

Table S1. List of sampling sites with codes and information for each site.

Site code	Name	Country	Latitude	Longitude	River	Rkm*
JDS4-3	Above Klösterl - Kelheim	DE	48.91761	11.865727	Danube	2415
JDS4-4	Niederalteich - Mühlau	DE	48.77453	13.00914	Danube	2258
JDS4-9	Klosterneuburg	AT	48.33012	16.32987	Danube	1942
JDS4-17	Vének	HU	47.736167	17.781583	Danube	0.1
JDS4-20	Kamenica	SK	47.82608	18.72334	Hron	1.7
JDS4-22	Szob	HU/SK	47.8134	18.863233	Danube	1707
JDS4-23	Budapest upstream - Megyeri Bridge	HU	47.616033	19.101767	Danube	1660
JDS4-24	Budapest downstream - M0 bridge	HU	47.3883	19.004083	Danube	1630
JDS4-27	Paks	HU	46.633733	18.880417	Danube	1532
JDS4-29	Hercegszanto / Batina / Bezdan	HU/HR/RS	45.91455	18.805933	Danube	1434
JDS4-31	Ilok / Backa Palanka	HR/RS	45.231583	19.3606	Danube	1300
JDS4-32	Tiszasziget / Martonoš	HU/RS	46.18552	20.10467	Tisza	163
JDS4-33	Tisza mouth	RS	45.147	15.692	Tisza	1
JDS4-35	Jamena	RS/BA	44.87828	19.08364	Sava	205
JDS4-36	Sava mouth	RS	44.793	20.396067	Sava	7
JDS4-37	Downstream Pancevo	RS	44.814467	20.644433	Danube	1151
JDS4-38	Varvarin	RS	43.74	21.38	Velika Morava	154
JDS4-40	Banatska Palanka / Bazias	RS/RO	44.8051	21.3838	Danube	1073
JDS4-41	Upstream Timok (Rudujevac / Gruia)	RS/RO	44.260917	22.684983	Danube	847
JDS4-44	Iskar mouth	BG	43.7299	24.443817	Iskar	0.3
JDS4-45	Jantra mouth	BG	43.637483	25.569867	Jantra	1
JDS4-47	Downstream Ruse/Giurgiu (Marten)	BG/RO	43.91083	26.06696	Danube	488
JDS4-48	Chiciu/Silistra	RO/BG	44.13693	27.05112	Danube	375

*Rkm stands for river kilometer.

Table S2. Number of *C. fluminea* specimens per sample and analysed particles using micro-ATR-FTIR spectroscopy.

Site code*	Number of specimens	FTIR Samples	Polymer type
JDS4-3	10	JDS4-3_1	Cellophane
		JDS4-3_2	-**
		JDS4-3_3	Polycarbonate
		JDS4-3_4	Polycarbonate
JDS4-4-	2		
JDS4-9	10	JDS4-9_1	-**
		JDS4-9_2	-**
		JDS4-9_3	Polycarbonate
JDS4-17	10	JDS4-17_1	Cellophane
		JDS4-17_2	Polypropylene-polyethylene copolymer
		JDS4-17_4	Polyethylene Terephthalate (PET)
JDS4-20	5	JDS4-20_1	Polycarbonate
		JDS4-20_2	Polycarbonate
		JDS4-20_3	Polycarbonate
JDS4-22	10		
JDS4-23	9		
JDS4-24	10	JDS4-24_1	Polyethylene Terephthalate (PET)
		JDS4-24_2	Polyethylene Terephthalate (PET)
		JDS4-24_3	Polypropylene-polyethylene copolymer
		JDS4-24_4	Polyethylene Terephthalate (PET)
JDS4-27	10	JDS4-27_1	-**
		JDS4-27_2	Polypropylene-polyethylene copolymer
		JDS4-27_3	Polyethylene Terephthalate (PET)
		JDS4-27_4	Polycarbonate
JDS4-29	10	JDS4-29_1	-**
		JDS4-29_2	Polycarbonate
		JDS4-29_3	Nylon (Polyamide)
		JDS4-29_4	Polyethylene Terephthalate (PET)
JDS4-31	10	JDS4-31_1	Polyethylene Terephthalate (PET)
		JDS4-31_2	Polyethylene Terephthalate (PET)
		JDS4-31_3	5,8,11,14,17-eicosapentaenoic acid
JDS4-32	10		
JDS4-33	10		
JDS4-35	10	JDS4-35_1	Polyethylene Terephthalate (PET)
		JDS4-35_2	Polyethylene Terephthalate (PET)
		JDS4-35_3	Polyethylene Terephthalate (PET)
JDS4-36	10		

JDS4-37	10	JDS4-37_1	Polyethylene Terephthalate (PET)
		JDS4-37_2	Polyethylene Terephthalate (PET)
		JDS4-37_3	Polyethylene Terephthalate (PET)
JDS4-38	10		
JDS4-40	10		
JDS4-41	10	JDS4-41_1	Polyethylene Terephthalate (PET)
		JDS4-41_2	Polyethylene Terephthalate (PET)
		JDS4-41_3	Polyethylene Terephthalate (PET)
JDS4-44	10	JDS4-44_1	Polycarbonate
		JDS4-44_2	-**
		JDS4-44_3	Polycarbonate + inorganic
JDS4-45	10		
JDS4-47	10	JDS4-47_1	Polyethylene Terephthalate (PET)
		JDS4-47_2	Polycarbonate
		JDS4-47_3	Polycarbonate
JDS4-48	10	JDS4-48_1	Polyethylene Terephthalate (PET)
		JDS4-48_2	Polyethylene Terephthalate (PET)
		JDS4-48_3	Polyethylene Terephthalate (PET)

*Site codes are described in Supplementary Table S1.

** Particles were identified as inorganic material.

Table S3. Description of the analyzed particles.

Polymer type	Subcategory	Number of particles	Shape	Average particle size (mm)	SD
Cellophane	transparent	2	irregular (film)	0.34	0.14
Polycarbonate	black	3	triangular	0.11	0.05
	red	2	irregular	0.34	0.27
	blue	4	Square and irregular film/ foil	0.095	0.03
	transparent	2	irregular (film)	0.59	0.04
	green	1	irregular	0.18	
Polyethylene Terephthalate (PET)	transparent	21	irregular (film)	0.82	0.33
Polypropylene-polyethylene copolymer	transparent	3	irregular (film)	0.51	0.17
Nylon (Polyamide)	transparent	1	irregular (film)	0.28	
-	brown	1	cubic	0.26	
	white	1	cubic	0.81	
	red	1	irregular	0.32	
	transparent	3	irregular	0.24	0.08
5,8,11,14,17-eicosapentaenoic acid	transparent	1	cubic	0.6	