

Supplementary Materials

Occurrence of the two endocrine disruptors octocrylene and nonylphenoxyacetic acid in four Chinese aquatic systems

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Table S1: Station details with measured parameters: depth, temperature, salinity and the concentrations of octocrylene (OC) and nonylphenoxycetic acid (NP₁EC). (South China Sea: Additional cruise track information can be requested from author.)

Station	Coordinates	Depth	Temperature	Salinity	Concentration [ng/L]	
		[m]	[°C]		OC	NP ₁ EC
Huangpu River (25.07.2016, UTC: 2:45-8:12)						
HP-1	30.998°N 121.428°E	0.5			22.0 ± 1.8	315.9 ± 34.5
HP-2	31.025°N 121.484°E	0.5			13.3 ± 1.3	390.1 ± 9.9
HP-3	31.068°N 121.472°E	0.5			11.9 ± 1.2	198.1 ± 16.3
HP-4	31.143°N 121.455°E	0.5			23.2 ± 2.3	658.3 ± 13.9
HP-5	31.174°N 121.462°E	0.5			19.2 ± 3.1	539.3 ± 12.9
HP-6	31.215°N 121.508°E	0.5			18.8 ± 2.5	548.5 ± 27.4
HP-7	31.249°N 121.508°E	0.5			19.9 ± 1.5	527.8 ± 11.6
HP-8	31.272°N 121.563°E	0.5			14.5 ± 1.4	529.3 ± 0
HP-9	31.340°N 121.533°E	0.5			20.6 ± 0.1	334.0 ± 55.1
HP-10	31.408°N 121.500°E	0.5			17.7 ± 0.9	598.0 ± 9.7
East China Sea (12-15.07.2016)						
F2	30.593°N 122.606°E	2.0	25.4	20.7	30.1 ± 2.2	18.2 ± 0.8
	Date: 13.07.2016; UTC: 22:45	24.8	20.3	33.6	17.8 ± 0.7	2.9 ± 0.04
F4	30.597°N 123.002°E	2.0	25.8	24.0	<LOD	9.8 ± 0.2
	Date: 14.07.2016; UTC: 2:17	57.5	19.9	34.4	17.3 ± 0.7	0.9 ± 0.02
F5	30.599°N 123.201°E	2.0	26.9	26.3	7.8 ± 0.5	4.1 ± 0.2
	Date: 14.07.2016; UTC: 4:17	51.7	20.2	34.4	5.1 ± 0.4	n.d.
E2	30.844°N 122.631°E	2.0	26.5	9.2	1.9 ± 0.2	9.5 ± 0.1
	Date: 14.07.2016; UTC: 10:55	23.9	20.6	32.5	<LOD	1.8 ± 0.03
E4	30.801°N 123.002°E	1.9	23.9	21.7	<LOD	11.1 ± 0.1
	Date: 14.07.2016; UTC: 7:48	43.0	20.3	34.2	n.d.	1.1 ± 0.02
E5	30.807°N 123.198°E	2.0	25.7	19.6	<LOD	11.7 ± 0.6
	Date: 14.07.2016; UTC: 6:26	54.5	20.3	34.2	4.0 ± 0.5	n.d.
D2	31.001°N 122.594°E	2.0	24.9	13.3	3.2 ± 0.2	13.1 ± 0.2
	Date: 14.07.2016; UTC: 22:20	14.9	20.5	31.3	8.4 ± 0.3	2.3 ± 0.06
D4	30.995°N 123.004°E	2.0	24.5	20.4	<LOD	10.4 ± 0.2
	Date: 15.07.2016; UTC: 2:00	46.8	20.0	33.9	3.4 ± 0.1	<LOD

± - standard deviation, n.d. - not detected, LOD - limit of detection

D5	31.001°N 123.199°E	1.9	24.7	20.4	n.d.	9.3 ± 0.1
	Date: 15.07.2016; UTC: 3:40	51.0	20.6	34.2	<LOD	n.d.
C2	31.210°N 122.624°E	2.0	24.7	18.3	<LOD	10.2 ± 0.02
	Date: 15.07.2016; UTC: 8:45	26.8	20.6	33.7	n.d.	<LOD
C4	31.200°N 123.003°E	2.0	26.7	13.8	<LOD	11.5 ± 0.1
	Date: 15.07.2016; UTC: 5:25	59.7	20.0	34.1	<LOD	1.0 ± 0.03
C5	31.200°N 123.200°E	2.0	24.0	23.2	<LOD	9.0 ± 0.1
	Date: 15.07.2016; UTC: 3:40	51.0	20.6	34.2	<LOD	<LOD
Pearl River Estuary (29.08.2016)						
PR-1	23.043°N 113.521°E	1.5	30.1	0.1	9.8 ± 0.3	340.9 ± 4.1
	UTC: 2:15	5.9	30.1	0.1	10.5 ± 0.3	366.0 ± 9.0
PR-2	23.021°N 113.516°E	2.0	30.0	0.1	3.5 ± 0.1	338.7 ± 3.9
	UTC: 2:41	8.8	30.0	0.1	5.6 ± 0.1	309.4 ± 2.9
PR-3	22.918°N 113.558°E	1.7	30.4	0.1	6.1 ± 0.3	338.9 ± 2.0
	UTC: 3:49	17.9	30.3	0.1	2.6 ± 0.1	374.9 ± 2.5
PR-4	22.846°N 113.570°E	1.3	30.4	0.8	2.8 ± 0.3	396.1 ± 6.1
	UTC: 4:23	16.4	30.2	3.9	3.1 ± 0.3	390.4 ± 8.2
PR-5	22.778°N 113.629°E	1.1	30.4	3.1	4.3 ± 0.1	328.1 ± 3.1
	UTC: 5:05	9.6	30.0	8.8	3.5 ± 0.2	252.5 ± 7.9
PR-6	22.720°N 113.673°E	0.6	30.2	3.2	3.2 ± 0.2	313.8 ± 4.1
	UTC: 5:40	12.1	29.1	12.6	2.7 ± 0.2	291.6 ± 4.5
PR-7	22.630°N 113.698°E				2.3 ± 0.1	252.5 ± 2.6
	UTC: 7:00					
PR-8	22.438°N 113.755°E				3.1 ± 0.1	146.3 ± 4.2
	UTC: 7:55					
PR-9	22.296°N 113.803°E				2.4 ± 0.3	111.3 ± 6.8
	UTC: 8:35					
PR-10	22.237°N 113.784°E	0.5	27.4	26.3	3.2 ± 0.3	73.5 ± 0.7
	UTC: 8:59	7.7	27.1	29.1	3.0 ± 0.5	74.3 ± 1.2
PR-11	22.155°N 113.794°E				3.4 ± 0.2	50.7 ± 1.7
	UTC: 9:34					
PR-12	22.146°N 113.804°E	1.0	27.1	31.0	2.8 ± 0.1	32.5 ± 0.5
	UTC: 10:03	10.1	26.6	32.3	2.8 ± 0.1	28.6 ± 0.3
South China Sea (3-22.03.2015)						
SCS-29	21.451°N 114.157°E					
	Date: 03.03.2015; UTC: 14:04	9.4	22.2	34.5	n.d.	n.d.
	Date: 11.03.2015; UTC: 23:59	7.1	21.7	34.5	6.0 ± 0.2	n.d.

± - standard deviation, n.d. - not detected, LOD - limit of detection

	Date: 21.03.2015; UTC: 20:06	5	24.2	34.4	2.8 ± 0.1	n.d.
SCS-24	21.275°N 113.640°E	3.9	21.7	34.3	n.d.	n.d.
	Date: 04.03.2015; UTC: 1:16					
SCS-19	21.096°N 113.124°E	5.6	21.9	34.5	n.d.	n.d.
	Date: 04.03.2015; UTC: 8:24					
SCS-14	20.906°N 112.615°E	5.4	22.2	34.5	n.d.	n.d.
	Date: 04.03.2015; UTC: 15:43					
SCS-1	20.523°N 112.177°E	6.4	23.0	34.4	n.d.	n.d.
	Date: 05.03.2015; UTC: 1:33					
SCS-2	20.317°N 112.253°E	6.5	23.4	34.3	n.d.	n.d.
	Date: 05.03.2015; UTC: 5:17					
SCS-8	19.098°N 112.746°E	5.5	24.5	34.5	2.5 ± 0.2	n.d.
	Date: 06.03.2015; UTC: 6:25					
SCS-17	19.688°N 113.097°E	6.8	24.5	34.6	2.3 ± 0.05	n.d.
	Date: 08.03.2015; UTC: 6:15					
SCS-15	20.498°N 112.773°E	7.5	23.7	34.4	4.2 ± 0.2	n.d.
	Date: 08.03.2015; UTC: 11:17					
SCS-20	20.680°N 113.286°E	5.4	23.4	34.5	5.5 ± 0.3	n.d.
	Date: 08.03.2015; UTC: 21:00					
SCS-42	21.644°N 114.674°E	8.4	21.3	34.6	5.5 ± 0.4	n.d.
	Date: 12.03.2015; UTC: 10:25					
SCS-47	21.820°N 115.196°E	11	21.9	34.0	3.1 ± 0.4	n.d.
	Date: 12.03.2015; UTC: 17:00					
SCS-52	21.999°N 115.707°E	10	22.0	34.2	n.d.	n.d.
	Date: 13.03.2015; UTC: 2:31					
SCS-54	21.600°N 115.863°E	10.5	23.1	34.4	4.0 ± 0.3	n.d.
	Date: 13.03.2015; UTC: 10:25					
SCS-56	21.204°N 116.031°E	7.5	23.6	34.5	3.3 ± 0.1	n.d.
	Date: 13.03.2015; UTC: 18:59					
SCS-58	20.791°N 116.193°E	11.6	23.6	34.6	17.8 ± 0.4	n.d.
	Date: 14.03.2015; UTC: 3:34					
SCS-60	20.405°N 116.353°E	4.7	23.8	34.6	11.4 ± 0.6	n.d.
	Date: 14.03.2015; UTC: 13:17					
SCS-64	19.183°N 116.840°E	5.1	24.9	34.1	8.6 ± 0.1	n.d.
	Date: 16.03.2015; UTC: 0:13					
SCS-41	18.617°N 115.297°E	6.9	25.7	33.7	3.2 ± 0.04	n.d.
	Date: 16.03.2015; UTC: 17:01					

± - standard deviation, n.d. - not detected, LOD - limit of detection

SCS-39	19.429°N 114.979°E	7.1	25.3	33.9	4.9 ± 0.2	n.d.
	Date: 18.03.2015; UTC: 0:29					
SCS-37	19.841°N 114.806°E	5.5	25.2	33.9	5.8 ± 0.3	n.d.
	Date: 18.03.2015; UTC: 16:45					
SCS-35	20.247°N 114.637°E	5.8	25.3	34.3	3.8 ± 0.1	n.d.
	Date: 19.03.2015; UTC: 5:00					
SCS-34	20.435°N 114.562°E	6.3	25.1	34.2	9.4 ± 0.2	n.d.
	Date: 19.03.2015; UTC: 22:47					
SCS-33	20.646°N 114.481°E	7.7	25.1	34.3	7.8 ± 0.04	n.d.
	Date: 20.03.2015; UTC: 6:56					
SCS-31	21.050°N 114.314°E	4.9	24.5	34.7	4.2 ± 0.1	n.d.
	Date: 21.03.2015; UTC: 7:30					
SCS-48	21.420°N 115.345°E	5.0			5.9 ± 0.1	n.d.
	Date: 22.03.2015; UTC: 7:45					
SCS-43	21.232°N 114.830°E	5.0	23.6	34.4	6.6 ± 0.3	n.d.
	Date: 22.03.2015; UTC: 11:22					

± - standard deviation, n.d. - not detected, LOD - limit of detection

Table S2: Additionally measured parameters of samples in the South China Sea: particular organic carbon (POC), dissolved organic carbon (DOC), suspended particular matter (SPM) and chlorophyll a (ChlA).

Station	POC	DOC	SPM	ChlA
	[$\mu\text{mol/L}$]	[$\mu\text{mol/L}$]	[mg/L]	[mg/m ³]
SCS-29	18.2	66.9	1.3	0.2
	6.8	66.2	1.1	0.1
	6.2	63.2	1.6	0.7
SCS-24	9.0	72.4	0.8	0.2
SCS-19	10.4	65.9	0.7	0.5
SCS-14	10.2	70.2	0.8	0.3
SCS-1	6.9	70.9	1.3	0.3
SCS-2	10.6	67.9	2.7	0.2
SCS-8	2.2	108.1	0.2	0.2
SCS-17	4.6	66.1	2.2	0.1
SCS-15	5.9	64.2	0.8	0.2
SCS-20	5.3	65.2	0.8	0.2
SCS-42	7.2	64.7	1.1	0.9
SCS-47	5.6	63.8	0.9	0.6
SCS-52	8.3	65.5	0.9	0.5
SCS-54	6.0	66.3	0.8	0.7
SCS-56	4.7	66.2	0.9	0.5

SCS-58	4.5	64.6	0.7	0.5
SCS-60	4.8	66.0	1.0	0.3
SCS-64	6.0	69.3	3.9	0.2
SCS-41	3.8	66.2	0.6	0.1
SCS-39	6.2	67.6	4.7	0.2
SCS-37	1.3	67.3	2.8	0.1
SCS-35	3.9	71.0	0.7	0.1
SCS-34	4.1	72.7	4.7	0.8
SCS-33	4.3	67.5	0.9	0.1
SCS-31	6.1	69.8	0.6	0.2
SCS-48	7.9	65.6	0.6	0.3
SCS-43	7.9	65.6	0.6	0.3

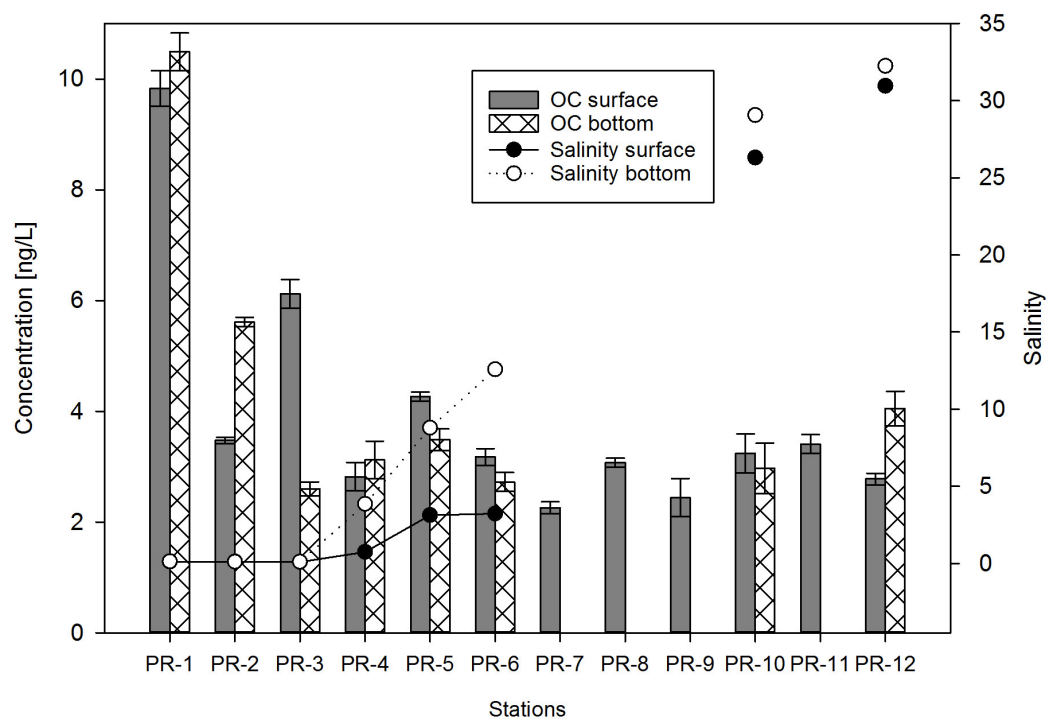


Figure S1: Measured concentration [ng/L] of OC in surface and bottom water samples of the Pearl River in August 2016.

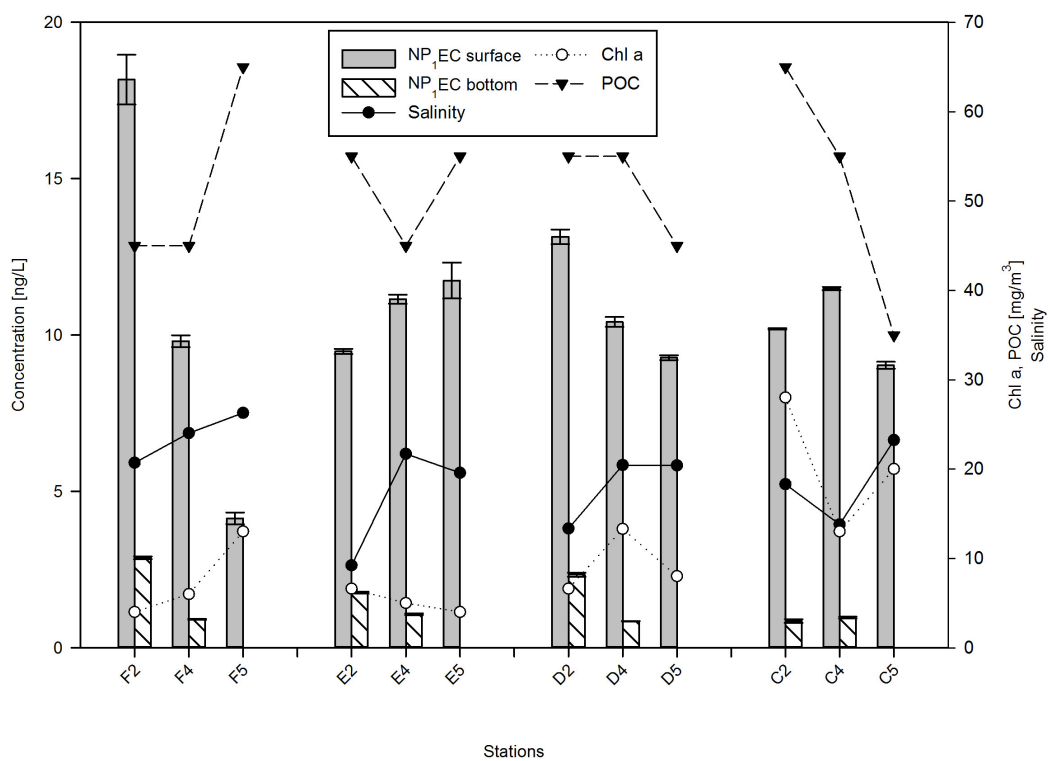


Figure S2: Measured concentration [ng/L] of NP₁EC in surface and bottom water samples in the East China Sea in July 2016.