

Water quality assessment of the artificial Bovan Lake drinking water reservoir in Serbia

Supporting Information

Tables

Table S1. Sample information – sampling site, depth, sample names and season of sampling.

Sampling site	Sampling depth	Sample name	Time of sampling		
Inflow of river Moravica	0.5 m	S1	Spring, 2019	Summer,	Autumn
Main bathing area	0.5 m	S2	Spring, 2019	Summer,	Autumn
	10 m	S3			
	20 m	S4			
Water intake	0.5 m	S5	Spring, Summer, Autumn and		
	10 m	S6	Winter 2019		
	20 m	S7			

Table S2a. Physical and chemical parameters of Bovan Lake water in Spring 2019 at all localities.

Parameters*	S1	S2	S3	S4	S5	S6	S7
<i>Physical</i>							
Air temperature (°C)	8.8	9.0	-	-	9.8	-	-
Water temperature (°C)	8.4	8.5	8.0	7.6	6.9	7.1	7.3
Transparency (m)	0.36	1.10	-	-	1.40	-	-
pH	7.7	7.1	7.0	6.5	7.0	7.0	6.7
Color (°Co-Pt)	15.0	7.5	7.5	7.5	7.5	7.5	7.5
Odor	without	without	without	without	without	without	without
Turbidity (NTU)	15.0	3.5	5.3	4.7	3.6	4.8	4.3
Suspended solids	16	7	7	6	7	7	6
Sedimentary solids (ml L ⁻¹ 2h ⁻¹)	< 0.10	< 0.10	< 0.01	< 0.10	< 0.10	< 0.10	< 0.10
The rest of evaporation (unfiltered) 105 °C	315	288	286	292	278	296	282
The rest of evaporation (filtered) 105 °C	299	281	279	286	271	289	276
Electrical conductivity (µS cm ⁻¹)	454	443	445	449	446	448	451
<i>Chemical</i>							
Total alkalinity (as C _a CO ₃)	177.8	182.9	177.8	182.1	177.8	182.9	177.8
Carbonate alkalinity (as C _a CO ₃)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dissolved oxygen	9.1	14.9	14.2	13.7	14.8	13.9	13.7
Chemical oxygen demand	6.5	2.9	2.8	2.8	2.7	2.7	2.7
KMnO ₄ consumption	17.4	13.9	17.4	17.4	13.9	13.9	11.4
Nitrogen by Kjeldahl	2.2	1.9	1.7	2.6	1.0	1.9	1.9
Ammonium ion (NH ₄ ⁺)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrites (NO ₂ ⁻)	0.025	0.008	0.005	0.005	0.005	0.005	0.005
Nitrates (NO ₃ ⁻)	3.6	2.2	2.2	2.2	2.1	2.2	2.2

Total phosphorus	0.08	0.02	0.02	0.01	0.02	0.01	0.02
Chlorides (Cl ⁻)	8	8	12	8	10	10	8
Fluorides (F ⁻)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Sulphates (SO ₄ ²⁻)	21.7	21.4	19.4	21.0	20.5	19.5	19.1
Sulphides (S ²⁻)	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
Iron (Fe)	0.269	0.043	0.037	0.064	0.02	0.187	0.094
Manganese (Mn)	0.013	0.016	0.008	0.023	0.013	0.012	0.015

* Units are mg l⁻¹ unless stated otherwise in the table.

Table S2b. Physical and chemical parameters of Bovan Lake water in Summer 2019 at all localities.

Parameters*	S1	S2	S3	S4	S5	S6	S7
<i>Physical</i>							
Air temperature (°C)	14.2	14.5	-	-	14.5	-	-
Water temperature (°C)	17.0	16.8	15.5	14.3	17.2	15.0	12.8
Transparency (m)	0.5	1.1	-	-	1.1	-	-
pH	8.30	8.34	8.11	8.05	8.31	8.04	7.76
Color (° Co-Pt)	without	without	without	without	without	without	without
Odor	without	without	without	without	without	without	without
Visible substances	without	without	without	without	without	without	without
Suspended solids	6.0	10.0	5.0	7.5	5.0	33.0	22.0
The rest of evaporation (filtered) 105 °C	274	317	314	306	252	381	331
Total residue after annealing on 550 °C	147	173	184	227	146	221	230
Loss by annealing	127	144	130	79	106	160	101
Electrical conductivity ($\mu\text{S cm}^{-1}$)	395	384	425	437	371	417	420
<i>Chemical</i>							
Total alkalinity (as CaCO_3)	3.6	3.5	4.0	4.2	4.0	4.0	3.8
Carbonate alkalinity (as CaCO_3)	0.2	0.3	0	0	0.2	0	0
Total hardness	209.6	196.8	216.2	228.6	191.2	216.8	210.8
Dissolved oxygen	11.1	12.0	9.9	9.4	11.9	9.7	8.1
Chemical oxygen demand	< 30	< 30	< 30	< 30	< 30	< 30	< 30
Biochemical oxygen demand	5.10	4.52	3.84	3.34	3.46	4.64	3.64
KMnO ₄ consumption	3.45	4.42	3.41	2.96	3.80	1.82	2.96
Ammonium ion (NH_4^+)	0.03	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.73
Nitrites (NO_2^-)	0.059	0.048	0.049	0.057	0.048	0.056	0.047
Total phosphorus	0.039	0.048	0.030	0.032	0.035	0.082	0.038
Orthophosphates	0.020	0.016	0.019	0.029	0.013	0.015	0.036

Chlorides (Cl ⁻)	5.10	5.70	5.00	4.30	5.20	5.10	5.88
Iron (Fe)	0.160	< 0.070	0.083	0.101	< 0.070	0.070	2.190
Manganese (Mn)	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	0.22

* Units are mg l⁻¹ unless stated otherwise in the table.

Table S2c. Physical and chemical parameters of Bovan Lake in Autumn 2019 at all localities.

Parameters*	S1	S2	S3	S4	S5	S6	S7
<i>Physical</i>							
Air temperature (°C)	23.6	30.2	-	-	28.4	-	-
Water temperature (°C)	25.3	25.5	22.6	18.5	26.5	22.8	18.0
Transparency (m)	0.7	1.9	-	-	1.6	-	-
pH	7.73	8.12	7.61	7.62	8.21	7.66	7.6
Color (° Co-Pt)	without	without	without	without	without	without	without
Odor	without	without	without	without	without	without	without
Visible substances	without	without	without	without	without	without	without
Suspended solids	10	8	11	5	8	17	19
The rest of evaporation (filtered) 105 °C	303	284	389	294	243	260	311
Total residue after annealing on 550 °C	220	159	186	177	175	146	203
Loss by annealing	83	125	203	117	68	114	108
Electrical conductivity ($\mu\text{S cm}^{-1}$)	312	319	415	445	321	394	434
<i>Chemical</i>							
Total alkalinity (ml 0.1 N HCl 100 ml ⁻¹)	2.7	2.7	4.7	4.2	3.7	3.6	4.1
Carbonate alkalinity (ml 0.1 N HCl 100 ml ⁻¹)	0	0	0	0	0	0	0
Total hardness	194	168	199	216.9	152	185	201
Dissolved oxygen	7.84	9.58	4.40	3.30	10.70	3.20	4.00
Chemical oxygen demand	< 30	< 30	< 30	< 30	< 30	< 30	< 30
Biochemical oxygen demand	< 3	< 3	< 3	< 3	< 3	< 3	< 3
KMnO ₄ consumption	3.67	3.70	4.01	3.44	2.98	4.29	2.65
Ammonium ion (NH ₄ ⁺)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrites (NO ₂ ⁻)	0.036	0.012	0.023	0.131	0.011	0.059	0.103
Total phosphorus	0.058	0.017	0.010	0.027	0.029	0.010	0.044

Orthophosphates	0.016	0.006	0.006	0.013	0.015	0.001	0.030
Chlorides (Cl ⁻)	7.40	7.59	6.24	5.70	6.03	5.53	4.82
Iron (Fe)	1.380	0.404	0.192	0.423	0.152	0.237	0.542
Manganese (Mn)	0.158	0.042	0.048	0.454	0.040	0.096	0.763

* Units are mg l⁻¹ unless stated otherwise in the table.

Table S2d. Physical and chemical parameters of the water intake locality of Bovan Lake in Winter 2019.

Parameters*	S5	S6	S7
Transparency (m)	2.73		
pH	8.2	8.1	8.3
Color (°Co-Pt)	< 5.0	< 5.0	< 5.0
Odor	without	without	without
Visible substances	little	little	little
Suspended solids	2.0	2.0	4.0
Sedimentary solids (ml L ⁻¹ 2h ⁻¹)	< 0.2	< 0.2	< 0.2
The rest of evaporation (filtered) 105 °C	266	252	260
Total residue after annealing on 550 °C	157	140	144
Loss by annealing	109	112	116
Electrical conductivity (µS cm ⁻¹)	427	415	430
Acidity	< 0.1	< 0.1	< 0.1
Total alkalinity (ml 0.1 N HCl 100 ml ⁻¹)	3.9	3.9	3.8
Bicarbonates	238	238	232
Total hardness	170	194	187
Chemical oxygen demand	47	41	34
Biochemical oxygen demand	15	14	12
KMnO ₄ consumption	17	18	20
Nitrogen by Kjeldahl	0.12	0.31	0.32
Ammonium ion (NH ₄ ⁺)	0.63	1.50	1.30
Nitrites (NO ₂ ⁻)	< 0.03	< 0.03	< 0.03
Nitrates (NO ₃ ⁻)	1.30	0.95	1.10
Total phosphorus	0.02	0.05	0.05
Orthophosphates	< 0.10	< 0.10	< 0.10
Chlorides (Cl ⁻)	13.0	5.9	6.5
Fluorides (F ⁻)	< 0.05	< 0.05	< 0.05
Sulphates (SO ₄ ²⁻)	16	16	18
Sulphides (S ²⁻)	< 0.5	< 0.5	< 0.5
Iron (Fe)	0.016	0.012	< 0.010
Manganese (Mn)	< 0.01	< 0.01	< 0.01

* Units are mg l⁻¹ unless stated otherwise in the table.

Table S3. Heavy metal concentrations at the water intake locality of Bovan Lake in Winter 2019.

Parameter	S5	S6	S7
<i>Alkaline metals</i>			
Lithium (Li ⁺) [mg l ⁻¹]	< 0.05	< 0.05	< 0.05
Sodium (Na ⁺) [mg l ⁻¹]	15	10	9.7
Potassium (K ⁺) [mg l ⁻¹]	3.9	3.1	1.9
<i>Alkaline earth metals</i>			
Magnesium (Mg ²⁺) [mg l ⁻¹]	8.5	8.8	7.8
Calcium (Ca ²⁺) [mg l ⁻¹]	54	63	62
Barium (Ba) [mg l ⁻¹]	< 0.1	< 0.1	< 0.1
<i>Metalloids</i>			
Boron (B) [mg l ⁻¹]	< 0.1	< 0.1	< 0.1
Arsenic (As) [µg l ⁻¹]	3.3	3.0	3.2
Selenium (Se) [µg l ⁻¹]	< 1	< 1	< 1
Antimony (Sb) [µg l ⁻¹]	< 10	< 10	< 10
Silicon (Si) [mg l ⁻¹]	1.5	1.5	1.5
<i>Transition metals</i>			
Iron (Fe) [mg l ⁻¹]	0.016	0.012	< 0.01
Manganese (Mn) [mg l ⁻¹]	< 0.01	< 0.01	< 0.01
Copper (Cu) [mg l ⁻¹]	< 0.01	< 0.01	< 0.01
Zinc (Zn) [mg l ⁻¹]	< 0.05	< 0.05	< 0.05
Chrome (Cr) [µg l ⁻¹]	< 1	< 1	< 1
Cadmium (Cd) [µg l ⁻¹]	< 1	< 1	< 1
Nickel (Ni) [µg l ⁻¹]	< 1	< 1	< 1
Cobalt (Co) [mg l ⁻¹]	< 0.01	< 0.01	< 0.01
Molybdenum (Mo) [mg l ⁻¹]	< 0.01	< 0.01	< 0.01
Mercury (Hg) [µg l ⁻¹]	< 0.5	< 0.5	< 0.5
<i>Posttransition metals</i>			
Lead (Pb) [µg l ⁻¹]	< 1	< 1	< 1
Aluminium (Al) [mg l ⁻¹]	0.15	< 0.1	< 0.1
Tin (Sn) [mg l ⁻¹]	< 0.1	< 0.1	< 0.1

Table S4. Phytoplankton taxa detected in Bovan Lake in 2019 at different sampling seasons.

Phytoplankton species	Spring 2019	Summer 2019	Autumn 2019	Winter 2019
<i>Bacillariophyta</i>				
<i>Achnantheidium minutissimum</i>	+			
<i>Anomoeoneis</i> sp.	+			
<i>Cocconeis</i> sp.	+			+
<i>Cyclotella</i> sp.				+
<i>Cyclotella ocellata</i>	+	+	+	
<i>Cyclotella meneghiniana</i>	+	+	+	+
<i>Fallacia</i> sp.	+			
<i>Fragilaria acus</i>			+	
<i>Fragilaria crotonensis</i>		+	+	
<i>Fragilaria ulna</i> var. <i>angustissima</i>	+	+		
<i>Fragilaria ulna</i>	+			
<i>Gomphonema</i> sp.	+	+		
<i>Melosira varians</i>		+		
<i>Navicula</i> sp. 1	+	+		
<i>Navicula</i> sp. 2	+			
<i>Nitzschia</i> sp.	+	+		
<i>Nitzschia acicularis</i>	+	+	+	+
<i>Nitzschia palea</i>	+	+	+	
<i>Nitzschia sigmoidea</i>	+			
<i>Rhoicosphenia</i> sp.	+			
<i>Chlorophyta</i>				
<i>Chlamydomonas</i> sp.	+	+	+	+
<i>Chlorella</i> sp.				+
<i>Closterium acutum</i> var. <i>variabile</i>	+		+	+
<i>Closterium limneticum</i>				+
<i>Closterium moniliferum</i>			+	
<i>Closterium pronum</i>				+
<i>Coenochloris hindakii</i>				+
<i>Coelastrum astroideum</i>			+	+
<i>Coelastrum microporum</i>		+		+
<i>Coelastrum polychordum</i>			+	
<i>Coelastrum reticulatum</i>				+
<i>Cosmarium contractum</i> var. <i>minutum</i>				+
<i>Cosmarium depressum</i> var. <i>planctonicum</i>			+	
<i>Cosmarium phaseolus</i> var. <i>elevatum</i>			+	
<i>Cosmarium punctulatum</i>				+
<i>Cosmarium tenue</i>			+	
<i>Crucigenia tetrapedia</i>	+	+	+	+
<i>Crucigenia crucifera</i>			+	
<i>Crucigeniella crucifera</i>				+
<i>Crucigeniella saguei</i>				+
<i>Dictyosphaerium pulchellum</i>		+	+	+
<i>Didymocystis comasii</i>		+	+	
<i>Didymocystis fina</i>				+
<i>Elakatothrix gelatinosa</i>	+	+	+	
<i>Eudorina elegans</i>	+			
<i>Eutetramorus fottii</i>				+

<i>Eutetramorus globosus</i>			+	
<i>Eutetramorus planctonicus</i>				+
<i>Gloeocystis vesiculosa</i>	+		+	
<i>Golenkinia radiata</i>				+
<i>Hyaloraphidium contortum</i>		+	+	
<i>Lagerheimia chodatii</i>		+		
<i>Lagerheimia citriformis</i>			+	
<i>Lagerheimia genevensis</i>				+
<i>Monoraphidium arcuatum</i>	+	+	+	
<i>Monoraphidium contortum</i>	+	+	+	+
<i>Monoraphidium griffithii</i>	+		+	
<i>Monoraphidium indicum</i>			+	
<i>Monoraphidium komarkovae</i>	+	+	+	+
<i>Monoraphidium minutum</i>		+	+	+
<i>Monoraphidium mirabile</i>				+
<i>Monoraphidium subclavatum</i>				+
<i>Monoraphidium tortile</i>			+	
<i>Oocystis borgei</i>				+
<i>Oocystis lacustris</i>		+	+	+
<i>Oocystis marssonii</i>	+	+	+	
<i>Oocystis parva</i>		+	+	
<i>Oocystis rupestris</i>	+			
<i>Oocystis tainoensis</i>		+		
<i>Pediastrum boryanum</i>				+
<i>Pediastrum duplex</i>			+	+
<i>Pediastrum simplex</i>			+	+
<i>Pediastrum simplex</i> var. <i>echinulatum</i>				+
<i>Pediastrum tetras</i>				+
<i>Phacotus lenticularis</i>				+
<i>Planktonema lauterbornii</i>			+	
<i>Radiococcus bavaricus</i>	+		+	
<i>Scenedesmus acutus</i>		+	+	+
<i>Scenedesmus acutiformis</i>			+	
<i>Scenedesmus acuminatus</i>			+	
<i>Scenedesmus bicaudatus</i>			+	+
<i>Scenedesmus disciformis</i>		+		+
<i>Scenedesmus ecomis</i>			+	
<i>Scenedesmus hystix</i>				+
<i>Scenedesmus linearis</i>	+	+	+	+
<i>Scenedesmus obliquus</i>			+	
<i>Scenedesmus quadricauda</i>	+		+	+
<i>Schroederia setigera</i>				+
<i>Sphaerocystis planctonica</i>			+	
<i>Staurastrum</i> sp.				+
<i>Staurastrum</i> sp. 2				+
<i>Staurastrum</i> sp. 3				+
<i>Staurastrum avicula</i>				+
<i>Staurastrum planctonicum</i>			+	
<i>Tetraedron caudatum</i>	+			+
<i>Tetraedron minimum</i>			+	+
<i>Tetrastrum glabrum</i>	+		+	+

<i>Tetrastrum triangulare</i>		+		
<i>Treubaria eurycantha</i>			+	
<i>Treubaria schmidlei</i>				+
Chrysophyta				
<i>Chromulina</i> sp.				+
<i>Dinobryon divergens</i>			+	
<i>Kephyrion cordatum</i>		+		
<i>Kephyrion rubri-claustri</i>	+	+		
<i>Mallomonas schwemmlei</i>			+	
<i>Ochromonas</i> sp.				+
<i>Synura uvella</i>			+	+
Cryptophyta				
<i>Chroomonas</i> sp.				+
<i>Cryptomonas erosa</i>	+	+	+	+
<i>Cryptomonas marssonii</i>	+	+	+	+
<i>Cryptomonas ovata</i>	+	+	+	+
<i>Plagioselmis nannoplanctica</i>				+
<i>Rhodomonas minuta</i> var. <i>nannoplanctica</i>	+	+	+	+
Euglenophyta				
<i>Euglena clavata</i>	+			
<i>Euglena texta</i>			+	+
<i>Phacus acuminatus</i>	+			
<i>Phacus pyrum</i>			+	
<i>Trachelomonas oblonga</i>			+	
<i>Trachelomonas planctonica</i>			+	
<i>Trachelomonas volvocina</i>	+	+	+	+
Dinophyta				
<i>Ceratium hirundinella</i>		+	+	
<i>Peridiniopsis borgei</i>			+	
<i>Peridiniopsis cunningtonii</i>			+	
<i>Peridinium bipes</i>			+	
<i>Peridinium minutum</i>				+
<i>Peridinium palatinum</i>		+		+
<i>Sphaerodinium cinctum</i>	+	+	+	
Cyanobacteria				
<i>Aphanocapsa delicatissima</i>		+	+	
<i>Aphanocapsa holsatica</i>			+	+
<i>Chroococcus limneticus</i>				+
<i>Chroococcus minutus</i>			+	+
<i>Chroococcus turgidus</i>			+	
<i>Cylindrospermum stagnale</i>	+			
<i>Leptolyngbya</i> sp.			+	
<i>Phormidium tergestinum</i>		+	+	
<i>Planktolyngbya limnetica</i>	+		+	
<i>Pseudanabaena catenata</i>	+	+	+	
<i>Woronichinia compacta</i>	+			
<i>Woronichinia ruzickae</i>	+			
Detected taxon number	47	43	75	68

Table S5. Chlorophyll *a* concentration, trophic level and Shannon-Weaver diversity index of Lake Bovan.

Sample	Spring 2019			Summer 2019			Autumn 2019			Winter 2019		
	Chl a conc. ^a	S-W index	Trophic level ^b	Chl a conc.	S-W index	Trophic level	Chl a conc.	S-W index	Trophic level	Chl a conc.	S-W index	Trophic level
S1	17.7	2.2343	M	32.9	0.9575	ME	42.1	2.2550	ME	-	-	-
S2	29.9	1.2334	ME	25	1.1764	ME	13.4	1.8797	M	-	-	-
S3	29.9	1.4632	ME	12.2	1.2604	M	2.4	2.6546	O	-	-	-
S4	39	1.2025	ME	18.9	1.4426	M	4.9	0.8663	OM	-	-	-
S5	35.4	1.5264	ME	23.8	1.4490	ME	12.2	2.2054	M	7.0	1.3520	OM
S6	40.2	1.2983	ME	10.4	1.6497	M	2.4	1.5784	O	8.2	1.3718	OM
S7	39.6	1.0090	ME	4.3	1.4579	OM	5.5	1.7126	OM	8.8	1.3484	OM

M-mesotrophic; ME-meso-eutrophic; O-oligotrophic; OM-oligo-mesotrophic

^a $\mu\text{g L}^{-1}$

^b Trophic level according to Felföldy (1987)

Table S6. The concentration of bacteria [CFU ml⁻¹] at three localities of Bovan Lake, three water depths and four sampling seasons in 2019.

Bacteria	Sampling seasons	CFU ml ⁻¹						
		S1	S2	S3	S4	S5	S6	S7
Aerobic organotrophs	Spring 2019	2818	1227	4909	800	2409	1318	1364
	Summer 2019	7417	5000	2095	2429	1591	1000	2682
	Autumn 2019	1364	818	1167	4909	2864	591	4136
	Winter 2019	1768	259	-	-	323	-	-
Facultative oligotrophs	Spring 2019	2955	1864	9773	2500	7364	3818	1850
	Summer 2019	14955	5333	12864	4455	9619	1727	5955
	Autumn 2019	2864	955	1182	1248	3409	409	9545
	Winter 2019	2991	609	-	-	623	-	-
Aerobic mesophiles	Spring 2019	200	1850	1350	1050	300	100	200
	Summer 2019	909	100	318	91	70	91	91
	Autumn 2019	1136	545	409	7500	3864	500	3045
	Winter 2019	568	109	-	-	100	-	-
Aerobic psychrophiles	Spring 2019	2818	2182	1318	1636	2182	727	727
	Summer 2019	7182	583	1000	1571	727	550	2364
	Autumn 2019	1318	1045	1227	1273	2273	350	810
	Winter 2019	1605	305	-	-	286	-	-
Proteolytic bacteria	Spring 2019	1500	950	4000	200	1800	400	300
	Summer 2019	1727	136	95	583	0	227	500
	Autumn 2019	955	833	1364	4000	3818	273	2583
	Winter 2019	1318	91	-	-	91	-	-
Saccharolytic bacteria	Spring 2019	550	150	150	0	650	650	50
	Summer 2019	409	0	0	91	0	0	45
	Autumn 2019	182	0	0	136	0	0	182
	Winter 2019	82	14	-	-	18	-	-
Lipolytic bacteria	Spring 2019	2600	1000	1750	550	1600	1500	1150
	Summer 2019	4143	150	952	1227	136	571	952
	Autumn 2019	545	182	91	2857	682	227	2727
	Winter 2019	3318	241	-	-	181	-	-

Amylolytic bacteria	Spring 2019	500	50	0	0	0	0	50
	Summer 2019	636	91	409	318	83	0	364
	Autumn 2019	500	864	1083	8000	1833	476	4000
	Winter 2019	205	77	-	-	77	-	-

Table S7. Self-purifying ability of Bovan Lake water at three different localites and four sampling seasons.

Season of sampling	FO/H index*						
	S1	S2	S3	S4	S5	S6	S7
Spring 2019	1.05	1.52	1.99	3.13	3.06	2.9	1.36
Summer 2019	2.02	1.07	6.14	1.83	6.05	1.73	2.22
Autumn 2019	2.1	1.17	1.01	2.45	1.19	0.69	2.31
Winter 2019	1.69	2.35	-	-	1.93	-	-

*self-purifying ability of water: low 0-1; satisfying 1 or >1; good >10 (Petrović et al., 1998)

Figures

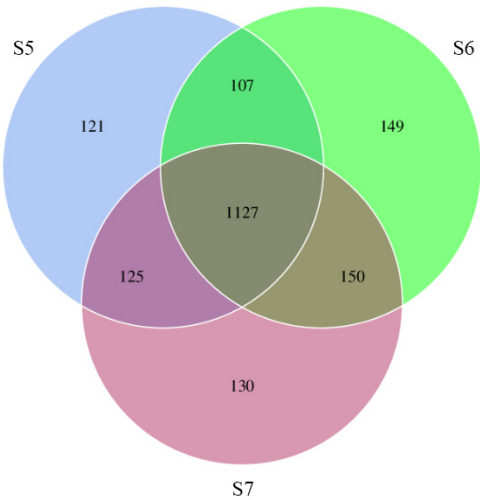


Figure S1. Venn diagram showing the common and unique OTUs at the water intake locality of Bovan Lake at three different water depths (samples S5, S6 and S7).

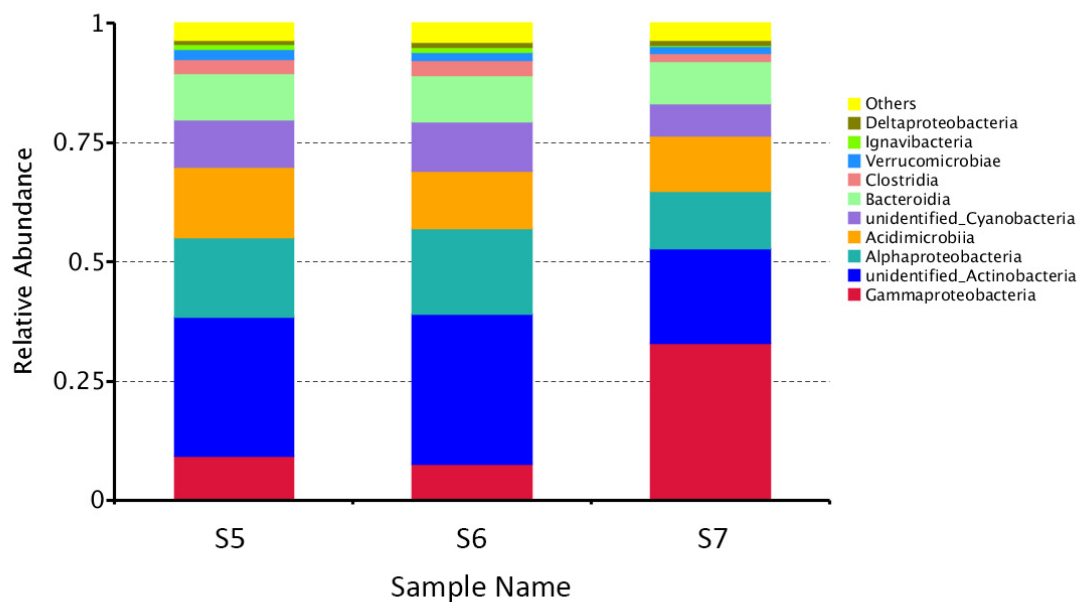


Figure S2. Relative abundance of the top ten bacterial classes at three water depths of the water intake locality of Bovan Lake in Winter 2019.

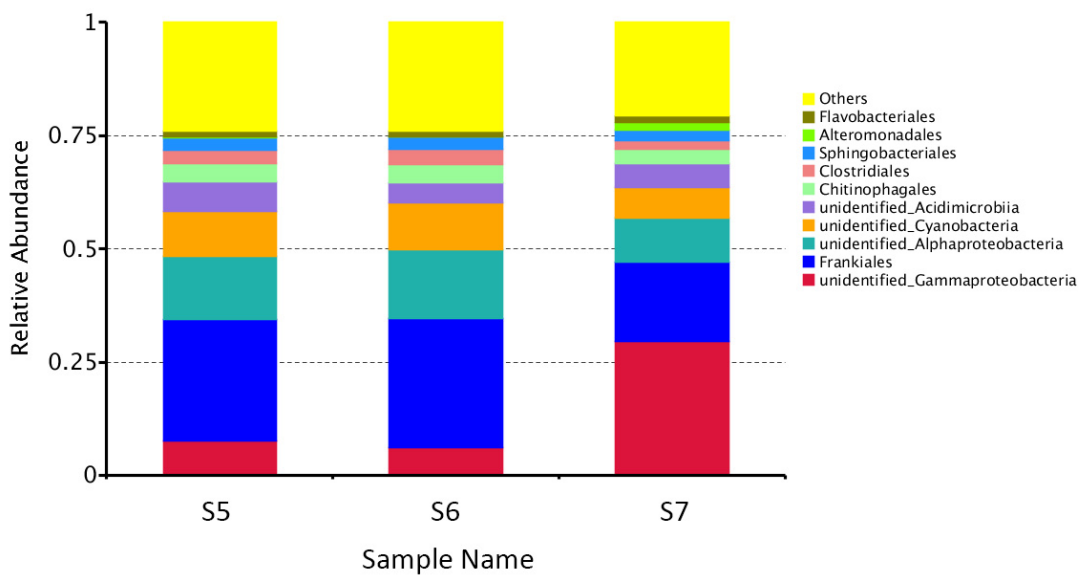


Figure S3. Relative abundance of the top ten bacterial orders at three water depths of the water intake locality of Bovan Lake in Winter 2019.

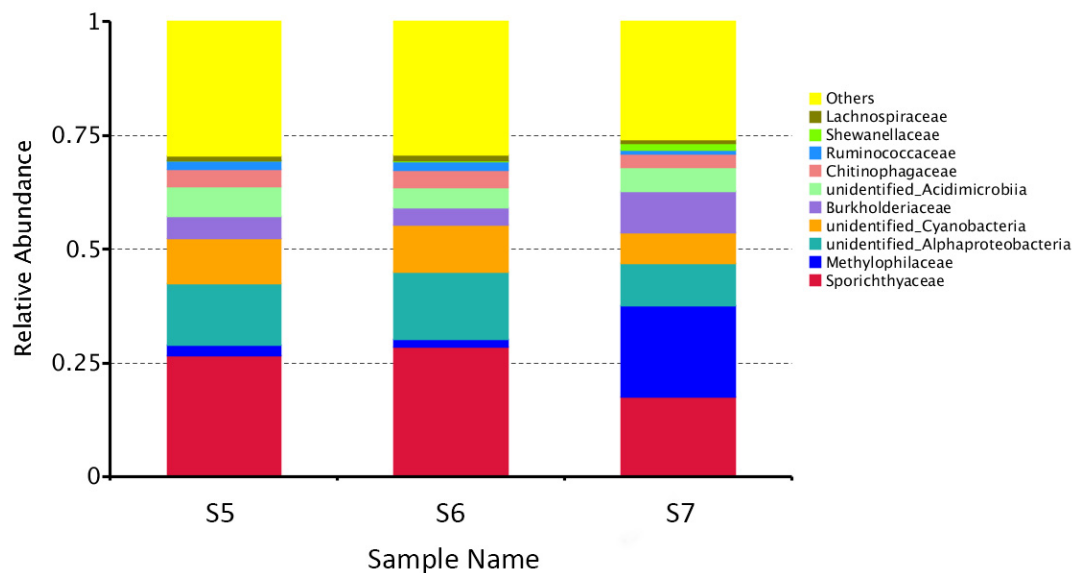


Figure S4. Relative abundance of the top ten bacterial families at three water depths of the water intake locality of Bovan Lake in Winter 2019.

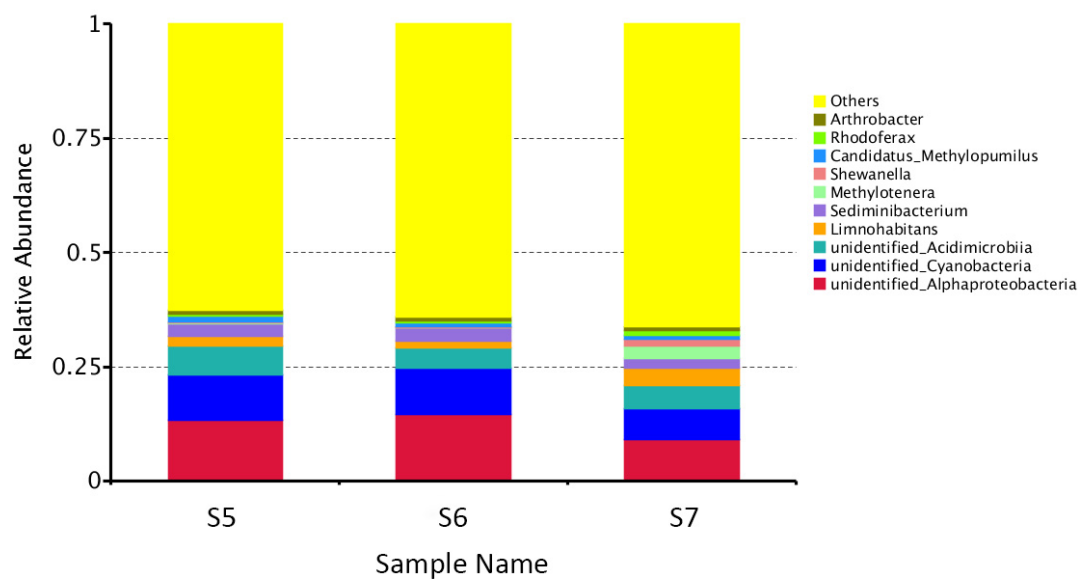


Figure S5. Relative abundance of the top ten bacterial genera at three water depths of the water intake locality of Bovan Lake in Winter 2019