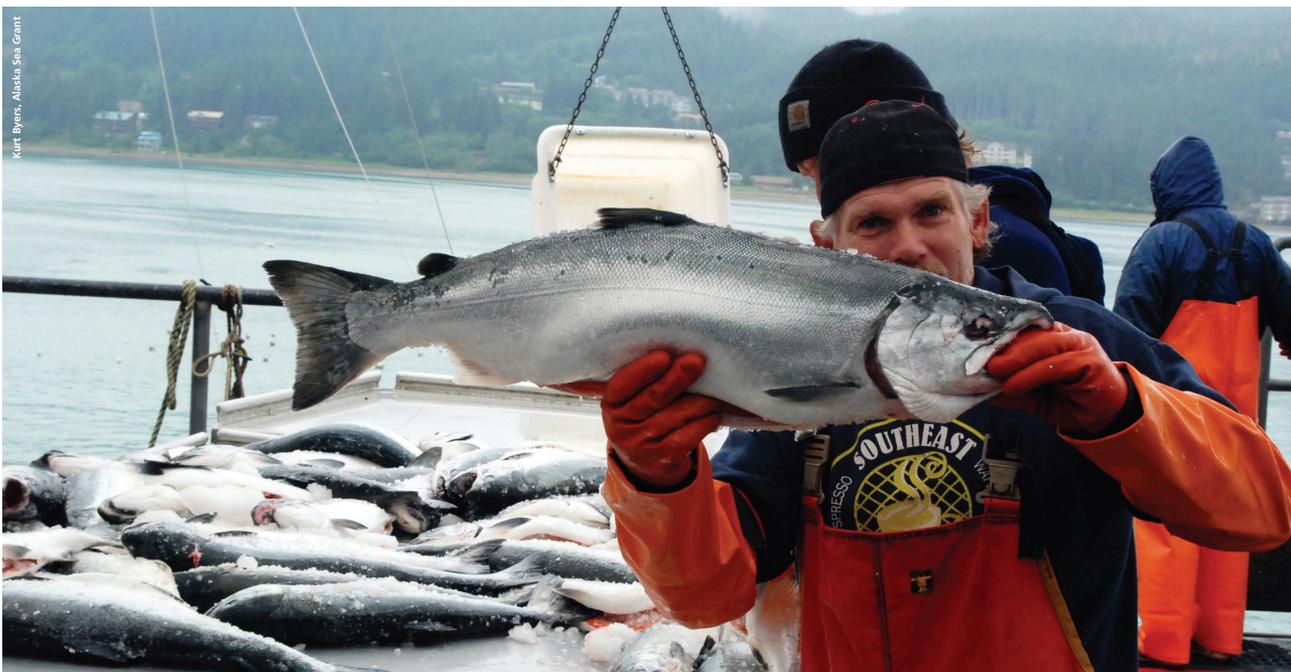


SEA GRANT ENSURES SAFE SEAFOOD, PREVENTING ILLNESS AND SAVING CONSUMERS MILLIONS

By Peg Van Patten, Connecticut Sea Grant

The nation's \$27 billion seafood industry employs about 250,000 workers, and the U.S.A. is the third largest consumer of seafood. Concerns about food-borne illnesses caused the U.S. FDA to establish strict regulations for handling seafood in 1997, requiring all seafood processors to undergo training in the principles of Hazard Analysis and Critical Control Point (HACCP). Standardized HACCP training programs have been provided by Sea Grant programs around the nation, empowering businesses to comply with FDA requirements and stay in operation. Seafood processors, dealers, importers, and inspectors learn to identify and plan to control potential biological, chemical, and physical food safety hazards. Consumers are protected by ensuring that all domestic and imported seafood and fishery products are processed in the safest manner possible. In addition, many Sea Grant programs also offer sanitation programs and/or good management practice programs for food processing facilities. This training has also been used to design or renovate seafood

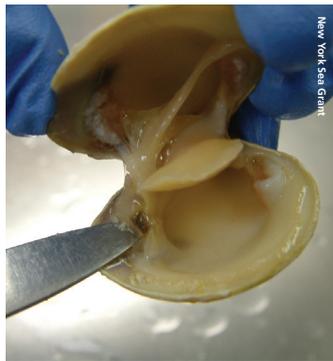
processing plants to optimize sanitation and efficiency. Agency employees who conduct seafood safety inspections, health professionals, some retailers, and students interested in vocational seafood careers have also benefitted from Sea Grant's food safety training. Improvements in seafood safety also means higher quality products for consumers. In Louisiana, two cease-and-desist orders were dropped after two seafood processors completed training and prepared their HACCP plans. Because HACCP-like principles are being adopted by other nations, processors in the Great Lakes region have been enabled to enter new markets overseas. Having seafood processed under HACCP gives consumers a sense of confidence in the product which aids marketing. In Alaska, two new salmon businesses were started. Over the past three years, Michigan Sea Grant Extension has facilitated the development of a whitefish marketing cooperative, and all the participating businesses are HACCP practitioners. In Virginia, HACCP training is offered in both the English and





Spanish languages. Eskimos and various native American tribes have participated. Aquaculture and baitfish industries have applied HACCP principles voluntarily to also prevent the introduction and spread of aquatic invasive species.

To date a total of approximately 26,000 people have been trained in HACCP, with 60-80 courses held per year (Association of Food and Drug Officials). The net result is competitive businesses with effective intervention strategies; safe, wholesome seafood; a workforce and regulators trained in safe seafood principles; decreased food-borne human illnesses, and greater consumer confidence. Surveys show that businesses with HACCP-trained employees remain competitive globally and seafood quality has improved. FDA has evaluated HACCP training and found it to be extremely effective. Estimates suggest that at least \$115,000,000 in economic losses from food-borne contamination have been prevented. ❖



Vibrio and other pathogens/ toxins (PSP, Ciguatera)

Cases of Paralytic Shellfish Poisoning (PSP) illness, which occur sporadically, have decreased due to decades of Sea Grant education and outreach efforts. For example, in Alaska in 2007 there was only one documented case in areas where subsistence shellfishing is important, and in Georgia the number of cases remained the same despite a 14% growth in population. A system of PSP monitoring, response, intervention and outreach for Aleut communities extended the known range of PSP occurrences from King Cove Alaska to the Commander Islands, Russia. New research has developed new methods for quickly and rapidly detecting *Vibrio vulnificus* and other pathogens in shellfish, thus sustaining the industry. In addition, inexpensive post-harvest depuration treatments for oysters with *V. vulnificus* have been developed to make crops safe for consumption. A collaborative web site, <http://www.safeoysters.org/medical/pubhealthimpact.html>, provides information about *Vibrio* and a profile of human demographic susceptibility to the disease. These efforts prevent human illness by better reporting of pathogens in the product and better educated consumers with lower risk of contracting PSP illness.