Overview of the Seafood Industry [1]

Overview

A wide variety of seafood products are available in the U.S. marketplace from many different sources. In the U.S., wild fish and shellfish are harvested by commercial fishermen in both near shore and open ocean waters, and in fresh water lakes or rivers. Farm raised (aquacultured) seafood products are raised both on land in ponds (catfish), or re-circulating tanks (tilapia and hybrid bass), and in near shore coastal waters (salmon and shellfish). These same methods are used to farm a wide variety of fish and shellfish in other countries around the world which are then imported into the U.S.

Once seafood products are harvested, they are generally processed or packaged for distribution to retail stores and restaurants. Wild fish and shellfish are unloaded from harvest vessels and farmed products are harvested from facilities then transported and packed for distribution to processing plants or wholesalers. Processors convert the whole fish or shellfish to various other product forms such as fresh fish fillets or steaks or other items such as frozen products, breaded fish portions, and canned or smoked products. Some of these products may be further converted by secondary processors to heat and serve or ready-to-eat products like seafood salads, entrees or other items. Wholesalers and foodservice distributors receive both raw and processed products from many different domestic and foreign sources and distribute them to retail stores and restaurants. Consumers purchase these products from retail stores for home consumption or at restaurants and other foodservice establishments.

Sources of Fish and Shellfish Consumed in the U.S.

The commercial seafood products consumed by Americans at home or in restaurants or other foodservice establishments primarily come from three different sources: U.S. commercial fisheries, U.S. aquaculture production, or imports brought into the U.S. from other countries. Seafood is also a unique food in that a large amount of fish and shellfish are harvested from the wild by individuals for recreational purposes and some of that harvest is also consumed. The following information provides an overview of the types of fish and shellfish that comes from these four different sources.

U.S. Commercial Fisheries

Commercial fishery landings of edible fish and shellfish were 9.5 billion pounds in 2015. Over 88% of the total commercial catch was finfish, but shellfish represented more than 50% of the total value. The major fish and shellfish species harvested by U.S. fishermen ranked by both volume and value are provided in the tables on this page.

Over 50% of all U.S. landings were fish caught by trawlers in the Pacific Ocean including groundfish like Pacific cod, flounders, hake, ocean perch, Alaska pollock, and rockfishes. Other important commercial Pacific Ocean species are salmon, halibut, Dungeness, King and Snow crab, tuna, and squid. In the Atlantic Ocean, some of the most economically important species include: scallops, lobster, clams, blue crab, oysters, and herring. Shrimp is an important fishery in the Gulf of Mexico and South Atlantic. Another important fishery is groundfish species caught by trawlers in the North Atlantic from Chesapeake Bay through New England that include: butterfish, Atlantic cod, cusk, haddock, hake, ocean perch, and Atlantic pollock. A variety of finfish species such as tuna, flounder, grouper, snapper and other reef fish are important fisheries in the South Atlantic and Gulf of Mexico. The menhaden fishery in the Mid-Atlantic and Gulf of Mexico is also important, but is not used for human food but for bait or conversion to fish oil and fish meal that is used in a variety of products.
**U.S. Aquaculture Production**

The production of farm raised fish and shellfish in 2013 was about 662 million pounds worth $1.4 billion. In the United States, the amount of fish and shellfish harvested from the wild annually is about 8 times greater than the amount produced by domestic aquaculture farms. Pond raised catfish represents about two thirds of the total farm raised seafood products produced annually in the U.S. Other important domestically produced aquaculture food products in order of the quantity produced include: crawfish, salmon, trout, oysters, tilapia, striped bass, clams, shrimp, and mussels.

**Imported Seafood Products**

China is the largest producer of seafood products in the world, and Japan and the U.S. are the largest importers of seafood products in the world. Over three fourths of the seafood consumed in the U.S. is imported from other countries. In 2009, 5.5 billion pounds of edible fishery products valued at $14.8 billion were imported into the U.S. Shrimp is the most important imported seafood product, and over 1.2 billion pounds of shrimp were imported in 2010. Thailand was the leading U.S. supplier of shrimp followed by Ecuador, Indonesia, China, Vietnam and Mexico. Tuna was the second most important imported product in 2010, and an almost equal amount of canned tuna and fresh and frozen tuna were imported that year. Major suppliers of canned tuna are Thailand, Philippines, Indonesia, Vietnam and Ecuador. Freshwater fish fillets ranked third in volume for all seafood products imported into the U.S. in 2010. A major part of this product category are the Vietnamese fish species, called pangasius, basa or swai in U.S. markets. Other important products in order by volume imported include: salmon from Norway, Canada, and Chile; groundfish species like cod, haddock, pollock and hake from Canada and Northern Europe, crabs and crabmeat from Southeast Asia, and frozen fish blocks used to make fish portions and sticks from China, Russia, Canada, and Iceland.
ational Fisheries in the U.S.

U.S. Fish and Wildlife Service estimates from 2006 indicate that about 30 million people in the U.S. were engaged in recreational fishing that year. About three fourths of these anglers fished in freshwater including the Great Lakes, other lakes, rivers, streams and ponds. About one fourth fished in saltwater either in the ocean or in near coastal areas. In 2010, the National Marine Fisheries Service estimated that the total weight of the harvested saltwater catch was 212 million pounds, but no estimate of the weight of freshwater fish was available. The most frequently caught fish in lakes, rivers, streams and ponds were: black bass, panfish, channel bullhead, trout, crappie, white bass, striped bass, and striped bass hybrids. In the Great Lakes the most frequently caught fish were: walleye, sauger, perch, salmon, lake trout, black bass, and steelhead. The most frequently caught marine saltwater fish in the U.S. included: flatfish such as flounders or halibut, red drum, sea trout, striped bass, bluefish, and salmon. There are many local and regional differences in the type of saltwater species caught in the three major saltwater areas of the country that include the Atlantic Ocean, Gulf of Mexico and Pacific Ocean.


Seafood Processing

The processing sector of the seafood industry converts the whole fish or shellfish harvested by fishermen or produced by aquaculture operations in the U.S. or in other countries into the products that are sold at retail stores or restaurants. The National Marine Fisheries Service estimated that in 2010 the value of edible processed seafood products in the U.S. was $8.5 billion. The annual U.S. production of raw (uncooked) fish fillets and steaks, including blocks, is around 500 million pounds, and the major species processed were Alaskan Pollock, salmon, cod, hake, flounders and haddock. The combined production of fish sticks and portions has been between 200 and 300 million pounds over the past decade, and the production of breaded shrimp between 75 and 150 million pounds. The pack of canned fishery products varies from year to year between 500 million and a billion pounds with tuna, salmon and clams being the major canned products produced in the U.S.

Primary processors generally convert whole fish into fish fillets, steaks or loins or shuck or cook raw shellfish or remove the edible meat. These edible portions are then packed in some way and distributed as fresh refrigerated products or are frozen prior to distribution to wholesalers or directly to retail stores or restaurants. Other processors pack these edible portions into cans or other containers and apply a heat process to eliminate microorganisms that could cause the product to spoil or cause foodborne illness. Canned products are treated to sterilize their contents and can be stored without refrigeration. Pasteurized products...
are heat treated in a way that eliminates most but not all microorganisms and must be stored under refrigeration. Other processes could include the use of high pressure, irradiation or other treatments to sterilize or pasteurize the seafood product.

Secondary processors convert fresh or frozen fish and shellfish products and other ingredients into the final products that are available in retail stores and restaurants. Examples of value added finished seafood products could include: smoked seafood products, sushi, seafood salads and sandwiches, and seafood entrees or meals.

**Seafood Wholesale and Distribution**

There is a large network of wholesale and distribution businesses in the U.S. that purchase seafood products from a variety of different sources, store them, assemble the items into orders for customers, and deliver them. There are many variations to this basic business model. Some businesses specialize in specific types of products or products from a specific geographic area. Other businesses called “broadline” distributors buy and sell a full line of all types of products to meet their customers’ needs. Other businesses may focus on the unique needs of specific customers such as retail stores, restaurants, or institutional buyers with the the military, prisons, schools or hospitals. This much needed commercial business network is responsible for sourcing, purchasing, transporting, storing and delivering the seafood products available in our Nation’s diverse markets.

**Seafood Retail Stores**

Fresh, frozen and processed seafood products are primarily available to consumers for home consumption from retail stores. It has been estimated that about one third of the seafood consumed in the U.S. is purchased at retail stores for home consumption. There are many different types of retail stores with different business strategies. Small independent stores often specialize in products caught by local fisherman but also supply popular items such as shrimp which may come from Asia. Large retail chains also offer a variety of products which may also include locally caught items and a variety of other products from other regions of the U.S. or the world. Although there is some variation in the availability of seafood across the U.S., in most areas there is a wide variety of choices for retail purchases of seafood products.

**Restaurants and Foodservice**

U.S. consumers spend about two thirds of their annual expenditures on seafood in restaurants, cafeterias or other types of foodservice businesses. Seafood is an important item on the menu for most foodservice operations and the selection varies depending on the type of consumer that is targeted and menu prices. Fish portions, breaded shrimp, clams and other items are served in a variety of chain restaurants because of their consistent cost and good value. Portion sizes are easy to control and they can be prepared quickly and consistently. Seafood is frequently used as an ingredient in pasta or rice dishes and in sandwiches, wraps, soups and other entrees in a variety of mid-priced restaurants. Fresh seafood is also widely available in restaurants that feature one or more chefs that use their skills to creatively prepare different local or specialty items depending on availability and demand.

**References:**

Links
[1] https://www.seafoodhealthfacts.org/seafood-choices/overview-seafood-industry