

Table 15.1 Intercept (a') and slope (b) parameters for standard weight (W_s) equations that have been proposed for various fish species and minimum total lengths (mm) recommended for application. The standard equation format is $\log_{10}(W_s) = a' + b \cdot \log_{10}(\text{total length})$. Metric (M) equations are in millimeters and grams; English (E) equations are in inches and pounds. (Updated from Murphy et al. 1991.)

Species ^a	Intercept (a')		Slope (b)	Minimum total length	Source
	M	E			
Black crappie	-5.618	-3.576	3.345	100	Neumann and Murphy (1991)
Bluegill*	-5.374	-3.371	3.316	80	Hillman (1982)
Brook trout*	-5.085	-3.467	3.043	130	Whelan and Taylor (1984)
Brown trout (lotic)	-4.867	-3.366	2.960	140	Milewski and Brown (1994)
Burbot	-4.868	-3.454	2.898	200	Fisher et al. (1996)
Chain pickerel	-5.824	-3.293	3.243	150	R. M. Neumann (University of Connecticut, unpublished); M. K. Flammang (Texas Parks and Wildlife Department, unpublished)
Channel catfish	-5.800	-3.829	3.294	70	Brown et al. (1995)
Chinook salmon	-4.661	-3.243	2.901	200	Halseth et al. (1990)
Cutthroat trout					C. G. Kruse and W. A. Hubert (University of Wyoming, unpublished)
Lentic	-5.192	-3.514	3.086	130	
Lotic	-5.189	-3.492	3.099	130	
Freshwater drum	-5.419	-3.575	3.204	100	Blackwell et al. (1995)
Gizzard shad*	-5.376	-3.580	3.170	180	Anderson and Gutreuter (1983)
Golden shiner	-5.593	-3.611	3.302	50	Liao et al. (1995)
Lake trout	-5.681	-3.778	3.246	280	Piccolo et al. (1993)
Largemouth bass*	-5.316	-3.490	3.191	150	Wege and Anderson (1978)
Mountain whitefish	-5.086	-3.478	3.036	140	Rogers et al. (1996)
Muskellunge	-6.066	-4.052	3.325	380	Neumann and Willis (1994)
Northern pike	-5.437	-3.745	3.096	100	D. W. Willis (South Dakota State University, unpublished)
Northern pike × muskellunge	-6.126	-4.095	3.337	240	K. B. Rogers and K. Koupal (Colorado State University, unpublished)
Paddlefish (overall)	-5.027	-3.340	3.092	280	Brown and Murphy (1993)
Males	-4.494	-3.063	2.910	280	
Females	-4.073	-2.822	2.782	280	
Pumpkinseed	-5.179	-3.289	3.237	50	Liao et al. (1995)
Rainbow trout					D. G. Simpkins and W. A. Hubert (University of Wyoming, unpublished)
Lentic	-4.898	-3.354	2.990	120	
Lotic	-5.023	-3.432	3.024	120	
Redear sunfish	-4.968	-3.263	3.119	70	Pope et al. (1995)
Rock bass*	-4.883	-3.209	3.083	100	Marteny (1983)
Sauger	-5.492	-3.671	3.187	70	C. S. Guy (Kansas State University, unpublished)
Smallmouth bass	-5.329	-3.491	3.200	150	Kolander et al. (1993)
Spotted bass	-5.392	-3.533	3.215	100	Wiens et al. (in press)
Striped bass	-4.924	-3.358	3.007	150	Brown and Murphy (1991b)
Walleye	-5.453	-3.642	3.180	150	Murphy et al. (1990)
Walleye × sauger	-5.692	-3.760	3.266	170	Flammang et al. (1993)
White bass	-5.066	-3.394	3.081	115	Brown and Murphy (1991b)
White bass × striped bass	-5.201	-3.448	3.139	115	Brown and Murphy (1991b)
White crappie	-5.642	-3.618	3.332	100	Neumann and Murphy (1991)
Yellow perch	-5.386	-3.506	3.230	100	Willis et al. (1991)

^aEquations were developed by the RLP technique unless asterisked.

From: Anderson, R.O., and R.M. Neuman. 1996. Length, weight, and associated structural indices. Pages 447-482 in B.R. Murphy and D.W. Willis, editors. Fisheries techniques, second edition. American Fisheries Society, Bethesda, Maryland.

Table 15.2 Length categories that have been proposed for various fish species. Measurements are minimum total lengths for each category, except paddlefish body length is anterior edge of eye to fork of tail. English units (E) are in inches, metric (M) in centimeters (updated from Willis et al. 1993).

Species	Stock		Quality		Preferred		Memorable		Trophy		Source
	E	M	E	M	E	M	E	M	E	M	
Black bullhead	6	15	9	23	12	30	15	38	18	46	Gabelhouse (1984a)
Black crappie	5	13	8	20	10	25	12	30	15	38	Gabelhouse (1984a)
Blue catfish	12	30	20	51	30	76	35	89	45	114	Gabelhouse (1984a)
Bluegill	3	8	6	15	8	20	10	25	12	30	Gabelhouse (1984a)
Brook trout											
Lentic	8	20	13	33							Anderson (1980)
Lotic	5	13	8	20							
Brown trout (lotic)	6	15	9	23	12	30	15	38	18	46	Milewski and Brown (1994)
Burbot	8	20	15	38	21	53	26	67	32	82	Fisher et al. (1996)
Chain pickerel	10	25	15	38	20	51	25	63	30	76	Gabelhouse (1984a)
Channel catfish	11	28	16	41	24	61	28	71	36	91	Gabelhouse (1984a)
Chinook salmon (landlocked)	11	28	18	46	24	61	30	76	37	94	Hill and Duffy (1993)
Common carp	11	28	16	41	21	53	26	66	33	84	Gabelhouse (1984a)
Cutthroat trout	8	20	14	35	18	45	24	60	30	75	C. G. Kruse and W. A. Hubert (unpublished)
Flathead catfish	14	35	20	51	28	71	34	86	40	102	Quinn (1991)
Freshwater drum	8	20	12	30	15	38	20	51	25	63	Gabelhouse (1984a)
Gizzard shad	7	18	11	28							Anderson and Gutreuter (1983)
Green sunfish	3	8	6	15	8	20	10	25	12	30	Gabelhouse (1984a)
Lake trout	12	30	20	50	26	65	31	80	39	100	Hubert et al. (1994)
Largemouth bass	8	20	12	30	15	38	20	51	25	63	Gabelhouse (1984a)
Muskellunge	20	51	30	76	38	97	42	107	50	127	Gabelhouse (1984a)
Northern pike	14	35	21	53	28	71	34	86	44	112	Gabelhouse (1984a)
Paddlefish	16	41	26	66	33	84	41	104	51	130	Brown and Murphy (1993)
Pumpkinseed	3	8	6	15	8	20	10	25	12	30	Gabelhouse (1984a)
Rainbow trout	10	25	16	40	20	50	26	65	31	80	D. G. Simpkins and W. A. Hubert (unpublished)
Redear sunfish	4	10	7	18	9	23	11	28	13	33	Gabelhouse (1984a)
Rock bass	4	10	7	18	9	23	11	28	13	33	Gabelhouse (1984a)
Sauger	8	20	12	30	15	38	20	51	25	63	Gabelhouse (1984a)
Smallmouth bass	7	18	11	28	14	35	17	43	20	51	Gabelhouse (1984a)
Spotted bass	7	18	11	28	14	35	17	43	20	51	Gabelhouse (1984a)
Striped bass (landlocked)	12	30	20	51	30	76	35	89	45	114	Gabelhouse (1984a)
Walleye	10	25	15	38	20	51	25	63	30	76	Gabelhouse (1984a)
Walleye × sauger	9	23	14	35	18	46	22	56	27	69	Flammang et al. (1993)
Warmouth	3	8	6	15	8	20	10	25	12	30	Gabelhouse (1984a)
White perch	5	13	8	20	10	25	12	30	15	38	Gabelhouse (1984a)
White bass × striped bass	8	20	12	30	15	38	20	51	25	63	Gabelhouse (1984a)
White bass	6	15	9	23	12	30	15	38	18	46	Gabelhouse (1984a)
White crappie	5	13	8	20	10	25	12	30	15	38	Gabelhouse (1984a)
Yellow perch	5	13	8	20	10	25	12	30	15	38	Gabelhouse (1984a)
Yellow bass	4	10	7	18	9	23	11	28	13	33	Anderson and Gutreuter (1983)
Yellow bullhead	6	15	9	23							Anderson (1980)