

National Sea Grant College Program



SAFE SUSTAINABLE SEAFOOD SUPPLY



"I love working with Oregon State University, and Sea Grant in particular has helped establish a good connection between Oregon's fishing industry and academia...."

- Al Pazar, crab fisherman



THE ISSUE

Rising demand for seafood, coupled with the decline of many major U.S. fisheries, has led to a **seafood trade deficit of \$9 billion per year** (estimated to be increasing at an average annual rate of 6% per year). Aquaculture creates important new opportunities to meet the increased demand for seafood, but a number of questions and concerns must be addressed for its full potential to be realized. With international seafood imports on the rise, and **fish diseases** and **contamination** escalating, the safety of our seafood is a growing concern. Sea Grant works to ensure the technology is available to develop environmentally-sustainable practices here in the U.S.

Sea Grant works to ensure a sustainable supply of safe seafood for our nation. A dynamic link between scientific information providers and information users, Sea Grant leads innovative research and outreach programs, and furthers the effectiveness of the efforts of our federal, state, and local partners.

Located within the communities they serve, Sea Grant experts are an integral and trusted resource for coastal residents and decision-makers.

SEA GRANT WORKS TO:

Ensure the sustainability of fisheries: Engage harvesters, recreational fisherman, producers and managers in ways to minimize threats, and enhance the productivity and management of wild fisheries.

Support a viable domestic seafood industry: Provide innovative approaches and techniques that ensure financial competitiveness and environmental responsibility.

Ensure the health and safety of seafood: Enhance training and technical assistance programs related to the application of standards for safe domestic and imported seafood.

SEA GRANT EMPOWERS CITIZENS AND COMMUNITIES

- Identifies and supports implementation of innovative management approaches
- Partners with federal, state, and local agencies to deliver seafood science to consumers and businesses
- Develops new seafood products and innovative marketing approaches
- Promotes application of standards for seafood safety
- Educates consumers about the sustainability and safety of seafood choices

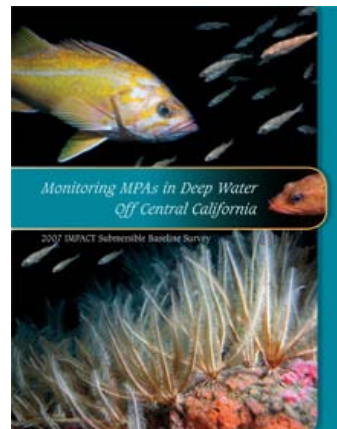
SEA GRANT IMPACTS: BALANCING HUMAN & ENVIRONMENTAL NEEDS

Fishers, Consumers, and Retailers Benefit from “Buy Local” Initiatives

Over the past decade, lower-cost, imported seafood has displaced domestic seafood in many commercial markets. The prevalence of imported seafood now threatens the rich tradition and high quality of regionally harvested seafood. The New Hampshire Commercial Fisherman’s Association (NHCFCA) and the Yankee Fishermen’s Cooperative partnered with Sea Grant and local seafood groups, restaurants and fish markets to develop a local brand for N.H. seafood. Sea Grant also helped fishers be included in local winter and summer farmer’s markets by building partnerships between the agriculture and fishing industries. Since the N.H. brand was unveiled on July 1, 2009, 23 seacoast businesses have become *N.H. Fresh and Local* brand partners. Vendors sign an agreement acknowledging that products marketed under the *N.H. Fresh and Local* brand have been delivered efficiently and directly to consumers, that the species marketed are managed sustainably, and that there is confidence in their point of origin. Also in 2009, fishers developed community supported fisheries (CSFs) for shrimp and fish. CSFs engaged more than 400 local shareholders, resulting in an additional sale of 12,000 pounds of shrimp valued at \$20,000 and 21,000 pounds of fish filets valued at \$17,000. **N.H. Sea Grant worked with fishery stakeholders to develop a *N.H. Fresh and Local* brand for locally harvested seafood. It also facilitated commercial fishermen’s participation in farm-to-market venues and CSFs resulting in additional revenue for them.** (NH)

Baseline Surveys of New Marine Protected Areas (MPAs) Provide First Comprehensive Evaluation of Deep-Water Fish and Invertebrates in Central California

In September 2007, 29 MPAs were established in central California, many of which extend into deep water. Baseline surveys are critical to the future evaluation of the effectiveness of the new MPAs. To monitor and adaptively manage the new MPAs, a comprehensive baseline survey of the fishes and invertebrates in these areas is imperative. Sea Grant and NOAA’s National Marine Fisheries Service led a team of scientists to study the deep portions of new MPAs by using the Delta submersible, an untethered submersible carrying a pilot and a scientific observer. The team surveyed all fishes and structure-forming invertebrates in the deep portions of eight new MPAs and associated reference sites. In 2009, scientists analyzed more than 65,000 fishes from over 100 taxa. **Data will enable scientists to quantitatively assess changes in the diversity, density, and size composition of species inhabiting the deeper regions of the new MPAs. Additionally, the submersible surveys provide information about less understood deepwater rocky environments.** (CA)



“Monitoring MPAs in Deep Water Off Central California,” a publication by CA Sea Grant’s Richard Starr and Mary Yoklavich. (Credit: California Sea Grant.)

Sea Grant Investment in *Lobster Settlement Index* Yields Two Decades of Return

In the 1980s, a disconnect between what lobstermen were seeing at sea and what scientists were saying led to a new approach to marine ecology. Scientists began to recognize the importance of larval dynamics to the fishery. In 1987, Sea Grant helped develop a method to identify and quantify lobster nursery habitat. **Since that first Sea Grant funding over 20 years ago, the American Lobster Settlement Index has expanded to over 60 sampling sites in other lobster-producing regions in New England and Atlantic Canada.** Data from long-term monitoring has provided valuable insights into how pre- and post-settlement processes influence lobster recruitment. The index also shows promise as a forecasting tool. **The index has been included in the most recent federal stock assessments as an indicator of the health of the lobster resource.** At the state level, in Maine, Massachusetts, and Rhode Island, state managers have taken over monitoring, demonstrating that the index technology can be transferred. **The Index has been leveraged for numerous research projects funded by NOAA, NSF, and NASA and has contributed to 26 peer-reviewed publications, including an Editors’ Choice paper in *Science*.** In June 2009, scientists, students, and managers celebrated the anniversary of the Lobster Settlement Index and convened to review accomplishments and prioritize future work. (ME)

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