



Alaska Department of Environmental Conservation

Office of the State Veterinarian

Fish Monitoring Program

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Body Weight and Percent Lipids in Alaska's Fish

Fish Samples collected: 2001-2021

Visit the Fish Monitoring Program webpage for more information:

<http://www.dec.alaska.gov/eh/vet/fish-monitoring-program>

For State of Alaska fish consumption recommendations visit:

<http://www.dhss.alaska.gov/dph/Epi/eph/Pages/fish/default.aspx>

Table 1: Body Weight (lbs) of Alaskan Fishes

Species	n	Mean	SD	Median	Min	Max
ALASKA BLACKFISH	5	0.05	0.05	0.03	0.01	0.12
AMPHIPOD	1	0.00	NA	0.00	0.00	0.00
ATKA MACKEREL	5	2.07	0.61	1.85	1.50	3.09
BURBOT	71	2.41	1.89	1.88	0.26	12.32
CAPELIN	1	0.03	NA	0.03	0.03	0.03
CHAR-ARCTIC	63	0.39	0.64	0.23	0.06	4.67
CHAR-DOLLY VARDEN	107	0.60	0.54	0.55	0.03	2.80
CISCO-ARCTIC	21	0.82	0.18	0.79	0.51	1.37
CISCO-BERING	5	1.33	1.21	1.01	0.35	3.30
CISCO-LEAST	52	0.73	0.26	0.66	0.22	1.48
CLAMS, BUTTER	3	0.83	0.46	0.61	0.52	1.36
CLAMS, COCKLE	10	0.59	0.38	0.54	0.01	1.43
CLAMS, HORSE	1	1.86	NA	1.86	1.86	1.86
CLAMS, LITTLE NECKS	1	0.38	NA	0.38	0.38	0.38
CLAMS, MACOMA B	1	0.01	NA	0.01	0.01	0.01
CLAMS, SOFTSHELL	6	0.05	0.03	0.05	0.02	0.09
COD-PACIFIC	132	6.14	4.39	5.07	1.01	23.22
COD-SAFFRON	10	0.14	0.04	0.13	0.08	0.20
CRAB-DUNGENESS	1	1.42	NA	1.42	1.42	1.42
CRAB-DUNGENESS TISSUE	2	1.84	0.05	1.84	1.81	1.87
EULACHON	7	0.14	0.02	0.14	0.11	0.15
FLOUNDER-ARCTIC	2	0.05	0.02	0.05	0.04	0.07
FLOUNDER-STARRY	1	0.82	NA	0.82	0.82	0.82
GRAYLING	203	0.58	0.37	0.51	0.00	1.94
GREENLING-KELP	15	1.68	0.64	1.63	0.24	2.82
GREENLING-ROCK	16	1.52	0.49	1.54	0.84	2.98
HALIBUT	3965	38.80	30.88	29.54	3.53	337.09
HERRING	12	0.35	0.34	0.27	0.13	1.38
IRISH LORD-RED	12	1.33	0.42	1.28	0.86	2.29
IRISH LORD-YELLOW	10	1.88	0.64	1.63	1.19	3.31
ISOPOD	1	0.00	NA	0.00	0.00	0.00
LAMPREY	10	0.23	0.06	0.23	0.15	0.34
LINGCOD	145	28.18	12.22	27.56	2.65	59.52
LONGNOSE SUCKER	2	0.03	0.02	0.03	0.02	0.04
MUSSELS, BLUE	21	0.03	0.08	0.00	0.00	0.34
NORTHERN PIKE	761	31.73	104.31	3.79	0.05	1050.21
PACIFIC HERRING	20	0.34	0.07	0.35	0.13	0.45
PLAICE-ALASKA	31	1.66	0.25	1.60	1.30	2.29
POLLOCK	185	2.23	1.26	1.76	0.42	7.28
ROCKFISH-BLACK	49	5.51	1.60	5.51	2.65	8.38

Table 1: Body Weight (lbs) of Alaskan Fishes (*continued*)

Species	n	Mean	SD	Median	Min	Max
ROCKFISH-COPPER	2	3.20	1.40	3.20	2.20	4.19
ROCKFISH-DUSKY	66	2.38	0.99	2.18	0.31	4.74
ROCKFISH-POP	79	1.41	0.42	1.49	0.44	2.47
ROCKFISH-QUILLBACK	17	2.85	0.77	2.65	1.54	4.63
ROCKFISH-ROUGHEYE	57	1.62	1.20	0.99	0.09	4.63
ROCKFISH-SILVERGRAY	6	3.97	2.44	2.87	1.54	7.05
ROCKFISH-TIGER	1	3.75	NA	3.75	3.75	3.75
ROCKFISH-YELLOWEYE	68	9.71	4.23	9.26	1.54	20.50
ROCKFISH-YELLOWTAIL	5	3.66	1.37	4.19	1.98	5.07
SABLEFISH	348	4.78	2.82	4.78	0.42	16.71
SALMON-CHINOOK	226	11.46	6.57	11.45	0.00	32.14
SALMON-CHUM	286	7.03	1.81	6.79	0.01	13.89
SALMON-PINK	181	3.72	1.24	3.75	0.55	7.08
SALMON-RED	351	4.97	1.75	4.80	0.00	9.83
SALMON-SILVER	471	6.91	3.65	7.28	0.00	16.20
SAND LANCE	2	0.03	0.02	0.03	0.02	0.05
SCULPIN-GREAT	2	2.77	1.17	2.77	1.94	3.59
SCULPIN-SLIMY	21	0.02	0.02	0.01	0.00	0.08
SEA OTTER	67	125.66	31.85	119.05	79.37	171.96
SEAL HARBOR	3	70.11	0.00	70.11	70.11	70.11
SHARK-BLUE	1	44.09	NA	44.09	44.09	44.09
SHARK-SALMON	86	362.99	40.97	363.10	263.89	473.33
SHARK-SLEEPER	1	595.25	NA	595.25	595.25	595.25
SHARK-SPINY DOGFISH	7	6.05	1.77	5.73	4.19	8.38
SHEEFISH	78	13.02	3.80	13.23	4.04	20.00
SHRIMP COONSTRIPED	2	0.28	0.04	0.28	0.25	0.31
SKATE-BIG	132	35.24	21.55	30.67	4.85	118.72
SKATE-LONGNOSE	134	23.04	5.86	23.17	6.61	38.80
SMELT-RAINBOW	15	0.09	0.05	0.10	0.00	0.19
SOLE-BUTTER	1	2.43	NA	2.43	2.43	2.43
SOLE-FLATHEAD	15	1.16	0.24	1.25	0.78	1.47
SOLE-NOTHERN ROCK	39	1.19	0.61	0.99	0.49	3.20
SOLE-SOUTHERN ROCK	1	0.29	NA	0.29	0.29	0.29
SOLE-YELLOWFIN	33	1.41	0.29	1.36	0.95	2.09
STICKLEBACK-NINESPINE	12	0.01	0.00	0.00	0.00	0.01
STICKLEBACK-THREESPINE	19	0.01	0.04	0.00	0.00	0.17
TROUT-CUTTHROAT	7	0.07	0.01	0.08	0.05	0.09
TROUT-LAKE	88	3.13	2.55	2.55	0.85	15.43
TROUT-RAINBOW	166	0.77	0.69	0.52	0.08	4.32
WHITEFISH-BROAD	44	5.27	1.15	5.15	3.31	7.61

Table 1: Body Weight (lbs) of Alaskan Fishes (*continued*)

Species	n	Mean	SD	Median	Min	Max
WHITEFISH-HUMPBACK	122	2.09	1.10	2.01	0.50	5.89
WHITEFISH-PYGMY	1	0.09	NA	0.09	0.09	0.09
WHITEFISH-ROUND	17	0.75	0.43	0.64	0.16	1.76
WORM-ORANGE RIBBON	2	0.00	0.00	0.00	0.00	0.00
WORM-PILE	2	0.00	0.00	0.00	0.00	0.00

Note:

Units = Pounds (lbs)

n= sample size

Mean = arithmetic mean

SD = standard deviation

Table 2: Percent of Total Lipids in Alaskan Fishes

Species	Tissue	n	Mean	SD	Median	Min	Max
BURBOT	Fillet	2	0.58	0.08	0.58	0.52	0.64
BURBOT	Liver	2	45.10	17.68	45.10	32.60	57.60
CAPELIN	C-Whole Body	1	7.48	NA	7.48	7.48	7.48
CHAR-ARCTIC	Fillet	1	0.49	NA	0.49	0.49	0.49
CHAR-DOLLY VARDEN	Fillet	1	2.39	NA	2.39	2.39	2.39
CHAR-DOLLY VARDEN	C-Whole Body	3	5.83	2.99	6.14	2.70	8.65
CISCO-BERING	Fillet	5	19.71	15.75	19.20	4.66	43.50
CISCO-LEAST	Fillet	5	4.78	2.36	3.89	2.61	8.75
CISCO-LEAST	Whole Body	2	5.23	0.00	5.23	5.23	5.23
CISCO-LEAST	Liver	2	3.66	0.00	3.66	3.66	3.66
COD-PACIFIC	Fillet	25	0.49	0.10	0.49	0.23	0.64
COD-SAFFRON	Whole Body	9	2.14	1.03	1.90	0.99	3.53
CRAB-DUNGENESS TISSUE	Invert Muscle	2	0.81	0.21	0.81	0.66	0.96
EULACHON	C-Whole Body	7	9.53	2.38	9.41	6.62	14.00
FLOUNDER-STARRY	C-Whole Body	3	4.56	1.23	5.17	3.15	5.37
GRAYLING	Whole Body	8	3.96	1.15	3.51	3.04	5.78
GRAYLING	Liver	8	3.85	0.21	3.88	3.54	4.08
HALIBUT	Fillet	98	2.22	2.09	1.54	0.02	11.60
HALIBUT	C-Fillet	23	1.35	0.87	1.02	0.50	3.54
HERRING	C-Whole Body	11	6.83	2.93	7.04	2.68	10.30
NORTHERN PIKE	Fillet	11	0.55	0.14	0.55	0.37	0.91
NORTHERN PIKE	Whole Body	10	4.63	5.01	3.24	1.60	18.70
PLAICE-ALASKA	C-Fillet	1	1.16	NA	1.16	1.16	1.16
POLLOCK	Fillet	15	0.78	0.16	0.74	0.60	1.12
ROCKFISH-DUSKY	Fillet	15	1.04	0.59	1.15	0.29	2.29
ROCKFISH-SHORTRAKER	Fillet	5	0.89	0.44	0.71	0.61	1.66
SABLEFISH	Fillet	38	12.62	6.69	15.05	0.79	21.60
SABLEFISH	C-Fillet	4	6.27	8.00	2.77	1.33	18.20
SABLEFISH	Whole Body	3	21.63	3.11	20.20	19.50	25.20
SALMON-CHINOOK	Fillet	74	7.98	5.99	7.26	0.36	23.60
SALMON-CHINOOK	C-Fillet	1	4.55	NA	4.55	4.55	4.55
SALMON-CHINOOK	Whole Body	15	12.39	7.57	15.10	0.75	21.50
SALMON-CHINOOK	C-Fry	7	3.17	1.12	2.82	2.17	5.53
SALMON-CHINOOK	C-Juvenile	3	1.97	0.26	2.09	1.68	2.15
SALMON-CHINOOK	C-Whole Body	1	5.35	NA	5.35	5.35	5.35
SALMON-CHUM	Fillet	48	3.06	1.85	2.24	1.13	8.90
SALMON-CHUM	C-Fillet	1	1.99	NA	1.99	1.99	1.99
SALMON-CHUM	Whole Body	2	3.78	2.21	3.78	2.21	5.34
SALMON-PINK	Fillet	33	2.77	1.00	2.71	1.13	4.72
SALMON-RED	Fillet	69	5.14	3.63	4.14	0.59	16.10

Table 2: Percent of Total Lipids in Alaskan Fishes (*continued*)

Species	Tissue	n	Mean	SD	Median	Min	Max
SALMON-RED	C-Fillet	1	1.58	NA	1.58	1.58	1.58
SALMON-RED	Whole Body	20	6.22	3.20	6.08	0.68	15.20
SALMON-RED	Eggs	2	12.85	1.34	12.85	11.90	13.80
SALMON-RED	C-Fry	3	3.91	0.62	3.93	3.28	4.51
SALMON-RED	C-Whole Body	7	6.21	1.31	6.60	3.97	7.78
SALMON-SILVER	Fillet	113	2.54	1.26	2.38	0.59	6.86
SALMON-SILVER	Belly	10	6.47	3.33	5.08	2.09	11.30
SALMON-SILVER	Whole Body	58	6.64	1.65	6.86	2.79	9.88
SALMON-SILVER	Eggs	19	10.06	0.65	10.00	9.01	11.90
SALMON-SILVER	Testis	6	1.52	0.57	1.48	0.88	2.43
SALMON-SILVER	Fry Whole	1	6.40	NA	6.40	6.40	6.40
SALMON-SILVER	C-Fry	7	3.72	1.33	2.91	2.42	5.75
SALMON-SILVER	Juvenile Whole	7	2.25	0.48	2.46	1.57	2.82
SALMON-SILVER	C-Juvenile	1	3.68	NA	3.68	3.68	3.68
SAND LANCE	C-Whole Body	1	3.88	NA	3.88	3.88	3.88
SEA OTTER	Testis	7	2.13	0.27	2.05	1.85	2.70
SEA OTTER	Liver	14	3.11	0.28	3.19	2.53	3.47
SEA OTTER	Kidney	14	6.08	1.16	6.15	3.42	8.00
SEA OTTER	Brain	12	10.70	1.62	10.85	7.53	12.80
SEA OTTER	Ovary	1	5.42	NA	5.42	5.42	5.42
SEA OTTER	Stomach Contents	11	1.53	0.49	1.43	0.74	2.43
SHARK-SALMON	Fillet	8	9.02	2.56	8.62	6.54	14.60
SHARK-SLEEPER	Fillet	1	21.70	NA	21.70	21.70	21.70
SHARK-SPINY DOGFISH	Fillet	5	19.44	2.41	19.10	16.40	23.00
SHEEFISH	Fillet	26	2.48	1.58	1.91	0.22	6.37
SHEEFISH	Whole Body	5	5.37	1.24	5.44	3.79	6.79
SHEEFISH	Eggs	1	9.85	NA	9.85	9.85	9.85
SKATE-BIG	Fillet	2	0.96	0.10	0.96	0.89	1.03
SKATE-BIG	Liver	2	36.75	1.34	36.75	35.80	37.70
SKATE-LONGNOSE	Fillet	2	1.03	0.13	1.03	0.94	1.12
SKATE-LONGNOSE	Liver	2	50.55	15.77	50.55	39.40	61.70
SOLE-NOTHERN ROCK	C-Fillet	1	0.96	NA	0.96	0.96	0.96
SOLE-YELLOWFIN	C-Fillet	1	1.09	NA	1.09	1.09	1.09
TROUT-LAKE	Fillet	11	2.43	1.34	2.15	0.85	5.06
TROUT-LAKE	Whole Body	2	3.26	0.04	3.26	3.23	3.29
TROUT-RAINBOW	Fillet	4	3.21	0.56	3.06	2.77	3.96
WHITEFISH-BROAD	C-Fillet	3	3.49	0.49	3.75	2.93	3.80
WHITEFISH-HUMPBACK	Fillet	12	4.09	1.27	3.92	1.88	5.82
WHITEFISH-HUMPBACK	Whole Body	2	6.01	1.92	6.01	4.65	7.36

Table 2: Percent of Total Lipids in Alaskan Fishes (*continued*)

Species	Tissue	n	Mean	SD	Median	Min	Max
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Note:

n= sample size

Mean = arithmetic mean

SD = standard deviation

C = Composite of multiple individuals

Table 3: Mean Age of Alaskan Fish

Species	n	Mean	SD	Median	Min	Max
ATKA MACKEREL	4	8.5	2.4	8.5	6.0	11.0
BURBOT	27	9.5	3.2	9.0	2.0	17.0
CHAR-ARCTIC	13	10.7	3.2	9.0	7.0	18.0
CHAR-DOLLY VARDEN	58	8.3	3.2	7.5	3.0	20.0
CISCO-ARCTIC	21	7.3	1.0	7.0	5.0	9.0
CISCO-BERING	5	5.2	1.1	5.0	4.0	7.0
CISCO-LEAST	30	12.9	5.3	13.5	4.0	26.0
COD-PACIFIC	126	11.4	6.3	10.5	1.0	33.0
EULACHON	7	5.3	0.5	5.0	5.0	6.0
FLOUNDER-STARRY	1	5.0	NA	5.0	5.0	5.0
GRAYLING	44	6.9	4.2	6.0	2.0	20.0
GREENLING-KELP	1	15.0	NA	15.0	15.0	15.0
HALIBUT	3188	14.9	5.0	14.0	5.0	46.0
HERRING	10	4.6	1.0	4.5	3.0	6.0
IRISH LORD-YELLOW	2	24.0	5.7	24.0	20.0	28.0
LINGCOD	115	12.3	4.5	13.0	2.0	23.0
LONGNOSE SUCKER	3	29.0	2.6	30.0	26.0	31.0
NORTHERN PIKE	494	6.2	3.0	6.0	0.5	17.0
PLAICE-ALASKA	30	16.7	6.4	14.0	9.0	32.0
POLLOCK	139	15.2	6.3	14.0	5.0	45.0
ROCKFISH-BLACK	43	15.4	5.4	14.0	9.0	28.0
ROCKFISH-DUSKY	41	19.7	13.9	13.0	4.0	53.0
ROCKFISH-POP	48	12.2	6.1	10.0	4.0	34.0
ROCKFISH-QUILLBACK	3	24.0	7.5	23.0	17.0	32.0
ROCKFISH-ROUGHEYE	52	17.1	21.3	9.5	3.0	148.0
ROCKFISH-SHORTRAKER	8	23.0	6.9	22.5	15.0	33.0
ROCKFISH-SILVERGRAY	3	25.0	11.1	23.0	15.0	37.0
ROCKFISH-TIGER	1	68.0	NA	68.0	68.0	68.0
ROCKFISH-YELLOWEYE	64	35.3	11.7	34.5	10.0	73.0
SABLEFISH	211	8.6	6.4	7.0	1.0	47.0
SALMON-CHINOOK	143	4.9	1.0	5.0	3.0	8.0
SALMON-CHUM	234	4.1	0.8	4.0	2.0	6.0
SALMON-PINK	145	2.0	0.0	2.0	2.0	2.0
SALMON-RED	197	5.0	0.7	5.0	3.0	7.0
SALMON-SILVER	268	3.6	0.6	4.0	2.0	5.0
SHARK-SALMON	74	11.5	3.0	11.0	7.0	22.0
SHARK-SPINY DOGFISH	24	23.5	3.3	24.0	17.0	31.0
SHEEFISH	44	19.4	6.1	19.5	11.0	34.0
SKATE-BIG	20	8.8	2.7	8.3	4.8	14.3
SKATE-LONGNOSE	20	19.4	2.5	19.0	15.0	25.0

Table 3: Mean Age of Alaskan Fish (*continued*)

Species	n	Mean	SD	Median	Min	Max
SOLE-FLATHEAD	15	15.4	5.6	14.0	9.0	29.0
SOLE-NOTHERN ROCK	20	12.3	3.7	12.0	8.0	26.0
SOLE-YELLOWFIN	33	22.1	6.0	23.0	11.0	32.0
TROUT-LAKE	54	15.4	4.5	15.0	7.0	25.0
TROUT-RAINBOW	45	6.0	3.2	5.0	2.0	18.0
WHITEFISH-BROAD	3	16.7	2.1	16.0	15.0	19.0
WHITEFISH-HUMPBACK	79	12.6	6.8	11.0	3.0	35.0
WHITEFISH-ROUND	12	11.2	4.9	11.0	6.0	20.0

Note:

n= sample size

Mean = arithmetic mean

SD = standard deviation

Table 4: Mean Age of Alaskan Rockfish

Species	n	Mean	SD	Median	Min	Max
ROCKFISH-BLACK	43	15.4	5.4	14.0	9	28
ROCKFISH-DUSKY	41	19.7	13.9	13.0	4	53
ROCKFISH-POP	48	12.2	6.1	10.0	4	34
ROCKFISH-QUILLBACK	3	24.0	7.5	23.0	17	32
ROCKFISH-ROUGHEYE	52	17.1	21.3	9.5	3	148
ROCKFISH-SHORTRAKER	8	23.0	6.9	22.5	15	33
ROCKFISH-SILVERGRAY	3	25.0	11.1	23.0	15	37
ROCKFISH-TIGER	1	68.0	NA	68.0	68	68
ROCKFISH-YELLOWEYE	64	35.3	11.7	34.5	10	73

Note:

n= sample size

Mean = arithmetic mean

SD = standard deviation