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University of Southern California Sea Grant Program 2011 NSGO Review

Program Officer - Heather A. Triezenberg

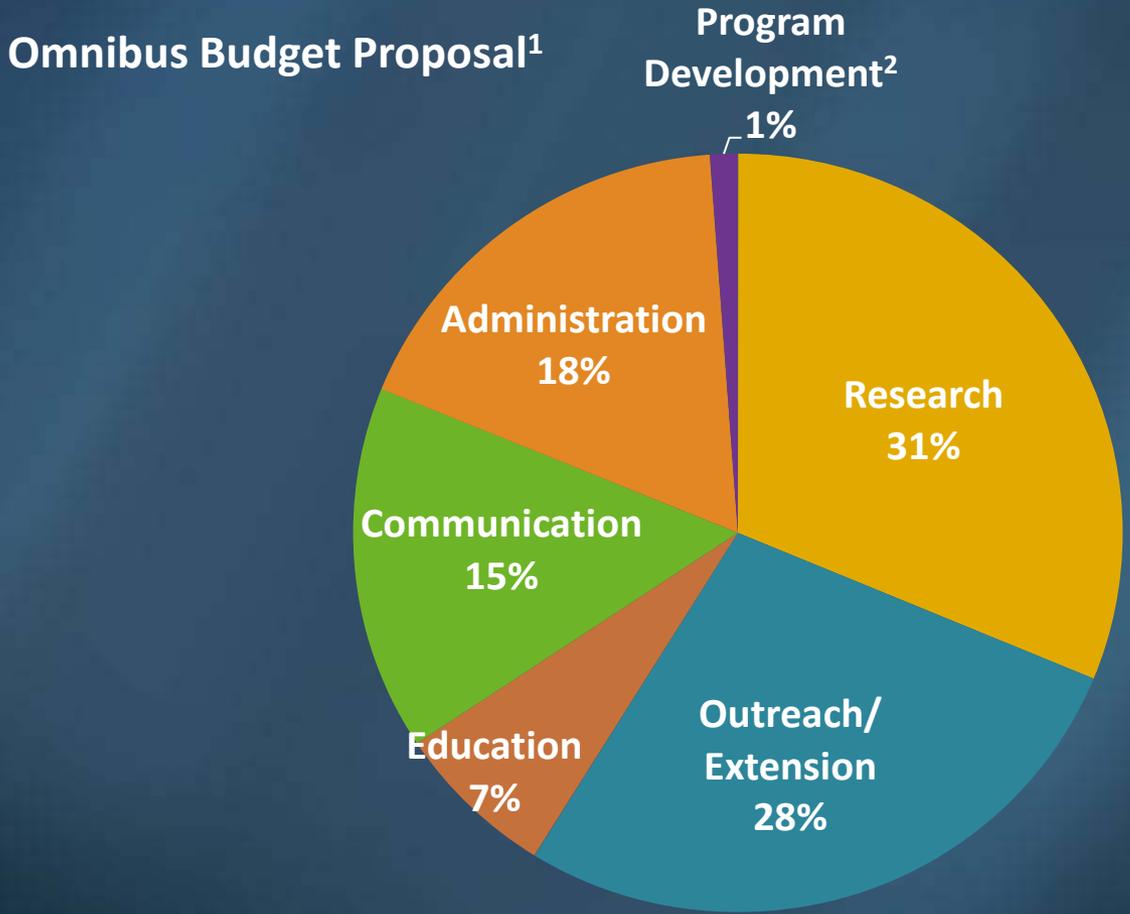
Program Management

Management staff:

- Director, Linda Duguay
- Associate Director, Phyllis Grifman
- Extension Program Leader, James Fawcett
- Regional Research & Planning Specialist, Juliette Hart
- Director of Education, Linda Chilton
- Wrigley Institute Director of Pre-College Education, Lynn Whitley

Functional Area	# of individuals	# of FTEs supported by SG	# of FTEs supported by match/leverage
Administration	2	0.00	0.76
Communication	3	1.50	0.00
Extension	5	1.75	0.50
Education	1	0.00	1.00
Research	16	5.90	0.50

Program Budget towards each Functional Area



Omnibus Budget Proposal¹

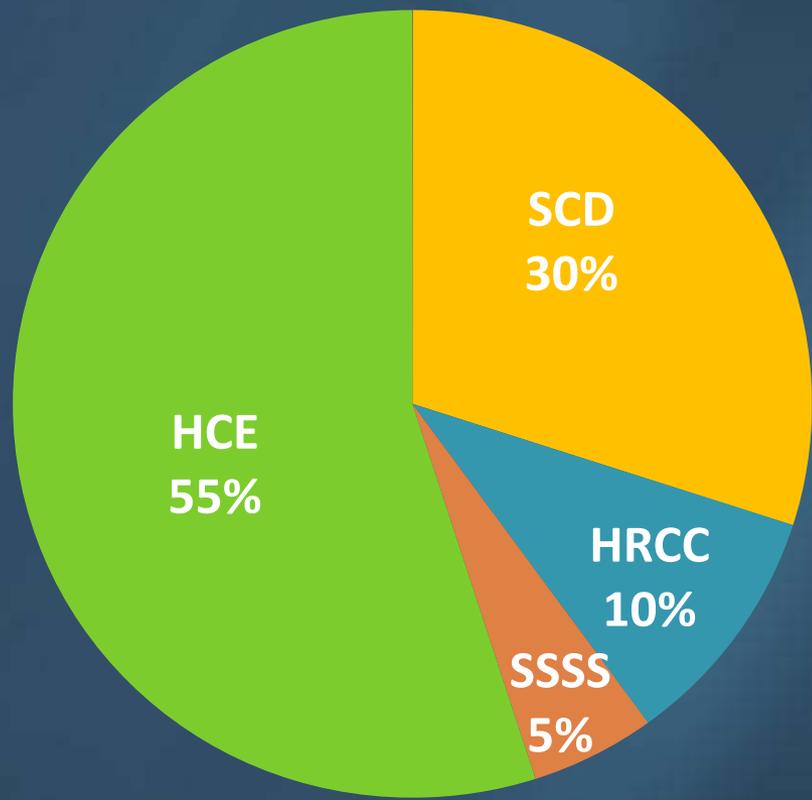
Program Development²

¹Core, merit, and bonus Sea Grant funds and match.

²These funds are typically invested in competitive projects.



Program Budget towards each Focus Area



Significant Program Changes

(since Jan. 2010)

- Departure of Susan Zaleski as Coastal Resources Specialist
- Permanent Appointment of Juliette Hart (Knauss Fellow '06), Regional Research and Planning Specialist
- Charlotte Stevenson (Knauss Fellow '06) as Science Communications Specialist Contractor

Program Requested Changes to 2010-2013 Program Plan

- Added small program components to sustainable seafood focus area - aquaculture in 2010



Photo Credit: K. Kelley

State Program Performance Measures

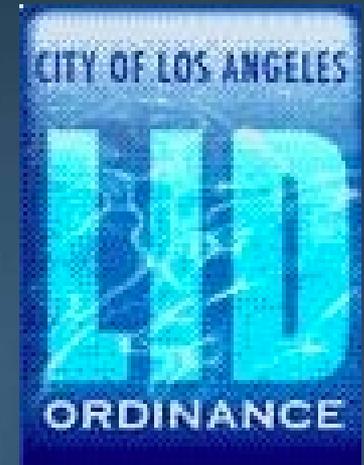
Focus area	Performance measure	Target
HCE	Number of stakeholders involved in state and federal processes for MPA designations.	60
SCD	Number of community group leaders who indicate increased knowledge of the importance of ocean commerce and coastal planning for public safety, security and tourism.	25/year
SSSS	Number of consumers with increased knowledge of nutritional benefits of seafood, safe seafood practices in conjunction with cultural practices in consuming seafood.	260/year (20 educators and 240 students)
HRCC	Number of informal science center partners who express increased knowledge of and comfort in explaining long term and immediate climate change literacy concepts to the public visitors.	>10 informal science center educators; influencing >50,000 residents

Contribution to National Performance Measures and Metrics

- Leveraged funds \$402,958
- 2 Knauss Fellows
- 127,090 K-12 students reached through educators
- 50 sponsored/organized meetings, workshops, and conferences
- Estimated \$250,000 in economic benefits derived from SG activities
- 6 tools, technologies, and information services that are used by NOAA partners to improve EBM

Program Impacts: Sustainable coastal development

- City of LA developed and adopted a low impact development ordinance



- In 2009-10, the City of LA developed and adopted a low impact development ordinance partly based on the information and training received from USC Sea Grant.

- Continued progress in LID of the California Water and Land Use Partnership (CA WaLUP) - partnership among state and federal agencies and NGOs with a strong interest in improving water quality

• State performance measure: Number of communities developing or adopting new ordinances or policies addressing water quality/quantity and/or impervious surfaces. National performance measure: Number of coastal communities who have adopted/implement sustainable - economic and environmental - development practices and policies (e.g., land-use planning, working waterfronts, energy efficiency, climate change planning, smart growth measures, green infrastructure) as a result of Sea Grant activities.

Program Impacts: Healthy coastal ecosystems

- Management of visitor impacts on nearshore marine life
 - Impacts (collecting/trampling) on marine life were investigated and documented.
 - Orange County shoreline communities adopted management and stewardship policies of rocky-intertidal marine protected areas.
 - Developed OC Marine Protected Area Council.
 - 3 communities hired patrol officers.
 - Educational signs placed at public access points.
 - Cadre of docents educate visitors.



State Performance measures: Number of community organizations and agencies reporting an increase in knowledge of 1) the effects of contaminants, source contributions & 2) identification of water quality standards and public health risks related to coastal recreation.

Program Impacts: Healthy coastal ecosystems

- Development of new, rapid detection test for pathogenic viruses in seawater
 - Testing time for pathogenic viruses reduced from weeks to hours
 - Allows local agencies to work to improve timeliness of local water quality testing
 - Use by SCCWRP ensures all Southern Calif. wastewater facilities access new methods

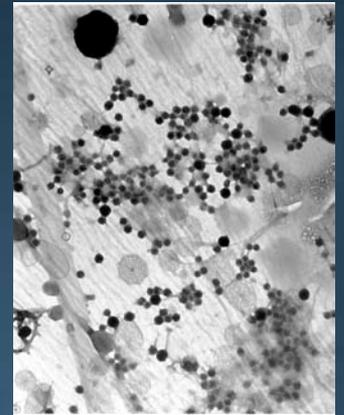


Photo credits: Jed Fuhrman

State Performance measures: Number of community organizations and agencies reporting an increase in knowledge of 1) the effects of contaminants, source contributions & 2) identification of water quality standards and public health risks related to coastal recreation.

Program Impacts: Healthy coastal ecosystems

- Development of a regional, coastal, real-time ocean monitoring system through a system of static and mobile aquatic sensors
 - Goal is to provide timely information on coastal water quality and harmful algal blooms to scientists, policy makers, and the general public
 - Collaboration with Southern California Coastal Ocean Observing System (SCCOOS)

State Performance measures: Number of community organizations and agencies reporting an increase in knowledge of 1) the effects of contaminants, source contributions & 2) identification of water quality standards and public health risks related to coastal recreation.



Photo credits:
CINAPSç



Program Impacts: Healthy coastal ecosystems

- Developed research-based climate change ocean acidification training for informal science educators
 - 55% of educators attending developed and implemented climate education at their aquariums
 - Channel Islands National Marine Sanctuary modified training and presented it to 120 volunteer interpreters

State Performance measures: Number of community organizations and agencies reporting an increase in knowledge of 1) the effects of contaminants, source contributions & 2) identification of water quality standards and public health risks related to coastal recreation.



Photo credit: Charlotte Stevenson

2009 Research Accomplishments

- Wastewater authorities recognize continuing sources of heavy metal pollution
 - Temporal and spatial gradients of metal contamination in the water column and in phytoplankton show sewage outfall pipes still represent areas of highest heavy metal contamination
- Observe and study long-term trends and effects of oceanic events
 - 20 years of survey and bio-monitoring data of dead-shell assemblages have been entered into a database
 - This is now one of the most detailed, public, long-term records for any continental shelf in the U.S.
 - Results strongly support use of dead-shell assemblages in long-term change studies



Photo credit: S. Kidwell