

SUPPLEMENTARY INFORMATION

Mesozooplankton biomass and temperature-enhanced grazing along a 110°E transect in the eastern Indian Ocean

Michael R. Landry¹, Raleigh R. Hood², Claire H. Davies³

¹Scripps Institution of Oceanography, University of California at San Diego, La Jolla, CA 92093-0227, USA

²Horn Point Laboratory, University of Maryland Center for Environmental Science, Cambridge, MD, USA

³CSIRO Oceans and Atmosphere Flagship, Castray Esplanade, Hobart, Tasmania 7000 Australia

Table S1. Summary of size-fractionated and total dry weight, carbon and nitrogen values for mesozooplankton sampled along the 110°E transect in the eastern Indian Ocean in May-June 2019. All values are mg m⁻². Collection and analysis methods as described in in Landry et al. (in review).

Stn.	Lat. (°S)	Zooplankton Size Fraction					Total
		0.2-0.5 mm	0.5-1 mm	1-2 mm	2-5 mm	>5 mm	
Dry Weight - Daytime							
1	39.5	494.4	279.1	16.8	13.3	0.0	804
2	38.0	17.2	163.6	70.4	12.7	0.0	264
3	36.5	76.0	136.0	89.8	17.1	0.0	319
4	35.0	205.0	122.0	112.3	48.0	0.0	487
5	33.5	188.3	119.0	91.9	52.6	0.0	452
6	32.0	64.6	74.8	119.5	72.3	19.1	350
7	30.5	148.4	169.1	111.4	98.6	0.0	527
8	29.0	74.5	119.6	107.9	21.9	7.9	332
9	27.5	103.0	172.6	169.3	80.6	11.0	536
10	26.0	131.1	200.6	220.3	119.2	40.7	712
11	24.5	156.5	217.4	204.7	155.3	0.0	734
12	23.0	106.0	115.2	204.7	70.1	0.0	496
13	21.5	136.4	144.1	204.2	105.5	118.4	709
14	20.0	131.2	110.9	143.6	121.4	35.7	543
15	18.5	127.0	178.4	157.9	140.6	83.5	687
16	17.0	110.4	160.1	224.6	209.5	8.9	713
17	15.5	146.0	119.4	161.4	69.1	0.0	496
18	14.0	289.9	234.0	297.3	161.4	54.4	1037
19	12.5	312.3	254.5	412.3	369.2	17.6	1366
20	11.5	239.8	290.5	303.9	207.6	6.8	1049
Dry Weight - Nighttime							
1	39.5	58.2	136.6	347.1	101.8	41.0	685
2	38.0	175.9	125.8	156.5	73.5	35.9	568
3	36.5	119.6	167.2	153.5	59.4	0.0	500
4	35.0	110.2	77.3	84.6	110.5	11.5	394
5	33.5	261.6	232.4	346.6	767.0	44.9	1653
6	32.0	98.6	125.4	110.0	251.1	27.3	612
7	30.5	231.2	334.6	286.1	136.1	74.7	1063
8	29.0	124.3	151.5	201.9	115.1	0.0	593
9	27.5	133.2	230.2	283.8	340.4	355.4	1343
10	26.0	161.4	216.5	197.2	234.3	218.8	1028
11	24.5	147.5	265.4	306.3	415.0	50.4	1185
12	23.0	238.3	221.7	385.7	347.7	23.7	1217
13	21.5	134.7	231.3	249.8	262.0	18.5	896
14	20.0	157.6	220.3	241.7	312.6	85.5	1018
15	18.5	187.0	257.2	225.2	328.0	72.3	1070

16	17.0	146.1	151.0	230.5	252.0	17.7	797
17	15.5	162.2	160.7	208.5	146.3	203.3	881
18	14.0	365.2	319.3	585.6	386.2	270.7	1927
19	12.5	297.1	303.7	471.9	393.6	31.7	1498
20	11.5	333.3	343.3	337.5	414.8	0.0	1429
Carbon - Daytime							
1	39.5	192.9	102.6	6.7	5.2	0.0	307.5
2	38.0	5.0	0.0	25.2	2.8	0.0	33.0
3	36.5	24.4	46.9	28.9	5.0	0.0	105.2
4	35.0	67.1	35.4	23.7	13.1	0.0	139.4
5	33.5	65.1	33.5	18.2	6.8	0.0	123.5
6	32.0	21.3	23.6	32.4	13.3	3.0	93.6
7	30.5	49.0	51.3	32.1	23.6	0.0	156.0
8	29.0	23.9	39.3	48.9	4.5	2.0	118.6
9	27.5	38.0	61.2	55.8	21.2	2.3	178.5
10	26.0	49.4	73.2	77.5	32.0	10.4	242.4
11	24.5	56.0	75.7	68.7	49.2	0.0	249.6
12	23.0	39.8	42.6	70.6	17.1	0.0	170.1
13	21.5	53.1	57.0	73.9	29.3	25.4	238.8
14	20.0	50.9	44.1	53.6	33.7	6.5	188.7
15	18.5	50.3	74.2	64.7	44.5	9.5	243.2
16	17.0	38.4	60.3	86.0	64.0	1.1	249.8
17	15.5	53.7	44.9	56.4	20.6	0.0	175.6
18	14.0	109.6	83.5	112.8	47.3	6.2	359.4
19	12.5	112.5	93.3	126.0	41.3	6.9	380.1
20	11.5	82.3	110.5	111.4	67.6	1.1	372.8
Carbon - Nighttime							
1	39.5	19.2	47.7	119.4	13.3	14.3	213.9
2	38.0	60.3	42.5	51.1	12.7	10.4	177.0
3	36.5	42.2	55.8	47.9	14.0	0.0	159.8
4	35.0	39.2	23.5	22.9	32.0	4.0	121.5
5	33.5	117.0	78.9	113.5	233.7	15.1	558.2
6	32.0	16.7	46.5	36.5	66.4	9.3	175.5
7	30.5	82.7	120.3	101.4	38.4	11.4	354.2
8	29.0	46.2	53.0	69.6	30.3	0.0	199.1
9	27.5	45.4	79.6	108.7	124.1	30.9	388.7
10	26.0	59.2	75.1	72.6	78.4	16.4	301.7
11	24.5	52.7	92.0	108.5	125.0	7.1	385.3
12	23.0	92.3	80.1	0.0	120.5	5.4	298.4
13	21.5	51.5	91.4	97.8	75.9	3.9	320.4
14	20.0	60.3	91.1	92.2	109.3	14.2	367.0
15	18.5	70.5	98.1	87.9	100.0	9.8	366.3
16	17.0	49.5	57.5	89.3	87.8	1.7	285.9
17	15.5	60.6	57.0	73.7	47.2	18.2	256.8
18	14.0	139.8	109.9	209.2	121.3	37.9	618.2

19	12.5	108.0	117.5	168.2	122.4	6.8	522.9
20	11.5	121.4	121.9	113.1	119.7	0.0	476.0
<u>Nitrogen - Daytime</u>							
1	39.5	46.7	23.4	1.2	1.1	0.0	72.3
2	38.0	0.9	0.0	4.3	0.6	0.0	5.9
3	36.5	6.0	12.4	7.3	1.3	0.0	27.0
4	35.0	17.3	9.7	6.1	2.7	0.0	35.9
5	33.5	16.4	8.5	4.1	1.0	0.0	30.0
6	32.0	5.2	6.2	7.7	2.9	0.8	22.7
7	30.5	11.8	12.7	7.2	4.7	0.0	36.5
8	29.0	5.2	9.3	11.8	1.0	0.4	27.7
9	27.5	8.5	14.4	13.2	5.4	0.4	41.9
10	26.0	11.2	17.2	18.0	7.9	2.3	56.6
11	24.5	12.5	17.1	16.2	11.1	0.0	56.9
12	23.0	9.2	10.2	16.8	4.5	0.0	40.6
13	21.5	12.9	14.0	18.3	7.5	3.9	56.7
14	20.0	12.3	11.0	13.1	8.9	1.8	47.0
15	18.5	11.9	18.3	15.5	11.2	3.1	59.9
16	17.0	9.0	14.6	21.5	15.7	0.4	61.3
17	15.5	13.1	11.0	13.8	5.2	0.0	43.1
18	14.0	26.5	19.6	28.4	12.2	2.6	89.4
19	12.5	26.7	22.6	32.3	15.6	1.6	98.8
20	11.5	19.4	27.0	27.9	17.5	0.4	92.3
<u>Nitrogen - Nighttime</u>							
1	39.5	4.6	10.8	29.8	3.2	3.7	52.1
2	38.0	15.1	9.6	12.2	3.2	2.7	42.8
3	36.5	10.3	14.4	11.8	3.4	0.0	39.9
4	35.0	9.8	5.9	5.2	7.5	0.8	29.3
5	33.5	27.6	19.7	25.5	58.3	3.5	134.7
6	32.0	4.0	11.0	8.2	15.8	2.2	41.1
7	30.5	18.3	29.2	26.1	9.1	2.5	85.3
8	29.0	10.1	12.2	16.7	7.5	0.0	46.5
9	27.5	10.3	18.2	26.5	31.4	12.7	99.1
10	26.0	13.1	17.5	16.9	19.8	4.6	71.9
11	24.5	12.0	20.3	26.1	30.8	1.6	90.8
12	23.0	21.3	18.9	0.0	30.7	1.4	72.4
13	21.5	12.2	22.6	24.6	18.2	0.9	78.6
14	20.0	14.0	22.3	22.0	26.2	3.3	87.7
15	18.5	16.7	24.0	21.3	26.5	3.9	92.2
16	17.0	11.8	14.2	22.3	22.5	0.8	71.6
17	15.5	14.7	13.9	18.3	12.0	7.0	65.9
18	14.0	33.2	26.5	52.4	30.7	12.9	155.8
19	12.5	25.1	28.5	42.5	31.6	2.2	129.9
20	11.5	27.3	29.5	28.2	30.7	0.0	115.8