California Sea Grant Turns 30

Christine Johnson
California Sea Grant • San Diego, California USA

As an institution whose success has been inextricably linked to the vision and support of the University of California, California Sea Grant celebrates Scripps Institution of Oceanography's centennial and also a milestone of its own—that of turning 30 in October 2003.

National Sea Grant, the command center of the nation's Sea Grant network, came into existence on October 17, 1966, when President Lyndon B. Johnson signed into law the National Sea Grant College and Program Act. The act's goal was to make the oceans more productive in the service of people and the nation. Reduced to its essentials, Sea Grant was to figure out how to best use the ocean and how to best preserve it—a delicate balancing act we continue to struggle with today.

In those early years, Sea Grant supported a handful of research activities scattered on campuses throughout the state. With a vision of pooling the state's resources, Scripps Director William A. Nierenberg aptly championed the University of California—and in particular Scripps—as the place California Sea Grant should call home. In large part because of Nierenberg's support, the National Oceanic and Atmospheric Administration (NOAA), our parent organization, formally designated the University of California an official Sea Grant "College Program" at an awards ceremony in Berkeley on October 25, 1973. We were the nation's seventh Sea Grant College and would soon establish ourselves as the largest in the United States.

Our out-of-the-block success can be partially credited to old Scripps heroes John Isaacs and Fred Spiess, who as directors of the University of California Institute for Marine Resources—a now dissolved but then statewide marine science program headquartered at Scripps—oversaw the Sea Grant program. Isaacs and Spiess, as well as early Sea Grant directors George Shor, Jeff Frautschy, and Jim Sullivan, put the Sea Grant program on a track of excellence.

At our helm today is Russell Moll, an ecologist by training and former director of Michigan Sea Grant. Under his leadership, California Sea Grant continues the tradition of being the largest of the now 30 Sea Grant programs in coastal and Great Lakes states. In the 2003 fiscal year, California Sea Grant channeled approximately $6.6 million in federal and state funds into coastal marine research, public outreach, and education projects in California. These funds supported about 40 research and outreach projects at 19 academic institutions and marine laboratories in the state, as well as 39 scholarships, fellowships, and graduate stipends.

The research projects we fund are competitively peer reviewed, but unlike a purely basic science funding agency, our organization looks for opportunities to support research with direct and tangible applications to real-world problems. We want to solve problems for society, or to provide science that allows others to do so. Here are recent examples of marine issues in California and our efforts to address them:

- When bacterial pollution closed beaches in Orange County, Sea Grant looked to develop tools for improved monitoring of potentially dangerous human pathogens in coastal waters.
- When a fish virus discovered in Pacific sardines threatened to shut down a $12-million-a-year export industry, we supported research to examine whether commercial freezing of sardines could eliminate viral contamination.
- Because of overharvesting, sturgeon in the Caspian Sea region are on the verge of extinction. We helped create the sturgeon aquaculture industry, which today gives consumers an alternative to wild-caught caviars.

The list continues, but our emphasis is clear. Sea Grant seeks to bring science to the people who ply their livelihoods from the sea. In addition to supporting marine research, each Sea Grant college has an Extension Program and a Communications Department. In California, our extension program, supported jointly by the University of California's Cooperative Extension, is made up of nine marine science experts who provide hands-on, at-the-dock assistance to fishermen, fish farmers, boat owners and government scientists, among others. Some recent projects include the following:

- Leading demonstrations of nontoxic hull paints to reduce the amount of copper leaked from traditional antifouling hull paints into bays,
- Teaching the shipping industry about the ecological ramifications of aquatic species invasions and their spread through discharging ballast water, and

Figure 1. *University of California researchers Pat Conrad (left) and Melissa Miller examine a lung scan of a dead sea otter. Their research has demonstrated that a cat parasite (*Toxoplasma gondii*) is infecting the endangered otters with an often lethal brain disease. (Photo: California Sea Grant)*

• Helping oyster farmers test new growing techniques for reducing losses from disease.

Underlying Sea Grant's mission is the strongly held belief that science must be shared with others if it is to have an impact. This is the main charge of our award-winning Communications Department. In communications, we translate, distill, and publish our research findings. You may find our work in a newspaper, magazine, book, poster, or on the Internet.

California Sea Grant will soon turn 30. That is a milestone, one that has been made possible by NOAA, National Sea Grant, the University of California, and many folks at Scripps. Happy Centennial!

Figure 2. *California Sea Grant Director Russell Moll (right) awards Scott Rapoport first place for oral presentations at the 2002 Sea Grant Graduate Research Symposium. (Photo: California Sea Grant)*