

Curriculum Vitae
School of Marine Science
Virginia Institute of Marine Science

PERSONAL INFORMATION

Name: James E. Kirkley

Date 01/27/2007

Office Address: College of William and Mary
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Department of Coastal and Ocean Policy
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Position: Professor Department of Coastal and Ocean Policy
Rank Department

EDUCATION

Degree	Institution	Major	Date
B.S.	University of Maryland	International Trade & Economic Development	1973
M.S.	University of Maryland	Agricultural and Resource Economics	1975
Ph.D.	University of Maryland	Agricultural and Resource Economics	1986

ACADEMIC POSITIONS

2005-06 Professor, Department of Fisheries Science (Department of Coastal and Ocean Policy dissolved 07/01/2005)

2001-05 Chair, Department of Coastal and Ocean Policy.

1999-00 Vice Chair of Department of Coastal and Ocean Policy.

- 2002-06 Professor, College of William and Mary, School of Marine Science, Virginia Institute of Marine Science
- 1992-01 Associate Professor, College of William and Mary, School of Marine Science, Virginia Institute of Marine Science.
- 1987-92 Assistant Professor, College of William and Mary, Schools of Marine Science and Business Administration
- 1986-87 Instructor, College of William and Mary, Schools of Marine Science and Business Administration

Non-Faculty Experience:

- 2006 Kirkley, J.E., J. Agar, and G. Garcia-Moliner. An Assessment of Overcapacity in the United States Caribbean Fisheries. Prepared for NOAA Fisheries, Southeast Fisheries Science Center, and the Caribbean Fishery Management Council. 65 pp.
- 2006 Kirkley et al. (14 total authors). Reducing Capacity in U.S. Managed Fisheries. NOAA Technical Memorandum NMFS-F/SPO-76. 55 pp.
- 2006 Kirkley, J.E. and J. Ward. Potential Economic Ramifications of Reissuing the Rule to Implement the Fish and Seafood Promotion Act of 1986. NOAA Advisory Report, Office of Sustainable Fisheries. 47 pp.
- 2006 Kirkley, J.E. Chapter on economic impacts of offshore aquaculture in the U.S. Larger report containing 14 chapters is still being edited. NOAA Fisheries, Office of Sustainable Fisheries, National Aquaculture Program.
- 2006 Kirkley, J.E. A User's Manual for Assessing the Economic Impacts of U.S. Offshore Aquaculture. NOAA Fisheries, Office of Sustainable Fisheries, National Aquaculture Program.
- 2006 J.M. Terry and J.E. Kirkley, J.E. (Eds.) Assessments of Excess fishing Capacity in Select Federally-Managed Commercial Fisheries. NOAA Fisheries, Technical Report. Office of Science and Technology. 160 pp. Also responsible for four chapters.
- 2003 Prepare two volumes to support Food and Agriculture Organization (FAO) work on capacity (Authors: Greboval, Kirkley, Metzner, Morrison-Paul, and Pascoe).
- 2002 Prepare report on the harvesting capacity of black sea bass in the South Atlantic region for the Southeast Fisheries Science Center.
- 2003 Prepare report for NOAA Fisheries on over-capacity and methods for estimating over-capacity and determining the cost of a public buyback of fishing vessels.
- 2003 A Fisheries with the preparation of a report on the costs and benefits of dismantling or retaining offshore oil rigs in California

- 2003 Work with NOAA Fisheries on the development of a business plan to provide public sector assistance to the US shrimp industry in the Gulf of Mexico and South Atlantic region
- 2002 Prepare analysis in support of black sea bass, scup, and summer flounder amendment and protection of essential fish habitat. Mid-Atlantic Fishery Management Council.
- 2002 Prepare economic analysis in support of Amendment 13 to surfclam and ocean quahog fishery and protection of essential fish habitat. Mid-Atlantic Fishery Management Council.
- 2002 Prepare report for Food and Agriculture Organization (FAO) on measuring and assessing capacity in fisheries (Authors: Pascoe, Kirkley, and Morrison-Paul).
- 2002 Serve on NOAA/EPA Task Force on Fisheries Ecosystem Management; prepared chapter on economic concerns and issues.
- 2001 Prepare chapter on the economic aspects of U.S. Outer Continental Shelf oil and gas exploration and production.
- 2001 Prepare report on economic impacts of protecting/restoring essential fish habitat in the Mid-Atlantic.
- 2001 Complete preliminary draft on the economic importance and value of striped bass restoration activities. Contract with Fish and Wildlife, Department of Interior, Industrial Economics Incorporated.
- 2001 Develop profile of fisheries having human interactions with coastal bottlenose dolphin, National Marine Fisheries Service.
- 2001 Serve on National Marine Fisheries Service Expert Panel on Measuring Capacity in Fisheries.
- 2001 Present testimony to U.S. Congress, Subcommittee on Fisheries Conservation, Wildlife, and Oceans. Testimony related to reauthorization of Magnuson-Stevens Fishery Conservation and Management Act and capacity reduction initiatives.
- 2000-01 Initiate research on the economic decision-making behavior of offshore oil and gas producers. Work done under supervision of TechLaw, Inc. with contract from Minerals Management Service, U.S. Department of Interior.
- 2000 Assess the economic ramifications of U.S. fishery management strategies. Work done for Industrial Economics, Inc.
- 2000 Develop course for Korean Maritime Institute on estimating and assessing capacity in

fisheries.

- 1999 Develop training manual for employees of the National Marine Fisheries Service on methods for assessing efficiency and capacity in fisheries. Conduct three day training session for NMFS employees on statistical and mathematical procedures for assessing efficiency, capacity, and capacity utilization.
- 1997-1999 Pepsi Cola Bottling. Provide forecasts of potential demand for cigarettes, fast foods, pizza, and alcoholic beverages.
- 1997-1999 U.S. Congress. Develop definition and methods to measure capacity and capacity utilization in fisheries. Prepare Congressional Task Force Report on investment in U.S. Fisheries.
- 1997-1999 Food and Agriculture Organization (FAO), U.S. Department of State, and National Oceanic Atmospheric Administration. Prepare text on methods of defining and measure capacity, capacity utilization, capitalization, and factor utilization in natural resource industries. Develop training manual for FAO member nations to allow assessment of capacity, technical efficiency, and capacity utilization in fisheries. Present six papers as US representative or delegate to the United Nations FAO Technical Consultation on capacity in Mexico City (November 29-December 4, 1999).
- 1996-99 TechLaw Consultant on Minerals Management Service Project on Assessing Social and Economic Impacts of Outer Continental Shelf oil and gas activities in the Gulf Of Mexico.
- 1996 Adviser to A.T. Kearney on assessing the economic costs on society of small fish kills of recreational gamefish
- 1996 Adviser to A.T. Kearney on determining optimum product mix and market strategies for state lotteries: designing the optimum game with conjoint analysis
- 1996 Consultant to Forry, Ullman, Ullman, and Forry (law firm) on divorce case requiring an assessment of the economic value of a large, family-owned, fish processing and wholesale business located in Pennsylvania
- 1996 University of Maryland (as member of joint research team). Develop preliminary economic impact assessment and net benefit analysis of commercial and recreational fishing in the Chesapeake Bay region. Developed for NOAA/NMFS/EPA.
- 1995 International Study Group, National Marine Fisheries Service, Department of Oceans and Fisheries Canada, University of British Columbia, Oregon State, University of Washington, University of California-Davis, North Pacific and Alaska Fisheries Management Council. Develop procedures for allocating Pacific Whiting among different harvesting sectors.
- 1995 Consultant to National Fisheries Institute on the economic ramifications of different quotas in the surf clam and ocean quahog fisheries

- 1995 Consultant to attorneys on closure of Alaskan sea scallop fishery.
- 1993-94 Consultant to A.T. Kearney Structure and determination of rail freight rates
- 1992-94 University of Maryland Dept. of Agri. and Res. Economics, Economics of marine debris
- 1992 Visiting Scholar, National Marine Fisheries Service, Southwest Fisheries Science Center, La Jolla, California
- 1992-93 Consultant to American Factory Trawler Association and A.T. Kearney International Management Consulting.
- 1990-94 Scientific and Technical Advisory Committee--Oyster Restoration Efforts
- 1991-1992 Virginia Living Resources Roundtable--Resource Advisory member to assess regulatory strategies for best management of Chesapeake Bay and Coastal areas
- 1991 National Marine Fisheries Service, special project directed by William Fox, Director of NMFS, to assess the feasibility of managing fisheries by individual transferable quotas
- 1990-96 Working Group Member--New England Fishery Management Council, management and regulation of sea scallop fishery: (Plan Development Team member) (Stock Assessment Review Committee member) (Economic working group member)
- 1990 Consultant to industry on problems of enforcing the sea scallop fishery regulations
- 1988 Consultant to College of William and Mary, School of Business Administration. Prepared report on economic development of coastal economies.
- 1987 Consultant to Texas law firm. Prepared testimony on bio-economic status of sea scallop fishery.
- 1985-1986 Northeast Fisheries Center, Chief Economist for Office of Planning and Research, April 1985-February 1986.
- 1980-1985 Northeast Fisheries Center, Center Economist. Responsible for all center related economic research and analysis.
- 1981-1984 U.S. State Department. Detailed from Northeast Fisheries Center, National Marine Fisheries Service to help prepare socio-economic annex for U.S./Canadian Maritime boundary dispute.
- 1983 Consultant to Business Decision Services--developing algorithm to assess commercial credit loans, January 1983
- 1983 National Marine Fisheries Service, Office of Utilization and Development, temporary

- detail from April-May 1983. Serve as Division leader, National Marine Fisheries Service Economics Program. Responsible for supervising economists and conducting research and analysis with respect to national problems affecting the agency.
- 1982 Consultant to Business Decision Services--developing methodology and algorithms to determine the value of life and injury for personal injury litigation, August, 1992.
- 1981 Detail to NMFS headquarters, Washington D.C., to prepare bio-economic impact analysis of potential oil spill in Passamaquoddy Bay, Maine.
- 1978-1980 Northeast Fisheries Center, Resource Assessment Division, Chief, Economics Investigation, August 1978-1980. Responsible for all economic research and analyses.
- 1977-1978 National Marine Fisheries Service, Office of Long-Range Planning and Policy Development (Washington D.C.), 1977-1978. Responsible for conducting analysis of national and international events affecting the utilization and exploitation of the nation's marine environment.
- 1975-1977 United States Department of Agriculture, Economic Research Service, National Economic Analysis Division. Responsible for studies and analyses on the economics of production, trade, factor utilization, and productivity in the U.S. food and fiber sector.
- 1976 Citizen Consultant to Howard County, Maryland--determining land use plans for 1975-1985
- 1976 President's Commission of Productivity. Detailed from U.S. Dept. of Agriculture to work on productivity.
- 1976 Office of Technology Assessment. Detailed from U.S. Dept. of Agriculture to forecast rate of adoption of new technology.
- 1974-75 University of Maryland, Research Assistant, 1974-1975. Responsible for study on determining optimal public expenditures and types of public recreational goods and services.

HONORS, PRIZES, AND AWARDS

- 2005 Recipient of NOAA Environmental Hero Award
- 1986-2004 No honors/awards awarded from College of William and Mary or Virginia Institute of Marine Science.
- 1999 Letter from Admiral of US Coast Guard, second district, commending my work on assisting in developing Operation Safe Watch, @ a program designed to enhance vessel safety of commercial fishing vessels.
- 1999 Letter from Senator Robb and Barney Frank supporting my research on capacity reduction

initiatives.

- 1985 Awarded Outstanding Merit and Achievement by the Administrator, National Marine Fisheries Service, for economic analysis in support of the World Court Canadian/U.S. boundary dispute
- 1985 Awarded Outstanding Merit and Achievement and Cash Award by the Administrator of the National Marine Fisheries Service for directing, supervising, and conducting economic research
- 1984 Letter Commendation from United States Department of State for outstanding contribution in support of U.S. and Canadian Maritime Boundary dispute
- 1984 Letter of Commendation from Administrator, National Marine Fisheries Service, for contribution to U.S. Fisheries Surplus Program and U.S. Agriculture food distribution program
- 1984 Letter of Commendation from Governor of Massachusetts for contribution to International Trade Commission Hearings on tariffs and quotas on fishery products and dumping policies
- 1984 Letter of Commendation from International Trade Commission for contribution on the economic impacts of U.S. imports
- 1980 Letter of Commendation from Administrator, National Marine Fisheries Service, for contribution on evaluating the benefits and costs of oil refinery siting
- 1977 Letter of Commendation from County Executives, Howard County, for contribution to land use plan for Howard County
- 1976 Master's Thesis nominated for American Agricultural Economics Association as outstanding Master's Thesis of 1975
- 1974 Awarded Research Assistantship in Department of Agricultural and Resource Economics, University of Maryland
- 1973 Departmental Honors Award for Outstanding Scholastic Achievement, University of Maryland
- 1973 Cash Award for Outstanding Scholastic Achievement, University of Maryland
- 1972 Outstanding Contribution to Economics Club, Prince Georges Community College
- 1971 Outstanding Scholastic Achievement, Prince Georges Community College, Largo, Maryland

ACADEMIC CONTRIBUTIONS

Courses taught:

- 2006 MS 698 Economics for Fisheries Management (1 cr.)
- 2005 MS 542 (LAW 542) Principles of Environmental Policy and Natural Resource Management (3 cr)
- 2005 MS 555 Economic Principles of Marine Policy (3 cr.)
- 2004 MS 542 Principles of Environmental Policy and Natural Resource Management (3 cr.)
- 2004 MS 698 Principles of Input/Output Analysis (2 cr.)
- 2004 MS 698 Principles of Data Envelopment Analysis (2 cr.)
- 2003 MS 542 Marine Resource Management and Policy
- 2002 MS 542 Marine Resource Management and Policy
- 2001 MS 542 Marine Resource Management and Policy
- 2001 MS 529 Principles of the Economics of Fisheries Management
- 2000 MS 672 Applied Regression and Forecasting
- 2000 MS 542 Principles of Resource Management
- 1999 MS 529 Principles of the Economics of Fisheries Management (sole instructor).
Introduction to marine resource management emphasizing optimum resource use and analytical methods.
- 1999 MS 528 Marine Fisheries Science (team-instructor). Introduction to fisheries economics and management.
- 1998 Public Policy 625 Economics of Fisheries Management (sole instructor). Introduction to marine resource management emphasizing optimum resource use and analytical methods.
- 1998 MS 542 Principles and Theory of Resource Management (team-instructor). Theory and practical aspects of resource management.
- 1998 MS 528 Marine Fisheries Science (team-instructor). Introduction to fisheries economics and management.
- 1997 MS 529 Principles of the Economics of Fisheries Management (sole instructor).
Introduction to marine resource management emphasizing optimum resource use and

analytical methods.

1997 MS 542 Principles and Theory of Resource Management (team-instructor). Theory and practical aspects of resource management.

1997 MS 528 Marine Fisheries Science (team-instructor). Introduction to fisheries economics and management.

1996 MS 542 Principles and Theory of Resource Management (team-instructor). Theory and practical aspects of resource management.

1996 MS 528 Marine Fisheries Science (team-instructor). Introduction to fisheries economics and management.

1995 MS 529 Principles of the Economics of Fisheries Management (sole instructor). Introduction to marine resource management emphasizing optimum resource use and analytical methods.

1995 MS 542 Principles and Theory of Resource Management (team-instructor). Theory and practical aspects of resource management.

1995 MS 528 Marine Fisheries Science (team-instructor). Introduction to fisheries economics and management.

1994 MS 529 Principles of the Economics of Fisheries Management (sole instructor). Introduction to marine resource management emphasizing optimum resource use and analytical methods.

1994 MS 542 Principles and Theory of Resource Management (team-instructor). Theory and practical aspects of resource management.

1994 MS 528 Marine Fisheries Science (team-instructor). Introduction to fisheries economics and management.

1992 MS 678 Applied Quantitative Methods (sole instructor). Introduction to statistical analysis and modeling in marine science.

1991 MS 678 Applied Quantitative Methods (sole instructor). Introduction to statistical analysis and modeling in marine science and time series analysis.

1991 MS 698 Special Topics: Introduction to Regression (sole instructor). Basic principles of linear and non linear regression, single equations, and methods of estimating systems of equation.

1991 MS 698 Special Topics: Introduction to Regression II (sole instructor). Principles of regression with emphasis on limited dependent variables.

1990 MS 698 Special Topics: Introduction to Economics of Aquaculture. Economics principles of business management with application to aquaculture.

1990 MS 698 Special Topics: Introduction to Quantitative Methods. Principles of regression and time-series analysis.

1990 MS 658 Introduction to Economics of Resource Management. Economic theory and principles of benefit/cost analysis.

1989 BUS 578 Introduction to Quantitative Methods. Principles and theory of regression and time-series analysis with application to business.

Students Mentored

Major Advisor

2005-06 Tara Scott, Ph.D. A computable general equilibrium model of the Chesapeake watershed economic activities

2002-05 Jennie Navarro, M.S. Sustainable development in the Dragon Run Watershed (student withdrew from MS program)

2002-04 Tara Scott, M.S. Efficiency and undesirable outputs in the northwest Atlantic longline fishery—graduated December, 2004

1998-03 Winnie Ryan. Ph.D. Social Impact Assessment in Fisheries and Closed Area Management—graduated December 2003

1999-01 Sarunas Zablekis, MS. Graduated May 2001

1999-00 Arman Kaltayev, MS. Graduated August 2000.

1996-99 David Kerstetter. MS/MA. The economics of predator-prey relationships. School of Public Policy and School of Marine Science. Funding from Virginia Marine Resources Commission. Accepted Knaus Fellowship for 2000; returned to different program in 2001.

1994-96 Jeff Brust, M.A. Gear/conservation/engineering: the sea scallop dredge. Entered program 1993. Funding from Saltonstall-Kennedy through 1996. Co-major professor.

1991-94 Niels Moore, M.A. The economics of Individual Transferable Quotas (ITQs): The sea scallop fishery. Entered program 1991 and graduated 1994. Funding from VA Sea Grant between 1991 and 1994. Total funding was \$103,000. Major professor.

1994 Ryan Carnegie, M.A. Size specific fecundity of the sea scallop during spawning in the Mid-Atlantic resource area. Entered program 1991 and graduated 1994. Funding from

VA Sea Grant between 1991 and 1994. Co-major professor with William D. DuPaul.

1993 Yake-Hsu, Ph.D. Competition and the Virginia Oyster Industry. Entered program in 1994, assigned to me in 1987, and graduated in 1993. Funding provided from a variety of sources: VIMS, VA Sea Grant, and other. Major professor.

1990 Anne Schmitzer, M.A. The gametogenic cycle of sea scallops in the Mid-Atlantic Bight. Graduated in June 1990. Funding provided by VA Sea Grant; co-major professor.

Student Committee Service

2006 Kelli Melville, MS, Fisheries Science

2006 John Carriger, Ph.D., Environment and Aquatic Animal Health

2005-06 Matt Strickler, MS, Biological Sciences.

2005-06 Noelle Yochum, MS, Fisheries Science (graduate in 2006)

2004 Cynthia Landry. Off-Road Vehicles and Ghost Crab Populations, M.S.—graduated December, 2004

2000-2002 Kevin Geoff. Assessing efficiency and selectivity of scallop dredge gear. M.S.

1996-99 David Rudders. Comparative Performance of scallop dredge and trawl. M.S. Graduated 1999.

1997-99 Michael Price. Economic impacts of managing and regulating the Atlantic sea scallop fishery. (M.S.), Rutgers University. Graduated 1999.

1997-99 Jennifer Reed. Site Selection and banking wetlands. (M.A.) Successfully defended 1998; graduated 1999.

1997-99 Anna Marie Frankiech. A GIS-based Approach to Resource Management. Graduated 1999.

1996-97 Lynn Darcy. Economic and functional assessment of wetlands in tidal and nontidal areas (M.S. and M.A.)Bgraduated 1998.

1996 Wendal Pai. Economic valuation of by catch or assessing economic bads (M.S. in public policy and B.A. Law)

1996-98 Katie Hopkins, M.S./M.A. Assessing Wetlands. Master student in VIMS Resource Management and Policy and Thomas Jefferson Policy Program. Student has apparently withdrawn from the College.

1995 Melissa Chaun, M.A. Evaluation of ecosystem models. (graduated December 1995).

1993 Paul Ruderenhauer, M.A. Diurnal habits of juvenile fish in Chesapeake Bay. (graduated 1993)

1986-1992 Administered or participated in more than 50 qualifying or comprehensive exams on resource management and statistics

FELLOWSHIPS AND GRANTS

Fellowships, grants, and contracts by outside agencies:

Title: The Economic Importance and Value of Menhaden in the Chesapeake Bay Region

Date: 2006

Principal Investigator: Kirkley

Funding Source: Virginia Marine Resources Commission

Amount Requested (Under Review): \$778,239

Title: Economic Importance of Virginia's Recreational and Commercial Fisheries

Date: 2003-2005

Principal Investigator: Kirkley/Murray

Funding Source: Virginia Marine Resources Commission

Amount Requested (Funded): \$234,000

Title: Processing Labor in the Mid-Atlantic Region

Date: 2003-2005

Principal Investigator: Kirkley/McCay (Rutgers)

Funding Source: CMER (Cooperative Marine Education and Research Program)

Amount Requested (Funded): \$107,000—VIMS--\$49,188

Title: Environmental Impact Statement: Introducing *Ariakensis*

Date: 2004-2005

Principal Investigator: Kirkley/Murray

Funding Source: Maryland Department of Natural Resources

Amount Requested (Funded): \$14,329 (Kirkley)

Title: Stated Environmental and Natural Resource Preferences

Date: 2003-2005

Principal Investigator: Kirkley

Funding Source: NOAA/EPA and VIMS/SMS (Dean/Director)

Amount Requested (Funded): \$59,261 (additional \$25.0 k from NOAA and \$30.0 k from Dean/Director)

Title: Sustainable Development of the Dragon Run Watershed

Date: 2003-2004

Principal Investigator: Kirkley/Murray

Funding Source: Middle Peninsula Planning District
Amount Requested (Funded): \$18,000

Title: Community and Economic Impacts of Highly Migratory Species Management
Date: 2002-2004
Principal Investigator: Kirkley/Chuenpadgee/Hicks; Hicks and Chuenpadgee resigned
Funding Source: Office of Protected Species/National Marine Fisheries Service
Amount Funded: \$98,418

Title: Input/Output Analysis and Economic Impact Assessment Framework
Date: 2002-2004
Principal Investigator: Kirkley/Chuenpadgee/Hicks; Hicks and Chuenpadgee resigned
Funding Source: CMER (Cooperative Marine Education and Research Program)
Amount Funded: \$120,000

Title: Community and Economic Impacts of Highly Migratory Species Management
Date: 2002-2004
Principal Investigator: Kirkley
Funding Source: Office of Protected Species/National Marine Fisheries Service
Amount Funded: \$19,576

Title: Reducing Mortality of Sea Turtles in the Northwest Atlantic Longline Fisheries
Date: 2003-2005
Principal Investigator: Kirkley
Funding Source: Office of Protected Species/National Marine Fisheries Service
Amount Requested (Funded): \$42,622

Title: North American Association for Fisheries Economists, Annual Meeting
Date: 2003-2004
Principal Investigator: Kirkley
Funding Source: NOAA Fisheries, Office of Science and Technology
Amount Requested (Funded): \$25,000

Title: Community-based Area Management: The Sea Scallop Fishery
Date: 2000-2003
Principal Investigator: Kirkley/DuPaul/Ryan
Funding Source: Saltonstall-Kennedy
Amount Funded: \$179,000
Project and contract completed 2003

Title: Capacity and Capacity Utilization in Fishing Industries
Date: 1999
Principal Investigator: Kirkley
Funding Source: REVES Center for International Studies
Amount Funded: \$400--help displace travel cost to Mexico City

Title: The Economics of Allocating Striped Bass Among Competing User Groups
Date: 1998-2000
Principal Investigator: J. Kirkley
Funding Source: VMRC, Recreational Fishing Advisory Fund
Amount Funded: \$108,000

Title: Assessing the Economic Impacts of Pfiesteria
Date: 2000-2002
Principal Investigator: Co-PIs: Tim Haab, Jim Kirkley, D. Lipton, G. Parsons, J. White
Funding Source: NOAA/EPA
Amount Funded: \$197,000 (approximately \$15 k for VIMS/SMS)

Title: Assessing the Economic Ramifications of Pfiesteria
Date: 1998-1999
Principal Investigator: DuPaul/Kirkley
Funding Source: Virginia Sea Grant
Amount Funded: \$4,000

Title: Assessing Age and Fishing Mortality of Tautog, Virginia Resource Area
Date: 1996-1997
Principal Investigator: Kirkley/White
Funding Source: Virginia Marine Resource Commission
Amount Funded: \$97,000

Title: Economic Valuation of Marine Recreational Fishing
Date: 1994-1996
Principal Investigator: Kirkley (PI); Strand, McConnell, and Bockstael as co-investigators
Funding Source: Virginia Marine Resource Commission
Amount Funded: \$293,000

Title: Economic Valuation of Virginia's Seafood Industry
Date: 1994-1996
Principal Investigator: Kirkley
Funding Source: Virginia Marine Resource Commission
Amount Funded: \$20,000

Title: Economic Valuation of Virginia's Seafood Industry
Date: 1994-1996
Principal Investigator: Kirkley
Funding Source: Virginia CFAST
Amount Funded: \$22,000

Title: Economic Valuation of Virginia's Seafood Industry
Date: 1994-1996
Principal Investigator: Kirkley
Funding Source: Virginia Marine Resource Commission

Amount Funded: \$7,800

Title: Economic Valuation of Virginia's Seafood Industry

Date: 1994-1996

Principal Investigator: Kirkley

Funding Source: Virginia Marine Products Board

Amount Funded: \$5,000

Title: Selectivity and Efficiency of Sea Scallop Dredge

Date: 1993-1995

Principal Investigator: DuPaul/Kirkley

Funding Source: Saltonstall-Kennedy, NOAA/NMFS

Amount Funded: \$161,000

Title: Computerization of The Commercial Fishing Industry

Date: 1992-1993

Principal Investigator: Kirkley

Funding Source: National Marine Fisheries Service

Amount Funded: \$40,000

Title: Menhaden By-catch

Date: 1992-1993

Principal Investigator: Kirkley/Austin

Funding Source: Saltonstall-Kennedy, NOAA/NMFS

Amount Funded: \$48,000

Title: Menhaden By-catch in the Offshore Fishery

Date: 1992-1993

Principal Investigator: Kirkley

Funding Source: Menhaden industry

Amount Funded: \$8,000

Title: Decision-making Behavior and Fisheries Regulation

Date: 1991-1993

Principal Investigator: Kirkley/DuPaul

Funding Source: Virginia Sea Grant

Amount Funded: \$100,339

Title: Profile of the United States Oyster Industry

Date: 1991-1993

Principal Investigator: Kirkley

Funding Source: National Marine Fisheries Service

Amount Funded: \$34,315

Title: Legal Profile of the United States Oyster Industry

Date: 1991-1993
Principal Investigator: Theberge--Proposal prepared by Kirkley
Funding Source: National Marine Fisheries Service
Amount Funded: \$30,000

Title: Economic Benefits of Artificial Reefs
Date: 1990-1992
Principal Investigator: Kirkley/Lucy
Funding Source: Saltonstall-Kennedy, NOAA/NMFS
Amount Funded: \$81,000

Title: Comparative Analysis of Ring Size in Scallop Dredge
Date: 1989
Principal Investigator: DuPaul/Kirkley
Funding Source: Saltonstall-Kennedy, NOAA/NMFS
Amount Funded: \$48,000

Title: Analysis of Mesh Size in Scallop Trawl Fishery
Date: 1989
Principal Investigator: DuPaul/Kirkley
Funding Source: New England Fishery Management Council
Amount Funded: \$71,000

Title: An Evaluation of At-sea Handling Practices
Date: 1988-1989
Principal Investigator: DuPaul/Kirkley
Funding Source: Gulf and South Atlantic Development Foundation
Amount Funded: \$53,202

Title: Marketing Hybrid Striped Bass
Date: 1988-1989
Principal Investigator: Kirkley
Funding Source: Virginia Dept. of Agri. and Consumer Marketing
Amount Funded: \$50,000

RESEARCH

Refereed Publications—journals:

- 2006 Grafton et al. (has 19 international authors). Incentive based approaches to sustainable fisheries. *Canadian Journal of Fish and Aquatic Sciences*. Vol. 63: 699-710.
- 2006 Fare, R., J.E. Kirkley, and J. Walden. (2006). Adjusting Technical Efficiency to Reflect Discarding: The Case of the U.S. Georges Bank Multi-Species Otter Trawl Fishery. *Fisheries Research*. 78: 257:265.
- 2006 Kirkley, J.E., J. Walden, and J.M. Ward. (2006). The Status of America's Commercial

- Fisheries and Management and Crystal-Balling the Future. *International Journal of Global Environmental Issues* (in press for 2007).
- 2006 Scott, T., J.E. Kirkley, R. Rinaldo, and D. Squires. Assessing Capacity in the United States Norwest Atlantic Pelagic Longline Fishery for Highly Migratory Species with Undesirable Outputs. Prepared for Food and Agriculture Organization; peer-reviewed, edited, and scheduled for 2007 publication.
- 2006 Kirkley, J.E., J. Walden, and J. Waters. Buyback Programs: Goals and Objectives. Chapter in text by Blackwell Publishing on Fisheries. Eds. Squires, D.E. and R. Curtis. (in press for 2007).
- 2006 Squires, D., Y. Jeon, and J. Kirkley. 2006. "Controlling Excess Capacity in Common-Pool Resource Industries: The Transition from Input to Output Controls" (under review by *European Journal of Environment and Natural Resources*).
- 2005 Reid, C., J. Kirkley, D. Squires, and J. Ye. 2005. An Analysis of Fishing Capacity of the Global Tuna Purse-Seine Fleet in Bayliff, W.H., L. Moreno, J.I. De, and J. Majkowski (eds) "Management of Tuna Fishing Capacity: Conservation and Socio-Economics, Second Meeting of the Technical Advisory Committee, Madrid, Spain, 2004.
- 2004 Kirkley, J.E., C.J. Morrison Paul, and D.E. Squires. Deterministic and Stochastic Capacity Estimation for Fishery Capacity Reduction. *Marine Resource Economics*, 19: 271-294.
- 2004 Kirkley, J.E. C.J. Morrison Paul, S. Cuningham, and J. Catanzano. Embodied and Disembodied Technical Change in Fisheries: An Analysis of the Sete Trawl Fishery. *Journal of Environmental And Resource Economics*, 29: 191-217.
- 2004 Kirkley, J.E., J. Walden, and J. Waters. Buyback Programs: Goals, Objectives, and Industry Restructuring in Fisheries. *Journal of Agricultural and Applied Economics*, 36 (2): 333-345.
- 2004 Hicks, R.L., J.E. Kirkley, and I.E. Strand. Short-run Welfare Losses from Essential Fish Habitat Designations for the Surfclam and Ocean Quahog Fisheries, *Marine Resource Economics*, 19 (1): 113-130.
- 2003 Kirkley, J.E. D.E. Squires, M.F. Alam, and H.O. Ishak. Excess Capacity and Asymmetric Information in Developing Country Fisheries: The Malaysian Purse Seine Fishery. *American Journal of Agricultural Economics*, 85 (3): 647-662.
- 2003 Fox, K., Q. Grafton, J.E. Kirkley, and D.E. Squires. Property Rights in a Fishery: Regulatory Change and Firm Performance. *Journal of Environmental Economics and Management*, 46: 156-177.
- 2003 Squires, D., Y. Jeon, J.E. Kirkley, K. Kuperan, I. Omar, and I. Susilowati. Excess Capacity and Sustainable Development in Java Sea Fisheries. *Journal of Environment and*

Development Economics, 8: 105-127.

- 2003 Vestergaard, N., D. Squires, and J. Kirkley. Measuring Capacity and Capacity Utilization in Fisheries: the Case of the Danish Gill-net Fleet. *Fisheries Research*, 60: 357-368.
- 2003 Walden, J., J.E. Kirkley, and A. Kitts. A Limited Economic Assessment of the Northeast Groundfish Fishery Buyout Program. *Land Economics*, 79 (3): 426-439.
- 2002 Kirkley, J.E. C. Morrison-Paul, and D.E. Squires. Capacity and Capacity Utilization in common-pool resource industries. *Journal of Environmental and Resource Economics*, 71-97.
- 2002 DuPont, D., Q. Grafton, J. **Kirkley**, and D. Squires. Multi-product regulation and the privatization of a fishery. *Journal of Energy and Resource Economics*, 24:193-210.
- 2002 Kuperan, K., I.H. Omar, Y. Jeon, J. E. **Kirkley**, D. Squires, and I. Susilowati. Fishing skill in developing country fisheries: The Kedah, Malaysia Trawl Fishery. *Marine Resource Economics*, 16(4):293-324.

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- 2001 Färe, R., S. Grosskopf, J.E. **Kirkley**, and D. Squires (equal authorship). Data envelopment analysis (DEA): A framework for assessing capacity in fisheries when data are limited. (conference International Institute for Fisheries Economics and Trade-- proceedings, July 2000; published as an electronic publication in 2001).
- 2001 Färe, R., S. Grosskopf, K. Kerstens, J.E. **Kirkley**, and D. Squires (equal authorship). Assessing short-run and medium-run fishing capacity at the industry level and its reallocation. (conference International Institute for Fisheries Economics and Trade-- proceedings, July 2000; published as an electronic publication in 2001).
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- 2001 Walden, J. and J.E. **Kirkley**. Measuring capacity of the New England otter trawl fishery. (conference International Institute for Fisheries Economics and Trade-- proceedings, July 2000; published as an electronic publication in 2001).

Conference Proceedings (2001—no conferences for 2002-2005):

- 2001 **Kirkley**, J.E., C. Morrison Paul, and D.E. Squires. Defining and Measuring Capacity in Fisheries. Meeting of North American Association of Fisheries Economists, April 2001, New Orleans.

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- 2000 Rudders, D.B., W.D. DuPaul, and J.E. Kirkley. (2000). A comparison of size selectivity and relative efficiency of sea scallop trawls and dredges. *Journal of Shellfish Research* (published December 2000).
- 2000 Färe, R., S. Grosskopf, and J.E. Kirkley. Multi-output Capacity Measures and Their Relevance for Productivity. *Bulletin of Economic Research* (April, 52 (2)):101-112.
- 2000 Kirkley, J.E. and D. Squires. Capacity and Capacity Utilization in fishing industries. *Fisheries Economics Newsletter*, (May), 49: 1-27 (Keynote article).
- 1999 Kirkley, J.E. and D. Squires. Defining and Measuring Capacity and Capacity Utilization in Fisheries. *FAO Reviewed Publication*. In Greboval (ed.) (1999) *Managing Fishing Capacity*. Food and Agricultural Organization text. FAO Publication No. 386. Pp. 75-199.
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- 1999 Squires, D. and J.E. Kirkley. Fishing Skill and Panel Data Models. *Canadian Journal of Fisheries and Aquatic Sciences*. November 1999, Vol. 56, No. 11, pp. 2011-2018.
- 1998 Kirkley, J.E., D. Squires, and I. Stand. Characterizing managerial skill and technical efficiency in a fishery. *Journal of Productivity Analysis*, March 1998.
- 1998 Kirkley, J.E. and D. Lipton. Characterizing and managing multi species technical and economic interactions. In *Prospects for Multi species Fisheries Management in Chesapeake Bay. A Workshop*. STAC Publication 98-002. Chesapeake Research Consortium, Inc. Scientific and Technical Advisory Committee. August 1998.
- 1998 Squires, D., H. Campbell, S. Cunningham, C. Dewees, R.Q. Grafton, S. Herrick, J.E. Kirkley, S. Pascoe, K. Salvanes, B. Shallard, B. Turriss, and N. Vestergaard. Individual transferable quotas in multi species fisheries. *Marine Policy*, Vol. 22, No. 2: 135-159.
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- 1994 Lucy, J. and J.E. Kirkley. Preliminary efforts to estimate dimensions and weights of hooked blue marlin using video images of fish at the boat. Collective Volume of Scientific Papers, Report of the Second ICCAT Billfish Workshop, July 22-29, 1992. pp. 499-504.
- 1994 Squires, D. and J. Kirkley. Individual transferable quota markets and investment decisions in the fixed gear sablefish industry. J. Envir. Econ. Manage. 27:185-204.
- 1993 No journal publications--conducting and completing three separate grant/contract reports, working with New England Fisheries Management Council sea scallop Plan Development Team, and approximately 35-40 days of at-sea research.
- 1992 Kirkley, J., W.D. DuPaul, and A. Schmitzer. Factors affecting the relationship between weight and length in *Placopecten magellanicus*. World Aquaculture Society. An International Compendium of Scallop Biology and Culture. pp. 134-139.

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- 1984-1987--Change in employment and doctoral dissertation
- 1975-1986--Employed by federal government
- 1985 Squires, D.E. and J.E. Kirkley. Review of text "Industry in Trouble" *Marine Resource Economics Journal*
- 1984 Murawski, S., M.P. Sissenwine, and J.E. Kirkley. Optimum effort allocation among competing mixed-species fisheries. ICES (International Commission for the Exploration of the Sea).
- 1984 Kirkley, J.E. The economics of input and multiple output technologies in fisheries. NOAA Technical Memorandum.

- 1982 Sissenwine, M.P. and J.E. Kirkley. Fishery management techniques: Practical aspects and limitations. *Marine Policy Journal*, October.
- 1982 Kirkley, J., B. Brown, and M. Pennington. A short-term forecasting approach for analyzing quotas. *Journal du Conseil*.
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- 1982 Kirkley, J. and I. Strand. Biological and economic concepts of fishing effort. *Northeast Fish and Wildlife Journal*.
- 1982 Strand, I., J. Kirkley, and K. McConnell. Economic analysis and the management of Atlantic surf clams. Book Chapter in Anderson (ed.) *Economic Analysis of Fisheries Management Plans*.
- 1980 Sissenwine, M.P. and J.E. Kirkley. Fishery management techniques: a review. NOAA Technical Memorandum--refereed technical note.
- 1979 Mueller, J., L. Videaus, and J. Kirkley. A linear programming approach for evaluating alternative intertemporal harvest strategies in a multi-species fishery. *Symposium on Applied Operations Research in Fishing, NATO, Brussels, Vol. 1*.
- 1976 Durost, D and J.E. Kirkley. Measuring labor productivity in the food and fiber sector. *Agricultural and Economics Research Journal*.
- 1976 Kirkley, J.E. Forecasting the rate of adoption of new technology. *Journal of Technological and Social Change*.
- 1976 Kirkley, J.E. Determining the preferences of Maryland State Park users. (abstract) *Journal of Leisure Research*.
- 1976 Hardie, I. and J.E. Kirkley. An alternative method of assessing preferences for potential governmental goods. *American Journal of Agricultural Economics* (abstract).

Books

- 2006 Grafton, Q., J. Kirkley, T. Kompas, and D. Squires. *Economics for Fisheries Management*. Ashgate Publishing.

Refereed Conference Proceedings

- Electronic Publications from International Institute of Fisheries Economics and Trade (IIFET) 2000 Conference (published in 2001):

- Färe, R., S. Grosskopf, J.E. Kirkley, and D. Squires (equal authorship). (2000). Data envelopment analysis (DEA): A framework for assessing capacity in fisheries when data are limited. (Peer-reviewed conference International Institute for Fisheries Economics and Trade--proceedings, July 2000; published as an electronic peer-reviewed publication in 2001).
- Färe, R., S. Grosskopf, K. Kerstens, J.E. Kirkley, and D. Squires (equal authorship). (2000). Assessing short-run and medium-run fishing capacity at the industry level and its reallocation. (Peer-reviewed conference International Institute for Fisheries Economics and Trade-- proceedings, July 2000; published as an electronic peer-reviewed publication in 2001).
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- Vestergaard, N., J.E. Kirkley, and D. Squires. (2000). Measuring capacity and capacity utilization in fisheries: The case of the Danish gill-net fleet. (Peer-reviewed conference International Institute for Fisheries Economics and Trade-- proceedings, July 2000; published as an electronic peer-reviewed publication in 2001).
- Walden, J. and J.E. Kirkley. (2000). Measuring capacity of the New England otter trawl fishery. (Peer-reviewed conference International Institute for Fisheries Economics and Trade-- proceedings, July 2000; published as an electronic peer-reviewed publication in 2001).
- 1999 Chambers, R., R. Fare, S. Grosskopf, J. Kirkley, J. Mistiaen, C.J.M. Paul, D. Squires, and I. Strand. (April 1999). Measuring Productivity of Fisheries Management. Conference at University of Maryland (Sponsored by National Ocean Atmospheric Administration, National Marine Fisheries Service, and Environmental Protection Agency) on assessing productivity in natural resource industries (Conference in February 1999). 42 pp.
- 1999 Kirkley, J.E., D. Squires, J. Walden, and J. Ward. (November 1999). Assessing Efficiency and Capacity in Fisheries. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico November 29-December 4, 1999). 100 pages, to be published in 2000 by FAO after peer review.
- 1999 Kirkley, J.E., R. Fare, S. Grosskopf, K. McConnell, D. Squires, and I. Strand. (November 1999). Assessing Capacity and Capacity Utilization in Fisheries with DEA. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico, November 29-December 4, 1999). 36 pages, to be published in 2000 by FAO after peer review.
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- 1999 Kirkley, J.E. (senior author), D. Squires, M.F. Alam., and I.H. Omar. (1999). Capacity and area licensing in the Malaysian purse seine fishery. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico, November 29-December 4, 1999). 39 pages, to be published in 2000 by FAO after peer review.
- 1999 Squires, D., R. Grafton, Y. Jeon, and J. Kirkley. (1999). Tradable Property Rights and Over capacity in Fisheries. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico, November 29-December 4, 1999). 39 pages, to be published in 2000 by FAO after peer review.
- 1999 Vestergaard. N., J. Kirkley, and D. Squires. (1999). Measuring Capacity and Capacity Utilization in Fisheries: The Case of the Danish Gill-net Fleet. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico, November 29-December 4, 1999). 21 pages, to be published in 2000 by FAO after peer review.

Invited scholarly papers and talks

- *Kirkley, J.E. (2005). Ecosystem Management: Facts, Fiction, or Fantasy And Something About Menhaden. Presented at NOAA Workshop on Ecosystem Key Largo, February, 2005.
- *Kirkley, J.E. and J. Walden. Excess Capacity and Buyback Programs. NOAA Fisheries, Silver Spring, MD. February, 2005.
- *Walden, J. and J.E. Kirkley. (2005). Assessing Capacity and Overcapacity in Fisheries. Presented to New England Fishery Management Council. December 2005.
- Kirkley, J.E. (2000). Capacity and capacity utilization in the black seabass fishery. South Atlantic Fisheries Management Council.
- Kirkley, J.E. (2000). Assessing capacity in fisheries: a mathematical approach. Korean Maritime Institute, Seoul, Korea, October 2000.
- Kirkley, J.E. Measuring and assessing capacity in fisheries: downsizing fishing fleets. South Atlantic Fishery Management Council, Charleston, South Carolina, October 2000.
- Kirkley, J.E. Economic data needs for managing fisheries. South Atlantic Fishery Management Council, Atlantic Beach, North Carolina, December 2000.

- 1999 Kirkley, J.E. (March 1999). Economic Valuation of Saltwater Angling or Wouldn't You Rather Be Fishing? Presented at VIMS.
- 1999 Kirkley, J.E., D. Squires, J. Walden, and J. Ward. (November 1999). Assessing Efficiency and Capacity in Fisheries. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico, November 29-December 4, 1999). 100 pages, to be published in 2000 by FAO after peer review.
- 1999 Kirkley, J.E., D. Squires, J. Walden, J. Ward. (October 1999). Assessing Efficiency and Capacity in Fisheries: Theory, Methodology, and Applications. Presented over 2.5 days to NMFS/NOAA employees and invited participants. The presentation served as a training manual to allow government employees to assess efficiency and capacity in fisheries. Presented at NMFS Headquarters in Silver Spring, Maryland.
- 1999 Kirkley, J.E., R. Fare, S. Grosskopf, K. McConnell, D. Squires, and I. Strand. (November 1999). Assessing Capacity and Capacity Utilization in Fisheries with DEA. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico, November 29-December 4, 1999). 36 pages, to be published in 2000 by FAO after peer review.
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- 1999 Kirkley, J.E. and D.E. Squires. (April 1999). Productivity Indexes in Fisheries: A Critical Review. Issues and Literature. Conference at University of Maryland (Sponsored by National Ocean Atmospheric Administration, National Marine Fisheries Service, and Environmental Protection Agency) on assessing productivity in natural resource industries (Conference in February 1999). 16 pp.
- 1999 Kirkley, J.E. and D.E. Squires. (April 1999). An Assessment of Productivity Analysis in Fisheries. Conference at University of Maryland (Sponsored by National Ocean Atmospheric Administration, National Marine Fisheries Service, and Environmental Protection Agency) on assessing productivity in natural resource industries (Conference in February 1999). 12 pp.

- 1999 Kirkley, J.E., R. Fare, S. Grosskopf, and D.E. Squires. (April 1999). An Introduction to DEA (Data Envelopment Analysis and not Drug Enforcement Administration). Conference at University of Maryland (Sponsored by National Ocean Atmospheric Administration, National Marine Fisheries Service, and Environmental Protection Agency) on assessing productivity in natural resource industries (Conference in February 1999). 57 pp.
- 1999 Kirkley, J.E. and D.E. Squires. (April 1999). A Practical Assessment of Productivity in Fisheries: DEA and Malmquist Indexes. Conference at University of Maryland (Sponsored by National Ocean Atmospheric Administration, National Marine Fisheries Service, and Environmental Protection Agency) on assessing productivity in natural resource industries (Conference in February 1999). 21 pp.
- 1999 Squires, D., R. Grafton, Y. Jeon, and J. Kirkley. (1999). Tradable Property Rights and Over capacity in Fisheries. United Nations Food and Agricultural Organization (FAO) Technical Consultation on Measuring Capacity in Fisheries (Mexico City, Mexico, November 29-December 4, 1999). 39 pages, to be published in 2000 by FAO after peer review.
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- 1999 Fare, R., S. Grosskopf, and J.E. Kirkley (April 1999). Multi-Output Capacity Measures and Dual, Indirect, Distance Functions. Conference at University of Maryland (Sponsored by National Ocean Atmospheric Administration, National Marine Fisheries Service, and Environmental Protection Agency) on assessing productivity in natural resource industries (Conference in February 1999). 10 pp.
- 1998 Kirkley, J.E. and D.E. Squires. Assessing capacity and capacity utilization in fisheries. La Jolla, California, April, 1998. FAO sponsored meeting. Presentation was prepared by Kirkley and presented by Squires.
- 1998 Kirkley, J.E. and D. Lipton. Managing the technical and economic interactions of multi species fisheries. Solomons Island. Scientific and Technical Advisory Committee. Prospects for Multi species Fisheries Management in Chesapeake Bay: A Workshop. April 1998.
- 1998 Kirkley, J.E. Assessing the ramifications of federal subsidies on fishing capacity. Presented before ASMFC and U.S. Congressional Task Force. Tampa, Florida. May 1998.
- 1998 White, G. and J.E. Kirkley. Quantitative assessment of fishing mortality for tautog in Virginia. Presented by G. White, Providence, R.I. January 1998.

- 1998 Kirkley, J.E. The economic importance and ramifications of saltwater angling in Virginia. Virginia Association of Marine Industries. Virginia Beach. October 1998.
- 1998 Kirkley, J.E. Individual transferable quotas and managing fisheries. Virginia Seafood Council. Richmond, VA. February 1998.
- 1998 Kirkley, J.E. The economic importance of Saltwater Angling in Virginia. Annual Boating and Fishing show. Richmond, VA. March 1998.
- 1997 Kirkley, J.E. Economic Importance of Virginia's Commercial Seafood Industry. Virginia Seafood Council and Virginia General Assembly. Richmond, VA, February 1997.
- 1997 Kirkley, J.E. Economic Importance of Virginia's Commercial and Recreational Fisheries. Virginia Marine Resources Commission, August 1997.
- 1997 Kirkley, J.E. Rights-based regulatory strategies for Chesapeake Bay Fisheries. VIMS, Bi-state management committee. Gloucester Point, VA. July 1997.
- 1996 Kirkley, J.E. Economic Importance of Virginia's Commercial Seafood Industry. Virginia Seafood Council and Virginia General Assembly. Richmond, VA., February 1996.
- 1996 Kirkley, J.E. Economic Importance of Virginia's Commercial and Recreational Fisheries. Virginia General Assembly Meeting. Gloucester Point, VA. May 1996.
- 1996 Kirkley, J.E. Economic Importance of Virginia's Net Fisheries. Joint Bi-state crab committee meeting and Maryland/Virginia regional fisheries management meeting. Colonial Beach, VA. July 1996.
- 1996 Kirkley, J.E. Economic impacts and value of saltwater angling in Virginia. Virginia Association of Marine Industries. Virginia Beach, VA. October 1996.
- 1996 Kirkley, J.E. Sustainable coastal development and economic concerns. Governor's Initiative on Sustainable Development. Gloucester Point, VA. October 1996.
- 1996 Kirkley, J.E. Valuing the Chesapeake Bay. Joint EPA and NOAA conference on valuing the resources of the Chesapeake Bay. Ellicott City, MD. July 1996.
- 1996 Kirkley, J.E. and W.D. DuPaul. Selectivity and economic value of advancing the age-of-entry in the sea scallop fishery. New England Fishery Management Council meeting. Boston, MA. February 1996.
- 1995 Kirkley, J.E., D. Lipton, and I. Strand. The economics of bio-remediation and options for bivalve restoration: Alternatively, what is the economic value of eliminating jellyfish? International Conference On Oysters. Williamsburg, VA. March, 1996.

- 1995 Kirkley, J.E. and D. W. Lipton. Problems and the future of the Chesapeake Bay Oyster industry or should the industry be revitalized? 1994 Chesapeake Bay Research Conference, June 2.
- 1994 Kirkley, J.E. and K.E. McConnell. Marine debris: benefits, costs, and choices. 3rd International Conference on Marine Debris, Miami, Florida, May 8-12, 1994. Presentation by McConnell; entire text to be published in 1996 by Steering Committee, International Conference on Marine Debris; all papers are peer reviewed by independent experts (stated p. 4 of Conference brochure).
- 1995 Kirkley, J. Recreational Data Collection and Socio-economic analysis. National Oceanic and Atmospheric Administration (NOAA) Conference on recreational data collection. May 1995, Virginia Beach.
- 1995 Kirkley, J., D. Lipton, and I. Strand. Economics and Bio-remediation of the Oyster Resource or Non-industrial Reasons for Restoring the Chesapeake Bay Oyster. International Workshop on Oysters, Williamsburg, February 1995.
- 1995 Kirkley, J.E. and P. Lacey. Economic Status of Virginia's Seafood Industry. Annual Meeting Virginia Seafood Council, February 1995, Richmond, VA.
- 1994 DuPaul, W.D. and J.E. Kirkley. Harvesting efficiency and size selectivity of sea scallop dredge rings of 3.00, 3.25, and 3.50-inches. Presented to New England Fisheries Management Council, October, 1994, Rhode Island (senior authorship and presentation not assigned).
- 1994 DuPaul, W.D. and J.E. Kirkley. Comparative harvesting efficiency of 3.00 and 3.25-inch scallop dredge rings. Presented to New England Fisheries Management Council and Scallop Plan Development Team, Saugus, MA, February 1994 (senior authorship and presentation not assigned).
- 1994 DuPaul, W.D. and J.E. Kirkley (senior authorship not assigned). Harvest efficiency and size selectivity of 3 and 3.25-inch scallop dredge rings, presented to New England Fisheries Management Council sea scallop Plan Development Team and published in trade newspaper "Commercial Fishing News" July 1994; SMS/VIMS Marine Resource Report No. 94-5.
- 1990 Harvey, P. and J.E. Kirkley. Marketing hybrid striped bass: Overview and survey results. Fredericksburg, VA June 1990 Aquaculture meeting.
- 1990 Kirkley, J.E. Scope and Scale of research for Coastal Business Initiatives. National Sea Grant Workshop.

Contributed scholarly papers and talks:

- 2004 Kirkley, J.E. Relating Capacity Estimates to Goals and Objectives of Buyback Programs. University of Florida, Gainesville. April 2004.

- 2004 Walden, J. and J.E. Kirkley. Reducing Fishing Capacity in the Northeast Groundfish Fishery: How Much Will it Cost? American Fisheries Society
- 2004 Kirkley, J.E. J. Walden, and J. Waters. Buyback Programs and Industry Restructuring: The Black Sea Bass Trap Fishery. National Conference Sponsored by NOAA Fisheries on Buyback Programs. (To be published in 2005/2006).
- 2001 Kirkley, J.E., C. Morrison Paul, and D.E. Squires. Defining and Measuring Capacity in Fisheries. Meeting of North American Association of Fisheries Economists, April 2001, New Orleans.
- 2001 Kirkley, J.E. Apples and Oranges or Biology, Economics, and Collaborative Management. Meeting of North American Association of Fisheries Economists, April 2001, New Orleans.
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- 1987 Kirkley, J.E. Presented "Alternative Forms of Regulating and Managing Fisheries: Limited Entry Options" at Ocean City Conference (NMFS/S-K/Industry) on "Matching Capital to Resources".
- 1986 Kirkley, J.E. VIMS oyster management review--presented analysis of long-run welfare implications of VA state oyster program to VMRC
- 1986 Kirkley, J.E. Presented research results of scallop harvest patterns to the New England Fisheries Management Council meeting in Baltimore.
- 1986 Kirkley, J.E. American Fisheries Society invited discussant on the problems of economics and fisheries management.
- 1984 Kirkley, J.E. The "Economics of Multiple Input and Output Technologies in Fisheries," invited speaker for National Marine Fisheries Service Workshop on economic analysis of fisheries, Orlando, Florida.

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Journal of Shellfish Research	10

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- 1999 Kirkley, J.E., N. Bockstael, K.E. McConnell, and I.E. Strand. The Economic Value of Saltwater Angling in Virginia. Draft completed in 1998. Final report submitted for printing in January 1999. Reported distributed in 1999.
- 1998 Rudders, D.B., W.D. DuPaul, and J.E. Kirkley. A Comparison of Size Selectivity and Relative Efficiency of Sea Scallop Trawls and Dredges. Virginia Marine Resource Report No. 98-6.
- 1998 White, G., J.E. Kirkley, and J. Lucy. Quantitative Assessment of Fishing Mortality for Tautog in Virginia. Draft report prepared in December 1997. Final version printed and submitted to Virginia Marine Resources Commission in January 1998.
- 1995 DuPaul, W.D. and J.E. Kirkley. Evaluation of Sea Scallop Dredge Ring Size, Contract Report Submitted to NOAA, National Marine Fisheries Service, Grant Number: NA36FD0131, October 1995. 197 pp.
- 1995 Haab, T, K. McConnell, M. Devitt, Q. Fong, J. Sutinen, and J. Kirkley (Names appear according to order of chapters in report). Economic Aspects of Marine Debris. Report on Project NA90AA-D-SG810 and SC3527887, National Sea Grant Program. 141 pp. May 1995.
- 1994 Kirkley, J.E. and S. Thacker. Computers in seafood businesses: A primer on using computers in your business. NOAA/NMFS Award No. NA265K0397-01.
- 1994 Austin, J., J. Kirkley, and J. Lucy. By-catch and the fishery for Atlantic menhaden in the mid-Atlantic Bight. S-K Contract Report. 39 pages. Senior authorship not assigned.
- 1994 Lipton, D. and J. Kirkley (Eds.) A profile of the oyster industry of the northeastern United States. NMFS Contract Report. 72 pp.
- Reissued, edited, and updated reports of 1993 contract reports; published by Virginia Sea Grant Advisory Service and VIMS (see below).

- 1993 Kirkley, J., J. Lucy, and A. Adams. Use and expenditure patterns on Maryland and Virginia Artificial reefs. S-K Contract Report 110 pages.
- 1993 Austin, J., J. Kirkley, and J. Lucy. By-catch and the fishery for Atlantic menhaden in the mid-Atlantic Bight. S-K Contract Report. 39 pages. Senior authorship not assigned.
- 1993 Lipton, D. and J. Kirkley (Eds.) A profile of the oyster industry of the northeastern United States. NMFS Contract Report. 72 pp.
- 1993 Kirkley, J.E. Market analysis of the U.S. eastern oyster resource. In Lipton and Kirkley (Eds.) "A Profile of the oyster industry of the northeastern United States." NMFS Contract Report.
- 1992 No contract/grant reports completed. Extensive time was devoted to working on 3 grant/contract research projects (menhaden-by-catch study; economics of artificial reefs; Profile of the Northeastern U.S. oyster industry).
- 1990 Kirkley, J.E. and W.D. DuPaul. Elimination of the meat count standard: a preliminary assessment of impacts. Prepared as contract report for Mid-Atlantic Fisheries Management Council (unfunded report).
- 1990 Kirkley, J.E. and W.D. DuPaul. A review of the fishery management plan for sea scallops. Prepared as contract report for Mid-Atlantic Fisheries Management Council (unfunded contract report).
- 1990 DuPaul, W.D., R.A. Fisher, and J.E. Kirkley. An evaluation of at-sea handling practices: effects on sea scallop meat quality, volume, and integrity. Gulf and South Atlantic Fisheries Development Foundation Contract Report, 76 pp.
- 1990 Harvey, P., J.E. Kirkley, and L. Richardson. Hybrid striped bass: market survey and analysis. Dept. of Agri. and Consumer Marketing Services Contract Report, 76 pp. Senior authorship not assigned.
- 1986 Kirkley, J.E. A core research program for Northwest Atlantic marine resources. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1985 Kirkley, J.E. An economic research program for assessing environmental and habitat degradation of the Northwest Atlantic. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1984 Kirkley, J.E. An economic valuation of non-market or prey species. Prepared for Northeast Fisheries Center, National Marine Fisheries Service, Georges Bank Lease Sale.
- 1983 Kirkley, J.E. Ecosystems modeling and public expenditures. Northeast Fisheries Center, National Marine Fisheries Service.

- 1983 Kirkley, J.E. Review of proposed winter halibut saving areas. Prepared for U.S. Department of Commerce.
- 1983 Kirkley, J.E. Rent extraction from foreign vessels. Prepared for Executive Office of President, Office of Management and Budget.
- 1983 Kirkley, J.E. Economic analysis of surplus salmon and tuna for USDA commodities program. Prepared for U.S. Department of Agriculture.
- 1983 Kirkley, J.E. An economic analysis of regulating the bluefin tuna fishery. Prepared for U.S. Department of Commerce.
- 1983 Kirkley, J.E. Proposed economics research program for Northeast Fisheries Science Center. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1983 Kirkley, J.E. Preparation and review of draft environmental impact statement. Prepared for U.S. Department of Interior, Georges Bank Oil lease offering.
- 1983 Kirkley, J.E. and D.E. Squires. An hedonic approach for determining the value of capital stock in fisheries. Prepared for U.S. Department of State, U.S./Canadian Maritime boundary dispute.
- 1983 Kirkley, J.E. A description and characterization of the Northwest Atlantic Marine Resources. Prepared for U.S. Department of State, U.S./Canadian Maritime boundary dispute.
- 1982 Kirkley, J.E. and S. Murawski. A bionomic simulator model for the New England trawl fishery. Prepared for New England Fisheries Management Council.
- 1982 Kirkley, J.E. A potential framework for allocating public expenditures on mortality related research programs. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1982 Kirkley, J.E. and J. Mueller. An evaluative framework for preparing the U.S. socioeconomic annex. Prepared for U.S. Department of State.
- 1982 Kirkley, J.E. A preliminary short-run impact analysis of reallocating effort on Georges Bank. Prepared for U.S. Department of State, U.S. Canadian Maritime boundary dispute.
- 1982 Kirkley, J.E. and A. Lange. A preliminary description and impact analysis of access denial. Prepared for U.S. Department of State, U.S./Canadian Maritime boundary dispute.
- 1981 Kirkley, J.E. An economic evaluation of the potential benefits of resource and assessment programs: a problem in determining the value of public information. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.

- 1981 Kirkley, J.E. The Maryland blue crab and oyster processing industries. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1981 Kirkley, J.E. and I.E. Strand. Bioeconomic concepts of production in fisheries. (264 pp.) Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1980 Kirkley, J.E. A comprehensive approach to fisheries management of the U.S. Northwestern Atlantic marine resources. Prepared for Northeast Fisheries Center, National Marine Fisheries Service and the New England Fisheries Management Council.
- 1980 Kirkley, J.E. A description and economic analysis of resources at risk from oil refinery siting: Pittston Oil. Prepared for Northeast Fisheries Center, National Marine Fisheries Service, U.S. Department of State, and Canadian Department of Oceans and Fisheries.
- 1979 Kirkley, J.E. and J. Mueller. Bioeconomic information and fisheries management. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1979 Kirkley, J.E. An iterative three-stage least squares model of the New England groundfish commodity flow. Prepared for Northeast Fisheries Center, National Marine Fisheries Service and New England Fisheries Management Council.
- 1979 Kirkley, J.E. and M.M. Miller. A baseline forecast for selected shellfish: 1980-1990. Prepared National Marine Fisheries Service.
- 1979 Coyne, J. and J.E. Kirkley. Socio-economic data needs for the Northwest Atlantic Fisheries. Prepared for Northeast Fisheries Center, National Marine Fisheries Service.
- 1979 Mueller, J. and J.E. Kirkley. Regulatory impact analysis of Atlantic surf clam management plan. Prepared for U.S. Department of Commerce.
- 1979 Kirkley, J.E. and R. Siegel. An economic analysis of alternative proposals for alleviating problems of resource exploitation. Prepared for National Marine Fisheries Service.
- 1979 Mueller, J., J. Kirkley, and L. Videaus. An optimal intertemporal harvesting allocation. Prepared for National Marine Fisheries Service and New England Fisheries Management Council.
- 1979 Rothschild, B.J., J.E. Kirkley, and L.G. Anderson. Social and Economic policies for fisheries development and management. Prepared for Food and Agriculture Organization (FAO).

PROFESSIONAL SERVICE

College Committee Service

SMS/VIMS: 2006 Alternate for Educational Policy Committee

SMS/VIMS: 1999-02 Faculty Status and Tenure Review Committee

SMS/VIMS 1997/1999 Quantitative skills committee

SMS/VIMS: 1994/96 Faculty Status and Tenure Review Committee

SMS/VIMS: 1995--Internal Review of Department of Resource Management and Policy

SMS/VIMS: 1994--Strategic Planning Retreat

SMS/VIMS: 1990-93--Admissions Committee

Co-hosted, with Tom Murray, the second North American Fisheries Economics Association meeting, Williamsburg, VA., May 2003.

ADVISORY SERVICE ACTIVITY (VIMS/SMS rev)

Service to Agencies of Commonwealth or Federal Government

- 2006 Prepare report for Food and Agriculture Organization on methods of estimating capacity in the presence of undesirable outputs (to be published as peer reviewed paper in 2007).
- 2006 Participate in review of NOAA Fisheries Marine Recreational Fisheries Statistics Survey, with special emphasis on economic and social add-on surveys.
- 2006 Conduct economic assessment of imposing additional regulations on the whelk fishery of Virginia with special reference to the use of horseshoe crabs as bait. Done for VMRC for 2006 General Assembly.
- 2006 Conduct economic impact assessment of hard clam fishery and potential for aquaculture. Done for VMRC for 2006 General Assembly.
- 2006 Conduct economic valuation of clam leases for a proposed taking by Virginia Department of Transportation. Done to compensate lease holders.
- 2006 Conduct economic valuation of imposing a reduced quota on the commercial blue crab fishery of Virginia. Assessed prices, revenues, and economic impacts likely to occur. Done for VMRC to assess the potential economic ramifications of a more restrictive quota.
- 2006 Present economic overview of the commercial and recreational fisheries of Virginia to VMRC commissioners and staff. Done to demonstrate the severity of a declining commercial industry.
- 2006 Conduct 0.5 work day (four hours) training course for VMRC staff on assessing the economic impacts of commercial and recreational fishing. (April 2006).
- 2006 Serve on South Atlantic Fisheries Management Council, Science and Statistics Committee

as member of Economic and Social Science Sub-committee (presently Chair of sub-committee). Approximately one month of time during year devoted to review issues, offering guidance to Council and NMFS staff on analytical issues, and conducting meetings to assist in the approval/disapproval of regulatory amendments.

2006 Serve on Mid-Atlantic Fisheries Management Council, Science and Statistics Committee. Conduct reviews of proposed regulatory amendments. Work on amendment to modify existing regulations for tilefish. (on going).

2006 Serve as member of the Committee on Economics and Social Science for the Atlantic States Marine Fisheries Commission (serve as appointed representative of Virginia; appointment by VMRC). Develop procedures for collecting and compiling data; reviewing management plans and options (e.g., the quota on the menhaden fishery); and providing additional guidance and information to various plan development teams and members of the ASMFC.

2005 Assist NOAA in preparing Environmental Impact Statement in support of implementing the Fish and Seafood Promotion Act

2005 NOAA Fisheries--a preliminary assessment of the economic impacts of Katrina and Rita on the fishing industry in Mississippi, Alabama, Louisiana, and Texas

2005 NOAA Fisheries--an Environmental Impact Statement (EIS) of implementing the Seafood Promotion Act of 1986 (previously proposed but never implemented)

2005 NOAA Fisheries—assisted in the development of the National Offshore Aquaculture Plan, which was subsequently funded by Congress, and is now a formal program of NOAA Fisheries

2005 NOAA Fisheries—develop definitions and metrics applicable to the concept of overcapacity in U.S. fisheries

2005 NOAA Fisheries--develop ecosystem-based management strategies for U.S. EEZ fisheries

2005 ASMFC—weakfish plan

2005 Serve as Vice Chair (will serve as Chair in 2007) of the ASMFC Committee on Economics and Social Science (CESS)

2005 ASMFC CESS meetings to help develop ecosystem-based strategies for fisheries Management

2005 Serve on the Science and Statistical Committees for the Mid-Atlantic and South Atlantic Fisheries Management Councils

2005 Serve as Vice Chair of the SAFMC SSC Subcommittee on Economics and Social Science, and have been serving as Acting Chair since March 2005

2005 Assist Michael McCall of the Virginia Department of Transportation on assessing the purchase

price of clam leases to facilitate bridge construction

2004 Serve on NOAA Fisheries Ecosystem-based Management Team: Biology and Economic Considerations

2004 Vice Chair of Social Science Subcommittee of the Science and Statistics Committee of the South Atlantic Fishery Management Council.

2004 Assist NOAA Fisheries in the Development of a Shrimp Business Plan; conducted economic analysis of the potential impacts of alternative solutions to assisting the industry.

2004 Assist NOAA Fisheries in the Development of A National Aquaculture Plan for Offshore Aquaculture.

2004 Prepare Environmental Impact Statement for Introducing *Ariakensis* to the Chesapeake Bay Region. Prepared for Maryland Department of Natural Resources, with input from the Virginia Marine Resources Commission.

2004 Serve on Atlantic States Marine Fisheries Commission Plan Develop Team for Weakfish.

2004 Prepare Environmental Impact Statement for Amendment #9 of the Squid, Mackerel and Butterfish Plan, Mid-Atlantic Fishery Management Council.

2002-2003 Serve on Fisheries Ecosystem Plan team for NOAA/EPA.

2002-2003 Served as State economist to Atlantic States Marine Fisheries Commission, representative of Commissioner of Virginia Marine Resources Commission.

2001 Work with NMFS Take Reduction Task Force on Reducing Human Interactions with Coastal Bottlenose Dolphin.

2000-03 Serve on National Task Force on Fishery Ecosystem Management. NOAA/EPA.

2001-03 Serve on Mid-Atlantic Scientific and Statistical Committee.

2001-03 Serve on South Atlantic Scientific and Statistical Committee.

1999-2003 Kirkley, J.E. Serve on bi-state blue crab management team. As part of team, developed a research agenda for obtaining information necessary to manage the blue crab fishery of Virginia and Maryland, approximately 12 days in 1999.

1999 Kirkley, J.E. Served on National Marine Fisheries Service as team member to develop economic measures of productivity in fisheries. Approximately 6 days.

- 1999 Kirkley, J.E. Served on U.S. Congressional Investment Task Force. Made presentations on subsidies and excess capacity in fisheries. Reviewed five chapters of 23 member team report for Congress on the influence of subsidies and potential approaches for downsizing America's fishing fleets. Develop procedures for mathematically assessing capacity when data are limited. Attended two Task force meetings. Prepared and edited chapter on measuring capacity in commercial and recreational fisheries. This effort required approximately 14 days in 1999.
- 1999 Kirkley, J.E. Served as member of the Science and Statistics Committee for the Gulf and South Atlantic Fishery Management Council. Provided reviews of various proposed regulations, scientific analyses, and fishery management strategies. Approximately 5 days.
- 1999 Kirkley, J.E. Served as member of the Science and Statistics Committee for the Mid-Atlantic Fishery Management Council. Provided reviews of various proposed regulations and fishery management strategies. Approximately 2 days in 1999 on bluefish, summer flounder, surf clams, and ocean quahogs.
- 1999 Kirkley, J.E. Served on Atlantic States Marine Fisheries Commission as member of three committees: (1) weakfish and sea trout; (2) menhaden; and (3) social and economic assessments. Reviewed various proposed regulations and supporting analysis in 1999. Approximately 10 days.
- 1999 Kirkley, J.E. Member of Sea Scallop Plan Development Team. Reviewed various proposals and offered comments to New England Fishery Management Council. Total effort in 1999Bapproximately 5 days.
- 1999 Kirkley, J.E. Work with National Marine Fisheries Service on ways to define and measure technical efficiency and capacity in US fisheries in order to facilitate US compliance with the Code of Responsible Fishing and the International Plan of Action to reduce fishing capacity. This work required approximately 45 days in 1999.
- 1999 Kirkley, J.E. Provided information and advice to Senator Robb and several congressmen from Virginia, New Jersey, and Massachusetts on a capacity reduction program for the US northwest Atlantic sea scallop fishery. Working with Senator Robb, his staff, and the Virginia Congressmen required approximately nine meetings and more than 15 days of work time in 1999.
- 1999 Kirkley, J.E. Provided information to General Accounting Office on fisheries management issues, capacity reduction programs, and US management Councils.
- 1999 Kirkley, J.E. Reviewed for US Congressional Research Service the reauthorization of the Stevens-Magnuson Management Act.
- 1999 Kirkley, J.E. Assisted the US Coast Guard in developing Operating Safe Catch, a program designed to increase the overall safety of US commercial fishing vessels.

- 1997/99 Member of National Oceanic and Atmospheric Administration Strategic Planning Team to assess the budget and research priorities for NOAA/NMFS, 1997-2005.
- 1996/99 Member of FAO study team to develop measures of capacity and programs to reduce capacity throughout the fisheries of the world.
- 1996/99 Member of technical advice committee for Virginia Blue Crab Management Committee, House Joint Resolution 609
- 1996/99 Member Sea Scallop Plan Development Team, New England Fisheries Management Council
- 1996/99 Atlantic States Marine Fisheries Commission, member seatrout management and assessment review team, menhaden management team, and social and economic impact assessment team.
- 1997/99 Member of Mid-Atlantic Fishery Management Council Science and Statistics Committee
- 1997/99 Member of Gulf and South Atlantic Fishery Management Council Science and Statistics Committee.
- 1998 Kirkley, J.E. and W. D. DuPaul. Jointly prepare report on economic feasibility of expanding the Eastern Shore Farmers= Market to accommodate seafood. Prepared for Regional Conservation and Planning Development Council and industry.
- 1998 Review stock assessment of Atka mackerel for Northwest and Pacific Fishery Management Council.
- 1997/98 Member of U.S. Congressional Task Force to assess the ramifications of subsidies on the U.S. Fishing industry.
- 1997 Advise VMRC on options for implementing ITQ management of striped bass.
- 1997 Assisted Potomac River Fisheries Commission in developing ITQ management system.
- 1997 Help develop draft bi-state blue crab management plan.
- 1997 Serve on international study team to determine allocation of whiting resource among competing user groups in the Northwest Pacific.
- 1997 Assist the US Army Corps of Engineers in assessing the economic importance of dredging channels in the Chesapeake Bay and tributaries.
- 1996 DuPaul, W., R. Fisher, and J. Kirkley. Natural and Ex-vessel Moisture Content of Sea Scallops. Revised analysis prepared for U.S. Food and Drug Administration.

- 1996 Terry, J., G. Sylvia, D. Squires, W. Silverthorne, J. Seger, G. Munro, R. Marasco, D. Larson, J. Kirkley, L. Jacobson, S. Herrick, J. Gauvin, A. Gautam, S. Freeze, and R. Baldwin. Fixed Costs and Joint Allocation in the Management of Pacific Whiting. NOAA Technical Memorandum NMFS, September 1996. Report prepared by international authors for National Marine Fisheries Service on how to conduct benefit-cost analysis of fisheries.
- 1996 Monthly Roundtable meetings with Virginia Marine Resources Commission for managing and regulating Virginia's marine resources
- 1996 Assist Northern Neck Peninsula Economic Planning District on sustainable coastal development
- 1995 Member of SMS/VIMS committee to prepare ten year research plan for aquaculture of mollusks in Virginia, House Joint Resolution 450.
- 1995 Weekly roundtable meetings with Virginia Marine Resources Commission for managing and regulating Virginia's fisheries.
- 1995 International Scientific and Advisory Committee for management of Pacific whiting.
- 1995 Prepared review of individual transferable quotas for Gene Buck, Senior Analyst, Congressional Research Service.
- 1995 Kirkley, J.E., W.D. DuPaul, and M. Oesterling. Report "Regulating the Blue Crab, *Callinectes Sapidus*, Fishery in Virginia: Biological and Economic Concerns" prepared for Virginia Secretary of Natural Resources.
- 1989-95 Sea Scallop Management and Regulatory Review--National Marine Fisheries Service, New England Fisheries Management Council, sea scallop Plan development team. Provided advice and analyses of crew and gear restrictions.
- 1993 Provided extensive bio-economic analyses to the New England Fisheries Management Council of various proposed regulations to manage the sea scallop fishery.
- 1990-93 Stock Assessment Review Committee--NMFS/NEFC--scallops and groundfish
- 1990-92 Oyster Resource and Restoration Policies--NMFS
- 1991-92 Virginia Living Resources Roundtable.
- 1992 Kirkley, J.E. and W.D. DuPaul. Preliminary assessment of the economic impacts of various catch and effort restrictions on the United States sea scallop, *Placopecten magellanicus*, fishery. Virginia Institute of Marine Science, Gloucester Point, VA. Prepared for New England Fisheries Management Council, scallop Plan Development Team, and scallop industry.

- 1992 Kirkley, J.E. and W.D. DuPaul. Estimating the relationship between fishing mortality, F, and effort, E, for heterogeneous production units. Virginia Institute of Marine Science. Prepared for New England Fisheries Management Council, scallop Plan Development Team, and scallop industry.
- 1992 Kirkley, J.E. Fishing mortality and effort: an assessment of the assumption of proportionality between F and E in the sea scallop fishery. Virginia Institute of Marine Science. Prepared for New England Fisheries Management Council, scallop Plan Development Team, and scallop industry.
- 1991 Kirkley, J.E. and W.D. DuPaul. Economic impacts of trip quotas, layover days, annual vessel allocations, and nine man crew. Prepared for New England Fishery Management Council.
- 1991 Kirkley, J.E. and M. Terciero. Age structure analysis of Delmarva sea scallops. Prepared for Stock assessment review committee, National Marine Fisheries Service.
- 1991 Kirkley, J.E. Research needs for fisheries management. Prepared for National Oceanic and Atmospheric Administration.
- 1990 Kirkley, J.E. and W.D. DuPaul. A review of the Fishery Management Plan for sea scallops. Report prepared at request of Executive Director of Mid-Atlantic Fisheries Management Council. VIMS Mar. Res. Rep. No. 90-3.
- 1990 Kirkley, J.E. and W.D. DuPaul. Elimination of the meat-count standard: a preliminary assessment of the impacts. Prepared for New England Fishery Management Council. VIMS Mar. Res. Rep. No. 90-4.
- 1990 Kirkley, J.E. and W.D. DuPaul. Short-run situation outlook report: Mid-Atlantic sea scallops. Prepared for National Marine Fisheries Service and New England Fishery Management Council. VIMS Virginia Marine Advisory Report.
- 1990 Coastal Business Initiatives Research Review Term--National Sea Grant.

Service to International Organizations:

- 2006 Provide peer-reviewed report on methods for estimating capacity adjusted for undesirable outputs or bycatch in global tuna fisheries. Prepared for Food and Agriculture Organization of the United Nations.
- 2003-2004 Serve as expert on estimating capacity in world tuna fisheries—FAO. Prepare Report “An Analysis of Global Fishing Capacity in the Purse Seine fleet.” Prepared by Reid, C., J.E. Kirkley, and D. Squires. Prepared for FAO. Presented in March 2004 as members of International Expert Panel on Assessing Capacity in Fisheries.

- 2002-2004 Complete two volumes (peer-reviewed) on measuring and assessing capacity in fisheries (Authors: Greboval, Kirkley, Metzner, Morrison-Paul, and Pascoe).
- 2000-01 Review and edit FAO Document on Measuring Capacity in Fisheries, Technical Consultation in Mexico City.
- 2000-01 Provide analysis of technical progress in fisheries in France, Scotland, Netherlands, and Denmark, EU organizations.
- 1999 Completed text by Kirkley, J.E. and D. Squires. Defining and Measuring Capacity and Capacity Utilization in Fisheries (173 pages). Editing required about 6 days in 1999. Text prepared for United Nations, Food and Agriculture Organization.
- 1999 Developed preliminary training manual for FAO to allow member nations to assess capacity and determine optimal or necessary reductions in harvesting capacity. Presented six papers representing the US to the United Nations FAO in Mexico City on ways to assess capacity in fisheries and the use of tradable property rights to reduce capacity. Develop presentation for international collection of economists and agency administrators representing 40 nations. This work required approximately 40 days in 1999.
- 1999 Provided mathematical program to the Institute of Environmental and Business Economics, University of Southern Denmark, to easily permit calculation of capacity in the Danish gill-net fleet.

Service to Private Organizations/Industry

- 2003 Prepare economic impact statement of proposed marine development in Virginia Beach, Cape Realty, Whit Sessoms—owner.
- 1999 Attended numerous meetings with members of the sea scallop fishery. The meetings were conducted to develop capacity reduction programs, management options, and possible strategies to open Georges Bank to scallop fishers. Worked closely with industry to establish congressional and governmental relationships.
- 1998 Attend industry meetings with Virginia congressional representatives and U.S. senators to explain the problems confronting the U.S. sea scallop fishery.
- 1997 Provided advice to National Fish Meal and Oil Association on variety of issues dealing with fisheries management, regulation, resource assessments, and the potential for expanding production of menhaden as fish meal and bait.
- 1997 Provided information to the American Sportfishing Institute on the economic importance of recreational angling in Virginia.
- 1996 Extensive work with seafood industry on computer problems and fisheries management issues

- 1996 Provide advice to marine industry associations on the economic importance of recreational fishing
- 1996 Assist Alaskan seafood company in developing a user-tax for shellstock and shucked scallop meats
- 1996 Evaluated company relocation options for fleet owner
- 1996 Provided information for alternative fishing strategies on rock shrimp to fleet owner
- 1996 Help processor/catcher owner develop national markets for fish and shellfish
- 1994-95 Extensive work with various individuals from the Virginia seafood industry in attempting to obtain funds from the NMFS emergency funds program.
- 1986-95 Extensive work with Virginia sea scallop industry to help understand proposed regulations and comply with existing regulations.
- 1995 Assist menhaden industry: provide information for Food and Drug Administration certification of use of menhaden oil in margarine.
- 1995 Assist National Fisheries Institute on wide array of problems related to fisheries management and utilization (e.g., net bans, stock assessments of flounder and surf clams, recreational user conflict, and buy-back schemes).
- 1990-94 Computerization of seafood industry. Assistance with accounting, taxation, business organization, and quality of product.
- 1993-94 Provide financial summary and analyses of 14 scallop vessels for the purpose of qualifying to remain in the sea scallop fishery. The fourteen vessels represent an investment of approximately \$7 million and employment opportunities for 128 full-time workers.
- 1988-94 Provided regular assistance to members of the seafood industry with tax preparation and preparation of 1099 forms for fishermen. Regularly updated custom computer program for income tax assistance to industry.
- 1990 Kirkley, J.E. Enforcing the meat count regulations for sea scallops and the potential for being cited in violation of the standard. Prepared for industry. Prepared for sea scallop industry.