

# Supplementary Material: Prokaryotic Community Composition Affected by Seasonal Changes in Physicochemical Properties of Water in Peat Bog Lakes

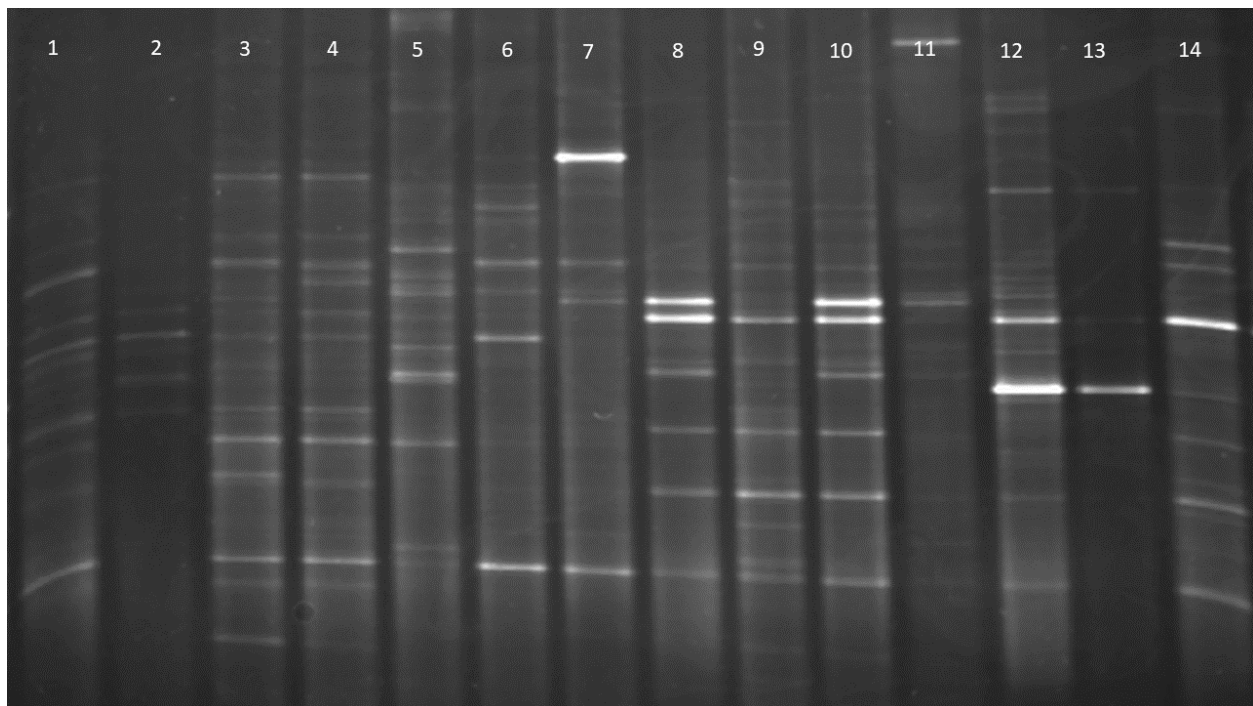
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Supplementary Table S1 Oligonucleotide probes used in this work

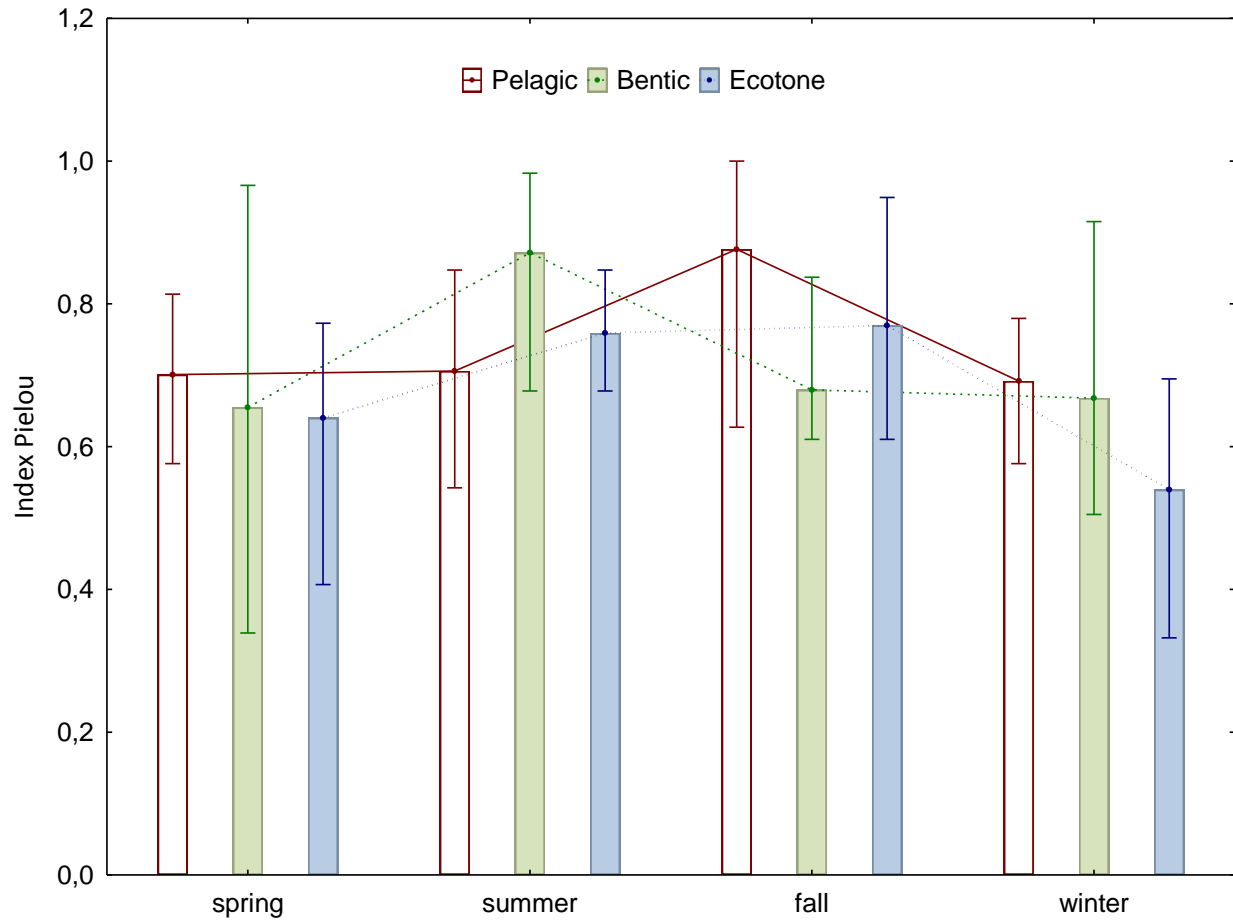
Probe	Sequence	Target rRNA	Specificity	Position	FA** [%]	Check specificity/coverage
EUB338	5'- GCT GCC TCC CGT AGG AGT -3'	16S	Most Bacteria	338-355	35	Silva/RDP
EUB338II	5'- GCA GCC ACC CGT AGG TGT -3'	16S	Planctomycetales	338-355	35	Silva/RDP
EUB338III	5'- GCT GCC ACC CGT AGG TGT -3'	16S	Verrucomicrobiales	338-355	35	Silva/RDP
NON338	5'- ACT CCT ACG GGA GGC AGC -3'	16S	control probe complementary to EUB338	338-355	35	Silva/RDP
ALF968	5'- GGT AAG GTT CTG CGC GTT -3'	16S	Alphaproteobacteria, except of Rickettsiales	968-985	20	Silva/RDP
BET42a	5'- GCC TTC CCA CTT CGT TT -3' 5'-GCC TTC CCA CAT CGT TT -3'*	23S	Betaproteobacteria	1027-1043	35	Silva/RDP
GAM42a	5'- GCC TTC CCA CAT CGT TT -3' 5'-GCC TTC CCA CTT CGT TT -3'*	23S	Gammaproteobacteria	1027-1043	35	Silva/RDP
DELTA495a	5'- AGT TAG CCG GTG CTT CCT -3' 5'-AGT TAG CCG GTG CTT CTT -3'*	16S	Most Deltaproteobacteria and most Gemmatimonadetes	495-512	35	Silva/RDP
DELTA495b	5'- AGT TAG CCG GCG CTT CCT -3' 5'-AGT TAG CCG GCG CTT CKT -3'*	16S	some Deltaproteobacteria	495-512	35	Silva/RDP
DELTA495c	5'- AAT TAG CCG GTG CTT CCT -3' 5'-AAT TAG CCG GTG CTT CTT -3'*	16S	some Deltaproteobacteria	495-512	35	Silva/RDP
CF319a	5'- TGG TCC GTG TCT CAG TAC -3'	16S	most Flavobacteria, some Bacteroidetes, some Sphingobacteria	319-336	35	Silva/RDP
HGC69a	5'- TAT AGT TAC CAC CGC CGT -3' 5'-TAT AGT TAC GGC CGC CGT -3'*	23S	Actinobacteria (high G+C Gram-positive bacteria)	1901-1918	25	Silva/RDP
SS_HOL1400	5'- TTC GTG ATG TGA CGG GC -3'	16S	Acidobacteria	1400-1416	20	Silva/RDP

Arch917 Modified ver. Arch915/ Arch915	<b>5'- GTG CTC CCC CGC CAA TTC -3'</b> <b>5'-GTG CTC CCC CGC CAA TTC CT-3'</b>	16S 16S	Archaea most Archaea	917-934 915-934	20 20	Silva/RDP
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\*Unlabeled competitor; \*\* Formamide FA [%]: formamide concentration in the hybridization buffer to ensure specific detection of target organisms



**Supplementary Figure S1.** An example of PCR-DGGE separation of 180 bp PCR fragment of V3 region of 16S rRNA gene, amplified with 338f-GC and 518r primers, visualized under UV light for bacterial communities of the water samples of chosen Suchar II, III and IV lakes; samples 1-4 from Suchar II, 5-7 from Suchar III, 8-14 Suchar IV. The Shannon index values for these samples respectively: 2.19; 1.6; 2.47; 2.76; 2.28; 1.9; 1.3; 1.85; 2.46; 2.0; 1.75; 2.08; 0.7; 1.84



**Supplementary Figure S2.** Seasonal and sites changes in Pielou index in peat-bog lakes. On the basis of Shannon Biodiversity Index Pielou evenness index was calculated [Pielou, 1974] presenting the real diversity to maximal diversity ratio as a value between 0 and 1.

Reference: E. C. Pielou: Population and community ecology: principles and methods. New York: Gordon and Breach, 1974. ISBN 0-677-03580-2.