Plankton hitch-hikers on naturalist's instruments as silent intruders of aquatic ecosystems: current risks and possible prevention

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Supplementary Material 3

Basic information about the Gopło lake and some characteristics of the surface water measured during field campaigns

Longitude	Latitude	Mean depth [m]	Max depth [m]	Surface [ha]
18°22'55.4"E	52°30'20.1"N	3.6	16.6	2154.5
Physico-chemical parameters *				
Chlorophyll-*a* [µg L^{-1}]		135.41	Spectrophotometric estimation [1]	
Conductivity [µS cm^{-1}]		814	Multiparameter probe YSI 556 MPS	
pH		8.06	Multiparameter probe YSI 556 MPS	
Secchi depth [m]		0.5	Secchi disc	
Temperature [°C]		12	Multiparameter probe YSI 556 MPS	
NO_3^- [mg L^{-1}]		2.6	Hach Method 8039 [a]	
NH_3 [mg L^{-1}]		0.06	Hach Method 8038 [a]	
NH_4^+ [mg L^{-1}]		0.07	Hach Method 8038 [a]	
PO_4^{3-} [mg L^{-1}]		0.07	Hach Method 8048 [a]	
Nutrients **				
Total Nitrogen [mg N L^{-1}]		0.347	ISO 29441:2010 [b]	
N-NO_3+NO_2 [mg NO_3 L^{-1}]		0.000	ISO 13395:1996 [b]	
N-NH_4 [mg NH_4 L^{-1}]		0.000	ISO 11732:2005 [b]	
Total Phosphorus [mg P L^{-1}]		0.048	ISO 15681-1:2005 [b]	
PO_4 [mg PO_4 L^{-1}]		0.01	ISO 15681-1:2005 [b]	
Cyanotoxin presence **				
Anabaenopeptins		+	ELISA kit, product No. 520070 [c]	
Anatoxin-a		-	ELISA kit, product No. 520060 [c]	
β-Methylamino-l-alanine		-	ELISA kit, product No. 520040 [c]	
Cylindrospermopsin		-	HPLC-DAD [d], LC-MS [e]	
Desmethyl microcystin-LR		-	HPLC-DAD [d]	
Desmethyl microcystin-RR		-	HPLC-DAD [d], LC-MS [e]	
Microcystin-LR		-	HPLC-DAD [d], LC-MS [e]	
Microcystin-RR		-	HPLC-DAD [d], LC-MS [e]	
Microcystin-YR		-	HPLC-DAD [d], LC-MS [e]	
Microcystin-LF		-	HPLC-DAD [d], LC-MS [e]	
Microcystin-LW		-	HPLC-DAD [d], LC-MS [e]	
Microcystin-LY		-	HPLC-DAD [d], LC-MS [e]	
Nodularin		-	HPLC-DAD [d], LC-MS [e]	
Saxitoxins		-	ELISA kit, product No. 52255B [c]	

[1] https://doi.org/10.1007/978-1-4757-3250-4; [a] Hach DR/2010 spectrophotometer; [b] Flow injection analyzer FIA compact; [c] Varioskan flash spectral scanning multimode reader; [d] Agilent 1100 series HPLC system; [e] Agilent 1200 Rapid Resolution LC coupled to a Bruker Daltonics HCT ultra ion trap mass spectrometer with electrospray ion ESI source. Chromatographic analyses were performed as outlined in Supplementary Material 1. Characteristics of the surface water measured during field campaign in October 2019 (*) and additional characterstics measured in another time, June 2021 (**).