New Jersey Sea Grant Program
2012 NSGO Review

Dorn Carlson

Sea Grant

NJ SG Management

- Claire Antonucci (1.0)
  - Exec. Director NJ SG Consortium
  - Director of Education, NJ SG Program
- Peter Rowe (1.0)
  - Associate Director
  - Director of Research and Extension
- Mike Danko, Assistant Extension Director (1.0))
- Kim Kosko, Director of Communications (1.0)
- Augustine Anfuso, Fiscal Officer (1.0)

- Size of program: small

Sea Grant

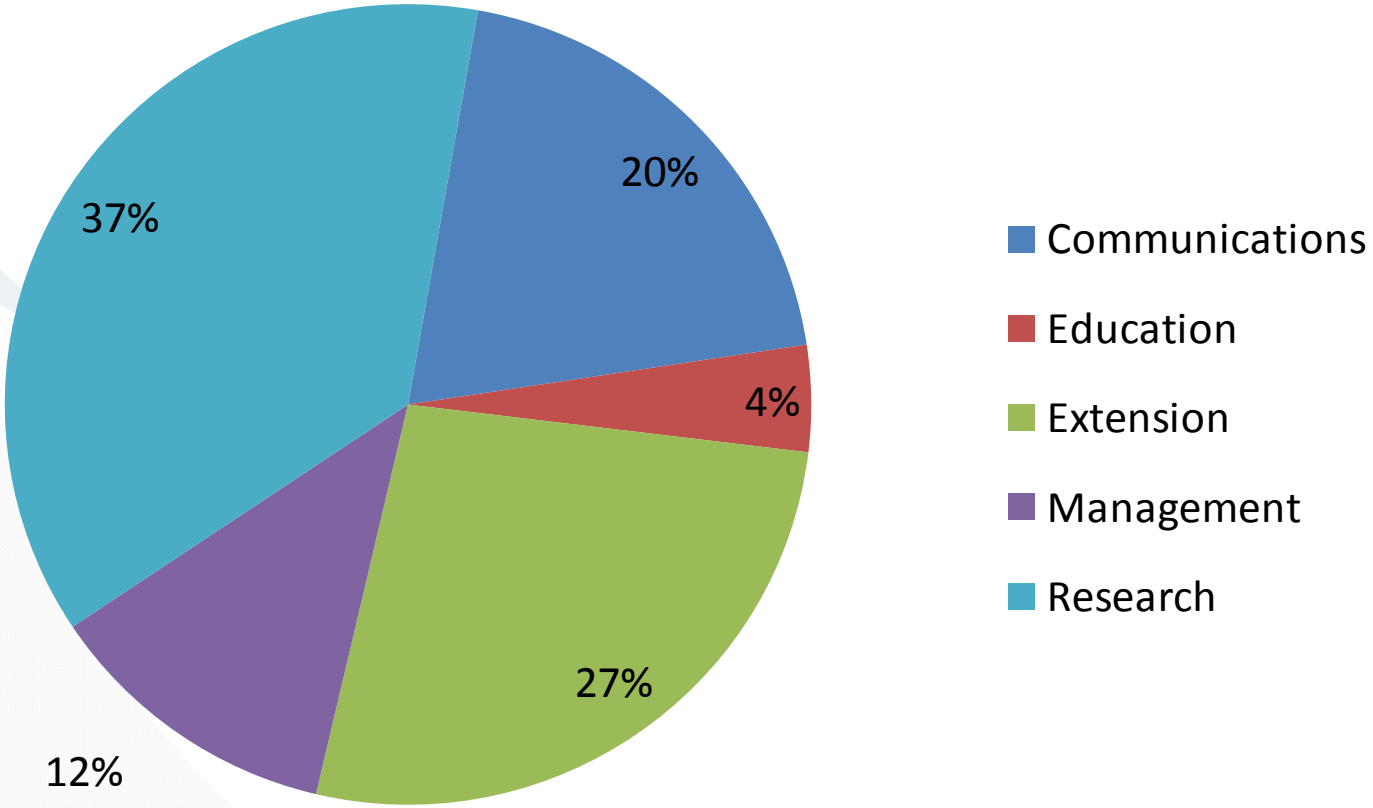
NJ SG Management

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

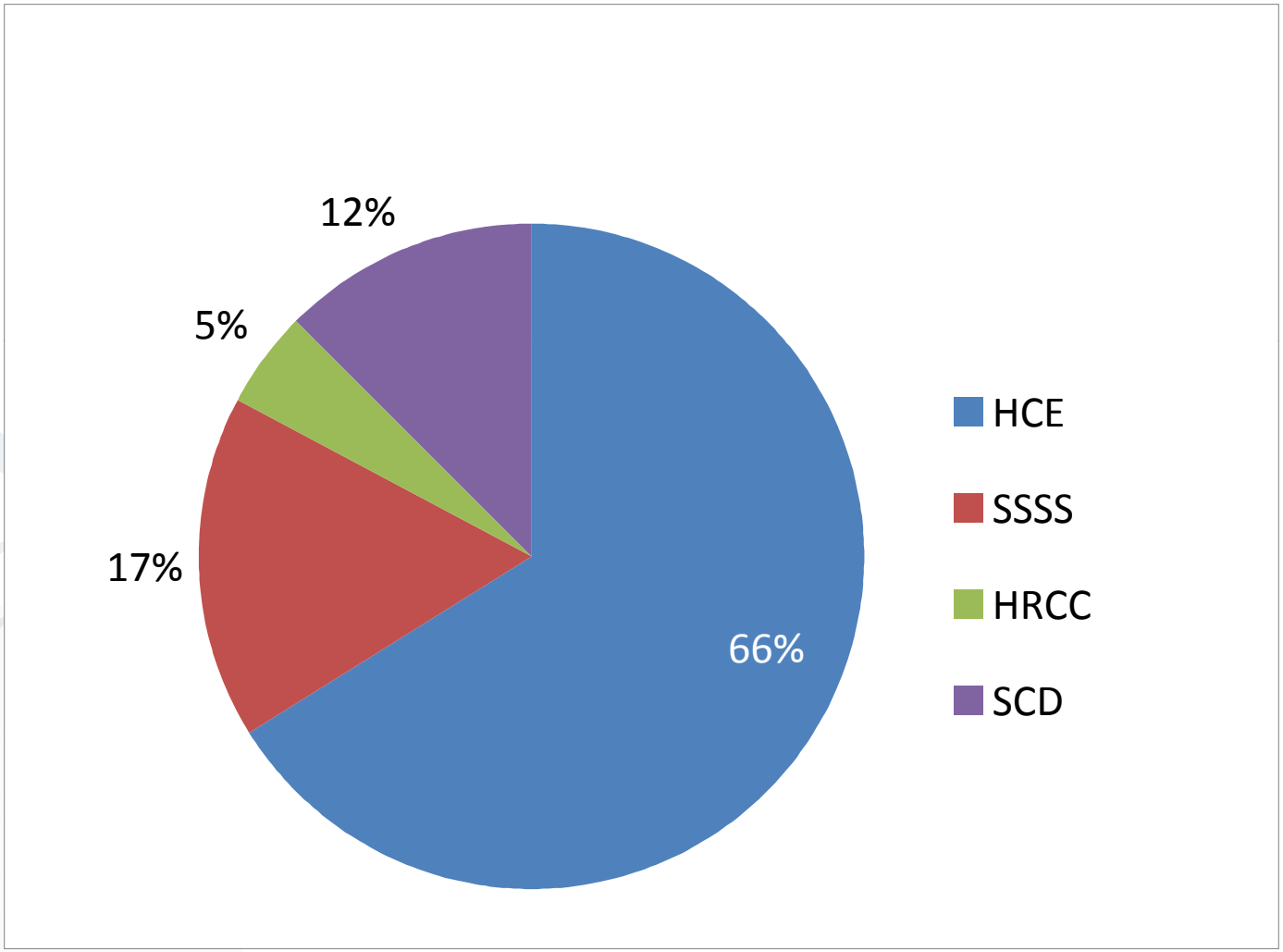
Functional Area	# of individuals	# of FTEs supported by SG	# of FTEs supported by match/leverage
Mgt/Admin	8	2.50	4.50
Comm.	2	1.00	0.50
Ext.	7	2.00	0.80
Education	43	0.35	10.65
Research	63	5.60	3.40

Sea Grant

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



NJ SG 2010 Budget towards each Focus Area (Fed + Match + Pass-Through + Managed Leveraged Funds)



Significant NJ SG Changes
(since Jan. 2011)

+ Lisa Calvo, Aquaculture Program Coordinator

- Jenny McCormick Tirrito, Coastal Communities Agent
+ Caroline McLaughlin, Coastal Communities Agent

Sea Grant

NJ SG Program RFP Process

- "…continue to encourage fewer but larger multi-investigator, multi-institution, trans-disciplinary awards focused on critical regional research needs…up to three 2-year grants of $170K…"

- Large number of specific priorities in all Focus Areas, e.g.,
  - Predict and manage the onset of sea nettle blooms
  - Develop green technologies to better manage nutrient loadings
  - Determine extent of historic shoreline change attributed to sea level rise

- 50% Scientific panel review (merit, relevance, outreach)
- 50% Stakeholder advisory board review (relevance)

Sea Grant

RFP Process for 2012-2013 Projects – Research Metrics

Core Proposals	# of Proposals	# of institutions	# of home institutions
Pre-proposals submitted	18	7	all
Full proposals submitted	9	5	all
Proposals Funded	4	2	all

Sea Grant

NJ SG Contribution to National Performance Measures and Metrics

Focus Area	Metric/Performance Measure	Actual
	Number of individuals in Education functional area Total K-12 Students Reached through Educators	43 (1st) 23612 (5th)
	Number of Clean Marina certifications	40
HCE	Millions of gallons of water treated using management practices such as rain gardens, pumpouts and wash wastewater capturing systems. Target 1.5	3.4
SCD	Number of coastal communities applying for and receiving the Sustainable Jersey certification. Target 12	
SSSS	Number of oyster aquaculture operations created due to participation in a 2-year training program expected to continue to develop commercial operations. Target 2	

Sea Grant

NJ SG Impacts

- Relevance: Invasive dune plants degrade dune ecosystems
- Response: Studies by NJSG funded researcher Louise Wootton on *Carex Kobomugi* , and information on other invasive dune plant species was extended by the PI and NJSGC Extension in 2009 to targeted scientists, managers and policy/decision makers.
- Results: Identification and rapid removal of *Vitex* in Chincoteague was achieved as a result of NPS manager attending this conference
- An aggressive removal program on *Carex* was instituted within Forsythe National Refuge in New Jersey by park leaders.
- Rhode Island resource managers who attended undertook a removal project designed to eliminate two sizeable populations of *Carex* in Rhode Island.
- As a result of research and conference, the PI is working with NFWF and FWS to remove all the sedge from Sea Bright to Manasquan.
- As a result of research and conference the PI will begin work with NPS on a $250,000 grant to remove sedge from Sandy Hook.

Sea Grant

NJ SG Impacts

- Relevance: Highly urbanized New Jersey watersheds are threatened by nonpoint sources. Rain barrels can be used to control stormwater runoff and protect nearby waterways
- Response: The One Barrel at a Time Co-op Program engaged local artist to paint rain barrels which were then put on display in towns across New Jersey and New York. The barrels were then sold on eBay, with profits going back to the artists.
- Results: Thirty five rain barrels were built, painted, sold, and installed. The program generated over $4,200 in profit for the participating artists. Educational exhibits to promote rain barrels and the program were on display in six municipalities in New Jersey and New York. The installed barrels capture 122,500 gallons of stormwater annually.
- In addition, 31 "Build a Rain Barrel" workshops and other events were held. Approximately 3,000 people attended. Over 500 rain barrels were built and installed, capturing approximately 1,750,000 gallons of stormwater annually.

Sea Grant

NJ SG Impacts

- Relevance: Today's teachers increasingly look to teach biology, chemistry, physics and earth science in real-world ways
- Response: NJSGC, Rutgers, the NPS, the Sandy Hook Foundation and Brookdale Community College submitted a successful proposal to the NSF to develop a geoscience education project for school-aged children, using the natural educational resource of Gateway National Recreation Area at Sandy Hook. The partners were joined by the Red Bank School District who assisted them in the development of the research-based curricula, ensuring it aligned with New Jersey's Core Curriculum Content Standards
- Twenty-two in-service educators attended a weeklong professional development workshop at Sandy Hook.
- Results: Throughout the 2011-12 school year, Red Bank Middle School is piloting the project with new curricula, guest scientists and activities for students in the fourth through eighth grades.

Sea Grant

2010 Research Accomplishments

- Researcher Ximing Guo successfully developed a 16-multiplex microsatellite assay for the first time in an aquaculture species. This is a breakthrough in microsatellite genotyping in oysters. They genotyped and assigned all 1072 progeny to 81 families. This high level of multiplexing greatly saves time and cost, making marker-assisted breeding feasible.

- This made it possible to identify the best stock, best parents within a stock, and the best families. The analysis demonstrates that NEH has strong resistance to disease-caused mortalities compared with two other strains, while NEF has greatly improved larval survival probably due to their high genetic diversity. Certain hybrid families were actually the best performing groups.

- This builds on a long body of work by this research team. Virtually every aquacultured oyster used on the east coast has benefitted by some aspect of this body of research.

Sea Grant

Sources (unless otherwise noted)

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