

Online resource 1. Method quality control parameters, including limits of detection (LOD) and matrix spike recoveries (mean $\pm$ RSD, %) for three pooled estuarine matrices.

Compounds	LOD (ng g ⁻¹ dw)	Matrix spike – Fish (<i>M.curema</i>)		Matrix spike – Fish (<i>R. canadum</i>)		Matrix spike – Crab (<i>U. cordatus</i>)	
		(Group 1)		(Group 2)		(Group 3)	
		Mean recovery (%)	RSD (%)	Mean recovery (%)	RSD (%)	Mean recovery (%)	RSD (%)
NAP	1.22	65.7	16.2	56.4	38.8	32.7	144
ACE	1.26	99.0	10.8	90.9	10.1	78.9	4.13
ACEN	1.87	97.6	8.58	97.5	8.71	84.3	4.03
FLU	0.95	100.6	7.24	98.1	8.11	86.1	3.99
PHE	1.41	90.9	11.1	86.9	7.95	79.7	9.12
ANT	1.37	97.0	11.1	92.4	7.60	87.0	4.28
FLT	1.67	83.6	9.83	78.5	6.71	72.5	3.74
PYR	1.10	84.9	10.5	79.3	7.19	73.1	3.53
BaA	1.03	83.5	9.61	79.1	7.40	74.5	4.00
CHRY	1.54	82.7	8.77	79.2	8.48	72.5	1.62
BbF	1.09	96.1	3.85	92.7	10.9	79.9	3.99
BkF	1.48	81.9	8.38	75.2	9.26	79.4	2.27
BaP	1.48	67.5	14.3	103	10.1	87.1	6.53
DBahA	1.42	133.9	4.15	131	9.44	102.4	0.91
IP	1.46	102.2	5.49	103	12.8	90.5	10.2
BghiP	1.50	103.5	3.63	83.1	3.93	85.3	6.18

Online resource 2. PAHs concentrations in dry weight (ng g⁻¹), limit of detection (LOD) and surrogate recovery (SR, %) found in the tissue of *Crassostrea rhizophorae* (CR), *Mytella charruana* (MC), and *Anomalocardia flexuosa* (AF) sampled at the study areas and in distinct collection periods. Concentration lower than limit of detection: <LOD; naphthalene: NAP, acenaphthene: ACE, acenaphthylene: ACEN, phenanthrene: PHE, fluorene: FLU, anthracene: ANT, fluoranthene: FLT, pyrene: PYR, benz[a]anthracene: BaA, chrysene: CHRY, benzo[b]fluoranthene: BbF, benzo[k]fluoranthene: BkF, benzo[a]pyrene: BaP, dibenz[a,h]anthracene: DBahA, indeno[1,2,3-cd]pyrene: IP, benzo[ghi]perylene: BghiP

			NAP	ACE	ACEN	FLU	PHE	ANT	FLT	PYR	BaA	CHRY	BbF	BkF	BaP	DBahA	IP	BghiP	SR
		LOD	1.22	1.26	1.87	0.95	1.41	1.37	1.67	1.10	1.03	1.54	1.09	1.48	1.48	1.42	1.46	1.50	-
Belmonte	MC	Aug/2020	20.7	7.56	11.1	4.12	238	9.13	8.40	20.1	31.0	9.55	5.90	12.7	148	1.87	5.14	2.89	105
		Feb/2021	22.2	3.99	7.40	7.37	427	8.19	<LOD	<LOD	<LOD	<LOD	<LOD	5.21	1.62	1.81	27.0	0.37	92
	AF	Aug/2020	33.4	82.3	2.87	2.20	23.6	<LOD	6.20	9.88	8.23	11.4	2.37	17.9	53.2	5.89	2.53	5.31	106
		Feb/2021	22.9	29.0	7.96	2.71	30.7	<LOD	7.50	15.6	12.2	25.6	<LOD	19.5	33.9	8.25	5.30	6.59	91
	CR	Aug/2020	34.5	7.74	20.1	2.82	64.4	8.62	5.08	8.46	32.8	5.96	2.63	7.36	13.8	<LOD	3.95	1.66	109
		Feb/2021	4.83	<LOD	<LOD	1.46	14.8	<LOD	3.68	10.9	1.73	<LOD	2.42	<LOD	<LOD	<LOD	<LOD	<LOD	66
Siribinha	MC	Sep/2020	29.2	3.13	19.9	1.51	31.1	6.81	5.49	7.89	38.6	8.89	2.43	<LOD	5.25	1.55	10.8	1.74	109
		Aug/2020	3.83	2.53	21.0	1.20	5.57	<LOD	1.68	5.53	<LOD	<LOD	1.86	<LOD	<LOD	<LOD	<LOD	<LOD	69
	AF	Sep/2020	8.00	2.41	50.3	3.20	40.7	<LOD	13.2	50.2	<LOD	<LOD	1.77	<LOD	<LOD	14.1	<LOD	<LOD	92
		Sep/2020	8.17	<LOD	67.3	1.66	21.8	<LOD	5.98	18.8	<LOD	1.72	2.29	<LOD	1.64	12.7	<LOD	<LOD	89
Itacaré	CR	Apr/2021	4.00	9.40	6.71	1.37	62.5	1.98	8.13	43.3	7.97	16.7	9.93	9.02	7.55	7.02	15.3	7.45	78
		Sep/2020	4.21	<LOD	<LOD	<LOD	6.9	<LOD	2.39	6.76	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	103
	AF	Sep/2020	2.73	<LOD	<LOD	<LOD	5.32	<LOD	2.16	4.95	3.22	<LOD	2.24	<LOD	6.33	<LOD	<LOD	<LOD	101
		Sep/2020	7.60	3.16	6.62	2.31	14.3	<LOD	3.45	8.67	1.88	2.29	2.73	<LOD	<LOD	12.1	<LOD	1.55	79
Boipeba	CR	Feb/2021	11.3	4.83	3.47	1.40	33.9	1.44	14.3	39.8	<LOD	<LOD	3.43	<LOD	<LOD	<LOD	<LOD	2.03	76
		Sep/2020	19.0	2.43	10.2	1.23	27.0	1.61	10.7	28.0	<LOD	<LOD	5.77	<LOD	<LOD	<LOD	<LOD	5.38	126
São Paulo River	AF	Sep/2020	12.6	1.67	71.8	<LOD	20.2	1.4	6.13	15.8	2.43	3.31	5.59	1.87	<LOD	<LOD	<LOD	2.71	127
		Sep/2020	10.7	10.2	245	1.06	20.4	5.16	6.11	13.9	4.07	6.33	13.9	1.84	<LOD	2.99	3.05	10.3	76
	CR	Apr/2021	9.73	2.37	6.82	1.85	17.3	5.19	8.09	15.3	<LOD	2.75	13.5	1.49	<LOD	<LOD	9.19	2.90	59
		Apr/2021	13.7	3.03	16.3	2.46	20.4	6.91	10.6	18.5	1.19	6.56	16.8	2.07	<LOD	<LOD	8.98	6.43	112
Canavieiras	CR	Feb/2021	29.6	3.50	15.7	6.50	30.7	<LOD	31.3	91.6	5.45	10.4	4.10	1.61	33.7	1.68	3.38	45.7	115
Cumuruxatiba	CR	Feb/2021	25.9	<LOD	110	2.86	22.9	<LOD	6.73	10.5	<LOD	4.40	4.81	<LOD	<LOD	<LOD	<LOD	4.23	102

Online resource 3. PAHs concentrations in wet weight (ng g⁻¹) found in the tissue of *Crassostrea rhizophorae* (CR), *Mytella charruana* (MC), and *Anomalocardia flexuosa* (AF) sampled at the study areas and in distinct collection periods. Concentration lower than limit of detection: <LOD; naphthalene: NAP, acenaphthene: ACE, acenaphthylene: ACEN, phenanthrene: PHE, fluorene: FLU, anthracene: ANT, fluoranthene: FLT, pyrene: PYR, benz[a]anthracene: BaA, chrysene: CHRY, benzo[b]fluoranthene: BbF, benzo[k]fluoranthene: BkF, benzo[a]pyrene: BaP, dibenz[a,h]anthracene: DBahA, indeno[1,2,3-cd]pyrene: IP, benzo[ghi]perylene: BghiP

			NAP	ACE	ACEN	FLU	PHE	ANT	FLT	PYR	BaA	CHRY	BbF	BkF	BaP	DBahA	IP	BghiP
Belmonte	MC	Aug/2020	4.15	1.51	2.22	0.82	47.63	1.83	1.68	4.02	6.19	1.91	1.18	2.54	29.68	0.37	1.03	0.58
		Feb/2021	4.44	0.80	1.48	1.47	85.46	1.64	<LOD	<LOD	<LOD	<LOD	<LOD	1.04	0.32	0.36	5.39	0.07
	AF	Aug/2020	6.68	16.4	0.57	0.44	4.73	<LOD	1.24	1.98	1.65	2.28	0.47	3.59	10.6	1.18	0.51	1.06
		Feb/2021	4.57	5.80	1.59	0.54	6.13	<LOD	1.50	3.12	2.44	5.13	<LOD	3.90	6.77	1.65	1.06	1.32
	CR	Aug/2020	6.21	1.39	3.62	0.51	11.59	1.55	0.91	1.52	5.91	1.07	0.47	1.32	2.48	<LOD	0.71	0.30
		Aug/2020	0.87	<LOD	<LOD	0.26	2.67	<LOD	0.66	1.96	0.31	<LOD	0.44	<LOD	<LOD	<LOD	<LOD	<LOD
		Feb/2021	5.26	0.56	3.59	0.27	5.60	1.23	0.99	1.42	6.95	1.60	0.44	0.33	0.95	0.28	1.94	0.31
		Feb/2021	5.26	0.56	3.59	0.27	5.60	1.23	0.99	1.42	6.95	1.60	0.44	0.33	0.95	0.28	1.94	0.31
Siribinha	MC	Sep/2020	0.77	0.51	4.20	0.24	1.11	<LOD	0.34	1.11	<LOD	<LOD	0.37	<LOD	<LOD	<LOD	<LOD	<LOD
	AF	Sep/2020	1.60	0.48	10.06	0.64	8.14	<LOD	2.64	10.05	<LOD	<LOD	0.35	<LOD	<LOD	2.81	<LOD	<LOD
	CR	Sep/2020	1.63	<LOD	12.12	0.30	3.92	<LOD	1.08	3.39	<LOD	0.31	0.41	<LOD	0.29	2.28	<LOD	<LOD
		Apr/2021	0.80	1.69	1.21	0.25	11.24	0.36	1.46	7.79	1.44	3.01	1.79	1.62	1.36	1.26	2.75	1.34
Itacaré	MC	Sep/2020	0.84	<LOD	<LOD	<LOD	1.38	<LOD	0.48	1.35	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
	AF	Sep/2020	0.55	<LOD	<LOD	<LOD	1.06	<LOD	0.43	0.99	0.64	<LOD	0.45	<LOD	1.27	<LOD	<LOD	<LOD
	CR	Sep/2020	1.37	0.57	1.19	0.42	2.57	<LOD	0.62	1.56	0.34	0.41	0.49	<LOD	<LOD	2.18	<LOD	0.28
		Feb/2021	2.04	0.87	0.62	0.25	6.10	0.26	2.57	7.16	<LOD	<LOD	0.62	<LOD	<LOD	<LOD	<LOD	0.36
Boipeba	CR	Sep/2020	3.41	0.44	1.83	0.22	4.86	0.29	1.93	5.03	<LOD	<LOD	1.04	<LOD	<LOD	<LOD	<LOD	0.97
São Paulo River	AF	Sep/2020	2.53	0.33	14.36	<LOD	4.04	0.28	1.23	3.16	0.49	0.66	1.12	0.37	<LOD	<LOD	<LOD	0.54
	CR	Sep/2020	1.93	1.84	44.12	0.19	3.67	0.93	1.10	2.51	0.73	1.14	2.50	0.33	<LOD	0.54	0.55	1.85
		Apr/2021	1.75	0.43	1.23	0.33	3.12	0.93	1.46	2.75	<LOD	0.49	2.44	0.27	<LOD	<LOD	1.66	0.52
		Apr/2021	2.46	0.55	2.93	0.44	3.67	1.24	1.91	3.33	0.21	1.18	3.02	0.37	<LOD	<LOD	1.62	1.16
Canavieiras	CR	Feb/2021	5.32	0.63	2.82	1.17	5.53	<LOD	5.64	16.50	0.98	1.87	0.74	0.29	6.06	0.30	0.61	8.22
Cumuruxatiba	CR	Feb/2021	4.66	<LOD	19.77	0.51	4.13	<LOD	1.21	1.90	<LOD	0.79	0.87	<LOD	<LOD	<LOD	<LOD	0.76

(Wet weight concentrations were obtained by conversion from dry weight values; therefore, LOD values correspond to those determined for dry weight analyse)