

Virginia Sea Grant Program 2012 NSGO Review

Dorn Carlson



VA SG Management

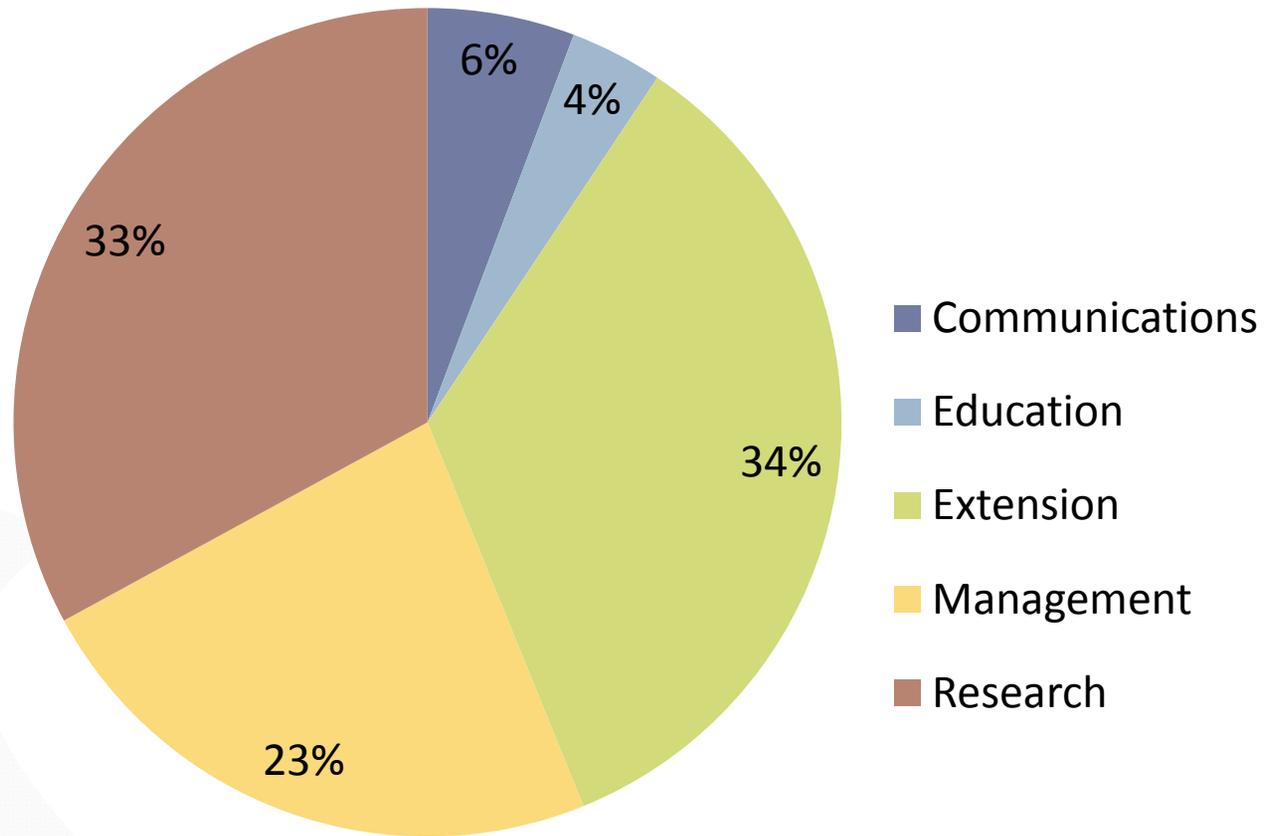
- Management staff (Name, position, all 1.0 FTE)
 - TROY HARTLEY, Director
 - TOM MURRAY, Assoc. Director; Dir of Advisory Services
 - SUSAN PARK, Assistant Director for Research
 - VICKI CLARK, Education Coordinator
 - MARGARET PIZER, Communication Leader
- Virginia is a “medium” sized program

VA SG Management

- Total FTEs on staff (information in Annual report metrics)

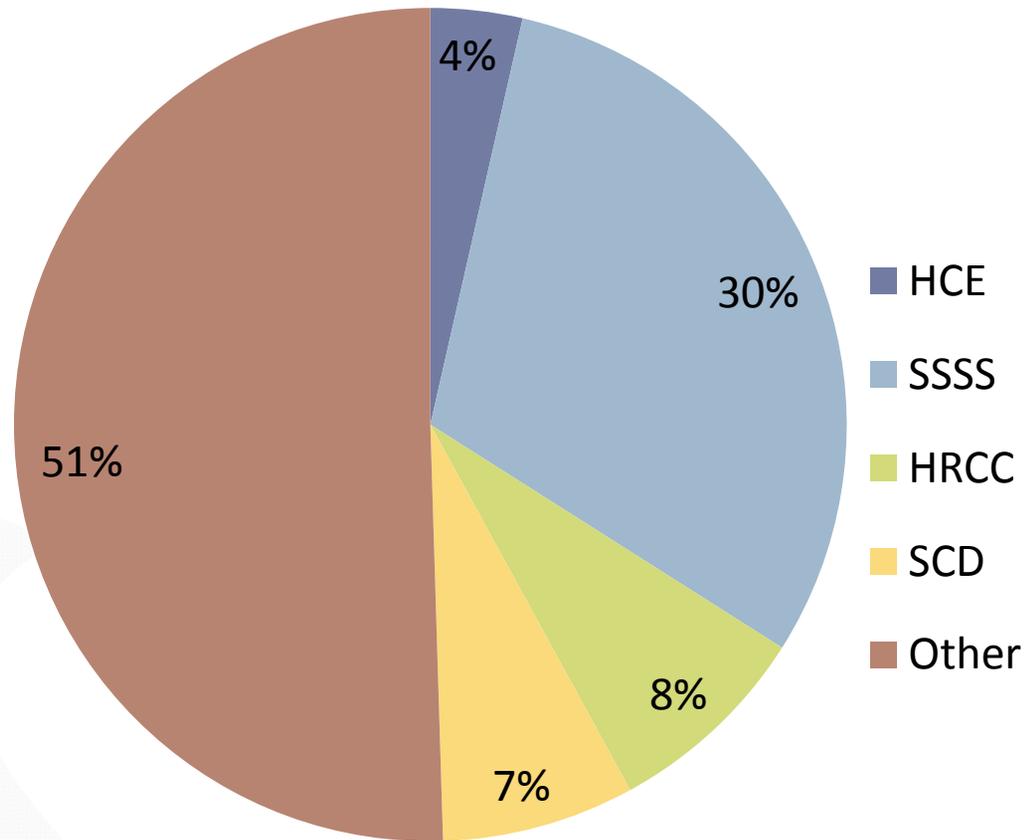
Functional Area	# of individuals	# of FTEs supported by SG	# of FTEs supported by match/leverage
Mgt/Admin	3	2.07	0.39
Comm.	4	1.90	0.18
Ext.	17	4.12	1.99
Education	4	2.19	0.41
Research	9	5.97	3.01

VA SG 2010 Core Budget (Fed + Match) towards each Functional Area



VA SG 2010 Budget towards each Focus

Area (Fed + Match + Pass-Through + Managed Leveraged Funds)



Significant VA SG Changes (since Jan. 2011)

- Chris Petrone left VASG, joined DESG
- + George Mason U joined Partnership
- + Virginia Commonwealth U joined Partnership
- + Significant New partnerships/activities: consistent internship program: W&M Law School interns; W&M Business school sustainability fellow; W&M Thomas Jefferson Public Policy Program grad policy intern; Thomas Nelson Community College Photography intern in our communication program

VA SG Program RFP Process

- Participated in Regional RFP (MD, DE, VA)
 - Offshore energy, Land Use & WQ, Socioeconomic Processes & Impacts
- Virginia RFP concurrent
 - Advisors help set strategic plan priorities, and highest priority items from the strategic plan are used as RFP priorities.
 - Preproposals February; Full proposals April; Selection August
- Managed a regional (NY – VA) Soc Sci/SLR RFP
 - CSC funds; Seven proposals; one funded
- Collaborative Research Fisheries Fellowship
 - Funding from NMFS SEFSC, NE Consortium, UMass Dartmouth); Five Fellows
- Community Adaptation Fund
 - One funded project + landscape design class project + planning class project.

VA SG RFP Process for 2012-2013 Projects – Research Metrics

Core Proposals	# of Proposals	# of institutions	# from home institutions
Pre-proposals submitted	39 + 5		
Full proposals submitted	9 + 3	4	7 VIMS (11 all partners)
Proposals Funded	3 + 1	2	3 VIMS (4 all partners)

VA SG Contribution to National Performance Measures and Metrics

Focus Area	Metric/Performance Measure	Actual
SRCC	Economic (market and non-market) benefits derived from Sea Grant activities.	\$2.7M, 34 jobs
SSSS	New HACCP Certifications	141
SSSS	Number of bycatch reduction devices and practices developed; ... adopted by industry (target 1; 1)	"on track"
SSSS	Number of research projects developing science needed for ecosystem-based approaches to fisheries and aquaculture management.	6
SRCC	Number of communities that adopt designs or best management practices.	3
SSSS	Seafood industry stakeholders who modified their behavior because of SG information	171

VA SG Impacts

Assisting marine recreational boating businesses with access to financial capital

- Relevance – Businesses related to marine recreational boating are an important part of the economic engine and culture of coastal Virginia. A small amount of technical assistance and outreach can have a big financial impact on these small businesses.
- Response – The coastal community development specialist provided technical assistance, including enhancing communications and trust between the government and private sector, and providing research and training to support access to funds under DOI Boating Infrastructure Grant Program (BIG).
- Results – Dozens of marinas and boat yards, and hundreds of registered boaters benefited from Virginia Sea Grant's technical assistance. Successful BIG competitive applications generated almost \$1 million of new BIG investments at Commonwealth marinas. That direct funding translated into \$2.1 in economic impact to Virginia.

VA SG Impacts

Working waterfronts

- Relevance – Recognition was growing nationally of the importance of considering the value of working waterfronts in land use decisions.
- Response – Working locally and nationally, VA SG co-led a series of national symposia, conference presentations, public and private networking efforts. They brought together historically disparate stakeholders and facilitated a national coalition in the area of working waterfront retention, culminating in the 2010 WWF conference in Maine.
- Results –Federal amendment to the Reauthorization of the Coastal Zone Management Act embodies the findings and consensus developed by CCD efforts nationwide and is aimed at retaining working waterways. Local government included the goal of working waterfront retention into management plans.

VA SG Impacts

Helping Middle Peninsula communities plan for Sea Level Rise

- Relevance – Virginia’s Middle Peninsula Planning District Commission and its member jurisdictions needed to identify best practices and legal, institutional, political, and appropriate cultural strategies to deal with climate change adaptation planning.
- Response – Through literature review, site visits, and listening sessions, investigators assessed economic, cultural, and political barriers and opportunities for implementation of CC adaptation strategies.
- Results to-date include (a) an understanding of the context of the MP, (b) identification of critical issues related to sea level rise, flooding and storm-surge natural hazards, and impacts on transportation and on-site wastewater systems, and (c) economic and political barriers to implementation of adaptation strategies. We will also complete a graduate planning course (Spring 2011) which will produce specific options for coastal prevention and adaption to sea level rise. The results of both will be presented to Virginia Beach City Council in May.

VA SG Impacts

Extension support for fishery sector

- New fisheries were developed including Cownose Rays which were harvested as a result of our cooperative fisheries development. The cooperative project yielded 218,441 lbs. of rays with a total economic impact of \$75,000 at the harvest level and \$392,000 of total economic impact across all market levels.
- Strengthened sustainability of Virginia's striped bass fishery. Supplied management with data on gill-net selectivity with regard to striped bass. Managers tailored mesh size regulations to reduce unnecessary mortality of undersized fish. Such regulations reduce the likelihood of growth overfishing and thus increase the sustainability of the fishery
- Refined basic information on gillnet selectivity and disseminated information to fishermen and managers. Industry and management gained the information necessary to improve harvest techniques through better regulations and/or voluntary habit alterations.
- Demonstrated a genetically unique James River stock of Atlantic sturgeon is still naturally reproducing in the River. Anticipated ESA listing of this stock will be based on its unique genotype and its decline in historic stock levels.
- Pioneered research on Virginia's populations of Atlantic sturgeon. Tracking research conducted by the specialists has resulted in a much improved understanding of sturgeon spatial and temporal distributions. This research has been applied to minimize negative impacts on the species due to dredging and other activities, such as the placement of industrial mooring sites

2010 VA SG Research Accomplishments

NOROVIRUS CONTAMINATION IN CLAMS

- The Head of the Division of Shellfish Sanitation (DSS), VA Dept of Health, asked whether the clam resource in Hampton Roads, VA was sufficiently protected from viral contamination to allow their relay to approved waters for sale. Field and lab research were needed to answer this.
- Research showed:
 - detection of norovirus could be improved by using select tissues rather than whole animal homogenates;
 - norovirus might not be eliminated from clams and oysters contaminated in vitro and subsequently relayed to natural waters even for 14 days;
 - viruses such as norovirus are chlorine-resistant and not inactivated by chlorine disinfection;
 - Preliminary samplings detected norovirus in clams from Hampton Roads.
- The results gave DSS reason to be more conservative in allowing relay from such areas in order to protect the public health. The improvements in norovirus detection sensitivity in shellfish have been communicated with researchers worldwide.

2010 VA SG Research Accomplishments

NITROGEN EFFLUENTS FROM WWTPs

- Wastewater treatment plants within the Chesapeake Bay watershed are racing against the clock to be able to meet new effluent limits in 2011. If any effluent compounds can be shown to be unavailable, plants may get some relief from the limits on those compounds
- Results from the bioassays funded by VASG have demonstrated that some fraction of Effluent Organic Nitrogen (EON) is bioavailable, and so the organic nitrogen fraction must be counted towards nitrogen release limits. The researchers also found that EON additions to natural communities stimulates productivity in a similar manner as urea and nitrate additions.
- This has huge implications for management because it means that the total nitrogen load to estuarine watersheds must be managed and not just some fraction of the total load, e.g., the inorganic nitrogen load.
- These results effectively removed the possibility of subtracting the organic nitrogen fraction from effluent nitrogen release limits. Follow up work involves high-level chemical characterization to identify any chemical fraction of the EON, which could safely be removed from nitrogen release limits.

Sources (unless otherwise noted)

- Planning, Implementation, and Evaluation Resources (PIER)
<https://pier.seagrant.noaa.gov>
- Personal Communication with Program
- SRT briefing book
- Annual report
- Omnibus