

Supplementary Materials

Health Risk Assessment of PAHs from Estuarine Sediments in the South of Italy

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Table S1. PAH levels (ng g⁻¹ dw) with SD (Standard Deviation) detected in sediment samples from Sele River

Sampling Location		Concentration (ng g ⁻¹ dry weight)														
ID	NaP	Acy	Ace	Flu	Phe	Ant	Fla	Pyr	BaA	BbF	Chr	BkF	BaP	DahA	BghiP	IcdP
1	47.65 ±	19.01 ±	30.38 ±	37.23 ±	51.03 ±	31.08 ±	74.63 ±	55.25 ±	42.12 ±	78.34 ±	36.26 ±	39.12 ±	101.67 ±	70.65 ±	55.35 ±	75.13
	3.34	3.17	4.52	3.15	4.71	4.07	7.24	5.58	5.89	8.04	3.38	5.61	6.87	6.95	4.51	± 6.38
2	5.08 ±	23.25 ±	16.27 ±	24.31 ±	27.14 ±	27.55 ±	36.02 ±	17.32 ±	21.42 ±	84.28 ±	26.43 ±	84.23 ±	86.56 ±	104.23 ±	65.56 ±	12.45
	1.28	4.05	2.10	2.63	2.36	3.56	6.39	3.27	4.39	7.43	2.91	5.32	5.19	8.87	5.45	± 1.98
3	70.64 ±	11.26 ±	14.16 ±	13.17 ±	12.11 ±	6.58	2.43	9.23	27.68 ±	78.64 ±	24.79 ±	84.77 ±	146.46 ±	115.68 ±	46.12 ±	30.89
	5.07	2.88	1.85	1.82	2.25	± 1.78	± 0.78	± 2.15	3.69	5.27	3.47	5.04	9.34	9.10	3.28	± 4.34
4	62.10 ±	10.25 ±	13.21 ±	13.88 ±	13.73 ±	12.12 ±	55.24 ±	40.20 ±	43.12 ±	112.21 ±	31.11 ±	98.68 ±	106.62 ±	87.69 ±	72.46 ±	49.75
	4.16	2.16	1.57	1.74	3.19	2.50	6.11	3.98	5.12	9.56	4.60	6.27	8.06	6.24	6.80	± 6.28
5	5.25	19.48 ±	19.45 ±	23.79 ±	28.07 ±	19.09 ±	0.70	9.44	17.33 ±	66.63 ±	23.12 ±	67.10 ±	81.00 ±	63.12 ±	46.23 ±	10.63
	± 0.95	3.07	2.96	3.41	3.56	3.22	± 0.36	± 1.66	2.28	4.10	3.45	3.84	7.36	6.32	3.57	± 2.25
6	4.32	10.64 ±	12.07 ±	13.35 ±	14.56 ±	17.25 ±	38.21 ±	8.47	18.26 ±	92.47 ±	23.10 ±	106.48 ±	154.99 ±	126.58 ±	3.69	14.35
	± 1.97	2.04	1.83	2.47	2.05	2.16	4.59	± 2.14	3.84	5.63	2.71	7.80	8.75	7.82	± 1.03	± 3.69
7	4.21	7.31	13.02 ±	14.04 ±	14.20 ±	12.75 ±	38.21 ±	12.11 ±	14.95 ±	95.85 ±	14.48 ±	87.81 ±	96.45 ±	143.36 ±	17.12 ±	14.33
	± 1.18	± 1.85	2.24	3.06	1.97	1.90	4.25	3.18	3.67	7.14	2.96	6.65	6.30	6.41	3.22	± 2.47
8	4.50	14.34 ±	9.07	12.26 ±	15.24 ±	13.69 ±	13.12 ±	5.05	16.25 ±	53.86 ±	23.35 ±	84.37 ±	44.04 ±	71.20 ±	8.13	3.79
	± 1.75	2.79	± 1.40	2.45	3.12	2.39	3.12	± 1.64	4.17	6.80	3.64	5.47	3.27	7.80	± 2.56	± 1.10
9	3.53	8.46	5.19	6.96	33.09 ±	6.09	45.85 ±	6.64	13.82 ±	91.02 ±	11.43 ±	87.76 ±	126.46 ±	95.34 ±	7.79	2.65
	± 0.84	± 1.73	± 1.17	± 1.83	4.18	± 2.47	5.61	± 2.27	2.52	7.93	2.88	7.05	8.18	8.63	± 1.36	± 0.97
10	2.23	12.60 ±	14.14 ±	5.45	16.08 ±	10.54 ±	70.07 ±	69.19 ±	48.87 ±	76.00 ±	33.23 ±	76.20 ±	98.34 ±	85.90 ±	10.56 ±	3.01
	± 0.96	3.14	2.89	± 1.79	1.75	3.04	6.50	7.22	6.81	4.55	4.27	5.10	7.44	8.46	2.20	± 1.34

Table S2. PAH concentrations (ng g⁻¹ dw) with SD (Standard Deviation) found in sediment samples from the Sarno River (April 2008) [39].

Sampling Location	Concentration (ng g ⁻¹ dry weight)															
ID	NaP	Acy	Ace	Flu	Phe	Ant	Fla	Pyr	BaA	BbF	Chr	BkF	BaP	DahA	BghiP	IcdP
1	0.68 ± 0.35	0.28 ± 0.11	0.20 ± 0.12	0.24 ± 0.08	0.59 ± 0.21	0.36 ± 0.15	0.37 ± 0.15	0.18 ± 0.07	0.22 ± 0.10	0.23 ± 0.12	0.18 ± 0.05	0.30 ± 0.14	0.20 ± 0.12	0.39 ± 0.14	0.71 ± 0.39	0.48 ± 0.21
2	8.41 ± 2.36	6.26 ± 1.19	6.19 ± 1.31	7.27 ± 1.48	7.44 ± 1.35	7.16 ± 1.35	7.08 ± 1.63	4.34 ± 1.22	1.39 ± 0.48	7.33 ± 1.17	1.15 ± 0.48	7.26 ± 1.57	7.05 ± 1.87	7.65 ± 1.25	7.59 ± 1.12	7.69 ± 1.45
3	14.02 ± 3.19	11.36 ± 2.30	15.14 ± 2.06	12.14 ± 2.62	12.01 ± 2.25	14.28 ± 2.18	14.38 ± 2.71	14.39 ± 3.41	7.26 ± 1.07	13.04 ± 2.35	4.25 ± 1.25	14.49 ± 2.69	14.26 ± 2.73	14.89 ± 2.48	15.02 ± 2.28	14.22 ± 2.09
4	22.27 ± 4.93	22.10 ± 3.64	23.20 ± 3.48	22.29 ± 3.19	22.71 ± 2.56	23.25 ± 3.38	24.04 ± 3.68	23.31 ± 4.64	17.75 ± 2.30	22.09 ± 3.48	9.02 ± 2.32	25.13 ± 3.87	21.71 ± 3.70	27.85 ± 3.04	22.31 ± 3.45	23.32 ± 2.37
5	15.37 ± 3.25	1.77 ± 0.63	200.68 ± 8.92	14.55 ± 2.37	20.81 ± 3.69	15.90 ± 1.69	17.70 ± 2.06	17.67 ± 2.31	15.78 ± 1.87	20.21 ± 2.56	9.15 ± 1.78	17.44 ± 3.15	20.49 ± 2.97	20.27 ± 3.33	19.44 ± 2.64	19.37 ± 2.18
6	21.67 ± 4.89	18.35 ± 3.88	205.84 ± 9.13	19.18 ± 2.91	20.51 ± 2.86	20.26 ± 3.24	21.17 ± 3.55	21.06 ± 2.68	20.07 ± 2.49	21.14 ± 3.69	5.90 ± 1.36	23.21 ± 2.78	21.31 ± 3.46	22.47 ± 4.16	20.57 ± 3.81	19.02 ± 2.60
7	13.41 ± 2.37	5.44 ± 1.27	3.65 ± 1.02	9.44 ± 1.40	18.86 ± 3.04	6.47 ± 1.15	3.53 ± 1.27	2.75 ± 1.15	12.49 ± 2.05	15.11 ± 1.44	5.82 ± 0.98	22.54 ± 2.39	9.60 ± 2.05	17.09 ± 1.98	17.02 ± 2.66	17.21 ± 1.78
8	26.46 ± 4.65	27.32 ± 4.03	276.58 ± 7.57	24.91 ± 3.85	25.47 ± 3.97	27.55 ± 3.60	25.32 ± 3.58	25.78 ± 3.47	20.98 ± 2.31	27.20 ± 3.61	14.59 ± 1.17	25.39 ± 3.97	25.92 ± 4.23	23.48 ± 3.11	26.17 ± 4.03	28.21 ± 2.27
9	26.83 ± 5.68	26.24 ± 3.85	274.99 ± 9.36	26.54 ± 4.23	27.73 ± 4.32	28.17 ± 3.54	31.02 ± 4.82	28.27 ± 4.56	27.67 ± 3.82	29.02 ± 2.87	6.12 ± 1.78	29.36 ± 4.02	30.52 ± 4.51	29.03 ± 2.18	29.04 ± 3.28	28.61 ± 3.15
10	11.31 ± 2.66	2.33 ± 0.72	1.74 ± 0.50	10.74 ± 1.47	10.47 ± 1.23	13.29 ± 1.02	13.46 ± 2.30	9.11 ± 1.38	21.30 ± 3.02	10.55 ± 1.94	2.88 ± 0.45	11.04 ± 2.32	11.21 ± 2.33	11.16 ± 1.25	11.04 ± 1.59	10.29 ± 1.77
11	4.12 ± 3.07	2.12 ± 0.58	1.45 ± 0.71	3.58 ± 1.09	8.65 ± 1.17	2.25 ± 0.63	2.46 ± 1.01	0.96 ± 0.32	8.04 ± 1.25	1.99 ± 0.58	1.45 ± 0.69	1.73 ± 0.86	3.45 ± 1.31	7.37 ± 1.06	6.07 ± 1.23	10.81 ± 2.05
12	2.08 ± 0.95	2.66 ± 1.01	1.86 ± 0.66	2.59 ± 0.97	9.18 ± 2.03	2.85 ± 0.96	3.32 ± 1.23	2.18 ± 0.59	24.19 ± 4.11	3.25 ± 1.20	3.30 ± 0.75	2.32 ± 1.28	2.25 ± 0.95	6.39 ± 1.25	7.47 ± 1.20	11.38 ± 1.54
13	4.02 ± 1.54	1.35 ± 0.60	1.36 ± 0.47	2.13 ± 0.82	3.29 ± 0.76	1.25 ± 0.49	2.02 ± 0.75	1.18 ± 0.35	4.26 ± 1.63	4.26 ± 1.75	1.24 ± 0.58	1.14 ± 0.43	1.36 ± 0.69	1.97 ± 0.88	4.48 ± 1.15	5.06 ± 0.95

Table S3. PAH levels (ng g⁻¹ dry weight) with SD (Standard Deviation) detected in sediment samples from Volturno River [40].

Sampling Location		Concentration (ng g ⁻¹ dry weight)														
ID	NaP	Acy	Ace	Flu	Phe	Ant	Fla	Pyr	BaA	BbF	Chr	BkF	BaP	DahA	BghiP	IcdP
1	50.77 ± 4.58	22.05 ± 3.75	33.73 ± 3.91	40.17 ± 4.19	54.73 ± 5.27	35.67 ± 3.03	62.74 ± 4.12	56.64 ± 4.06	42.40 ± 3.89	81.43 ± 4.62	38.01 ± 2.43	42.25 ± 3.84	104.74 ± 4.52	73.55 ± 4.20	62.27 ± 4.31	70.96 ± 3.15
2	8.11 ± 2.12	26.62 ± 4.18	19.22 ± 2.39	27.22 ± 2.30	33.43 ± 4.15	32.11 ± 2.99	30.79 ± 2.41	19.10 ± 1.27	23.46 ± 1.97	87.49 ± 3.19	23.04 ± 2.64	87.31 ± 4.10	89.66 ± 3.49	107.35 ± 4.12	6.18 ± 1.05	15.46 ± 2.24
3	73.78 ± 8.96	14.47 ± 2.33	17.67 ± 3.60	16.38 ± 2.54	15.56 ± 2.34	10.06 ± 2.08	46.22 ± 3.89	12.53 ± 2.15	23.31 ± 2.14	81.76 ± 4.36	20.78 ± 3.10	87.68 ± 2.23	149.56 ± 5.69	118.78 ± 4.76	56.34 ± 3.51	32.64 ± 3.21
4	65.27 ± 5.39	13.63 ± 1.89	16.17 ± 2.88	16.81 ± 3.18	17.25 ± 3.10	14.51 ± 1.45	54.30 ± 2.58	23.58 ± 2.69	29.70 ± 2.38	115.15 ± 5.48	28.33 ± 3.95	101.98 ± 3.75	109.66 ± 4.50	90.96 ± 3.41	81.92 ± 4.03	43.05 ± 2.26
5	8.72 ± 1.67	22.59 ± 3.96	22.72 ± 3.99	26.90 ± 2.49	28.95 ± 3.62	24.09 ± 2.16	18.94 ± 1.78	12.27 ± 1.44	20.23 ± 2.06	69.73 ± 3.47	18.65 ± 2.50	70.32 ± 4.69	84.00 ± 3.19	66.22 ± 3.17	5.39 ± 1.10	<LOQ
6	7.49 ± 1.34	13.52 ± 2.55	15.11 ± 2.48	16.35 ± 1.93	17.41 ± 2.13	18.55 ± 2.94	29.38 ± 3.12	11.69 ± 1.07	20.15 ± 2.28	95.85 ± 3.89	19.32 ± 2.32	109.78 ± 3.01	157.86 ± 4.58	129.76 ± 4.23	7.01 ± 1.43	17.33 ± 1.87
7	7.36 ± 2.03	10.26 ± 2.12	16.22 ± 2.92	17.19 ± 2.28	18.49 ± 2.52	15.77 ± 1.60	32.30 ± 3.25	14.93 ± 2.05	17.63 ± 1.49	98.91 ± 4.18	16.03 ± 2.14	90.79 ± 4.46	99.51 ± 3.92	146.57 ± 5.04	20.99 ± 3.21	17.23 ± 2.05
8	7.81 ± 1.23	17.35 ± 3.27	12.18 ± 1.35	15.70 ± 1.44	18.92 ± 1.66	17.32 ± 2.38	16.23 ± 1.30	8.64 ± 1.19	19.00 ± 2.14	56.78 ± 2.49	17.88 ± 3.09	87.53 ± 5.18	47.04 ± 2.15	74.20 ± 4.25	12.15 ± 1.48	6.10 ± 1.02
9	6.79 ± 1.20	11.85 ± 1.19	8.20 ± 1.32	9.90 ± 1.15	3.65 ± 1.45	9.37 ± 1.13	42.55 ± 3.68	9.30 ± 1.77	14.45 ± 1.78	94.20 ± 4.70	13.95 ± 1.49	90.63 ± 4.13	129.61 ± 4.26	98.44 ± 4.89	12.18 ± 1.27	5.38 ± 0.95
10	5.30 ± 1.36	15.76 ± 1.87	17.30 ± 2.15	8.65 ± 1.09	18.29 ± 2.27	12.87 ± 1.64	66.43 ± 4.14	59.65 ± 3.09	40.34 ± 3.28	79.04 ± 4.55	32.02 ± 3.05	79.98 ± 4.49	101.65 ± 4.37	88.95 ± 3.36	14.14 ± 2.25	5.93 ± 1.41