

---

*Supplementary material*

# Dissolved Potentially Toxic Elements (PTEs) in Relation to Depuration Plant Outflows in Adriatic Coastal Waters: A Two Year Monitoring Survey

Federico Girolametti <sup>1,\*</sup>, Matteo Fanelli <sup>1</sup>, Behixhe Ajdini <sup>1</sup>, Cristina Truzzi <sup>1</sup>, Silvia Illuminati <sup>1,\*</sup>, Sabina Susmel <sup>2</sup>, Mauro Celussi <sup>3</sup>, Jadranka Šangulin <sup>4</sup> and Anna Annibaldi <sup>1</sup>

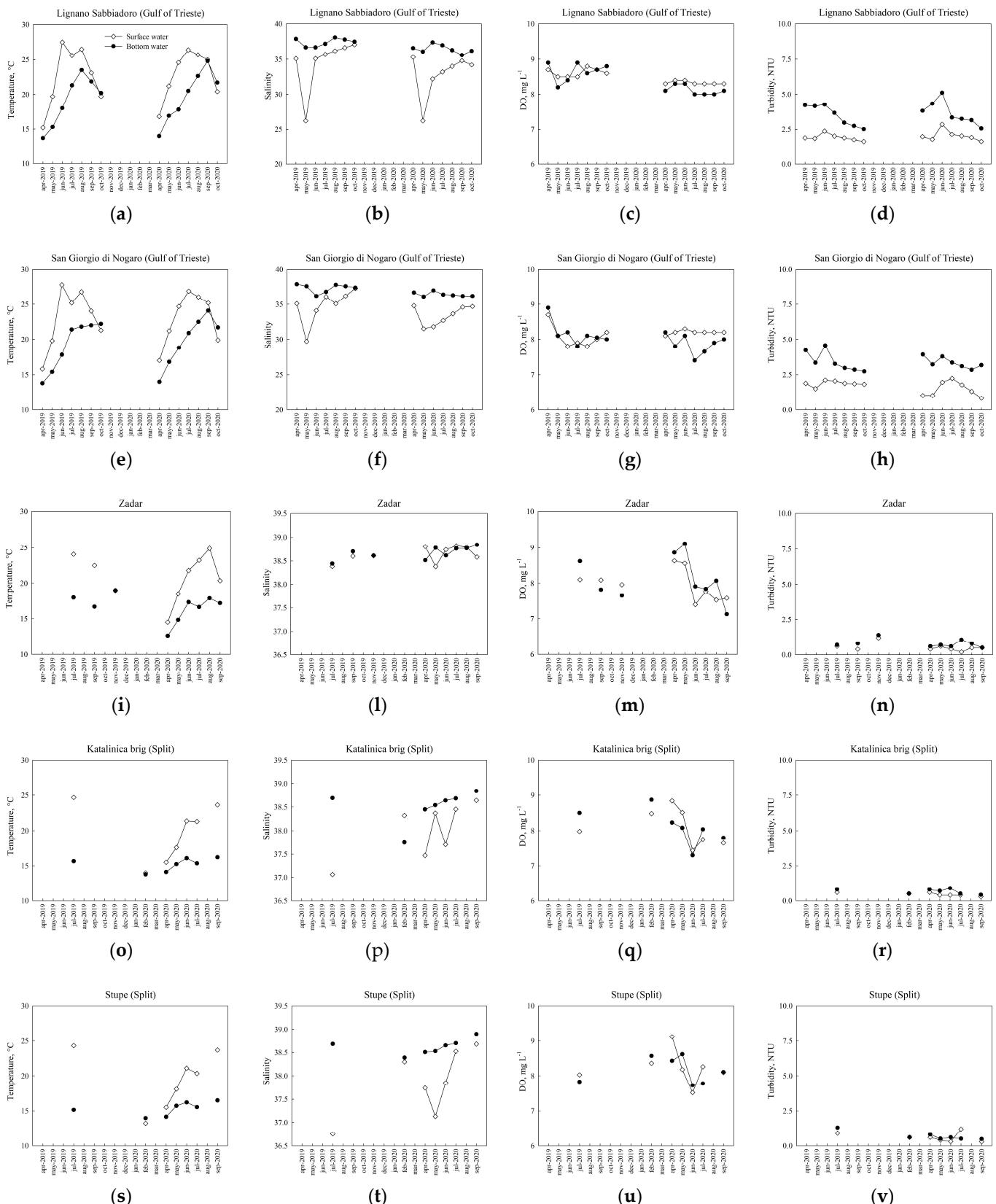
- <sup>1</sup> Department of Life and Environmental Sciences, Università Politecnica delle Marche, Via Brecce Bianche, 60131 Ancona, Italy; m.fanelli@pm.univpm.it (M.F.); b.ajdini@pm.univpm.it (B.A.); c.truzzi@univpm.it (C.T.); a.annibaldi@univpm.it (A.A.)
- <sup>2</sup> Department of Agricultural, Food, Environmental and Animal Sciences (Di4A), University of Udine, Via Sondrio 2/A, 33100 Udine, Italy; sabina.susmel@uniud.it
- <sup>3</sup> National Institute of Oceanography and Applied Geophysics—OGS, Oceanography Division, Via A. Piccard, 54, 34151 Trieste, Italy; mcelussi@inogs.it
- <sup>4</sup> Department of Health Ecology, Institute of Public Health, Kolovare 2, 23000 Zadar, Croatia; jsangulin@zjz-zadar.hr
- \* Correspondence: f.girolametti@pm.univpm.it (F.G.); s.illuminati@univpm.it (S.I.); Tel.: +39-0712204302 (F.G.); +39-0714981 (S.I.)

**Table S1.** Instrumental parameters of Atomic Fluorescence Spectrometer (AFS) for water analyses.

Instrumental parameter.	Cd	Hg	As
PMT (Volts)	280	275	320
Lamp current (mA)	60/30	30/0	60/30
Carrier Gas (mL min <sup>-1</sup> )	500	300	300
Shield Gas (mL min <sup>-1</sup> )	800	1000	800
Reading time (s)	15	15	15
Delay Time (s)	0.5	0.5	0.5
Blank Judgement Value (if)	10	5	10
Torch height (mm)	8	10	8
IFS Step (s x rpm, a=analyte; c=carrier; r=reading)	(a) 10 x 100 (c) (r) 16 x 120	(a) 10 x 100 (c) (r) 16 x 120	(a) 10 x 100 (c) (r) 18 x 120

**Table S2.** Instrumental LOD and LOQ of Atomic Fluorescence Spectrometer (AFS) and accuracy control test.

Element	LOD ( $\mu\text{g L}^{-1}$ )	LOQ ( $\mu\text{g L}^{-1}$ )	CRM		
			Name	Certified value ( $\mu\text{g L}^{-1}$ )	Measured value ( $\mu\text{g L}^{-1}$ )
Hg	0.0006	0.006	QC3163	17.6±0.314	17.3±0.2
Cd	0.0005	0.005	NASS-6	0.0311±0.0019	0.031±0.008
As	0.01	0.13	SLEW-3	1.36±0.09	1.47±0.27



**Figure S1.** CTD parameters recorded in Lignano Sabbiadoro (**a, b, c, d**); San Giorgio di Nogaro (**e, f, g, h**); Zadar (**i, l, m**); Katalinica brig (**o, p, q, r**) and Stupe (**s, t, u, v**)

**Table S3.** Principal Component Analysis. Eigenvalues, explained and cumulative variance, loadings of the variables for the first two PCs.

	<b>Principal Components</b>	
	<b>1</b>	<b>2</b>
<i>Variance explained</i>		
Eigenvalues	5.482	1.072
% of variance	78.312	15.318
Cumulative %	78.312	93.630
<i>Factor loadings</i>		
Lignano Sabbiadoro	2.970	1.045
San Giorgio di Nogaro	2.108	-1.193
Zadar Upov Centar	-1.511	-0.998
Katalinića brig	-1.674	-0.0328
Stupe	-1.892	-0.818