

NORTH CAROLINA SEA GRANT NORTH CAROLINA STATE UNIVERSITY • BOX 8605 RALEIGH, NORTH CAROLINA 27695-8605

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2011 FISHERY RESOURCE GRANT PROGRAM HIGHLIGHTS

Joint Legislative Commission on Government Operations

The 2011 Fishery Resource Grant process began with the announcement (request for proposals – RFP) in September 2010. Workshops along the coast explained not only the program's priorities and application procedures but also provided a forum for public discussion of the program. During the past six years, workshops have been held in Morehead City, Beaufort, Columbia, Elizabeth City, Greenville, Hatteras, Jacksonville, Manteo, Wanchese, Washington and Wilmington. A total of 27 proposals were received.

Proposals are sent out-of-state for technical review and then, along with these reviews, submitted to the members of the Fishery Resource Grants Committee for evaluation. In a subsequent meeting, the committee discusses each proposal and decides which should be funded. This committee is comprised, by legislation, from the following agencies. Current representatives are listed.

Two from the Marine Fisheries Commission (MFC):

Mr. Joseph Smith, Jr.

Dr. B.J. Copeland

Two from the Division of Marine Fisheries (DMF):

Mr. David Taylor

Mr. Rich Carpenter

One from each of the four regional advisory committees to the MFC:

Inland – Mr. Tom Smith Central – Mr. Dick Leach Northern – Mr. Woody Collins Southeastern – Mr. Bert Lomax

Three from Sea Grant:

Dr. Michael Voiland

Dr. Steve Rebach

Dr. Marc Turano

Sea Grant provides information about the FRG program to the public through the news media and our website (www.ncseagrant.org). The FRG request for proposals, priorities for funding, principles of operation, guidelines and a downloadable application are all available from our website. We also list all funded projects since 1995, providing project number, principal investigator, region and amount awarded. For completed projects, an abstract of the results is available on our website. Complete copies of final reports are available in .pdf format online, and on request, in hard copy from the Sea Grant office in Raleigh.

FRG PRIORITY SETTING

The North Carolina Fishery Resource Grants Committee establishes program priorities each year based on recommendations from fishers, seafood processors, the Division of Marine Fisheries, North Carolina Sea Grant and the public. Proposed priorities are announced in legal notices and posted in Raleigh and coastal newspapers. The priorities are classified into four program areas:

- 1. New fisheries equipment or gear
- 2. Environmental pilot studies
- 3. Aquaculture/Mariculture
- Seafood technology

FRG ELIGIBILITY

Each FRG proposal must include North Carolina individuals who are actively involved in the state's commercial and recreational fishing industries, which include fisheries, aquaculture and seafood processing in order to be considered eligible. Proposals submitted by persons not involved in these industries must have: 1) substantial involvement of North Carolina fishers and 2) written endorsements supporting the project from persons or organizations representing fishing industries.

2011 FRG PROGRAM

There was one request for proposals (RFP) conducted for 2011. Informational workshops were held in October 2010. Numerous press articles, news releases, a Sea Grant Blueprint, "Fishing for Good Ideas: Writing a Fishery Resource Grant" and the Sea Grant website were used to publicize the solicitations and the respective workshops. In addition, Sea Grant held several face-to-face meetings with fishing industry representatives and academic researchers to facilitate the establishment of partnerships for effective proposal development.

PROPOSAL SUBMISSIONS AND AWARDS

Eleven proposals were funded at a total of \$609,606.00. The attached graphs and charts provide more detailed information on the submissions and the distribution of funds by program area, region and investigator category.

N.C. FISHERY RESOURCE GRANT PROGRAM Priorities for Funding – 2011

Potential topics in each of the four priority areas

Fisheries Equipment or Gear

- * Reduce bycatch through technology development and education.
- * Develop "environmentally friendly" gear.
- * Develop more effective/efficient mechanisms for handling catch.
- * Develop and evaluate mechanisms to release fish and increase their survival.
- * Determine hook-and-release mortality for important recreational species.
- * Determine the impact of fishing gear on turtle and marine mammal interactions.
- * Measure and reduce bottlenose dolphin/gill net interactions.
- * Develop bait and bait substitutes.
- * Develop new gear, and improve current gear.
- * Develop species-specific gear.
- * Develop case studies about managing and/or mediating user conflicts (such as recreational and commercial needs).
- * Assess stocks for key species and groups (such as black sea bass, vermilion snapper gag grouper and sea mullet).
- * Quantify population/territory for large sharks.
- * Develop mechanisms for more efficient handling of dogfish and reduce their bycatch.
- * Develop information leading to Fishery Management Plans (FMPs) for key species and groups.

See existing FMPs from the NC Division of Marine Fisheries (www.ncdmf.net) for research needs for individual species.

Environmental Pilot Studies

- * Develop mechanisms to prevent habitat impairment.
- * Develop mechanisms to restore damaged habitat or create new habitat.
- * Identify criteria to assess compensatory mitigation.
- * Develop ways to monitor habitat alterations.
- * Describe and identify river herring spawning areas.
- * Determine environmental impact of fishing and processing activities.
- * Assess effects of water quality and habitat alteration on fisheries production.
- * Determine the impact of pharmaceuticals in the water on fisheries.
- * Reduce habitat impact from fishing activities.
- * Determine how fish respond to habitat change.
- * Assess strategic habitat designations/choices.
- * Determine the use and timing of DMF-designated spawning sanctuaries, and identify migration corridors for mature female blue crabs.

Aquaculture/Mariculture

- * Increase return from investment in culture activities.
- * Examine the potential for culture of new species.
- * Determine environmental impacts of aquaculture operations.
- * Improve the efficiency of growth, feeding and nutrition.
- * Demonstrate the best husbandry practices for potential growers.
- * Evaluate public benefits (environmental and economic) of shellfish leasing.
- * Develop parameters for apprentice program and training for career aquaculturists.
- * Assess the potential of shellfish aquaculture to enhance wild populations.

Seafood Technology

- * Develop value-added products from existing production.
- * Increase returns in the seafood industry by improving packaging and handling.
- * Determine marketability for seafood products.
- * Develop models for total quality system management programs.
- * Develop improvements in product quality.
- * Develop alternative uses for processing by-products.
- * Develop solutions to public health concerns related to seafood safety.



2011 Fishery Resource Grant Program (Funded)

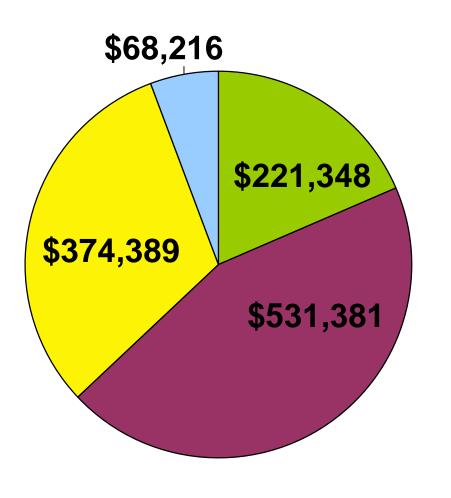
Grant Number	Principal Investigator(s)	Co-Principal Investigator(s)	Other Participant(s)	Title	District	Partners	Amount Awarded
11-AM-01	Nelson Paul (Raleigh) Dennis DeLong (Raleigh)	mivestigator(s)	Nick Reynolds (Beaufort)	Spawning Activity of Mud Minnows (<i>Fundulus heteroclitus</i>) in Tank-Based Systems for the Production of Baitfish	С	Р	\$ 18,100.00
11-AM-02	Harry Daniels (Raleigh) Russell Borski (Raleigh)		I.J. Won (Marshallberg) Archie Cooke (Pinetown)	Year-Round Indoor Production of Hybrid Striped Bass Fingerlings	C,P	Р	\$ 93,608.00
11-AM-03	Wade Watanabe (Wilmington) Md. Shah Alam (Wilmington)	Shawn Longfellow (Wilmington)		Salt Incorporated Diets for Enhancing Growth Performance During Intensive Cultivation of Black Sea Bass in North Carolina Using Low Salinity Brackish Water	S	Р	\$ 42,000.00
11-AM-07	Stephen Locke (Aurora)		Nancy Sugg (Aurora) Craig Sullivan (Raleigh) Ronald Hodson (Apex)	Domesticated Broodstock for Hybrid Striped Bass Farming: Pioneering Industry Implementation	Р	Р	\$ 88,345.00
11-EP-06	Niels Lindquist (Morehead City)	Adam Tyler (Smyrna) David Eggleston (Morehead City)	Craig Hardy (Morehead City) NCSU Masters Student (Morehead City) UNC/IMS Research Tech (Morehead City)	Identifying Sustainable Substrates for Oyster Restoration and Artificial Reefs	С	Р	\$ 120,000.00
11-EP-08	F. Joel Fodrie (Morehead City)		Adam Tyler (Smyrna) David Cessna Sr. (Smyrna)	Turning Negatives into Positives: Recycling Derelict Crab Pots as Substrate for Shallow-Water Oyster Reef Production	C,P	Р	\$ 51,251.00
11-EP-09	Roger Rulifson (Greenville) Chris Hickman (Hatteras)		Andrea Dell'Apa (Greenville) Jennifer Cudney-Burch (Winterville)	Identification of Juvenile Spiny Dogfish Habitats in North Carolina Coastal Waters	P,N	Р	\$ 106,683.00
11-FEG-01	Buck Cuthrell (Aurora)		NCDMF (Washington)	Exploratory Sampling of Older Striped Bass in the Pamlico River	С	Р	\$ 17,000.00
11-FEG-02	Thomas Schultz (Beaufort) Dan Rittschof (Beaufort)			Genetic Contributions to Body Size in Blue Crabs	Р	Р	\$ 16,924.00
11-FEG-03	Alan Doughtie (Newport)		Paul Rudershausen (Morehead City) Ernest Small (Newport)	Testing Rectangular Gillnet Mesh in a Tidally Driven North Carolina Estuary	С	Р	\$ 25,470.00
11-FEG-04	Tom Burgess (Sneads Ferry)		Jeff Buckel (Morehead City)	Accounting for the Effects of Pressure Trauma in Estimating Rates of Discard Mortality of Black Sea Bass (<i>Centropristis striata</i>) in the Deepwater North Carolina Reef Fishery	S	Р	\$ 30,225.00
				TOTAL			\$ 609,606.00
			Created, March 4C 2044				
			Created: March 16, 2011				

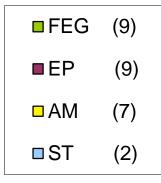
2011 — FRG FUNDING SUMMARY

Proposals Submitted by Program Area

FEG EP AM ST	9 9 7 2	\$ \$ \$ \$ \$	221,348.17 531,380.93 374,389.00 68,216.00							
Totals	27	\$1	\$1,195,334.10							
Proposals Funded by Program Area										
FEG EP AM ST Totals	4 3 4 0	\$\$\$\$ \$	89,619.00 277,934.00 242,053.00 0.00 609,606.00							
		Ψ	009,000.00							
Proposals Submitted by Region										
Pamlico Central Northern Southern Inland	7.50 13.00 1.50 5.00 0.00	\$ \$ \$ \$ \$ \$	335,204.00 604,524.67 37,746.50 217,858.93 0.00							
Totals	27	\$1	,195,334.10							
Proposals Funded by Region										
Pamlico Central Northern Southern Inland	3.50 5.00 0.50 2.00 0.00	\$ \$ \$ \$ \$	231,040.00 252,999.50 53,341.50 72,225.00 0.00							
Totals	11	\$	609,606.00							
Proposals Submitted by Investigator Category										
Fisher Academic Partnered	1 0 26	\$ \$ \$1	26,501.00 0.00 ,168,833.10							
Totals	\$1	\$1,195,334.10								
Proposals Funded by Investigator Category										
Fisher Academic Partnered	0 0 11	\$ \$ \$	0.00 0.00 609,606.00							
Totals	11	\$	609,606.00							

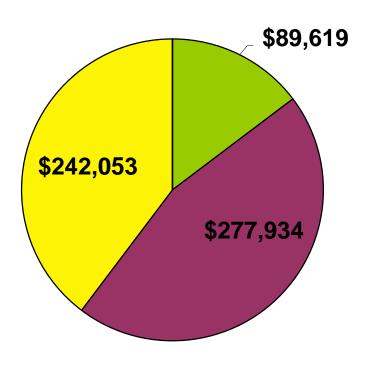
Proposals Submitted by Program Area

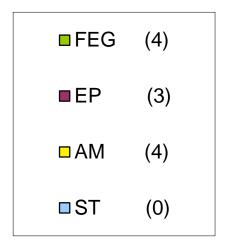




Total: \$1,195,334 N=27

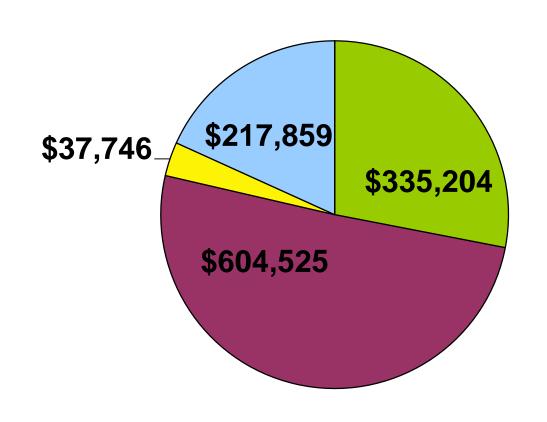
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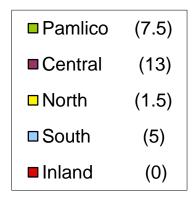




Total: \$ 609,606 N=11

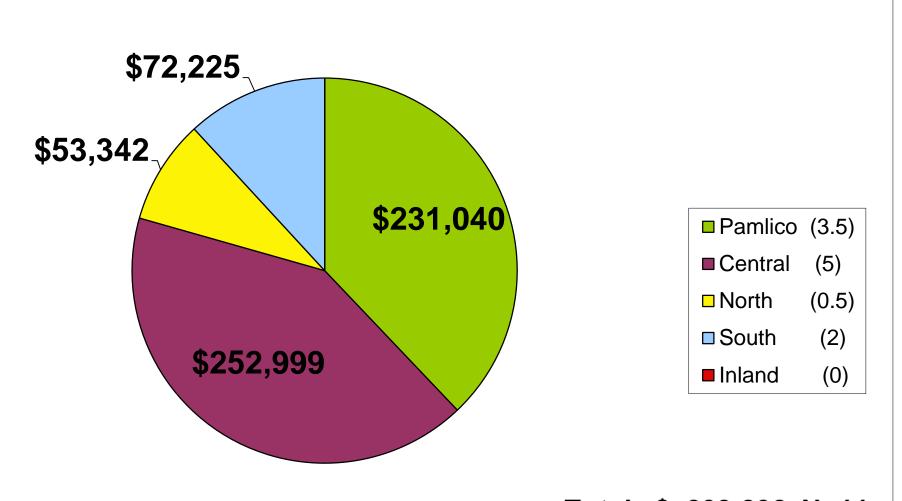






Total: \$1,195,334 N=27





Total: \$ 609,606 N=11