

**U.S. Food and Drug Administration**  
Protecting and Promoting *Your* Health

# Mercury Levels in Commercial Fish and Shellfish (1990-2010)

See also [Mercury Concentrations in Fish: FDA Monitoring Program \(/Food/FoodbornellnessContaminants/Metals/ucm191007.htm\)](/Food/FoodbornellnessContaminants/Metals/ucm191007.htm)

**Table 1. Fish and Shellfish With Highest Levels of Mercury**

SPECIES	MERCURY CONCENTRATION (PPM)					NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	STDEV	MIN	MAX		
MACKEREL KING	0.730	N/A	N/A	0.230	1.670	213	GULF OF MEXICO REPORT 2000
SHARK	0.979	0.811	0.626	ND	4.540	356	FDA 1990-2007
SWORDFISH	0.995	0.870	0.539	ND	3.220	636	FDA 1990-2010
TILEFISH (Gulf of Mexico)	1.450	N/A	N/A	0.650	3.730	60	NMFS REPORT 1978

**Table 2. Fish and Shellfish With Lower Levels of Mercury**

SPECIES	MERCURY CONCENTRATION (PPM)					NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	STDEV	MIN	MAX		
ANCHOVIES	0.017	0.014	0.015	ND	0.049	14	FDA 2007-2010
BUTTERFISH	0.058	N/A	N/A	ND	0.36	89	NMFS REPORT 1978
CATFISH	0.025	0.005	0.057	ND	0.314	57	FDA 1991-2010
CLAM *	0.009	0.002	0.011	ND	0.028	15	FDA 1991-2010
COD	0.111	0.066	0.152	ND	0.989	115	FDA 1991-2010

CRAB <sup>1</sup>	0.065	0.050	0.096	ND	0.610	93	FDA 1991-2009
CRAWFISH	0.033	0.035	0.012	ND	0.051	46	FDA 1991-2007
CROAKER ATLANTIC (Atlantic)	0.065	0.061	0.050	ND	0.193	57	FDA 2002 - 2009
FLATFISH <sup>2*</sup>	0.056	0.050	0.045	ND	0.218	71	FDA 1991-2009
HADDOCK (Atlantic)	0.055	0.049	0.033	ND	0.197	50	FDA 1991-2009
HAKE	0.079	0.067	0.064	ND	0.378	49	FDA 1994-2009
HERRING	0.084	0.048	0.128	ND	0.560	26	FDA 2006-2009
JACKSMELT	0.081	0.050	0.103	0.011	0.500	23	FDA 1997-2007
LOBSTER (Spiny)	0.093	0.062	0.097	ND	0.270	13	FDA 1991-2005
MACKEREL ATLANTIC (N.Atlantic)	0.050	N/A	N/A	0.020	0.160	80	NMFS REPORT 1978
MACKEREL CHUB (Pacific)	0.088	N/A	N/A	0.030	0.190	30	NMFS REPORT 1978
MULLET	0.050	0.014	0.078	ND	0.270	20	FDA 1991-2008
OYSTER	0.012	ND	0.035	ND	0.250	61	FDA 1991-2009
PERCH OCEAN *	0.121	0.102	0.125	ND	0.578	31	FDA 1991-2010
POLLOCK	0.031	0.003	0.089	ND	0.780	95	FDA 1991-2008
SALMON (CANNED) *	0.008	ND	0.017	ND	0.086	34	FDA 1992-2009
SALMON (FRESH/FROZEN) *	0.022	0.015	0.034	ND	0.190	94	FDA 1991-2009
SARDINE	0.013	0.010	0.015	ND	0.083	90	FDA 2002-2010
SCALLOP	0.003	ND	0.007	ND	0.033	39	FDA 1991-2009
SHAD AMERICAN	0.045	0.039	0.045	0.013	0.186	13	FDA 2007-2010
SHRIMP *	0.009	0.001	0.013	ND	0.050	40	FDA 1991-2009
SQUID	0.023	0.016	0.022	ND	0.070	42	FDA 2005-2010
TILAPIA *	0.013	0.004	0.023	ND	0.084	32	FDA 1991-2008

TROUT (FRESHWATER)	0.071	0.025	0.141	ND	0.678	35	FDA 1991-2008
TUNA (CANNED, LIGHT)	0.128	0.078	0.135	ND	0.889	551	FDA 1991-2010
WHITEFISH	0.089	0.067	0.084	ND	0.317	37	FDA 1991-2008
WHITING	0.051	0.052	0.030	ND	0.096	13	FDA 1991-2008

Table 3. Mercury Levels of Other Fish and Shellfish

SPECIES	MERCURY CONCENTRATION (PPM)					NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	STDEV	MIN	MAX		
BASS (SALTWATER, BLACK, STRIPED) <sup>3</sup>	0.152	0.084	0.201	ND	0.960	82	FDA 1991-2010
BASS CHILEAN	0.354	0.303	0.299	ND	2.180	74	FDA 1994-2010
BLUEFISH	0.368	0.305	0.221	0.089	1.452	94	FDA 1991-2009
BUFFALOFISH	0.137	0.120	0.094	0.032	0.430	17	FDA 1992-2008
CARP	0.110	0.134	0.099	ND	0.271	14	FDA 1992-2007
CROAKER WHITE (Pacific)	0.287	0.280	0.069	0.180	0.410	15	FDA 1997
GROUPE (ALL SPECIES)	0.448	0.399	0.278	0.006	1.205	53	FDA 1991-2005
HALIBUT	0.241	0.188	0.225	ND	1.520	101	FDA 1992-2009
LOBSTER (NORTHERN / AMERICAN)	0.107	0.086	0.076	ND	0.230	9	FDA 2005-2007
LOBSTER (Species Unknown)	0.166	0.143	0.099	ND	0.451	71	FDA

							1991-2008
MACKEREL SPANISH (Gulf of Mexico)	0.454	N/A	N/A	0.07	1.56	66	NMFS REPORT 1978
MACKEREL SPANISH (S. Atlantic)	0.182	N/A	N/A	0.05	0.73	43	NMFS REPORT 1978
MARLIN *	0.485	0.390	0.237	0.100	0.920	16	FDA 1992-1996
MONKFISH	0.181	0.139	0.075	0.106	0.289	9	FDA 2006-2008
ORANGE ROUGHY	0.571	0.562	0.183	0.265	1.120	81	FDA 1991-2009
PERCH (Freshwater)	0.150	0.146	0.112	ND	0.325	19	FDA 1991-2007
SABLEFISH	0.361	0.265	0.241	0.090	1.052	26	FDA 2004 - 2009
SCORPIONFISH	0.233	0.181	0.139	0.098	0.456	6	FDA 2007 - 2008
SHEEPSHEAD	0.093	0.088	0.059	ND	0.170	6	FDA 2007 - 2009
SKATE	0.137	N/A	N/A	0.04	0.36	56	NMFS REPORT 1978
SNAPPER	0.166	0.113	0.244	ND	1.366	67	FDA 1991-2007
TILEFISH (Atlantic)	0.144	0.099	0.122	0.042	0.533	32	FDA 2002-04
TUNA (CANNED, ALBACORE)	0.350	0.338	0.128	ND	0.853	451	FDA 1991-2010

TUNA(FRESH/FROZEN, ALL)	0.391	0.340	0.266	0.000	1.816	420	FDA 1991 - 2010
TUNA (FRESH/FROZEN, ALBACORE)	0.358	0.360	0.138	ND	0.820	43	FDA 1992-2008
TUNA (FRESH/FROZEN, BIGEYE)	0.689	0.560	0.341	0.128	1.816	21	FDA 1991 - 2005
TUNA (FRESH/FROZEN, SKIPJACK)	0.144	0.150	0.119	0.022	0.260	3	FDA 1993 - 2007
TUNA (FRESH/FROZEN, YELLOWFIN)	0.354	0.311	0.231	0.000	1.478	231	FDA 1991-2010
TUNA (FRESH/FROZEN, Species Unknown)	0.415	0.339	0.308	0.000	1.300	120	FDA 1991-2010
WEAKFISH (SEA TROUT)	0.235	0.157	0.216	0.000	0.744	46	FDA 1991-2005

**Source of data:**FDA 1990-2010 , "National Marine Fisheries Service Survey of Trace Elements in the Fishery Resource" Report 1978,  
"The Occurrence of Mercury in the Fishery Resources of the Gulf of Mexico" Report 2000

Mercury was measured as Total Mercury except for species (\*) when only Methylmercury was analyzed.

ND-mercury concentration below detection level (Level of Detection (LOD)=0.01ppm)

N/A-data not available

†The following species have been removed from the tables:

- Bass (freshwater) – not commercial
- Pickerel – not commercial

‡Standard deviation data generated from data 1990 to 2010.

<sup>1</sup>Includes: Blue, King, Snow

<sup>2</sup>Includes: Flounder, Plaice, Sole

<sup>3</sup>Includes: Sea bass/ Striped Bass/ Rockfish

**NOTE:** On February 8, 2006, technical changes were made to the data that was posted on January 19, 2006. The changes corrected data or more properly characterized the species of fish or shellfish sampled.

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