

INTRODUCTION

Aquaculture is the propagation and rearing of aquatic species in controlled or selected environments. Globally, aquaculture is an important method of seafood production and plays an important role in food security. While the U.S. is not a major aquaculture producer (ranking 14th), NMFS estimates 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 2013, thus lagging one year behind the rest of Fisheries of the United States.

SOURCES OF DATA

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 is 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 the 2005 Census, 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 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 Food and Agriculture Organization of the United Nations (FAO) and are available on their website (www.fao.org/fishery/statistics/global-aquaculture-production) and through their FishStatJ software (<http://www.fao.org/fishery/>

[statistics/software/fishstatj/en](http://www.fao.org/fishery/statistics/software/fishstatj/en)). For the global data, all species are reported in live weight, so U.S. aquaculture totals in world tables will not match those reported in tables that only have data for the United States.

DATA HIGHLIGHTS

In 2013, estimated freshwater plus marine U.S. aquaculture production was 653 million pounds with a value of \$1.38 billion. This volume of production reflects an increase from the totals of recent years. While freshwater aquaculture production has been declining generally since 2009, 2013 production showed an increase of 10% from the 2012 figure. Marine production has increased steadily in both volume and value since 2009, with 2013 totals of 100 million pounds and \$408 million. Freshwater production is primarily composed of catfish (358 million pounds), crawfish (107 million pounds), and trout (58 million pounds). Atlantic salmon is the leading species for marine finfish aquaculture (42 million pounds), while oysters have the highest volume (35 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 shellfish by value (\$113 and \$112 million, respectively), while the Gulf states produce more by volume (24 million pounds).

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 70.2 million metric tons. The top five producing countries are in Asia: China, India, Indonesia, Viet Nam, and Bangladesh. The United States ranks fourteenth in production. Globally, carps (26.8 million metric tons), miscellaneous fish (11.8 million metric tons), tilapias (4.8 million metric tons) and salmon (3.2 million metric tons) are the finfish species groups with the greatest production, while clams (5.2 million metric tons), oysters (5.0 million metric tons), and shrimp (4.5 million metric tons) are the shellfish species groups with the most production.

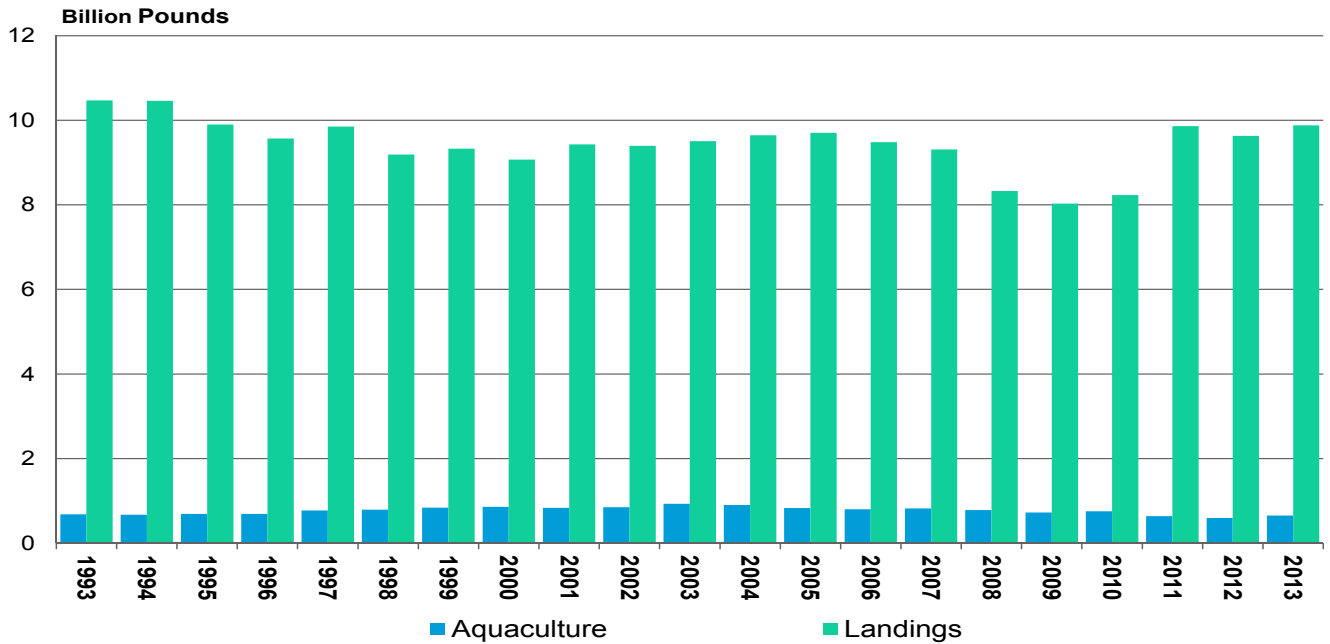
ESTIMATED U.S. AQUACULTURE PRODUCTION, 2008 - 2013

Species	2008			2009		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Freshwater:						
Catfish	514,920	233,564	389,290	568,900	215,888	352,013
Striped bass	11,980	5,434	30,430	11,925	3,871	26,623
Tilapia	20,000	9,072	34,383	20,000	9,979	52,988
Trout	35,744	16,213	49,774	49,659	16,640	51,562
Crawfish	117,473	53,285	127,351	83,714	46,717	121,464
Total Freshwater	700,117	317,568	631,228	734,198	293,095	604,650
Marine:						
Salmon	36,848	16,714	68,206	23,115	14,074	61,219
Clams	9,126	4,140	86,587	11,307	4,628	87,043
Mussels	721	327	6,879	1,008	333	6,730
Oysters	32,514	14,748	88,716	22,046	14,536	88,434
Shrimp	4,259	1,932	8,520	7,800	1,724	7,603
Total Marine	83,468	37,861	258,908	65,277	35,295	251,029
Miscellaneous	-	-	336,793	-	-	311,041
Totals	783,585	355,429	1,226,929	799,475	328,389	1,166,720
Species	2010			2011		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Freshwater:						
Catfish	478,854	217,205	375,078	348,202	157,942	390,977
Striped bass	8,531	3,870	28,837	7,751	3,516	29,256
Tilapia	22,000	9,979	52,988	22,000	9,979	53,900
Trout	33,953	15,401	47,745	33,316	15,112	51,532
Crawfish	116,716	52,942	177,406	117,804	53,435	205,725
Total Freshwater	660,054	299,396	682,054	529,074	239,984	731,390
Marine:						
Salmon	43,066	19,535	98,986	40,995	18,595	104,038
Clams	9,182	4,165	95,458	10,324	4,683	104,337
Mussels	886	402	6,633	880	399	7,254
Oysters	36,864	16,721	111,778	26,592	12,062	98,444
Shrimp	2,974	1,349	5,949	3,554	1,612	6,145
Total Marine	92,973	42,172	318,804	82,345	37,351	320,218
Miscellaneous	-	-	282,114	-	-	285,359
Totals	753,027	341,568	1,282,972	611,418	277,335	1,336,967
Species	2012			2013		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Freshwater:						
Catfish	340,164	154,296	318,784	358,380	162,560	354,337
Striped bass	7,915	3,590	29,438	12,395	5,622	48,362
Tilapia	23,000	10,433	56,350	18,428	8,359	40,049
Trout	36,226	16,432	55,388	57,511	26,087	93,911
Crawfish	95,762	43,437	160,717	106,924	48,500	144,347
Total Freshwater	503,067	228,188	620,677	553,638	251,128	681,006
Marine:						
Salmon	42,538	19,295	77,064	41,593	18,866	104,709
Clams	10,262	4,655	98,797	9,533	4,324	122,150
Mussels	739	335	9,451	699	317	9,804
Oysters	34,802	15,786	135,718	35,243	15,986	157,272
Shrimp	2,846	1,291	6,029	12,441	5,643	14,350
Total Marine	91,187	41,362	327,059	99,508	45,136	408,285
Miscellaneous	-	-	286,087	-	-	289,181
Totals	594,254	269,550	1,233,823	653,145	296,265	1,378,472

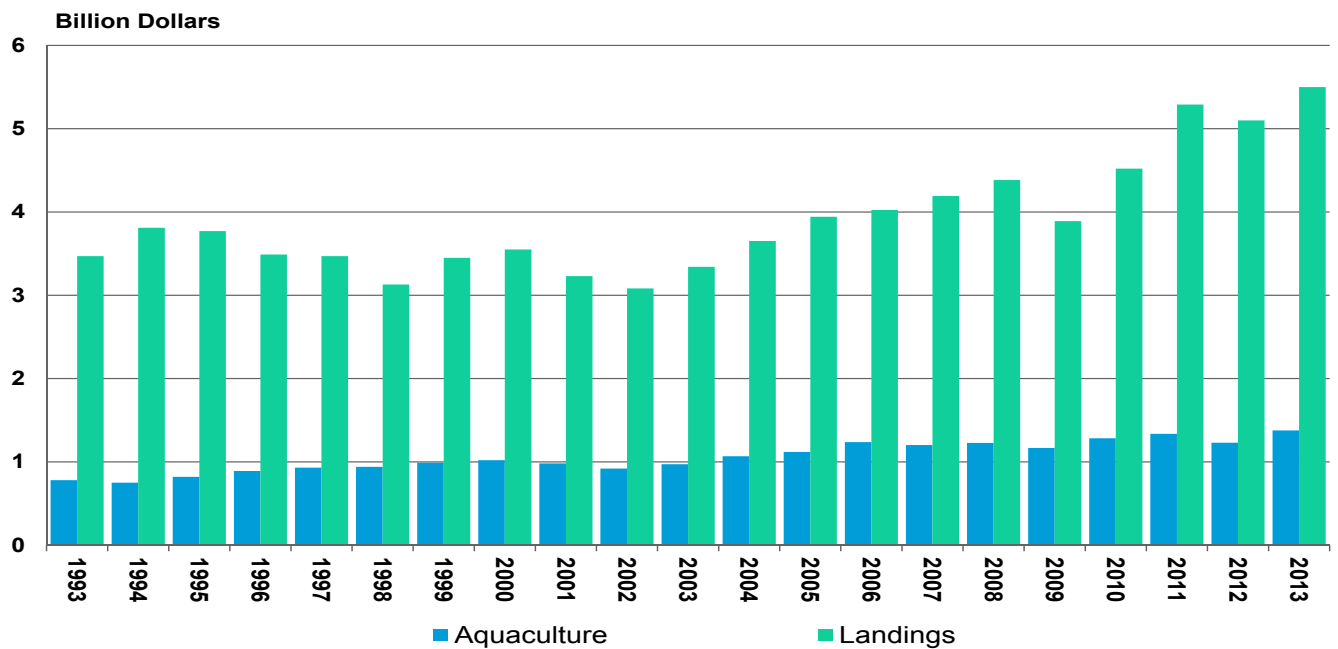
Note: Table may not add due to rounding. Clams, oysters and mussels are reported as meat weights (excludes shell), while all other species such as shrimp and finfishes are reported as whole (live) weights. Some clam and oyster production are reported with U.S. commercial landings. Weights and values 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, are reported for many species such as ornamental fishes.

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

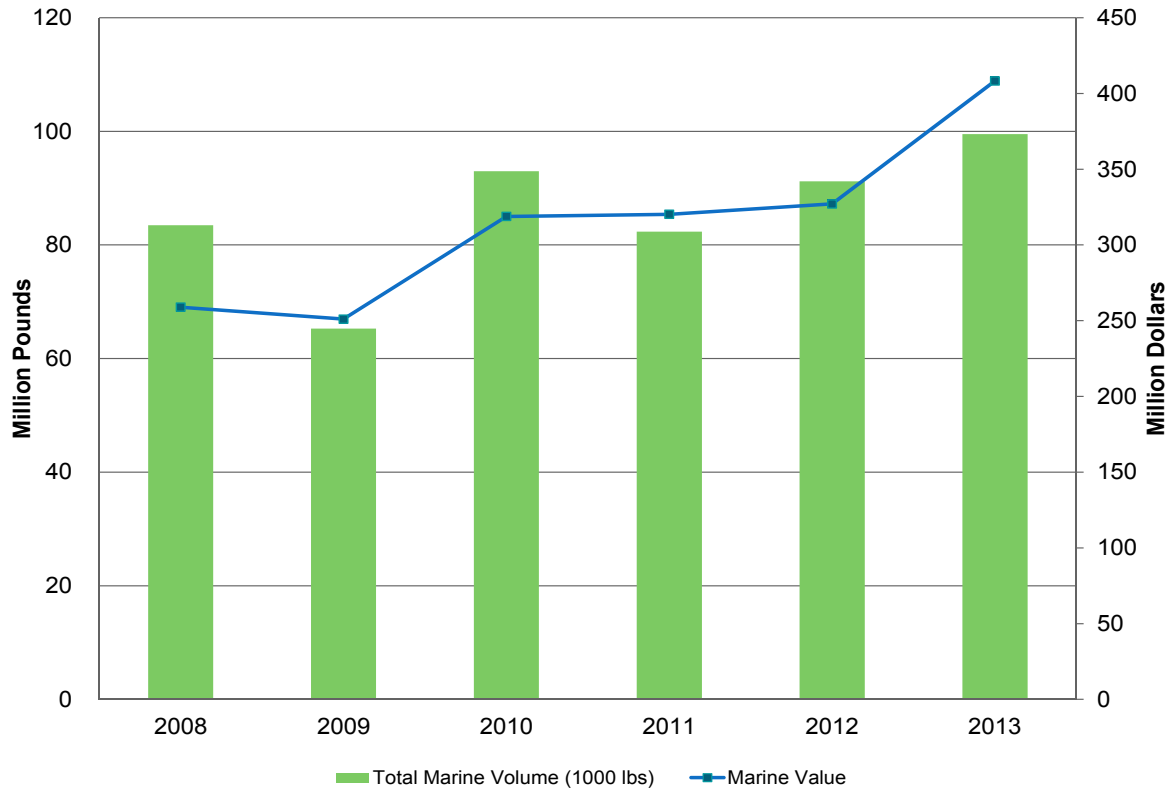
Volume of Domestic Commercial Landings and Aquaculture Production



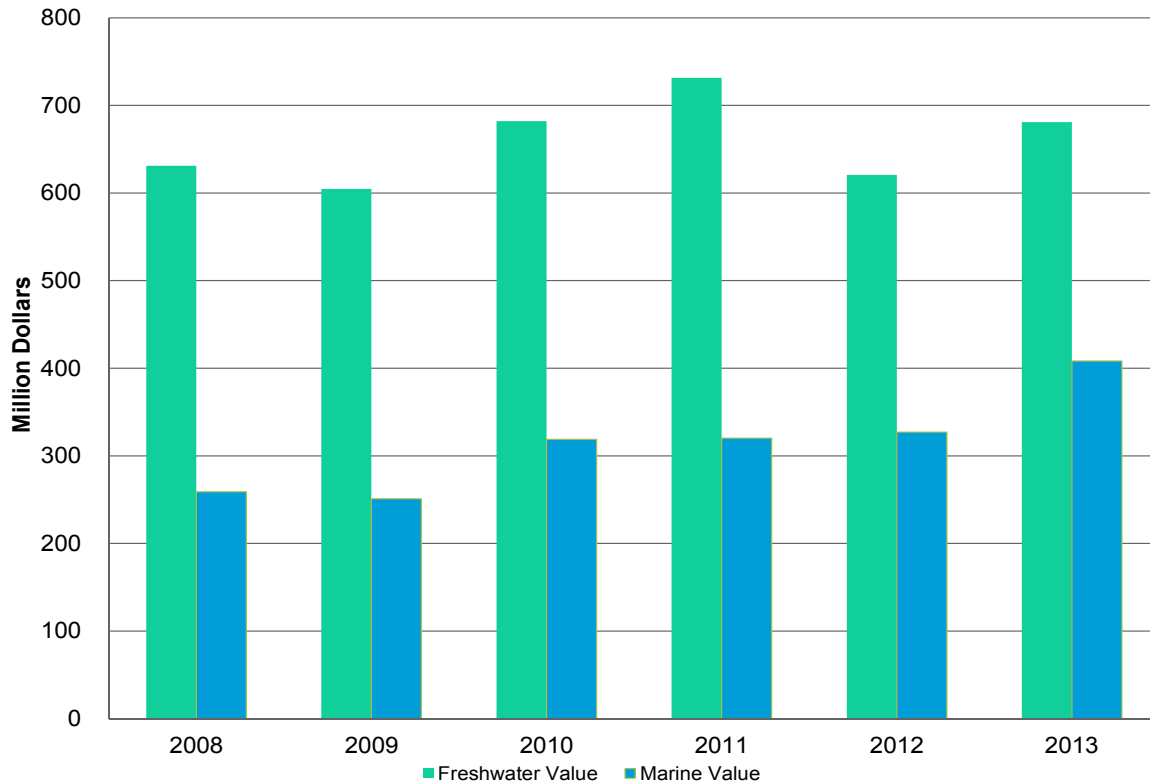
Value of Domestic Commercial Landings and Aquaculture Production



Estimated Marine Aquaculture Production Value and Volume, 2008-2013

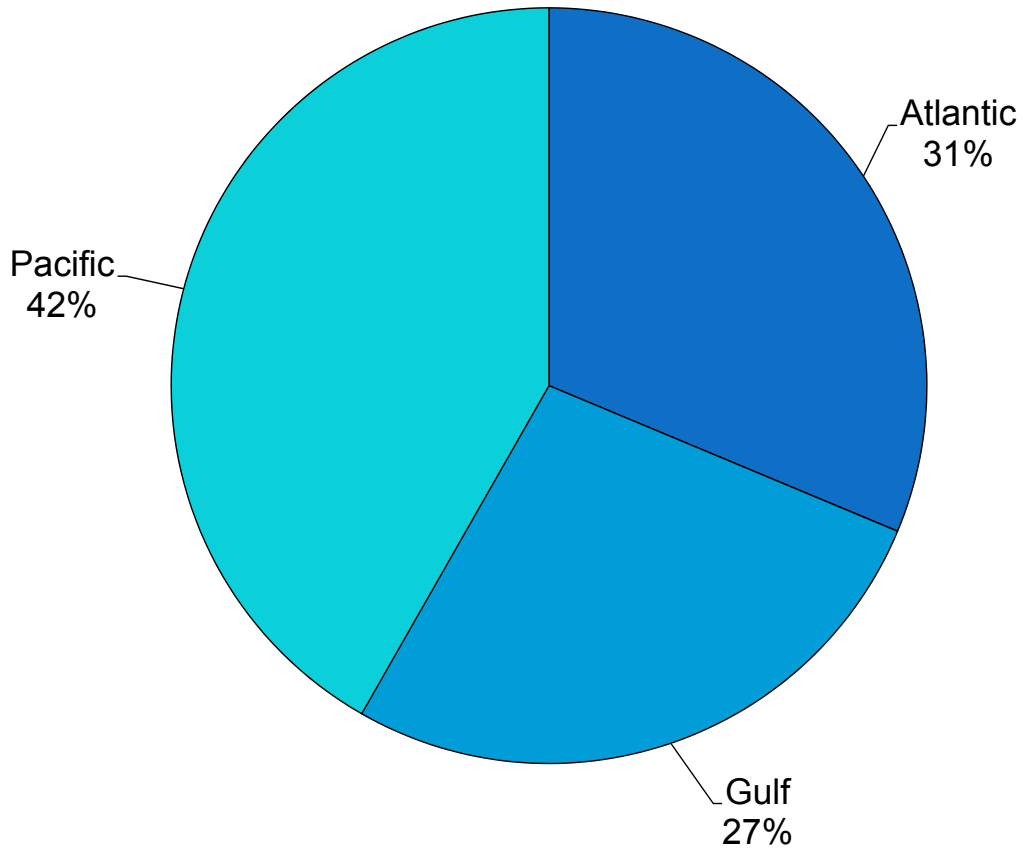


Estimated Value of Freshwater and Marine Aquaculture, 2008-2013

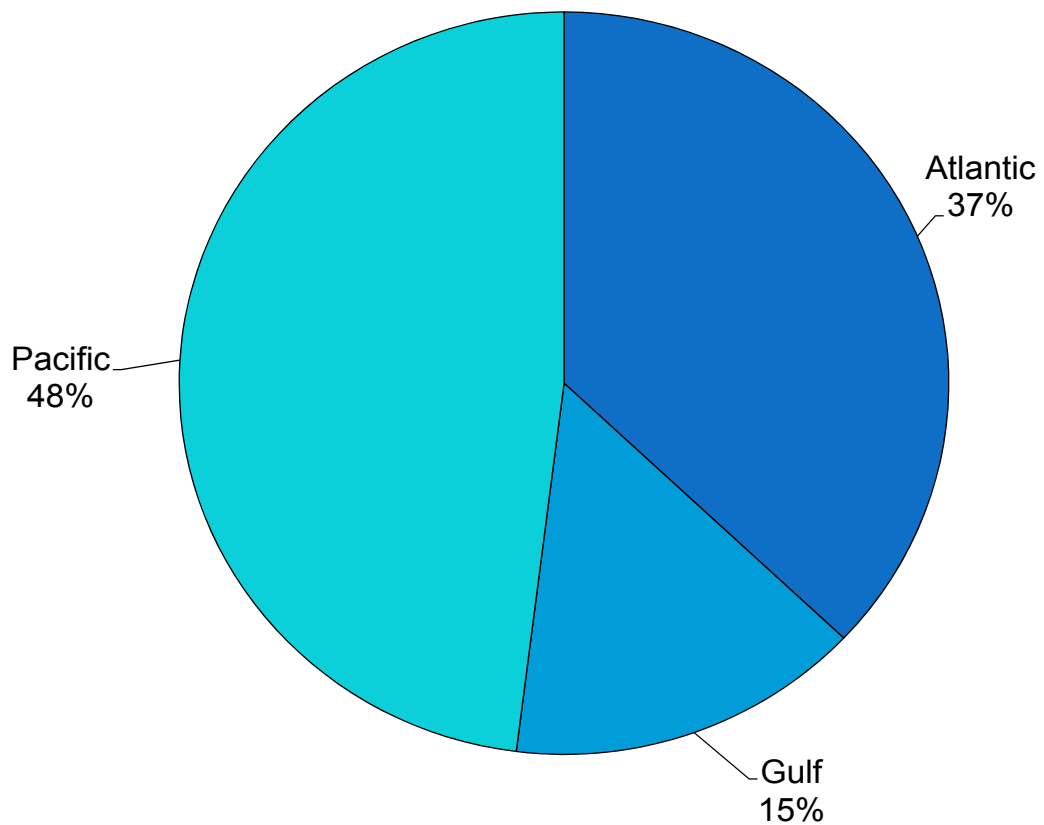


Note: Total marine + freshwater does not match the summary chart on p22 because the 'Miscellaneous' category has been excluded from this graph

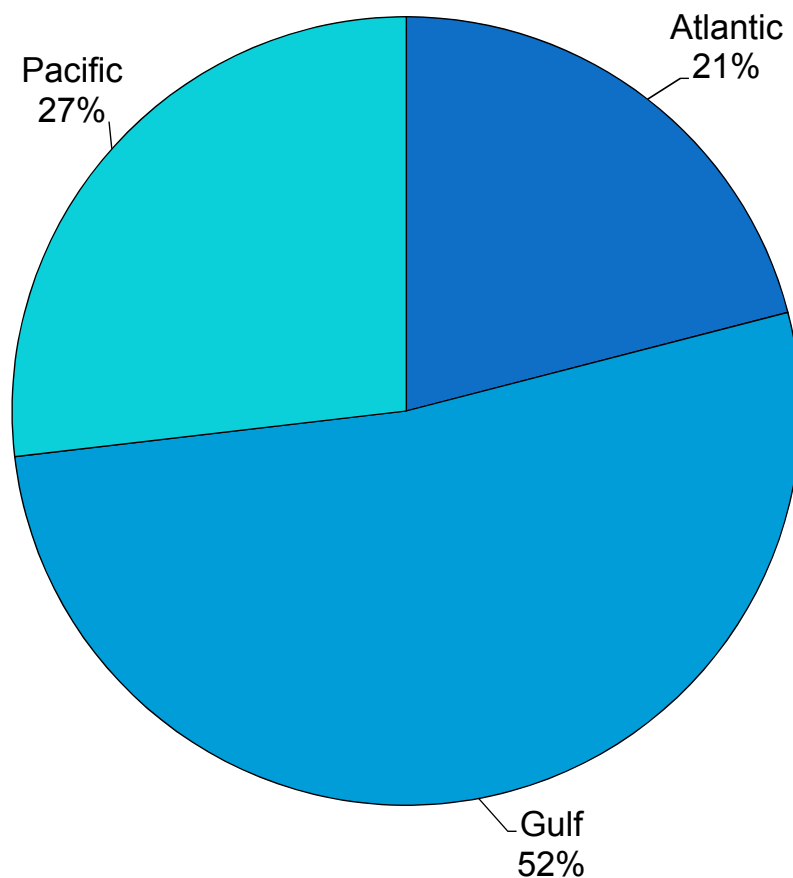
Estimated U.S. Marine Aquaculture Production By Region, by Volume, 2013



Estimated U.S. Marine Aquaculture Production By Region, by Value, 2013



Estimated Shellfish Aquaculture Production, by Volume, 2013



ESTIMATED SHELLFISH VOLUME AND VALUE BY REGION, 2013

Region	Total Shellfish Volume (KG)	Total Shellfish Value (1000 \$)
Atlantic	9,537,773	112,530
Gulf	23,729,026	59,396
Pacific	12,207,918	112,436

AQUACULTURE PRODUCTION OF FISH, CRUSTACEANS, AND MOLLUSKS, BY TOP COUNTRIES AND BY CONTINENT, 2013

Country (ranked by volume)	Volume (metric tons)	Value (1000 US\$)	Continent	Volume (metric tons)	Value (1000 US\$)
China	43,549,738	70,037,317	Asia	62,546,664	116,705,426
India	4,549,607	10,355,807	Europe	2,781,125	13,124,316
Indonesia	3,819,732	8,779,298	South America	2,091,694	11,909,293
Viet Nam	3,207,200	6,198,422	Africa	1,615,608	3,627,109
Bangladesh	1,859,808	4,413,994	North America	977,062	3,707,850
Norway	1,247,865	6,896,891	Oceania	177,695	1,273,786
Egypt	1,097,544	2,088,867			
Thailand	1,056,944	3,165,809			
Chile	1,033,206	7,525,266			
Myanmar	929,180	1,714,771			
Philippines	815,008	1,976,898			
Japan	608,800	3,332,353			
Brazil	473,429	1,310,071			
United States of America	441,098	1,211,480			
South Korea	402,141	1,455,164			
All others	5,098,548	19,885,372			
Total	70,189,848	150,347,780		70,189,848	150,347,780

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, 2013

