

## 2002 John D. Isaacs Memorial Scholarship Winner Announced

Shara Cohn, a senior at Mira Loma High School in Sacramento, has been named this year’s winner of the prestigious John D. Isaacs Scholarship for outstanding research on planktonic food web dynamics.

California Sea Grant presented the Isaacs award to Cohn on May 21 at an awards ceremony for the California State Science Fair in Los Angeles. The \$12,000 college scholarship, paid over a four-year period, was the largest cash prize awarded at the state science fair this year.

Cohn, 17, plans to use her award to study biological sciences, perhaps aquatic ecology, at Stanford University, where she plans to enroll as a freshman this fall.

Cohn’s project, titled “Zooplankton Trophic Interactions at Eagle Lake, California as Determined by Carbon and Nitrogen Stable Isotopes,” also won a first place in the senior zoology division at the science fair.

California Sea Grant established the Isaacs Scholarship in 1981 in memory of Dr. John D. Isaacs, a Renaissance man and world-renowned oceanographer who, as director of the Institute of Marine Resources at the University of California, supervised Sea Grant during its early, formative years. Isaacs died in 1980 at the age of 67 in La Jolla. The Isaacs Scholarship is awarded to budding young scientists in the hopes of continuing his unique legacy of innovation, scientific achievement and thoughtful regard for marine life.



## Californian Captures National Graduate Fellowship for Fisheries Research

Yasmin Lucero, a graduate student at the University of California, Santa Cruz is one of four doctoral students to win national fellowships in population dynamics. The fellowships are sponsored jointly by the National Marine Fisheries Service and the National Sea Grant College Program.

Lucero will use her fellowship, which provides \$38,000 in annual support, to investigate uncertainties in stock assessments, which are used, among other things, to aid fisheries management. Her academic adviser for the project will be Mark Mangel, a professor in the Department of Environmental Studies at UC Santa Cruz, while her NOAA mentor will be Alec MacCall, supervisor of the groundfish analysis team and former director of the Southwest Fisheries Science Center at the National Marine Fisheries Service.



*Shara Cohn, John D. Isaacs Scholarship Winner for 2002. (Photo by Fred Greaves)*

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## Update on Proposed Transfer to NSF

As the weeks pass by, it appears progressively less likely that funds for the National Sea Grant College Program will be transferred from NOAA to the National Science Foundation in the 2003 fiscal year. In both the House and Senate, there is strong bipartisan support for maintaining the nationwide network of Sea Grant programs at NOAA and expanding its programs.

Reflecting this, the House on June 19 passed, in a 407-to-2 vote, the National Sea Grant College Program Act Amendments of 2002, which among other things reauthorizes Sea Grant within NOAA for an additional five years. The bill also sets aside special funding for key national topics, including research on zebra mussels, harmful algal blooms, oyster disease and fisheries extension.

Meanwhile in the senate, the Senate Commerce, Science and Transportation Committee in May approved its version of the National Sea Grant College Program Act Amendment of 2002, introduced by Sen. John Kerry of Massachusetts. Senate Bill 2428, as of late May, had 23 co-sponsors, including Sen. Dianne Feinstein of California. The bill will go before a full senate vote in the near future.

“I’m 99 percent confident we won’t be moved,” said Dr. Jim Cato, chair of the external affairs committee of the Sea Grant Association and director of Florida Sea Grant.

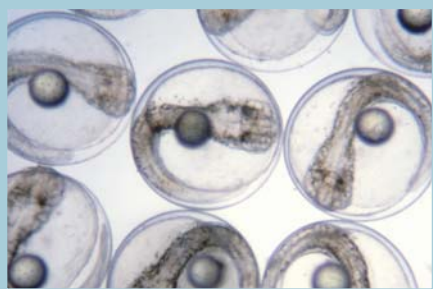


## Hatchery Enhancement, a Geneticist Reports on the Risks and Benefits

With many of the world’s fisheries in decline, biologists have begun actively pursuing the idea of restocking the sea with farmed fish. What are the genetic risks of these programs to wild stocks? To investigate the genetic ramifications of a white seabass stocking program in Southern California, Sea Grant is funding Dr. Dennis Hedgecock, a geneticist at the University of California at Davis, to analyze genotype data from hatchery-born white seabass embryos.

The goal is to identify which brood adults are producing offspring, and how many. Such information on parentage will help Hedgecock calculate what is known as the effective size of the population of released hatchery fish. In another part of the project, Hedgecock is developing mitochondrial DNA markers that can be used to estimate the effective size of the wild white seabass population. Together the data will help hatchery managers prevent diluting the genetic diversity of wild white seabass.

Hedgecock said his preliminary findings suggest “using hatcheries to reverse the decline of marine fisheries is likely to erode genetic diversity. Unfortunately, any loss of genetic diversity is not easily or quickly reversed.”



*These white seabass eggs, each about 1.25 millimeters in diameter, will hatch in 6 to 12 hours. The dot in the middle of middle of each egg is an oil globule that provides food for the newly-hatched fish.  
Photo Credit: Hubbs-SeaWorld Research Institute, San Diego*



*Cottardo “Tod” Ghio, longtime Sea Grant supporter.*

## Sea Grant Mourns the Loss of Tod Ghio

Long-time Sea Grant supporter and San Diego restaurateur, Cottardo “Tod” Ghio died of cancer at his home in La Jolla on May 10. He was 81.

For nearly 30 years, Ghio served as a Sea Grant adviser and passionate advocate for the seafood industry, fishers, and of Sea Grant itself.

Ghio was the first to chair Sea Grant’s industry advisory panel and one of the early torch bearers for greater collaboration between the seafood industry and scientists.

Within the local San Diego business community, he was probably best known for helping build the seafood restaurant empire Anthony’s Fish Grottos.

Ghio will be sorely missed by Sea Grant and the community at large.



## New Ocean Science Camp Opens in Monterey Bay

With support from Sea Grant, Camp SEA Lab Monterey Bay has opened its doors to elementary and middle school children for the first time.

SEA Lab is short for Science, Education and Adventure Lab. The goal of the camp, says Sea Grant Marine Advisor Rick Starr, who has been chair and now president of the camp's board of directors for the last four years, is to pool community resources to create an ocean science camp that "combines learning and science, and is a fun adventure." Central California is rich in marine research institutions and ocean-related businesses.

This year, more than a hundred children ages 8 to 13 will kayak through kelp forest canopies, hike along beach dunes and boat through a slough in search of sea otters. What is learned in the field will be reinforced with tours of local centers, such as the Long Marine Laboratory and Monterey Bay Aquarium.

The camp schedule this year is divided into five week-long sessions. The first two sessions are day camps being operated out of the Elkhorn Slough National Research Reserve and Hopkins Marine Laboratory. The last three sessions are week-long residence camps. Campers stay in dormitories at U.C. Santa Cruz. The board plans to expand camp programs in the future and may, among other things, run educational workshops throughout the school year.

Besides educating children, the camp will continue to train teachers about ocean science. Camp counselors are from local teacher-in-training programs.



## Salmon Canning Workshop for Native American Tribes

On May 21 in Eureka, Seafood Technology Specialist Dr. Bob Price led a one-day workshop for Native Americans on state and federal regulations pertaining to canned salmon. Tribes along the Klamath and Trinity rivers hope to start canning salmon for commercial sale. The Hoopa Valley Tribe has even built a cannery, and once it obtains a smoker, plans to begin production.

As independent nations, Native Americans have sovereignty on how they operate their businesses on their reservations. If they want to sell their salmon in California, however, they will have to meet the same standards as other businesses selling seafood. "We provided them with a setting for learning about state regulations and good business practices," Price said. The workshop was attended by about 20 Native Americans.



## Does Beach Grooming Hurt Grunion Eggs?

Biology professor Karen Martin of Pepperdine University in Malibu has been funded by California Sea Grant to study the effects of beach grooming on grunion eggs at four city beaches in San Diego. Her project is being conducted in collaboration with the City of San Diego and Project Pacific, a San Diego non-profit organization that leads a "grunion school" at which local volunteers are taught how to monitor grunion runs at local city beaches.

With help from volunteers who keep her apprised of recent run locations, Martin goes out and locates grunion eggs, called clutches, precisely marking their locations via global positioning satellites. City workers are then directed to groom over some of the grunion eggs, leaving others untouched, for comparison later.

Later, Martin digs up eggs, visually inspecting them for damage. Other eggs are taken back to her laboratory for further tests of their viability.

During grunion spawning season, the city curtails its grooming, avoiding sandy stretches that are regularly saturated by tides. It is in these areas that grunion lay their eggs. This study will shed light on whether these modified grooming practices adequately protect grunion eggs.

The results of Martin's project will be presented to a subcommittee of the San Diego City Council in October. Soon after, the full council will vote on whether to approve or reject her recommendations.



*A tractor pulls a large metal rake to pick up trash left by littering beachgoers and kelp washed ashore by tides and waves. Grunion eggs were monitored at this site for two weeks after this grooming. Photo by Karen Martin*



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## New Sea Grant Publications

The following publications are now available from California Sea Grant. For requests, or more information on other publications, contact Gretchen Frederick at (858) 534-4446 or by email at [gfrederick@ucsd.edu](mailto:gfrederick@ucsd.edu). A complete list of publications is available on the Web at [www-csge.ucsd.edu](http://www-csge.ucsd.edu).

### Coastal Ocean

Viant, M.R., J.H. Walton, P.L. TenBrook, and R.S. Tjeerdema. 2002. Sublethal actions of copper in abalone (*Haliotis rufescens*) as characterized by in vivo 31P NMR. *Aquat. Toxicol.* 57:139-151.

Williams, S.L. 2001. Reduced genetic diversity in eelgrass transplantations affects both population growth and individual fitness. *Ecol. Appl.* 11(5): 1472-1488.

### Fisheries

Andrews, A.H., E.J. Burton, K.H. Coale, G.M. Cailliet, and R.E. Crabtree. 2001. Radiometric age validation of Atlantic tarpon, *Megalops atlanticus*. *Fish. Bull.* 99:389-398.

### New Marine Products

McCoy, M.C., and J.D. Faulkner. 2001. Uoamines A and B, piperidine alkaloids from the ascidian *Aplidium uouo*. *J. Nat. Prod.* 64(8): 1087-1089.

### Marine Policy

Scheiber, H.N. 2001. Ocean governance and the marine fisheries crisis: two decades of innovation – and frustration. *Virginia Environmental Law Journal* 20(1): 119-137.

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