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Supplement of

Export fluxes in a naturally iron-fertilized area of the Southern Ocean – Part 2: Importance of diatom resting spores and faecal pellets for export

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Table S1: Raw counts of full diatoms cells from the 12 sediment trap cups.

Species	Sediment trap cup number											
	1	2	3	4	5	6	7	8	9	10	11	12
<i>Asteromphalus</i> spp.	0	1	0	2	0	0	0	0	5	0	0	0
<i>Chaetoceros atlanticus</i> Cleve	0	0	0	0	0	0	0	0	3	0	0	0
<i>Chaetoceros atlanticus</i> f. <i>bulbosus</i> Ehrenberg	0	0	0	0	0	0	0	0	0	0	0	0
<i>Chaetoceros decipiens</i> Cleve	0	0	2	0	0	0	0	0	3	0	0	0
<i>Chaetoceros dichchaeta</i> Ehrenberg	0	0	0	4	0	0	0	0	11	0	0	0
<i>Chaetoceros Hyalochaeta</i> spp.	59	0	245	2354	477	1276	669	926	3350	1120	241	0
<i>Corethron inerme</i> Karsten	0	0	0	0	0	0	0	0	10	0	0	0
<i>Corethron pennatum</i> Grunow	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dactyliosolen antarcticus</i> Castracane	0	0	0	3	0	0	0	0	1	0	0	0
<i>Eucampia antarctica</i> var. <i>antarctica</i> (Castracane) Mangin	7	3	8	11	5	20	9	38	44	25	29	4
<i>Fragilariopsis kerguelensis</i> (O'Meara) Hustedt	75	94	0	114	26	7	10	7	60	0	0	0
<i>Fragilariopsis separanda/rhombica</i> group	2	14	0	40	3	11	6	4	63	0	0	0
<i>Guinardia cylindrus</i> (Cleve) Hasle	0	0	0	0	0	0	0	0	3	0	0	0
<i>Leptocylindrus</i> sp.	0	0	0	2	0	0	0	0	0	0	0	0
<i>Membraneis</i> spp.	3	1	0	11	0	0	1	1	1	0	0	0
<i>Navicula</i> spp.	0	0	5	38	0	0	0	17	25	0	0	0
<i>Odontella weissflogii</i> (Grunow) Grunow	0	0	0	5	0	0	0	0	2	0	0	0
<i>Pleurosigma</i> spp.	1	0	0	13	1	1	0	2	41	2	0	0
<i>Proboscia alata</i> (Brightwell) Sundröm	0	0	0	0	0	0	0	0	4	0	0	0
<i>Proboscia inermis</i> (Castracane) Jordan & Ligowski	0	0	0	2	0	0	0	0	14	0	0	0
<i>Proboscia truncata</i> (Karsten) Nöthig & Logowski	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pseudo-nitzschia</i> spp.	22	2	27	107	5	25	86	91	303	20	7	0
<i>Rhizosolenia antennata/styliformis</i> group	0	0	0	0	0	0	0	0	2	0	0	0
<i>Rhizosolenia chunii</i> Karsten	0	0	0	0	3	0	0	2	3	0	0	0
<i>Rhizosolenia crassa</i> Schimper in Karsten	0	0	0	0	0	0	0	0	0	0	0	0
<i>Rhizosolenia simplex</i> Karsten	0	0	0	0	0	0	0	0	3	0	0	0
<i>Thalassionema nitzschioides</i> spp. Pergallo & Pergallo	123	131	25	274	18	8	16	42	38	8	17	8
<i>Thalassiosira lentiginosa</i> (Janisch) Fryxell	1	0	0	0	0	0	0	0	0	0	0	0
<i>Thalassiosira</i> spp.	0	4	0	3	0	0	0	0	5	3	0	0
<i>Thalassiosira antarctica</i> resting spore (TRS) Comber	3	0	275	156	11	8	6	8	5	0	5	0
<i>Thalassiothrix antarctica</i> Schimper ex Karsten	0	0	0	1	3	2	16	8	30	0	0	0
Small centrics (<20 µm)	4	0	0	24	0	0	0	0	8	10	0	0
Large centrics (>20 µm)	0	0	6	5	0	0	0	0	2	0	0	0
Total	300	250	593	3169	552	1358	819	1146	4039	1188	299	12

Table S2: Raw counts of empty diatoms cells from the 12 sediment trap cups.

Species	Sediment trap cup number											
	1	2	3	4	5	6	7	8	9	10	11	12
<i>Asteromphalus</i> spp.	2	2	11	5	0	3	0	2	2	0	0	0
<i>Chaetoceros atlanticus</i> Cleve	0	0	0	0	0	0	0	0	0	0	0	0
<i>Chaetoceros atlanticus</i> f. <i>bulbosus</i> Ehrenberg	1	0	0	0	0	0	0	1	0	1	0	0
<i>Chaetoceros decipiens</i> Cleve	0	0	2	14	0	0	0	0	0	0	1	0
<i>Chaetoceros dichaeata</i> Ehrenberg	0	0	8	4	0	0	0	0	2	0	2	0
<i>Chaetoceros Hyalochaete</i> spp.	0	0	56	2252	0	0	0	35	780	10	0	0
<i>Corethron inerme</i> Karsten	1	1	5	0	0	1	0	0	10	17	22	0
<i>Corethron pennatum</i> Grunow	0	0	2	0	0	0	0	1	0	0	2	1
<i>Dactyliosolen antarcticus</i> Castracane	0	0	0	3	0	0	0	4	1	3	0	0
<i>Eucampia antarctica</i> var. <i>antarctica</i> (Castracane) Mangin	0	0	5	15	4	3	3	5	12	6	15	0
<i>Fragilariopsis kerguelensis</i> (O'Meara) Hustedt	191	41	105	60	17	35	41	68	50	80	55	18
<i>Fragilariopsis separanda/rhombica</i> group	16	15	22	31	9	29	15	51	35	68	54	2
<i>Guinardia cylindrus</i> (Cleve) Hasle	0	0	0	0	0	0	0	0	0	0	0	0
<i>Leptocylindrus</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0
<i>Membraneis</i> spp.	0	0	2	3	1	2	1	4	6	4	2	0
<i>Navicula</i> spp.	0	0	16	21	0	0	0	7	5	0	0	0
<i>Odontella weissflogii</i> (Grunow) Grunow	0	0	2	6	0	0	0	1	0	1	1	0
<i>Pleurosigma</i> spp.	15	5	10	24	5	0	4	7	40	21	9	0
<i>Proboscia alata</i> (Brightwell) Sundröm	0	0	0	0	0	0	0	2	2	19	5	0
<i>Proboscia inermis</i> (Castracane) Jordan & Ligowski	0	0	1	5	0	0	0	2	2	7	2	0
<i>Proboscia truncata</i> (Karsten) Nöthig & Logowski	0	0	2	0	0	0	0	0	0	1	0	0
<i>Pseudo-nitzschia</i> spp.	50	0	15	35	6	2	46	44	225	19	6	0
<i>Rhizosolenia antennata/styliformis</i> group	0	0	0	0	0	0	0	1	1	7	1	0
<i>Rhizosolenia chunii</i> Karsten	0	0	0	2	0	0	0	1	1	11	8	0
<i>Rhizosolenia crassa</i> Schimper in Karsten	0	0	0	0	0	0	0	0	0	2	0	0
<i>Rhizosolenia simplex</i> Karsten	0	0	0	0	0	0	0	1	0	0	0	0
<i>Thalassionema nitzschioides</i> spp. Pergallo & Pergallo	367	175	678	122	12	5	22	7	31	10	11	5
<i>Thalassiosira lentiginosa</i> (Janisch) Fryxell	21	5	12	0	0	0	0	0	0	0	0	0
<i>Thalassiosira</i> spp.	2	5	1	0	0	0	0	0	0	0	1	0
<i>Thalassiosira antarctica</i> resting spore (TRS) Comber	0	0	0	0	0	0	0	0	0	0	0	0
<i>Thalassiothrix antarctica</i> Schimper ex Karsten	0	0	0	0	0	1	0	0	0	2	0	0
Small centrics (<20 µm)	41	39	372	995	18	7	8	14	28	11	10	10
Large centrics (>20 µm)	0	3	1	12	0	0	0	0	7	2	0	0
Total	707	291	1328	3609	72	88	140	258	1240	302	207	36