The following Appendices (A to E) accompany the paper ‘Mortality of marine planktonic copepods: global rates and patterns’

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APPENDIX A.

Compiled data of *quasi-in situ* egg production rates and body weights of copepods

Family: ***Species***	**Spawning type: Broadcast (B) Sac (S)**	**Temperature (^{o}C)**	**Fecundity m (eggs female^{-1} d^{-1})**	**Body weight (μgC ind.$^{-1}$)**	**Source**
Acartiidae:					
Acartia clausi	B	22	9.15	2.67	1
A. clausi	B	18	27.0	2.67	1
Acartia clausi	B	17	1.8	3.06	2
A. clausi	B	17	1.9	2.83	2
Acartia clausi	B	7	46	2.67	3
A. clausi	B	7	22	2.67	3
A. clausi	B	7	42	2.67	3
A. clausi	B	7	36	2.67	3
A. clausi	B	7	20	2.67	3
A. clausi	B	7	30	2.67	3
A. clausi	B	7	36	2.67	3
A. clausi	B	7	48	2.67	3
A. clausi	B	7	41	2.67	3
A. clausi	B	7	41	2.67	3
Acartia clausi	B	4	2	2.67	4
A. clausi	B	5	2	2.67	4
A. clausi	B	5	1	2.67	4
A. clausi	B	5	5	2.67	4
A. clausi	B	5	9	2.67	4
A. clausi	B	7	10	2.67	4
A. clausi	B	7	9	2.67	4
A. clausi	B	7	10	2.67	4
A. clausi	B	5	11	2.67	4
A. clausi	B	7	11	2.67	4
A. clausi	B	7	13	2.67	4
A. clausi	B	7	15	2.67	4
A. clausi	B	5	16	2.67	4
A. clausi	B	7	16	2.67	4
A. clausi	B	7	19	2.67	4
A. clausi	B	7	20	2.67	4
A. clausi	B	5	21	2.67	4
A. clausi	B	7	22	2.67	4
A. clausi	B	7	23	2.67	4
A. clausi	B	7	21	2.67	4
A. clausi	B	7	20	2.67	4
A. clausi	B	7	20	2.67	4
A. clausi	B	7	3	2.67	4
A. clausi	B	12	5	2.67	4
A. clausi	B	16	5	2.67	4
A. clausi	B	16	3	2.67	4
A. clausi	B	16	5	2.67	4
A. clausi	B	18	2	2.67	4
A. clausi	B	18	5	2.67	4
A. clausi	B	17	2	2.67	4
A. clausi	B	17	3	2.67	4
A. clausi	B	17	5	2.67	4
A. clausi	B	17	6	2.67	4
A. clausi	B	17	9	2.67	4
A. clausi	B	17	10	2.67	4
A. clausi	B	17	11	2.67	4
A. clausi	B	17	17	2.67	4
A. clausi	B	15	16	2.67	4
A. clausi	B	15	7	2.67	4
A. clausi	B	15	9	2.67	4
A. clausi	B	17	12	2.67	4
A. clausi	B	17	12	2.67	4
A. clausi	B	15	11	2.67	4
A. clausi	B	15	10	2.67	4
Acartia clausi	B	17.7	17	2.67	39
A. clausi	B	20.3	16	2.67	39
A. clausi	B	17.1	5	2.67	39
Acartia clausi	B	11.5	1.0	3.9	24
A. clausi	B	11.5	0.2	3.9	24
A. clausi	B	11.5	0.6	3.9	24
A. clausi	B	11.5	0.8	3.9	24
A. clausi	B	11.5	0.1	3.9	24

A. clausi	B	11.5	0.1	3.9	24
A. clausi	B	11.5	0.6	3.9	24
A. clausi	B	11.5	0.4	3.9	24
A. clausi	B	11.5	2.6	3.9	24
A. clausi	B	11.5	1.6	3.9	24
A. clausi	B	11.5	1.1	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.7	3.9	24
A. clausi	B	8.5	0.0	3.9	24
A. clausi	B	8.5	0.2	3.9	24
A. clausi	B	8.5	0.3	3.9	24
A. clausi	B	7.5	0.4	3.9	24
A. clausi	B	7.5	0.2	3.9	24
A. clausi	B	7.5	0.2	3.9	24
A. clausi	B	7.5	0.3	3.9	24
A. clausi	B	7.5	0.4	3.9	24
A. clausi	B	7.5	0.0	3.9	24
A. clausi	B	7.5	0.6	3.9	24
A. clausi	B	7.5	0.2	3.9	24
A. clausi	B	7.5	0.1	3.9	24
A. clausi	B	6.5	4.8	3.9	24
A. clausi	B	6.5	2.0	3.9	24
Acartia erythraea	B	26	4.0	4.0	5
Acartia fossae	B	23.2	3.7	5.13	6
A. fossae	B	21.3	4.6	5.13	6
A. fossae	B	23.0	4.9	5.13	6
A. fossae	B	22.9	10.0	5.13	6
A. fossae	B	22.2	5.1	5.13	6
Acartia grani	B	16.9	27	4.0	39
A. grani	B	16.0	18	4.0	39
A. grani	B	18.0	79	4.0	39
A. grani	B	17.7	46	4.0	39
A. grani	B	20.3	38	4.0	39
A. grani	B	25.0	27	4.0	39
A. grani	B	17.1	10	4.0	39
A. grani	B	17.8	4	4.0	39
A. grani	B	16.0	4	4.0	39
A. grani	B	14.6	0	4.0	39
Acartia hudsonica	B	4	17	2.5	27
A. hudsonica	B	4	16	2.5	27
A. hudsonica	B	4	8	2.5	27
A. hudsonica	B	4	12	2.5	27
A. hudsonica	B	4	15	2.5	27
Acartia hudsonica	B	4	24.9	6.49	34
A. hudsonica	B	4	29.0	6.93	34
A. hudsonica	B	4	26.4	7.17	34
A. hudsonica	B	4	25.8	7.64	34
A. hudsonica	B	4	23.5	7.39	34
A. hudsonica	B	4	34.8	7.34	34
A. hudsonica	B	4	27.9	7.23	34
A. hudsonica	B	4	20.0	5.99	34
A. hudsonica	B	8	24.6	5.91	34
A. hudsonica	B	8	15.1	4.88	34
A. hudsonica	B	8	9.8	4.74	34
A. hudsonica	B	8	40.2	6.61	34
A. hudsonica	B	12	41.6	5.44	34
A. hudsonica	B	12	57.3	5.79	34
A. hudsonica	B	12	43.0	5.32	34
A. hudsonica	B	16	49.9	4.37	34
A.hudsonica	B	16	33.2	4.17	34
Acartia longiremis	B	16.5	11.3	4.4	8
A. longiremis	B	16.5	3.1	4.4	8
A. longiremis	B	16.5	7.0	4.4	8
A. longiremis	B	16.5	5.6	4.4	8
A. longiremis	B	16.5	9.5	4.4	8
A. longiremis	B	16.5	5.8	4.4	8
Acartia omori	B	7.8	29.8	2.67	9
A. omori	B	9.5	24.8	2.67	9

A. omori	B	9.5	38.9	2.67	9
A. omori	B	13.0	37.6	2.67	9
A. omori	B	12.7	36.1	2.67	9
A. omori	B	19.5	36.4	2.67	9
A. omori	B	19.5	38.7	2.67	9
Acartia pacifica	B	22	9.0	4.0	5
Acartia tonsa	B	19	55	2.37	10
A. tonsa	B	23	50	1.77	10
A. tonsa	B	28	40	1.43	10
A. tonsa	B	26	65	2.13	10
A. tonsa	B	19	40	2.46	10
A. tonsa	B	14	30	2.46	10
Acartia tonsa	B	20.1	25.5	3.98	12
A. tonsa	B	26.2	10.0	3.98	12
Acartia tonsa	B	20.8	3	4.20	13
A. tonsa	B	20.8	35	5.00	13
A. tonsa	B	20.8	30	4.40	13
A. tonsa	B	20.8	23	4.40	13
A. tonsa	B	20.8	24	4.60	13
A. tonsa	B	20.8	36	5.60	13
A. tonsa	B	20.8	26	5.00	13
A. tonsa	B	20.8	3	3.40	13
A. tonsa	B	20.8	10	3.40	13
A. tonsa	B	20.8	37	4.80	13
A. tonsa	B	20.8	26	5.00	13
A. tonsa	B	20.8	24	4.00	13
A. tonsa	B	20.8	36	6.20	13
A. tonsa	B	20.8	5	4.20	13
A. tonsa	B	20.8	48	5.20	13
A. tonsa	B	20.8	51	5.00	13
Acartia tonsa	B	24.6	61.6	3.98	31
A. tonsa	B	25.1	32.0	3.98	31
A. tonsa	B	25.9	28.7	3.98	31
A. tonsa	B	25.7	43.9	3.98	31
A. tonsa	B	25.7	36.9	3.98	31
A. tonsa	B	13.3	25.9	3.98	31
A. tonsa	B	13.3	33.1	3.98	31
A. tonsa	B	17.2	23.7	3.98	31
A. tonsa	B	17.7	17.2	3.98	31
A. tonsa	B	17.8	79.7	3.98	31
A. tonsa	B	16.5	77.9	3.98	31
A. tonsa	B	13.0	15.3	3.98	31
A. tonsa	B	15.7	31.5	3.98	31
A. tonsa	B	15.2	21.7	3.98	31
A. tonsa	B	25.6	143.3	3.98	31
A. tonsa	B	27.8	102.9	3.98	31
A. tonsa	B	25.9	78.3	3.98	31
A. tonsa	B	9	48	3.98	31
A. tonsa	B	13	43	3.98	31
A. tonsa	B	25	40	3.98	31
A. tonsa	B	26.5	85	3.98	31
A. tonsa	B	28	105	3.98	31
A. tonsa	B	29	140	3.98	31
A. tonsa	B	28.5	90	3.98	31
A. tonsa	B	26	118	3.98	31
A. tonsa	B	24.5	127	3.98	31
A. tonsa	B	20	50	3.98	31
A. tonsa	B	13.5	33	3.98	31
A. tonsa	B	12	4	3.98	31
A. tonsa	B	18.5	40	3.98	31
A. tonsa	B	9.5	44	3.98	31
A. tonsa	B	14	28	3.98	31
A. tonsa	B	23	60	3.98	31
A. tonsa	B	26	82	3.98	31
A. tonsa	B	28	85	3.98	31
A. tonsa	B	29	97	3.98	31
A. tonsa	B	29	99	3.98	31
A. tonsa	B	26	104	3.98	31
A. tonsa	B	25	98	3.98	31
A. tonsa	B	20	74	3.98	31
A. tonsa	B	16.5	46	3.98	31
A. tonsa	B	17.5	20	3.98	31
A. tonsa	B	19	74	3.98	31
Acartia tonsa	B	19.0	1	3.98	26
A. tonsa	B	19.0	31	3.98	26

A. tonsa	B	19.0	40	3.98	26
A. tonsa	B	19.0	53	3.98	26
A. tonsa	B	19.0	5	3.98	26
A. tonsa	B	19.0	9	3.98	26
A. tonsa	B	19.0	10	3.98	26
A. tonsa	B	19.0	56	3.98	26
A. tonsa	B	19.0	40	3.98	26
A. tonsa	B	19.0	46	3.98	26
A. tonsa	B	19.0	50	3.98	26
A. tonsa	B	19.0	39	3.98	26
A. tonsa	B	19.0	50	3.98	26
A. tonsa	B	19.0	32	3.98	26
A. tonsa	B	19.0	53	3.98	26
A. tonsa	B	15.0	9	3.98	26
A. tonsa	B	15.0	4	3.98	26
A. tonsa	B	15.0	3	3.98	26
Acartia tumida	B	6	2.4	24.0	30
A. tumida	B	6	3.7	24.0	30
A. tumida	B	6	3.3	24.0	30
A. tumida	B	6	20.0	24.0	30
A. tumida	B	6	11.0	24.0	30
A. tumida	B	6	10.0	24.0	30
A. tumida	B	6	41.0	24.0	30
A. tumida	B	6	55.0	24.0	30
A. tumida	B	6	55.0	24.0	30
A. tumida	B	6	30.0	24.0	30
A. tumida	B	6	60.0	24.0	30
A. tumida	B	6	86.0	24.0	30
A. tumida	B	6	27.0	24.0	30
A. tumida	B	6	14.0	24.0	30
A. tumida	B	6	20.0	24.0	30
A. tumida	B	6	31.0	24.0	30
Acartia spp.	B	12	2.3	2.67	25
Acartia spp.	B	12	14.4	2.67	25
Acartia spp.	B	12	11.0	2.67	25
Acartia spp.	B	12	21.3	2.67	25
Acartia spp.	B	12	1.5	2.67	25
Calanidae:					
Calanoides acutus	B	3.5	6.0	228.0	15
Calanoides acutus	B	0.5	20	135.0	16
C. acutus	B	0.5	22	135.0	16
C. acutus	B	0.5	17	135.0	16
C. acutus	B	0.5	35	135.0	16
C. acutus	B	0.5	37	135.0	16
C. acutus	B	0.5	4	135.0	16
C. acutus	B	0.5	6	135.0	16
C. acutus	B	0.5	9	135.0	16
C. acutus	B	0.5	10	135.0	16
C. acutus	B	0.5	20	135.0	16
C. acutus	B	0.5	26	135.0	16
C. acutus	B	0.5	17	135.0	16
C. acutus	B	0.5	23	135.0	16
C. acutus	B	0.5	22	135.0	16
C. acutus	B	0.5	22	135.0	16
C. acutus	B	0.5	36	135.0	16
C. acutus	B	0.5	20	135.0	16
C. acutus	B	0.5	15	135.0	16
C. acutus	B	0.5	29	135.0	16
C. acutus	B	0.5	30	135.0	16
C. acutus	B	0.5	12	135.0	16
Calanoides acutus	B	1	8	135	35
C. acutus	B	1	14	135	35
C .acutus	B	1	18	135	35
C. acutus	B	1	21	135	35
C. acutus	B	1	24	135	35
C. acutus	B	1	45	135	35
Calanus chilensis	B	14	19	56.1	26
C. chilensis	B	14	0	56.1	26
C. chilensis	B	14	0	56.1	26
C. chilensis	B	14	8	56.1	26
C. chilensis	B	14	1	56.1	26
C. chilensis	B	14	13	56.1	26
C. chilensis	B	14	1	56.1	26
C. chilensis	B	14	25	56.1	26

C. chilensis	B	14	20	56.1	26
C. chilensis	B	14	12	56.1	26
C. chilensis	B	14	12	56.1	26
C. chilensis	B	14	4.5	56.1	26
C. chilensis	B	14	0	56.1	26
C. chilensis	B	14	0	56.1	26
C. chilensis	B	14	0.5	56.1	26
C. chilensis	B	14	4.5	56.1	26
C. chilensis	B	14	20	56.1	26
C. chilensis	B	14	3.5	56.1	26
C. chilensis	B	14	0	56.1	26
C. chilensis	B	14	0.5	56.1	26
C. chilensis	B	14	3	56.1	26
C. chilensis	B	14	6	56.1	26
Calanus finmarchicus	B	16.5	42.3	50	8
C. finmarchicus	B	16.5	32.2	50	8
C. finmarchicus	B	16.5	13.5	50	8
C. finmarchicus	B	16.5	31.8	50	8
C. finmarchicus	B	16.5	21.9	50	8
C. finmarchicus	B	16.5	28.7	50	8
Calanus finmarchicus	B	0	21.5	160	18
C. finmarchicus	B	0	19.2	160	18
C. finmarchicus	B	0	23.6	160	18
C. finmarchicus	B	1	8.2	160	18
C. finmarchicus	B	1.5	4.9	160	18
C. finmarchicus	B	1.5	25.4	160	18
C. finmarchicus	B	1.5	16.1	160	18
C. finmarchicus	B	2.0	18.7	160	18
Calanus finmarchicus	B	18	19	119.5	4
C. finmarchicus	B	17	14	119.5	4
C. finmarchicus	B	17	17	119.5	4
C. finmarchicus	B	17	21	119.5	4
C. finmarchicus	B	15	13	119.5	4
C. finmarchicus	B	15	5	119.5	4
Calanus finmarchicus	B	12	2.4	119.5	25
C. finmarchicus	B	12	0.0	119.5	25
C. finmarchicus	B	12	26.9	119.5	25
C. finmarchicus	B	12	0.3	119.5	25
C. finmarchicus	B	7	0.0	119.5	25
C. finmarchicus	B	7	14.4	119.5	25
C. finmarchicus	B	7	14.7	119.5	25
C. finmarchicus	B	12	28.0	119.5	25
C. finmarchicus	B	12	55.0	119.5	25
C. finmarchicus	B	12	22.5	119.5	25
Calanus finmarchicus	B	3	30	164.29	38
C. finmarchicus	B	3	21	164.29	38
C. finmarchicus	B	3	9	164.29	38
C. finmarchicus	B	3	19	164.29	38
C. finmarchicus	B	3	12	164.29	38
C. finmarchicus	B	3	5	164.29	38
C. finmarchicus	B	3	5	164.29	38
C. finmarchicus	B	3	27	164.29	38
C. finmarchicus	B	3	17	164.29	38
C. finmarchicus	B	3	13	164.29	38
C. finmarchicus	B	3	29	164.29	38
C. finmarchicus	B	3	16	164.29	38
C. finmarchicus	B	3	14	164.29	38
C. finmarchicus	B	3	16	164.29	38
C. finmarchicus	B	3	6	164.29	38
C. finmarchicus	B	3	14	164.29	38
C. finmarchicus	B	3	37	164.29	38
C. finmarchicus	B	3	23	164.29	38
C. finmarchicus	B	3	21	164.29	38
C. finmarchicus	B	3	17	164.29	38
C. finmarchicus	B	3	12	164.29	38
C. finmarchicus	B	3	20	164.29	38
C. finmarchicus	B	3	20	164.29	38
C. finmarchicus	B	3	20	164.29	38
C. finmarchicus	B	3	15	164.29	38
Calanus glacialis	B	-0.5	35.6	301	19
C. glacialis	B	-0.5	15.1	301	19
C. glacialis	B	-0.5	33.3	301	19
C. glacialis	B	-0.5	7.1	301	19
C. glacialis	B	-0.5	5.6	301	19
C. glacialis	B	-0.5	15.6	301	19

C. glacialis	B	-0.5	14.4	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	6.7	301	19
C. glacialis	B	-0.5	13.1	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
C. glacialis	B	-0.5	2.5	301	19
Calanus glacialis	B	-2.3	6	313.8	20
C. glacialis	B	-2.3	18	313.8	20
C. glacialis	B	-2.3	19	313.8	20
C. glacialis	B	-2.3	20	313.8	20
C. glacialis	B	-2.3	22	313.8	20
C. glacialis	B	-2.3	32	313.8	20
Calanus glacialis	B	0	36.0	490	18
C. glacialis	B	0	32.0	490	18
C. glacialis	B	0	28.0	490	18
C. glacialis	B	1	8.6	490	18
C. glacialis	B	1.5	11.0	490	18
C. glacialis	B	1.5	20.0	490	18
C. glacialis	B	1.5	14.8	490	18
C. glacialis	B	2	13.0	490	18
Calanus helgolandicus	B	11.5	1.4	75.4	24
C. helgolandicus	B	11.5	0.4	75.4	24
C. helgolandicus	B	11.5	7.3	75.4	24
C. helgolandicus	B	11.5	0.9	75.4	24
C. helgolandicus	B	11.5	7.9	75.4	24
C. helgolandicus	B	11.5	0.0	75.4	24
C. helgolandicus	B	11.5	11.4	75.4	24
C. helgolandicus	B	11.5	12.5	75.4	24
C. helgolandicus	B	11.5	15.0	75.4	24
C. helgolandicus	B	11.5	31.1	75.4	24
C. helgolandicus	B	8.5	0.0	75.4	24
C. helgolandicus	B	8.5	0.0	75.4	24
C. helgolandicus	B	8.5	0.2	75.4	24
C. helgolandicus	B	8.5	0.0	75.4	24
C. helgolandicus	B	8.5	0.6	75.4	24
C. helgolandicus	B	8.5	0.0	75.4	24
C. helgolandicus	B	8.5	0.9	75.4	24
C. helgolandicus	B	8.5	0.0	75.4	24
C. helgolandicus	B	8.5	6.5	75.4	24
C. helgolandicus	B	8.5	0.0	75.4	24
C. helgolandicus	B	7.5	0.2	75.4	24
C. helgolandicus	B	7.5	2.8	75.4	24
C. helgolandicus	B	7.5	0.0	75.4	24
C. helgolandicus	B	7.5	0.9	75.4	24
C. helgolandicus	B	7.5	14.5	75.4	24
C. helgolandicus	B	7.5	2.0	75.4	24
C. helgolandicus	B	7.5	17.2	75.4	24
C. helgolandicus	B	7.5	8.1	75.4	24
C. helgolandicus	B	7.5	0.9	75.4	24
C. helgolandicus	B	7.5	9.4	75.4	24
C. helgolandicus	B	6.5	6.5	75.4	24
C. helgolandicus	B	6.5	4.8	75.4	24
C. helgolandicus	B	6.5	6.8	75.4	24
C. helgolandicus	B	6.5	2.7	75.4	24
C. helgolandicus	B	6.5	1.3	75.4	24
C. helgolandicus	B	6.5	10.9	75.4	24
C. helgolandicus	B	6.5	11.9	75.4	24
C. helgolandicus	B	6.5	17.6	75.4	24
Calanus hyperboreus	B	-2.3	3	1135.8	20
C. hyperboreus	B	-2.3	8	1135.8	20
C. hyperboreus	B	-2.3	22	1135.8	20
C. hyperboreus	B	-2.3	22	1135.8	20
Calanus hyperboreus	B	0	2.3	3620	18
C. hyperboreus	B	0	1.4	3620	18
C. hyperboreus	B	0	0.4	3620	18
C. hyperboreus	B	1	0.9	3620	18

C. hyperboreus	B	1.5	1.1	3620	18
C. hyperboreus	B	1.5	3.6	3620	18
C. hyperboreus	B	1.5	0.7	3620	18
C. hyperboreus	B	2	0.2	3620	18
Calanus simillimus	B	3.5	15.5	207.2	15
Calanus tenuicornis	B	17	3.4	33.83	2
Undinula vulgaris	B	26.25	9.2	67.7	21
U. vulgaris	B	26.25	11.9	67.7	21
U. vulgaris	B	26.25	6.4	67.7	21
U. vulgaris	B	26.25	3.1	67.7	21
U. vulgaris	B	26.25	2.5	67.7	21
U. vulgaris	B	26.25	3.6	67.7	21
U. vulgaris	B	26.25	8.5	67.7	21
U. vulgaris	B	26.25	0.0	67.7	21
U. vulgaris	B	26.25	4.1	67.7	21
U. vulgaris	B	26.25	11.7	67.7	21
U. vulgaris	B	26.25	15.7	67.7	21
U. vulgaris	B	26.25	5.8	67.7	21
U. vulgaris	B	26.25	3.4	67.7	21
U. vulgaris	B	26.25	10.6	67.7	21
U. vulgaris	B	26.25	2.4	67.7	21
U. vulgaris	B	26.25	3.1	67.7	21
Centropagidae:					
Centropages hamatus	B	4	13	10.00	4
C. hamatus	B	4	4	10.00	4
C. hamatus	B	5	7	10.00	4
C. hamatus	B	5	14	10.00	4
C. hamatus	B	5	20	10.00	4
C. hamatus	B	5	24	10.00	4
C. hamatus	B	5	23	10.00	4
C. hamatus	B	5	45	10.00	4
C. hamatus	B	7	24	10.00	4
C. hamatus	B	7	17	10.00	4
C. hamatus	B	7	19	10.00	4
C. hamatus	B	7	26	10.00	4
C. hamatus	B	7	30	10.00	4
C. hamatus	B	7	34	10.00	4
C. hamatus	B	7	40	10.00	4
C. hamatus	B	7	40	10.00	4
C. hamatus	B	7	45	10.00	4
C. hamatus	B	7	58	10.00	4
C. hamatus	B	7	64	10.00	4
C. hamatus	B	7	59	10.00	4
C. hamatus	B	7	68	10.00	4
C. hamatus	B	7	76	10.00	4
C. hamatus	B	7	54	10.00	4
C. hamatus	B	12	6	10.00	4
C. hamatus	B	16	5	10.00	4
C. hamatus	B	16	2	10.00	4
C. hamatus	B	16	1	10.00	4
C. hamatus	B	18	3	10.00	4
C. hamatus	B	18	3	10.00	4
C. hamatus	B	17	4	10.00	4
C. hamatus	B	17	4	10.00	4
C. hamatus	B	17	13	10.00	4
C. hamatus	B	17	15	10.00	4
C. hamatus	B	17	16	10.00	4
C. hamatus	B	17	16	10.00	4
C. hamatus	B	17	21	10.00	4
C. hamatus	B	17	29	10.00	4
C. hamatus	B	17	17	10.00	4
C. hamatus	B	17	18	10.00	4
C. hamatus	B	17	16	10.00	4
C. hamatus	B	15	30	10.00	4
C. hamatus	B	15	21	10.00	4
C. hamatus	B	15	13	10.00	4
C. hamatus	B	15	9	10.00	4
C. hamatus	B	15	11	10.00	4
C. hamatus	B	15	15	10.00	4
C. hamatus	B	15	16	10.00	4
C. hamatus	B	15	16	10.00	4
C. hamatus	B	12	18	10.00	4
C. hamatus	B	12	11	10.00	4
C. hamatus	B	8	29	10.00	4

C. hamatus	B	8	38	10.00	4
Centropages hamatus	B	12	23.5	10.00	25
C. hamatus	B	7	17.1	10.00	25
C. hamatus	B	12	38.0	10.00	25
C. hamatus	B	12	26.2	10.00	25
Centropages hamatus	B	6	42	10.00	7
C. hamatus	B	6	51	10.00	7
C. hamatus	B	6	50	10.00	7
C. hamatus	B	7.5	23	10.00	7
C. hamatus	B	8	18	10.00	7
C. hamatus	B	8.5	19	10.00	7
C. hamatus	B	12.5	5	10.00	7
C. hamatus	B	15.5	17	10.00	7
Centropages typicus	B	20	7.4	14.28	1
C. typicus	B	20	31.5	14.28	1
C. typicus	B	20	27.9	14.28	1
C. typicus	B	20	22.2	14.28	1
C. typicus	B	20	8.4	14.28	1
C. typicus	B	17	21.6	14.28	1
C. typicus	B	13	6.6	14.28	1
C. typicus	B	20	2.7	14.28	1
Centropages typicus	B	17	10.9	5.72	2
C. typicus	B	17	11.7	6.00	2
Centropages typicus	B	16.5	107.8	12.3	8
C. typicus	B	16.5	54.2	12.3	8
C. typicus	B	16.5	80.9	12.3	8
C. typicus	B	16.5	89.2	12.3	8
C. typicus	B	16.5	86.7	12.3	8
C. typicus	B	16.5	94.4	12.3	8
Centropages typicus	B	17	36	14.28	4
C. typicus	B	17	37	14.28	4
C. typicus	B	17	40	14.28	4
C. typicus	B	17	44	14.28	4
C. typicus	B	17	45	14.28	4
C. typicus	B	17	50	14.28	4
C. typicus	B	17	58	14.28	4
C. typicus	B	17	66	14.28	4
C. typicus	B	17	67	14.28	4
C. typicus	B	17	90	14.28	4
C. typicus	B	15	29	14.28	4
C. typicus	B	15	31	14.28	4
C. typicus	B	15	28	14.28	4
C. typicus	B	15	58	14.28	4
C. typicus	B	15	76	14.28	4
C. typicus	B	15	88	14.28	4
C. typicus	B	12	50	14.28	4
C. typicus	B	8	7	14.28	4
Centropages typicus	B	15	28	9.96	23
C. typicus	B	15	23	10.84	23
C. typicus	B	15	76	16.72	23
C. typicus	B	15	43	13.72	23
C. typicus	B	10	29	14.72	23
C. typicus	B	10	25	16.28	23
C. typicus	B	10	51	20.32	23
C. typicus	B	10	55	17.32	23
C. typicus	B	10	42	18.80	23
C. typicus	B	15	28	9.28	23
Centropages typicus	B	20	3.2	3.46	22
C typicus	B	20	1.7	3.92	22
C. typicus	B	20	5.3	4.14	22
C. typicus	B	20	7.9	4.41	22
C. typicus	B	20	8.4	5.12	22
C. typicus	B	20	2.7	4.98	22
C. typicus	B	20	12.4	4.62	22
C. typicus	B	20	10.2	4.37	22
C. typicus	B	20	7.5	3.77	22
C. typicus	B	20	7.4	5.5	22
C. typicus	B	20	33.4	5.14	22
C. typicus	B	20	24.5	4.52	22
C. typicus	B	20	5.9	6.59	22
C. typicus	B	20	21.6	8.82	22
C. typicus	B	20	30.3	5.77	22
C. typicus	B	20	22.2	4.77	22
C. typicus	B	20	18.5	5.43	22
Centropages typicus	B	12	19.7	14.28	25

C. typicus	B	12	48.1	14.28	25
C. typicus	B	7	0.0	14.28	25
C. typicus	B	12	105.0	14.28	25
C. typicus	B	12	33.5	14.28	25
C. typicus	B	12	77.0	14.28	25
Centropages typicus	B	19	21	14.28	41
C. typicus	B	19	4	14.28	41
C. typicus	B	19	0.5	14.28	41
C. tpicus	B	19	1	14.28	41
C. typicus	B	19	0.5	14.28	41
Centropages typicus	B	11.5	63.3	14.1	24
C. typicus	B	11.5	8.0	14.1	24
C. typicus	B	11.5	18.2	14.1	24
C. typicus	B	11.5	82.1	14.1	24
C. typicus	B	11.5	3.0	14.1	24
C. typicus	B	11.5	20.0	14.1	24
C. typicus	B	11.5	51.2	14.1	24
C. typicus	B	11.5	33.0	14.1	24
C. typicus	B	11.5	24.0	14.1	24
C. typicus	B	11.5	1.3	14.1	24
C. typicus	B	8.5	0.0	14.1	24
C. typicus	B	8.5	5.0	14.1	24
C. typicus	B	8.5	9.7	14.1	24
C. typicus	B	8.5	0.4	14.1	24
C. typicus	B	8.5	8.0	14.1	24
C. typicus	B	8.5	4.8	14.1	24
C. typicus	B	7.5	0.0	14.1	24
C. typicus	B	7.5	12.8	14.1	24
C. typicus	B	7.5	10.2	14.1	24
C. typicus	B	7.5	17.2	14.1	24
C. typicus	B	7.5	2.4	14.1	24
C. typicus	B	7.5	1.4	14.1	24
C. typicus	B	7.5	2.8	14.1	24
Clausocalanidae:					
Clausocalanus sp.	S	17	2.7	6.74	2
Clausocalanus sp.	S	17	6.7	6.00	2
Clausocalanus lividus	B	20	0.0	7.7	22
C. lividus	B	20	0.0	7.6	22
C. lividus	B	20	0.4	7.4	22
C. lividus	B	20	4.9	8	22
C. lividus	B	20	0.4	8.7	22
C. lividus	B	20	5.1	8.1	22
C. lividus	B	20	4.7	8.3	22
C. lividus	B	20	1.6	8.4	22
C. lividus	B	20	4.2	9.0	22
C. lividus	B	20	19.7	9.3	22
C. lividus	B	20	7.8	10.0	22
C. lividus	B	20	21.2	9.5	22
C. lividus	B	20	10.9	8.5	22
C. lividus	B	20	7.6	9.3	22
C. lividus	B	20	4.7	10.8	22
C. lividus	B	20	8.1	8.2	22
C. lividus	B	20	5.0	8.9	22
Pseudocalanus spp.	S	4.8	3.4	6.7	17
Pseudocalanus spp.	S	4.8	0.5	6.7	17
Pseudocalanus spp.	S	5.5	1.8	6.7	17
Pseudocalanus spp.	S	5.5	4.0	6.7	17
Pseudocalanus spp.	S	5.5	1.4	6.7	17
Pseudocalanus spp.	S	5.5	3.4	6.7	17
Pseudocalanus spp.	S	5.5	3.8	9.2	17
Pseudocalanus spp.	S	5.8	1.3	6.7	17
Pseudocalanus spp.	S	5.9	3.4	6.7	17
Pseudocalanus spp.	S	6.2	2.9	6.7	17
Pseudocalanus spp.	S	7.0	1.6	3.2	17
Pseudocalanus spp.	S	7.0	3.7	6.7	17
Pseudocalanus spp.	S	4.5	0.3	6.7	17
Pseudocalanus spp.	S	4.5	0.7	6.7	17
Pseudocalanus spp.	S	4.6	1.1	6.7	17
Pseudocalanus spp.	S	4.5	2.5	9.2	17
Pseudocalanus spp.	S	5.5	4.4	6.7	17
Pseudocalanus spp.	S	7.0	3.0	6.7	17
Pseudocalanus spp.	S	7.0	3.6	6.7	17
Pseudocalanus spp.	S	7.3	5.3	6.7	17

Eucalanidae:					
Rhincalanus gigas	B	3.5	8.9	706.0	15
Metridiidae:					
Metridia gerlachei	B	0	2.8	98.8	37
M. gerlachei	B	0	3.5	98.8	37
M. gerlachei	B	0	6.2	98.8	37
M. gerlachei	B	0	4.3	98.8	37
M. gerlachei	B	0	3.9	98.8	37
M. gerlachei	B	0	0.0	98.8	37
M. gerlachei	B	0	0.3	98.8	37
M. gerlachei	B	0	0.0	98.8	37
Metridia lucens	B	11.5	1.5	26.2	24
M. lucens	B	11.5	3.2	26.2	24
M. lucens	B	11.5	1.2	26.2	24
M. lucens	B	11.5	0.1	26.2	24
M. lucens	B	8.5	0.0	26.2	24
M. lucens	B	8.5	0.0	26.2	24
M. lucens	B	8.5	0.7	26.2	24
M. lucens	B	8.5	0.0	26.2	24
M. lucens	B	8.5	0.0	26.2	24
M. lucens	B	8.5	2.5	26.2	24
M. lucens	B	8.5	0.0	26.2	24
M. lucens	B	8.5	0.5	26.2	24
M. lucens	B	7.5	0.2	26.2	24
M. lucens	B	7.5	0.0	26.2	24
M. lucens	B	7.5	0.2	26.2	24
M. lucens	B	7.5	0.1	26.2	24
M. lucens	B	7.5	3.0	26.2	24
M. lucens	B	6.5	0.3	26.2	24
M. lucens	B	6.5	2.0	26.2	24
M. lucens	B	6.5	3.4	26.2	24
M. lucens	B	6.5	2.0	26.2	24
M. lucens	B	6.5	2.0	26.2	24
M. lucens	B	6.5	1.0	26.2	24
M. lucens	B	6.5	2.5	26.2	24
Oithonidae:					
Oithona aruensis	S	24.9	5.25	0.297	11
O. aruensis	S	22.2	1.19	0.297	11
O. aruensis	S	29.5	3.42	0.297	11
O. aruensis	S	28.8	0.87	0.297	11
Oithona davisae	S	18.1	1.01	0.221	14
O. davisae	S	18.0	5.74	0.222	14
O. davisae	S	17.6	6.72	0.229	14
O. davisae	S	15.8	2.34	0.226	14
O. davisae	S	16.2	0.89	0.223	14
O. davisae	S	15.4	1.83	0.219	14
O. davisae	S	14.6	1.33	0.226	14
O. davisae	S	14.5	1.28	0.229	14
O. davisae	S	14.2	1.87	0.228	14
O. davisae	S	14.0	1.3	0.230	14
O. davisae	S	14.0	1.23	0.230	14
O. davisae	S	13.1	0.9	0.232	14
O. davisae	S	12.4	0.71	0.232	14
O. davisae	S	12.4	0.39	0.230	14
O. davisae	S	11.8	0.52	0.237	14
O. davisae	S	11.1	0.41	0.237	14
O. davisae	S	10.7	0.71	0.234	14
O. davisae	S	10.2	0.51	0.236	14
O. davisae	S	10.0	0.53	0.235	14
O. davisae	S	9.5	0.78	0.235	14
O. davisae	S	9.0	0.42	0.238	14
O. davisae	S	10.0	0.36	0.243	14
O. davisae	S	10.1	0.39	0.237	14
O. davisae	S	9.6	0.44	0.241	14
O. davisae	S	9.7	0.6	0.241	14
O. davisae	S	8.9	0.68	0.241	14
O. davisae	S	9.6	0.89	0.241	14
O. davisae	S	9.6	0.4	0.246	14
O. davisae	S	10.5	0.25	0.243	14
O. davisae	S	10.8	0.68	0.246	14
O. davisae	S	10.8	0.72	0.244	14
O. davisae	S	10.8	1.34	0.248	14
O. davisae	S	11.2	1.93	0.252	14

O. davisae	S	12.4	2.68	0.245	14
O. davisae	S	12.2	2.33	0.243	14
O. davisae	S	13.1	2.77	0.239	14
O. davisae	S	14.4	2.34	0.240	14
O. davisae	S	13.4	2.01	0.238	14
O. davisae	S	15.2	3.53	0.243	14
O. davisae	S	14.7	1.66	0.237	14
O. davisae	S	16.2	1.66	0.235	14
O. davisae	S	16.7	3.57	0.236	14
O. davisae	S	16.9	3.67	0.233	14
O. davisae	S	19.0	2.53	0.234	14
O. davisae	S	19.5	4.03	0.231	14
O. davisae	S	19.3	3.85	0.231	14
O. davisae	S	20.7	3.63	0.229	14
O. davisae	S	20.4	3.43	0.231	14
O. davisae	S	21.2	9.12	0.225	14
O. davisae	S	21.8	8.82	0.221	14
O. davisae	S	20.7	9.38	0.223	14
O. davisae	S	22.4	2.99	0.220	14
O. davisae	S	21.2	5.15	0.223	14
O. davisae	S	22.4	8.74	0.222	14
O. davisae	S	22.1	6.42	0.221	14
O. davisae	S	22.2	3.84	0.218	14
O. davisae	S	22.5	4.5	0.218	14
O. davisae	S	24.1	4.43	0.215	14
O. davisae	S	24.3	3.93	0.215	14
O. davisae	S	24.4	6.33	0.215	14
O. davisae	S	25.4	2.88	0.213	14
O. davisae	S	26.9	4.08	0.209	14
O. davisae	S	26.8	4.13	0.210	14
O. davisae	S	25.8	9.74	0.205	14
O. davisae	S	26.8	7.56	0.202	14
O. davisae	S	26.2	4.36	0.199	14
O. davisae	S	26.8	5.06	0.199	14
O. davisae	S	27.2	4.83	0.201	14
O. davisae	S	26.8	4.39	0.203	14
O. davisae	S	26.8	5.86	0.201	14
O. davisae	S	27.5	2.61	0.203	14
O. davisae	S	27.7	2.99	0.203	14
O. davisae	S	27.8	5.01	0.205	14
O. davisae	S	28.2	2.54	0.205	14
O. davisae	S	27.0	2.46	0.205	14
O. davisae	S	26.2	2.18	0.206	14
O. davisae	S	25.9	2.01	0.206	14
O. davisae	S	25.7	1.58	0.205	14
O. davisae	S	24.4	1.49	0.206	14
O. davisae	S	24.6	2.38	0.203	14
O. davisae	S	24.2	1.47	0.206	14
O. davisae	S	24.4	1.47	0.208	14
O. davisae	S	23.8	1.52	0.212	14
O. davisae	S	23.2	1.92	0.209	14
O. davisae	S	22.7	1.97	0.211	14
O. davisae	S	21.7	2.36	0.212	14
O. davisae	S	21.1	3.34	0.212	14
O. davisae	S	21.3	2.36	0.212	14
O. davisae	S	20.6	3.65	0.214	14
O. davisae	S	20.0	1.4	0.215	14
Oithona sp.	S	22.2	2.28	0.61	11
Oithona sp.	S	22.2	5.17	0.61	11
Oithona spp.	S	12	2.93	0.752	25
Oithona spp.	S	9.6	1.81	0.643	25
Oithona spp.	S	12	3.26	0.746	25
Oithona spp.	S	9.5	3.32	0.765	25
Oithona spp.	S	12	3.52	0.720	25
Oithona spp.	S	8.2	1.24	0.651	25
Oithona spp.	S	8.2	1.39	0.648	25
Oithona spp.	S	12	3.61	0.752	25
Oithona spp.	S	7.7	1.01	0.685	25
Oithona spp.	S	7.7	1.15	0.621	25
Oithona spp.	S	12	2.34	0.855	25
Oithona spp.	S	8.5	2.62	0.734	25
Oithona spp.	S	7.6	1.11	0.827	25
Oithona spp.	S	6.7	2.49	0.714	25
Oithona spp.	S	12	5.21	0.743	25
Oithona spp.	S	8.6	2.14	0.671	25

Oithona spp.	S	8.5	2.14	0.668	25
Oithona spp.	S	12	1.73	0.789	25
Oithona spp.	S	7.8	3.23	0.618	25
Oithona spp.	S	7.6	1.14	0.654	25
Oithona spp.	S	7.5	2.78	0.640	25
Oithona spp.	S	9.0	1.41	0.729	25
Oithona spp.	S	7.0	1.55	0.731	25
Oithona spp.	S	12.0	1.75	0.789	25
Oithona spp.	S	8.6	0.83	0.634	25
Oithona spp.	S	7.8	2.01	0.685	25
Oithona spp.	S	6.7	2.64	0.668	25
Oithona spp.	S	12.0	2.44	0.824	25
Oithona spp.	S	8.0	3.39	0.808	25
Oithona spp.	S	12	5.65	0.824	25
Oithona spp.	S	8.0	2.65	0.651	25
Oithona spp.	S	8.0	2.67	0.656	25
Oithona spp.	S	12.0	2.04	0.898	25
Oithona spp.	S	8.0	0.88	0.868	25
Oithona spp.	S	8.0	1.17	0.752	25
Oithona spp.	S	12.0	3.85	0.795	25
Oithona spp.	S	8.5	3.02	0.720	25
Oithona spp.	S	7.5	1.44	0.705	25
Oithona spp.	S	7.5	2.28	0.634	25
Oithona spp.	S	12.0	1.76	0.777	25
Oithona spp.	S	8.0	1.23	0.673	25
Oithona spp.	S	7.2	1.89	0.645	25
Oithona spp.	S	7.0	2.46	0.720	25
Paracalanidae:					
Acrocalanus inermis	B	26.0	10.5	0.90	28
A. inermis	B	26.0	8.4	0.90	28
A. inermis	B	26.0	15.8	0.90	28
A. inermis	B	25.0	11.3	0.90	28
A. inermis	B	25.0	16.4	0.90	28
A. inermis	B	26.5	9.5	0.90	28
A. inermis	B	26.5	7.4	0.90	28
A. inermis	B	26.5	12.0	0.90	28
A. inermis	B	29.0	5.1	0.90	28
A. inermis	B	29.0	6.4	0.90	28
A. inermis	B	29.0	6.7	0.90	28
A. inermis	B	27.5	14.6	0.90	28
A. inermis	B	27.5	16.9	0.90	28
A. inermis	B	27.5	12.4	0.90	28
A. inermis	B	27.0	10.8	0.90	28
A. inermis	B	27.0	10.4	0.90	28
A. inermis	B	27.0	9.4	0.90	28
Paracalanus parvus	B	16.5	4.5	3.3	8
P. parvus	B	16.5	31.1	3.3	8
P. parvus	B	16.5	9.4	3.3	8
P. parvus	B	16.5	23.7	3.3	8
P. parvus	B	16.5	12.6	3.3	8
P. parvus	B	16.5	16.4	3.3	8
Paracalanus parvus	B	20	14.1	3.00	1
P. parvus	B	20	15.8	3.00	1
Paracalanus parvus	B	17	3.4	1.85	2
P. parvus	B	17	12.4	1.86	2
Paracalanus parvus	B	17	6	3.00	4
P. parvus	B	17	7	3.00	4
P. parvus	B	17	8	3.00	4
P. parvus	B	17	8	3.00	4
P. parvus	B	17	9	3.00	4
P. parvus	B	17	10	3.00	4
P. parvus	B	17	10	3.00	4
P. parvus	B	17	11	3.00	4
P. parvus	B	17	12	3.00	4
P. parvus	B	17	11	3.00	4
P. parvus	B	15	21	3.00	4
P. parvus	B	15	16	3.00	4
P. parvus	B	15	11	3.00	4
P. parvus	B	15	11	3.00	4
P. parvus	B	15	15	3.00	4
P. parvus	B	15	8	3.00	4
P. parvus	B	15	8	3.00	4
P. parvus	B	15	10	3.00	4
P. parvus	B	12	5	3.00	4

P. parvus	B	12	3	3.00	4
P. parvus	B	8	8	3.00	4
Paracalanus parvus	B	8.5	0.0	3.1	24
P. parvus	B	8.5	0.0	3.1	24
P. parvus	B	8.5	0.2	3.1	24
P. parvus	B	8.5	0.0	3.1	24
P. parvus	B	8.5	0.0	3.1	24
P. parvus	B	8.5	1.8	3.1	24
P. parvus	B	8.5	0.0	3.1	24
P. parvus	B	8.5	7.2	3.1	24
P. parvus	B	6.5	0.5	3.1	24
P. parvus	B	6.5	0.7	3.1	24
P. parvus	B	6.5	0.0	3.1	24
P. parvus	B	6.5	0.0	3.1	24
P. parvus	B	6.5	0.7	3.1	24
P. parvus	B	6.5	3.6	3.1	24
P. parvus	B	6.5	1.0	3.1	24
P. parvus	B	6.5	3.8	3.1	24
Paracalanus sp.	B	19.25	2	3.25	29
Paracalanus sp.	B	19.25	3.5	3.25	29
Paracalanus sp.	B	19.25	4	3.25	29
Paracalanus sp.	B	19.25	7	3.25	29
Paracalanus sp.	B	19.25	7.5	3.25	29
Paracalanus sp.	B	19.25	6	3.25	29
Paracalanus sp.	B	19.25	14	3.25	29
Paracalanus sp.	B	19.25	6	3.25	29
Paracalanus sp.	B	19.25	5.5	3.25	29
Paracalanus sp.	B	19.25	8.5	3.25	29
Paracalanus sp.	B	19.25	11	3.25	29
Paracalanus sp.	B	19.25	10.5	3.25	29
Paracalanus sp.	B	19.25	10	3.25	29
Paracalanus sp.	B	19.25	9	3.25	29
Paracalanus sp.	B	19.25	12	3.25	29
Paracalanus sp.	B	19.25	13	3.25	29
Paracalanus sp.	B	19.25	15	3.25	29
Paracalanus sp.	B	19.25	15.5	3.25	29
Paracalanus sp.	B	19.25	19	3.25	29
Paracalanus sp.	B	19.25	20	3.25	29
Paracalanus sp.	B	19.25	26	3.25	29
Paracalanus sp.	B	19.25	26.5	3.25	29
Paracalanus sp.	B	19.25	25	3.25	29
Paracalanus sp.	B	19.25	26	3.25	29
Paracalanus sp.	B	19.25	30	3.25	29
Paracalanus sp.	B	19.25	36	3.25	29
Paracalanus sp.	B	19.25	43	3.25	29
Paracalanus sp.	B	19.25	42	3.25	29
Paracalanus sp.	B	19.25	36	3.25	29
Paracalanus sp.	B	19.25	32	3.25	29
Paracalanus sp.	B	9	4	4.33	40
Paracalanus sp.	B	8	3	4.95	40
Paracalanus sp.	B	8	3	5.33	40
Paracalanus sp.	B	8	4	5.14	40
Paracalanus sp.	B	9	5	5.24	40
Paracalanus sp.	B	11	11	5.24	40
Paracalanus sp.	B	12	15	4.59	40
Paracalanus sp.	B	13	24	3.77	40
Paracalanus sp.	B	14	24	3.92	40
Paracalanus sp.	B	22	42	2.79	40
Paracalanus sp.	B	22	65	2.32	40
Paracalanus sp.	B	25	5	2.15	40
Paracalanus sp.	B	26	7	2.26	40
Paracalanus sp.	B	26	19	2.85	40
Paracalanus sp.	B	25	19	2.85	40
Paracalanus sp.	B	22	38	3.25	40
Paracalanus sp.	B	21	41	2.85	40
Paracalanus sp.	B	20	41	3.11	40
Paracalanus sp.	B	17	25	2.98	40
Paracalanus sp.	B	16	17	3.32	40
Paracalanus sp.	B	15	55	4.50	40
Paracalanus sp.	B	14	29	3.54	40
Paracalanus sp.	B	14	17	3.18	40
Parvocalanus crassirostris	B	23.2	6.0	0.93	6
P. crassirostris	B	21.3	5.7	0.93	6
P. crassirostris	B	23.0	14.7	0.93	6
P. crassirostris	B	22.2	9.7	0.93	6

Temoridae:					
Eurytemora affinis	S	8	3.5	4.1	32
E. affinis	S	10	4.7	4.0	32
E. affinis	S	14	4.8	3.8	32
E. affinis	S	17	3.9	3.7	32
E. affinis	S	20	2.9	3.3	32
T. longicornis	B	16.5	5.9	9.4	8
T. longicornis	B	16.5	2.2	9.4	8
T. longicornis	B	16.5	2.2	9.4	8
T. longicornis	B	16.5	5.7	9.4	8
T. longicornis	B	16.5	9.5	9.4	8
T. longicornis	B	16.5	4.5	9.4	8
Temora longicornis	B	7.0	45	14.95	3
T. longicornis	B	7.0	17	14.95	3
T. longicornis	B	7.0	38	14.95	3
T. longicornis	B	7.0	16	14.95	3
T. longicornis	B	7.0	10	14.95	3
T. longicornis	B	7.0	11	14.95	3
T. longicornis	B	7.0	14	14.95	3
T. longicornis	B	7.0	30	14.95	3
T. longicornis	B	7.0	29	14.95	3
T. longicornis	B	7.0	27	14.95	3
Temora longicornis	B	4	3	14.95	4
T. longicornis	B	4	1	14.95	4
T. longicornis	B	5	3	14.95	4
T. longicornis	B	5	8	14.95	4
T. longicornis	B	5	7	14.95	4
T. longicornis	B	5	7	14.95	4
T. longicornis	B	5	16	14.95	4
T. longicornis	B	5	18	14.95	4
T. longicornis	B	5	23	14.95	4
T. longicornis	B	5	39	14.95	4
T. longicornis	B	5	43	14.95	4
T. longicornis	B	5	42	14.95	4
T. longicornis	B	5	22	14.95	4
T. longicornis	B	5	47	14.95	4
T. longicornis	B	7	28	14.95	4
T. longicornis	B	7	28	14.95	4
T. longicornis	B	7	30	14.95	4
T. longicornis	B	7	31	14.95	4
T. longicornis	B	7	17	14.95	4
T. longicornis	B	7	19	14.95	4
T. longicornis	B	18	2	14.95	4
T. longicornis	B	17	4	14.95	4
T. longicornis	B	17	2	14.95	4
T. longicornis	B	17	7	14.95	4
T. longicornis	B	17	13	14.95	4
T. longicornis	B	17	16	14.95	4
T. longicornis	B	12	10	14.95	4
T. longicornis	B	12	3	14.95	4
T. longicornis	B	8	12	14.95	4
Temora longicornis	B	16.1	2.9	14.95	36
T. longicornis	B	16.5	1.0	14.95	36
T. longicornis	B	17.0	4.7	14.95	36
T. longicornis	B	17.5	2.4	14.95	36
Temora longicornis	B	3	1.5	14.95	33
T. longicornis	B	5	1.5	14.95	33
T. longicornis	B	5	8.5	14.95	33
T. longicornis	B	7	7.5	14.95	33
T. longicornis	B	7.5	9	14.95	33
T. longicornis	B	11	16	14.95	33
T. longicornis	B	12.5	16	14.95	33
T. longicornis	B	14	16	14.95	33
T. longicornis	B	14	3.5	14.95	33
T. longicornis	B	14	10	14.95	33
T. longicornis	B	18.5	4	14.95	33
T. longicornis	B	18	21	14.95	33
T. longicornis	B	18	15	14.95	33
T. longicornis	B	16.5	14.5	14.95	33
T. longicornis	B	6.5	6	14.95	33
T. longicornis	B	7.5	12	14.95	33
T. longicornis	B	8	13	14.95	33
T. longicornis	B	10	14	14.95	33
T. longicornis	B	10	12	14.95	33

T. longicornis	B	13	20	14.95	33
T. longicornis	B	13.5	15	14.95	33
T. longicornis	B	18.5	19	14.95	33
T. longicornis	B	18	15	14.95	33
T. longicornis	B	17.5	7	14.95	33
T. longicornis	B	17.5	5	14.95	33
T. longicornis	B	17	7	14.95	33
T. longicornis	B	17	7	14.95	33
T. longicornis	B	19	7	14.95	33
T. longicornis	B	18	6	14.95	33
T. longicornis	B	17.5	23	14.95	33
T. longicornis	B	17.5	11	14.95	33
T. longicornis	B	17.5	16	14.95	33
T. longicornis	B	14	15	14.95	33
T. longicornis	B	12.5	5	14.95	33
T. longicornis	B	8.0	4	14.95	33
T. longicornis	B	9.5	13	14.95	33
T. longicornis	B	12.5	15	14.95	33
T. longicornis	B	11.0	9	14.95	33
T. longicornis	B	11.0	25	14.95	33
T. longicornis	B	11.0	8	14.95	33
T. longicornis	B	14.0	20	14.95	33
T. longicornis	B	17.5	9	14.95	33
T. longicornis	B	17.0	8	14.95	33
T. longicornis	B	18.5	8	14.95	33
T. longicornis	B	17.5	17	14.95	33
T. longicornis	B	17.5	10	14.95	33
T. longicornis	B	17.5	18	14.95	33
T. longicornis	B	13.0	5	14.95	33
T. longicornis	B	12.5	4	14.95	33
Temora longicornis	B	4	31	14.95	27
T. longicornis	B	4	25	14.95	27
T. longicornis	B	4	12	14.95	27
T. longicornis	B	4	15	14.95	27
T. longicornis	B	4	13	14.95	27
Temora longicornis	B	11.5	7.5	12.9	24
T. longicornis	B	11.5	0.4	12.9	24
T. longicornis	B	11.5	1.8	12.9	24
T. longicornis	B	11.5	12.2	12.9	24
T. longicornis	B	11.5	0.1	12.9	24
T. longicornis	B	11.5	0.8	12.9	24
T. longicornis	B	11.5	5.7	12.9	24
T. longicornis	B	11.5	9.1	12.9	24
T. longicornis	B	11.5	8.2	12.9	24
T. longicornis	B	11.5	9.3	12.9	24
T. longicornis	B	8.5	0.0	12.9	24
T. longicornis	B	8.5	0.0	12.9	24
T. longicornis	B	8.5	0.0	12.9	24
T. longicornis	B	8.5	0.0	12.9	24
T. longicornis	B	8.5	0.0	12.9	24
T. longicornis	B	8.5	2.8	12.9	24
T. longicornis	B	8.5	0.0	12.9	24
T. longicornis	B	8.5	5.2	12.9	24
T. longicornis	B	8.5	0.0	12.9	24
T. longicornis	B	8.5	4.6	12.9	24
T. longicornis	B	8.5	1.2	12.9	24
T. longicornis	B	8.5	9.5	12.9	24
T. longicornis	B	7.5	0.2	12.9	24
T. longicornis	B	7.5	0.6	12.9	24
T. longicornis	B	7.5	0.7	12.9	24
T. longicornis	B	7.5	6.7	12.9	24
T. longicornis	B	7.5	1.2	12.9	24
T. longicornis	B	7.5	2.8	12.9	24
T. longicornis	B	7.5	0.6	12.9	24
T. longicornis	B	7.5	0.1	12.9	24
T. longicornis	B	7.5	1.2	12.9	24
T. longicornis	B	6.5	2.2	12.9	24
T. longicornis	B	6.5	2.0	12.9	24
T. longicornis	B	6.5	5.3	12.9	24
Temora stylifera	B	20	17.2	12.60	1
T. stylifera	B	20	8.5	12.60	1
Temora stylifera	B	20	8.9	11.3	22
T. stylifera	B	20	2.5	10.9	22
T. stylifera	B	20	6.5	12.6	22
T. stylifera	B	20	6.9	10.7	22

T. stylifera	B	20	0.2	11.8	22
T. stylifera	B	20	4.4	11.9	22
T. stylifera	B	20	17.2	11.3	22
T. stylifera	B	20	5.4	12.6	22
T. stylifera	B	20	7.9	12.9	22

Sources: **1** Saiz et al. (1997)† -egg production rates and temperatures from their Table II. Values for *Oithona* sp. not used because only females without eggs initially incubated (see text of original study), *Clausocalanus* sp. not included as no appropriate weights could be found. **2** Calbet et al. (1996) -egg production rates from their Table V and adult weights derived from Tables V & VI. **3** Kiørboe et al. (1990)† -egg production rates from their Fig. 9 and approximate temperature from Fig. 2. **4** Kiørboe & Nielsen (1994)† -egg production rates from their Figs 4 & 5. Monthly average temperatures estimated from their Fig. 4. **5** Checkley et al. (1992) -values taken from text for Inland Sea of Japan study, equations to derive female growth not given. **6** McKinnon & Ayukai (1996) -data taken from the bottle incubation results in their Table 1. **7** Tang et al. (1998)† -only *Centropages* data included as *Temora* females selected on the basis of ovary development. Temperature from their Fig. 1A and egg production rates from Fig. 2A. **8** Peterson et al. (1991) -adult values taken from their Table IV. **9** Ayukai (1988) -temperatures from their Table 1 and egg production from their Table 2. **10** Ambler (1985) -data taken from Fig. 5b and temperatures from their Table 1; only Natural Plankton experiments included. **11** McKinnon & Klumpp (1998) -only sac spawners data included as egg-ratio method employed, egg production rates and temperatures taken from their Table 2, *Oithona* sp. 2 is not included as egg development times were not directly measured for this species. Body weights of adults taken from their Table 3. **12** Stearns et al. (1989)† -egg production and temperatures taken from their Table 3. **13** Durbin et al. (1983)† -adult body dry weights and egg production rates and from their Fig. 3b,d respectively, mean temperature given in text. **14** Uye & Sano (1995) -body weights, growth and temperature data supplied by S. I. Uye (pers. comm.). **15** Ward & Shreeve (1995) -mean adult and egg weights taken from their Table 4 and egg production rates taken as mean values in their Table 2. **16** Lopez et al. (1993) -growth rates from their Table 4 and temperature and body weights from text. **17** Paul et al. (1990) -Adult weight derived from prosome lengths using the length-weight regression of McLaren (1969), DW (μg) = $11.9\ PL^{3.64}$, PL is prosome length in mm and carbon was assumed to be 40% of dry weight (DW). For the period prior to 7th May 1987, a length of 1.1 mm was assumed. Egg weights taken as the mean for all *Pseudocalanus* species in Kiørboe & Sabatini (1995), i.e. 0.140 μgC. **18** Nielsen & Hansen (1995) -temperatures estimated from their Fig. 2 and egg production rates from their Table 4, egg weights supplied by T. G. Nielsen (pers. comm.). **19** Hirche & Bohrer (1987) -growth data extracted from their Figs 1 & 2, those values quoted as <2.5 eggs female^{-1} d^{-1} are given here as 2.5 eggs female^{-1} d^{-1}. Egg and adult weights as given in text. The fact that animals were incubated in natural seawater was confirmed by H. J. Hirche (pers. comm.). **20** Smith (1990) -data taken as means from their Fig. 3, egg, adult weight and incubation temperature from text. **21** Park & Landry (1993) -egg production rates from their Table 1, egg and adult weight and temperature from text. **22** Saiz et al. (1999) -egg production, weight-specific growth and chl a concentrations supplied by E. Saiz (pers. comm.). Temperature taken as mid-point of their given range. Growth rates were re-calculated so that they represent linear form as used as a standard for egg production herein. **23** Smith & Lane (1987) -data taken from their Table 5. **24** Hay et al. (1991) -egg production data from their Table 5 and temperatures estimated from their Fig. 1. Adult weights taken as means from their Table 2a. Egg weights from Appendix 1 of Kiørboe & Sabatini (1995) except for *Metridia lucens* in which egg weight calculated from diameter (as given in Kiørboe & Sabatini 1994) using the equation of Uye & Sano (1995). **25** Nielsen

& Sabatini (1996) -for *Oithona* spp. egg production rates and temperatures from their Table 2. Weight of the growing individuals were derived from the cephalothorax lengths given using the equation of Sabatini & Kiørboe (1994); for Calanoids egg production rates from their Table 3 and adult weights taken from Kiørboe & Sabatini (1995). **26** Peterson & Bellantoni (1987) -egg production data from their Fig. 10 for *Calanus chilensis* and adult weight derived from mean dry weight of 140.3 μg (Escribano & Rodriguez 1995) assuming carbon to be 40% DW (Båmstedt 1986) and an egg weight of 0.46 μgC (Escribano & McLaren 1999). *Acartia tonsa* egg production rates from their Fig. 6, egg and adult weights taken from Kiørboe & Sabatini (1995). Growth data for *Temora longicornis* extracted separately from the paper Peterson & Kimmerer (1994) and detailed separately in this appendix. **27** Jónasdóttir et al. (1995)[†] -egg production rates from their Fig. 3. **28** Kimmerer (1984) -egg production and temperature from their Table 2 and adult and egg weights taken from associated publication (Kimmerer 1980). **29** Uye et al. (1992)[†] -egg production rates from their Fig. 6. **30** Hassett et al. (1993) -data for egg production rates from their Table 4, egg diameter given in text as 100 μm and carbon weight estimated as 0.064 μgC by using the equation of Uye & Sano (1995) where; $C_E = 5.32 \times 10^{-8} \times E_D^{3.04}$, C_E is the egg carbon content (μg) and E_D is the egg diameter (μm). Female adult weight assumed to be 24.0 μgC ind.$^{-1}$. Determined from the mean total length (L) of 2.4 mm using the total length to dry weight equation given by Hirota (1981) where $\log_{10}BW = 0.8810 + 2.3579\log_{10}L$, where BW is body dry weight (μg), and assuming carbon to be 40% *DW* (Båmstedt 1986). Although there was selection of mature females in this study, as the authors state that 'generally only a small percentage of females had light-colored ovaries (i.e. were not reproductively mature)', the investigation was included. **31** McManus & Foster (1998)[†] -egg production rates and temperatures from their Table I and Fig. 2. **32** Escaravage & Soetaert (1993, 1995) -original data supplied by K. Soetaert (pers. comm.). **33** Van Rijswijk et al. (1989)[†] -temperature and egg production rates from their Fig. 2. **34** Durbin et al. (1992) -egg production rates, adult weights and incubation temperatures taken from their Table 2 and egg weights taken as *Acartia clausi hudsonica* value given in Appendix 1 of Kiørboe & Sabatini (1995). **35** Huntley & Escritor (1991) -egg production rates taken from their Fig. 14 and egg and adult weights taken as those used by Lopez et al. (1993), i.e. 0.24 and 135 μgC respectively. **36** Daan (1987)[†] -egg production rates and incubation temperatures for *Temora longicornis* taken from their Table 3. **37** Calbet & Irigoien (1997) -egg production rates from their Table 1 and egg and adult weights taken as averages from their Table 3 with adult and egg weights being 98.8 μgC ind.$^{-1}$ and 0.29 μgC ind.$^{-1}$ respectively. **38** Cabal et al. (1997) -egg production rates taken from their Table 4 for FSCREEN experiments only, temperature and body weights from text. **39** Rodríguez et al. (1995) -egg production rates and temperatures from their Figs 3 & 5. Egg weight of *Acartia grani* taken as that estimated by Kiørboe & Sabatini (1995), while adult weight estimated from mean prosome length of 1.1 mm (see Rodríguez & Jiménez 1990) using the July equation of *Acartia bifilosa* given by Irigoien & Castel (1995) after correction (see Hirst 1996), these 2 species having very similar body dimensions. Egg and adult weight of *Acartia clausi* taken as means from Kiørboe & Sabatini (1995). **40** Uye & Shibuno (1992) -egg production rates, temperature and adult prosome lengths taken from their Fig. 9. Prosome lengths converted to body weight using equation given in text. This species was found to be similar to *Paracalanus quasimodo*. **41** Guerrero et al. (1997)[†] -egg prduction rate from their Fig. 1B

[†]Egg and/or adult weights taken as appropriate species-specific means from Appendix 1 of Kiørboe & Sabatini (1995)

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APPENDIX B.

In situ development times of marine copepods. Data compiled from published literature. For details see text of paper

Family: ***Species***	**Spawning type: Broadcaster (B) Sac Spawner (S)**	**Adult weight (µgDW ind.$^{-1}$)**	**Temperature (^{o}C)**	**Development time (*D*, d)**	**Development definition**	***D* Reference**	**Adult weight reference**
Acartiidae:							
Acartia californiensis	B	5.5	20.62	8.20	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	19.80	10.51	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	19.30	13.49	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	17.71	9.89	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	15.03	19.65	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	12.88	16.84	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	18.15	20.96	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	19.18	23.91	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	18.23	11.72	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	17.22	16.54	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	16.80	17.98	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	14.07	16.26	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	17.72	13.25	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	19.92	9.43	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	18.71	12.05	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	18.51	14.35	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	18.08	15.03	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
A. californiensis	B	5.5	15.25	7.85	E-CVI	Johnson (1981)	from Huntley & Lopez (1992)
*Acartia clausi**	B	6.7	8.5	42	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
*A. clausi**	B	6.7	11	31.5	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
*A. clausi**	B	6.7	11	31.5	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
*A. clausi**	B	6.7	13.5	28	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
Acartia clausi (*hudsonica*)	B	6.7	14	24.69	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	16.5	18.10	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	18.5	16.57	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	19.5	18.37	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	8.5	26.86	NIII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	12.6	20.42	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	14.5	17.61	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	15.3	27.32	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
A. clausi (*hudsonica*)	B	6.7	17.5	15.11	NII-CVI	Landry (1976)	from Kiørboe & Sabatini (1995)
Acartia omorii	B	6.7	14.3	21	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)
A. omorii	B	6.7	12.2	25	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)
A. omorii	B	6.7	9.9	34	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)
A. omorii	B	6.7	10.1	38	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)

A. omorii	B	6.7	12.8	31	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)
A. omorii	B	6.7	16.5	20	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)
A. omorii	B	6.7	20.5	18	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)
A. omorii	B	6.7	21.9	18	~E-CVI	Liang & Uye (1996a)	from Kiørboe & Sabatini (1995)
Acartia clausi (*omorii*)	B	6.7	5.9	72	~E-CVI	Uye (1982a)	from Kiørboe & Sabatini (1995)
A. clausi (*omorii*)	B	6.7	7.0	61	~E-CVI	Uye (1982a)	from Kiørboe & Sabatini (1995)
A. clausi (*omorii*)	B	6.7	12.3	45	~E-CVI	Uye (1982a)	from Kiørboe & Sabatini (1995)
A. clausi (*omorii*)	B	6.7	17.6	32	~E-CVI	Uye (1982a)	from Kiørboe & Sabatini (1995)
A. clausi (*omorii*)	B	6.7	20.8	20	~E-CVI	Uye (1982a)	from Kiørboe & Sabatini (1995)
A. clausi (*omorii*)	B	6.7	21.9	23	~E-CVI	Uye (1982a)	from Kiørboe & Sabatini (1995)
*Acartia clausi**	B	6.7	9.4	42	E-CVI	Uede (1978)[1]	from Kiørboe & Sabatini (1995)
*A. clausi**	B	6.7	10.2	38	E-CVI	Uede (1978)[1]	from Kiørboe & Sabatini (1995)
*A. clausi**	B	6.7	11.2	31	E-CVI	Uede (1978)[1]	from Kiørboe & Sabatini (1995)
*A. clausi**	B	6.7	13.8	30	E-CVI	Uede (1978)[1]	from Kiørboe & Sabatini (1995)
Acartia tonsa	B	9.95	21	11.6	E-CVI	Johnson (1974)	from Kiørboe & Sabatini (1995)
Calanidae:							
Calanoides acutus	B	163.8	1	180	~E-CV	from Conover & Huntley (1991)[5]	from Huntley & Lopez (1992)
C. acutus	B	163.8	1	120	~E-CV	from Conover & Huntley (1991)[5]	from Huntley & Lopez (1992)
Calanus finmarchicus	B	298.8	10	45.5	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
C. finmarchicus	B	298.8	11.5	45.5	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
Calanus hyperboreus	B	1900	0	155	~E-CV	Smith (1990)	Conover (1967)
Calanus propinquus	B	537.5	1	180	~E-CV	from Conover & Huntley (1991)[5]	from Huntley & Lopez (1992)
C. propinquus	B	537.5	1	120	~E-CV	from Conover & Huntley (1991)[5]	from Huntley & Lopez (1992)
Undinula vulgaris	B	119.1	28	28.3	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
U. vulgaris	B	119.1	28	18.5	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
Centropagidae:							
Centropages abdominalis	B	17.1	15.5	20	~E-CVI	Liang et al. (1996)	Liang et al. (1996)[3]
C. abdominalis	B	17.1	13.7	28	~E-CVI	Liang et al. (1996)	Liang et al. (1996)[3]
C. abdominalis	B	17.1	10.6	36	~E-CVI	Liang et al. (1996)	Liang et al. (1996)[3]
C. abdominalis	B	17.1	9.8	40	~E-CVI	Liang et al. (1996)	Liang et al. (1996)[3]
C. abdominalis	B	17.1	12.0	32	~E-CVI	Liang et al. (1996)	Liang et al. (1996)[3]
Centropages velificatus	B	17.6	28	19.5	E-CVI	Chisolm & Roff (1990)	Chisolm & Roff (1990)
Clausocalanidae:							
Pseudocalanus acuspes	S	10.5	2.6	109	~E-CVI	McLaren et al. (1989)	approximation from I. McLaren
P. acuspes	S	10.5	4.0	64	~E-CVI	McLaren et al. (1989)	approximation from I. McLaren
P. acuspes	S	10.5	4.0	93	~E-CVI	McLaren et al. (1989)	approximation from I. McLaren
P. acuspes	S	10.5	1.3	95	~E-CVI	McLaren et al. (1989)	approximation from I. McLaren
Pseudocalanus elongatus	S	21.0	8.0	34.5	~E-CVI	McLaren (1978)[4]	from Kiørboe & Sabatini (1995)
P. elongatus	S	21.0	9.5	28	~E-CVI	McLaren (1978)[4]	from Kiørboe & Sabatini (1995)
P. elongatus	S	21.0	10.5	28	~E-CVI	McLaren (1978)[4]	from Kiørboe & Sabatini (1995)

P. elongatus	S	21.0	11.5	21	~E-CVI	McLaren (1978)[4]	from Kiørboe & Sabatini (1995)
P. elongatus	S	21.0	12.5	21	~E-CVI	McLaren (1978)[4]	from Kiørboe & Sabatini (1995)
Pseudocalanus newmani	S	11.75	5.0	57	~E-CVI	McLaren et al. (1989)	from Kiørboe & Sabatini (1995)
P. newmani	S	11.75	7.2	43	~E-CVI	McLaren et al. (1989)	from Kiørboe & Sabatini (1995)
P. newmani	S	11.75	7.8	54	~E-CVI	McLaren et al. (1989)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	9.5	34	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	9.7	38	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	11.1	27	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	11.4	42	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	12	46	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	12	26	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	12.7	23	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	13.2	27	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	13.3	38	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	13.4	26	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Pseudocalanus sp.	S	21.0	13.4	35	~E-CVI	Ohman (1985)	from Kiørboe & Sabatini (1995)
Eucalanidae:							
Rhincalanus gigas	B	792.5	1	180	~E-CV	from Conover & Huntley (1991)[5]	from Huntley & Lopez (1992)
R. gigas	B	792.5	1	120	~E-CV	from Conover & Huntley (1991)[5]	from Huntley & Lopez (1992)
Rhincalanus nasutus	B	375.0	16	50.8	NI-CVI	Mullin & Brooks (1967)	from Huntley & Lopez (1992)
Euchaetidae:							
Euchaeta marina	S	132.8	28	21.0	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
E. marina	S	132.8	28	17.7	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
Oithonidae:							
Oithona nana	S	0.60	28	7	~NI-CVI	R. R. Hopcroft pers. comm.	Hopcroft & Roff (1998)
Oithona plumifera	S	1.90	28	21.2	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
O. plumifera	S	1.90	28	16.9	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
Oithona similis	S	1.5	9	67	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
O. similis	S	1.5	12	39	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
O. similis	S	1.5	13.5	42	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
Oncaeidae:							
Oncaea mediterranea	S	5.93	28	26.0	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
O. mediterranea	S	5.93	28	14.7	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
Paracalanidae:							
Acrocalanus gibber	B	12.5	24.6	8.1	E-CVI	McKinnon (1996)	McKinnon (1996)
A. gibber	B	12.5	25.4	7.0	E-CVI	McKinnon (1996)	McKinnon (1996)
A. gibber	B	12.5	26.2	7.8	E-CVI	McKinnon (1996)	McKinnon (1996)
A. gibber	B	12.5	27.0	6.0	E-CVI	McKinnon (1996)	McKinnon (1996)

A. gibber	B	12.5	27.3	6.8	E-CVI	McKinnon (1996)	McKinnon (1996)
A. gibber	B	12.5	27.6	6.0	E-CVI	McKinnon (1996)	McKinnon (1996)
A. gibber	B	12.5	28.4	5.9	E-CVI	McKinnon (1996)	McKinnon (1996)
A. gibber	B	12.5	29.1	5.9	E-CVI	McKinnon (1996)	McKinnon (1996)
A. gibber	B	12.5	29.2	5.8	E-CVI	McKinnon (1996)	McKinnon (1996)
Paracalanidae	B	2.6	28	6.7	NII-CVI	Newbury & Bartholomew (1976)	Newbury & Bartholomew (1976)
Paracalanus aculeatus	B	4.3	28	19.5	E-CVI	Chisholm & Roff (1990)	Hopcroft & Roff (1998)
Paracalanus aculeatus	B	4.3	28	8	~E-CVI	R. R. Hopcroft pers. comm.	Hopcroft & Roff (1998)
Paracalanus sp.	B	7.5	16.3	17	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	14.3	24	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	11.9	29	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	9.7	44	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	10.9	42	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	18.3	20	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	21.0	20	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	22.1	20	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	25.0	19	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	26.8	15	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	27.3	19	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	26.9	22	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Paracalanus sp.	B	7.5	24.3	24	~E-CVI	Liang & Uye (1996b)	from Kiørboe & Sabatini (1995)
Parvocalanus crassirostris	B	1.1	28	6.25	~E/NI-CVI	R. R. Hopcroft pers. comm.	Hopcroft & Roff (1998)
Pseudodiaptomidae:							
Pseudodiaptomus marinus	S	16.3	14.3	32	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	10.6	59	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	16.7	25	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	20.2	18	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	21.5	18	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	22.3	17	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	25.6	15	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	27.4	18	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
P. marinus	S	16.3	24.9	17	~E-CVI	Liang & Uye (1997)	from Kiørboe & Sabatini (1995)
Temoridae:							
Eurytemora affinis	S	9.8	10	26.8	E-CVI	Escaravage & Soetaert (1993)[2]	Escaravage & Soetaert (1993)
E. affinis	S	9.2	17	14.2	E-CVI	Escaravage & Soetaert (1993)[2]	Escaravage & Soetaert (1993)
Temora longicornis	B	37.4	8.5	39	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
T. longicornis	B	37.4	10.5	35	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
T. longicornis	B	37.4	12.5	35	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
T. longicornis	B	37.4	13.5	35	~E-CVI	McLaren (1978)	from Kiørboe & Sabatini (1995)
Temora longicornis	B	37.4	8	56	E-CVI	Peterson & Kimmerer (1994)	from Kiørboe & Sabatini (1995)
T. longicornis	B	37.4	15.8	29	E-CVI	Peterson & Kimmerer (1994)	from Kiørboe & Sabatini (1995)

Temora longicornis	B	37.4	8	59	E-CVI	Peterson (1985)	from Kiørboe & Sabatini (1995)
T. longicornis	B	37.4	16	40	E-CVI	Peterson (1985)	from Kiørboe & Sabatini (1995)
T. longicornis	B	37.4	20	32	E-CVI	Peterson (1985)	from Kiørboe & Sabatini (1995)
Temora turbinata	B	6.9	28	19.5	E-CVI	Chisholm & Roff (1990)	Hopcroft & Roff (1998)
Temora turbinata	B	6.9	28	8	~E-CVI	R. R. Hopcroft pers. comm.	Hopcroft & Roff (1998)
Mixed:							
Clausocalanus/*Paracalanus* spp.	S+B	3.09	28	15.5	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)
Clausocalanus/*Paracalanus* spp.	S+B	3.09	28	12.8	E-CVI	Webber & Roff (1995)	Webber & Roff (1995)

[1]Values taken from Uye (1982a). [2]Only development times at 10 and 17^{o}C were used as these temperatures matched those in the estuary at the time of copepod collection. [3]Assuming a mean prosome length of 1100 µm and using the length-dry weight equation of Uye (1982b). [4]Taxonomy confirmed by I. A. McLaren (pers. comm.). [5]Development times taken from text rather than their Table 13, as the latter appears to be erroneous. As the text states, egg to CV takes from mid-October to either mid-February to mid-April. *Since the publication of their paper, the *Acartia clausi* complex has been re-examined, given the location of this study the species is not likely to be *clausi*

Appendix B References

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APPENDIX C.

Adult sex ratios of pelagic copepods living in surface waters. N is the number of values making up each individual mean and range, n is the number of mean values making up the overall means for the broadcast and sac spawners

Family: *Species*	Spawning type: Broadcast (B) Sac (S)	Mean % adult females (Range)	N	*S*	Period	Collection depth (m)	Location	Source
Acartiidae:								
Acartia bifilosa	B	63 [-]	343	**0.59**	Jan 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Acartia bifilosa	B	74 [25-100]	10	**0.35**	Jan - Dec 1993	collected from 5m depth	Southampton Water, UK	Hirst et al. (1999)[6]
Acartia clausi	B	58 [0-100]	8	**0.72**	Apr - Dec 1993	collected from 5m depth	Southampton Water, UK	Hirst et al. (1999)[6]
Acartia clausi	B	83 [82-100]	5	**0.20**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Acartia clausi	B	100 [-]	1	**0.00**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Acartia clausi	B	57 [0-100]	66	**0.75**	Jan - Oct 1933	0 - 70	Loch Striven, Scotland	Marshall (1949)[2]
Acartia clausi	B	64 [38-100]	21	**0.56**	Jan - Nov 1947	0 - 50	Plymouth Area, English Channel	Digby (1950)[3]
*Acartia clausi**	B	57 [43-67]	12	**0.75**	Nov 1971 - Dec 1972	near bottom to surface	Damariscotta River estuary, USA	Lee & McAlice (1979)[15]
Acartia discaudata	B	53 [0-100]	10	**0.89**	Mar - Dec 1993	collected from 5m depth	Southampton Water, UK	Hirst et al. (1999)[6]
Acartia discaudata	B	69 [-]	34	**0.45**	Jan 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Acartia longiremis	B	60 [-]	437	**0.67**	Jan 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Acartia longiremis	B	~85 [~25-100]	12	**0.18**	Oct 1985 - Oct 1986	0 - 180	Balsfjorden, Norway	Norrbin (1994)[12]
Acartia longiremis	B	72 [46-96]	12	**0.39**	Nov 1971 - Dec 1972	near bottom to surface	Damariscotta River estuary, USA	Lee & McAlice (1979)[15]
Acartia omori	B	56 [~15-85]	~55	**0.79**	Nov 1986 - Jul 1987	bottom (7 – 8 m) to surface	Fukuyama Harbor, Inland Sea of Japan	Liang & Uye (1996a)[9]
Acartia tonsa	B	72 [-]	230	**0.39**	Jan 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Acartia tonsa	B	41 [0-100]	8	**1.44**	Nov 1971 - Dec 1972	near bottom to surface	Damariscotta River estuary, USA	Lee & McAlice (1979)[15]
Calanidae:								
Calanus finmarchicus	B	100 [100-100]	12	**0.00**	Aug 1950 - Aug 1961	0-50-0	Scoresby Sound, East Greenland	Digby (1954)[7]
Calanus finmarchicus	B	81 [58-97]	77	**0.23**	Feb - Aug 1933	'vertical hauls'	Scottish Waters	Gibbons (1936)[14]
Calanus finmarchicus	B	80 [21-100]	61	**0.25**	Jun 1933 - May 1934	bottom to surface	Oslo Fjord, Norway	Wiborg (1940)[16]
Calanus helgolandicus	B	85 [65-96]	5	**0.18**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Calanus helgolandicus	B	93 [85-98]	5	**0.08**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Calanus helgolandicus	B	96 [94-97]	2	**0.04**	3 seasons	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1969)[5]
Calanus minor	B	78 [69-87]	3	**0.28**	3 seasons	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1969)[5]
Calanus tenuicornis	B	99 [97-100]	2	**0.01**	3 seasons	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1969)[5]
Undinula vulgaris	B	75 [~18-100]	45	**0.33**	Sep 1971 - Aug 1973	?	St Vincents, Barbados	Moore & Sander (1983)[13]
Candaciidae:								
Candacia armata	B	72 [38-100]	5	**0.39**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Candacia armata	B	57 [44-71]	5	**0.75**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Centropagidae:								
Centropages hamatus	B	36 [0-100]	51	**1.78**	Mar - Oct 1933	0 - 70	Loch Striven, Scotland	Marshall (1949)[2]

Centropages hamatus	B	49 [-]	452	**1.04**	Jan 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Centropages hamatus	B	73 [25-100]	9	**0.37**	Mar - Dec 1993	collected from 5 m depth	Southampton Water, UK	Hirst et al. (1999)[6]
Centropages hamatus	B	47 [43-52]	5	**1.13**	Jun 1933 - May 1934	bottom to surface	Oslo Fjord, Norway	Wiborg (1940)[16]
Centropages typicus	B	55 [49-69]	5	**0.81**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Centropages typicus	B	56 [45-72]	5	**0.79**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Centropages typicus	B	54 [0-100]	13	**0.85**	Jan - Oct 1947	0 - 50	Plymouth Area, English Channel	Digby (1950)[3]
Centropages typicus	B	58 [54-62]	3	**0.72**	3 seasons	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1969)[5]
Centropages typicus	B	58 [54-64]	3	**0.72**	Feb 1965 - Dec 1965	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1972)[10]
Centropages violaceus	B	63 [59-66]	2	**0.59**	3 seasons	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1969)[5]
Clausocalanidae:								
Clausocalanus spp.	S	87 [76-94]	5	**0.15**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Clausocalanus spp.	S	85 [73-96]	5	**0.18**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Microcalanus pygmaeus	S	88 [50-100]	64	**0.14**	Jan - Oct 1933	0 - 70	Loch Striven, Scotland	Marshall (1949)[2]
Microcalanus pygmaeus	S	97 [50-100]	21	**0.03**	Aug 1950 - Aug 1951	0-50-0	Scoresby Sound, East Greenland	Digby (1954)[7]
Microcalanus pygmaeus	S	80 [74-85]	7	**0.25**	Jun 1933 - May 1934	bottom to surface	Oslo Fjord, Norway	Wiborg (1940)[16]
Pseudocalanus acuspes	S	~70 [~50-100]	12	**0.43**	Oct 1985 - Oct 1986	0 - 180	Balsfjorden, Norway	Norrbin (1994)[12]
Pseudocalanus elongatus	S	79 [50-100]	23	**0.27**	Jan - Dec 1947	0 - 50	Plymouth Area, English Channel	Digby (1950)[3]
Pseudocalanus minutus	S	78 [0-100]	78	**0.28**	Jan - Oct 1933	0 - 70	Loch Striven, Scotland	Marshall (1949)[2]
Pseudocalanus minutus	S	97 [75-100]	27	**0.03**	Aug 1950 - Aug 1951	0-50-0	Scoresby Sound, East Greenland	Digby (1954)[7]
Pseudocalanus minutus	S	80 [47-98]	63	**0.25**	Jun 1933 - May 1934	bottom to surface	Oslo Fjord, Norway	Wiborg (1940)[16]
Pseudocalanus sp.	S	72 [-]	416	**0.39**	Jan 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Euchaetidae:								
Euchaeta marina / acuta	S	82 [60-100]	5	**0.22**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Euchaeta marina / acuta	S	84 [73-100]	5	**0.19**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Euchaeta norvegica	S	89 [69-97]	21	**0.12**	Sep 1971 - Apr 1972	'whole water column'	Loch Etive, Scotland	Hopkins (1982)[11]
Metridiidae:								
Metridia longa	B	100 [100-100]	2	**0.00**	Aug 1950 - Sep 1950	0-50-0	Scoresby Sound, East Greenland	Digby (1954)[7]
Metridia longa	B	65 [32-92]	9	**0.54**	Jun 1933 - Aug 1938	bottom to surface	Oslo Fjord, Norway	Wiborg (1940)[16]
Pleuromamma gracilis	B	66 [58-78]	5	**0.52**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Pleuromamma gracilis	B	71 [65-75]	5	**0.41**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Oithonidae:								
Oithona nana	S	79 [50-100]	8	**0.27**	Aug - Dec 1947	0 - 50	Plymouth Area, English Channel	Digby (1950)[3]
Oithona similis	S	85 [50-100]	73	**0.18**	Jan - Oct 1933	0 - 70	Loch Striven, Scotland	Marshall (1949)[2]
Oithona similis	S	85 [35-100]	24	**0.18**	Jan - Dec 1947	0 - 50	Plymouth Area, English Channel	Digby (1950)[3]
Oithona similis	S	94 [56-100]	27	**0.06**	Aug 1950 - Aug 1951	0-50-0	Scoresby Sound, East Greenland	Digby (1954)[7]
Oncaeidae:								
Oncaea borealis	S	31 [0-100]	22	**0.45**	Aug 1950 - Aug 1951	0-50-0	Scoresby Sound, East Greenland	Digby (1954)[7]
Oncaea borealis	S	76 [63-94]	7	**0.32**	Jun 1933 - May 1934	bottom to surface	Oslo Fjord, Norway	Wiborg (1940)[16]

Oncaea mediterranea	S	57 [~22-98]	53	**0.75**	Sep 1971 - Aug 1973	?	St Vincents, Barbados	Moore & Sander (1983)[13]
Paracalanidae:								
Paracalanus parvus	B	87 [84-94]	5	**0.15**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Paracalanus parvus	B	91 [-]	1	**0.10**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Paracalanus parvus	B	87 [50-100]	17	**0.15**	Jul - Oct 1933	0 - 70	Loch Striven, Scotland	Marshall (1949)[2]
Paracalanus parvus	B	85 [-]	158	**0.18**	Aug 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Paracalanus parvus	B	91 [74-100]	24	**0.10**	Jan - Dec 1947	0 - 50	Plymouth Area, English Channel	Digby (1950)[3]
Paracalanus sp.	B	69 [~20-95]	~81	**0.45**	Nov 1986 - Oct 1987	bottom (7 – 8 m) to surface	Fukuyama Harbor, Inland Sea of Japan	Liang & Uye (1996b)[8]
Pseudodiaptomidae:								
Pseudodiaptomus binghami	S	82 [75-87]	8	**0.22**	Jun - Sep of 1971-73	?	Mandovi Estuary, India	Goswami (1978)[15]
Pseudodiaptomus binghami	S	82 [66-88]	8	**0.22**	Jun - Sep of 1971-73	?	Zuari Estuary, India	Goswami (1978)[15]
Pseudodiaptomus binghami	S	83 [76-87]	8	**0.20**	Jun - Sep of 1971-73	?	Cumbarjua Canal, India	Goswami (1978)[15]
Pseudodiaptomus marinus	S	61 [~30-90]	~85	**0.64**	Nov 1986 - Nov 1987	bottom (7 8 m) to surface	Fukuyama Harbor, Inland Sea of Japan	Liang & Uye (1997)[10]
Temoridae:								
Temora longicornis	B	48 [0-100]	57	**1.08**	Mar - Oct 1933	0 - 70	Loch Striven, Scotland	Marshall (1949)[2]
Temora longicornis	B	57 [33-100]	19	**0.75**	Feb - Oct 1947	0 - 50	Plymouth Area, English Channel	Digby (1950)[3]
Temora longicornis	B	49 [-]	362	**1.04**	Jan 1970 - Oct 1971	bottom to surface	Kiel Bay, Baltic	Schnack (1978)[4]
Temora longicornis	B	38 [0-86]	7	**1.63**	Mar - Sept 1993	collected from 5m depth	Southampton Water, UK	Hirst et al. (1999)[6]
Temora stylifera	B	44 [22-55]	5	**1.27**	Sep 1986 - Jun 1988	0 - 200	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Temora stylifera	B	54 [50-61]	5	**0.85**	Sep 1986 - Jun 1988	0 - 50	Golfe du Lion, Mediterranean	Kouwenberg (1993)[1]
Temora stylifera	B	57 [56-58]	3	**0.75**	3 seasons	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1969)[5]
Temora stylifera	B	57 [53-60]	3	**0.75**	Feb 1965 - Dec 1965	surface collection	North Aegean Sea	Moraitou-Apostolopoulou (1972)[10]
Temora stylifera	B	76 [~41-100]	50	**0.32**	Sep 1971 - Aug 1973	?	St Vincents, Barbados	Moore & Sander (1983)[13]
Broadcasters:								
Overall mean	B	68.2		**0.56**				
SD	B	17.052		**0.413**				
n	B	56		**56**				
Sac spawners:								
Overall mean	S	79.3		**0.26**				
SD	S	13.762		**0.170**				
n	S	25		**25**				
Broadcasters + Sac spawners:								
Overall mean	B+S	71.7		**0.47**				
SD	B+S	16.831		**0.383**				
n	B+S	81		**81**				

[1]Data taken from their Table II. [2]Data taken from their Appendix. [3]Data taken from their Appendix. [4]Data taken from their Table 1. [5]Data taken from their Table 2 and range and number of observations are taken simply from the seasonal values. [6]Data taken from that presented in this publication. [7]Data taken from their Appendix, method of collection from Digby (1953), samples collected from vertical tow from surface to 50 m and back to surface, filtering throughout travel. [8]Mean sex ratio from text, range and number of observations estimated from their Fig. 5. **9.** Mean sex ratio from text, range and number of observations estimated from their Fig. 6. [10]Values taken from their text, range taken from seasonal averages. [11]Method taken from Hopkins & Machin (1977), sex ratio mean and range from their text. [12]Mean sex ratio and range estimated from their Fig. 6. [13]Mean sex ratios from text and ranges estimated from their Fig. 1. Location from Moore & Sanders (1981). [14]Values taken from their table on p 30. [15]Data from their Table 1. [16]Data from their Tables 18, 22, 26 & 36 and I & II in the Appendix. *Since the publication of their paper the *Acartia clausi* complex has been re-examined, given location of this study the species is not likely to be *clausi*

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APPENDIX D.

Summary of field mortality rates for copepods within the epi-pelagic region. Negative mortality rates have been removed. Data presented in Fig. 7. † Mortality rates derived from mean adult longevities (see Appendix E for specific details on the longevity derivations)

Species	Spawning type: Broadcaster (B) Sac Spawner (S)	Stage	Temperature (°C)	Adult body weight ($\mu g DW$ ind.$^{-1}$)	Mortality rate (β, d^{-1})	Location	Source
Broadcast eggs:							
Acartia tonsa	B	Egg	14.87-20.09	9.95[1]	0.3-5.5	Long Island Sound, USA	Beckman & Peterson (1986)[15]
Acartia tonsa	B	Egg	11.3-21.1	9.95[1]	0.24-5.20	Roskilde Fjord, Denmark	Andersson (1996)
Calanus marshallae	B	Egg	10-13	98	0.94-5.3	off Newport, Oregon, USA	Gómez-Gutiérrez & Peterson (1999)[16]
Centropages abdominalis	B	Egg	8.9-19.5	20.125	0.6-80.0	Fukuyama Harbour, Japan	Liang et al. (1994)[17]
Temora longicornis	B	Egg	0.5-17.0[2]	37.375[1]	0.03-162.5	Long Island Sound, USA	Peterson & Kimmerer (1994)
Small Calanoids	B	Egg	4-18	68.5	0.30-1.07	Kattegat	Kiørboe & Nielsen (1994)[10]
Broadcasters post-hatch:							
Acartia californiensis	B	C1-C5	12.85-20.45	10[1]	0.0201-0.1789	Yaquina Bay, USA	Johnson (1981)[6]
Acartia californiensis	B	Adult	4.6-20.1	10[1]	0.03-0.89†	Yaquina Bay, USA	Johnson (1981)
Acartia hudsonica	B	N2-C5	5	6.675[1]	0.006-0.167	Narragansett Bay, USA	Durbin & Durbin (1981)[9]
Acartia clausi (*hudsonica*)	B	N2-C5	8.5-19.5	6.675[1]	0.005-0.390	Washington Lagoon, USA	Landry (1976)[5]
Acartia clausi (*hudsonica*)	B	Adult	6-19	6.675[1]	0.06-0.33†	Washington Lagoon, USA	Landry (1978)
Acartia clausi (*omorii*)	B	Adult	7-22	6.675[1]	0.10-0.71†	Onagawa Bay, Japan	Uye (1982)
Acartia tonsa	B	Nauplii	2.3-29.2	9.95[1]	0.000-1.165	Patuxent River Estuary, USA	Heinle (1969)[12]
Acartia tonsa	B	Copepodid	2.3-29.2	9.95[1]	0.000-1.898	Patuxent River Estuary, USA	Heinle (1969)[12]
Acartia tonsa	B	Nauplii	-	9.95[1]	0.38-1.17	Rhode River, USA	Allan et al. (1976)[13]
Acartia tonsa	B	Copepodid	-	9.95[1]	0.01-1.17	Rhode River, USA	Allan et al. (1976)[13]
Acartia tonsa	B	Nauplii-Copepodid	11.3-21.4	9.95[1]	0.10-0.41	Roskilde Fjord, Denmark	Andersson (1996)
Acartia tranteri‡	B	Nauplii	avg. ~16	5[4]	avg. 0.16	Westernport Bay, Australia	Kimmerer & McKinnon (1987)
Acartia tranteri‡	B	Copepodid	avg. ~16	5[4]	avg. 0.02	Westernport Bay, Australia	Kimmerer & McKinnon (1987)
Acartia tranteri‡	B	Adult	11.5-21.9	5[4]	0.02-0.50†	Westernport Bay, Australia	Kimmerer & McKinnon (1987)
Calanus finmarchicus	B	C3-C5	avg. ~10	299[1]	0.022-0.367	Korsfjorden, Western Norway	Matthews et al. (1978)[7]
Calanus finmarchicus	B	Adult	avg. ~10	299[1]	0.029-0.389	Korsfjorden, Western Norway	Matthews et al. (1978)[7]
Calanus glacialis	B	C3-C5	avg. ~10	645[1]	0.003-0.008	Korsfjorden, Western Norway	Matthews et al. (1978)[7]
Calanus glacialis	B	Adult	avg. ~10	645[1]	0.006-0.019	Korsfjorden, Western Norway	Matthews et al. (1978)[7]
Calanus pacificus	B	Nauplii	-	201[1]	0.06-0.33	off La Jolla, USA	Mullin & Brooks (1970)
Calanus pacificus	B	Copepodid	-	201[1]	0.0-0.10	off La Jolla, USA	Mullin & Brooks (1970)
Centropages hamatus	B	C1-C6	13[11]	25.0[1]	0.07	Lindåspollene, Norway	Aksnes & Magnesen (1988)
Paracalanus parvus	B	C1-C6	13[11]	7.5[1]	0.30	Lindåspollene, Norway	Aksnes & Magnesen (1988)
Temora longicornis	B	Adult	2.2-18	37.375[1]	0.015-1.25†	Long Island Sound. USA	Peterson (1985)
Temora longicornis	B	C1-C6	13[11]	37.375[1]	0.15	Lindåspollene, Norway	Aksnes & Magnesen (1988)

Temora longicornis	B	Nauplii	10.3-20.2	37.375[1]	0.050-0.220	Oosterschelde Estuary, Netherlands	Bakker & Van Rijswijk (1987)[14]
Temora longicornis	B	Copepodid	10.3-20.2	37.375[1]	0.050-0.190	Oosterschelde Estuary, Netherlands	Bakker & Van Rijswijk (1987)[14]
Temora longicornis	B	Adults	10.3-20.2	37.375[1]	0.007-0.300	Oosterschelde Estuary, Netherlands	Bakker & Van Rijswijk (1987)[14]
Small Calanoids	B-predominantly	C1-C6	4-18	68.5	0.030-0.149	Kattegat	Kiørboe & Nielsen (1994)[10]
Sac spawners (all stages):							
Eurytemora affinis	S	Nauplii	-	5.75[1]	0.05-1.61	Rhode River, USA	Allan et al. (1976)[13]
Eurytemora affinis	S	Copepodid	-	5.75[1]	0.04-0.78	Rhode River, USA	Allan et al. (1976)[13]
Eurytemora affinis	S	Nauplii	2.8-29.0	5.75[1]	0.021-0.791	Patuxent River Estuary, USA	Heinle (1969)[12]
Eurytemora affinis	S	Copepodid	2.8-29.0	5.75[1]	0.005-0.932	Patuxent River Estuary, USA	Heinle (1969)[12]
Eurytemora affinis	S	Nauplii	2.6-25.9	5.75[1]	0.017-0.891	Patuxent River Estuary, USA	Heinle & Flemer (1975)[3]
Eurytemora affinis	S	Copepodid	2.8-25.9	5.75[1]	0.007-1.864	Patuxent River Estuary, USA	Heinle & Flemer (1975)[3]
Pseudocalanus elongatus	S	C1-C6	13[11]	21.0[1]	0.11	Lindåspollene, Norway	Aksnes & Magnesen (1988)
Pseudocalanus newmani	S	Egg-Adult	avg. ~9	11.75[1]	0.035-0.172	Dabob Bay, USA	Ohman & Wood (1996)[8]

[1]Adult body weights taken from Kiørboe & Sabatini (1995) and assuming carbon to be 40% of dry weight. [2]Temperatures taken from their Fig. 1 for 20 m depth. **[3]**Mortality data from their Table 4 and temperature from their Table 5. [4]Average dry weight approximated from their Fig. 5. [5]Mortality coefficients taken from his Appendix 14 and temperature for each cohort taken from their Table 7. [6]Mortality coefficients and temperatures taken from his Appendix 14. **[7]**Mortality rates converted to daily rates using the formula they give. Temperature approximated from Matthews & Sands (1973). [8]Mortality rates taken from their Fig. 7 and mean temperature approximated from their Fig. 1 (75 m depth values). [9]Mortality values from their Table 3 and temperature taken from their Fig. 3. [10]Mortality rates from their Table 2. Temperatures approximated from their Fig. 4. Body weight taken as approximate average for the species for which mortality values derived. [11]Temperature average for the upper 5 m of the water column. [12]Mortality rates and temperatures from his Tables XII & XIII. [13]Mortality rates from their Tables 1 & 2. [14]Mortality rates from their Table 2 and temperatures for each cohort from their Table 7. [15]Mortality rates derived from their Table 1, with egg development times computed using the equation of McLaren et al. (1969). [16]Mortality rates derived from the data in their Table IV, temperatures from their Fig. 2 and adult weight derived from prosome length supplied as a pers. comm from W. T. Peterson. [17]Mortality rates derived from the data in their Fig. 7 (ignoring the predicited fecundity values), this and temperature data supplied as a pers. comm. from S. I. Uye. ‡Since the publication of this work this species is now known to be *Acartia fancetti*

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APPENDIX E.

Summary of adult longevity measurements derived in field and laboratory studies (see Fig. 7). Those for which the mean longevity is described as 'post-collection' are studies in which adults were collected from the field and their subsequent longevity measured in the laboratory. In these cases the measured longevity will therefore presumably under-estimate the full laboratory longevity. 'Mean' values represent either the mean longevity of many individuals, or individual longevity values. Maximum longevity represent the maximum values from an experiment. † Adult longevities derived from mean mortality rates (see Appendix D for specific details)

Species (Sex)	Spawning type: Broadcaster (B) Sac spanwer (S)	Temperature (^oC)	Adult body weight (μgDW ind.$^{-1}$)	Adult longevity Period (d)	Adult longevity Measurement type	Conditions	Source
Acartia clausi (♀)	B	20	6.675[1]	22.91-30.23	Mean (post-collection)	Laboratory	Ianora et al. (1996)
Acartia clausi (♀)	B	20	6.675[1]	11.11-13.75	Mean (post-collection)	Laboratory	Ianora et al. (1996)
*Acartia clausi**	B	10	6.675[1]	7	Mean (post-collection)	Laboratory	Urry (1964)
Acartia clausi (*omorii*) (♀)	B	2.5-25	6.675[1]	21-103	Maximum (post-collection)	Laboratory	Uye (1981)
Acartia hudsonica (♀)	B	10.4	5.07	28.4	Mean (post-collection)	Laboratory	Sekiguchi et al. (1980)
Acartia hudsonica (♀ & ♂)	B	10.4	5.07	14.8-21.0	Mean (post-collection)	Laboratory	Sekiguchi et al. (1980)
Acartia hudsonica (♀ & ♂)	B	15.9	5.07	14.7-24.3	Mean (post-collection)	Laboratory	Sekiguchi et al. (1980)
Acartia tonsa (♀)	B	18	9.95[1]	44.6	Mean	Laboratory	Parrish & Wilson (1978)[7]
Acartia tonsa (♀)	B	17.5	9.95[1]	24-43	Mean	Laboratory	Wilson & Parrish (1971)
Acartia tonsa	B	21	9.95[1]	14-30	Mean (post-collection)	Laboratory	Johnson (1974)
Centropages typicus (♀ & ♂)	B	15	35.7[1]	14.8-16.27	Mean	Laboratory	Carlotti & Nival (1992)
Centropages typicus (♀)	B	21	35.7[1]	13	Mean	Laboratory	Nival et al. (1990)
Centropages typicus	B	10	35.7[1]	7	Mean (post-collection)	Laboratory	Urry (1964)
Eucalanus hyalinus (♀)	B	20	?	>60	Mean (?)	Laboratory	Paffenhöfer (1991)
Eucalanus pileatus (♀)	B	20	?	30	Mean (?)	Laboratory	Paffenhöfer (1991)
Eurytemora affinis (♀)	S	2-23.5	5.75[1]	12-78	Mean	Laboratory	Katona (1970)
Eurytemora herdmani (♀)	S	2-23.5	4.45[1]	0-100	Mean	Laboratory	Katona (1970)
Euterpina acutifrons (♀)	S	18	3.6[10]	14.3-38.3	Mean (after 1st egg sac)	Laboratory	Nassogne (1970)
Oithona davisae (♀ & ♂)	S	20	0.575[1]	12-15.5	Mean ? (post-collection)	Laboratory	Uchima & Hirano (1988)
Oithona plumifera (♀)	S	20	4.075[1]	68-75	Mean (post-collection)	Laboratory	Paffenhöfer (1993)
Oithona similis (♀)	S	15	1.5[1]	32	Mean (post-collection)	Laboratory	Sabatini & Kiørboe (1994)
Oncaea mediterranea (♀)	S	20	6.5[1]	29.1-41.7	Mean (post-collection)	Laboratory	Paffenhöfer (1993)
Paracalanus aculeatus (♀)	B	20	?	25.0	Mean (?)	Laboratory	as reported in Paffenhöfer (1993)
Paracalanus parvus	B	10	7.5[1]	12	Mean (post-collection)	Laboratory	Urry (1964)
Paracalanus parvus (♀)	B	20	7.5[1]	10.7	Mean (?)	Laboratory	as reported in Paffenhöfer (1993)
Pseudocalanus elongatus (♀)	S	6.5	21[1]	95.9	Mean (post-collection)	Laboratory	Corkett & McLaren (1969)
Pseudocalanus elongatus (♀)	S	10	21[1]	116	Mean (post-collection)	Laboratory	Corkett & Urry (1968)[7]
Pseudocalanus elongatus (♀)	S	10	21[1]	83	Mean (post-collection)	Laboratory	Urry (1965)[7]
Pseudocalanus elongatus	S	10	21[1]	24	Mean (post-collection)	Laboratory	Urry (1964)
Pseudodiaptomus acutus (♀ & ♂)	S	24-26	26.5[3]	12.1-15.0	Mean	Laboratory	Jacoby & Youngbluth (1983)

Pseudodiaptomus cokeri (♀ & ♂)	S	24-26	48.6[3]	9.8-12.9	Mean	Laboratory	Jacoby & Youngbluth (1983)
Pseudodiaptomus coronatus (♀ & ♂)	S	24-26	49.7[3]	11.2-12.4	Mean	Laboratory	Jacoby & Youngbluth (1983)
Temora longicornis (♀?)	B	7	37.375[1]	50	Mean (?)	Laboratory	as reported in Peterson (1985)
Temora longicornis	B	10	37.375[1]	11	Mean (post-collection)	Laboratory	Urry (1964)
Acartia californiensis (♀ & ♂)	B	4.6-20.1	10[1]	1.12-31.06	Mean	Field	Johnson (1981)[5]
Acartia clausi (*omorii*) (♀ & ♂)	B	5.9-21.9	6.675[1]	1.4-9.8	Mean	Field	Uye (1982a)
Acartia clausi (*hudsonica*) (♀)	B	6-19	6.675[1]	3-16	Mean	Field	Landry (1978)[6]
Acartia tranteri (♀ & ♂)‡	B	11.5-21.9	5[2]	2-57	Mean	Field	Kimmerer & McKinnon (1987)
Calanus finmarchicus (♀ & ♂)	B	avg. ~10	299[1]	2.6-34.5	Mean	Field	Matthews et al. (1978)
Calanus glacialis (♀ & ♂)	B	avg. ~10	645[1]	52.6-166.7†	Mean	Field	Matthews et al. (1978)
Temora longicornis (♀?)	B	2.2-18	37.375[1]	0.8-65.7	Mean	Field	Peterson (1985)
Temora longicornis (♀ & ♂)	B	10.3-20.2	37.375[1]	3.3-142.9†	Mean	Field	Bakker & Van Rijswijk (1987)

[1]Adult body weights taken from Kiørboe & Sabatini (1995) and carbon weight assumed to be 40% of dry weight. [2]Average dry weight approximated from their Fig. 5. [3]Weights derived from female prosome lengths given in their Table 2 using the general copepoda length-dry weight regression of Uye (1982b). [4]Weight derived from a prosome length of 2110 µm and using length-weight equations presented in their paper. [5]Adult longevities from his Table 11 and appropriate temperatures from his Figs 7, 8 & 9 using values from Station 29. [6]Longevities from his Fig. 22 and appropriate temperatures from Fig. 3. [7]Variety of diets tested for longevity, only the feeding conditions under which the maximum mean longevity was found is given here. [8]Data supplied as a pers. comm. from W. T. Peterson. Value of 1569 d longevity removed here. [9]Adult longevities taken from his Figs 13 & 14. [10]Adult body weights taken from Conway et al. (1993). *Since the publication of their paper the *Acartia clausi* complex has been re-examined, given location of this study the species is not likely to be *clausi*. ‡Since the publication of this work this species is now known to be *Acartia fancetti*

Appendix E References

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