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SUPPLEMENTARY MATERIAL TO

Actual contamination of the Danube and Sava Rivers at Belgrade (2013)

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TABLE S-I. Locations and parameters measured during sampling as well as the *TOC* values of the five water samples

Sample No.	Location	GPS Coordinates	Water temp., °C	Transparency m	pH	O_2 content mg L^{-1}	O_2 saturation %	Conductivity µS cm^{-1}	*TOC* mg L^{-1}
R1	Sava River – Zabran	N 44°40′06.0″ E0 20°14′40.0″	6.7	0.50	8.3	11.7	96	393	2.5
R2	Sava River – Makiš	N 44°45′58.0″ E0 20°21′24.0″	6.5	0.40	8.2	11.3	92	374	2.8
R3	Sava River – Kapetanija	N 44°49′59,4″ E0 20°26′72.0″	7.3	0.45	8.3	10.6	88	379	3.0
R4	Danube River – Batajnica	N 44°55′21.0″ E0 20°19′23.0″	5.5	0.65	7.8	11.8	94	431	4.1
R5	Danube River – Vinča	N 44°46′09.0″ E0 20°37′30.0″	7.3	0.55	8.3	10.9	91	387	3.2

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TABLE S-II. Concentrations of the major ions (in mg L^{-1}) in the surface water samples

Sample No.	Location	Ammonium	Sodium	Magnesium	Fluoride	Chloride	Nitrate	Sulphate
R1	Sava River - Zabran	< 0.1	20.9	511	1.7	18.0	13.8	34.3
R2	Sava River - Makiš	0.14	25.3	534	2.3	19.8	14.4	24.6
R3	Sava River - Kapetanija	0.13	27.1	568	1.6	21.9	16.0	36.6
R4	Danube River - Batajnica	0.12	81.2	613	2.4	54.8	32.5	73.3
R5	Danube River - Vinča	< 0.1	20.1	612	2.9	33.2	19.6	47.5

Table S-III. Organic contaminants identified in the surface water samples of the Danube and Sava Rivers (+ present in low amounts, + + present in high amounts)

Compound	R1	R2	R3	R4	R5
Pharmaceuticals					
Carbamazepine	–	–	+	+	+
Personal care products					
Methylbenzophenone	+	+	+ +	+ +	+ +
4-Methoxy-2-ethylhexylcinnamate	+	+	+	+	+
N,*N*,*N*′,*N*′-Tetraacetylethylene diamine, TAED	+	+ +	+ +	+ +	+ +
Galaxolide	+ +	+ +	+ +	+ +	+ +
Tonalide	+ +	+ +	+ +	+ +	+ +
Methyl dihydrojasmonate	+	+	+ +	+ +	+ +
α-Cadinol	+	+	+	+	+
Lilial	+	+	+	+	+
Technical additives, plasticizers					
2,6-Di-*tert*-butylhydroxytoluene	+ +	+ +	+	+ +	–
2,6-Di-*tert*-butyl-1,4-benzoquinone	+ +	+ +	+ +	+ +	+
2,2,4-Trimethyl-1,3-pentandioldiisobutyrate, TXIB	+ +	+ +	+ +	+ +	+ +
2-Ethylhexylbenzoate	+	+	+	+	+
1-Hydroxycyclohexyl phenyl ketone, Irgacure 184	+ +	+	+ +	+ +	+
N-Butylbenzenesulphonamide, NBBS	+	+	+	+ +	+
Benzothiazol	–	+	+	+ +	+ +
Diacetin	+	+ +	+ +	+ +	+ +
N,*N*-Dibutylformamide	+	+	+	+	+ +
2,4,7,9-Tetramethyl-5-decyne-4,7-diol, TMDD	+	+	+	+ +	+ +
Tris(2-chloroethyl)phosphate, TCEP	–	+	+	+ +	+
Tris(2-chloro-*iso*-propyl)-phosphate, TCPP	–	+	+	+ +	+
Tri-*n*-butylphosphate, TBP	+	+	+	+	+ +
Dimethylphthalate	+	+	+ +	+ +	+ +
Diethylphthalate	+ +	+ +	+ +	+ +	+ +

Diisobutylphthalate	+ +	+ +	+ +	+ +	+ +
2-Ethylhexylmethylphthalate	–	+	–	+	–
Benzylbutylphthalate	+	+	+	+	+
Bis(2-ethylhexyl)phthalate, DEHP	+ +	+ +	–	+ +	+ +
Pesticides					
Acetochlor	–	–	–	–	–
Uvazol 236	–	+	+	+	+
Desethylterbutylazine	+ +	+ +	+	+	–
Lindane, HCH	–	–	–	+	–
Food constituents					
Caffeine	+	+ +	+ +	+ +	+ +
Vitamin E	+	+	+	+	+
Natural products					
Dipropyl disulphide, 1-(*n*-Propyldisulphanyl)propane	+ +	+	+ +	+	+
Dipropyl trisulphide, 1-(*n*-Propylsulfanyldisulfanylpropane)	+	+	+	+	+
Non-specific (unknown application)					
2-Nitro-4-methylphenol	–	+	–	+	+
2-Nitrophenol	+	+	+	+	+
2-Phenoxyethanol	–	+	+	+	+ +
2,6-Di-*tert*-butyl-4-nitrophenol	–	+	+	+	+
N-Benzylformamide	+	+	+	+	+ +
3-Chloroacetophenone	+	–	+ +	+	–
Fluorenone	–	+	–	+	+
Antraquinone	+	+	–	+	–

TABLE S-IV. Content of heavy metals (mg kg^{-1}) in the sediments of the Danube and Sava Rivers compared with Target and Intervention Values (n.d. = not detected; n.v. = no values)

Sample No.	Location	As	Cd	Cr	Cu	Ni	Pb	V	Zn
R1	Sava River – Zabran	9.8	n.d.	116	25.6	121	46.0	56.8	185
R2	Sava River – Makiš	4.8	n.d.	111	12.3	72.0	23.2	41.9	105
R3	Sava River – Kapetanija	11.2	n.d.	124	38.8	107	70.6	67.4	241
R4	Danube River – Batajnica	n.d.	n.d.	38.1	8.0	17.3	12.8	28.3	84.7
R5	Danube River – Vinča	10.4	n.d.	112	37.1	83.6	47.9	74.2	218
Target values	–	29	0.8	100	36	35	85	n.v.	140
Intervention values	–	55	12	380	190	210	530	n.v.	720