Table 1b. Acute Toxicity of Copper to Saltwater Animals

Species[a]	Age, Size, or Lifestage of Test Organism	Test Method[b]	Chemical[c]	Salinity (g/kg)	Reported LC50 or EC50[d] (Total µg/L)	Reported LC50 or EC50[e] (Diss. µg/L)	LC50 or EC50 Used in SMAV Calculations[f] (Diss. µg/L)	SMAV[g] (Diss. µg/L)	Reference
Nematode, *Caenorhabditis elegans*	3-4 d	S, U	S	5.5	260	---	217.9	217.9	Williams & Dusenbery 1990
Polychaete worm, *Phyllodoce maculata*	---	S, U	S	---	120	---	100.6	100.6	McLusky & Phillips 1975
Polychaete worm,	adult	F, M, T	N	31	77	---	69.99	136.9	Pesch & Morgan 1978
Neanthes arenaceodentata	adult	F, M, T	N	31	200	---	181.8		Pesch & Morgan 1978
	---	F, M, T	N	31	222	---	201.8		Pesch & Hoffman 1982
Polychaete worm,	---	S, U	S	---	200	---	167.6	318.3	Jones et al. 1976
Hediste diversicolor	---	S, U	S	---	445	---	372.9		Jones et al. 1976
	---	S, U	S	---	480	---	402.2		Jones et al. 1976
	---	S, U	S	---	410	---	343.6		Jones et al. 1976
	2.0 cm	R, U	N	7.3	357	---	299.2		Ozoh 1992a
	2.0 cm	R, U	N	7.3	357	---	299.2		Ozoh 1992a
	2.0 cm	R, U	N	7.3	247	---	207.0		Ozoh 1992a
	2.0 cm	R, U	N	14.6	307	---	257.3		Ozoh 1992a
	2.0 cm	R, U	N	14.6	400	---	335.2		Ozoh 1992a
	2.0 cm	R, U	N	14.6	462	---	387.2		Ozoh 1992a
	2.0 cm	R, U	N	21.9	375	---	314.3		Ozoh 1992a
	2.0 cm	R, U	N	21.9	362	---	303.4		Ozoh 1992a
	2.0 cm	R, U	N	21.9	480	---	402.2		Ozoh 1992a
	2.0 cm	R, U	N	29.2	512	---	429.1		Ozoh 1992a
	2.0 cm	R, U	N	29.2	360	---	301.7		Ozoh 1992a
	2.0 cm	R, U	N	29.2	500	---	419.0		Ozoh 1992a
	mature	R, U	N	7.6	394	---	NU		Ozoh 1992b
	mature	R, U	N	22.8	949	---	NU		Ozoh 1992b
	mature	R, U	N	30.5	858	---	NU		Ozoh 1992b
	mature	R, U	N	7.6	479	---	NU		Ozoh 1992b
	mature	R, U	N	15.25	628	---	NU		Ozoh 1992b
	mature	R, U	N	22.8	742	---	NU		Ozoh 1992b
	mature	R, U	N	30.5	738	---	NU		Ozoh 1992b
	mature	R, U	N	7.6	360	---	NU		Ozoh 1992b
	mature	R, U	N	15.25	648	---	NU		Ozoh 1992b
	mature	R, U	N	22.8	1,090	---	NU		Ozoh 1992b
	mature	R, U	N	30.5	857	---	NU		Ozoh 1992b
Black abalone, *Haliotis cracherodii*	6.2-17.0 cm	S, U	S	33	50	---	41.90	41.90	Martin et al. 1977
Red abalone,	17.3-20.4 cm	S, U	S	33	65	---	54.47	72.14	Martin et al. 1977
Haliotsis rufescens	48 h larva	S, U	S	30.4	114	---	95.53		Martin et al. 1977

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Species[a]	Age, Size, or Lifestage of Test Organism	Test Method[b]	Chemical[c]	Salinity (g/kg)	Reported LC50 or EC50[d] (Total µg/L)	Reported LC50 or EC50[e] (Diss. µg/L)	LC50 or EC50 Used in SMAV Calculations[f] (Diss. µg/L)	SMAV[g] (Diss. µg/L)	Reference
Mussel,	embryo	S, U	S	---	5.8	---	NU	6.188	Martin et al. 1981
Mytilus spp.	embryo	S, U	S	33	7.21	---	NU		ToxScan 1991a
	embryo	S, U	S	32	6.4	---	NU		ToxScan 1991b
	embryo	S, U	S	32	5.84	---	NU		ToxScan 1991c
	embryo	S, M, D	S	27	---	5.787	5.787		ToxScan 1991a
	embryo	S, M, D	S	28	---	8.889	8.889		ToxScan 1991b
	embryo	S, M, D	S	26	---	6.278	6.278		ToxScan 1991c
	embryo	S, M, D	C	30	---	12.45	12.45		SAIC 1993
	embryo	S, M, D	C	30	---	14.1	14.10		SAIC 1993
	embryo	S, M, D	C	30	---	11.3	11.30		SAIC 1993
	embryo	S, M, D	C	30	---	11.9	11.90		SAIC 1993
	embryo	S, M, T, D	S	28	7.159	5.95	5.950		City of San Jose 1998
	embryo	S, M, T, D	S	28	5.847	5.208	5.208		City of San Jose 1998
	embryo	S, M, T, D	S	28	5.028	5.054	5.054		City of San Jose 1998
	embryo	S, M, T, D	S	28	3.821	3.752	3.752		City of San Jose 1998
	embryo	S, M, T, D	S	28	4.696	3.803	3.803		City of San Jose 1998
	embryo	S, M, T, D	S	28	6.418	4.965	4.965		City of San Jose 1998
	embryo	S, M, T, D	S	28	6.215	5.724	5.724		City of San Jose 1998
	embryo	S, M, T, D	S	28	6.205	5.838	5.838		City of San Jose 1998
	embryo	S, M, T, D	S	28	5.874	5.439	5.439		City of San Jose 1998
	embryo	S, M, T, D	S	28	5.404	4.746	4.746		City of San Jose 1998
	embryo	S, M, T, D	S	28	5.998	5.099	5.099		City of San Jose 1998
	embryo	S, M, T, D	S	28	9.049	8.302	8.302		City of San Jose 1998
	embryo	S, M, T, D	S	28	7.194	5.024	5.024		City of San Jose 1998
	embryo	S, M, T, D	S	28	8.019	6.822	6.822		City of San Jose 1998
	embryo	S, M, T, D	S	28	7.291	5.591	5.591		City of San Jose 1998
	embryo	S, M, T, D	S	28	8.932	6.351	6.351		City of San Jose 1998
	embryo	S, M, T, D	S	28	7.194	5.024	5.024		City of San Jose 1998
	embryo	S, M, T, D	S	28	5.56	4.392	4.392		City of San Jose 1998
	embryo	S, M, T, D	S	28	8.479	7.497	7.497		City of San Jose 1998
	embryo	S, M, T, D	S	28	7.362	6.789	6.789		City of San Jose 1998
	embryo	S, M, T, D	S	28	8.019	6.822	6.822		City of San Jose 1998
	embryo	S, M, T, D	S	28	9.5	7.806	7.806		City of San Jose 1998
Blue mussel,	<4 hr embryo	S,M,T,D	S	20	17.46	17.83	17.830	21.497927	CH2MHill 1999b
Mytilus edulis	<4 hr embryo	S,M,T,D	S	20	22.81	21.35	21.350		CH2MHill 1999b
	<4 hr embryo	S,M,T,D	S	20	27.37	26.1	26.100		CH2MHill 1999b
	1.58 cm	R, U	C	25	122	---	NU		Nelson et al. 1988
Bay scallop, *Argopecten irradians*	2.12 cm	R, U	C	25	29	---	24.30	24.30	Nelson et al. 1988

Table 1b. Acute Toxicity of Copper to Saltwater Animals

Species[a]	Age, Size, or Lifestage of Test Organism	Test Method[b]	Chemical[c]	Salinity (g/kg)	Reported LC50 or EC50[d] (Total µg/L)	Reported LC50 or EC50[e] (Diss. µg/L)	LC50 or EC50 Used in SMAV Calculations[f] (Diss. µg/L)	SMAV[g] (Diss. µg/L)	Reference
Pacific oyster,	embryo	S, M, T	C	30	12.06	---	10.963	10.96254	Harrison et al. 1981
Crassostrea gigas	---	S, U	S	---	5.3	---	NU		Martin et al. 1981
	embryo	S, U	S	33	11.5	---	NU		Coglianese & Martin 1981
	13-17 cm adult	F, M, T	S	33	560	---	NU		Okazaki 1976
Eastern oyster,	embryo	S, U	C	26	15.1	---	12.65	14.488	MacInnes & Calabrese 1978
Crassostrea virginica	embryo	S, U	C	26	18.7	---	15.67		MacInnes & Calabrese 1978
	embryo	S, U	C	26	18.3	---	15.34		MacInnes & Calabrese 1978
Common rangia,	---	S, U	---	5.5	8,000	---	6,704	6,448	Olson & Harrel 1973
Rangia cuneata	---	S, U	---	22	7,400	---	6,201		Olson & Harrel 1973
Surf clam, *Spisula solidissima*	1.59 cm	R, U	C	25	51	---	42.74	42.74	Nelson et al. 1988
Soft-shell clam, *Mya arenaria*	---	S, U	C	30	39	---	32.68	32.68	Eisler 1977
Coot clam,	---	S, M, D	C	30	---	21	21.00	17.69	SAIC 1993
Mulina lateralis	---	S, M, D	C	30	---	19.25	19.25		SAIC 1993
	---	S, M, D	C	30	---	14.93	14.93		SAIC 1993
	---	S, M, D	C	30	---	17.28	17.28		SAIC 1993
	---	S, M, D	C	30	---	16.85	16.85		SAIC 1993
	---	S, M, D	C	30	---	17.44	17.44		SAIC 1993
Squid, *Loligo opalescens*	larva	S, M, T	C	30	309	---	280.9	280.9	Dinnel et al. 1989
Copepod, *Pseudodiaptomus coronatus*	---	S, U	C	30	235.4	---	197.3	197.3	Gentile 1982
Copepod,	---	S, U	C	30	928	---	NU	25.83	Gentile 1982
Eurytemora affinis	24 h	R, M, T	---	---	30.6	---	27.82		Sullivan et al. 1983
	24 h	R, M, T	---	---	31.1	---	28.27		Sullivan et al. 1983
	24 h	R, M, T	---	---	28.7	---	26.09		Sullivan et al. 1983
	24 h	R, M, T	---	---	7.5	---	6.818		Sullivan et al. 1983
	24 h	R, M, T	---	---	33.7	---	30.63		Sullivan et al. 1983
	24 h	S, M, D	C	15-16	---	69.4	69.40		Hall et al. 1997
Copepod, *Acartia clausi*	---	S, U	C	30	48.8	---	40.89	40.89	Gentile 1982
Copepod,	---	S, U	C	10	17	---	14.25	25.74	Sosnowski & Gentile 1978
Acartia tonsa	---	S, U	C	10	55	---	46.09		Sosnowski & Gentile 1978
	---	S, U	C	30	31	---	25.98		Sosnowski & Gentile 1978
Copepod,	egg	R, U	N	35	229	---	191.9	196.2	O'Brien et al. 1988
Tigriopus californicus	1st nauplius	R, U	N	35	76	---	63.69		O'Brien et al. 1988
	2nd nauplius	R, U	N	35	19	---	15.92		O'Brien et al. 1988
	3rd nauplius	R, U	N	35	159	---	133.2		O'Brien et al. 1988
	4th nauplius	R, U	N	35	184	---	154.2		O'Brien et al. 1988

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	5th nauplius	R, U	N	35	261	---	218.7		O'Brien et al. 1988
	6th nauplius	R, U	N	35	305	---	255.6		O'Brien et al. 1988
	1st copepodite	R, U	N	35	375	---	314.3		O'Brien et al. 1988
	2nd copepodite	R, U	N	35	496	---	415.6		O'Brien et al. 1988
	3rd copepodite	R, U	N	35	413	---	346.1		O'Brien et al. 1988
	4th copepodite	R, U	N	35	394	---	330.2		O'Brien et al. 1988
	5th copepodite	R, U	N	35	394	---	330.2		O'Brien et al. 1988
	6th copepodite	R, U	N	35	762	---	638.6		O'Brien et al. 1988
Copepod, *Tigriopus furcata*	<24 h	R, M, D	S	---	---	178	178.0	178.0	Bechmann 1994
Mysid, *Holmesimysis costata*	3 d	S, M, T	C	35-38	17	---	15.45	15.45	Martin et al. 1989
Mysid,	24 h	R, U	C	25	153	---	NU	164.529	Cripe 1994
Americamysis bahia	24 h	F, M, T	N	30	181	---	164.5		Lussier et al. 1985; Gentile 1982
Mysid, Americamysis *bigelowi*	24 h	F, M, T	N	30	141	---	128.2	128.2	Gentile 1982
Mysid,	<5 d	F, M, T	S	2	71	---	64.54	123.4	Brandt et al. 1993
Neomysis mercedis	>15 d	F, M, T	S	2	220	---	200.0		Brandt et al. 1993
	>15 d	F, M, T	S	2	160	---	145.4		Brandt et al. 1993
Amphipod, *Corophium insidiosum*	0.8-1.2 cm	S, U	C	---	600	---	502.8	502.8	Reish 1993
Amphipod, *Elasmopus bampo*	0.8-1.2 cm	S, U	C	---	250	---	209.5	209.5	Reish 1993
Sand shrimp, *Crangon spp.*	6.1 cm adult	F, M, T	C	30.1	898	---	816.3	816.3	Dinnel et al. 1989
American lobster, *Homarus americanus*	24 h larva	S, U	N	30.5	48	---	40.22	40.22	Johnson & Gentile 1979
Dungeness crab,	larva	S, U	S	---	49	---	41.06	41.06	Martin et al. 1981
Cancer magister	zooea	S, M, T	C	30	96	---	NU		Dinnel et al. 1989
Green crab, *Carcinus maenas*	larva	S, U	S	---	600	---	502.8	502.8	Connor 1972
Sea urchin, *Arbacia punctulata*	embryo	S,M,D	C	30	---	21.4	21.4	21.4	SAIC 1993
Sea urchin,	embryo	S, M, T	S	28	13.4	---	12.18	12.81	City of San Jose 1998
Strongylocentrotus		S, M, T, D	S	28	14.383	13.515	13.52		City of San Jose 1998
purpuratus		S, M, T, D	S	28	15.048	12.765	12.77		City of San Jose 1998
Coho salmon, *Oncorhynchus kisutch*	smolt	F, M, T	C	28.6	601	---	546.3	546.3	Dinnel et al. 1989
Mangrove rivulus,	4-6 wks	F, M, D	S	14	---	1,250	1,250	1,419	Lin & Dunson 1993
Rivulus marmoratus	4-6 wks	F, M, D	S	14	---	1610	1,610		Lin & Dunson 1993

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Sheepshead minnow, *Cyprinodon variegatus*	---	R, M, T	C or S	30	368	---	334.5	334.5	Hughes et al. 1989
Killifish,	---	S, U	C	5.5	3,100	---	NU	1,690	Dorfman 1977
Fundulus heteroclitus	---	S, U	C	23.6	2,000	---	NU		Dorfman 1977
	---	S, U	C	6.1	2,300	---	NU		Dorfman 1977
	---	S, U	C	24	400	---	NU		Dorfman 1977
	4-6 wks	F, M, D	S	14	---	1,690	1,690		Lin & Dunson 1993
Topsmelt,	8 d larva	S, M, T	C	33	288	---	261.8	220.9	Anderson et al. 1991
Atherinops affinis	8 d larva	S, M, T	C	33	212	---	192.7		Anderson et al. 1991
	8 d larva	S, M, T	C	33	235	---	213.6		Anderson et al. 1991
Inland silverside,	---	S, M, D	S	---	---	115.4	115.4	111.1	ToxScan 1991a
Menidia beryllina	---	S, M, D	S	---	---	96.5	96.50		ToxScan 1991b
	---	S, M, D	S	---	---	123	123.0		ToxScan 1991c
Atlantic silverside,	3 wk larva	F, M, T	N	31	66.6	---	60.54	123.3	Cardin 1982
Menidia menidia	1 wk larva	F, M, T	N	30.4	216.5	---	196.8		Cardin 1982
	1 d larva	F, M, T	N	30.4	101.8	---	92.54		Cardin 1982
	3 d larva	F, M, T	N	31	97.6	---	88.72		Cardin 1982
	2 wk larva	F, M, T	N	30	155.9	---	141.7		Cardin 1982
	1 d larva	F, M, T	N	30	197.6	---	179.6		Cardin 1982
	juvenile	F, M, T	N	30	190.9	---	173.5		Cardin 1982
Tidewater silverside, *Menidia peninsulae*	19 d larva	S, U	N	20	140	---	117.3	117.3	Hansen 1983
Striped bass,	1-2 mo	S, U	S	5	2,680	---	2,246	4648.0	Reardon & Harrell 1990
Morone saxatilis	1-2 mo	S, U	S	10	8,080	---	6,771		Reardon & Harrell 1990
	1-2 mo	S, U	S	15	7,880	---	6,603		Reardon & Harrell 1990
Florida pompano,	---	S, U	S	10	360	---	301.7	345.0	Birdsong & Avavit 1971
Trachinotus carolinus	---	S, U	S	20	380	---	318.4		Birdsong & Avavit 1971
	---	S, U	S	30	510	---	427.4		Birdsong & Avavit 1971
Sheepshead, *Archosargus probatocephalus*	18-21 cm	S, U	C	30	1,140	---	955.3	955.3	Steele 1983a
Pinfish, *Langodon rhomboides*	13-17 cm	S, U	C	30	2,750	---	2,305	2,305	Steele 1983a
Spot, *Leiostomus xanthurus*	adult	S, U	N	20	280	---	234.6	234.6	Hansen 1983
Atlantic croaker, *Micropogon undulatus*	16-19 cm	S, U	C	30	5,660	---	4,743	4,743	Steele 1983a
Cabezon, *Scorpaenichthys*	larva	S, M, T	C	27	95	---	86.36	86.36	Dinnel et al. 1989
Shiner perch, *Cymatogaster aggregata*	9.7 cm adult	F, M, T	C	29.5	418	---	380.0	380.0	Dinnel et al. 1989

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Summer flounder, *Paralichthys dentatus*	46 d, 1.8-2.2 cm, 0.03-0.05 g	S,M,T,D	S	22	610	586	NU	12.66	CH2MHill 1999a
	48 d, 2.0-2.4 cm, 0.04-0.08 g	S,M,T,D	S	22	1,029	928	NU		CH2MHill 1999a
	57 d, 2.4-2.8 cm, 0.07-0.12 g	S,M,T,D	S	22	606	597	NU		CH2MHill 1999a
	early cleavage embryo	F, M, T	N	30	16.3	---	14.82		Cardin 1982
	early cleavage embryo	F, M, T	N	30	11.9	---	10.82		Cardin 1982
	blastula stage embryo	F, M, T	N	30	111.8	---	NU		Cardin 1982
	blastula stage embryo	F, M, T	N	30	77.5	---	NU		Cardin 1982
Winter flounder, *Pseudopleuronectes americar*	blastula	F, M, T	N	30	167.3	---	152.1	124.9	Cardin 1982
	pre-cleavage zygote	F, M, T	N	30	52.7	---	47.90		Cardin 1982
	blastula	F, M, T	N	28	158	---	143.6		Cardin 1982
	blastula	F, M, T	N	30	173.7	---	157.9		Cardin 1982
	pre-cleavage zygote	F, M, T	N	28	271	---	246.3		Cardin 1982
	pre-cleavage zygote	F, M, T	N	30	132.8	---	120.7		Cardin 1982
	blastula	F, M, T	N	30	148.2	---	134.7		Cardin 1982
	early cleavage embryo	F, M, T	N	30	98.2	---	89.26		Cardin 1982

[a]Species appear in order taxonomically, with invertebrates listed first and fish listed last. Species within each genus are ordered alphabetically. Within each species, tests are ordered by test method (static, renewal, flow-through) and date.

[b]S = static, R = renewal, F = flow-through, U = unmeasured, M = measured, T = exposure concentrations were measured as total copper, D = exposure concentrations were measured as dissolved copper

[c]S = copper sulfate, N = copper nitrate, C = copper chloride

[d]Values in this column are total copper LC50 or EC50 values as reported by the author.

[e]Values in this column are dissolved copper LC50 or EC50 values as reported by the author.

[f]If author did not report a dissolved copper LC50 value, then a conversion factor (CF) was applied to the total copper LC50 to estimate dissolved copper values. For tests in which copper was not measured, the total copper LC50 was multiplied by a CF of 0.838, and for tests in which copper concentrations were measured, the total copper LC50 was multiplied by a CF of 0.909 see discussion in Section 4 and Appendix E). 'NU' indicates that a test result was not used in the SMAV calculation, typically because data for a more sensitive life stage were used preferentially.

[g]The species mean acute value (SMAV) is calculated as the geometric mean of the tabulated LC50 or EC50 values for each species (Stephan et al. 1985).

Table 3b. Ranked Saltwater Genus Mean Acute Values with Species Mean Acute-Chronic Ratios

GMAV Rank	GMAV (µg/L)	Species	SMAV (µg/L)	ACR
44	6,448	Common rangia, *Rangia cuneata*	6,448	
43	4,743	Atlantic croaker, *Micropogon undulatus*	4,743	
42	4,648	Striped bass, *Morone saxatilis*	4,648	
41	2,305	Pinfish, *Langodon rhomboides*	2,305	
40	1,690	Killifish, *Fundulus heteroclitus*	1,690	
39	1,419	Mangrove rivulus, *Rivulus marmoratus*	1,419	
38	955.3	Sheepshead, *Archosargus probatocephalus*	955.3	
37	816.3	Sand shrimp, *Crangon spp.*	816.3	
36	546.3	Coho salmon, *Oncorhynchus kisutch*	546.3	
35	502.8	Green crab, *Carcinus maenas*	502.8	
34	502.8	Amphipod, *Corophium insidiosum*	502.8	
33	380.0	Shiner perch, *Cymatogaster aggregata*	380.0	
32	345.0	Florida pompano, *Trachinotus carolinus*	345.0	
31	334.5	Sheepshead minnow, *Cyprinodon variegatus*	334.5	1.48
30	318.3	Polychaete worm, *Hediste diversicolor*	318.3	
29	280.9	Squid, *Loligo opalescens*	280.9	
28	234.6	Spot, *Leiostomus xanthurus*	234.6	
27	220.9	Topsmelt, *Atherinops affinis*	220.9	
26	217.9	Nematode, *Caenorhabditis elegans*	217.9	
25	209.5	Amphipod, *Elasmopus bampo*	209.5	
24	197.3	Copepod, *Pseudodiaptomus coronatus*	197.3	
23	186.9	Copepod, *Tigriopus furcata*	178.0	
		Copepod, *Tigriopus californicus*	196.2	
22	145.2	Mysid, *Americamysis bahia*	164.5	
		Mysid, Mysidopsis bigelowi	128.2	
21	136.9	Polychaete worm, Neanthes arenaceodentata	136.9	
20	124.9	Winter flounder, *Pseudopleuronectes americanus*	124.9	
19	123.4	Mysid, *Neomysis mercedis*	123.4	
18	117.1	Tidewater silverside, *Menidia peninsulae*	117.3	
		Atlantic silverside, *Menidia menidia*	123.3	
		Inland silverside, *Menidia beryllina*	111.1	
17	100.6	Polychaete worm, *Phyllodoce maculata*	100.6	
16	86.4	Cabezon, *Scorpaenichthys marmoratus*	86.36	
15	54.98	Black abalone, *Haliotis cracherodii*	41.90	
		Red abalone, *Haliotsis rufescens*	72.14	
14	42.74	Surf clam, *Spisula solidissima*	42.74	
13	41.06	Dungeness crab, *Cancer magister*	41.06	
12	40.22	American lobster, *Homarus americanus*	40.22	
11	32.68	Soft-shell clam, *Mya arenaria*	32.68	

Table 3b. Ranked Saltwater Genus Mean Acute Values with Species Mean Acute-Chronic Ratios

GMAV Rank	GMAV (µg/L)	Species	SMAV (µg/L)	ACR
10	32.45	Copepod, *Acartia tonsa*	25.74	
		Copepod, *Acartia clausi*	40.89	
9	25.83	Copepod, *Eurytemora affinis*	25.83	
8	24.30	Bay scallop, *Argopecten irradians*	24.30	
7	21.40	Sea urchin, *Arbacia punctulata*	21.40	
6	17.69	Coot clam, *Mulina lateralis*	17.69	
5	15.45	Mysid, *Holmesimysis costata*	15.45	
4	12.81	Sea urchin, *Strongylocentrotus purpuratus*	12.81	
3	12.66	Summer flounder, *Paralichthys dentatus*	12.66	
2	12.60	Eastern oyster, *Crassostrea virginica*	14.49	
		Pacific oyster, *Crassostrea gigas*	10.96	
1	11.53	Blue mussel, *Mytilus edulis*	21.50	
		Mussel, *Mytilus sp* .	6.19	