

INTRODUCTION

Aquaculture is gaining global importance and plays an important role in global food security. Although the U.S. is not a major aquaculture producer (ranking 14th worldwide), it is estimated that over half of the seafood that the U.S. imports comes from aquaculture. Additionally, aquaculture plays an important role in producing many popular seafood products, including salmon, oysters, and clams in the U.S. as well as imported shrimp. The data in this section are current through 2014 and therefore lag 1 year behind the rest of the data in Fisheries of the United States.

SOURCES OF DATA

Aquaculture is defined as the propagation and rearing of aquatic species in controlled or selected environments (National Aquaculture Act of 1980). Accurate statistics about the state of the U.S. marine aquaculture industry are essential for quantitatively demonstrating the contribution of aquaculture to coastal economies and to U.S. seafood production. Regular, periodic data are necessary to assess industry trends. Currently, the United States does not conduct an annual national data collection for aquaculture production. To derive the estimates reported here, NMFS compiles data from a number of sources including state agencies, industry groups, the United States Department of Agriculture (USDA) and specialized surveys. Round weight is reported for most species, but oysters, clams, and mussels are reported as meat weight (i.e., without the shell). For a few species, such as ornamental fish, only value is reported. The values reported are at the farm-gate level.

More detailed data on United States Aquaculture are available from the USDA Census of Aquaculture for 2013 (http://www.agcensus.usda.gov/Publications/Census_of_Aquaculture/). This is the first Census of Aquaculture since 2005 and is a follow-up to the 2012 Census of Agriculture. The Census of Aquaculture provides more information on freshwater aquaculture, species farmed, and methods used. Data in the census is from 2013 because the census is not conducted annually. Data from this publication will not agree exactly with data from the Census of Aquaculture due to differences in methodology and sources of data.

World data are compiled by the FAO and are available on its website (www.fao.org/fishery/statistics/global-aquaculture-production) and through its FishStatJ software (<http://www.fao.org/fishery/statistics/software/fishstatj/en>). For global data, all species are reported in live weight. Therefore, U.S. aquaculture totals in

world tables will not match those reported in tables that have data only for the United States.

DATA HIGHLIGHTS

In 2014, estimated freshwater plus marine U.S. aquaculture production was 608 million pounds with a value of \$1.33 billion. This volume of production is essentially unchanged from 2013; however, production is still above the average totals of recent years. Freshwater aquaculture production has been declining generally since 2009, and 2014 production showed a decrease of 3% from the 2013 figure. Marine production has increased in both volume and value since 2009. In 2014 the production volume was up less than 1% from 2013 with a total of 90.6 million pounds valued at \$386 million. Freshwater production is primarily composed of catfish (307 million pounds), crawfish (134 million pounds), and trout (48.5 million pounds). Atlantic salmon is the leading species for marine finfish aquaculture (41.2 million pounds), while oysters have the highest volume (33.3 million pounds) for marine shellfish production. Thriving shellfish industries can be found in all coastal regions of the United States. The Atlantic and Pacific Coast states produce more oysters, clams, and mussels by value (\$121 and \$122 million, respectively), while the Gulf states produce more by volume (20 million pounds).

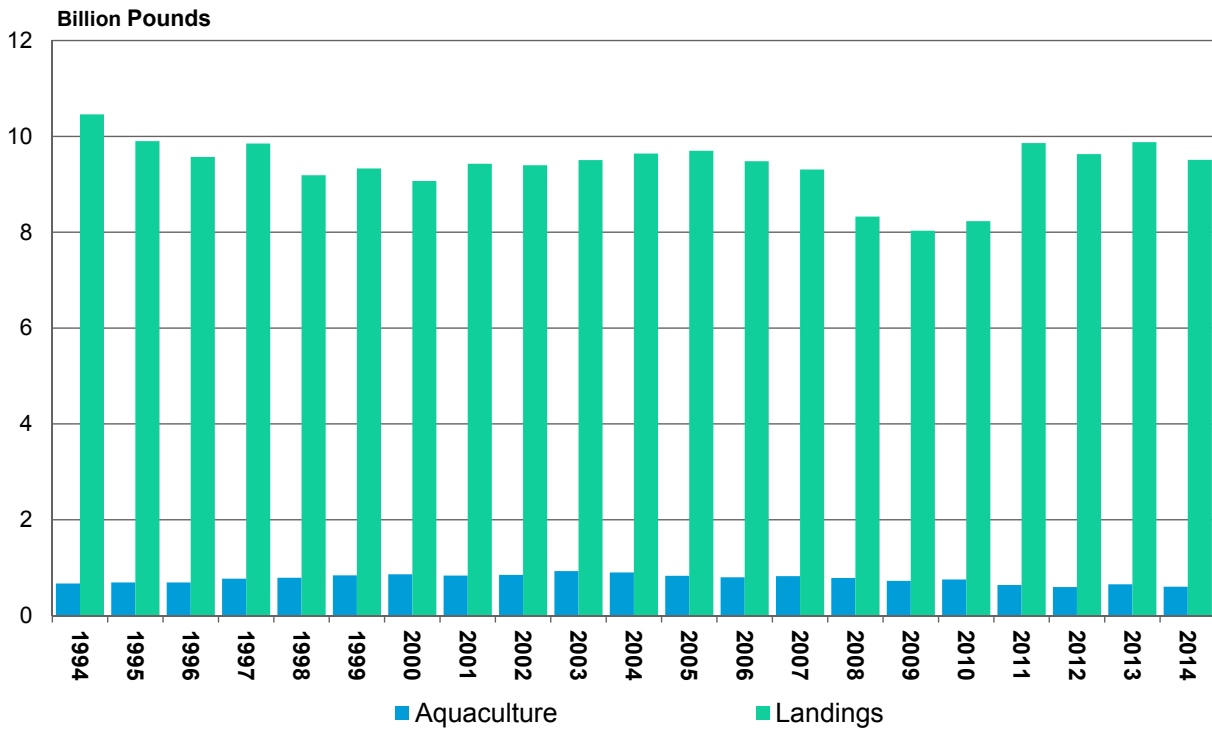
The FAO estimates that nearly half of world seafood consumption comes from aquaculture. By far, Asia is the leading continent for aquaculture production volume with 89 percent of the global total of 73.8 million metric tons. The top five producing countries are in Asia: China, India, Indonesia, Viet Nam, and Bangladesh. The United States ranks fifteenth in production. Globally, carps (28.2 million metric tons), tilapias (5.3 million metric tons), and salmon (3.4 million metric tons) are the finfish species groups with the greatest production. Clams (5.4 million metric tons), oysters (5.2 million metric tons), and shrimp (4.6 million metric tons) are the shellfish species groups with the most production.

| ESTIMATED U.S. AQUACULTURE PRODUCTION, 2009 - 2014 | | | | | | |
|--|-----------------|----------------|------------------|-----------------|----------------|------------------|
| Species | 2009 | | | 2010 | | |
| | Thousand pounds | Metric tons | Thousand dollars | Thousand pounds | Metric tons | Thousand dollars |
| Freshwater: | | | | | | |
| Catfish | 475,950 | 215,888 | 352,013 | 568,900 | 217,205 | 375,078 |
| Striped bass | 8,534 | 3,871 | 26,623 | 11,925 | 3,870 | 28,837 |
| Tilapia | 22,000 | 9,979 | 52,988 | 20,000 | 9,979 | 52,988 |
| Trout | 36,685 | 16,640 | 51,562 | 49,659 | 15,401 | 47,745 |
| Crawfish | 102,993 | 46,717 | 121,464 | 83,714 | 52,942 | 177,406 |
| Total Freshwater | 646,162 | 293,095 | 604,650 | 734,198 | 299,396 | 682,054 |
| Marine: | | | | | | |
| Salmon | 31,028 | 14,074 | 61,219 | 23,115 | 19,535 | 98,986 |
| Clams | 10,203 | 4,628 | 87,043 | 11,307 | 4,165 | 95,458 |
| Mussels | 733 | 333 | 6,730 | 1,008 | 402 | 6,633 |
| Oysters | 32,046 | 14,536 | 88,434 | 22,046 | 16,721 | 111,778 |
| Shrimp | 3,801 | 1,724 | 7,603 | 7,800 | 1,349 | 5,949 |
| Total Marine | 77,811 | 35,295 | 251,029 | 65,277 | 42,172 | 318,804 |
| Miscellaneous | - | - | 311,041 | - | - | 282,114 |
| Totals | 723,973 | 328,389 | 1,166,720 | 799,475 | 341,568 | 1,282,972 |
| Species | 2011 | | | 2012 | | |
| | Thousand pounds | Metric tons | Thousand dollars | Thousand pounds | Metric tons | Thousand dollars |
| Freshwater: | | | | | | |
| Catfish | 348,202 | 157,942 | 390,977 | 340,164 | 154,296 | 318,784 |
| Striped bass | 7,751 | 3,516 | 29,256 | 7,915 | 3,590 | 29,438 |
| Tilapia | 22,000 | 9,979 | 53,900 | 23,000 | 10,433 | 56,350 |
| Trout | 33,316 | 15,112 | 51,532 | 36,226 | 16,432 | 55,388 |
| Crawfish | 117,804 | 53,435 | 205,725 | 95,762 | 43,437 | 160,717 |
| Total Freshwater | 529,074 | 239,984 | 731,390 | 503,067 | 228,188 | 620,677 |
| Marine: | | | | | | |
| Salmon | 40,995 | 18,595 | 104,038 | 42,538 | 19,295 | 77,064 |
| Clams | 10,324 | 4,683 | 104,337 | 10,262 | 4,655 | 98,797 |
| Mussels | 880 | 399 | 7,254 | 739 | 335 | 9,451 |
| Oysters | 26,592 | 12,062 | 98,444 | 34,802 | 15,786 | 135,718 |
| Shrimp | 3,554 | 1,612 | 6,145 | 2,846 | 1,291 | 6,029 |
| Total Marine | 82,345 | 37,351 | 320,218 | 91,187 | 41,362 | 327,059 |
| Miscellaneous | - | - | 285,359 | - | - | 286,087 |
| Totals | 611,418 | 277,335 | 1,336,967 | 594,254 | 269,550 | 1,233,823 |
| Species | 2013 | | | 2014 | | |
| | Thousand pounds | Metric tons | Thousand dollars | Thousand pounds | Metric tons | Thousand dollars |
| Freshwater: | | | | | | |
| Catfish | 358,380 | 162,560 | 354,337 | 307,498 | 139,480 | 331,963 |
| Striped bass | 7,444 | 3,377 | 34,987 | 8,110 | 3,679 | 31,142 |
| Tilapia | 18,428 | 8,359 | 40,049 | 18,999 | 8,618 | 42,745 |
| Trout | 44,496 | 20,183 | 71,869 | 48,456 | 21,979 | 76,206 |
| Crawfish | 106,924 | 48,500 | 144,347 | 134,168 | 60,858 | 172,071 |
| Total Freshwater | 535,672 | 242,979 | 645,588 | 517,231 | 234,615 | 654,128 |
| Marine: | | | | | | |
| Salmon | 41,593 | 18,866 | 104,709 | 41,268 | 18,719 | 76,186 |
| Clams | 9,533 | 4,324 | 122,150 | 10,405 | 4,720 | 120,727 |
| Mussels | 699 | 317 | 9,804 | 699 | 317 | 9,861 |
| Oysters | 35,243 | 15,986 | 157,272 | 33,323 | 15,115 | 168,991 |
| Shrimp | 3,355 | 1,522 | 7,108 | 4,870 | 2,209 | 10,316 |
| Total Marine | 90,422 | 41,015 | 401,043 | 90,565 | 41,080 | 386,081 |
| Miscellaneous | - | - | 289,181 | - | - | 291,717 |
| Totals | 626,094 | 283,994 | 1,335,812 | 607,796 | 275,695 | 1,331,926 |

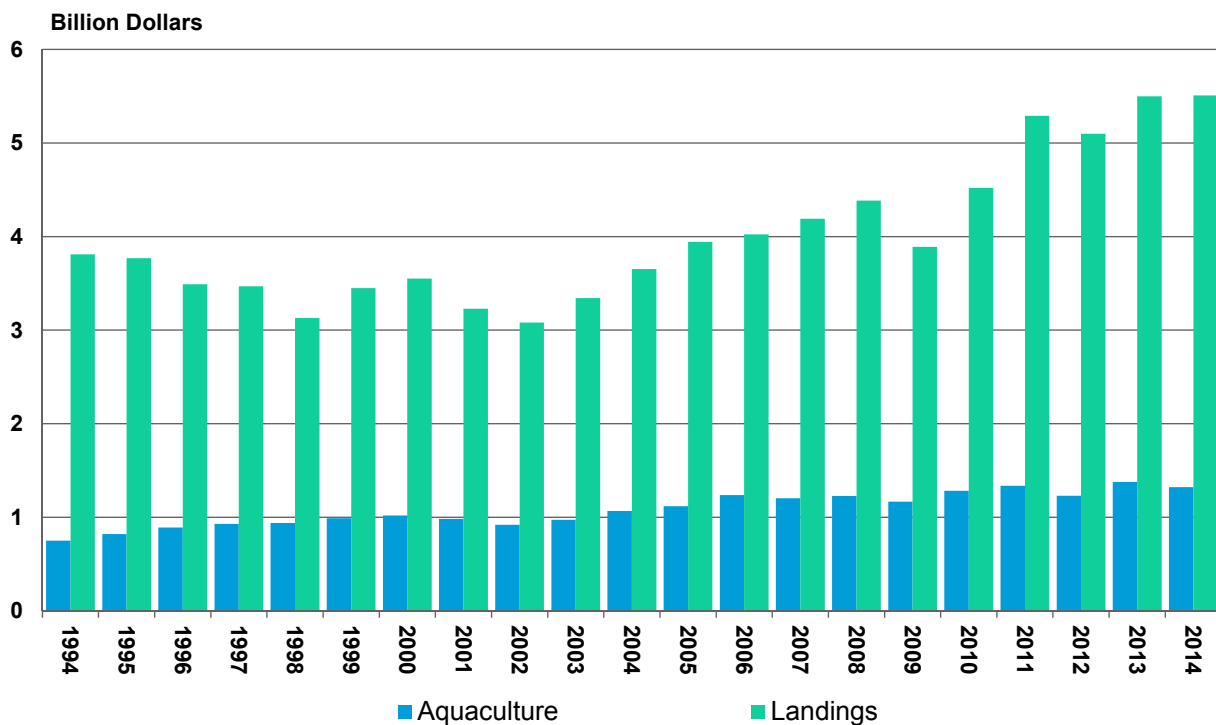
Note: Table may not add due to rounding. Clams, oysters, and mussels are reported as meat weights (excludes shell), while all other species such as shrimp and finfishes are reported as whole (live) weights. Some clam and oyster production is reported with U.S. commercial landings. Weights and values represent the final sales of products to processors and dealers. The "Miscellaneous" category includes baitfish, ornamental/tropical fish, alligators, algae, aquatic plants, eels, scallops, crabs, and others. The production volume of "Miscellaneous" is not reported because production value, but not weight is reported for many species such as ornamental fishes.

Source: Fisheries Statistics Division, F/ST1, State Data, NMFS and Census of Aquaculture, USDA

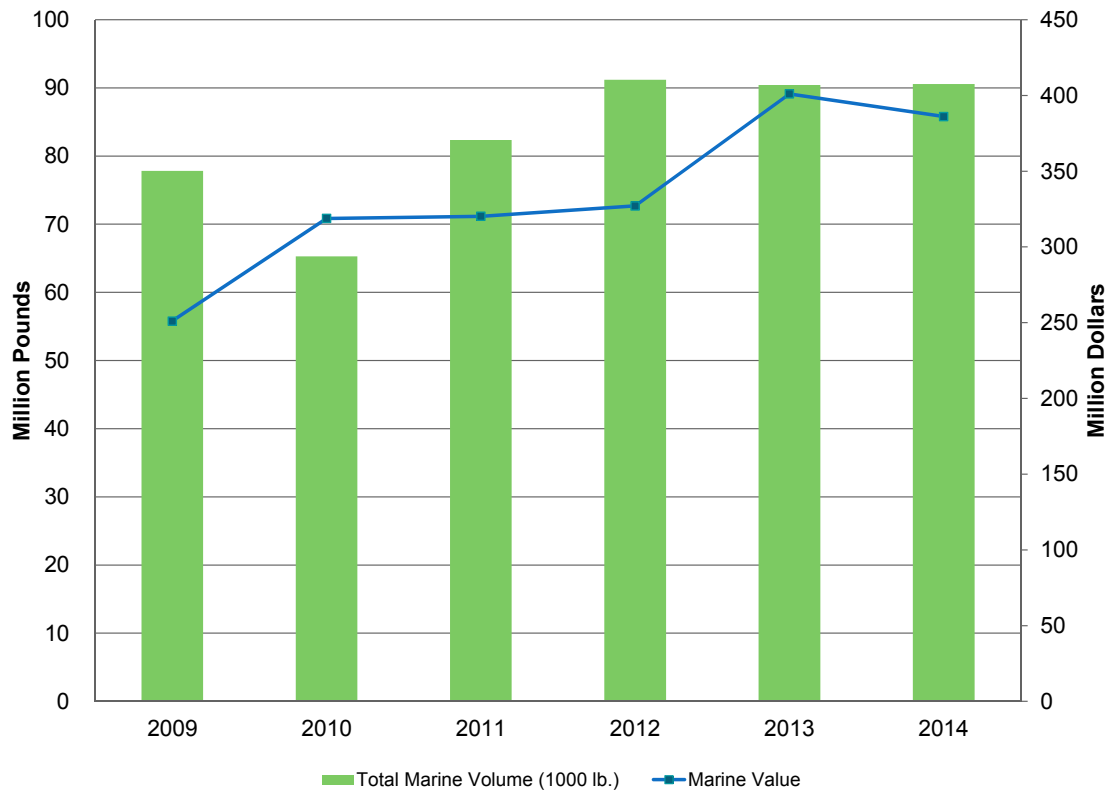
Volume of Domestic Commercial Landings and Aquaculture Production



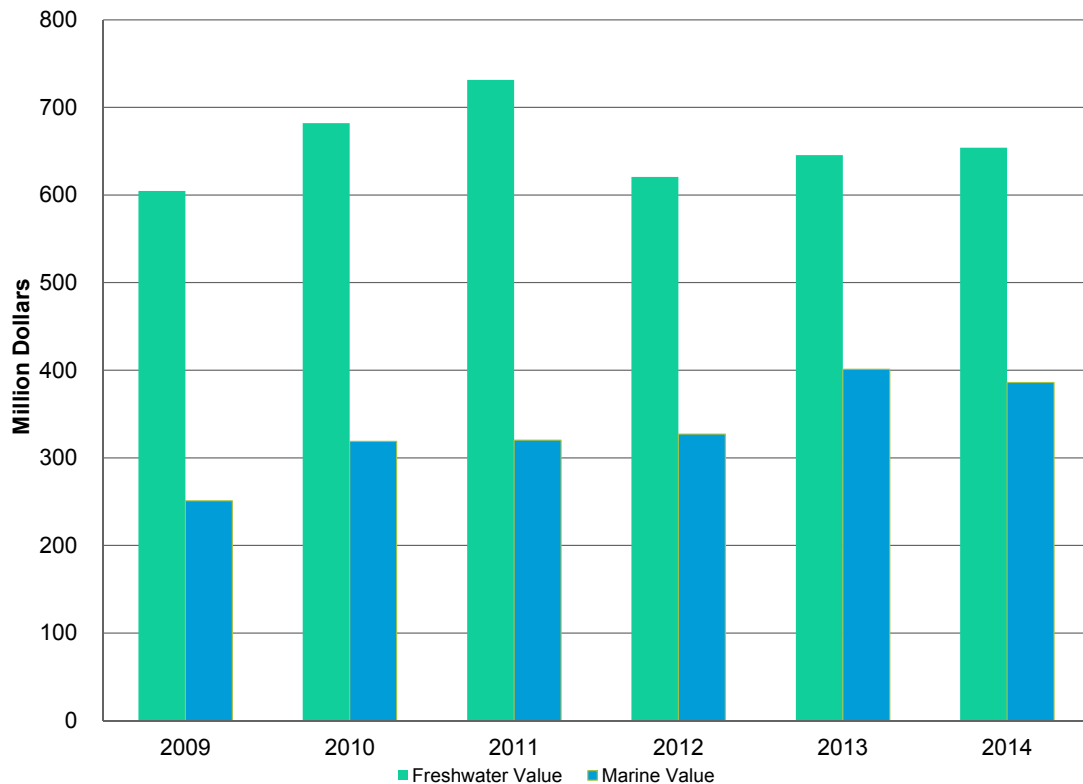
Value of Domestic Commercial Landings and Aquaculture Production



Estimated Marine Aquaculture Production Value and Volume, 2009-2014



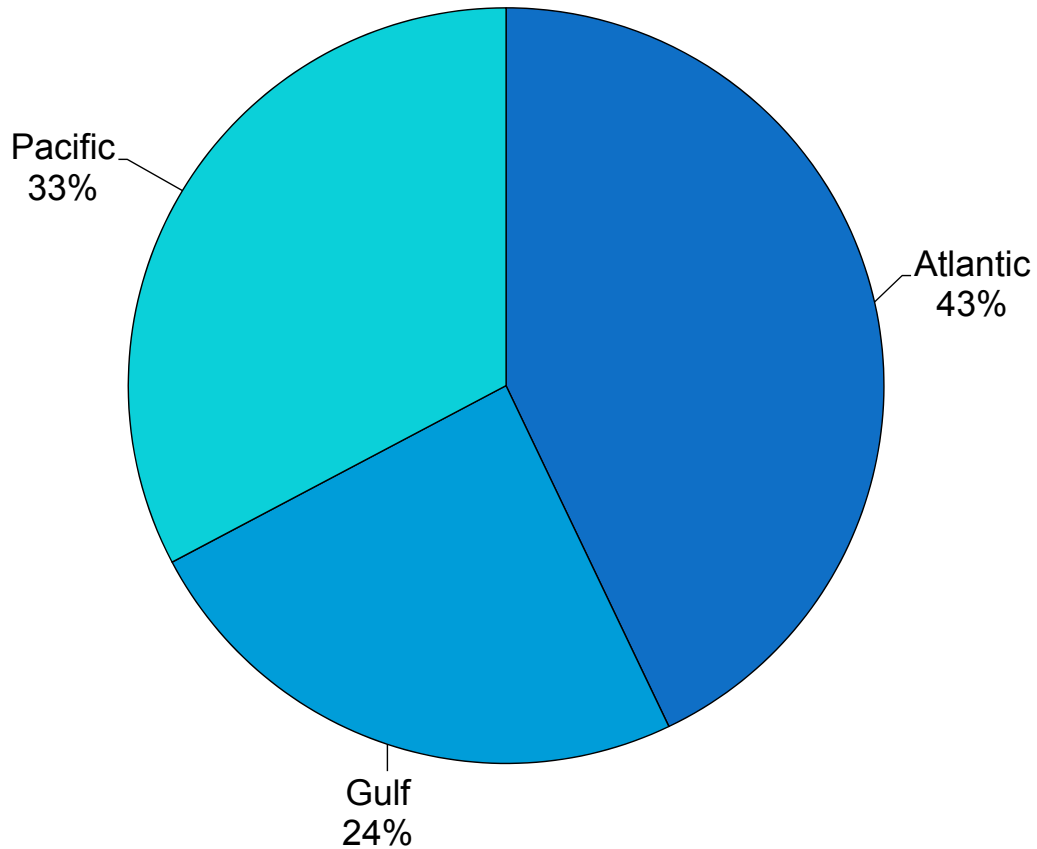
Estimated Value of Freshwater and Marine Aquaculture, 2009-2014



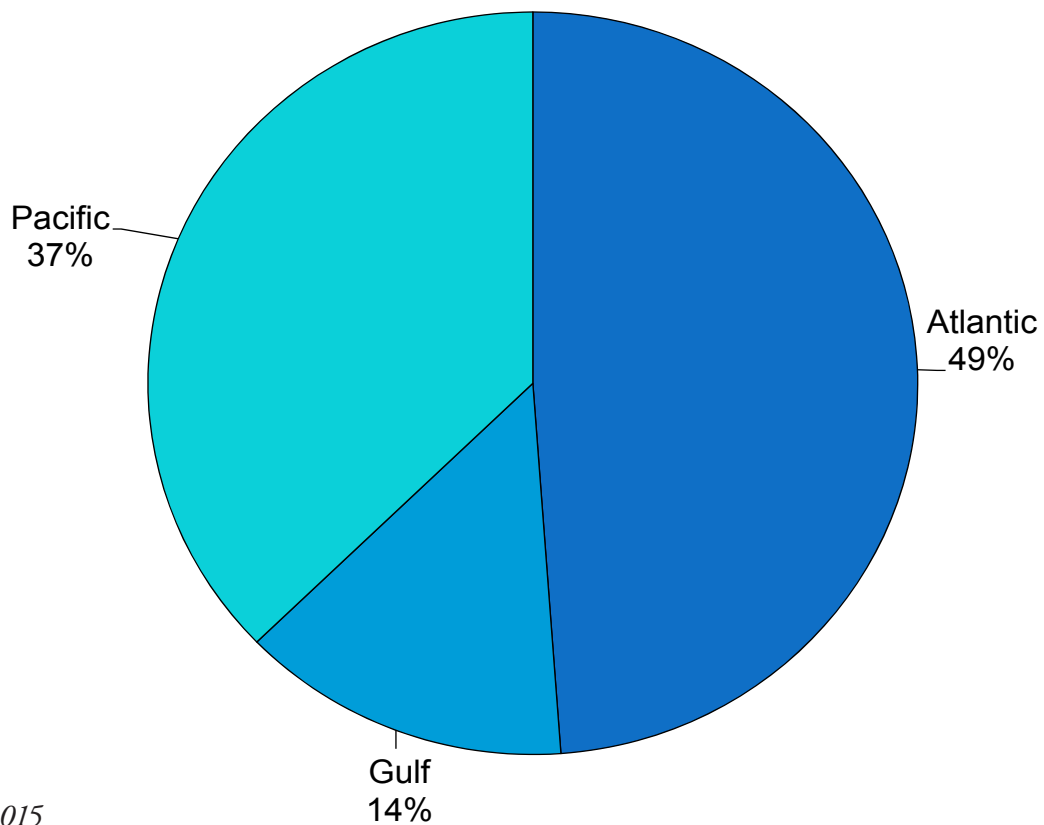
Note: Total marine + freshwater does not match the summary chart on p. 23 because the "Miscellaneous" category has been excluded from this graph.

Aquaculture

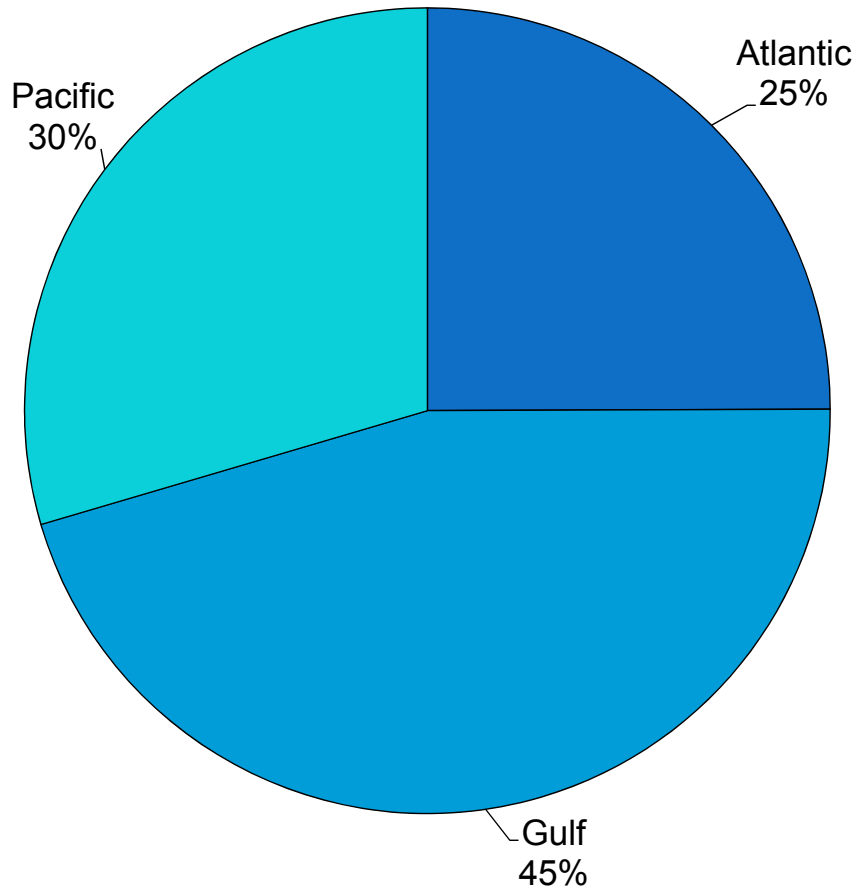
Estimated U.S. Marine Aquaculture Production by Region, by Volume, 2014



Estimated U.S. Marine Aquaculture Production by Region, by Value, 2014



Estimated Shellfish Aquaculture Production, by Volume, 2014



ESTIMATED SHELLFISH VOLUME AND VALUE BY REGION, 2014

| Region | Total Shellfish Volume (KG) | Total Shellfish Value (1000 \$) |
|----------|-----------------------------|---------------------------------|
| Atlantic | 11,080,585 | 121,316 |
| Gulf | 20,213,626 | 55,437 |
| Pacific | 13,133,143 | 122,827 |

AQUACULTURE PRODUCTION OF FISH, CRUSTACEANS, AND MOLLUSKS, BY TOP COUNTRIES AND BY CONTINENT, 2014

| Country (ranked by volume) | Volume (metric tons) | Value (1000 US\$) | Continent | Volume (metric tons) | Value (1000 US\$) |
|-------------------------------|-------------------------|--------------------|---------------|-------------------------|--------------------|
| China | 45,468,960 | 73,286,126 | Asia | 65,601,892 | 122,427,602 |
| India | 4,881,019 | 10,768,427 | Europe | 2,930,128 | 13,615,295 |
| Indonesia | 4,253,896 | 8,888,092 | South America | 2,396,094 | 15,766,287 |
| Viet Nam | 3,397,064 | 7,172,906 | Africa | 1,710,910 | 3,701,068 |
| Bangladesh | 1,956,925 | 4,853,274 | North America | 955,520 | 3,218,065 |
| Norway | 1,332,497 | 7,068,255 | Oceania | 189,183 | 1,423,972 |
| Chile | 1,214,523 | 10,276,077 | | | |
| Egypt | 1,137,091 | 2,024,816 | | | |
| Myanmar | 962,156 | 1,867,578 | | | |
| Thailand | 934,758 | 2,635,642 | | | |
| Philippines | 788,029 | 1,879,580 | | | |
| Japan | 657,000 | 3,633,147 | | | |
| Brazil | 561,803 | 1,531,827 | | | |
| South Korea | 480,394 | 1,660,080 | | | |
| United States of America | 425,870 | 1,142,830 | | | |
| All others | 5,331,740 | 21,463,632 | | | |
| Total | 73,783,725 | 160,152,289 | | 73,783,725 | 160,152,289 |

Source: FAO, U.S. total may not agree with other estimates in this section.
Additional detail on global aquaculture production can be found in the world section.

AQUACULTURE PRODUCTION BY CONTINENT, 2014

