

Supplementary table 1. Summary of detections in freshwater sites

Mabini	Sampling depth (m)	ACT (ppb) Apr 19		Ave	CAF (ppb) Apr 19		Ave	ACT (ppb) Sep 19		Ave	CAF (ppb) Sep 19		Ave
Downstream N	0.5	16.65	18.74	17.69	198.8	192.32	195.56	55.96	66.54	61.25	30.32	30.2	30.26
Downstream E3	0	ND	ND	ND	36.73	3.03	ND	ND	ND	ND	1.1	0.62	0.86
Drain E1	-	33.64	24.05	28.84	1666.04	2031.1	1848.57	-	-	-	-	-	-
Drain E2	-	-	-	-	-	-	-	4.25	0.89	2.57	1119.66	769.37	944.51
											1062.0	1215.4	
Drain W1	-	63.53	-	63.53	1463.34	-	1463.34	87.56	67.99	77.78	1368.76	6	1
Upstream E2	0	ND	ND	ND	7.4	-	ND	0.77	2.91	ND	0.77	2.91	1.84
Upstream W1	0	-	-	-	-	-	-	ND	ND	ND	0.77	2.91	1.84
Field Blank	-	-	-	-	-	-	-	ND	ND	ND	3.15	1.41	2.28
Boracay		ACT (ppb) Sep 18		Ave	CAF (ppb) Sep 18		Ave						
SGD 2	-	ND	ND	ND	13.02	13.42	13.22						
IN 1	-	107.46	28.85	68.16	96.57	23.1	59.84						
IN 2	-	26.96	1.06	14.01	21.12	4.31	12.71						
IN 3	-	2.79	3.49	3.14	7.06	7.34	7.2						
IN 5	-	12.27	13.6	12.94	38.09	40	39.05						
IN 6	-	ND	ND	ND	1.35	1.3	1.33						
IN 8	-	ND	26.84	ND	31.79	26.49	29.14						
		ACT (ppb) Apr 19		Ave	CAF (ppb) Apr 19		Ave						
28 GW	-	ND	ND	ND	4.62	3.02	3.82						
IN 3	-	ND	ND	289.17	450.07	457.18	453.62						
IN 8	-	ND	ND	ND	24.34	20.49	22.42						

Davao	ACT (ppb) Apr 19			Ave	CAF (ppb) Apr 19		Ave	ACT (ppb) Nov 19		Ave	CAF (ppb) Nov 19		Ave
U1	0.5	3.93	9.24	6.59	8.84	14.61	11.73	ND	ND	ND	3.41	3.89	3.65
U2	0.5	ND	ND	ND	2.54	3.08	2.81	ND	ND	ND	1.68	2.18	1.93
U3	0.5	ND	ND	ND	4.34	4.23	4.29	ND	ND	ND	5.26	-	5.26
U4	0.5	ND	ND	ND	2.38	2.76	2.57	ND	ND	ND	2.5	4.14	3.32
U5	0.5	ND	ND	ND	2.32	1.91	2.12	ND	ND	ND	1.44	2.17	1.8
L1	0.5	11.53	9	10.27	15.02	16.01	15.52	ND	ND	ND	ND	ND	ND
L2 Bottom	3	ND	8.92	8.92	17.67	17.52	17.6	ND	ND	ND	ND	ND	ND
L2 Surface	0.5	20.87	20.14	20.5	29.93	31.99	30.96	ND	ND	ND	ND	ND	ND
L3 Bottom	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L3 Surface	0.5	10.47	20.21	15.34	24.82	24.55	24.69	ND	ND	ND	5.25	4.8	5.02
Cagayan de Oro	ACT (ppb) Oct 19			Ave	CAF (ppb) Oct 19		Average	SMT (ppb) Oct 19		Ave			
Agusan Canyon	0.5	ND	ND	ND	5.66	4.96	5.31	68.82	45.94	57.38			
Bobonawan R.	0.5	ND	ND	ND	2.75	2.49	2.62						
Carmen B. b	2	ND	ND	ND	3.36	4.08	3.72						
Carmen B. t	0.5	ND	ND	ND	1.41	2.01	1.71						
Libona B.	0.5	ND	ND	ND	5.61	5.29	5.45						
Maasin B.	0.5	ND	ND	ND	2.62	3.08	2.85						
Marcos B. b	2	ND	ND	ND	2.43	3.34	2.88						
Marcos B. t	0.5	ND	ND	ND	3.8	3.2	3.5						
Rodelsa B.	0.5	ND	ND	ND	2.85	2.7	2.77						
Taguanao B.	0.5	ND	ND	ND	3.63	3.45	3.54						

(ND: non-detect; - : no sample)

Supplementary table 2. Summary of detections in freshwater sites

Mabini	ACT (ppb) Apr 19			Average	CAF (ppb) Apr 19			Average	ACT (ppb) Sep 19		Average	CAF (ppb) Sep 19		Average
Coast E1	-	-	-	-	-	-	-	-	ND	ND	ND	18.36	22.52	20.44
Coast E2	0.5	ND	ND	ND	108.85	69.75	89.3	89.3	ND	ND	ND	10.87	11.83	11.35
Coast E3	0.5	ND	ND	ND	70.57	44.33	57.45	57.45	ND	ND	ND	17.87	11.59	14.73
Coast N	0.5	ND	ND	ND	190.9	140.11	165.5	165.5	0.32	1.73	1.02	20.7	17.76	19.23
Coast S1	0.5	ND	ND	ND	38.48	ND	38.48	38.48	2.07	9.2	5.64	35.11	41.33	38.22
Coast S2	0.5	ND	ND	ND	68.21	114.78	91.5	91.5	ND	ND	ND	27.5	16.57	29.24
Coast W1	0.5	ND	ND	ND	145.07	168.82	156.95	156.95	ND	ND	ND	24.46	34.02	29.24
Coast W2	0.5	ND	ND	ND	132.32	61.44	96.88	96.88	ND	ND	ND	24.24	28.23	26.23
Coast W3	0.5	ND	ND	ND	58.7	46.75	52.73	52.73	ND	ND	ND	18.02	20.72	19.37
Boracay	ACT (ppb) Sep 18			Average	CAF (ppb) Sep 18			Average						
IN 4	0.5	29.06	6.12	17.59	26.26	8.44	17.35	17.35						
IN 7	0.5	ND	ND	ND	2.01	1.24	1.62	1.62						
B01	0.5	ND	ND	ND	13.29	11.18	12.23	12.23						
B03	0.5	ND	ND	ND	15.21	29.9	22.55	22.55						
Off9 04	0.5	ND	ND	ND	10.28	7.88	9.08	9.08						
Off9 05	0.5	ND	ND	ND	11.75	14.77	13.26	13.26						
10 11	0.5	ND	ND	ND	26.79	19.51	23.15	23.15						
W Offshore 1	0.5	ND	-	ND	17.48	-	17.48	17.48						
W Offshore 2	0.5	ND	-	ND	8.58	-	8.58	8.58						
W Offshore 3	0.5	253.39	-	253.39	220.35	-	220.35	220.35						
W Offshore 4	0.5	247.11	-	247.11	190.5	-	190.5	190.5						
W Offshore 5	0.5	ND	-	ND	6.29	-	6.29	6.29						
W Offshore 6	0.5	246.32	-	246.32	239.5	-	239.5	239.5						

W Offshore 7	0.5	236.03	-	236.03	241.7	-	241.7
W Offshore 8	0.5	ND	-	ND	12.99	-	12.99
	ACT (ppb) Apr 19			Average	CAF (ppb) Apr 19		Average
PORT 1	0.5	ND	ND	ND	59.65	32.26	45.96
PORT 2	0.5	ND	ND	ND	31.26	37.97	34.62
PORT	0.5	ND	ND	ND	67.71	94.64	81.18
B03	0.5	12.18	ND	12.18	340.43	140.99	240.71
II	0.5	ND	ND	ND	290.71	112.19	201.45
IN4	0.5	12.44	ND	12.44	100.37	53.84	77.11
IN7	0.5	ND	ND	ND	17.5	3.12	10.31
29GW	0.5	ND	ND	ND	6.07	14.32	10.2
	ACT (ppb) Sep 19			Average	CAF (ppb) Sep 19		Average
OPP 43	0.5	ND	ND	ND	40.31	ND	40.31
OPP 44	0.5	ND	ND	ND	13.73	12.08	12.91
O6	0.5	ND	ND	ND	ND	ND	ND
OE3	0.5	ND	ND	ND	ND	ND	ND
OM8	0.5	ND	ND	ND	17.92	9.29	13.6
OE6	0.5	ND	ND	ND	20.6	15.27	17.94
ASV17	0.5	ND	ND	ND	14.54	16.19	15.36
OM24	0.5	ND	ND	ND	11.49	27.24	19.37
OF26	0.5	ND	ND	ND	22.78	13.73	18.26
Tubbataha	ACT (ppb) Oct 19			Average	CAF (ppb) Oct 19		Average
E South Atoll	0.5	ND	ND	ND	21.45	16.05	18.75
NE N Atoll	0.5	ND	ND	ND	ND	ND	ND
S South Atoll	0.5	ND	ND	ND	ND	ND	ND

S North Atoll (inside)	0.5	ND	ND	ND	ND	ND	ND		
S North Atoll	0.5	ND	ND	ND	10.34	ND	10.34		
N North Atoll	0.5	ND	ND	ND	ND	ND	ND		
W North Atoll	0.5	ND	ND	ND	10.21	39.69	24.95		
Shark Airport Anchor	0.5	ND	ND	ND	7.99	6.48	7.23		
Ranger Station	0.5	ND	ND	ND	48.44	20.59	34.52		
Field Blank	-	ND	ND	ND	0.9	-	0.9		
Davao	ACT (ppb) Apr 19			Average	CAF (ppb) Apr 19		Average		
DG2 Day 1 s	0.5	ND	ND	ND	232.21	ND	232.21		
DG2 Day 2 s	0.5	148.75	ND	148.75	214.64	ND	214.64		
DG2 Day 2 b	15	116.13	ND	116.13	146.52	67.87	107.19		
DG1 Day 1 s	0.5	ND	ND	ND	225.62	229.73	227.68		
DG1 Day 2 s	0.5	ND	ND	ND	15.74	10.84	13.29		
DG1 Day 2 b	15			116.13	ND	ND	ND		
	ACT (ppb) Nov 19			Average	CAF (ppb) Nov 19		Average		
DG 2	0.5	26.69	54.91	40.8	33.49	74.02	53.75		
DG2 15 m	15	0.73	-	0.73	13.71	-	13.71		
DG1	0.5	ND	ND	ND	14.77	4.73	9.75		
DG1 15 m	15	1.77	-	1.77	24.38	-	24.38		
DG1 >15 m	>15	ND	-	ND	24.95	-	24.95		
Cagayan de Oro	ACT (ppb) Oct 19			Average	CAF (ppb) Oct 19		Average	SMT (ppb) Oct 19	Average
Coast transect 1A	0.5	27.93	25.84	26.88	37.89	33.9	35.9		
Coast transect 1B	0.5	21.9	23.04	22.47	34.21	41.8	38.01		

Coast transect 3A top	0.5	ND		ND	19.7	23.98	21.84			
Coast transect 3B bottom	15	ND		ND	ND	ND	ND			
Coast transect 3B top	0.5	ND		ND	22.29	17.23	19.76			
Coast transect 4 bottom	15	ND		ND	ND	13.2	6.6			
Coast transect 4 top	0.5	ND		ND	31.11	24.68	27.89			
Agusan River Mouth	0.5	4.45	4.32	4.39	63.84	71.39	67.62	839.91	689.92	764.914

(ND: non-detect; - : no sample)

Supplementary table 3. Summary of detections in hospital wastewaters and PPCP ratios to CAF

	CAF	ACT	MET	IOP	SMX	ASMX	CIP	AZI
Public Hospital	1132.64	2020.52	45.93	ND	129.55	56.94	92.24	223.89
Private Hospital	19.95	ND	60.20	1237.47	470.87	30.18	9.84	38.84
	ACT/CAF	MET/CAF	IOP/CAF	SMX/CAF	ASMX/CAF	CIP/CAF	AZI/CAF	
Public Hospital	1.78	0.04	0.00	0.11	0.05	0.08	0.20	
Private Hospital	0.00	3.02	62.04	23.61	1.51	0.49	1.95	

Supplementary table 4. Physicochemical characteristics measured at selected sampling points

Sampling point	Period of sampling	Temp (°C)	pH	Salinity (PSU)	DO (ppm)	ACT (ppb)	CAF (ppb)	Site
<i>Coastal waters</i>								
Coast E2	Apr-19	29.75	8.25	34.35	6.79	ND	89.30	Mabini
Coast E3	Apr-19	30.57	8.13	32.99	5.23	ND	57.45	Mabini
Coast N	Apr-19	31.67	8.09	34.24	5.19	ND	165.5	Mabini
Coast S1	Apr-19	29.19	8.18	34.15	4.69	ND	38.48	Mabini
Coast S2	Apr-19	28.84	8.10	34.45	5.82	ND	91.5	Mabini
Coast W1	Apr-19	30.81	8.15	34.52	5.08	ND	156.95	Mabini
Coast W2	Apr-19	30.94	8.16	34.56	4.09	ND	96.88	Mabini
Coast W3	Apr-19	30.53	8.19	33.62	5.22	ND	52.73	Mabini
II	Apr-19	37.80	8.49	33.65	5.48	ND	201.45	Boracay
IN 7	Apr-19	31.07	8.20	34.21	3.91	ND	10.31	Boracay
E South Atoll	Oct-19	29.88	4.73	30.00	5.29	ND	18.75	Tubbataha
NE N Atoll	Oct-19	29.89	8.26	29.91	5.68	ND	ND	Tubbataha
S North Atoll	Oct-19	30.54	8.18	30.11	6.17	ND	5.17	Tubbataha
N North Atoll	Oct-19	29.67	8.16	30.03	5.57	ND	ND	Tubbataha
Coast transect 3B b	Nov-19	30.98	8.06	34.07	5.43	ND	ND	Cagayan de Oro
Coast transect 4 b	Nov-19	31.29	8.10	33.57	4.81	ND	ND	Cagayan de Oro
Coast transect 4 t	Nov-19	30.09	8.10	27.87	4.93	ND	27.89	Cagayan de Oro
DG 2	Apr-19	29.49	8.21	29.68	7.73	40.8	53.75	Davao
DG2 15 m	Apr-19	28.88	7.00	30.41	7.00	ND	13.71	Davao
DG1	Apr-19	29.46	8.23	30.03	7.20	ND	9.75	Davao
DG1 15 m	Apr-19	28.98	7.14	30.44	7.14	1.77	24.38	Davao
L2 Surface	Apr-19	28.11	8.12	27.70	2.76	20.5	30.96	Davao
L3 Surface	Apr-19	28.22	8.11	31.18	3.49	15.34	24.69	Davao
L2	Nov-19	28.11	8.12	27.70	2.76	8.92	17.6	Davao

L3	Nov-19	27.96	8.11	31.18	8.88	20.50	30.96	Davao
Davao Gulf 2	Nov-19	28.22	8.16	32.73	3.59	ND	137.13	Davao
Davao Gulf 1	Nov-19	28.28	8.16	31.62	3.67	ND	13.29	Davao
Davao Gulf 2	Nov-19	29.49	8.21	29.68	7.73	148.75	214.64	Davao
Surface and river waters								
Upstream E2	Apr-19	35.04	6.61	1.41	2.86	ND	7.40	Mabini
Dstr E3	Apr-19	31.27	7.61	0.30	1.07	ND	19.88	Mabini
IN 6	Apr-19	28.33	7.57	0.11	4.95	ND	1.33	Boracay
IN 5	Apr-19	33.44	9.63	0.29	10.73	12.94	39.05	Boracay
28 GW	Apr-19	28.64	7.18	0.44	4.26	ND	ND	Boracay
IN 8	Apr-19	37.80	8.49	1.42	11.49	ND	22.42	Boracay
B01	Apr-19	30.83	7.09	0.97	1.05	ND	12.23	Boracay
U1	Apr-19	28.24	8.56	0.18	7.42	6.58	11.73	Davao
U2	Apr-19	28.38	8.52	0.15	8.47	ND	1.93	Davao
U3	Apr-19	28.97	8.98	0.11	8.30	ND	5.26	Davao
U4	Apr-19	29.76	8.45	0.06	8.07	ND	3.32	Davao
U5	Apr-19	28.66	8.71	0.13	8.13	ND	1.80	Davao
L1	Apr-19	29.89	8.84	0.17	5.87	10.27	15.52	Davao
U1	Nov-19	31.77	8.62	0.19	8.19	ND	3.65	Davao
U2	Nov-19	29.11	8.65	0.25	7.95	ND	ND	Davao
U3	Nov-19	26.58	8.83	0.11	7.23	ND	ND	Davao
U4	Nov-19	27.07	8.33	0.06	5.11	ND	ND	Davao
U5	Nov-19	28.36	8.88	0.13	5.20	ND	ND	Davao
L1	Nov-19	27.90	8.22	0.09	9.40	ND	ND	Davao
L2 Surface	Nov-19	27.51	8.15	0.09	9.14	ND	ND	Davao
L3 Surface	Nov-19	27.87	8.19	0.11	8.88	ND	5.02	Davao

(ND: non-detect)