

Processed Fishery Products

FRESH AND FROZEN

FISH FILLETS AND STEAKS. In 2015, the U.S. production of raw (uncooked) fish fillets and steaks, including blocks, was 724.6 million pounds, 97 million pounds less than the 822.0 million pounds in 2014 due to decreases in cod, hake, Alaska pollock, tilapia, tuna, and salmon fillets. All fillets and steaks were valued at \$1.8 billion. Alaska pollock fillets and blocks continue to lead all species with 461 million pounds—a decrease from the 479 million pounds in 2014, and representing 64 percent of the total. Production of groundfish fillets and steaks (cod, hake, ocean perch, pollock, cusk and haddock) was 568 million pounds, a decrease of 59 million pounds from 2014.

FISH STICKS AND PORTIONS. The combined production of fish sticks and portions was 206 million pounds valued at \$359.8 million compared with the 2014 production of 211 million pounds valued at \$366 million. The total production of fish sticks amounted to 65.7 million pounds valued at \$94.7 million. The total production of fish portions amounted to 140.3 million pounds valued at \$265 million.

BREADED SHRIMP. The production of breaded shrimp in 2015 was 107.4 million pounds valued at \$376 million. This represents an increase in value and volume from the 2014 production of 105.1 million pounds valued at \$314.7 million.

CANNED PRODUCTS

CANNED FISHERY PRODUCTS. The pack of canned fishery products in the 50 states, American Samoa, and Puerto Rico was 878.5 million pounds valued at \$1.42 billion—an increase in volume of 145.6 million pounds and \$47 million dollars compared to 2014. The 2015 pack included 713.7 million pounds with a value of \$1.3 billion for human consumption and 164.7 million pounds valued at \$121.7 million for bait and animal food.

CANNED SALMON. The 2015 U.S. pack of salmon was 167.6 million pounds valued at \$355.5 million, increases in volume and value from the 2014 levels of 89.4 million pounds and \$354 million.

CANNED TUNA. The U.S. pack of tuna was 399.9 million pounds valued at \$773.3 million—an increase of 8.9 million pounds in volume and decrease

of \$10.1 million in value compared with the 2014 pack. The pack of albacore tuna was 154.5 million pounds comprising 39 percent of the tuna pack in 2015. Lightmeat tuna (bigeye, bluefin, skipjack, and yellowfin) comprised the remainder with a pack of 245.4 million pounds.

CANNED CLAMS. The 2015 U.S. pack of clams (whole, minced, chowder, juice, and specialties) was 120 million pounds valued at \$147.4 million. The pack of whole and minced clams was 39.4 million pounds. Clam chowder and clam juice was 80.6 million pounds and made up the majority of the pack.

OTHER CANNED ITEMS. The pack of pet food and bait was 164.7 million pounds valued at \$121.7 million—a decrease in volume and value from 2014 levels of 171.1 million pounds worth \$149.8 million.

INDUSTRIAL FISHERY PRODUCTS

INDUSTRIAL FISHERY PRODUCTS. The value of the domestic production of industrial fishery products was \$698.5 million—an increase of \$107.5 million compared with the 2014 value.

FISH MEAL. The domestic production of fish and shellfish meal was 610.4 million pounds valued at \$396.4 million, an increase of 95.4 million pounds and \$96.3 million compared with 2014. Most of this production was fish meal (609 million pounds) while shellfish meal production was 1.0 million pounds—an increase of 609 thousand pounds from the 2014 level.

FISH OILS. The domestic production of fish oils was 139.9 million pounds (approximately 18.1 million gallons) valued at \$97.4 million, an increase of 946 thousand pounds and \$12.8 million in value compared with 2014 production.

OTHER INDUSTRIAL PRODUCTS. Oyster shell products, agar-agar, animal feeds, crab and clam shells processed for food serving, fish pellets, Irish moss extracts, kelp products, dry and liquid fertilizers, and mussel shell buttons were valued at \$204.7 million.

Processed Fishery Products

METHODOLOGY:

The NMFS Annual Survey of U.S. Seafood Processors is the only comprehensive, national survey that focuses on the domestic seafood processing industry. The resulting data are reported in this section of Fisheries of the United States, as well as reports of the Food and Agriculture Organization of the United Nations (FAO), Fisheries Economics of the United States, and are used in commercial fisheries disposition calculations, annual per-capita consumption figures, and other reports.

The survey is voluntary in all regions except the Northeast. In the Northeast, it is mandatory for processors with a federal processing permit to provide the requested data.

The survey instrument is a paper form that asks for monthly employment figures, a list of product types, and the volume and value of each product processed in the previous year. Space is provided for the company to fill in new products. The survey forms are produced by NMFS Office of Science and Technology and are mailed to five different regional contacts. Each region then proceeds slightly differently:

- Northeast – The distribution of forms to companies is overseen by a lead port agent. Other port agents assist with collecting information from the companies in their area. Dealer permits are not renewed if the processor has not provided the required data.
- Southeast and Gulf – Forms are distributed through the Southeast Fishery Science Center to the port agents along the coast who are then responsible for obtaining the data from the companies.
- Southwest and Northwest – Forms are distributed through, and returned to, the Pacific States Marine Fisheries Commission office under an agreement with NMFS.
- Pacific Islands – Forms are distributed and collected by Pacific Islands Regional Office staff.

The companies in the survey are those that have reported previously or have been found by research or word-of-mouth. Adding companies in order to have a more complete data frame is a constant goal throughout the year.

Forms are returned to the Office of Science and Technology for data entry. Follow up contact may be attempted to clarify data that is excluded or unclear. Because the survey is voluntary, we do not receive data from every company we contact. We employ various estimation and alternate data collection methods:

- Most Alaska data are obtained from the Alaska Fisheries Information Network (AKFIN).
- Data on Alaskan salmon processing come from the Alaska Department of Fish and Game.
- USDA reports provide data on rainbow trout processing and catfish data are estimated from USDA catfish production numbers.
- Data from the NOAA Seafood Inspection Program are used to estimate the data for companies that have not reported to the Survey of Fishery Processors but are included in the inspection program.
- Imputation is used to estimate the remaining missing companies.

Processed Fishery Products

VALUE OF PROCESSED FISHERY PRODUCTS, 2014 AND 2015 (Processed from domestic catch and imported products)

Item	2014 (1)		2015	
	Thousand dollars	Percent of total	Thousand dollars	Percent of total
Edible:				
Fresh and frozen	9,012,951	80	7,816,335	77
Canned	1,226,638	11	1,302,131	13
Cured	219,996	2	163,166	2
Total edible	10,459,585	93	9,281,632	91
Industrial:				
Bait and animal food	203,922	2	199,989	2
Meal and oil	384,951	3	493,746	5
Other	196,580	2	200,043	2
Total industrial	785,453	7	893,778	9
Grand total	11,245,038	100	10,175,410	100

Note: Value is based on selling price at the plant.

(1) Revised based on additional data.

U.S. PRODUCTION OF FISH STICKS, FISH PORTIONS, AND BREADED SHRIMP, 2006-2015

Year	Fish sticks			Fish portions			Breaded shrimp		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
2006	59,353	26,922	61,942	178,742	81,077	302,984	139,571	63,309	347,152
2007	73,926	33,533	104,974	194,005	88,000	300,137	86,131	39,069	200,147
2008	82,461	37,404	120,615	204,491	92,757	310,213	74,172	33,644	159,416
2009	79,586	36,100	125,258	140,584	63,768	291,569	97,124	44,055	251,594
2010	74,451	33,771	113,069	141,849	64,342	277,466	116,935	53,041	562,928
2011	80,034	36,303	104,829	172,051	78,042	345,686	92,460	41,940	240,976
2012	58,214	26,406	87,430	151,721	68,820	259,504	79,740	36,170	193,837
2013	58,545	26,556	87,487	146,594	66,495	255,725	109,293	49,575	311,211
2014	66,775	30,289	101,349	144,200	65,409	264,628	105,094	47,670	314,713
2015	65,679	29,792	94,720	140,282	63,631	265,079	107,403	48,718	376,005

Processed Fishery Products

PRODUCTION OF FRESH AND FROZEN FILLETS AND STEAKS, BY SPECIES, 2014 AND 2015

Species	2014 (1)			2015		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Fillets:						
Amberjack	72	33	755	76	34	784
Anglerfish	399	181	2,407	407	185	1,786
Bluefish	118	54	439	75	34	327
Cobia	40	18	490	25	11	212
Cod	79,469	36,047	265,883	63,973	29,018	253,137
Cusk	14	6	55	19	9	56
Dolphinfish	3,643	1,652	22,664	3,167	1,437	15,902
Flounders	17,260	7,829	63,499	11,517	5,224	46,698
Groupers	1,393	632	15,589	867	393	10,796
Haddock	14,130	6,409	68,705	13,917	6,313	65,181
Hake	49,979	22,670	69,303	26,004	11,795	33,864
Halibut	4,712	2,137	45,864	3,405	1,544	28,833
Lingcod	112	51	571	96	44	501
Ocean perch:						
Atlantic	1,675	760	5,287	1,308	593	4,211
Pacific	780	354	2,338	780	354	2,092
Opah	213	97	1,614	161	73	631
Patagonian Toothfish	842	382	15,863	375	170	8,219
Pollock:						
Atlantic	2,073	940	7,167	1,344	610	4,496
Alaska	479,039	217,291	712,165	460,684	208,965	622,438
Rockfishes	1,973	895	6,857	2,572	1,167	7,890
Sablefish	217	98	2,775	714	324	5,486
Salmon	110,744	50,233	631,109	95,120	43,146	480,098
Sea bass	194	88	2,137	297	135	2,571
Sea trout	174	79	1,265	97	44	645
Shark	373	169	1,283	454	206	1,391
Snapper	822	373	8,870	765	347	10,099
Striped bass	252	114	2,551	197	89	1,691
Swordfish	3,000	1,361	26,736	2,052	931	17,951
Tilapia	11,776	5,342	43,646	9,764	4,429	31,862
Tuna	13,410	6,083	246,103	8,023	3,639	76,006
Wahoo	444	201	2,552	381	173	1,608
Wolffish	108	49	860	(2)	(2)	(2)
Yellowtail Jack	175	79	1,165	81	37	410
Unclassified	16,817	7,628	82,062	9,351	4,242	52,026
Total Fillet	816,442	370,336	2,360,629	718,068	325,714	1,789,898
Steaks:						
Halibut	767	348	8,628	589	267	6,529
Salmon	537	244	3,860	(2)	(2)	(2)
Swordfish	1,754	796	6,969	1,671	758	6,066
Tuna	848	385	8,032	885	401	8,151
Unclassified	1,682	763	3,689	3,377	1,532	9,409
Total Steaks	5,588	2,535	31,178	6,522	2,958	30,155
Grand total	822,030	372,870	2,391,807	724,590	328,672	1,820,053

(1) Revised based on additional data.

(2) Included in unclassified.

Note: Some fillet products were further processed into frozen blocks.

Processed Fishery Products

PRODUCTION OF CANNED FISHERY PRODUCTS, BY SPECIES, 2014 AND 2015

Species	Pounds per case	2014 (1)			2015		
		Standard cases	Thousand pounds	Thousand dollars	Standard cases	Thousand pounds	Thousand dollars
For human consumption:							
Fish:							
Herring	23.4	(5)	(5)	(5)	(5)	(5)	(5)
Salmon:							
Chinook	44.25	113	5	56	113	5	56
Chum	44.25	37,853	1,675	3,841	12,249	542	881
Pink	44.25	976,023	43,189	104,352	2,944,542	130,296	232,751
Coho	44.25	23	1	9	14,305	633	1,263
Sockeye	44.25	1,005,672	44,501	245,800	817,333	36,167	120,567
Total salmon		2,019,684	89,371	354,058	3,788,542	167,643	355,518
Specialties	48	10,167	488	2,676	13,250	636	3,905
Sardines, Maine	23.4	(5)	(5)	(5)	(5)	(5)	(5)
Tuna: (2)							
Albacore:							
Solid	18	6,226,778	112,082	283,241	7,297,389	131,353	339,727
Chunk	18	1,334,444	24,020	55,792	1,286,611	23,159	53,949
Total albacore		7,561,222	136,102	339,033	8,584,000	154,512	393,676
Lightmeat:							
Solid	18	679,056	12,223	32,326	618,944	11,141	29,718
Chunk	18	13,481,556	242,668	412,112	13,011,833	234,213	349,952
Total lightmeat		14,160,611	254,891	444,438	13,630,778	245,354	379,670
Total tuna		21,721,833	390,993	783,471	22,214,778	399,866	773,346
Specialties	48	42	2	22	42	2	30
Other	48	938	45	267	5,917	284	866
Total fish	-	23,752,663	480,899	1,140,494	26,022,528	568,431	1,133,665
Shellfish:							
Clam and clam products: (3)							
Whole and minced	15	1,208,867	18,133	32,221	2,627,933	39,419	84,853
Chowder and juice	30	1,953,000	58,590	41,939	2,687,400	80,622	62,551
Specialties	48	(5)	(5)	(5)	(5)	(5)	(5)
Total clams	-	3,161,867	76,723	74,160	5,315,333	120,041	147,404
Crab meat and specialties:							
Oyster, specialties	48	(5)	(5)	(5)	(5)	(5)	(5)
Shrimp, natural (4)	6.75	95,852	647	4,263	(5)	(5)	(5)
Other	48	71,208	3,418	7,483	525,563	25,227	20,897
Total shellfish	-	3,332,158	80,851	86,142	5,843,101	145,311	168,466
Total for human consumption	-	27,084,820	561,750	1,226,636	31,865,629	713,742	1,302,131
For bait and animal food	48	3,564,667	171,104	149,822	3,432,208	164,746	121,668
Grand total	-	30,649,487	732,854	1,376,458	35,297,838	878,488	1,423,799

(1) Revised based on additional data.

(2) Flakes included with chunk.

(3) "Cut out" or "drained" weight of can contents are given for whole or minced clams, and net contents for other clam products.

(4) Drained weight.

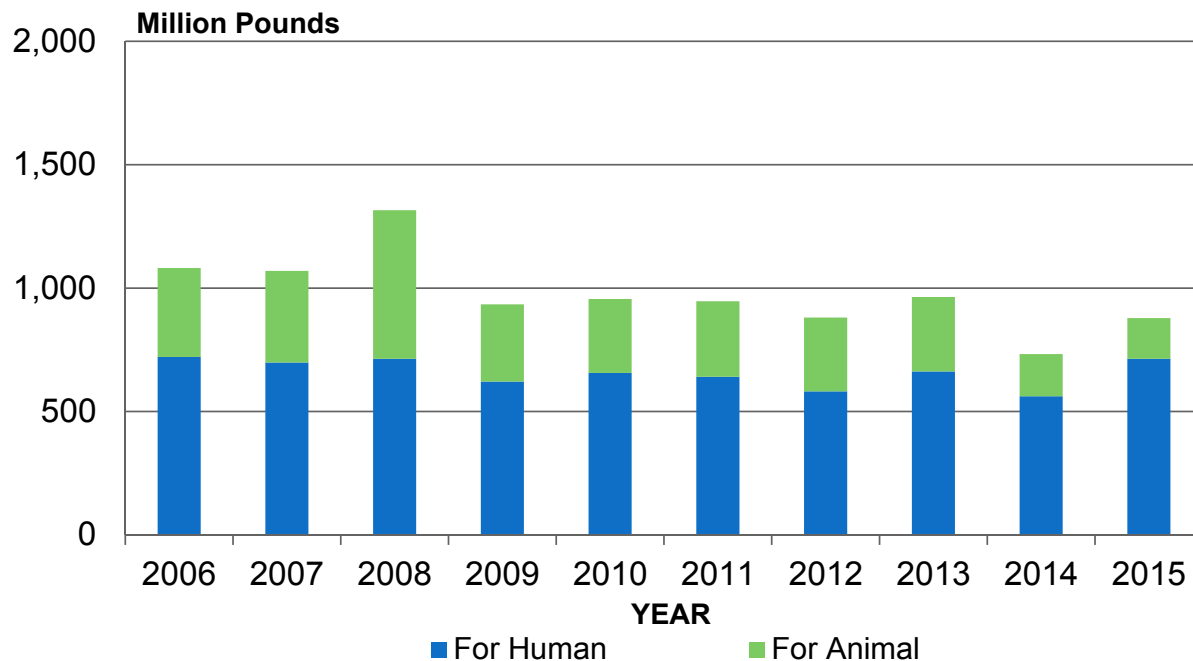
(5) Confidential included with "Other".

Processed Fishery Products

PRODUCTION OF CANNED FISHERY PRODUCTS, 2006-2015

Year	For human consumption			For animal food and bait			Total		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
2006	721,102	327,090	1,100,794	360,241	163,404	229,109	1,081,343	490,494	1,329,903
2007	698,831	316,988	1,090,070	371,032	168,299	233,614	1,069,863	485,287	1,323,684
2008	713,946	323,844	1,191,214	601,678	272,919	231,273	1,315,624	596,763	1,422,487
2009	621,256	281,800	1,190,067	312,887	141,925	217,699	934,143	423,724	1,407,766
2010	656,420	297,750	1,196,346	299,300	135,762	217,583	955,720	433,512	1,413,929
2011	640,917	290,588	1,251,332	305,906	138,209	224,953	946,823	429,476	1,476,285
2012	581,908	263,952	1,373,011	298,667	135,474	241,663	880,575	399,426	1,614,674
2013	662,435	300,478	1,533,585	301,659	135,477	246,336	964,094	437,310	1,779,921
2014	561,750	254,808	1,226,636	171,104	77,612	149,822	732,854	332,420	1,376,458
2015	713,742	323,751	1,302,131	164,746	74,728	121,668	878,488	398,480	1,423,799

Production of Canned Fishery Products, 2006-2015



Processed Fishery Products

PRODUCTION OF MEAL AND OIL, 2014 AND 2015

Product	2014			2015		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Dried scrap and meal:						
Fish	514,240	233,258	299,317	609,353	276,401	395,498
Shellfish	400	181	251	1,009	458	878
Total, scrap and meal	515,000	233,439	300,100	610,362	276,858	396,376
Body oil, total	139,005	63,052	84,600	139,951	63,481	97,370

Note: To convert pounds of oil to gallons divide by 7.75.

The above data include products in American Samoa and Puerto Rico.

PRODUCTION OF INDUSTRIAL PRODUCTS, 2006-2015

Year	Scrap and Meal		Marine Animal Oil		Meal and Oil	Other Industrial Products	Grand Total
	Thousand pounds	Metric tons	Thousand pounds	Metric tons	-----Thousand dollars-----		
2006	582,900	264,402	142,747	64,750	185,712	61,000	246,712
2007	563,221	255,475	152,205	69,040	277,874	62,025	339,899
2008	492,828	223,545	190,023	86,194	245,240	64,631	309,871
2009	472,805	214,463	168,157	76,276	227,438	61,657	289,095
2010	487,692	221,216	136,362	61,853	218,937	64,040	282,977
2011	620,823	281,603	143,171	64,942	301,462	133,640	435,102
2012	585,565	265,611	115,090	52,204	335,188	162,341	497,529
2013	508,057	230,453	175,877	79,777	298,709	180,073	478,780
2014	515,000	233,602	139,005	63,052	384,700	206,251	590,951
2015	610,362	276,858	139,951	63,481	493,746	204,750	698,496

Note: Does not include the value of imported items that may be further processed.