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Seasonal variations in concentration and lability of dissolved organic carbon in Tokyo Bay

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Table S1

Nutrient concentrations (μmol L^{-1}) at the upper Arakawa River (upper AR), the lower Arakawa River (lower AR), and Shibaura STP stations. Nutrient samples were filtered through cellulose acetate filters (DISMIC-25cs, 0.45μm pore size, Advantec, Tokyo, Japan), and stored at freezer (–25°C). Nutrient concentrations were determined with autoanalyzer systems, a Quaatro-Marine 5ch (SEAL Analytical, Ltd, Fareham, UK).

Station	Date	NH_4^+	NO_3^-	NO_2^-	PO_4^{3-}	$Si(OH)_4$
upper AR	Apr-2013	0.0	36.2	0.1	0.2	170.1
upper AR	Oct-2013	0.0	33.4	0.1	0.2	160.6
lower AR	Dec-2011	302.4	124.8	7.2	9.4	257.4
lower AR	Jan-2012	88.3	145.2	9.8	4.2	283.3
lower AR	Feb-2012	148.2	132.8	9.9	2.5	230.1
lower AR	May-2012	274.4	102.1	0.8	9.8	240.3
lower AR	Jul-2012	202.8	189.1	9.4	6.8	244.3
lower AR	Aug-2012	170.1	242.1	8.8	7.0	217.3
lower AR	Nov-2012	94.4	120.4	7.0	3.1	246.9
lower AR	Dec-2012	47.4	81.5	7.5	3.4	101.2
Shibaura STP	May-2012	48.4	252.1	6.4	4.6	240.1
Shibaura STP	Jul-2012	91.8	209.4	7.1	8.1	230.4
Shibaura STP	Aug-2012	264.8	570.1	8.7	4.8	273.0
Shibaura STP	Nov-2012	28.4	66.7	5.8	4.0	81.7
Shibaura STP	Dec-2012	46.6	102.4	6.0	3.8	277.8

Table S2

Nutrient concentrations (μmol L^{-1}) at station F3, F6, and 06.

Station	Date	NH_4^+	NO_3^-	NO_2^-	PO_4^{3-}	$Si(OH)_4$
F3	Jan-2012	1.7	22.4	2.3	0.2	1.3
F3	Feb-2012	16.4	27.7	2.7	1.0	10.5
F3	Mar-2012	2.4	25.1	10.8	0.5	5.6
F3	Apr-2012	7.6	26.2	3.0	0.3	7.4
F3	May2012	9.7	19.1	2.5	0.7	33.2
F3	Jun-2012	0.3	28.4	4.0	0.8	53.3
F3	Jul-2012	0.4	28.8	2.6	0.1	38.0
F3	Aug-2012	0.4	1.7	0.3	0.1	2.4
F3	Sep-2012	1.8	2.8	0.5	0.3	3.9
F3	Oct-2012t	4.4	24.1	2.7	1.1	22.9
F3	Nov-2012	5.6	27.8	3.7	1.4	22.1
F3	Dec-2012	11.6	30.4	4.7	1.9	38.9
F6	Jan-2012	1.1	16.6	1.9	0.2	0.4
F6	Feb-2012	8.7	21.3	2.0	0.5	6.0
F6	Mar-2012	2.1	20.9	6.7	0.4	2.1
F6	Apr-2012	2.5	16.6	2.3	0.2	5.1
F6	May2012	0.3	20.8	2.2	0.1	26.8
F6	Jun-2012	0.5	10.4	2.6	0.3	36.9
F6	Jul-2012	0.6	1.1	0.2	0.1	2.9
F6	Aug-2012	2.6	2.1	0.5	0.4	9.7
F6	Sep-2012	0.3	0.5	0.2	0.2	1.9
F6	Oct-2012t	3.5	15.0	2.5	1.1	12.1
F6	Nov-2012	1.2	20.1	3.4	1.0	15.9
F6	Dec-2012	6.4	21.9	4.3	1.4	34.0
06	Jan-2012	0.6	8.8	0.3	0.5	10.0
06	Feb-2012	0.6	6.3	0.3	0.2	7.6
06	Mar-2012	0.3	4.6	0.2	0.2	5.6
06	Apr-2012	1.6	14.6	1.4	0.1	7.5
06	May2012	0.2	1.0	0.6	0.1	4.2

06	Jul-2012	0.4	0.4	0.1	0.1	2.4
06	Aug-2012	1.0	1.8	0.4	0.2	6.4
06	Sep-2012	0.3	0.3	0.2	0.1	1.1
06	Oct-2012t	1.0	7.4	1.0	0.7	7.4
06	Nov-2012	1.0	5.0	2.2	0.4	9.2
06	Dec-2012	1.6	10.4	3.0	0.7	18.4

Table S3

DOC, RDOC, DOC/RDOC, and salinity at station 06 bottom water (water depth is 300 m) in Tokyo Bay

Month	DOC ($\mu mol\ L^{-1}$)	RDOC ($\mu mol\ L^{-1}$)	RDOC/DOC (%)	Sal.
Jan-2012	54	40	75	34.4
Feb-2012	45	43	96	34.3
Mar-2012	54	45	83	34.4
Apr-2012	53	46	86	34.4
May-2012	59	57	98	34.4
Jul-2012	52	51	97	34.3
Aug-2012	52	40	77	34.3
Sep-2012	50	48	97	34.3
Oct-2012	51	48	97	34.4
Nov-2012	56	50	89	34.4
Dec-2012	48	43	90	34.4
Average	52	47	89	34.4