

**WRITTEN TESTIMONY OF
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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE**

**NOAA's ROLE IN SEAFOOD SAFETY MONITORING OF CHINESE-ORIGIN
PRODUCTS**

**BEFORE THE U.S.-CHINA ECONOMIC AND SECURITY
REVIEW COMMISSION**

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Good morning, I am E. Spencer Garrett, Director of the National Seafood Inspection Laboratory located in Pascagoula, Mississippi. Our Laboratory is part of the National Oceanic and Administration (NOAA) National Marine Fisheries Service (NMFS), which is under the U.S. Department of Commerce (DOC).

NOAA's National Marine Fisheries Service is responsible for the stewardship of the nation's living marine resources within the world's largest exclusive economic zone (EEZ). NOAA/NMFS protects and conserves these resources and their habitats through scientific research, fisheries management, efforts to protect marine mammals and endangered species, law enforcement, habitat conservation, and voluntary seafood quality and safety monitoring and inspection. NMFS has both domestic and international responsibilities, and seeks to maximize economic benefits from the sustainable use and conservation of living marine resources.

The principal points I will be discussing this morning relate to the complexities of the U.S. fishery system. I will also provide a summary of how the NMFS National Seafood Inspection Program (NSIP) assists and complements the activities of the U.S. Food and Drug Administration (FDA) in addressing consumer hazards in the consumption of seafood products, including those from China.

U.S. Fishery System

First, I would like to describe the U.S. fishery system from a domestic viewpoint. I'll begin with our environmental fishery habitats, which must be protected so the United States will have a recurring, sustainable fishery resource. Our coastal estuaries serve as a breeding ground providing habitat for more than 75 percent of commercial landings and 80 to 90 percent of recreational catch of fish and shellfish. From these habitats, hundreds of species of seafood are produced. In addition to wild species, aquacultured species (including imports) now contribute up to 45 percent of the U.S. seafood supply. Our wild species are harvested by 12 million recreational anglers and nearly 300,000 commercial harvesters. To give you an idea of the magnitude of marine recreational fishing in the United States, in 2006 recreational fishermen made approximately 89 million recreational fishing trips catching 476 million fish, of which more than half were released. In 2000, fishermen spent \$13.6 billion, which translates into more

than \$31 billion in sales for the U.S. economy. The commercial harvesters deploy 90,000 vessels, while recreational fishermen operate hundreds of thousands of recreational fishing boats. There are nearly 5,000 domestic plants and wholesalers located in every state, not just among our coastal areas as commonly perceived. Our per capita consumption of commercially harvested species averaged 16.5 pounds in 2006. It is estimated that our per capita consumption of recreationally harvested seafood approaches an additional 3 to 4 pounds. Our country, as well as other highly industrialized nations, does not solely rely on domestically produced products, but rather must import a large portion of seafood products for consumption. For a number of years, over half of our seafood consumption has relied on foreign produced products. Currently, we import over 80 percent of our total consumption of seafood products. This trend for economic reliance on seafood imports has been steadily increasing over the past 10 years to the extent that the United States is now the world's second largest importer of seafood. When dealing with imports, it is often difficult to determine exactly where the seafood was harvested; the origins of imported seafood may have been masked.

U.S. participation in the international trading of seafood is complex; not only are we the world's second largest importer of seafood, but we are also the world's fourth largest exporter of such commodities. This dichotomy of circumstances complicates our participation in international trading of seafood when developing marketing and import/export food control inspection strategies.

As the amount of seafood imported into our country has grown, the safety of these products has become a critical concern. The United States has an annual \$9.1 billion trade deficit with respect to seafood. In 2006, we imported 1.2 billion pounds of seafood from China valued at approximately \$1.9 billion. In contrast, we exported 500 million pounds of seafood to China valued at approximately \$450 million.

Seafood Public Health Risk Profile

Traditionally, seafood product safety risks have been subcategorized into four categories: environmental, process, distribution, and consumer induced. The environmental group is further divided into natural hazards (i.e., biotoxins and marine pathogenic bacteria), or anthropogenic contaminants (i.e., PCBs, pathogens, antibiotics, residues, etc.).

How Safe Is Seafood?

Consumer hazards in the consumption of all food, including seafood, can be grouped into three areas: product safety, food hygiene (i.e., clean vs. dirty processing plants, wholesome vs. unwholesome products, etc.), and mislabeling or economic fraud (which can include allergenic considerations).

Let's focus for a moment on the often asked question, "How safe is seafood?" The question has been answered many times by the National Academy of Sciences (NAS), the Centers for Disease Control and Prevention (CDC), and others. The answer is simply that the vast majority of seafood is safe. However, as with all foods, there are some risks, and in the case of seafood the food safety issues are highly focused, well defined, and concentrated in a very few species. It

has been determined, for example, that for seafood-borne illnesses reported to the CDC where the cause was actually known, more than 72 percent of the outbreaks and 38 percent of the individual cases relate to ciguatoxin (from a few reef fish species), scombrototoxin (from tunas, mackerels, bluefish, and a few other species), or the consumption of molluscan shellfish (mostly in the raw state).

How Prevalent Is Economic Fraud?

Economic fraud issues have been significant for a number of years throughout the domestic and imported seafood industry. Fraud is sometimes referred to as a “shrouded consumer hazard,” as few databases are specifically designed to collect economic fraud data. When economic fraud data are reported, they are usually incidental discoveries. Economic fraud tests, when performed, are usually secondary to the investigative study. Not all occurrences of economic fraud are intentional; they can be caused by a lack of knowledge of the multiplicity of species in the U.S. market, or a lack of communication on the part of the processors, packers, or buyers. Economically fraudulent or deceptive practices within the seafood industry include: mislabeling or substitution of lower value species for higher value species, low weights or undercounting, over treating or added water weight, altered color, and transshipment of products to avoid import or customs duties or to mask the identity of either the country of origin or specific plants within a given country.

An excellent description of these fraudulent issues and federal and industry steps to curtail such activities can be found in the 2007 Congressional Research Service report, *Seafood Marketing: Combating Fraud and Deception* by Eugene Buck. One point of applicable law omitted in that report is that NMFS, through the Lacey Act and the Agricultural Marketing Act of 1946, can take direct action against mislabeled products and that our Office for Law Enforcement has taken such action. Our Seafood Inspection Program notifies the FDA when such issues are encountered or works directly with the NMFS Office for Law Enforcement.

NOAA’s Seafood Inspection Program

NOAA’s Seafood Inspection Program provides inspection services for the domestic and international seafood industries that directly affect American consumers. The Seafood Inspection Program is a voluntary, “fee-for-service” program that derives its legislative authority from the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627). The Program has been in existence for over 50 years, first within the Department of the Interior and later in NOAA. Its primary mission is to assist the seafood industry in producing high-quality and safe products for the benefit of the American consumer.

To meet this mission, the Program conducts in-plant process and sanitation evaluations, product grading and evaluations, and certification services. We consult on and implement systems designed to prevent food safety and quality problems from occurring. The Program assists with developing product standards and specifications that are consistent with applicable federal laws and regulations. All of these services are designed to help seafood processing firms produce higher-quality, safe products that comply with all applicable regulatory requirements, including FDA laws and regulations.

The primary clients of NOAA's Seafood Inspection Program are seafood processing firms, importers, and exporters. In turn, their customers are large seafood buyers such as supermarket chains and the U.S. military. In 2006, the Program inspected approximately 1.9 billion pounds of seafood, or approximately 30 percent of the seafood in the United States. These domestic inspection services were accomplished through contracts with approximately 300 participants, and many more U.S. clients use the service on an on-demand basis. Approximately 35 foreign participants, including 23 from China, also participate in the NOAA Seafood Inspection Program.

The voluntary fee-for-service Program derives all of its operating revenues from program participants. It does not use taxpayer money. The FY 2008 estimated budget for the Program is \$20 million. NOAA estimates that the average cost for added quality and safety assurance provided by the Program is about \$0.01 per pound.

The Program employs about 165 people, sited across the United States. It receives support from a small staff of scientific and technical experts who provide training and analytical services, develop product standards and specifications consistent with applicable federal laws and regulations, and ensure that consumer labels meet all regulatory standards.

Scientific Support for NOAA's Seafood Inspection Program

Broad scientific support for the Seafood Inspection Program is provided primarily by the National Seafood Inspection Laboratory in Pascagoula, Mississippi, and NMFS' Seafood Product Quality and Safety Research and Monitoring Program at the NMFS Northwest Fisheries Science Center in Seattle, Washington. These two distinct programs allow NMFS to proactively and rapidly respond to seafood safety and aquatic animal health issues. We also address episodic events on multiple levels from specific fish or shellfish and human health concerns within the broader marine environment. The National Seafood Inspection Laboratory provides thousands of analyses of NOAA-inspected products to determine compliance requirements with scombrototoxin, sodium bisulfite, antibiotic residues, selected microbial pathogens, and indicator organisms.

While the Seafood Inspection Program is funded through user fees, the science and research activities at the National Seafood Inspection Laboratory and Northwest Fisheries Science Center are funded through appropriated funds.

These research and monitoring programs provide, in large part, the necessary capability for NOAA to respond quickly to environmental disasters that can affect seafood safety and quality. The value of this capability was evident in NOAA's rapid response to possible human health threats in the aftermath of Hurricane Katrina. Without this support, NOAA's rapid response to Hurricane Katrina would not have been possible. The availability of trained and experienced staff and laboratory analytical capability is a critical prerequisite for a rapid, timely, and effective response to all seafood safety issues. These research and monitoring program activities, following Hurricane Katrina, helped FDA to ensure public confidence in the safety of the \$7 billion Gulf of Mexico seafood industry.

The NMFS Northwest Fisheries Science Center uses state-of-the-art research facilities to assess a wide range of chemical contaminants, pathogens, and marine toxins in seafood samples. The Center also has biological knowledge and experience with emergency field response, having responded to seafood safety issues after the Exxon Valdez oil spill in 1989. Most recently, the Center responded to the public's concern over seafood safety following Hurricane Katrina, when many laboratories in the storm-affected area were damaged and/or inoperable. The Center worked collaboratively with FDA and other agencies. NOAA sent a team to the affected area within days of the storm, and within weeks it provided precise technical information which helped to verify the safety of seafood from the northern Gulf of Mexico.

Relationship Between the Seafood Inspection Program and the Food and Drug Administration

NMFS has a long history of working cooperatively with the FDA regarding seafood quality and safety risk assessment, management, and communication issues. We cooperate from both an inspection and certification perspective, as well as from a fishery science, seafood safety research, and monitoring viewpoint.

With regard to Chinese seafood imports, an important part of the mission of the FDA is to protect the safety of food for the American consumer. The NOAA Seafood Inspection Program uses FDA criteria to evaluate products and processes.

About 83 percent of all seafood consumed in the United States comes from imports, a volume of approximately 4.1 billion pounds annually in 2006. China, Canada, Thailand, and Chile are the principal countries of origin for imports, with China shipping about 1.2 billion pounds to the United States per year. This volume demonstrates the challenges of effectively regulating and evaluating the seafood flowing into the United States.

The Seafood Inspection Program has been meeting with FDA to update the current Memorandum of Understanding between the agencies on seafood inspection matters in order to better serve the American consumer.

Conclusion

Mr. Chairman, Commissioners, and staff, NOAA and NMFS look forward to working with you, the public, the seafood industry, and the FDA to ensure the safety of the seafood we consume. I will be happy to answer any of your questions.