



U.S. Department of Health and Human Services  
and  
U.S. Environmental Protection Agency



May 2001; Updated February 2006

# Mercury Levels in Commercial Fish and Shellfish

**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	0.988	0.830	0.631	ND	4.540	351	FDA 1990-02
SWORDFISH	0.976	0.860	0.510	ND	3.220	618	FDA 1990-04
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<sup>†</sup>**

SPECIES	MERCURY CONCENTRATION (PPM)					NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	STDEV	MIN	MAX		
ANCHOVIES	0.043	N/A	N/A	ND	0.340	40	NMFS REPORT 1978
BUTTERFISH	0.058	N/A	N/A	ND	0.360	89	NMFS REPORT 1978
CATFISH	0.049	ND	0.084	ND	0.314	23	FDA 1990-04
CLAM *	ND	ND	ND	ND	ND	6	FDA 1990-02
COD	0.095	0.087	0.080	ND	0.420	39	FDA 1990-04
CRAB <sup>1</sup>	0.060	0.030	0.112	ND	0.610	63	FDA 1990-04
CRAWFISH	0.033	0.035	0.012	ND	0.051	44	FDA 2002-04
CROAKER ATLANTIC (Atlantic)	0.072	0.073	0.036	0.013	0.148	35	FDA 1990-03
FLATFISH <sup>2*</sup>	0.045	0.035	0.049	ND	0.180	23	FDA 1990-04
HADDOCK (Atlantic)	0.031	0.041	0.021	ND	0.041	4	FDA 1990-02
HAKE	0.014	ND	0.021	ND	0.048	9	FDA 1990-02
HERRING	0.044	N/A	N/A	ND	0.135	38	NMFS REPORT 1978
JACKSMELT	0.108	0.060	0.115	0.040	0.500	16	FDA 1990-02
LOBSTER (Spiny)	0.09	0.14	‡	ND	0.27	9	FDA SURVEY 1990-02
MACKEREL ATLANTIC	0.050	N/A	N/A	0.020	0.160	80	NMFS REPORT

**Table 2. Fish and Shellfish With Lower Levels of Mercury<sup>†</sup>**

SPECIES	MERCURY CONCENTRATION (PPM)						NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	STDEV	MIN	MAX			
(N.Atlantic)								1978
MACKEREL CHUB (Pacific)	0.088	N/A	N/A	0.030	0.190	30		NMFS REPORT 1978
MULLET	0.046	N/A	N/A	ND	0.130	191		NMFS REPORT 1978
OYSTER	0.013	ND	0.042	ND	0.250	38		FDA 1990-04
PERCH OCEAN *	ND	ND	ND	ND	0.030	6		FDA 1990-02
POLLOCK	0.041	ND	0.106	ND	0.780	62		FDA 1990-04
SALMON (CANNED) *	ND	ND	ND	ND	ND	23		FDA 1990-02
SALMON (FRESH/FROZEN) *	0.014	ND	0.041	ND	0.190	34		FDA 1990-02
SARDINE	0.016	0.013	0.007	0.004	0.035	29		FDA 2002-04
SCALLOP	0.050	N/A	N/A	ND	0.220	66		NMFS REPORT 1978
SHAD AMERICAN	0.065	N/A	N/A	ND	0.220	59		NMFS REPORT 1978
SHRIMP *	ND	ND	ND	ND	0.050	24		FDA 1990-02
SQUID	0.070	N/A	N/A	ND	0.400	200		NMFS REPORT 1978
TILAPIA *	0.010	ND	0.023	ND	0.070	9		FDA 1990-02
TROUT (FRESHWATER)	0.072	0.025	0.143	ND	0.678	34		FDA 2002-04
TUNA (CANNED, LIGHT)	0.118	0.075	0.119	ND	0.852	347		FDA 2002-04
WHITEFISH	0.069	0.054	0.067	ND	0.310	28		FDA 2002-04
WHITING	ND	ND	‡	ND	ND	2		FDA SURVEY 1990-02

**Table 3. Mercury Levels of Other Fish and Shellfish<sup>†</sup>**

SPECIES	MERCURY CONCENTRATION (PPM)						NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	STDEV	MIN	MAX			
BASS (SALTWATER, BLACK, STRIPED) <sup>3</sup>	0.219	0.130	0.227	ND	0.960	47		FDA 1990-04
BASS CHILEAN	0.386	0.303	0.364	0.085	2.180	40		FDA 1990-04
BLUEFISH	0.337	0.303	0.127	0.139	0.634	52		FDA 2002-04
BUFFALOFISH	0.19	0.14	‡	0.05	0.43	4		FDA SURVEY 1990-02
CARP	0.14	0.14	‡	0.01	0.27	2		FDA SURVEY 1990-02
CROAKER WHITE (Pacific)	0.287	0.280	0.069	0.180	0.410	15		FDA 1990-03
GROUPE (ALL SPECIES)	0.465	0.410	0.293	0.053	1.205	43		FDA 2002-04
HALIBUT	0.252	0.200	0.233	ND	1.520	46		FDA 1990-04
LOBSTER (NORTHERN/AMERICAN)	0.310	N/A	N/A	0.050	1.310	88		NMFS REPORT 1978
LOBSTER (Species Unknown)	0.169	0.182	0.089	ND	0.309	16		FDA 1991-2004
MACKEREL SPANISH (Gulf of Mexico)	0.454	N/A	N/A	0.070	1.560	66		NMFS REPORT 1978
MACKEREL SPANISH (S. Atlantic)	0.182	N/A	N/A	0.050	0.730	43		NMFS REPORT 1978

**Table 3. Mercury Levels of Other Fish and Shellfish<sup>†</sup>**

SPECIES	MERCURY CONCENTRATION (PPM)					NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	STDEV	MIN	MAX		
MARLIN *	0.485	0.390	0.237	0.100	0.920	16	FDA 1990-02
MONKFISH	0.180	N/A	N/A	0.020	1.020	81	NMFS REPORT 1978
ORANGE ROUGHY	0.554	0.563	0.148	0.296	0.855	49	FDA 1990-04
PERCH (Freshwater)	0.14	0.15	‡	ND	0.31	5	FDA SURVEY 1990-02
SABLEFISH	0.220	N/A	N/A	ND	0.700	102	NMFS REPORT 1978
SCORPIONFISH	0.286	N/A	N/A	0.020	1.345	78	NMFS REPORT 1978
SHEEPSHEAD	0.128	N/A	N/A	0.020	0.625	59	NMFS REPORT 1978
SKATE	0.137	N/A	N/A	0.040	0.360	56	NMFS REPORT 1978
SNAPPER	0.189	0.114	0.274	ND	1.366	43	FDA 2002-04
TILEFISH (Atlantic)	0.144	0.099	0.122	0.042	0.533	32	FDA 2002-04
TUNA (CANNED, ALBACORE)	0.353	0.339	0.126	ND	0.853	399	FDA 2002-04
TUNA(FRESH/FROZEN, ALL)	0.383	0.322	0.269	ND	1.300	228	FDA 2002-04
TUNA (FRESH/FROZEN, ALBACORE)	0.357	0.355	0.152	ND	0.820	26	FDA 2002-04
TUNA (FRESH/FROZEN, BIGEYE)	0.639	0.560	0.184	0.410	1.040	13	FDA 2002-04
TUNA (FRESH/FROZEN, SKIPJACK)	0.205	N/A	0.078	0.205	0.260	2	FDA 1993
TUNA (FRESH/FROZEN, YELLOWFIN)	0.325	0.270	0.220	ND	1.079	87	FDA 2002-04
TUNA (FRESH/FROZEN, Species Unknown)	0.414	0.339	0.316	ND	1.300	100	FDA 1991-2004
WEAKFISH (SEA TROUT)	0.256	0.168	0.226	ND	0.744	39	FDA 2002-04

**Source of data:** FDA 1990-2004, "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

<sup>†</sup>The following species have been removed from the tables:

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

‡ Standard deviation data generated for new data 2004 or later only.

<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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Historical data: [March 2004 Mercury Levels in Commercial Fish and Shellfish](#)

FDA/Center for Food Safety & Applied Nutrition

Hypertext updated by [cjm](#) March 2, 2006