Spatial Modeling, Madison, WI, June 2003 and Selected Paper, American Agricultural Economics Association Annual Meetings, Montreal, Canada, July 2003
64. "Limited Entry Licensing and Adaptive Management," Selected Paper, International Institute for Fisheries Economics and Trade Conference, Wellington, New Zealand, August 2002
65. "State Dependence and Heterogeneity in Fishing Location Choice," (with J.E. Wilen), Selected Paper, International Institute for Fisheries Economics and Trade Conference, Wellington, New Zealand, August 2002 (also presented at Camp Resources X, Wilmington, NC, August 2002 and a revised version presented at North American Association of Fisheries Economists, Williamsburg, VA, April 2003)
66. "Renewable Resource Production Surfaces, Bioeconomic Steady-states, and Space," Selected Paper, American Agricultural Economics Association Annual Meeting, Long Beach, CA, July 2002
67. "Open Access and Missing Markets in Artisanal Fishing," (with C. Liese and R.A. Kramer), Selected Paper, American Agricultural Economics Association Annual Meeting, Long Beach, CA, July 2002
68. "Economic Impacts of Marine Reserves: The Importance of Spatial Behavior," (with J.E. Wilen), Long Selected Paper, 2nd World Congress of Environmental and Resource Economists, Monterey, June 2002
69. "Correlated Risk Preferences and Behavior of Commercial Fishermen: *The Perfect Storm* Dilemma," (with J.E. Wilen), Long Selected Paper, 2nd World Congress of Environmental and Resource Economists, Monterey, June 2002
70. "Imperfect Testing of *The Perfect Storm* Hypotheses," Selected Paper, Camp Resources IX, Wilmington, NC, August 2001
71. "Farming Benefits of Agro-Wildfowl Reserve Rotation in the Tule Lake Basin," (with J.E. Wilen), Selected Paper, American Agricultural Economics Association Annual Meeting, Tampa, FL, August 2000
72. "A Bioeconomic Model of Spatial Policy Options," (with J.E. Wilen), Selected Paper, American Agricultural Economics Association Annual Meeting, Tampa, FL, August 2000
73. "Spatial Search and Fishing Location Choice: Methodological Challenges of Empirical Modeling," Principal Paper, American Agricultural Economics Association Annual Meeting, Tampa, FL, August 2000
74. "Two Econometric Approaches for Spatial Fisheries Management," Selected Paper, International Institute for Fisheries Economics and Trade Conference, Corvallis, OR, July 2000
75. "Optimal Fisheries Management in the Presence of an Endangered Predator and Harvestable Prey," (with J.D. Kaplan), Selected Paper, International Institute for Fisheries Economics and Trade Conference, Corvallis, OR, July 2000
76. "A Dynamic Spatial Model of Marine Reserve Formation: The California Red Sea Urchin Fishery," (with J.E. Wilen), Fifth California Workshop on Environmental and Resource Economics, University of California, Santa Barbara, May 2000

77. “Breeding Incentives and the Demand for California Thoroughbred Racing: The Tradeoff Between Quality and Quantity,” Selected Paper, American Agricultural Economics Association Annual Meeting, Nashville, TN, August 1999
78. “Spatial Patterns of Renewable Resource Exploitation: The California Sea Urchin Fishery,” (with J.E. Wilen), Selected Paper, American Agricultural Economics Association Annual Meeting, Nashville, TN, August 1999
79. “Spatial Behavior of Harvesters in the California Sea Urchin Fishery,” (with J.E. Wilen), Fourth California Workshop on Environmental and Resource Economics, University of California, Santa Barbara, October 1998

Invited Lectures, Workshops, and Other Scholarly Presentations (does not include job talks)

1. “Iconic Models in Fisheries Economics and Marine Conservation,” Invited Lecture, Department of Economics, Clemson University, October 2019
2. “Global seafood markets, fisheries management, and nutritional flows in the fish trade: implications for food security and livelihoods,” Invited Lecture and Panelist, Colloquium on the Ocean’s Role in Sustainable Seafood Production, University of California, Davis, September 2019
3. “Rights-based Management and Multispecies Fisheries,” Invited Lecture, Department of Environmental and Resource Economics, University of Rhode Island, April 2019.
4. “Induced Innovations in Fisheries and Aquaculture: Implications for Food Security,” Invited Lecture, Friedman School of Nutrition Science and Policy, Tufts University, April 2018.
5. “Market Interactions between Wild and Farmed Bluefin Tuna: Critical Research Needs,” Invited Presentation, Pew Charitable Trusts, (Virtual Talk), December 2017
6. “Economics of Ocean and Coastal Conservation,” Invited Presentation, Knobloch Foundation, Houston, TX, October 2017
7. “Rights-based Management and Behavior in Multispecies Fisheries,” Invited Seminar, Resources for the Future, Washington DC, April 2017
8. “Getting Published on the Economics of Fisheries, Aquaculture, and the Seafood Trade,” Pre-conference Workshop, Conference of the North American Association of Fisheries Economists, La Paz, Baja California Sur, Mexico, March 2017
9. “Alternative Paths to a Productive Career,” Panelist, Economics of Water and Energy, San Diego, CA March 2017
10. “Innovation in Seafood Production: Opportunities and Challenges,” EFD Policy Day Invited Presentation, Santiago, Chile, November 2016
11. “Induced Innovation in Global Seafood Production: Opportunities for Emerging Markets,” EFD Keynote Address, Pucon, Chile, November 2016
12. “Getting Published on the Economics of Fisheries, Aquaculture, and the Seafood Trade,” Pre-conference Workshop, International Institute of Fisheries Economics and Trade, Aberdeen, Scotland, July 2016

13. "Leveraging Markets to Enable Climate Adaptation in Fisheries," NOAA Resilient Fishing Community Workshop, Silver Springs, MD, May 2016
14. "Do Catch Shares End the Race to Fish and Increase Ex-Vessel Prices? Evidence from U.S. Fisheries," University of Delaware, March 2016
15. "Do Catch Shares End the Race to Fish and Increase Ex-Vessel Prices? Evidence from U.S. Fisheries," NOAA QUEST Seminar, February 2016
16. "Do Catch Shares Increase Ex-vessel Prices in U.S. Fisheries?" Briefing for NOAA Southwest Fisheries Science Center, San Diego, CA, June 2015
17. "Do Catch Shares Increase Ex-vessel Prices in U.S. Fisheries?" Briefing for NOAA Alaska Fisheries Science Center and NOAA Northwest Fisheries Science Center, Seattle, WA, May 2015
18. "Detecting Ecological Disturbances from Economic Data: The Case of the Gulf of Mexico Dead Zone," NOAA Coastal Oceans Program, Silver Springs, MD, March 2015
19. "Detecting Ecological Disturbances from Economic Data: The Case of the Gulf of Mexico Dead Zone," Norwegian School of Economics, Bergen, Norway, October 2014
20. "Global Seafood in the 21st Century," FoodCon, University of North Carolina, Chapel Hill, NC, November 2014
21. "Detecting Ecological Disturbances from Economic Data: The Case of the Gulf of Mexico Dead Zone," Virginia Tech University, Environmental Economics Seminar Series, Blacksburg, VA, October 2014
22. "Economics of Gulf Hypoxia," Web Presentation, Hypoxia Workshop, Stennis, MS, July 2014
23. "Detecting Ecological Disturbances from Economic Data," University of Maryland, Department of Agricultural and Resource Economics, April 2014
24. "Growth, Innovation, and Externalities in Aquaculture," Duke Ocean Policy Working Group Conference, April 2014
25. "Detecting Ecological Disturbances from Economic Data," East Carolina University, Institute for Coastal Science and Policy, October 2013
26. "Detecting Ecological Disturbances from Economic Data," University of Wisconsin, Department of Applied Economics, September 2013
27. "Disease Risk, Market Power, and Strategic Environmental Policy," Salmon Workshop, Aas, Norway, August 2013
28. "Value Tradeoffs in Fisheries Management," Invited Lecture, Managing Our Nations Fisheries Conference, Washington DC, May 2013
29. "Economics and Harvest Control Rules Under the Magnuson-Stevens Reauthorization Act," Invited Panelist, North American Association of Fisheries Economists, St. Petersburg, FL, May 2013
30. "Detecting Ecological Disturbances from Natural Resource Prices," Invited Seminar, Appalachian State University, Department of Economics, April 2013

31. "Global Seafood in the 21st Century," Duke Marine Lab Speaker Series, March 2013
32. "Natural Resource Prices and Ecological Regime Shifts," Invited Seminar, Yale University, School of Forestry and Environmental Studies, November 2012
33. "Global Seafood in the 21st Century," Duke University, Environmental Mega-trends Lecture Series, November 2012
34. "Economic Impacts of Hypoxia on Fisheries," Invited Seminar in Life Sciences, Smith College, April 2012
35. "Growth overfishing and intra-seasonal fisheries models," Invited Seminar, Economics Department, University of Calgary, April 2012
36. "Growth overfishing and intra-seasonal fisheries models," Invited Seminar, Resources for the Future, September 9, 2011
37. "Growth overfishing and intra-seasonal fisheries models," Invited Seminar, University of California, Davis, Department of Environmental Science and Policy, April 22, 2011
38. "Now that fisheries economists have what they want, what now? Growth overfishing and intra-seasonal fisheries models," Invited Seminar, University of California, San Diego and NOAA Fisheries Southwest Fisheries Science Center, November 15, 2010
39. "Dynamic Decisions and Before/After Analyses of the Crab Rationalization," NOAA Fisheries Alaska Fisheries Science Center Workshop on Bering Sea and Aleutians Islands Crab Fisheries Data Collection and Analysis, Seattle, WA, December 2009
40. "Economics of Coastlines and Beaches under Climate Change," Norwegian University of Life Sciences, Department of Economics and Social Science, September 2009
41. Instructor and Participant, *Micro-econometric Modeling in Environmental and Resource Economics*, EPA-sponsored Workshop, Washington DC, May 2009, presentation: Smith, M.D., "Discrete Choice in Renewable Resource Economics: Lessons from Simulation."
42. "Beach Capital and Dynamic Coastal Management Strategies," The Ohio State University, Department of Agricultural, Environmental, and Development Economics, January 2009
43. "Beach Capital and Dynamic Coastal Management Strategies," Cornell University, Department of Agricultural and Applied Economics, October 2008
44. Invited Keynote Speaker, Workshop on Choice modeling: Producers and consumers reaction to policy changes in natural resource policy models, Centre for Fisheries & Aquaculture Management & Economics, University of Southern Denmark, June 2008
45. "Towards an Econometric Foundation for Marine Ecosystem-based Management," Duke Marine Lab Speaker Series, April 2, 2008
46. Instructor, *Spatial Bioeconomic Analysis of Coastal Fisheries*, North American Association of Fisheries Economists 2007 Pre-forum Workshop, Mérida, Yucatán, México, March 27, 2007.
47. "Endogenous Fishing Mortality in Life History Models: Relaxing Some Implicit Assumptions," Center for Marine Sciences and Technology, NC State University, Morehead City, February 2, 2007.

48. Participant, NCEAS Working Group on Property Rights in Fisheries, Santa Barbara, CA, February 2007, presentation: Smith, M.D., "Individualized Landings Taxes in an ITQ Fishery."
49. Instructor and Participant, *Micro-econometric Modeling in Environmental and Resource Economics*, EPA-sponsored Workshop, Research Triangle Park, NC, Fall 2006, presentation: Smith, M.D., "Discrete Choice in Renewable Resource Economics."
50. "Structural Econometric Modeling of Fisheries with Complex Life Histories: Avoiding Biological Management Failures," Invited Seminar, University of Stravanger, Stravanger, Norway, September 4, 2006 (also presented at Department of Economics and Social Science, Norwegian University of Life Sciences, Ås, Norway, September 7, 2006; Centre for Ecological and Evolutionary Synthesis, Department of Biology, University of Oslo, Oslo, Norway, September 8, 2006)
51. "Structural Econometric Modeling of Fisheries with Complex Life Histories: Revisiting Biological Bias in Regulation," Invited Seminar, Public Economics and Environmental Economics Workshop, Department of Economics, Stanford University, May 2, 2006 (also presented at UC Davis Department of Agricultural and Resource Economics Brown Bag Seminar, May 3, 2006)
52. Participant and Speaker, *Sustainability of Deep-Sea Fisheries*, Workshop Sponsored by the Marine Conservation Biology Institute, Miami, FL, May 2006, presentation: Smith, M.D., "Fisherman Behavior 101: What to fish for, with what, where, when, and how hard."
53. "Bioeconometrics: Empirical Modeling of Bioeconomic Systems," Invited Seminar, Resources for the Future, Washington D.C., March 16, 2006
54. "Using Financial Portfolio Analysis to Guide Ecosystem-Based Fishery Management," Nicholas Institute Speaker Series, Duke University, March 2, 2006
55. "Bayesian Bioeconometrics of Marine Reserves," J. Norman Efferson Lectures in Agricultural Economics, Louisiana State University, October 24, 2005 (also presented at Department of Economics Seminar Series, College of Business Administration, University of Central Florida, December 9, 2005).
56. "A Spatial Bioeconomic Model of Nutrient Pollution" 3rd Workshop on Spatial-Dynamic Models of Economics and Ecosystems, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, April 11-13, 2005
57. "Valuing Ecosystem Services with Fishery Rents: A Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary," (with L.B. Crowder), Linking Economic and Ecological Models for Environmental Policy Analysis: Challenges and Research Strategies, NSF-EPA Biocomplexity Workshop, Santa Fe, NM, April 17-19, 2005 (presented preliminary results at Triangle Environmental and Resource Economics Seminar, October 18, 2004)
58. "International Trade, Fisheries, and the Environment," SIDG Annual Spring Conference, NSEES, Duke University, February 2004
59. "Fishing Behavior," Environmental and Resource Economics Seminar Series, Department of Applied Economics, University of Minnesota, November 2003
60. Participant in "Spatial Fisheries Economic Modeling Workshop: Application to the Bering Sea Pollock Catcher Boat Fishery," Seattle, WA, June 2003
61. "Incorporating Fisher Behavior into Management Models: A case study of the reef fish fishery of the eastern Gulf of Mexico," NOAA Fisheries Southeast Fisheries Science Center, Miami FL, June 2003 (also

presented at Florida Marine Research Institute, St. Petersburg FL, February 2004).

62. "Spatial Supply Response in Marine Fisheries," Department of Agricultural and Resource Economics Seminar Series, University of Maryland, April 2003
63. "Correlated Risk Preferences in Commercial Fishing," Public Economics Seminar Series, Duke Economics Department, March 2003
64. "Economics of Marine Reserves: Lessons from Empirical Bioeconomics," Invited Presentation, Spatial Models in Fisheries Economics Workshop, National Marine Fisheries Service, Silver Spring, MD, October 2002
65. "Economic Impacts of Marine Reserves: The Importance of Spatial Behavior," Invited Presentation, Environmental Institutions Seminar, Duke Center for Environmental Solutions, February 2002
66. "Testing of *The Perfect Storm* Hypotheses: Behavioral Modeling of Commercial Fishing," Invited Presentation, Duke Marine Lab Speaker Series, September 2001 (also presented at Nicholas School of the Environment and Earth Sciences Graduate Afternoon Seminar, October 2001)
67. "Betting on a Long-shot: Breeding Incentives and Demand for Thoroughbred Racing in California," Department of Agricultural and Resource Economics Brown Bag Seminar Series, University of California, Davis, April 1999
68. "Spatial Behavior of Harvesters in the California Sea Urchin Fishery," (with J.E. Wilen), Department of Agricultural and Resource Economics Brown Bag Seminar Series, University of California, Davis, November 1998

Public Outreach

1. Panelist, "Addressing the U.S. Seafood Deficit," Capitol Hill Oceans Week, Washington D.C., June 2019
2. Panelist, Sustainable Foods Institute: Cooking for Solutions, Monterey, CA, May 2014
3. "Value and Non-market Value in Fisheries," Fisheries Forum (presentation to fishery managers), Co-sponsored by Nicholas Institute and Stanford Center for Ocean Solutions, Beaufort, NC, May 9, 2012
4. Presentation to current and future fisheries managers, "Are fisheries turning the corner?" Nicholas Institute, Durham, NC, April 9, 2012
5. Presentation to Duke Meatless Mondays Group, "Let's Talk about Fish," October 24, 2011
6. Public testimony before the Gulf of Mexico Fishery Management Council, Mobile, AL, March 22, 2006
7. Prepared presentation for commercial fishermen of results from 'Incorporating Fisher Behavior into Management Models: A case study of the reef fish fishery in the Gulf of Mexico,' Apalachicola, FL, December 13, 2005 (presented by Felicia C. Coleman)
8. Presentation at Fisherman Stakeholder Meeting: Smith, M.D. and F.C. Coleman, "Incorporating Fisher Behavior into Management Models," Apalachicola FL, March 11, 2004
9. Presentation at Fisherman Stakeholder Meeting: "Economic Issues in the California Sea Urchin Fishery," (with J.E. Wilen), Sea Urchin Workshop, Santa Barbara, CA, June 1999