

**STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
AQUACULTURE DIVISION**

IN RE: BAILEY COFFIN STANDARD AQUACULTURE LEASE APPLICATION)))))	CCBIFP DESIGNATION OF EXPERT WITNESSES
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Pursuant to the procedural orders of the Maine Department of Marine Resources’ (“DMR”), as amended, issued in the above-captioned aquaculture leasing matter, undersigned counsel for the Protect the Passage Intervenors¹, on behalf of the consolidated group of intervenors referred to as “Concerned Citizens of Bustins Island and Flying Point” (“CCBIFP”), hereby designate the following expert witnesses in the above-captioned matter.

1. Timothy A. Forrester, PWS. Mr. Forrester is the Director of Coastal Resources at Flycatcher, LLC (“Flycatcher”), an environmental consulting firm located in Yarmouth, Maine. Prior to Flycatcher, Mr. Forrester was the founder and owner of Atlantic Environmental, LLC, an environmental consulting firm located in Woolwich, Maine. Mr. Forrester been in the environmental consulting field for over 25 years. Mr. Forrester holds a Bachelor of Science in Environmental Analysis and Planning from Frostburg State University in Frostburg, Maryland. Mr. Forrester is a certified Professional Wetland Scientist and an active member, and a former executive committee member, of the Maine Association of Wetland Scientists. Mr. Forrester has significant expertise providing a wide range of environmental consulting services, including but not limited to natural resources permitting, residential and commercial docks, marina design, shoreline stabilization, and wildlife and marine habitat assessment. Mr. Forrester is a certified

¹ The group of intervenors referred to as “Protect the Passage Intervenors” consist of Intervenors Peter Shepard, Karen Shepard, Alison Smith, Rebecca Thacher Clarke, Joshua Nathan Clarke, Island Realty Trust, Abigail Douglas, 75 Merganser, LLC, 71 Merganser, LLC, and Mark B. Peterson.

SCUBA diver. Mr. Forrester has conducted eelgrass surveys and been involved in aquaculture lease projects in Maine for over 15 years. The majority of that work has occurred in Casco Bay and Downeast, Maine. Mr. Forrester has surveyed (via SCUBA) aquaculture lease sites to assess habitat assessments, eelgrass distribution and flora and fauna identification. Mr. Forrester has provided his findings to federal and state agencies in order to revise habitat maps, including Tidal Waterfowl and Wading Bird Habitat (TWWH) maps. Mr. Forrester's professional experience and qualifications are further detailed in his resume attached hereto as **Addendum A**.

Mr. Forrester is expected to testify regarding the results of a professional eelgrass survey he performed of the proposed aquaculture lease area, as identified in the Bailey Coffin aquaculture lease application submitted to DMR, and the presence of eelgrass beds within the proposed lease area. Mr. Forrester is also expected to testify regarding the results of Flycatcher's consultation regarding the potential wildlife impact of Bailey Coffin's proposed aquaculture lease, specifically Mr. Forrester is expected to testify that Flycatcher identified two significant natural resource areas in proximity to Bailey Coffin's proposed lease area: the eelgrass beds and tidal waterfowl and wading bird habitat. Mr. Forrester will also provide his professional opinion regarding the recent January 24, 2023 Maine Department of Environmental Protection ("MDEP") report entitled Casco Bay Seagrass Mapping.

Mr. Forrester's expert testimony is directly applicable to the Existing Support Systems criterion to be considered by DMR in this matter. Specifically, Mr. Forrester's expert testimony will demonstrate that Bailey Coffin's proposed lease area will unreasonably interfere with significant wildlife and marine habitats and the ability of the proposed lease site and surrounding areas to support ecologically significant flora and fauna.

2. **Joseph DeAlteris, Ph.D.** Dr. DeAlteris holds a Doctor of Philosophy in Marine Science (Estuarine Processes) from the College of William and Mary, as well as a Master of Arts in Marine Science (Coastal Processes) from the College of William and Mary, and a Bachelor of Arts in Natural Science (Marine Biology) from Rutgers University. Dr. DeAlteris has more than 50 years of professional experience, including almost a decade as a commercial fishermen and shellfish aquaculturist and three decades as a professor of Fisheries and Aquaculture at the University of Rhode Island. Dr. DeAlteris has published numerous papers on shellfish aquaculture. Dr. DeAlteris's professional experience and qualifications are further detailed in his abbreviated resume attached hereto as **Addendum B**.

Dr. DeAlteris's expert testimony is expected to provide additional interpretation of the DMR data contained in the Site Review Report, Bailey Coffin's lease application, and other data and information reviewed with respect to the DMR aquaculture leasing criteria. Dr. DeAlteris will offer several professional opinions regarding the Bailey Coffin Application based on the DMR aquaculture leasing criteria, including but not limited to the recommendation that Bailey Coffin's aquaculture lease application be denied. Dr. DeAlteris will testify, among other things, that eelgrass is considered an essential fish habitat; that the aquaculture activities and harvesting techniques proposed by Bailey Coffin in her lease application will negatively impact and destroy existing eelgrass beds and preclude the natural restoration of eelgrass historically present within the proposed lease area; and the 25-foot setback between eelgrass and aquaculture activity recommended by DMR would be inadequate to prevent unreasonable interference with existing eelgrass beds. Dr. DeAlteris will also testify that the proposed lease area will interfere with other commercial and recreational fishing in the proposed lease area as well as riparian ingress and egress and navigation. Dr. DeAlteris will also provide his professional opinions regarding the

recent January 24, 2023 Maine Department of Environmental Protection (“MDEP”) report entitled Casco Bay Seagrass Mapping.

Dr. DeAlteris’s expert testimony is directly applicable to several criteria to be considered by DMR in this matter. Specifically, Dr. DeAlteris’s expert testimony will demonstrate that Bailey Coffin’s proposed lease area will unreasonably interfere with the Existing Support Systems, significant wildlife and marine habitats and the ability of the proposed lease site and surrounding areas to support ecologically significant flora and fauna, as well as commercial and recreational fishing, riparian ingress, and egress and navigation.

CCBIFP members expressly reserve the right to supplement or amend this designation as this matter progresses and new information comes to light. CCBIFP members further reserve the right to designate the above experts as a rebuttal witness(es) with respect to any other or additional issues that may be raised in this matter, including but not limited to new or additional issues raised by the applicant in her filing of issues, her participant list, by the applicant’s expert witnesses in their pre-filed testimony, or during the public hearing.

Dated: May 16, 2023



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Alison Smith, Rebecca Thacher Clarke,
Joshua Nathan Clarke, Island Realty Trust, Abigail
Douglas, 75 Merganser, LLC, 71 Merganser, LLC,
and Mark B. Peterson (collectively, the "Protect the
Passage Intervenors")*

*Liaison for the consolidated group of intervenors
referred to as "Concerned Citizens of Bustins
Island and Flying Point"*



Timothy Forrester, PWS

Director of Coastal Resources,
Environmental Consultant

PROFILE

- 25 years of experience as an environmental consultant assisting industry and individuals in navigating the regulatory arena of Federal, State and Local government agencies on a wide array of natural resource projects across the State of Maine and Northern New England.
- Efficient leader in all facets of project management from initial planning and design, data collection, drafting, permitting, and construction.
- Provides consultation and management for a variety of project types such as: natural resource inventories, bathymetry mapping, project design and permitting, coastal resiliency, shoreline restoration and stabilization, and expert witness services. Project types include commercial, municipal and residential developments, ski areas, marine industries, utility companies, solar companies, engineering firms, surveyors, construction companies and non-profit organizations.
- Specializing in permitting projects involving the U.S. Army Corps of Engineers, Maine Department of Environmental Protection, Land Use Planning Commission, Federal and State Resource Agencies, and Cities and Towns across the State of Maine.

EDUCATION

- B.S., Environmental Analysis and Planning. Frostburg State University (1999).
- U.S. Army Corps of Engineers, Regulatory IV, Wetland Delineation Certification Program, (2005).

CAREER EXPERIENCE

- *Flycatcher LLC*: Director of Coastal Resources; Yarmouth, Maine (2023 to present)
- *Atlantic Environmental LLC*: Owner; Woolwich, Maine (2017-2023)
- *Eco-Analysts, Inc*: Senior Project Manager, Biologist; Bath, Maine (1999-2017)
- *Northern Ecological*: Compliance Monitor; Portland, Maine (1998)
- *Frostburg State University*: Supervisor, Science Tutoring Program; Frostburg, Maryland (1996-1999)

PROFESSIONAL CERTIFICATIONS/AFFILIATIONS

- Professional Wetland Scientist (#1933)
- Certified SCUBA Diver, 2001
- MaineDEP Certified Contractor in Erosion/Sediment Control Practices (#1539)
- Maine Association of Wetland Scientists, Executive Committee Member and Treasurer (2010-2016).

Tim Forrester, Director of Coastal Resources
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Appendix 1: Abbreviated resume of Joseph DeAlteris PhD, updated December 2022.

JOSEPH DEALTERIS

DeAlteris Associates Inc.:

Mariner's Landing
24390 Swan Lane
P.O. Box 366
Onancock, VA 23417

Florida winter residence:
124 Lakeshore Drive PH-28
North Palm Beach, FL 33408

757-787-5637 (Office)
401-741-1129 (mobile)
jdealteris@uri.edu (E-mail)

Education:

B.A., 1968, Natural Science (Marine Biology)
Rutgers, The State University, New Brunswick, New Jersey

M.A., 1973, Marine Science (Coastal Processes),
Virginia Institute of Marine Science,
College of William and Mary, Gloucester Point, Virginia

Ph.D., 1986, Marine Science (Estuarine Processes),
Virginia Institute of Marine Science,
College of William and Mary, Gloucester Point, Virginia

Military Service:

1969-1972, U.S. Navy Reserve, served aboard submarines, retired reserve rank, Lieutenant

Prior Employment:

2013	Univ. of Rhode Island Kingston, R.I.	Professor Emeritus (retired)
1990-2012	Univ. of Rhode Island Kingston, R.I.	Professor
1989-1995	Univ. of Rhode Island Kingston, R.I.	Associate Professor
1983-1989	Univ. of Rhode Island Kingston, R.I.	Assistant Professor

1977-present	DeAlteris Associates Inc. North Palm Beach, FL, and Onancock, VA.	Consultant
1977-1983	DeAlteris Enterprises	Commercial Fishing, Boat Building
1975-1977 1973-1977	Pandullo Quirk Assoc. Dames and Moore	Senior Oceanographer Project Oceanographer
1972-1973	Virginia Institute of Marine Science	Marine Scientist
1969-1972	U.S. Navy	Lieutenant on submarines
1968-1969	Virginia Institute of Marine Science	Computer Programmer
1967-1968	Sandy Hook Marine Lab.	Diver Technician

Certifications and Licenses:

Certified Professional Geologist #000120, 1984 Virginia Board of Geology.

Certified Scuba Diving Instructor, #1355 National Association of Underwater Instructors. 1969 to 2006.

Certified working diver, 1985-1995. NOAA, National Marine Fisheries Service.

U.S. Coast Guard Licensed Captain, vessels to 100 tons, operating to 100 miles offshore, all coasts of U.S., 1968 to 2015.

Professional Society Memberships:

American Fisheries Society (1983-2015)

Honors and Awards:

Inducted Phi Eta Sigma, National Honor Society, at University of Rhode Island in 1996 for scientific leadership in the aftermath of the North Cape Oil Spill

American Fisheries Society award in Sept 2010 as co-author of best paper in 2009 in North American Journal of Fisheries Management. Citation: Reich, D. and J. DeAlteris. 2009. A simulation study of the effects of spatially complex population structure in Gulf of Maine Atlantic cod. Transactions of North American Journal of Fisheries Management. 29:116-126.

Academic Activity:

Courses taught 1995-2013

AFS 101 Introduction to Fisheries and Aquaculture
AFS 200 Introduction to Marine Science and Technology
AFS 270 Introduction to SCUBA Diving in Science and Technology
AFS 312 Marine Fish Habitats and the Impacts of Fishing
AFS 321 World Fishing Methods
AFS 332 Interactions between Protected Species and Fisheries
AFS 421 Theory of Fish Harvesting and Sampling Gear Design
AFS 433 Research Diving Methods
AFS 521 Evaluation Fish Harvesting and Sampling Systems
AFS 510 Quantitative Methods in Marine Fisheries Ecology
AFS 531 Fish Stock Assessment
AFS 584 Advanced Aquaculture Engineering
AFS 591 Incorporating Uncertainty into Ecological Models

Major Professor for more than 40 M.S. and Ph.D. graduate students in 30 years at URI.

Professional Service:

Appointed to Atlantic Scientific Review Group for reauthorized of Marine Mammal Protection Act., 1996 to present, elected Chair of the ASRG 2008 to 2010

Appointed to NMFS - Marine Mammal Take-Reduction Team for fisheries interacting with offshore cetaceans, 1996-2001.

Appointed to NMFS Marine Mammal Take-Reduction Team for fisheries interacting with Mid-Atlantic harbor porpoise, 1996-2012.

Appointed to NMFS Marine Mammal Take Reduction Team for fisheries interacting with Mid-Atlantic bottlenose dolphin, 2001-2012

Appointed to New England Fishery Management Council. Habitat Technical Committee, 1998-2003.

Appointed to National Research Council Committee to review the effects of fishing on marine ecosystems, 2000-2002.

Appointed to National Research Council Committee to review opportunities for cooperative research at the NMFS with the fishing industry, 2002-2003.

Appointed to joint New England Fishery Management Council and Mid-Atlantic fishery Management Council Technical Committee for the NMFS NEFSC trawl survey, 2003-2008.

Appointed to the New England Fishery Management Council Habitat Plan Development Team 2004-2006.

Appointed to the Atlantic States Marine Fisheries Commission Committee of Fishing Gear, and elected Chair of the committee 2007-2010

Refereed Articles:

DeAlteris and Byrne, 1975. The recent history of Wachapreague Inlet, Virginia. In: Estuarine Research, J. Cronin, Editor, Academic Press, New York, pp. 167-182.

DeAlteris and Keegan, 1977. Advective transport processes related to the design of wastewater outfalls along the Southern New Jersey coast. In: Transport Processes in Lakes and Oceans, R.J. Gibbs, Editor, Plenum Press, pp. 63-90.

Haven, Ziegler and DeAlteris, 1987. Comparative attachment, growth and mortality of oyster spat, Crassostrea virginica on slate as contrasted to that on oyster shells in the James River. Journal of Shellfish Research, Vol. 6, No. 2, pp. 45-58.

DeAlteris, 1988. The geomorphic development of Wreck Shoal, a subtidal oyster reef of the James River, Va., Estuaries, Vol. 11, No. 4, pp 240-247.

DeAlteris, 1988. The application of hydroacoustics to the mapping of subtidal oyster reefs. Journal of Shellfish Research, Vol. 7, No. 1, pp. 41-45.

DeAlteris, 1989. The role of bottom current and estuarine geomorphology on the sedimentation processes and productivity of Wreck Shoal, an oyster reef of the James River, Va. In: Estuarine Circulation, B. Nielsen, Editor, Humana Press, pp. 278-307.

DeAlteris, and others, 1989. Comparison of the performance of two bottom sampling trawls. Transaction of American Fisheries Society, Vol. 118, pp 119-130.

Castro, DeAlteris and others, 1988. Resource assessment of Portunid crabs in Ecuador. Journal of Shellfish Research. Vol. 7, No. 3, pp 414-419.

DeAlteris, and others, 1988. Alternative treatments to prevent the biodeterioration of offshore wood lobster traps by the wood-boring bivalve, Xylophaga atlantica. Journal of Shellfish Research, Vol. 7, No. 3, pp 445-451.

Castro and DeAlteris, 1990. Effects of trap saturation and species interaction on the capture of Callinectes spp crabs in the Guayas Estuary, Ecuador. Fisheries Research, Vol. 8, pp. 223-332.

Romey, Castro, DeAlteris, and Bullock, 1990. Recruitment in the deep-sea wood-boring bivalves. Xylophaga atlantica. Veliger. Vol. 34, No. 1, pp. 14-20.

Buxton and DeAlteris, 1992. Quantification of water flow and net drag in midwater trawls. Fisheries Research, 16:165-178.

DeAlteris and Reifsteck, 1992. Escapement and survival of fish from the cod-end of a demersal trawl. Fish behavior in relation to fishing operations. I.C.E.S. Marine Science Symposium. Vol. 196, pp. 128-131.

Romey, Bullock and DeAlteris, 1994. Rapid growth of a deep-sea wood-boring bivalve. Continental Shelf Research, Vol. 14, No. 12, pp. 1349-1359.

Riedel and DeAlteris, 1995. Factors affecting hydrodynamic performance of the Nordmore Grate System: bycatch reduction device used in the Gulf of Maine shrimp fisheries. Fisheries Research, Vol. 24, pp. 181-198.

DeAlteris and Riedel, 1996. Effect of size selection within and between fishing gear types on the yield and spawning stock biomass per recruit for a cohort of an idealized groundfish. Journal of Northwest Atlantic Fishery Science, Vol. 19, pp. 73-82.

DeAlteris and Castro, 1996. Recent progress in the development of selective trawls for demersal fisheries. Proceedings of World Fisheries Congress. Fisheries Resource Utilization and Policy. Meyer and Zhang (Editors). Oxford Publishing, pp. 240-249.

DeAlteris and Morse, 1997. Fishing Gear Management, pp. 165-173. In: Northwest Atlantic Groundfish: Perspectives on a Fishery Collapse. Ed. R. Kendall, Amer. Fish. Soc., Washington, D.C.

DeAlteris, Milliken and Morse, 1997. Bycatch reduction in the Northwest Atlantic small mesh bottom trawl fishing for silver hake (Merluccius bilineris), pp. 568-573. In: Developing and Sustaining World Fisheries Resources. Eds. Hancock, Smith, Grant, and Beumer. CSIRO. Australia

DeAlteris, Skrobe, Lipsky, 1999. Seabed disturbance by mobile fishing gear relative to: a case study in Narragansett Bay, R.I. Ed. L. Benaka, American Fisheries Society Symposium Series 22:224-239, Washington, D.C.

DeAlteris and LaValley, 1999. Physiological response of scup, Stenotomus chrysops. to a simulated trawl capture and escape event. Journal of Marine Technology Society. 33(2):25-34.

DeAlteris, Skrobe and Castro, 2000. Effects of fishing on biodiversity and habitat in offshore New England waters. In: History, status and Future of the New England Offshore Fishery. Special Issue of Northeastern Naturalist. 7(4) 379:394.

Appleyard and DeAlteris. 2001. Modeling the growth of the Northern quahog, Mercenaria mercenaria. Journal of Shellfish Research 20 (3): 1117-1125.

Appleyard and DeAlteris. 2002. The growth of the Northern quahog in an experimental upweller. Journal of Shellfish Research 21(1): 3-13.

French, Peterson, DeAlteris and Catena. 2003. Restoration that targets function as opposed to structure: replacing lost bivalve production and filtration. Marine Ecology Progress Series. 264:197-212.

Milliken and DeAlteris. 2004. Development of a large mesh panel to reduce the flatfish bycatch in the small mesh bottom trawls used in the New England silver hake fishery. *North American Journal of Fisheries Management*. 24:20-32.

DeAlteris and Kilpatrick. 2004. Habitat value of shellfish aquaculture gear as compared to eelgrass beds and barren bottom. *Journal of Shellfish Research*, Vol. 23, No. 3, pp. 866-874.

DeAlteris, 2005. Alternative paradigm for the protection of essential fish habitat based on availability and vulnerability. In: *Benthic Habitats and the Effects of Fishing*, Barnes and Thomas Eds., pp. 785-795, American Fisheries Society, Md.

DeAlteris, Englert and Burnett. 2006. Assessment of trends in fish abundance in Mount Hope Bay relative to Narragansett Bay. *Northeastern Naturalist*. Vol. 13, No. 4, PP 95-116.

Resma, DeAlteris and Rice. 2006. Size selectivity of purse seines in the Southern Philippines multi-species tuna fisheries. *Journal of Aquatic Science*, Vol. 3:1-21.

LaValley, DeAlteris, and others. 2008 North Atlantic *Vibrio vulnificus* surveillance from postharvest oysters at a US shellfish processing facility. *Journal of Food Service*. Volume 19, No. 4, pp.234–237.

LaValley, DeAlteris and others/ 2009. Bacterial Community Profiling of the Eastern Oyster (*Crassostrea virginica*): Comparison of Culture-Dependent and Culture-Independent Outcomes. *Journal of Shellfish Research*. 28(4):827-835.

Reich, D. and J. DeAlteris. 2009. A simulation study of the effects of spatially complex population structure in Gulf of Maine Atlantic cod. *Transactions of North American Journal of Fisheries Management*. 29:116-126.

Politis and DeAlteris. 2011. Effect of sea-state on the physical performance of a survey bottom trawl. *Fisheries Research* Vol 123-124. Pp. 26-36. .

Silva and DeAlteris. 2011. Evaluation of a pound net leader designed to reduce sea turtle bycatch. *Marine Fisheries Review*. Vol. 73, No. 3. pp. 36-45.

Lawson, DeAlteris, and others. 2012. Evaluation of turtle excluder devices (TEDS) in two U.S. mid-Atlantic trawl fisheries. Submitted to *Fisheries Research*.

Books:

Steele, DeAlteris and others. 2002. *Effects of Fishing on Habitat*. National Research Council. 145p.

Hilborn, DeAlteris and others. 2003. *Opportunities for Cooperative Research between the NMFS and the Fishing Industry*. National Research Council. 95p.

Book Reviews:

DeAlteris, 1988. Fisheries technologies for developing countries, a report by the Office of International Affairs, National Research Council. *Journal of the Marine Technology Society*, Vol. 23, No. 3, p. 47.

Thesis and Dissertation:

DeAlteris, 1973. A study of a tidal inlet, Wachapreague, Virginia, an unpublished Masters Thesis presented to the College of William and Mary, 86 p.

DeAlteris, 1986. The sedimentary processes and geomorphic history of Wreck Shoal, an oyster reef of the James River, Va. an unpublished Doctorate Dissertation presented to the College of William and Mary, 196 p.

Manuals and Handbooks:

DeAlteris, 1986. Bottom Trawl Construction Manual. Published by URI, Marine Advisory Service, Sea Grant, 69 p.

DeAlteris, 1986. Bottom Trawl Repair Manual. Published by URI, Marine Advisory Service, Sea Grant, 39 p.

DeAlteris and Castro, 1989. Practical Twinework for Fisheries Technologists. International Center for Marine Resource Development, URI. 160 p.

Castro and DeAlteris, 1990. Atlantic Coast Fishing Vessel Safety Manual. Published by Department of Fisheries, URI. 303 p.

Castro and DeAlteris, 1992. Fishing vessel safety curriculum guides. Published by Department of Fisheries, URI. 210 p.

DeAlteris, 1998. Training Manual in Fishery Science and Technology for NOAA Corp Officers. Published by NOAA Corp., Washington, D.C. 167 p.

DeAlteris and Skrobe, 1999. Fundamentals of Quantitative Fish Stock Assessment. URI Fisheries Technical Publications 99-1. 180 p.

DeAlteris, 2000. Quantitative methods in fish stock assessment with EXCEL exercises. In: Brust and Skrobe (Eds.), Stock Assessment Users Manual. 9 chapters, Atlantic States Marine Fisheries Commission. Washington, D.C.

DeAlteris. 2008. Design and performance evaluation of commercial fishing and scientific sampling gears. 12 chapters.

DeAlteris, 2009. Stock Assessment Users Manual. (revised edition) In: Campfield and DeAlteris (Eds.), 9 chapters, Atlantic States Marine Fisheries Commission. Washington, D.C.

Recent Principal Research / Consulting Activity:

2000-2001, West of England. Implementation of North Cape Oil Spill Lobster Restoration Project - restocking 300,000 adult v-notched lobsters into Block Island Sound.

2000-2003, Point Judith Fishermen Co. -monitoring ocean disposal of fish waste, submission of reports to EPA.

2000-2001, Blue Crab Conservation Coalition – scientific advice on the status of blue crab stock in Chesapeake Bay and the future of the fishery.

2001, Bevans Oyster Co. Assessment of damage to oyster grounds in the Chesapeake Bay.

2001-2003, New Jersey D.E.P., Div. of Fish and Wildlife. Technical assistance with selection and training of stock assessment personnel.

2002-2003, Brayton Point Station (PG&E). Analyses of 30 year data set to assess the impact of the power plant on the fish distributions and abundance In Mount Hope Bay and Narragansett Bay.

2003, National Marine Fisheries Service, Evaluation of Factors Affecting the Performance of a Bottom Survey Trawl.

2002-2003, University of Rhode Island, Effects of Increasing Mesh Size on the Yield of the Northeast Groundfish Fisheries. Supported by the NMFS-SK Program for \$128,500.

2003-2005, University of Rhode Island, Effects of Weather on the Performance of the NMFS Bottom Survey Trawl. Supported by the NMFS-CMER Program for \$87,017.

2003-2005, City of New Bedford and NOAA NMFS, Assessment of Growth and Survival of Hard Clams Use in a Resource Stock Enhancement Project in Buzzards Bay, MA.

2003-2005, University of Rhode Island, Application of Acoustic Release Devices for Reducing Large Whale Entanglements. Supported by National Fish and Wildlife Foundation with a total budget of about \$115,000.

2003-2005, University of Rhode Island, Effects of Weather on the Performance of the NMFS Bottom Survey Trawl. Supported by the NMFS-CMER Program for \$87,017.

2004 Mid-Atlantic Fishery Management Council, Scup Stock Assessment.

2005-2007. University of Rhode Island. Small Scale Evaluation of Acoustic Pop-up Buoys in the Offshore Fixed Gear Fisheries. Supported by the National Fish and Wildlife Foundation for \$124,000.

2005-2006. University of Rhode Island. Understanding and Documenting Cetacean Behavior in Trawl Nets. Supported by the NMFS/NOAA CMER Program. \$87,000.

2005-2008. University of Rhode Island. Reducing Sea Turtle and Cetacean Bycatch in Trawls. Supported by the NMFS/NOAA CMER Program. \$74,000+ \$70,000+\$14,000.

2006-2008 University of Rhode Island. Preliminary Assessment of Fish Utilization of the Waters adjacent to the Cape Cod National Seashore. Supported by National Park Service. \$64,867.

2006-2008 University of Rhode Island. Reducing Cetacean and Sea Turtle Bycatch in Trawl Fisheries: Evaluating the Effectiveness of Bycatch Reduction Devices. Supported by the National Marine Fisheries Service. \$86,000.

2004-2005 National Marine Fisheries Service. Evaluation of the effect of alternative leader designs for pound nets in lower Chesapeake Bay, Va. on sea turtle interactions and target catch retention.

2006. National Marine Fisheries Service. Evaluation of the potential for sea turtle entanglement in crab pot buoy lines and gillnets in lower Chesapeake Bay, Va.

2007. Food and Agriculture Organization (FAO) of the United Nations. Evaluate the effect of fishing on deepwater habitats.

2007. Harbour, Smith, Harris and Merritt, LLC. Assessment of the likelihood of *Vibrio vulnificus* being transmitted from oysters consumed in a Galveston restaurant.

2008. Weaver's Cove Energy, (subcontract through Applied Science Associates), Assessment of the potential impacts of an offshore Liquefied Natural Gas (LNG) terminal on the benthic resources of Mount Hope Bay, MA.

2008-2009. Scientific Certification Systems. Marine Stewardship Council certification of US East Coast red crab fishery.

2009 National Marine Fisheries Service. Evaluation of a modified Turtle Excluder Device (TED) in the scallop trawl fishery.

2009-2010 EXXON MOBILE, subcontract through Natural Resource Group, Evaluation of the distribution of fishing activity in the New York Bight Apex and the relationship with fish distributions and habitat characteristics, as related site selection for an offshore LGN terminal.

2009-2011 University of Rhode Island. Evaluation of a modified Turtle Excluder Device (TED) in the summer flounder trawl fishery. Supported by National Marine Fisheries Service, through the Southern New England Commercial Fishermen's Research Foundation, with a total project budget about \$115,000, with about \$48,000 to URI for the project design, data collection, and data analysis.

2009-2011 University of Rhode Island. Abundance, distribution and life history characteristics of mantis shrimp in Narragansett Bay, RI. Supported by RI DEM with a total budget of about \$90,000.

2009-2010 US AID through a sub-contract to Academy of Educational Development, Development of a Curriculum for the Fisheries Training Program at URI.

2009. Pender and Coward LLC (attorneys for Virginia Department of Transportation). Evaluation of damages to oyster and clam aquaculture leases caused by bridge construction in Chincoteague VA.

2010 Friends of Goose Cove. Evaluation of the environmental impact of a proposed shellfish aquaculture farm on the ecology of Goose Cove, Maine.

2010 Friends of Blue Hill Bay. Evaluation of the environmental impact of a proposed salmon pen aquaculture farm on the ecology of Blue Hill Bay.

2010-2011 National Marine Fisheries Service. Evaluation of catch performance of a topless trawl in the summer flounder trawl fishery.

2010-2015 University of Rhode Island. Development of sustainable fisheries in Gambia, West Africa. Supported by USAID through URICRC, with the fisheries portion budget of about \$115,000 annually.

2011-2016 University of Rhode Island. Development of sustainable fisheries in Senegal, West Africa.. Supported by USAID through URI CRC, with the fisheries portion budget of about \$100,000 annually.

2011-2013 National Marine Fisheries Service. Technical Assistance with the evaluation of fishing gear performance

2010-2011 Global Trust. Pre-assessment of the sustainability of five fisheries in Louisiana with regard to Marine Stewardship Council principles.

2010-2011 Scientific Certification Systems. Marine Stewardship Council assessment of the Louisiana blue crab fishery for sustainability.

2011. Scientific Certification Systems. Marine Stewardship Council annual audits of Oregon Dungeness crab fishery, and east coast deep sea red crab fishery.

2011-2015 World Bank. Stock assessments of the fishery resources of Cape Verde.

2012. Global Trust. Peer reviews of the MSC certification reports for snow crab fisheries of eastern Canada.

2013. Scientific Certification Systems. Marine Stewardship Council reassessment of BC halibut fishery, annual audits of Scotian shrimp, Atlantic red crab and Canadian haddock.

2013. National Marine Fisheries Service. Evaluation of a topless trawl design with restrictor lines for catch efficiency.

2013. Gulf and South Atlantic Fisheries Foundation. Evaluation of a topless trawl design with restrictor lines for not capturing sea turtles.

2014-2022. SCS Global. MSC assessments, pre-assessments and peer reviews of numerous finfish and shellfish fisheries in the US, Canada and Caribbean, as a P1 and P2 expert.

2015-2015. MSC. Technical assistant with the evaluation of changes in the MSC standard of the scoring in P1 and P2 on particular fisheries.

2015-2022. LR ltd. (formerly ACOURA). MSC assessments, pre-assessments and peer reviews of numerous finfish, crustacean, and molluscan fisheries in the US, Canada, and the Indian Ocean, as a P1 and P2 expert.

2015-2022. MGAG. MSC assessments, pre-assessments and peer reviews of numerous finfish and shellfish fisheries in the US and Canada, as a P1 and P2 expert.

2015-2022. GSSI (Global Seafood Sustainability Initiative). Independent expert in fisheries for the benchmarking of seafood sustainability standards including MSC global scheme, Icelandic, Japanese, Gulf of Mexico, and Alaska regional schemes.

2017-2021. Bureau Veritas. MSC assessment of western Atlantic purse seine tuna fisheries, as a P2 expert.