



SEA GRANT NEWS

Science Serving California's Coast

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Newsletter of the California Sea Grant College Program
Summer 2004

Photo credits

Cover: Michael Goldin—2004 John D. Isaacs Scholarship winner Aaron Goldin testing “Gyro-Gen” in the gentle surf off the Scripps Pier in La Jolla. Inside the blue container is a gyroscope and an electric generator, hence the instrument’s name. This page: University of California, Division of Agriculture & Natural Resources—Paul Olin, Director of California Sea Grant Extension Program.



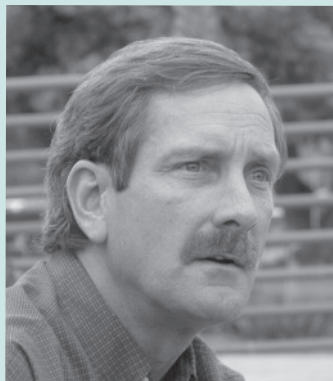
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PAUL OLIN—New Director of California Sea Grant Extension



“The selection of Dr. Paul Olin as the Director of California Sea Grant Extension is a wonderful event for our program.”

—Dr. Russell Moll,
Director, California Sea Grant.

Photo: Georgia Ratcliffe,
California Sea Grant

California Sea Grant and the University of California Division of Agriculture and Natural Resources are pleased to announce that Dr. Paul Olin has accepted a position as Director of California Sea Grant Extension Program and Associate Director of California Sea Grant. Olin succeeds Dr. Christopher Dewees, who resigned in 2002 to focus on the marine fisheries research and outreach programs he directs as Sea Grant’s Marine Fisheries Specialist.

“The selection of Dr. Paul Olin as Director of California Sea Grant Extension is a wonderful event for our program,” said California Sea Grant Director Dr. Russell Moll. “He brings a wealth of knowledge and skills to the position from his extensive involvement with Sea Grant over the past decade. I am delighted he has accepted the director position and cannot think of a better person to guide California Sea Grant Extension through the very exciting times that lie ahead.”

Olin comes to the directorship having served as interim director. Prior to this, he was a Marine Advisor for Sea Grant and the UC Cooperative Extension in Sonoma and Marin counties, a position he has held, and continues to hold, since 1994.

Olin takes the helm at a particularly dynamic time, as California Sea Grant is currently expanding its Extension Program by recruiting four new Marine Advisors, three in fisheries extension and one in coastal community development—a joint position with University of Southern California Sea Grant. With the addition of four new field advisors, the Extension Program will have a total of eleven Marine Advisors located in the state’s coastal counties, as well as a Marine Fisheries Specialist and a Program Manager in Seafood Technology, both of whom are housed at the University of California, Davis.

Besides overseeing the expanding Extension Program, Olin will continue to participate in a variety of research projects related to aquaculture, water quality and fisheries.

He is currently a co-investigator with the California Department of Fish and Game, NOAA Fisheries and other organizations on a project to restore

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Coho salmon runs in tributaries of the Russian River system. Olin and colleagues are also testing inexpensive land-management practices for reducing sources of water-borne bacteria in shellfish-growing areas of Tomales Bay. In addition, he is active in native oyster restoration and is cooperating with the California Department of Fish and Game in a halibut-tagging program to tally the fish's abundance and distribution in Bodega Bay and surrounding waters.

Olin received his master's degree in animal science and aquaculture from the University of California, Davis, in 1983 and a doctorate degree in zoology from the University of Hawaii in 1994. During this time, he also worked as an Aquaculture Training Specialist at the Hawaii Institute of Marine Biology and was an Aquaculture Specialist for Hawaii Sea Grant at the University of Hawaii, Manoa. ■■■

Isaacs Scholarship Awarded for Engineering Innovation

Aaron Sargent Goldin of San Dieguito Academy High School in Encinitas has won this year's prestigious California Sea Grant John D. Isaacs Scholarship for outstanding ocean engineering research.

The scholarship was presented May 26 at the awards ceremony of the 53rd annual State Science Fair in Los Angeles.

Goldin's project, "Invention of a New Conversion Technology: Autonomous Gyroscopic Ocean Wave-Powered Generator," also earned him a scholarship from the Marine Technology Society, as well as first place in the senior engineering competition of the Greater San Diego Science and Engineering Fair.

In his winning project, Goldin designed, built and tested an instrument that converts surface wave energy to electricity, using gyroscopic precession to turn a crank connected to an electric generator. He's named his invention Gyro-Gen, short for gyroscope and generator. The prototype he developed produces about 3.0 watts. His goal is to develop a version capable of producing 1,000 watts. The average U.S. household uses about 2,000 watts.

California Sea Grant established the Isaacs Scholarship in 1981 in memory of John D. Isaacs (1913–1980), a Renaissance man and world-renowned oceanographer. As director of the Institute of Marine Resources at the University of California, Isaacs was an ardent supporter of the then newly established California Sea Grant. The Isaacs Scholarship is award-



Aaron Goldin solders resistors on the electric generator inside Gyro-Gen. The wheel in center of the photo is the gyroscope. Gyroscopes are used to navigate planes and space shuttles. A typical plane uses about a dozen of them. Photo: Michael Goldin

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ed to young scientists in the hopes of continuing his legacy of science, innovation and service to society.

For more information on Goldin's project and the Isaacs Scholarship, visit the California Sea Grant Web site at www.csgc.ucsd.edu. ■■■

Sensory Evaluation Courses for Improving America's Seafood Quality

When it comes to seafood, trust your nose. That's what instinct tells us, and it is the advice of seafood experts.

"It's the fastest way to judge quality," says Pamela Tom, program manager of California Sea Grant Seafood Technology Program. "It is also the easiest."

Those whose senses have been professionally trained or "calibrated" to identify various characteristics of seafood—odors, tastes and textures, for example—are known as sensory analysts. Both the U.S. Food and Drug Administration (FDA) and NOAA Fisheries have in-house sensory analysts that inspect seafood for quality control. Salmon is an example of a product inspected entirely by sensory evaluation.

As part of Sea Grant's efforts to transfer science-based expertise to industry, Tom recently helped organize a four-day sensory evaluation course at which sensory analysts with the FDA and NOAA Fisheries taught people how to evaluate canned seafood quality. Short course co-sponsors included the FDA, National Marine Fisheries Service (NMFS), National Food Processors Association, and JMB Ltd. The team of expert seafood sensory trainers and facilitators included: James Barnett, Dick Throm, Clive Cosham, Terri Ann Reilly, Leonard Shanks, George Berkompas, Carmel Williams, Steve Angold, Michael McLendon, Walter Staruszkiewicz and Bruce Odegaard. The course was held in December in Bell, California, and was attended by 26 seafood importers, brokers, processors and regulators from places as far away as Canada, American Samoa, Fiji, Vietnam, Indonesia, Thailand and Malaysia.

What is taught at a sensory evaluation course? Attendees might learn to recognize diesel odors in fish, indicating oil contamination; to taste peppery flavors in tuna, potentially caused by histamine formation; or to look for discoloration and texture changes in salmon, associated with bruising, Tom explained.

There is intense interest from seafood exporters, and industry in general, to understand more about sensory evaluation. "If a company's product is being rejected, it wants to know why," Tom said. Sensory evaluation can help companies understand how federal inspectors judge quality and thus how to meet



Prapon Prayoonniramai, a quality control worker with Songkla Canning Public Company, Ltd., in Thailand (left) and Thianchai Ratanaurai of Yueh Chyang Canned Food Company of Vietnam (right) smell and taste canned crabmeat to determine whether they would accept or reject the product based on U.S. quality standards. Photo: Pamela Tom, California Sea Grant Seafood Technology Program

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Freshly packaged fish in seafood section of supermarket. Photo: Ken Hammond,

standards. More than 80 percent of seafood consumed each year in the United States is imported.

The California Sea Grant Extension Program will be partnering again with the FDA, NMFS, and industry cooperators in sponsoring a sensory evaluation course either in late 2004 or early 2005.

Those interested in information on the next sensory evaluation class are encouraged to contact Pamela Tom, Seafood Extension Program Manager at (530) 752-3837 or pdtom@ucdavis.edu. ■■■

Three Californians Win Knauss Fellowships

Three California students have won prestigious Knauss fellowships in marine

policy. All three are women, and all three are now working in Washington, D.C. at various offices within NOAA.

This year's winners are Shannon Dionne of the Monterey Institute of International Studies; Kristan Blackhart of the University of California at Santa Cruz; and Julie Kellner from the University of California at Santa Barbara. NOAA Sea Grant awarded a total of 33 fellowships nationwide for 2004, including the three to California. California Sea Grant nominated all three California winners.

Under the Knauss program, each fellow receives a one-year stipend to work with "hosts" in executive and legislative offices involved in marine, coastal and Great Lakes science and policy. The program was established in 1979 and named in honor of one of Sea Grant's founders, former NOAA Administrator, John A. Knauss. ■■■



Vice Admiral Conrad C. Lautenbacher, head of NOAA, stands with 2004 Knauss fellows Shannon Dionne (left), Kristan Blackhart and Julie Kellner. Photo: NOAA

Former Knauss Fellow Lands Education Job with NOAA



Carrie McDougall, a 2003 Knauss Fellow in the Office of the Undersecretary of Commerce for Oceans and Atmosphere, has been hired as a program and policy analyst at NOAA's Office of Education and Sustainable Development.

McDougall began her new position in March after spending the last three months of her year-long Knauss Fellowship working at the office creating an integrated education program within NOAA.

"Education gets back to the reason I chose a Knauss Fellowship," said McDougall, who earned her doctorate in marine biology from UC Santa Barbara in 2002. "I still feel education is at the heart of success for everything NOAA does. NOAA will never be able to fully achieve its mission if it doesn't have an informed, environmentally literate public."



Job Openings in Extension Program

California Sea Grant is now accepting applications for two new fisheries extension advisors. These positions were made possible as a result of a competitive program of dedicated funding from the National Sea Grant Office and cost-sharing by California Sea Grant.

One advisor will work on statewide socioeconomic aspects of commercial and recreational fisheries, operating from a base at the University of California, Santa Cruz. The other will focus on aspects of fisheries operations in Ventura and Santa Barbara counties and will be based at the University of California Cooperative Extension office in Ventura County. The deadline for applications is **August 16, 2004**.

Please visit the Web page at www.ucanr.org/jobs.shtml#ccsj for applications and job descriptions. Please note: an opening for a fisheries extension advisor for the Eureka area will be posted in the future. ■■■



Photo: NOAA Fisheries collection

California Sea Grant Publications

A new feature under the Publications link on our Web site, www.csgc.ucsd.edu, is the capability to search our archival database of California Sea Grant publications going back to 1968. These publications may be borrowed from the National Sea Grant Library (NSGL), home to the complete collection of Sea Grant funded documents nationwide. The NSGL bibliographic database is searchable from their Web site at nsgl.gso.uri.edu.

To request publications, contact Gretchen Frederick at gfrederick@ucsd.edu; call (858) 534-4446; or write Communications Department, California Sea Grant, 9500 Gilman Drive, La Jolla, CA 92093-0232.

Most of our publications are free on request.

REPRINTS

Allen, B.J. 2003. Native eelgrass *Zostera marina* controls growth and reproduction of an invasive mussel through food limitation. *Mar. Ecol. Prog. Ser.* 254:57-67.

Butler, A., and J.N. Carter-Franklin. 2004. The role of *Vanadium bromoperoxidase* in the biosynthesis of halogenated marine natural products. *Nat. Prod. Rep.* 21:180-188.

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California Sea Grant **REPRINTS** (continued)

- Deweese, C.M. 2003. Sea urchin fisheries: A California perspective. In: *Sea Urchins: Fisheries and Ecology*, Proceedings of the International Conference on Sea-Urchin Fisheries and Aquaculture 2003.
- Gisbert, E., et al. 2004. Effects of delayed first feeding on the nutritional condition and mortality of California halibut larvae. *J. Fish Biol.* 64:116–132.
- Hackett, S.C., M.J. Krachey, C.M. Dewees, D.G. Hankin, and K. Sortais. 2003. An economic overview of Dungeness crab (*Cancer magister*) processing in California. *CalCOFI Rep.* 44: 86–93.

SERIES

- California Sea Grant Program Directory 2004–2005*. Publication No. R-052.
- Making Dollars and Sense of Nontoxic Antifouling Strategies for Boats* by L.T. Johnson and J.A. Miller. 2003. Publication No. T-052. ■■■■

National Sea Grant Program Launches New Web Site

A new NOAA National Sea Grant Web site made its internet debut in late June at www.seagrant.noaa.gov

The new site is not only visually appealing, but is easy to navigate and will put valuable marine and coastal information from the entire Sea Grant network at your fingertips.