Figure S1. The map of the Mrežnica River in Croatia in the vicinity of the former textile factory in Duga Resa town, with marked sampling sites: 1 – reference site upstream from the former factory (REF); 2 – location in front of the former Duga Resa factory (DRF).

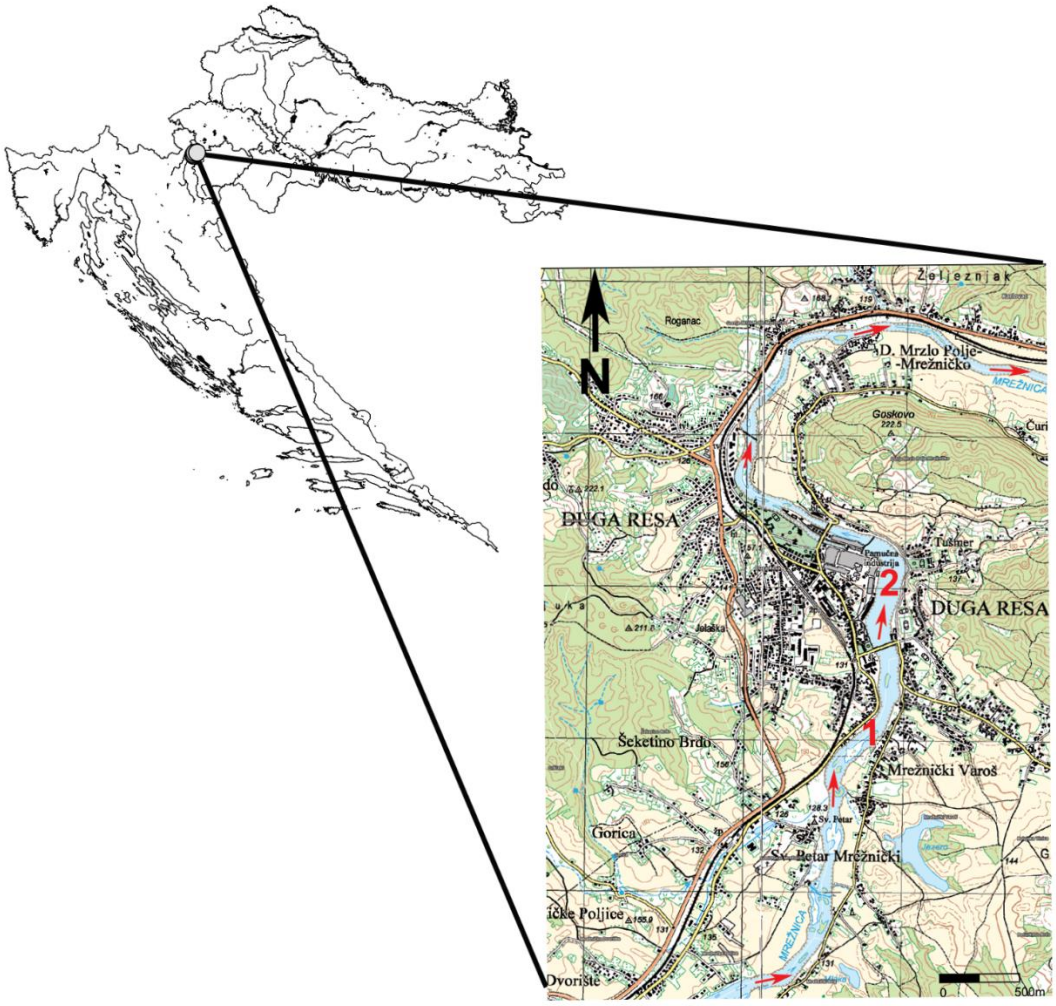

Table S1. Overview of the number of caught northern pike specimens and their biometric characteristics at the two sites (REF – upstream reference site; DRF – site in front of the former textile factory in Duga Resa town) in the two sampling campaigns (April and September 2021). The results for body mass, total length, Fulton condition index (FCI), and gonadosomatic index (GSI) are presented as mean±standard deviation, with minimum-maximum in brackets.

	April 2021		**September 2021**	
	REF	**DRF**	**REF**	**DRF**
Number of sampled fish	16	15-16*	16	11
Body mass / g	120±66 (50–325)	296±175 (30.0–610)	352±183 (95.0–610)	364±158 (150–625)
Total length / cm	25.3±4.0 (19.0–35.5)	33.5±7.7 (17.0–45.0)	36.4±7.0 (24.5–46.0)	37.4±5.4 (28.5–45.0)
FCI / %	0.989±0.144 (0.756–1.35)	0.923±0.094 (0.750–1.06)	0.922±0.064 (0.823–1.11)	0.932±0.041 (0.870–1.02)
GSI / %	0.572±0.262 (0.235–1.00)	0.417±0.267 (0.161–1.17)	1.83±0.79 (0.695–3.23)	1.42±0.97 (0.327–3.30)
Sex (F/M/ND)**	2/12/2	6/9/1	5/11/0	7/4/0
Age (0+/1+/2+/3+)	13/2/1/0	4/2/8/2	4/1/6/5	1/0/7/3

*n=15 at DRF site in April 2021 only for GSI (by accidental omission, the gonad mass was not recorded for one fish)
**F=females; M=males; ND=not determined

Table S2. The concentrations of selected 14 elements in the Mrežnica River water (dissolved and particulate) and in the sediments at two sampling sites (REF – reference site; DRF – in front of the former factory in Duga Resa) in the two northern pike sampling campaigns (April 2021 and September 2021) - excerpts from our previously published data (Dragun et al., 2022).

		As	Bi	Co	Cs	Cu	Fe	Mn	Rb	Se	Tl	Zn	K	Mg	Na
		µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	µg L^{-1}	mg L^{-1}	mg L^{-1}	mg L^{-1}
Water (dissolved)	REF 4/21	0.087	-	0.018	0.002	<0.053	1.58	1.48	0.205	0.084	0.003	<0.519	0.339	9.24	1.78
	DRF 4/21	0.070	-	0.020	0.001	0.138	1.92	1.65	0.206	0.106	0.003	<0.519	0.348	9.41	1.76
	REF 9/21	0.298	0.012	0.023	0.001	<0.053	7.96	1.78	0.378	0.072	0.005	<0.519	0.488	15.6	1.24
	DRF 9/21	0.303	<0.001	0.028	0.001	0.113	9.84	1.60	0.385	0.108	0.005	1.05	0.420	14.1	1.18
		µg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	mg g^{-1}	mg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	mg g^{-1}	mg g^{-1}	mg g^{-1}
Water (particulate)	REF 4/21	8.04	0.314	4.85	2.91	8.20	20.4	0.389	21.4	0.648	0.464	68.4	3.23	3.05	0.501
	DRF 4/21	13.5	0.434	8.58	4.97	10.8	37.7	0.482	36.1	1.36	0.780	235	5.66	4.85	0.688
	REF 9/21	4.14	0.144	6.64	1.79	3.91	18.4	2.56	15.1	-	0.302	-	3.00	4.43	0.437
	DRF 9/21	9.63	0.512	13.0	4.57	21.1	31.1	0.767	31.8	-	0.591	-	4.19	5.20	0.320
		µg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	mg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	µg g^{-1}	mg g^{-1}	mg g^{-1}	mg g^{-1}
Sediment	REF 4/21	4.73	0.330	6.23	2.02	19.4	11.7	318	28.0	-	0.356	49.1	3.65	5.44	1.15
	DRF 4/21	6.15	0.253	8.85	3.53	38.4	17.2	295	46.9	-	0.598	94.6	5.80	7.41	1.48
	REF 9/21	3.41	0.254	5.27	1.87	15.3	9.69	220	25.4	-	0.348	36.1	3.14	5.08	0.887
	DRF 9/21	3.79	0.226	5.36	2.06	19.0	10.2	210	27.0	-	0.333	48.5	3.47	5.23	0.928

Table SI.3. The correlations between fish total mass and the concentrations of several metals/metalloids bioaccumulated in the muscle of the northern pike sampled at two sites of the Mrežnica River (REF – reference site upstream of the former textile factory; DRF – location in front of the former textile factory in Duga Resa town) in April and September 2021. The presented results refer to Pearson correlation coefficients ($r_{mass,metal}$), and asterisks indicate different levels of statistical significance (*p<0.05; **p<0.001).

	April 2021		**September 2021**	
	REF	**DRF**	**REF**	**DRF**
Mass range (g)	50.0-325	30.0-610	95.0-610	150-625
As	**-0.707	**-0.775	0.241	0.431
Bi	0.467	0.430	0.201	0.397
Co	*-0.618	-0.452	*-0.608	-0.100
Cs	0.032	0.289	0.235	0.305
Cu	-0.206	-0.107	-0.397	-0.586
Fe	*-0.555	-0.155	-0.215	*-0.689
Mn	0.016	*-0.537	**-0.744	-0.294
Rb	0.012	0.233	0.092	-0.329
Se	0.086	0.124	**0.668	-0.166
Tl	0.008	-0.236	-0.440	-0.001
Zn	-0.432	-0.340	-0.482	-0.320
K	**0.745	-0.245	-0.419	0.196
Mg	*0.629	-0.393	-0.256	0.474
Na	-0.159	-0.087	0.496	-0.149

Table SI.4. The analysis of the influence of age and sex on fish mass (g), gonadosomatic index (GSI, %), and metal/metalloid concentrations (μg g^{-1}: Fe, K, Mg, Na, Rb, Zn; the rest in ng g^{-1}) bioaccumulated in the muscle of the northern pike sampled from the Mrežnica River. The presented results refer to two-way ANOVA (with age and sex as main effects, and estimated interaction) applied to data set gathered for Duga Resa factory site in April 2021 (DRF_{Ap}) and to data set gathered for the reference site in September 2021 (REF_{Sep}). Due to missing group 1-F, for REF_{Sep} effect of age was tested only on males, effect of sex was tested only on age group 2, and the interaction between age and sex was not estimated. The remaining two sets of data (REF_{Ap} and DRF_{Sep}) did not meet the criteria for these tests. The *p* values below 0.05 were considered as statistically significant and presented in bold numbers.

	***p* values**			**Estimated mean values**		**Estimated mean values**		**Estimated mean values**			
	Age	**Sex**	**Interaction**	**Age: 1***	**Age: 2****	**Sex: F**	**Sex: M**	**1-F**	**1-M**	**2-F**	**2-M**
$Mass_{DRF-Ap}$	**0.024**	0.360	0.434	191	396	331	256	260	122	401	390
$Mass_{REF-Sep}$	**0.004**	0.967	-	-	451	-	291	-	134	452	450
GSI_{DRF-Ap}	0.306	0.391	0.164	0.49	0.33	0.34	0.48	0.31	0.67	0.37	0.28
$GSI_{REF-Sep}$	0.248	**0.004**	-	-	1.73	-	2.15	-	1.93	1.08	2.37
As DRF_{Ap}	0.362	0.138	0.061	23.5	17.9	16.1	25.4	12.8	34.2	19.4	16.5
As REF_{Sep}	0.452	0.213	-	-	18.4	-	19.1	-	18.1	16.7	20.2
Bi DRF_{Ap}	0.840	**0.003**	0.191	8.50	8.13	11.7	4.96	13.1	3.89	10.2	6.03
Bi REF_{Sep}	0.479	0.362	-	-	8.25	-	8.53	-	7.56	6.98	9.51
Co DRF_{Ap}	0.784	**0.013**	0.280	1.59	1.51	1.13	1.97	1.01	2.17	1.25	1.77
Co REF_{Sep}	0.062	0.942	-	-	0.93	-	1.15	-	1.37	0.94	0.99
Cs DRF_{Ap}	0.544	0.397	0.058	6.16	6.44	6.50	6.11	5.90	6.44	7.10	5.78
Cs REF_{Sep}	0.111	0.309	-	-	5.89	-	5.77	-	5.45	5.70	6.09
Cu DRF_{Ap}	0.973	0.924	0.626	125	125	124	126	117	132	131	120
Cu REF_{Sep}	0.854	0.305	-	-	92.8	-	96.0	-	96.5	90.1	95.5
Fe DRF_{Ap}	0.481	0.378	0.630	1.11	0.96	0.94	1.13	1.06	1.15	0.81	1.10
Fe REF_{Sep}	0.500	0.985	-	-	1.12	-	1.26	-	1.40	1.11	1.12

*age group 1 includes fish of age 0+ and 1+; **age group 2 includes fish of age 2+ and 3+

Table SI.4.-continued. The analysis of the influence of age and sex on fish mass (g), gonadosomatic index (GSI, %), and metal/metalloid concentrations (μg g^{-1}: Fe, K, Mg, Na, Rb, Zn; the rest in ng g^{-1}) bioaccumulated in the muscle of the northern pike sampled from the Mrežnica River. The presented results refer to two-way ANOVA (with age and sex as main effects, and estimated interaction) applied to data set gathered for Duga Resa factory site in April 2021 (DRF_{Ap}) and to data set gathered for the reference site in September 2021 (REF_{Sep}). Due to missing group 1-F, for REF_{Sep} effect of age was tested only on males, effect of sex was tested only on age group 2, and the interaction between age and sex was not estimated. The remaining two sets of data (REF_{Ap} and DRF_{Sep}) did not meet the criteria for these tests. The *p* values below 0.05 were considered as statistically significant and presented in bold numbers.

	***p* values**			**Estimated mean values**		**Estimated mean values**		**Estimated mean values**			
	Age	**Sex**	**Interaction**	**Age: 1***	**Age: 2****	**Sex: F**	**Sex: M**	**1-F**	**1-M**	**2-F**	**2-M**
Mn DRF_{Ap}	0.434	0.476	0.633	221	170	173	219	183	260	163	178
Mn REF_{Sep}	**0.042**	0.858	-	-	227	-	279	-	326	223	231
Rb DRF_{Ap}	0.818	0.560	0.488	2.68	2.72	2.66	2.75	2.58	2.79	2.73	2.71
Rb REF_{Sep}	0.290	0.421	-	-	3.50	-	3.47	-	3.35	3.41	3.60
Se DRF_{Ap}	0.521	0.238	0.918	164	176	158	182	153	175	163	189
Se REF_{Sep}	**0.007**	0.811	-	-	206	-	187	-	167	204	208
Tl DRF_{Ap}	0.949	0.202	0.094	5.30	5.35	4.77	5.88	3.99	6.61	5.55	5.16
Tl REF_{Sep}	**0.034**	0.920	-	-	3.84	-	4.53	-	5.19	3.82	3.87
Zn DRF_{Ap}	0.416	0.504	0.988	3.65	3.20	3.24	3.61	3.46	3.83	3.02	3.38
Zn REF_{Sep}	0.082	0.988	-	-	2.71	-	2.92	-	3.12	2.71	2.72
K DRF_{Ap}	0.184	0.615	0.282	5234	5056	5178	5113	5338	5131	5017	5095
K REF_{Sep}	0.653	0.530	-	-	4584	-	4652	-	4681	4545	4624
Mg DRF_{Ap}	0.908	0.169	0.927	365	364	355	374	356	375	355	373
Mg REF_{Sep}	0.736	0.461	-	-	327	-	328	-	327	324	330
Na DRF_{Ap}	0.418	0.077	0.856	362	388	345	405	335	389	355	420
Na REF_{Sep}	0.728	0.096	-	-	354	-	314	-	307	387	320

*age group 1 includes fish of age 0+ and 1+; **age group 2 includes fish of age 2+ and 3+