



# Virginia Fishery Resource Grant Program 2022

Report of the Virginia Institute of Marine Science  
To the Governor and General Assembly of Virginia  
On Implementation of House Bill No. 1634 (February 6, 1999)

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**VIMS** | WILLIAM & MARY  
VIRGINIA INSTITUTE OF MARINE SCIENCE  
MARINE ADVISORY PROGRAM





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## Executive Summary

The Virginia Fishery Resource Grant Program (VFRGP) enables members of Virginia’s seafood industries to develop ideas to protect and enhance the Commonwealth’s coastal and marine resources. Since its inception in 1999, the annually funded program has supported 143 projects, five of which were approved to start in 2022. These projects enable members of seafood industries to pursue ideas for increasing efficiency and sustainability that will benefit the entire industry, without personally bearing the cost and high risk. The VFRGP is coordinated by the Virginia Institute of Marine Science, Marine Advisory Program (VIMS MAP), in partnership with Virginia Sea Grant Marine Extension Program, and operates with the aid of a VFRGP Advisory Board.

## Background

VFRGP was initiated by the Virginia Legislature (House Bill No. 1634) during the 1999 session to “protect and enhance the Commonwealth’s coastal fishery resource through the awarding of grants in four areas:”

1. New fisheries equipment or gear;
2. Environmental pilot studies on issues including water quality and fisheries habitat;
3. Aquaculture or Mariculture of marine-dependent species; and
4. Seafood technology.

To be eligible for consideration, VFRGP proposals must involve Virginians who are active participants in a seafood industry. Involving the seafood industry (1) makes use of the experience and ideas of those who work closely with the Commonwealth’s coastal and marine resources and (2) enables these individuals to develop and pursue improvements without personally bearing the cost and high risk to provide a shared industry benefit. Members of the seafood industry include those involved in commercial fishing activities related to coastal or offshore fishery resources, aquaculture/mariculture, or the processing or handling of fishery products.

## Implementation

VFRGP is managed by an Advisory Board (See Appendix A). Funds are provided to VIMS MAP. Availability of grant funds is advertised through press releases (See Appendix B) and a Request for Proposals (See Appendix C) that is distributed through developed list of industry members who have elected to receive updates about the VFRGP program as well as other channels. Proposals evaluated by members of the Advisory Board and outside reviewers, following the Principles of Operation (See Appendix D). At the end of each project, VFRGP receives a completion report. The results of those projects are used to produce informational and educational publications for distribution to industry. Additionally, project reports and results are presented at industry meetings and trade shows when appropriate. All programmatic reports are available on the VFRGP website, [www.vims.edu/map/frg](http://www.vims.edu/map/frg).

Program implementation is coordinated by Dr. David Rudders, Associate Director of VIMS MAP. Staff of VIMS MAP is responsible for day-to-day management of VFRGP. Administration of the program requires a small portion of the appropriated funds to partially support salary and operating costs, as foreseen by the enabling legislation.

This implementation structure is in accordance with the legislation that established the VFRGP.

## Program Activity and Improvement

VFRGP Advisory Board met once virtually during 2022. The meeting focused on the review of proposals submitted in response to public solicitations. Additionally, the Advisory Board meeting provided feedback and input with which to enhance overall program effectiveness. Improvements related to developing program informational materials, media exposure, and fishing industry outreach were implemented in 2022.

The Advisory Board again endorsed holding a series of public proposal development workshops at locations throughout coastal Virginia so that all potential participants may learn about the VFRGP. Such public meetings are held between the issuance of the call for proposals and

the proposal due date. Additionally, numerous individual meetings are held with industry to discuss the VFRGP and specific project ideas.

## Fiscal Summary Statement

Funds appropriated by the Legislature for 2022 totaled \$159,579 for VFRGP activity. Of the \$159,579 available for new VFRGP project awards in FY 2022, five new projects were approved and initiated totaling \$55,451.

Any funds remaining after the selection of new projects in the March 2023 proposal review will be carried forward, as called for in the enabling legislation, for use in combination with year 2023 appropriated funds, to support new projects which will be submitted in response to a Request for Proposals that is to be released in summer/fall 2023.

## Summary of 2022 Funding Period

As a result of public notifications and follow-up workshops, fishing industry members submitted a total of seven complete VFRGP proposals. The proposal topics were quite diverse, and each project was subject to three expert reviews from outside the state. Once the expert reviews were received, a project evaluation and selection meeting was held, and of the seven considered proposals, the Advisory Board selected five new projects for funding or for further development and negotiation.



## Projects Approved in 2022

FRG-2022-01. “Benjamin F. Lewis Crab Pot Recycling Program (Pilot Study).”  
Daniel Knott, Knott Alone—Hold Fast, Inc. (Gloucester, VA)  
Duration: 03/2022 – 03/2023.  
Funding: \$22,784. Ongoing.

FRG-2022-02. “Navigating a JPA: A Farmer’s Perspective.”  
Callie Robinson & Thomas Hyde, Steamboat Wharf Oyster Company. (Heathsville, VA)  
Duration: 03/2022 – 03/2023  
Funding: \$2,080. Ongoing.

FRG-2022-03. “Use of Bottom and Surface Culture Growing Methods to Evaluate Product Line Variations on an Oyster Aquaculture Farm.”  
Mark Vann, Cappahosic Oyster Company. (Gloucester, VA)  
Duration: 03/2022 – 04/2023  
Funding: \$13,280. Ongoing.

FRG-2022-04. “Assessing the Feasibility of Integrating RFID Technology into Shellfish Aquaculture to Improve Farm Management.”  
Mark Vann, Cappahosic Oyster Company. (Gloucester, VA)  
Duration: 04/2022 – 04/2023  
Funding: \$8,420. Ongoing.

FRG-2022-07. “Problems with Peritrichs.”  
Michael Congrove, Oyster Seed Holdings, Inc. (Grimstead, VA)  
Duration: 03/2022 – 03/2023  
Funding: \$8,887. Ongoing.

## Previous Projects, 1999-2021

FRG 2021-01. “Sustainability Pre-assessment and Initializing a Fishery Improvement Project for the Eastern Oyster in Virginia”  
Virginia Seafood Council. (Weems, VA)  
Duration: 01/2021 – 06/2022.  
Funding: \$20,000. Ongoing.

FRG 2021-02. “Enhancing Commercial Bivalve Hatchery Operations Through Utilization of a Recirculating Larvae Culture System.”  
Michael Congrove, Oyster Seed Holdings, Inc. (Grimstead, VA)  
Duration: 01/2021 – 12/2021.  
Funding: \$36,629. Completed.

FRG 2021-04. “Ghost Pots are the Result of Barnacles.”  
Michael W. Joslin, Nansemond River Seafood. (Windsor, VA)  
Duration: 07/2021 – 09/2021  
Funding: \$10,470. Completed.

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FRG 2020-01. “Industry collaboration to determine predation impact of Invasive Blue Catfish on Blue Crabs in the lower reaches of James River – continuation into year 2.”  
George Earl Trice IV (Poquoson, VA)  
Duration: 08/2019 – 12/2020  
Funding: \$24,000. Completed.

FRG 2020-03. “Do floating oyster growing cages reduce wave energy and offer shoreline protection?”  
Bruce Vogt, Vogt Oyster Company (Hayes, VA)  
Duration: 06/2020 – 06/2022  
Funding: \$8,410. Completed.

FRG 2019-02. “A Genetic Assessment of the Channeled Whelk Resource Targeted by Virginia Commercial Fishermen.”  
Rick Robins, Bernie’s Conchs, LLC. (Cheriton, VA)  
Duration: 03/2019 – 05/2020.  
Funding: \$9,200. Completed.

FRG 2019-07. “Conditions Fostering Boring Sponge Infestation of Chesapeake Bay Farmed Oysters.”  
Wayne Bailey, Bay Oyster Company (Deltaville, VA)  
Duration: 04/2019 – 01/2020.  
Funding: \$21,841. Completed.

FRG 2019-08. “Estimating an Aragonite Saturation State Threshold and Evaluating Carbonate Chemistry Control Systems for Flow-through Larvae Culture of *Crassostrea virginica*.”  
Michael Congrove, Oyster Seed Holdings, Inc. (Grimstead, VA)  
Duration: 05/2019 – 01/2020; project start extended to 01/2021.  
Funding: \$34,660. Withdrawn by applicant.

FRG-2019-09. “Use of Pound Nets in Nomini Bay to Commercially Harvest the Invasive Snakehead Fish and Blue Catfish.”  
Jason Clark (Montross, VA)  
Duration: 08/2019 – 12/2020.  
Funding: \$9,270. Ongoing.

FRG-2019-13. “Floating Oyster Cage Aquaculture Impacts on Submerged Aquatic Vegetation.”  
Tim Rapine, Ballard Fish & Oyster Company (Cheriton, VA)  
Duration: 05/2019 – 05/2021  
Funding: \$24,752.00. Completed.

2018-01. “Testing the Efficiency of Wire Reinforced Catfish Pots and Comparing Horizontal and Vertical Configurations to Catch Invasive Catfish in the James River, VA.”  
Matt Balazik. (Quinton, VA)  
Duration: 04/2018 – 01/2019.  
Funding: \$5,669.79. Completed

2018-04. “Efficient Treatment of Oysters Infested with Boring Sponge.”  
Lee-Ann Fick, Nandua Oyster Company, LLC. (Pungoteague, VA)  
Duration: 06/2018 – 01/2020.  
Funding: \$3,388.37. Completed.

2018-05. “Spat Collectors.”  
Richard W. Harding, Jr., Purcell’s Seafood Inc. (Burgess, VA)  
Approved for funding but withdrawn at Applicant’s Request.

2018-09. “Develop and Test Fish Pot Cull Rings.”  
Wallace Emory Lewis, Jr. (Reedville, VA)  
Duration: 05/2018 – 01/2019.  
Funding: \$11,646. Completed.

2018-11. “Determine Methods to Reduce Bycatch of Juvenile Atlantic Croaker in Haul Seines. (continuation of previous award, FRG 2017-04).”  
George Trice V. (Poquoson, VA)  
Duration: 06/2017 – 01/2019.  
Funding: \$7,724. Completed.

2018-12. “Virginia Lobster Assessment for Stock, Frequency, Recruitment, and Shell Disease.”  
James E. Dawson. (Chincoteague, VA)  
Duration: 04/2018 – 12/2018.  
Funding: \$29,648. Ongoing.

2018-14. “Industry Collaboration to Determine Predation Impact of Invasive Blue Catfish on Blue Crabs in the Lower Reaches of James River.”  
George Earl Trice IV. (Poquoson, VA)  
Duration: 08/2018 – 10/2019.  
Funding: \$24,000. Completed.

2017-01. “Eliminating the By-catch in the Conventional Crab Pot.”  
Michael W. Joslin, Nansemond River Seafood. (Windsor, VA)  
Duration: 03/2017 – 03/2018.  
Funding: \$8,963. Completed.

2017-02. “Seeing Red: Does the Color of a Crab Pot Really Matter?”  
Daniel Knott, Knott Normal Crab Company. (Gloucester, VA)  
Duration: 05/2017 – 03/2018.  
Funding: \$10,000. Completed.

2017-03. “Reducing Invasive Blue Catfish by Electrofishing – 2017.”  
George Earl Trice IV. (Poquoson, VA)  
Duration: 04/2017 – 03/2018.  
Funding: \$17,944. Completed.

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2017-04. "Determine Methods to Reduce By-Catch of Juvenile Atlantic Croaker in Haul Seines - 2017."

George Trice V. (Poquoson, VA)

Duration: 05/2017 – 12/2017.

Funding: \$6,023.55. Completed.

2017-05. "Virginia Seafood Guide."

J.C. Hudgins and C. Meade Amory (Mathews, VA and Hampton, VA)

Duration: 08/2017 – 02/2019.

Funding: \$18,500. Completed.

2017-09. "High Grading Scallops on the Ocean Bottom."

Timothy B. Daniels. (Hampton, VA)

Duration: 05/2017 – 03/2019.

Funding: \$48,524. Completed.

2016-01. "Protecting Juvenile Flounder from Becoming a Crab Pot By-Catch."

Michael W. Joslin, Nansemond River Seafood. (Windsor, VA)

Duration: 03/2016 – 12/2016.

Funding: \$5,200. Completed.

2016-02. "Reducing theft of Oysters From Both Public and Private Rock Through the Use of RFID Technology."

Tommy Kellum, W Ellery Kellum Inc. (Weems, VA)

Duration: 08/2016 – 12/2016.

Funding: \$975. Completed.

2016-03. "Describe if Commercial Low-Frequency Electrofishing Effects the Catch of Blue Catfish Hoop-Net Fishery and Determine if Catch-Per-Unit-Effort Remains Stable in Rivers Previously Targeted by Low-Frequency Electrofishing."

George E. Trice. (Poquoson, VA)

Duration: 03/01/2016 – 12/30/2016.

Funding: \$9,260. Completed.

2016-04. "Practical Oyster Larvae and Remote Deployment Pool."

Albert C. Pollard, Jr. (Irvington, VA)

Duration: 03/2016 – 10/21/2016.

Funding: \$4,726. Completed.

2016-05. "Determine Methods to Reduce By-Catch of Juvenile Atlantic Croaker in Haul Seines."

George E. Trice V. (Poquoson, VA)

Duration: 05/2016 – 09/2016.

Funding: \$7,100. Completed.

2015-01. "Testing Experimental Collection Gears to Increase Harvest Efficiency of the Electrofishing Fishery Targeting Introduced Blue Catfish in Virginia Waters."

George E. Trice. (Poquoson, VA)

Duration: 4/2015-11/2015.

Funding: \$2,486. Completed.

2015-02. "Phase II Protecting Juvenile Flounder from Becoming a Crab Pot By-catch."

Michael W. Joslin, Nansemond River Seafood. (Windsor, VA)

Duration: 3/2015-11/2015.

Funding: \$6,745. Completed.

2015-05. "Mortality Reduction of Blue Crab (*Callinectes sapidus*) During Molting Stage of Soft Crab Production."

William W. Bailey. (Saxis, VA)

Duration: 5/2015-8/2015.

Funding: \$11,392. Completed.

2015-07. "Tidal Flupsy."

Jennifer Palazzo, Ocean Breeze Oyster Company, LLC. (Glen Allen, VA)

Duration: 4/2015-12/2015.

Funding: \$3,653. Completed.

2015-09. "Pilot Program to Develop and Evaluate New Methods of Efficiently Processing Spiny Dog Sharks for Established Markets Currently Unavailable in Virginia."

Jefferson Ghent, Green Environments, LLC. (Portsmouth, VA)

Duration: 4/2015-3/2016.

Funding: \$9,000. Completed 02/21.

2014-01. "Protecting Juvenile Flounder from Becoming a Crab Pot By-Catch."

Michael W. Joslin, Nansemond River Seafood. (Windsor, VA)

Duration: 4/2014-11/2014.

Funding: \$6,000. Completed.

2014-02. "Observing Striped Bass Catch and Atlantic Sturgeon By Catch in a Striped Bass Fishery Using Raised Foot-lines."

George E. Trice. (Poquoson, VA)

Duration: 2/2014-4/2014.

Funding: \$14,774. Completed.

2014-03. "Testing Experimental Electro-fishing Fishery for Introduced Blue Catfish in the James River, Virginia."

George Trice. (Poquoson, VA)

Duration: 4/2014-10/2014.

Funding: \$21,348. Completed.

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2014-12. "Early S.O.S. Setting."  
J.E. Headley. (Kinsale, VA).  
Duration: 3/2014-9/2014.  
Funding: \$5,775. Completed.

2014-13. "Analysis of Short Term Temporal Variation in  
Densities of Pathogenic *Vibrio* Species in Virginia Oysters."  
Virginia Seafood Council. (Yorktown, VA)  
Duration: 4/2014-12/2014.  
Funding: \$66,608. Completed.

2014-18. "Pilot Program to Evaluate New Methods of  
Efficiently Processing Spiny Dog Sharks for New and  
Established Markets Currently Unavailable in Virginia."  
Green Environments, LLC. (Portsmouth, VA)  
Duration: 4/2014-1/2015.  
Funding: \$9,000. Completed.

2014-22. "Making the Deep Sea Atlantic Red Crab Fishery a  
Sustainable and Profitable Industry for Virginia."  
Atlantic Red Crab Company. (Norfolk, VA)  
Casey's Seafood. (Newport News, VA)  
Graham and Rollins, Inc. (Hampton, VA)  
Duration: 9/2014-9/2015.  
Funding: \$33,900. Completed.

2013-01. "Laminated Oyster Tong Shafts."  
Philip N. Shahan. (Reedville, VA)  
Duration: 5/2013-5/2014.  
Funding: \$15,000. Cancelled.

2013-08. "Observing Striped Bass Catch and Atlantic Sturgeon  
By Catch in a Striped Bass Fishery Using Raised Footlines."  
George Trice. (Poquoson, VA.)  
Duration: 3/2013-6/2013.  
Funding: \$19,706. Completed.

2013-09. "Electronic Harvest Reporting Training and Outreach."  
Ken Smith, Virginia Waterman's Association. (Heathsville, VA)  
Duration: 7/2013-9/2014.  
Funding: \$21,991. Completed.

2013-11. "Development of a Cownose Ray Market."  
Meade Amory, L.D. Amory Company, Inc. (Hampton, VA)  
Duration: 06/2013-05/2014.  
Funding: \$15,000. Completed.

2013-12. "Direct Setting of Eyed Larvae: *In situ* Spat-on-Shell."  
Andrew Myles Cockrell, Little Wicomico Oyster Company.  
(Heathsville, VA)  
Duration: 06/2013-12/2013.  
Funding: \$10,750. Completed.

2012-01. "Extension of Spat on Shell Season."  
Shores & Ruark Seafood Company. (Urbanna, VA)  
Duration: 03/2012-12/2012.  
Funding: \$11,000. Completed.

2012-04. "Testing Raised Footlines in Virginia's Striped  
Bass Fishery: A Gear Based Method of Reducing Sturgeon  
Interactions in Anchored Gillnets."  
George. E. Trice. (Poquoson, VA)  
Duration: 03/2012-06/2012.  
Funding: \$35,015. Completed.

2012-06. "Developing New Value-Added Products for Cow  
Nose Ray."  
L.D. Amory Company, Inc. (Hampton, VA)  
Duration: 06/2012-04/2013.  
Funding: \$15,000. Completed.

2012-08. "Reduction of Crab Mortality in Seed Cages."  
Purcell's Seafood, Inc. (Burgess, VA)  
Duration: 04/2012-12/2012.  
Funding: \$2,580. Completed.

2012-11. "Feasibility of a Recirculating Aquaculture System for  
Early Larval Culture of *Crassostrea virginica*."  
Oyster Seed Holdings, Inc. (Grimstead, VA)  
Duration: 03/2012-12/2012. Completed.

2012-14. "Floating Pound Net and Fish Sifter."  
Arthur Bender/"Lady Barbara, Inc." (Cheriton, VA)  
Duration: 04/2012-11/2012.  
Funding: \$42,770.50. Completed.

2012-16. "Testing Scottish Seining in Virginia."  
Jeff Hammer. (Accomac, VA)  
Duration: 03/2012-09/2012.  
Funding: \$16,617. Completed.

2011-04. "Developing New Value-Added Products from  
Cownose Ray."  
Meade Amory, L.D. Amory Company. (Hampton, VA)  
Duration: 06/2011 – 04/2012.  
Funding: \$45,000. Completed.

2011-09. "Raised Foot-lines in Virginia's Striped Bass Gill  
Net Fishery; A Gear Based Method of Reducing Sturgeon  
Interactions."  
George Trice, Commercial Fisherman. (Poquoson, VA)  
Duration: 03/2011 – 05/2011.  
Funding: \$30,899. Completed.

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2011-16. "Dock Long Lining for Oyster Culture."

Ronald. T. Sopko, Sea Farms, Inc. (Hudgins, VA)

Duration: 04/2011-03/2012.

Funding: \$8,650. Completed.

2011-18. "Stake In the Bay."

Michael J. Gadwill, Bonum Point Fishery. (Kinsale, VA)

Duration: 04/2011- 11/2012.

Funding: \$12,910. Completed.

2010-01. "Influence of Planting Density and Salinity on QPX Disease in *Mercenaria mercenaria* in Virginia."

Tara Riley, Ballard Fish and Oyster Company. (Cheriton, VA)

Duration: 04/2010-02/2011.

Funding: \$39,026. Completed.

2010-02. "Investigation of the Beneficial Effects of Intentionally Exposing Oysters to Air During Their Normal Growing Season."

Dennis Gryder, Briar Patch Oysters. (Hudgins, VA)

Duration: 04/2010-12/2010.

Funding: \$4,350. Completed.

2010-04. "Improving Gillnet Selectivity by Altering Mesh Characteristics 2010."

Robert Weagley, Commercial Fisherman (Providence Forge, VA)

Duration: 03/2010-06/2010.

Funding: \$ 16,088. Completed.

2010-05. "Method and Concept Evaluation of Relaying Oysters from the Chesapeake Bay to High Salinity Water as a Post-Harvest Process to Reduce *Vibrio vulnificus* to Undetectable Levels."

Thomas Gallivan, Shooting Point Oysters, LLC. (Franktown, VA)

Duration: 03/2010-12/2010.

Funding: \$29,148. Completed.

2010-08. "Analysis of Tie Downs on Gillnet CPUE, Selectivity, and Bycatch Composition."

George Trice, Commercial Fisherman. (Poquoson, VA)

Duration: 03/2010-05/2010.

Funding: \$29,026. Completed.

2010-12. "Development of Preventive Measures to Reduce Mortalities for Holding Live Wild-Caught Flounder in Re-Circulating Aquaculture Systems"

Clarke Morton, Mid-Atlantic Aquatic Technology. (Quinby, VA)

Duration: 04/2010-12/2010.

Funding: \$8,266. Completed.

2010-13. "Hybrid Fish Capturing Device ("FCD") for Capturing Live Flounder."

Jeffery Hammer, Accomac Aqua Farms. (Accomac, VA)

Duration: 04/2010-07/2010.

Funding: \$9,497. Completed.

2010-14. "Create New Gear to Increase the Efficiency of Commercial Cat Fishing."

James A. Bristow, Commercial Fisherman. (Hayes, VA)

Duration: 03/2010-12/2010.

Funding: \$11,273. Completed.

2010-15. "Developing New Value-Added Products from Cownose Ray."

Meade Amory, L.D. Amory Company. (Hampton, VA)

Duration: 07/2010-06/2011.

Funding: \$37,000. Completed.

2009-06. "Developing New Value-Added Products from Cownose Ray."

L.D. Amory Seafood Company. (Hampton, VA)

Duration: 04/2009-04/2010.

Funding: \$74,640. Completed.

2009-07. "Characterization of By-catch in Virginia's Spring Striped Bass and Analysis of Gear Alterations on CPUE and Bycatch Composition."

George Earl Trice. (Poquoson, VA)

Duration: 03/2009-06/2009

Funding: \$29,696. Completed.

2009-10. "Feasibility of Producing Triploid *C. virginica* Larvae Via Thermal Heat Shock: Experimental Protocol Development and Assessment."

A.J. Erskine, Cowart Seafood Corp. (Hampton, VA)

Duration: 06/2009-06/2010.

Funding: \$13,401. Completed.

2009-12. "Channeled Whelk Assessment."

Richard B. Robins, Jr., Bernies Conchs. (Suffolk, VA)

Duration: 02/2009-06/2010.

Funding: \$21,758. Completed.

2008-03. "Hedgingless Pound Net."

William Haynie. (Reedville, VA)

Duration: 03/2008-10/2009.

Funding: \$19,459. Completed.

2008-04. "Commercialization Spat-on-Shell Production in VA"

Thomas E. Kellum, Virginia Shellfish Growers Association. (Weems, VA)

Duration: 05/2008-05/2009.

Funding: \$50,300. Completed.



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2008-05. "Alternative Bait Holding Devices."

Scott Troy Hainley. (Wake, VA)

Duration: 08/2008-12/2009.

Funding: \$12,040. Completed.

2008-08. "Characterization of By-catch and Potential Reduction in Virginia's Spring Striped Bass and other Gillnet Fisheries."

George Earl Trice. (Poquoson, VA)

Duration: 03/2008-04/2009.

Funding: \$49,329. Completed.

2008-10. "Feasibility Study on Grow-Out of One-year Market Size Triploid *C. ariakensis*."

Frances Porter, Virginia Seafood Council. (Newport News, VA)

Duration: 07/2008-07/2009.

Funding: \$26,530. Completed.

2008-13. "Developing Both Commodity and Niche Markets for Cownose Ray." Year II.

Meade Amory, L.D. Amory Seafood Company. (Hampton, VA)

Duration: 03/2008-02/2009.

Funding: \$50,000. Completed.

2008-14. "Improving Gillnet Selectivity by Altering Mesh Characteristics." Year II.

Robert Weagley. (Providence Forge, VA)

Duration: 10/2008-05/2009.

Funding: \$17,188. Completed.

2008-15. "Feasibility Study for a Commercial Blue Catfish Fishery."

Kenneth G. Smith, Virginia Waterman's Association. (Heathsville, VA)

Duration: 05/2008-09/2009.

Funding: \$4,055. Completed.

2007-01. "Feasibility of Converting Crab Shedding Tanks to Effectively Set Single Oyster Seed for Aquaculture and Comparison of Technique to Traditional Remote Setting Practices."

A.J. Erskine, Bevans Oyster Company & Cowart Seafood Corporation. (Kinsale, VA)

Duration: 03/2007-06/2012.

Funding: \$19,000. Completed.

2007-02. "Development of Efficient Cow Nose Ray Harvesting Technology and Associated Data Collection."

Frank James West. (Hayes, VA)

Duration: 02/2007-12/2007.

Funding: \$12,146. Cancelled.

2007-03. "Improving Gillnet Selectivity by Altering Mesh Characteristics."

Robert Weagley. (Providence Forge, VA)

Duration: 02/2007-05/2007.

Funding: \$13,916. Completed.

2007-04. "Characterization of Sturgeon and Other Regulatory Discards in Virginia's Spring Striped Bass and Other Gillnet Fisheries."

George Earl Trice. (Poquoson, VA)

Duration: 02/2007-05/2007.

Funding: \$33,031. Completed.

2007-05. "Feasibility Study on Grow-Out of One-year Market Size Triploid *C. ariakensis*." Year II.

Frances Porter, Virginia Seafood Council. (Newport News, VA)

Duration: 06/2007-07/2008.

Funding: \$24,064. Completed.

2007-06. "Developing Both Commodity and Niche Markets for Cownose Ray."

Meade Amory, L.D. Amory Company. (Hampton, VA)

Duration: 03/2007-02/2008.

Funding: \$57,000. Completed.

2007-07. "Cownose Ray Product Development."

Ronald L. Jett, Smith Point Seafood. (Reedville, VA)

Duration: 05/2007-12/2007.

Funding: \$40,500. Completed.

2006-04. "Aquaculture Training Program Needs Assessment."

S. Stickler, Rappahannock Community College. (Warsaw, VA)

Duration: 05/2006-03/2007.

Funding: \$6,700. Completed.

2006-06. "Developing an Alternative Fishery for Virginia Waterman."

Casey's Seafood, Inc. (Newport News, VA)

Duration: 05/2006-05/2007.

Funding: \$17,732. Completed.



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2006-07. "Alternative Bait for Crab Pots."

L. Haynie. (Reedville, VA)

Duration: 05/2006-05/2008.

Funding: \$27,000. Completed.

2006-08. "Project Management: Economic Analysis of *C. ariakensis*."

Frances Porter, Virginia Seafood Council. (Newport News, VA)

Duration: 05/2006-07/2007.

Funding: \$50,435. Completed.

2006-09. "Assessment of Sturgeon Bycatch, Bycatch Mortality and Other Regulatory Discard Mortality in Virginia Winter/Spring Gillnet Fisheries." Year II.

Kelly Place. (Williamsburg, VA)

Duration: 09/2005-08/2006.

Funding: \$52,039. Completed.

2005-01. "Floating Hedging."

William Haynie. (Reedville, VA)

Duration: 04/2005-09/2006.

Funding: \$19,995. Completed.

2005-03. "Feasibility Study on One-Year Grow-Out of Triploid *Crassostrea ariakensis*."

Frances Porter, Virginia Seafood Council. (Newport News, VA)

Duration: 05/2005-06/2006.

Funding: \$50,435. Completed.

2005-07. "Value of Cownose Ray: Population Size, Harvesting, Processing and Market Acceptance."

Margaret Ransone. (Kinsale, VA)

Duration: 04/2005-12/2006.

Funding: \$21,250. Completed.

2005-09. "Assessment of Sturgeon Bycatch, Bycatch Mortality and Other Regulatory Discard Mortality in Virginia Winter/Spring Gill Net Fisheries." Year I.

Kelly Place. (Williamsburg, VA)

Duration: 03/2005-08/2005.

Funding: \$39,444. Completed.

2004-02. "Whale Safe Gillnets."

David C. Walker, FV Nelson Seafood. (Chincoteague, VA)

Duration: 06/2004-06/2005.

Funding: \$8,300. Completed.

2004-03. "Intensive Culture of the Mudminnow (*Fundulus heteroclitus*) as Live Bait for Recreational Angling."

Rudy Cashwell. (Eastville, VA)

Duration: 04/2004-11/2006.

Funding: \$32,935. Terminated.

2004-07. "Sea Turtle Friendly Fish Trap."

Emory Lewis, Jr. (Fleeton, VA)

Duration: 06/2004-12/2005.

Funding: \$21,900. Completed.

2004-14. "To Develop More Efficient Mechanisms to Harvest, Handle, and Transport Catch."

Wec Terry, Terry Brothers, Inc. (Willis Wharf, VA)

Duration: 06/2004-06/2005.

Funding: \$ 30,380. Cancelled as a result of Tropical Storm Ernesto damage to facilities.

2004-10. "Alternate Methods for Haul Seine Fishery to Reduce Possible Impact on SAV Beds."

Matthew Bloxom. (Poquoson, VA)

Duration: 03/2005-12/2006.

Funding: \$4,901. Completed.

2003-01. "Validation of IQF Freezing Process to Reduce *Vibrio vulnificus* to Non-detectable Levels in Raw Oysters."

Ron Bevins & Lake Cowart. (Kinsale, VA)

Duration: 08/2003-12/2003.

Funding: \$12,000. Completed.

2003-03. "Oyster Farming Cooperative Program."

Shawn Stickler. (Wake, VA)

Duration: 01/2004-08/2004.

Funding: \$24,500. Completed.

2003-06. "Identifying the Catch Efficiency and Incidental Marine Bird Entanglements Associated with Internally Floated and Weighted Lines on Gillnets."

Millard Bryant. (Montross, VA)

Duration: 06/2003-06/2004.

Funding: \$490. Not initiated at request of applicant.

2003-07. "Project Management for Virginia Seafood Council's Economic Analysis of Triploid *C. ariakensis* Aquaculture."

Frances Porter & Tom Kellum. (Newport News, VA)

Duration: 07-2003-07/2004.

Funding: \$57,976. Completed.

2003-07-2. "Project Management for Virginia Seafood Council's Economic Analysis of Triploid *C. ariakensis* Aquaculture." Year II.

Frances Porter & Tom Kellum. (Newport News, VA)

Duration: 07/2004-07/2005.

Funding: \$53,649. Completed.

## Virginia Fishery Resource Grant Program

2002-01. "By-catch and Discard Reduction Concerning Selectivity and Overall Design in the Black Sea Bass Trap Fishery."

James E. Dawson. (Chincoteague, VA)

Duration: 04/2002-04/2003.

Funding: \$16,100. Completed.

2002-02. "Growing Oysters in Suspended Bags Using Ropes, Anchors, and Buoys."

Curtis B. Jenkins. (Warsaw, VA)

Duration: 05/2002-12/2003.

Funding: \$4,445. Completed.

2002-04. "Virginia Oyster Replenishment Via Seed Growing Operation."

Robert W. Shanley. (Cape Charles, VA)

Duration: 04/2002-04/2003.

Funding: \$38,400. Completed.

2002-07. "Development of Grow Out Techniques Utilizing the Water Column in Growing a Non-Native Oyster (*Crassostea ariakensis*)."

Andy Drewer. (Saxis, VA)

Duration: 04/2002-06/2003.

Funding: \$22,008. Completed.

2002-09. "Tenderizing Illex Squid So It Can Be Marketed as Food Rather Than Bait."

Sam Daniels, Wanchese Fish Co. (Suffolk, VA)

Approved for funding but withdrawn at Applicant's Request.

2002-20. "Growth Rate of *Ariakensis* Oysters in Different Environments."

Richard Wade Harding, Purcell's Seafood Inc. (Burgess, VA)

Duration: 04/2004-08/2004.

Funding: \$10,854. Completed.

2002-22. "Development of Clear Plastic Containers for Pasteurizing Crab Meat."

Johnny Graham, Graham & Rollins Inc. (Hampton, VA)

Duration: 10/2002-11/2004.

Funding: \$29,770. Completed.

2002-24. "Grow-Out and Marketability Evaluation of Triploid DEBY Oysters."

Gustavo Calvo, Sweet Amalia Oyster Farm. (Hayes, VA)

Duration: 10/2002-05/2004.

Funding: \$4,650. Completed.

2002-27. "Juvenile Protection."

Willie Andrew Offield. (West Point, VA)

Duration:

Funding: Not initiated.

2002-28. "Growing of the Native and Non-Native Oyster Utilizing a Long Line System."

Tripp Smith, Shores and Ruark Seafood Co. (Sharps, VA)

Duration: 10/2002-09/2004.

Funding: \$34,810. Completed.

2002-29. "Modular Oil Absorbent Bilge Pump."

Darryl Lilliston, Darryl Lilliston Seafood (Wachapreague, VA)

Duration: 11/2002-12/2003.

Funding: \$13,117. Completed.

2001-04. "Hydrostatic Oyster Processing Demonstration."

Lake Cowart, Cowart Seafood. (Lottsburg, VA)

Duration: 10/2001-11/2003.

Funding: \$34,600. Completed.

2001-12. "Floating Cultivation of Sea-Side Oyster."

Jeff Hammer. (Accomac, VA)

Duration: 03/2002-02/2004.

Funding: \$18,575 Completed.

2001-13. "Fluke Holding Tank and Live Market Assessment."

Wec Terry, Terry Brothers, Inc. (Willis Wharf, VA)

Duration: 10/2002-04/2004.

Funding: \$17,919. Completed.

2001-14. "Marketing Virginia Croaker."

Stuart O'bier, O'bier Seafood. (Callao, VA)

Duration: 10/2001-10/2003.

Funding: \$43,500. Completed.

2000-01. "Enhancement of Seed Oyster Recovery and Redeployment."

W.S. Magann. (Chesapeake, VA)

Duration: 03/2001-05/2002.

Funding: \$17,125. Completed.

2000-03. "Raising Spot (*Leiostomus xanthurus*) Commercially for Sale as Live Bait in the Commonwealth of Virginia."

John Vigliotta. (Gloucester, VA)

Duration: 02/2001-11/2001.

Funding: \$19,827. Completed.

2000-05. "Control of Mud Blister Formation in Oysters."

Dennis Gryder. (Hampton, VA)

Duration: 04/2001-11/2002.

Funding: \$1,338. Completed.

2000-06. "Efficiency of Haul-Seine Cull Panels: A Comparison of Size Selectivity and Relative Release (Second Season)."

Christian Hager. (Hayes, VA)

Duration: 02/2001-11/2001.

Funding: \$16,496. Completed.

## Virginia Fishery Resource Grant Program

2000-08. "Comparative Study of Four Popular Grow-Out Methods."

Jack White. (New Point, VA)

Duration: 02/2001-12/2002.

Funding: \$27,340. Completed.

2000-10. "Portable Anchor Trap Net Designed with Large Mesh to Harvest Cownose Rays."

Douglas F. Jenkins, Sr. (Warsaw, VA)

Duration: 03/2001-12/2004.

Funding: \$9,883. Completed.

2000-12. "Taylor Float Tidal Flow Increaser."

Bradley M. Knight. (Saxis, VA)

Duration: 04/2001-09/2003.

Funding: \$3,622. Cancelled, incomplete due to damage from Hurricane Isabel.

2000-15. "Scallop Trawl Improvement Program."

Timothy B. Daniels. (Newport News, VA)

Duration: 02/2001-12/2003.

Funding: \$44,900. Completed.

2000-18. "Crab-Pot Buoy Marking Tags."

Diana Gadwill. (Kinsale, VA)

Duration: 04/2001-11/2001.

Funding: \$820. Completed.

1999-02. "Peeler Pot By-catch Reduction."

B. Knight. (Saxis, VA)

Duration: 04/2000-09/2000.

Funding: \$1,527. Completed.

1999-07. "Enhancement of Seed Oyster Recovery and Redeployment."

W.S. Magann. (Chesapeake, VA)

Duration: 01/2000-02/2001.

Funding: \$15,000. Completed

1999-12. "Growing Soft Clams (*Mya arenaria*) Commercially in the Commonwealth of Virginia."

Ward Oyster Company. (Ware Neck, VA)

Duration: 02/2000-06/2001.

Funding: \$19,827. Completed.

1999-14. "Efficiency of Haul-Seine Cull Panels- A Comparison of Size Selectivity and Relative Release."

C.H. Hager. (Hayes, VA)

Duration: 02/2000-11/2000.

Funding: \$10,315. Completed.

1999-20. "Comparing Oyster Seed Growth Rates Using a Floating Upweller System ("FLUPSY") vs. Traditional Taylor Floats."

R. Bloxom and J.T. Gardner. (Wachapreague, VA)

Duration: 04/2000-06/2001.

Funding: \$12,700. Completed.

1999-23. "Comparative Growth Rates of Four Strains of the American Oyster Using Two Grow-Out Methods."

A.T. Leggett. (Wicomico, VA)

Duration: 03/2000-09/2001.

Funding: \$21,851. Completed.

1999-24. "Feasibility of Using Croakers to Make Large Fillets or Fish Squares."

Wanchese Fish Company. (Hampton, VA)

Duration: 02/2000-12/2001.

Funding: \$19,500. Completed.

1999-29. "Development of Live Fish Markets Through the Use of New Live Holding Gear."

W. Cosby. (New Kent, VA)

Duration: 02/2000-11/2001.

Funding: \$18,470. Completed.

1999-30. "Comparisons of Hard Clam Culture Using 'Fenced In' Method vs. Under Nets."

L. Crewe. (Newport News, VA)

Duration: 02/2000-02/2002.

Funding: \$7,400. Completed.

1999-34. "Artificial Reef Oyster Grow-Out."

J. Hammer. (Accomac, VA)

Duration: 03/2000-12/2001.

Funding: \$29,700. Completed.

1999-37. "Comparative Study of Oyster Seed from Northern and Southern Hatcheries."

J.W. Merritt. (Chincoteague, VA)

Duration: 03/2000-03/2002.

Funding: \$25,026. Completed.

## Media

Virginia Sea Grant. "Taking the guesswork out of water quality through recirculating aquaculture." Digital Storyboard. 5 August 2021. Available online: <https://vaseagrant.org/recirculating-aquaculture/>

Virginia Sea Grant. "Herding 'cats': New fishing gear offers potential solution for the Bay's blue catfish surge." Digital Storyboard. 2 September 2021. Available online: <https://vaseagrant.org/blue-catfish/>

Mayer, Liza. "Oyster growers pin hopes on RAS." RASTECH. 12 October, 2021. <https://www.rastechmagazine.com/oyster-growers-pin-hopes-on-ras/>

Mayer, Liza. "Researchers look to RAS to climate-proof oyster culture." Aquaculture North America. 11 February 2022. <https://www.aquaculturenorthamerica.com/researchers-look-to-ras-to-climate-proof-oyster-culture/>

Smith, Michelle. "Veterans' therapy organization working to launch local crab pot recycling program." News on the Neck. 11 May 2022. Available online: [https://www.newsontheneck.com/news/veterans-therapy-organization-working-to-launch-local-crab-pot-recycling-program/article\\_53c5d0e8-d159-11ec-8d66-575e3f3cfe3d.html](https://www.newsontheneck.com/news/veterans-therapy-organization-working-to-launch-local-crab-pot-recycling-program/article_53c5d0e8-d159-11ec-8d66-575e3f3cfe3d.html)

Oyster Seed Holdings, Inc. Company webpage: RAS Larvae Culture: <https://www.oshoyster.com/raslarvae>

Congrove, Michael. Virginia Aquaculture Conference Presentation. "Recirculating Aquaculture System Application in a Virginia Oyster Hatchery." (Newport News). January 8, 2022. Recorded presentation available online: <https://www.oshoyster.com/raslarvae>

## Marine Advisory Publications resulting from FRGP Projects

Askin, Samantha and Fisher, Robert. "A Summary of Collaborative Discussions on Existing Management within the Channeled Whelk," VIMS Marine Resource Report No. 2021-7, September 2021. Available online: [https://www.vims.edu/research/units/centerspartners/map/comfish/docs\\_commfish/2021whelkseagrant.pdf](https://www.vims.edu/research/units/centerspartners/map/comfish/docs_commfish/2021whelkseagrant.pdf)

Fisher, Robert. "Virginia Wild-Caught Blue Catfish: Nutrition and Contaminant Analysis." VIMS Marine Resource Report No. 2020-8, September 2020. Available online: [https://www.vims.edu/research/units/centerspartners/map/comfish/docs\\_commfish/va-blue-catfish-nutrition-analysis.pdf](https://www.vims.edu/research/units/centerspartners/map/comfish/docs_commfish/va-blue-catfish-nutrition-analysis.pdf)

Thursday, January 12, 2023  
**NEWS ON THE NECK**  
 A collaboration of Northern Neck News, Westmoreland News, and Northumberland Echo

Home - News - Sports - Living - Announcements - Arts & Entertainment - Special Sections - Online Features - Classifieds

FEATURED  
**Veterans' therapy organization working to launch local crab pot recycling program**  
 Michelle Smith May 11, 2022 Updated May 11, 2022

NORTHERN NECK NEWS  
 NORTHUMBERLAND ECHO  
 WESTMORELAND NEWS

Many people may view old, damaged crab pots as junk at best, and if there are too many, they'd likely be labeled as an eyesore or even an environmental concern.

www.NewsOnTheNeck.com  
 \*PROUDLY SERVING THE MATHews COUNTY OF THE NORTHAM Neck SINCE 1902\* \$1.00  
 \* WEDNESDAY, MAY 11, 2022 \* HEATHSVILLE, VA.

**Northumberland Echo**

**Veterans' therapy organization working to launch local crab pot recycling program**

By Michelle Smith

Many people may view old, damaged crab pots as junk at best, and if there are too many, they'd likely be labeled as an eyesore or even an environmental concern. But Kevell Kneel views them as a promising part of a therapy program that aims, beyond all else, to help to include and restore enjoyment to their lives.

Kneel is the founder of Kevell Alone—Held Fast, a Gloucester-based nonprofit organization whose mission is to help veterans fight their demons using therapy centered around commercial fishing activities.

To help fulfill that mission, the organization is currently working to launch the Beginning Recycled Crab Pot Recycling Program, which is named after Benjamin Franklin. Levels of participation have been high since the program's launch.

Kneel Alone—Held Fast was awarded funding from a Virginia Fishery Resource Grant to fund the pilot. And with that money, Kneel estimates that this year the organization will be able to buy 50,000 crab pots for about 5,000 cash per pot. The plan is to be able to offer a \$100 cash per pot.

**The beginnings of water therapy**

Kneel started from the military in 2005 and started climbing so he could have a peaceful job that allowed him to work for himself and be his own boss.

But the worst thing you can do when you have a job on your mind is to sit around and sometimes lag along on the boat and to not let the benefits. Kneel helped the program who had gotten burned out to secure a position as an Air Force chaplain. In his final years, Kneel was working on a boat and the captain job he told Kneel to find a way to share the therapy program that aims, beyond all else, to help to include and restore enjoyment to their lives.

Kneel, feeling that he had reached a good space in his work, set out to do so and ended up starting the nonprofit, the got a physician who has a background working with active-duty military to develop a one-week program.

Recently, a veteran that Kevell Kneel "was a significant goal," Congrove, Kneel and ultimately, convinced him to take off and return to work for the program.

2 of the water-based therapy program. The benefit of a one-week program is that it can be done and will now be working with Kneel Alone—Held Fast as a program director.

Being the first to go through the program, Kneel, "was I'd call a 'pilot leader,'" said Kneel.

**Crab pots and therapy**

Kneel's nonprofit has been attracting interest, and he expects more to fully up and running that numerous people will be participating at a given time.

But "The worst thing you can do when you have a job on your mind is to sit around and not be accepted," said Kneel. And therapy "opens a lot of wounds." The problem is that he's something, who did his it's important that the program be designed to keep people engaged.

Right now, only one or two people can go on Kneel's boat at a given time. So the crab pot activities are one of the water-related activities that can keep the others engaged, and it can be used when no one can go out on the water due to weather.

Not to mention that a lot of people that Kneel Alone—Held Fast aims to help don't have jobs. Part of the funding from the grant will be divided to provide the veterans for their therapy.

"This is a way to help employ them while they get on their feet," Kneel said. He's also hoping that it may open up opportunities for the program participants by exposing them to area watermen who are looking to hire.

JANUARY/FEBRUARY 2022 | VOLUME 12 | ISSUE 1  
 AQUACULTURE NORTH AMERICA.COM

**Aquaculture North America**

Fish Farming in the United States, Canada & Mexico

**Researchers look to RAS to climate-proof oyster culture**

As the effects of climate change bite deeper, research is underway to explore the potential of recirculating aquaculture systems in climate-proofing oyster culture.

The initiative is a collaboration between industry and academics aiming to break the dependence of oyster culture on unpredictable seawater quality.

Michael Congrove, president and majority shareholder at Oyster Seed Holdings in Mathews County, VA, is the private-sector participant in the project. He and experts from the Virginia Institute of Marine Science (VIMS) and the Virginia Tech Seafood Agricultural Research and Extension Center are now exploring the potential benefits of RAS technology in the early part of the oyster larvae's life cycle.

"It would be ideal to run (the hatchery) on ambient water part of the time and then switch to recirculating system when that water became sub-par for producing larvae," says Congrove.

He recalled that Chesapeake Bay's water salinity has gone down to detrimental levels because of unusually heavy downpours in 2018 and 2019.

While oyster hatcheries have become very good at solving water-quality issues with the use of traditional single-pass filtration type methods, those climate events made them helpless, he says.

"We couldn't adapt a way to put enough salt back into the water to stay at our normal scale of production," Not to mention all that freshwater brings all kinds of upland runoff and associated pollution into the watershed.

While salmon farmers already know the weak points in a RAS system and are addressing them, Congrove says there are still many unknowns in using the system in oyster larvae culture. As he and the team continue to figure out these unknowns, he underscores the importance of collaboration between industry and academics as well as financial support for such transformative initiatives.

"The good thing about an industry-driven grant program is it reflects how important a research question is to industry," he says.

The study is funded by the Virginia Sea Grant Fisheries Resource Grant.



**Appendices to the Annual  
Report of Activities 2022**

**Appendix A**

**Virginia Fishery Resource Grant Program  
Program Administration and Advisory Board Contacts**

**Program Administration**

***VFRGP Manager***

Dr. David Rudders  
Marine Advisory Program Associate Director  
Virginia Institute of Marine Science  
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Gloucester Point, VA 23062

phone: 804-684-7531  
fax: 804-684-7161  
email: rudders@vims.edu

**Advisory Board**

***For Virginia Sea Grant Program***

Dr. Troy Hartley, Sea Grant Director  
Virginia Institute of Marine Science  
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Gloucester Point, VA 23062

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fax: 804-684-7269  
email: thartley@vims.edu

***For Virginia Marine Resources Commission***

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Virginia Marine Resources Commission  
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fax: 757-247-2264  
email: pat.geer@mrc.virginia.gov

***For Virginia Institute of Marine Science***

Dr. Mark Luckenbach, Associate Dean  
for Research and Advisory Services  
Virginia Institute of Marine Science  
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Gloucester Point, VA 23062

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email: luck@vims.edu

***For the Aquaculture Industry***

Mike Oesterling, Executive Director  
Shellfish Growers of Virginia (SGV)  
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Gloucester, VA 23061

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email: mike@vashellfish.org

***For the Watermen's Associations***

Marshall Cox  
6428 Rocky Lane  
Cape Charles, VA 23310

phone: 757-373-2990  
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664 Ingleside Road  
Norfolk, VA 23502

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## Appendix B

# Sample VFRGP News Release

**For More Information, Contact:**

Karen Hudson  
Virginia Institute of Marine Science  
Marine Advisory Program  
P.O. Box 1346  
Gloucester Point, VA 23062  
Phone (804) 684-7742  
Fax (804) 684-7161  
<http://www.vims.edu/map/frg/>

# NEWS RELEASE

November 15, 2021

## VIMS now accepting proposals for Fishery Resource Grant Program

### *Proposals for the 2022-2023 cycle will be accepted until January 14, 2022*

The Marine Advisory Program at the Virginia Institute of Marine Science is now accepting applications from the public to compete for funding as part of the Virginia Fishery Resource Grant Program.

VIMS will host two workshops to explain the “VFRGP,” including eligibility and funding priorities, how to complete the application form, and where to turn for help in developing a grant-proposal package. The first workshop will take place on Monday, December 6 from 5:30-7:30 pm in Davis Hall on VIMS’ main campus at Gloucester Point. A second workshop will be offered on Tuesday, December 7 from 5:30-7:30 pm in Seaside Hall on VIMS’ Eastern Shore Laboratory in Wachapreague.

The Virginia Legislature created the VFRGP in 1999 to protect and enhance the Commonwealth’s coastal fishery resource through the awarding of grants in four areas: 1) new marine fisheries equipment or gear; 2) environmental pilot studies on issues including water quality and fisheries habitat; 3) aquaculture or mariculture of marine-dependent species; and 4) seafood technology.

To date, the program has supported 138 projects from Virginia’s commercial fishermen. VIMS coordinates the VFRGP in partnership with the Virginia Sea Grant Marine Extension Program, and operates with the aid of a VFRGP Advisory Board. A basic principle of the VFRGP is that people in the industry regularly have valid ideas for enhancing and protecting fisheries, but may lack the financial resources to experiment with innovations. The VFRGP invests in ideas generated by the fishing public through fair and competitive methods.

Specific priorities within the four topic areas have been approved by the VFRGP Advisory Board as described below. All proposals submitted within the limits of the Guidelines for Submission will be accepted and reviewed for technical merit and the ability to address one or more of the specified priorities.

## Virginia Fishery Resource Grant Program

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**New Fisheries Equipment and Gear** – This priority area seeks proposals that focus on ways to develop environmentally friendly fishing methods to reduce bycatch, improve gear selectivity, and handle catch more effectively; and to generate information to inform fishery management plans for key species and groups.

**Environmental Pilot Studies** – This priority area seeks proposals that focus on ways to restore damaged habitat, create new habitat, prevent habitat impairment, or reduce impact from fishing or aquaculture activities.

**Aquaculture/Mariculture** – This priority area seeks proposals that focus on ways to develop criteria and assessment for permits, increase return from investment in culture activities, or introduce new species to the existing aquaculture list to broaden the participation in commercial aquaculture.

**Seafood Technology and Utilization** – This priority area seeks proposals that develop value-added products from existing production, encourage the use of underused or new fishery resources, create models for total-quality system management programs, or increase returns in the seafood industry by improving packaging and handling.

Details on eligibility, proposal development, and proposal submission are available online at <https://www.vims.edu/map/frg>.

Appendix C

**Virginia Fishery Resource Grant Program  
Request for Proposals**

**Virginia Fishery Resource Grant Program  
Request for Proposals (RFP) October 2021  
<http://www.vims.edu/map/frg>**

*Proposals for the 2022-2023 cycle will be accepted until January 14, 2022*

The Marine Advisory Program (MAP) at the Virginia Institute of Marine Science (VIMS) is accepting applications to compete for funding as part of the Virginia Fishery Resource Grant Program (VFRGP). The Virginia Legislature created the Fishery Resource Grant Program to “protect and enhance the Commonwealth’s coastal fishery resource through the awarding of grants” in four areas: 1) new marine fisheries equipment or gear; 2) environmental pilot studies on issues including water quality and fisheries habitat; 3) aquaculture or mariculture of marine-dependent species; and 4) seafood technology.

A basic principle of the VFRGP is that people in the industry often have valid ideas for enhancing and protecting fisheries, but they lack the financial resources to experiment with innovations. The VFRGP invests in ideas generated by the fishing public through fair and competitive methods.

The legislation established the four priority areas noted above. Specific priorities within the four topic areas have been approved by the VFRGP Advisory Board and are noted below. All proposals submitted within the limits of the Guidelines for Submission will be accepted and reviewed for technical merit and the ability to address one or more of the specific priorities listed.

**New Fisheries Equipment and Gear** – This priority area seeks proposals that focus on the development of less environmentally destructive gear, bycatch reduction, improvements in gear selectivity, more effective ways to handle catch and the development of information leading to fishery management plans for key species and groups.

**Environmental Pilot Studies** – This priority area seeks proposals that focus on ways to restore damaged habitat, create new habitat, prevent habitat impairment or reduce impact from fishing or aquaculture activities.

**Aquaculture/Mariculture** – This priority area seeks proposals that focus on ways to develop criteria and assessment for permits, increase return from investment in culture activities or introduce new species to the existing aquaculture list to broaden the participation in commercial aquaculture.

**Seafood Technology and Utilization** – This priority area seeks proposals that develop value-added products from existing production, the utilization of underused or new fishery resources, develop models for total quality system management programs or increase returns in the seafood industry by improving packaging and handling.

## Virginia Fishery Resource Grant Program

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### Eligibility

To be eligible for funding under the VFRGP, each proposal must substantially involve Virginians who are actively involved in a fishing industry (defined as persons involved in commercial activities relating to fishery resources, aquaculture/mariculture or the processing or handling fishery products). Proposals submitted by persons not involved in a fishing industry must have 1) substantial involvement of Virginia fishers as defined above and 2) written endorsements from persons or organizations representing fishing industries supporting the project. Members of the project team must have the proper fishery licenses in place to conduct the work proposed, and have the ability to obtain any additional permits needed for the work.

### Proposal Development

Competitive proposals are developed through discussions of ideas and partnering with interested groups and experts. Every applicant should consult with experts in the targeted priority area(s) and, where appropriate, develop a team of fishers and scientists to conduct the work. VIMS MAP specialists can help assemble a team. Non-fishers could improve chances of funding by collaborating with persons in a fishing industry for proposal development and design and by involving fishers in the execution of the study. VIMS MAP will be responsible for determining the eligibility of each proposal.

### Application Forms

The application form at the end of this notice provides an outline for the proposal and additional pages should be used for providing information in the sections listed. Applicants should pay particular attention to items 12-17. These sections should describe the problem and rationale for proposing the research project (12), present the goals and objectives and the proposed work (13) and describe the work that is to be performed to meet the objectives (14). The next three sections should explain how the information gained from the work will help resolve the problem described (15), how the information developed will be transferred to others (16; please note that it is not enough to say the data will be given to VMRC or another agency) and who will be responsible for doing the work (17; letters confirming participation should be obtained from all cooperators).

A series of workshops will be held to explain the grant program, including eligibility and funding priorities, how to complete the application form and where to go for more help when developing a grant proposal package. The time and location of these workshops will be announced through press releases to the media and in selected newsletters. The workshop schedule is also included in this announcement.

### Proposal Submission

To be considered for funding in this solicitation, a signed application must be delivered or postmarked no later than 5:00 pm, January 14, 2022. Mailed copies should be sent to: VFRGP Manager; Marine Advisory Program, Virginia Institute of Marine Science, P.O. Box 1346, Gloucester Point, VA 23062. **No applicant may submit more than 2 proposals for this cycle.** Faxed or electronic proposals will not be accepted.

To ensure competitive project selections, VFRGP will subject all proposals to a series of reviews by a panel of experts from outside of Virginia. The VFRGP Advisory Board (see appended list of Advisory Board members) will also provide proposal evaluations to the selection process. VFRGP will make proposal selection decisions and funding agreements will generally be effective during the second calendar quarter of 2022.

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**Funding Priorities**

The following list of potential research ideas has been reviewed and approved by the VFRGP Advisory Board and is provided as suggestions of the types of subjects that could be appropriate for proposals to the VFRGP. These are not intended as a complete listing of all possible projects; nor are the topics listed in order of importance. All proposals received by the submission deadline will receive equal treatment during the review process.

Potential research topics or issues include but are not limited to the following:

I. New Fisheries Equipment and Gear

Inshore and Offshore Harvesting Sector Studies

1. Reduce bycatch by technology development and education.
2. Develop “environmentally friendly” gear.
3. Develop more effective/efficient mechanisms for handling catch.
4. Develop and evaluate mechanisms to release fish to increase their survival.
5. Determine amounts of hook-and-release mortality for important recreational species.
6. Increase efficiency/economic return of fishing.
7. Develop bait and bait substitutes.
8. Develop species-specific gear.
9. Develop information leading to Fishery Management Plans for key species and groups.
10. Develop new gear and/or improve current gear and/or document catch per unit effort (CPUE).
11. Develop gear to improve selectivity of target species.

II. Environmental Pilot Studies

1. Develop mechanisms to restore damaged habitat or create new habitat.
2. Develop mechanisms to prevent habitat impairment.
3. Reduce habitat impact from fishing activities.
4. Develop recycling and collection programs for used fishing or aquaculture gear.
5. Develop ways to monitor and evaluate habitat alterations or the impacts of aquaculture practices such as moving of seaside shellfish to the bayside.
6. Determine environmental impact of fishing and processing activities.
7. Assess effects of water quality and habitat alteration on fisheries production.

III. Aquaculture/Mariculture

1. Increase return from investment in culture activities including the development of mechanical planting and harvesting technologies.
2. Examine the potential for culture of new species and/or deep-water culture techniques for existing species such as clams and oysters.
3. Determine environmental impacts of aquaculture operations.
4. Improve the efficiency of growth, feeding and nutrition.
5. Demonstrate the best husbandry practices for potential growers.
6. Develop mechanisms for a network for technical monitoring of waters for levels of spat fall, food, predators, etc.
7. Market research for aquaculture products.
8. Develop parameters for apprentice program and training for career aquaculturists.
9. Assess feasibility of augmenting commercially and recreationally important species through hatchery release.
10. Assess regulations that impact aquaculture/mariculture such as submerged aquatic vegetation protection.
11. Assess the potential of shellfish aquaculture to enhance wild populations.
12. Provide the opportunity for watermen, including minorities, to diversify their businesses through aquaculture.

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### IV. Seafood Technology and Utilization

1. Develop value-added products from existing or potential production.
2. Increase returns in the seafood industry by improving packaging and handling.
3. Develop models for total quality system management programs.
4. Develop improvements in product quality.
5. Develop mechanisms for reducing effluents and the environmental impacts.
6. Develop alternative uses for processing byproducts.

### Proposal Development Contacts

If you have an idea for a project, you may contact the following VIMS MAP specialists for assistance in writing your proposal or to request additional information. These people can also direct you to a research scientist who has expertise related to your project topic.

#### *VIMS MAP contacts include:*

David Rudders	804-684-7531	MAP Associate Director, Data Collection/Analysis
Karen Hudson	804-684-7742	FRG Program Co-Coordinator, Shellfish Aquaculture
Dan Sennett	804-684-7669	Finfish Aquaculture

### Virginia Fishery Resource Grant Program - Application Workshops

Two workshops will be held to explain the VFRGP, including eligibility and funding priorities, how to complete the application form and where to go for more help when developing a grant proposal package. The time and location of these workshops is listed below:

**Monday, December 6, 2021 from 5:30 to 7:30 pm**  
**Virginia Institute of Marine Science**  
**(Owens Bryant Board Room, Davis Hall)**  
**7539 Spencer Road**  
**Gloucester Point, VA 23062**

**Tuesday, December 7, 2021 from 5:30 to 7:30 pm**  
**VIMS Eastern Shore Laboratory (Seaside Hall)**  
**40 Atlantic Avenue**  
**Wachapreague, VA 23480**

Appendix

**Virginia Fishery Resource Grant Program  
Program Administration and Advisory Board Contacts**

**Program Administration**

***VFRGP Manager***

Dr. David Rudders  
Marine Advisory Program Associate Director  
Virginia Institute of Marine Science  
P.O. Box 1346  
Gloucester Point, VA 23062

phone: 804-684-7531  
fax: 804-684-7161  
email: rudders@vims.edu

**Advisory Board**

***For Virginia Sea Grant Program***

Dr. Troy Hartley, Sea Grant Director  
Virginia Institute of Marine Science  
P.O. Box 1346  
Gloucester Point, VA 23062

phone: 804-684-7248  
fax: 804-684-7269  
email: thartley@vims.edu

***For Virginia Marine Resources Commission***

Pat Geer, Chief of Fisheries  
Virginia Marine Resources Commission  
Building 96, 380 Fenwick Road  
Ft. Monroe, VA 23651

phone: 757-247-2236  
fax: 757-247-2264  
email: pat.geer@mrc.virginia.gov

***For Virginia Institute of Marine Science***

Dr. Mark Luckenbach, Associate Dean  
for Research and Advisory Services  
Virginia Institute of Marine Science  
P.O. Box 1346  
Gloucester Point, VA 23062

phone: 804-684-7108  
fax: 804-684-7097  
email: luck@vims.edu

***For the Aquaculture Industry***

Mike Oesterling, Executive Director  
Shellfish Growers of Virginia (SGV)  
P.O. Box 1394  
Gloucester, VA 23061

phone: 804-815-1316  
email: mikeo@vashellfish.org

***For the Watermen's Associations***

Marshall Cox  
6428 Rocky Lane  
Cape Charles, VA 23310

phone: 757-373-2990  
email: mrscox2711@earthlink.net

Pete Nixon  
664 Ingleside Road  
Norfolk, VA 23502

phone: 804-466-8940  
email: pdnixon1950@gmail.com

Virginia Fishery Resource Grant Program

**Virginia Fishery Resource Grant Program  
Application**

1. Project title: \_\_\_\_\_
2. Name of applicant: \_\_\_\_\_
3. Company (if applicable): \_\_\_\_\_
4. Telephone: \_\_\_\_\_
5. Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Priority addressed by project (see list): \_\_\_\_\_
7. Fishing license/permit number(s): \_\_\_\_\_
8. Social security (last 4 digits) or federal tax ID number: \_\_\_\_\_
9. Funding requested: \_\_\_\_\_
10. Project dates: Start: \_\_\_\_\_ End: \_\_\_\_\_
11. Other project participant(s), affiliation, address and phone:

*[Note: Use additional pages as needed to respond to the items below.]*

12. Give a brief summary of the situation or problem to be addressed.



Virginia Fishery Resource Grant Program

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13. What is the purpose (objectives) of the project?

14. What work do you intend to do, and how do you plan to accomplish it?

15. Explain how the expected results will address the problem and/or enhance fishery resources.

16. Explain how the expected results will be made available to the fishing industry.

17. Briefly outline who will be responsible for each aspect of the work plan (attach letters from cooperators outlining their participation).

18. Briefly summarize the qualifications of each participant.

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19. Provide project budget and cost justification.

ITEM/CATEGORY	AMOUNT
a. Personnel Costs (time x unit cost)	
b. Travel (trip or mileage x unit cost)	
c. Supplies	
d. Equipment (items more than \$500)	
e. Contractual Services (itemize)	
f. Other Costs (itemize)	
g. Total Project Costs	

20. Provide budget item justification and/or explanations.

Applicant Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Virginia Fishery Resource Grant Program

**Virginia Fishery Resource Grant Program  
Application Guidelines**

1. Provide a title that summarizes the project.
2. Give the full name of the applicant; it will be used to issue payments for the project.
3. Give the name of your company or corporation if applicable, or the institution of your employment. If self-employed, say so.
4. Applicant's complete telephone number including area code.
5. Mailing address for correspondence and mailing payments, etc.
6. Which priority are you addressing? The attached listing gives this year's priorities under the four- program areas equipment/gear, environment, aquaculture and seafood.
7. Give fishing license or permit number(s), that authorize you to do the work proposed, if applicable. Also denote additional permits needed to do the proposed work that you do not yet possess, but will be applying for (if applicable).
8. Social security or federal ID number is required for grant payments. For the application purpose, the last 4 digits of a social security number will suffice.
9. Total amount of funding requested (see budget section).
10. Give the date that you plan to begin work and the date that we can expect a completion report.
11. List all other personnel involved in the project and their affiliation. This includes all those who have a major responsibility for some aspect of the work.

***\*\*Use additional pages as needed to fully answer items 12 through 18\*\****

12. Describe the nature of the situation or problem that your proposed work will address.
13. What is the purpose of your proposed work?
14. **This section is very important!** Please explain how, where and when you will conduct each work task. Explain how tests will be run and how the data will be analyzed. Describe the tests you plan to conduct, the surveys you will make and/or plans for making something. Your methodology must withstand questions about its validity and/or potential to yield the results you need to solve the purpose of your work (described in number 13 above).
15. Describe how the outcome of your proposed work will help address the problem described in number 12 above.
16. Describe how you plan to get the results of your work to other members of the fishing industry for their use. It is not enough to just discover something. It must also be usable. If you are going to rely on someone else to extend the results, be sure to have an agreement and arrange to cover those expenses.

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17. Who is going to be responsible for what? Each participant (including the applicant) must be responsible for some part of the work. You must have letters of endorsement from other participants to confirm their participation in the project. For example, if personnel from VIMS will conduct the statistical analysis, then an agreement letter from VIMS is required.
  18. Give a brief statement describing the experience of each participant and the applicant that qualifies them to do the tasks outlined above.
  19. Carefully compute the funds needed (rounded to the nearest dollar) for all of the work described in the proposal. Be sure to include any subcontractors (budget item e.) for lab work, consultants, extension, services, etc. The funding for these grants does not permit indirect costs (overhead). Be sure to check your budget total figure.
  20. Please justify the budget figures. For example: “We will need a deckhand for 150 hours @ \$7/hour,” or “We will need to design and build a trawl that requires \$1,200 for materials,” etc.
- **Be sure to sign the application!** Applications without a dated signature will be rejected as incomplete.
  - **Mail the signed original to:** VFRGP Manager, Advisory Program, Virginia Institute of Marine Science, P.O. Box 1346, Gloucester Point, VA 23062.
  - Applications must be postmarked no later than *January 14, 2022*. Applications may be delivered to the Advisory Services office in Gloucester Point only until 5:00 pm on January 14, 2022. **Late proposals will be returned to the applicant without being considered.**
  - If you need assistance completing the grant application, a resource list is available from Karen Hudson (phone: 804-684-7742; email: [khudson@vims.edu](mailto:khudson@vims.edu)).
    - This RFP and application form is available at this website: <http://www.vims.edu/map/frg>.

Appendix D

VFRGP Principles of Operation

Authority: The Virginia Legislature ratified House Bill 1634 in 1999 providing funding to “protect and enhance the state’s coastal fishery resources through the awarding of grants.”

Administration: The program is administered by the Marine Advisory Program at the Virginia Institute of Marine Science with input from an appointed Advisory Board. The Board, based upon rankings from reviews and consistent with priorities, will determine the grants to be awarded.

Priorities: The Advisory Board, with input from members of the fishing industry, develops priorities for each year in the following areas:

1. New fisheries equipment and gear;
2. Environmental pilot studies, including water quality and fisheries habitat;
3. Aquaculture/mariculture; and
4. Seafood technology.

Eligibility: Each proposal shall include substantial involvement of active Virginia persons involved in a fishing industry. The term “fishing industry” includes persons involved in commercial activities related to inshore and offshore fishery resources, aquaculture/mariculture, or handling of fishery products (i.e. seafood dealers and processors). A proposal generated by a person not involved in a fishing industry must have substantial involvement of Virginia fishers (as defined above) as well as written endorsements from persons or organizations representing fishing industries in support of the project.

Technical Assistance: Following the establishment of priorities by the Advisory Board, VIMS Marine Advisory Program shall hold workshops at coastal locations to solicit applications and to assist persons involved in fishing industries in writing proposals. A list of technical advisors will be available throughout the proposal writing process for assistance and participation.

Application: Applications must be completed based on the format provided for that purpose. Additional pages or supplemental materials (diagrams, photos, etc.) are acceptable if they better explain the project. Applications may include technical assistance as part of the project and funds may be budgeted to pay for this. Incomplete applications will not be accepted for consideration. Application forms listing information needed for a proposal are available from VIMS (see listing below for contact details).

Project Duration: Projects must reach conclusion within two years or less.

Geographic Distribution: To the extent practicable, grant funding will be distributed to applicants within Virginia counties that border the Atlantic Ocean or Chesapeake Bay and its tributaries to the extent of tidal influence.

Review Procedures: An anonymous outside peer review will be conducted for all applications. At least one of the reviewers shall be a person involved in a fishing industry. Applications shall be confidential until after funding decisions are made.

## Virginia Fishery Resource Grant Program

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Project quality will be assessed on the following criteria:

1. Addresses a priority,
2. Ability to protect or enhance fishery resources;
3. Organization of a work plan leading to conclusions,
4. Plan to extend findings to the fishing industry;
5. Availability of expertise and its application;
6. Familiarity and experience with the problem addressed;
7. Innovation of approach and/or potential findings;
8. Cost-effectiveness of implementation of results; and
9. Reasonableness of budget for work proposed.

Based upon panel reviews and Advisory Board input, proposals will be recommended to the \*Marine Science Consortium. The Consortium will make all final decisions on grants, including the level of funding for each project.

Restrictions: No member of the Fishery Resource Grant Program staff or the Advisory Board or members of his/her immediate family may benefit financially from a grant. If a grant recipient from a prior year has failed to perform a grant project to the satisfaction of the Associate Director for the Marine Advisory Program, the principal applicant may be denied funding for a new application.

Grant recipients shall provide quarterly progress reports to the VFRGP and shall submit invoices describing expenditures for each quarter. Twenty-five percent (25 %) of the total grant award shall be awarded on the start date and certified upon verification of expenditures. The final 25% of the total grant award shall be held until the recipient has completed and submitted a satisfactory final written report. The remainder of the grant award shall be distributed upon approval of quarterly reports, verification of expenditures and receipt of an invoice.

Questions concerning the Virginia Fishery Resource Grant Program may be directed to the following:

David Rudders, Associate Director, Marine Advisory Program  
Virginia Institute of Marine Science  
P.O. Box 1346  
Gloucester Point, VA 23062  
Phone 804-684-7531  
Fax 804-684-7161  
E-mail: rudders@vims.edu

\* The Marine Science Consortium no longer exists as originally defined and programmatic responsibilities are now under the purview of the Associate Director for the Marine Advisory Program at VIMS.





This is a report to the Governor and General Assembly of Virginia on Implementation of House Bill No. 1634 (February 6, 1999) - "The Fishery Resource Grant Fund." Funds are administered by Virginia Institute of Marine Science Marine Advisory Program in partnership with Virginia Sea Grant.

January 2023  
VIMS Marine Resource Report No. 2023-1

Copies of this report are available from  
Marine Advisory Program  
Virginia Institute of Marine Science  
P.O. Box 1346  
Gloucester Point, VA 23062  
e-mail: [frgadmin@vims.edu](mailto:frgadmin@vims.edu)

