Contrasting taxonomic stratification of microbial communities in two hypersaline meromictic lakes

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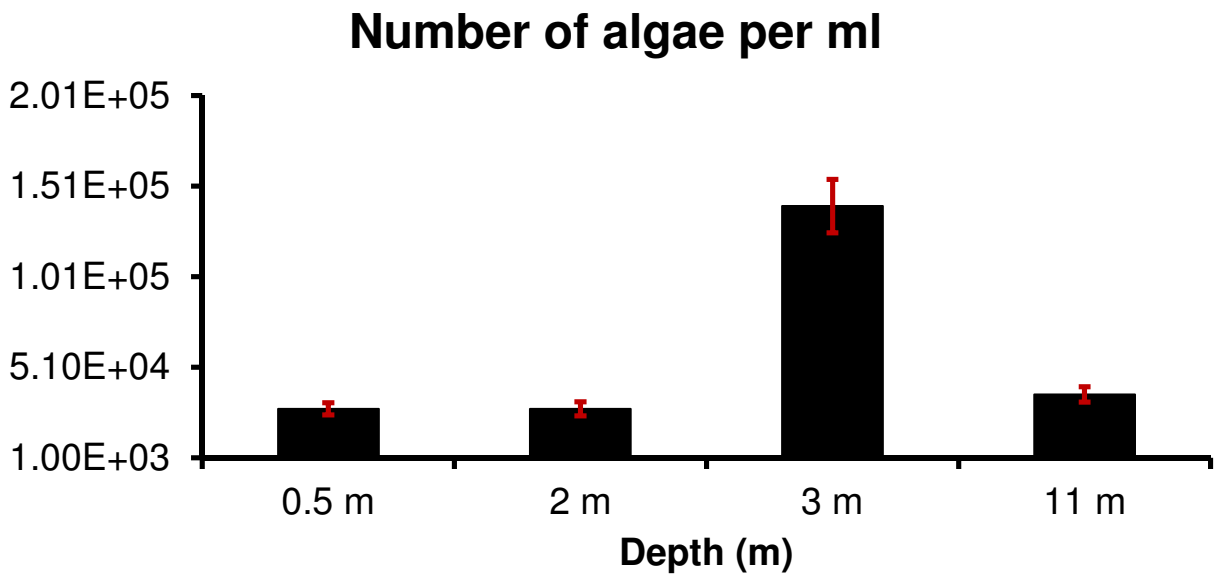
Figure 1. Algae cell numbers per ml, in Fara Fund Lake, as estimated by epifluorescence microscopy. The sampling depths are represented on the abscissa. The error bars represent standard deviations.



Dunaliella 16S rDNA chloroplast sequences recovered from the photic zone of Fara Fund Lake:

>DUNALIELLA_16S_1
TACAAGGGGAGCAAGCGTTATCCGGAATGATTGGGCGTAAAGCGTCTGTAGGTGGTTCTTTAAGTCTACTGTCAA
ATACGTTGGCTCAACCAACGGCAGGCAGTAGAGTACTAAAGAACTAGAGTGCGGTAGAGGTAGAGGGAATCCCT
AGCGTAACAGTGAAATGTGTAGATTTTAGGGGGAACACCAGCGGCGAAGGCGCTCTACTGGGCCGATACTGACA
CTGAGAGACGAAAGCTAGAGGAGCGAATAGG
>DUNALIELLA_16S_2
TACGGGGGGAGCAAGCGTTATCCGGAATGATTGGGCGTAAAGCGTCTGTAGGTGGTCCTTTAAGTCTACTGTTAA
ATACGTTGGCTCAACCAACGGCAGGCAGTAGAGTACTAAAGGACTAGAGTGCGGTAGAGGTAGAGGGAATCCCT
AGCGTAACAGTGAAATGTGTAGATTTTAGGGAGAACACCAGCGGCGAAGGCGCTCTACTGGGCCGATACTGACA
CTGAGAGACGAAAGCTAGAGTAGCGAAAAGG

Figure 2. Epifluorescence microscopy image of *Dunaliella sp*. morphotypes at 3 m depth in Fara Fund Lake. The scale bar length is 10 µm.

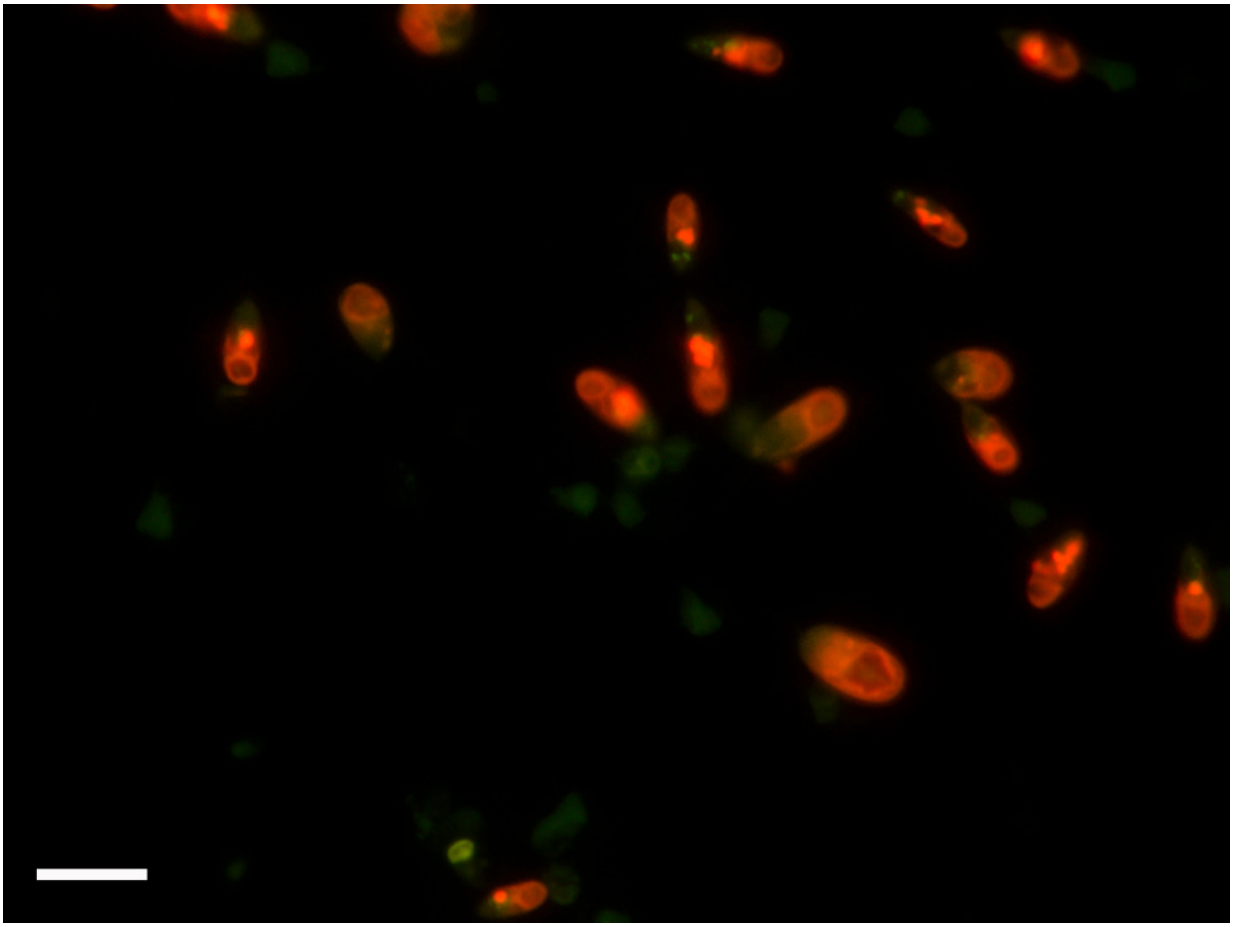
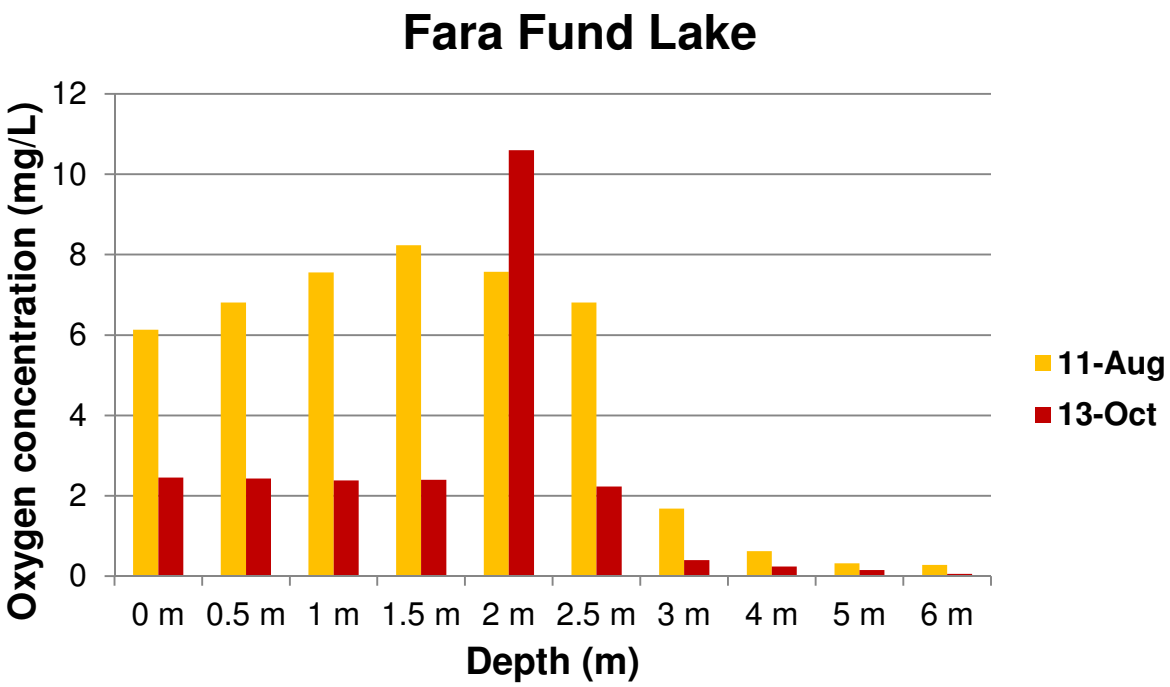


Figure 3. Vertical profiles of oxygen concentrations in Fara Fund Lake measured in August 2011 and October 2013



The oxygen measurement in August 2011 was effectuated by Zsolt Keresztes (unpublished results).

Figure 4. Seasonal variations of salinity along the water column of Ursu Lake (Sovata, Romania) during 2012.

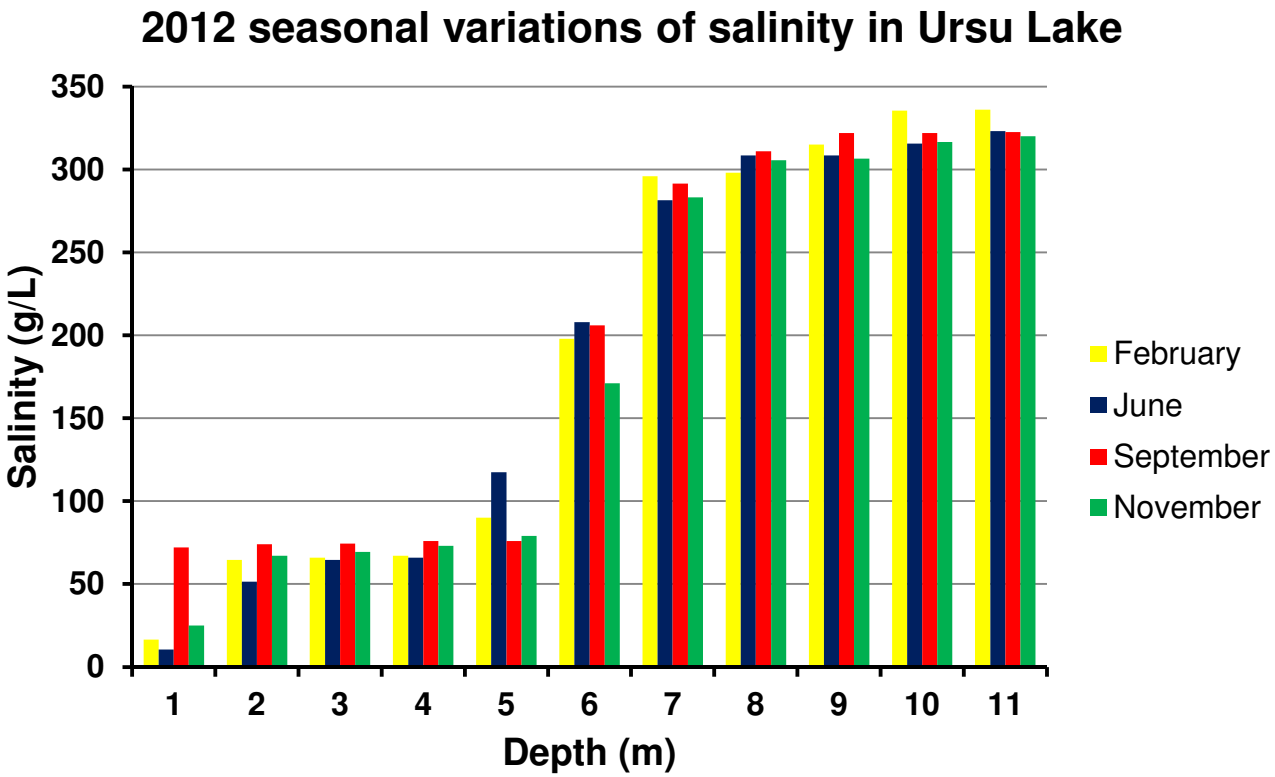


Figure 5. Seasonal variations of pH along the water column of Ursu Lake (Sovata, Romania) during 2012.

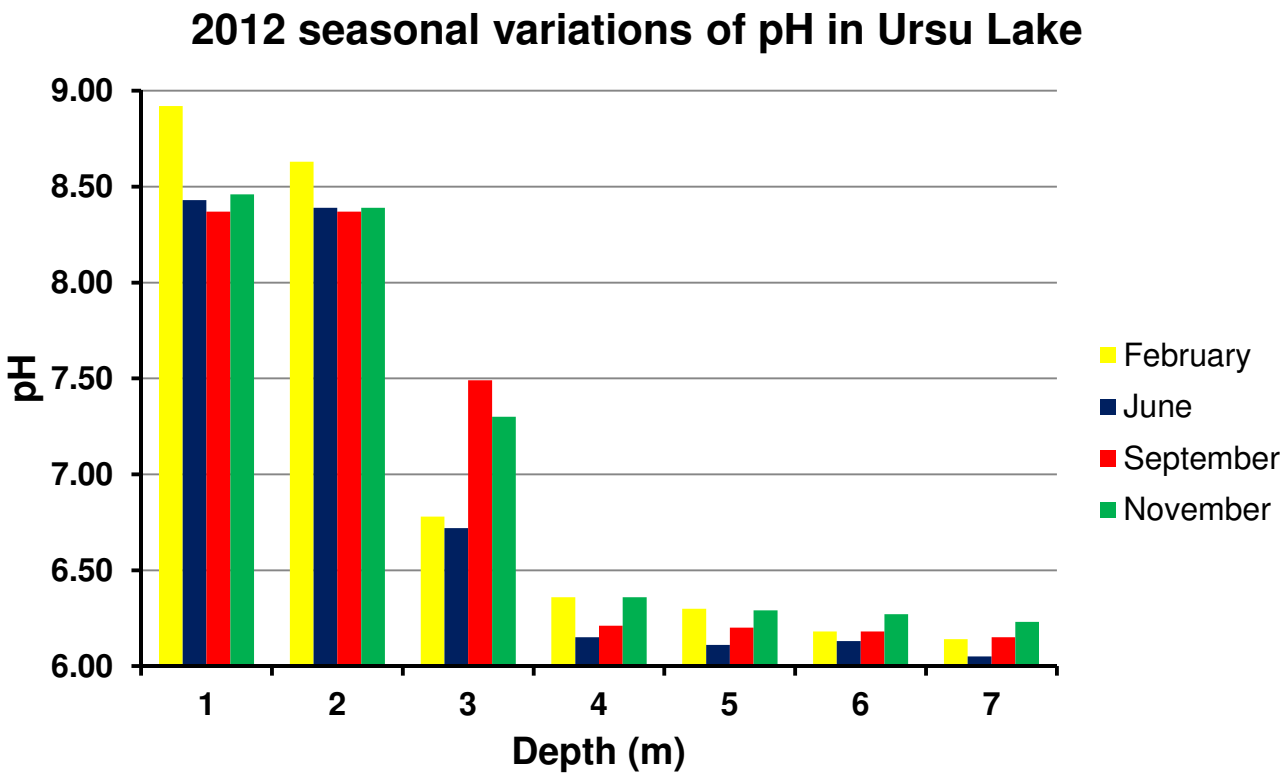


Figure 6. Seasonal variations of dissolved oxygen along the water column of Ursu Lake (Sovata, Romania) during 2012.

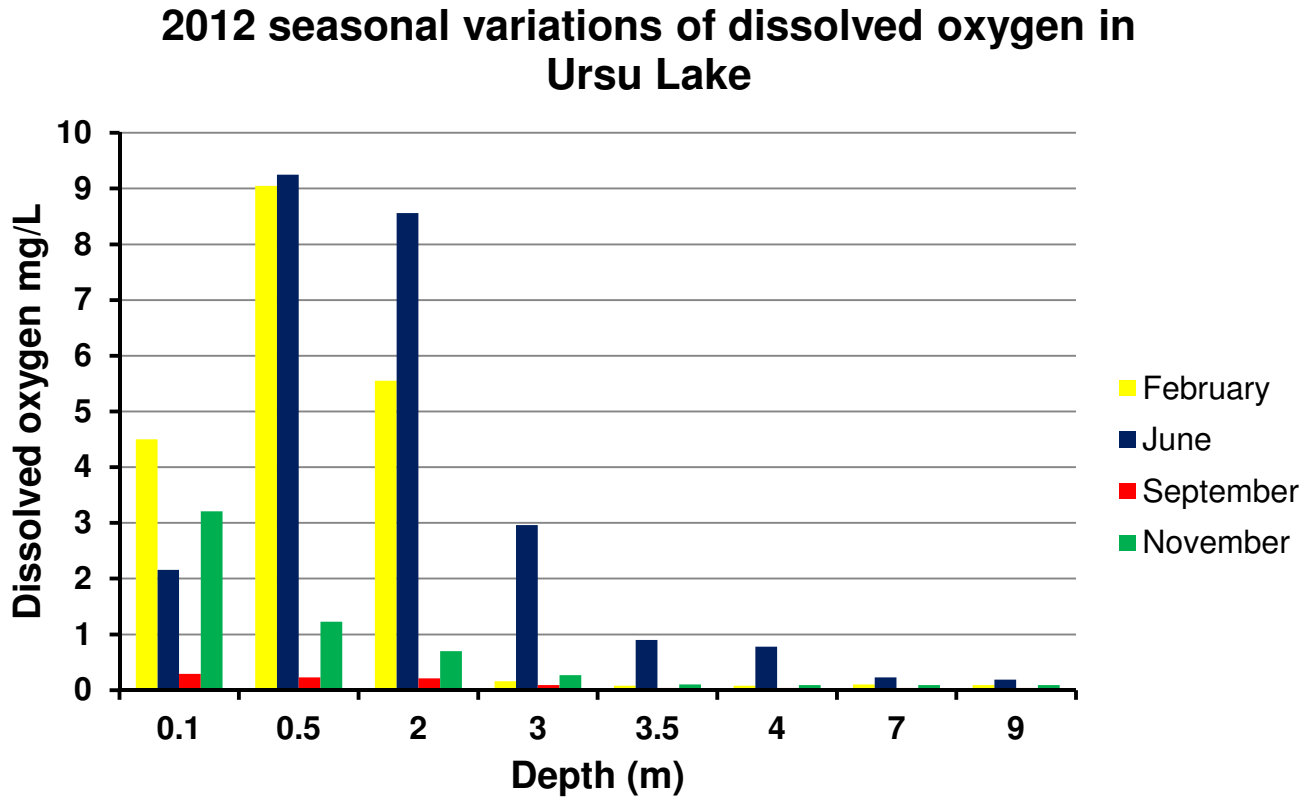


Figure 7. Seasonal variations of temperature along the water column of Ursu Lake (Sovata, Romania) during 2012.

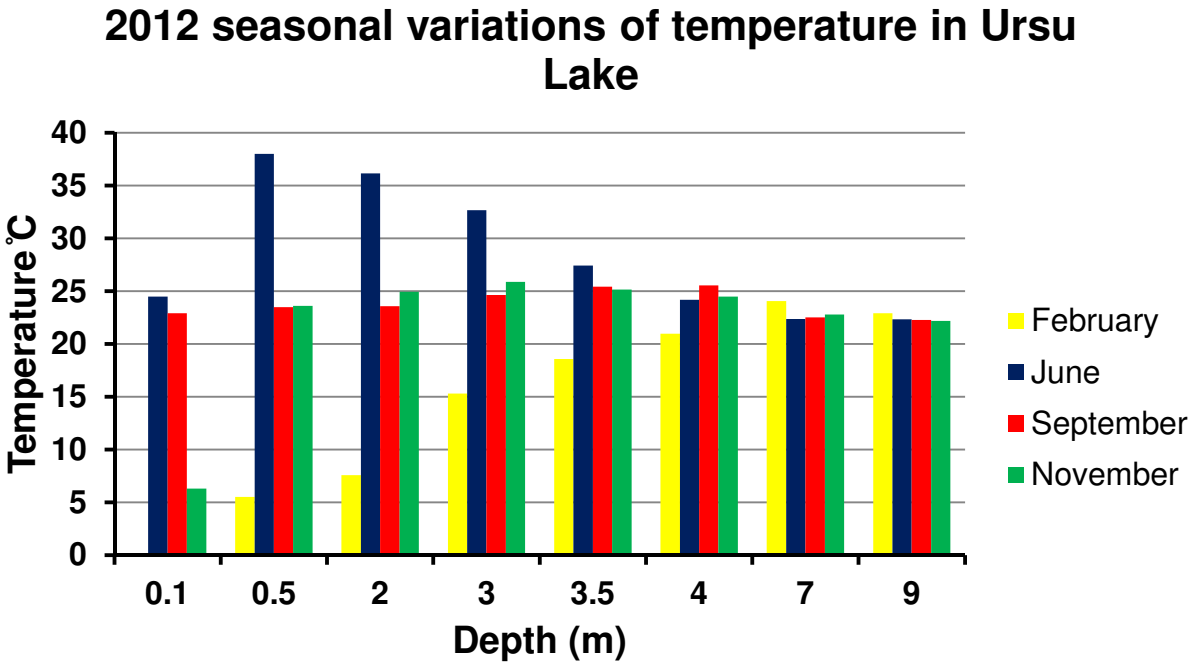


Figure 8. Seasonal variations of salinity along the water column of Fara Fund Lake (Sibiu, Romania) during 2012.

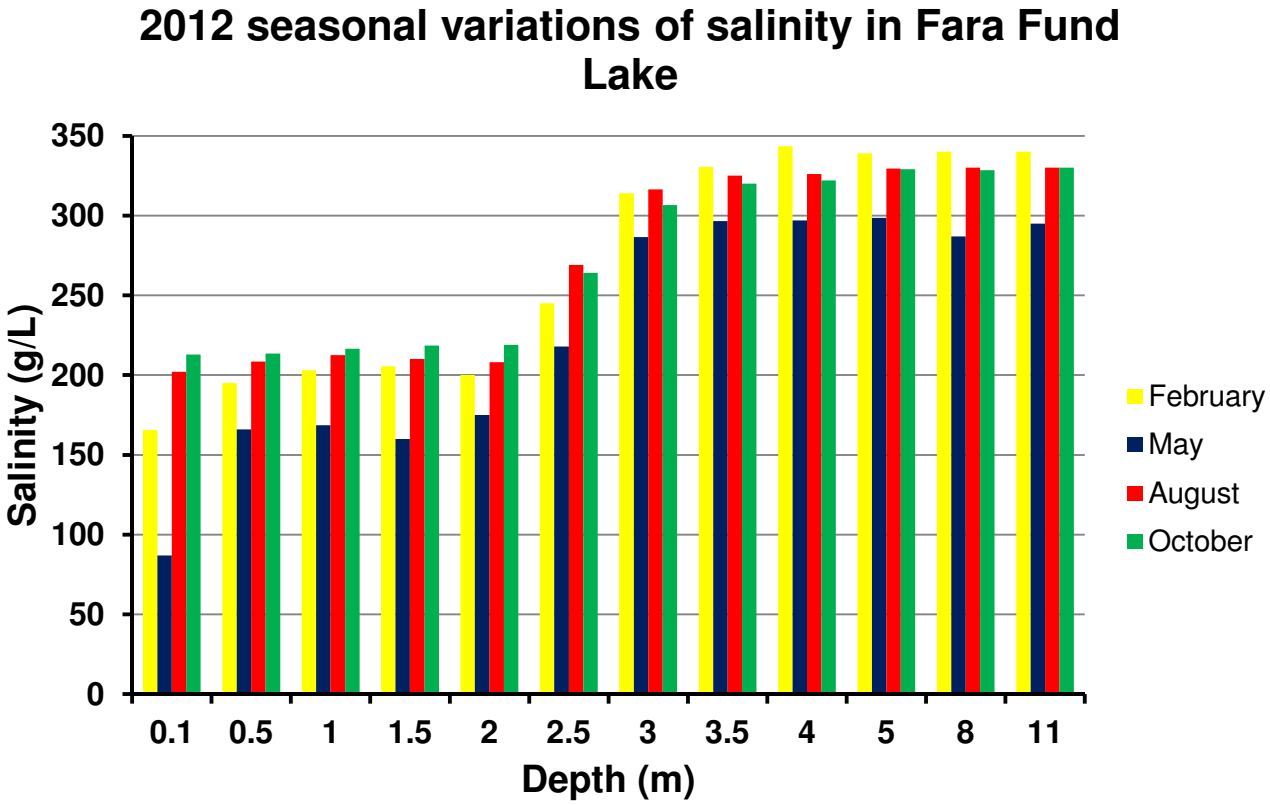


Figure 9. Seasonal variations of pH along the water column of Fara Fund Lake (Sibiu, Romania) during 2012.

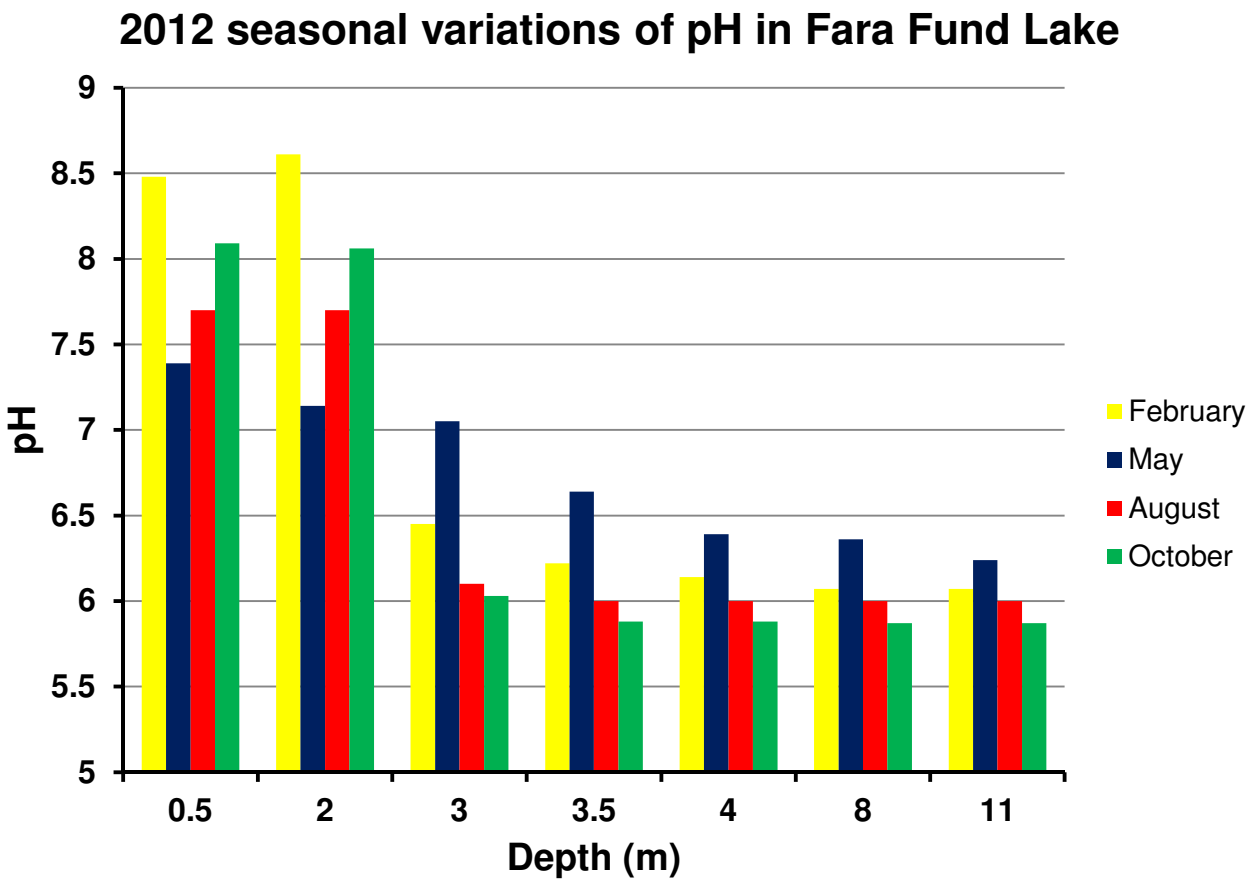


Figure 10. Seasonal variations of dissolved oxygen along the water column of Fara Fund Lake (Sibiu, Romania) during 2012.

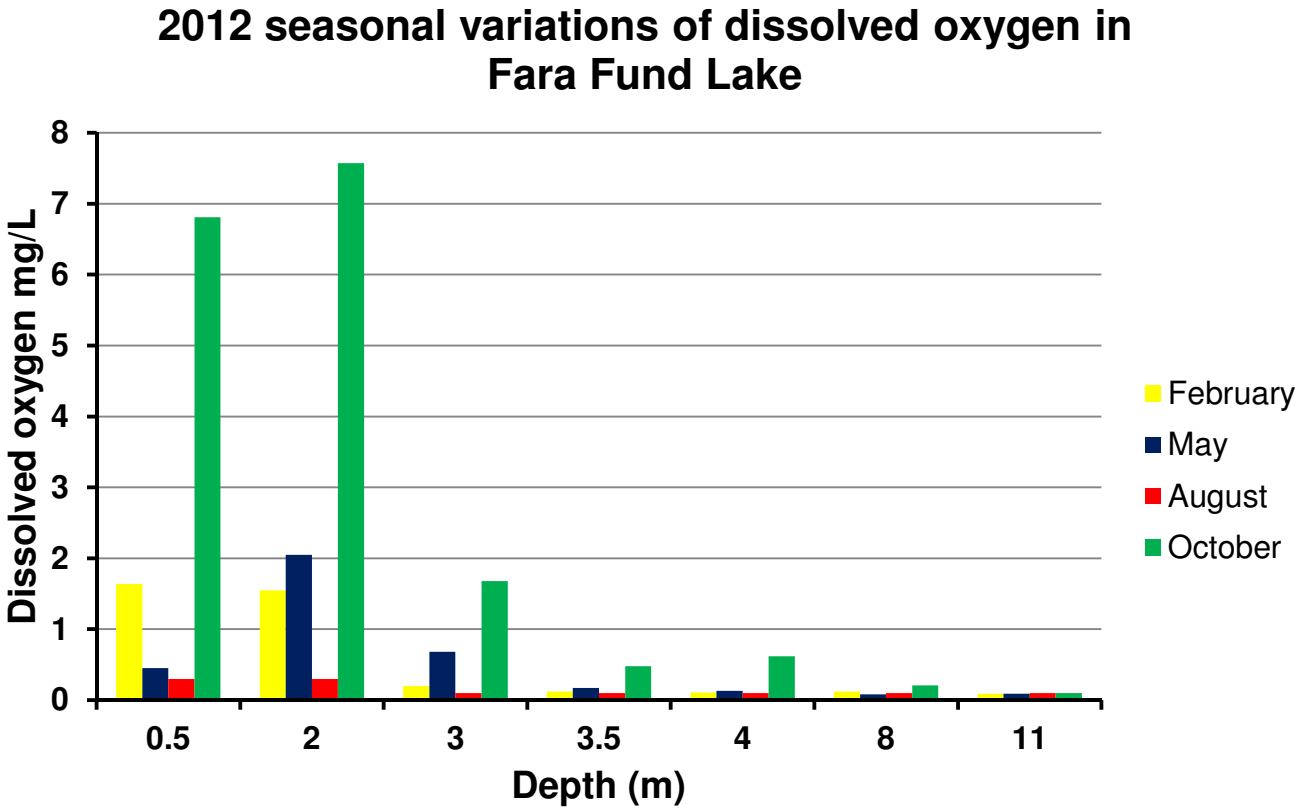


Figure 11. Seasonal variations of temperature along the water column of Fara Fund Lake (Sibiu, Romania) during 2012.

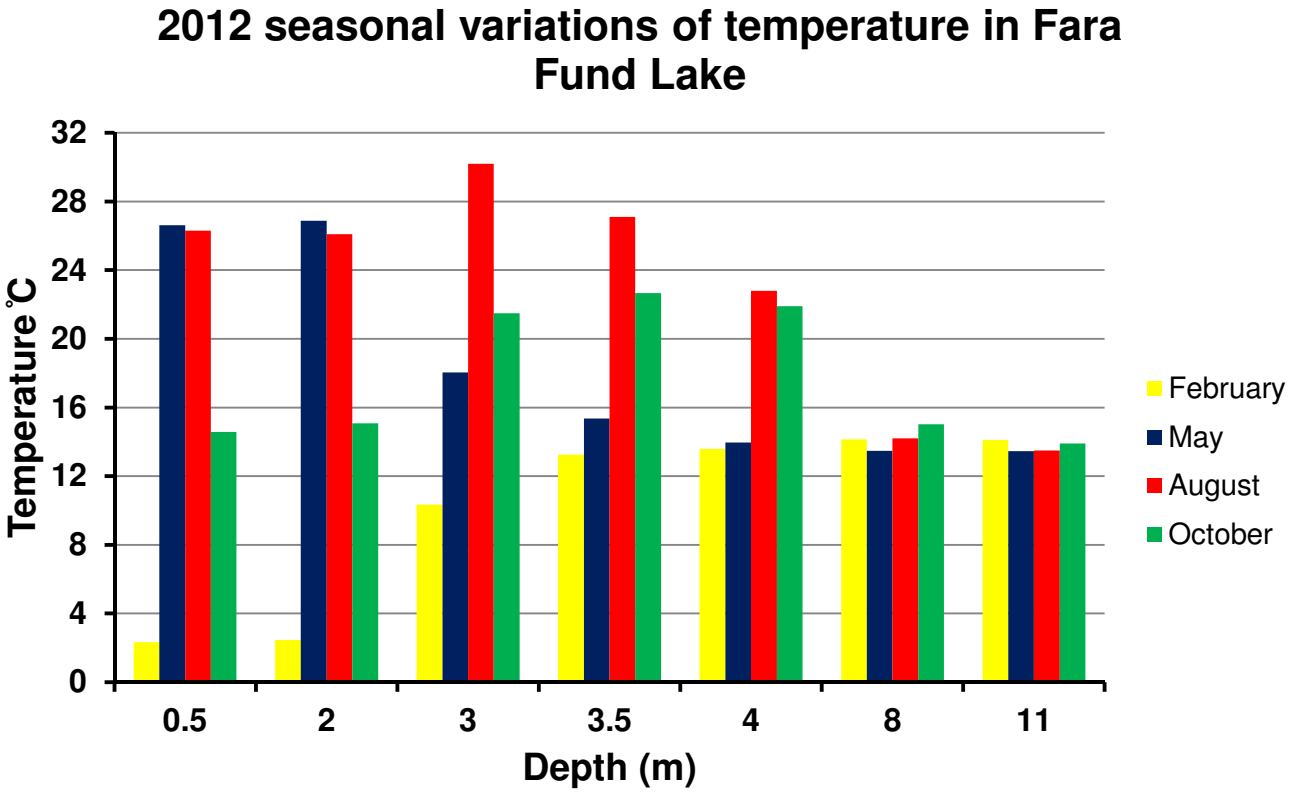
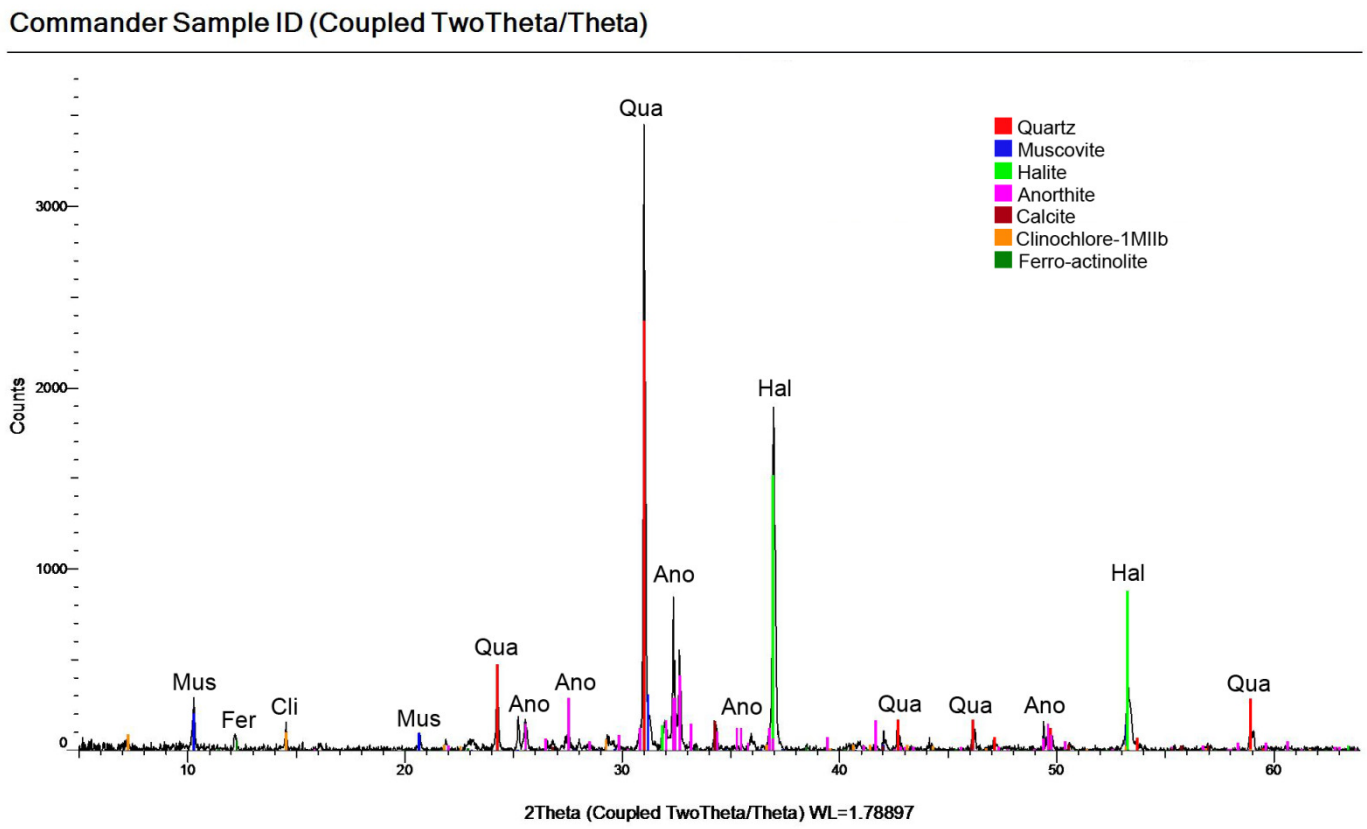
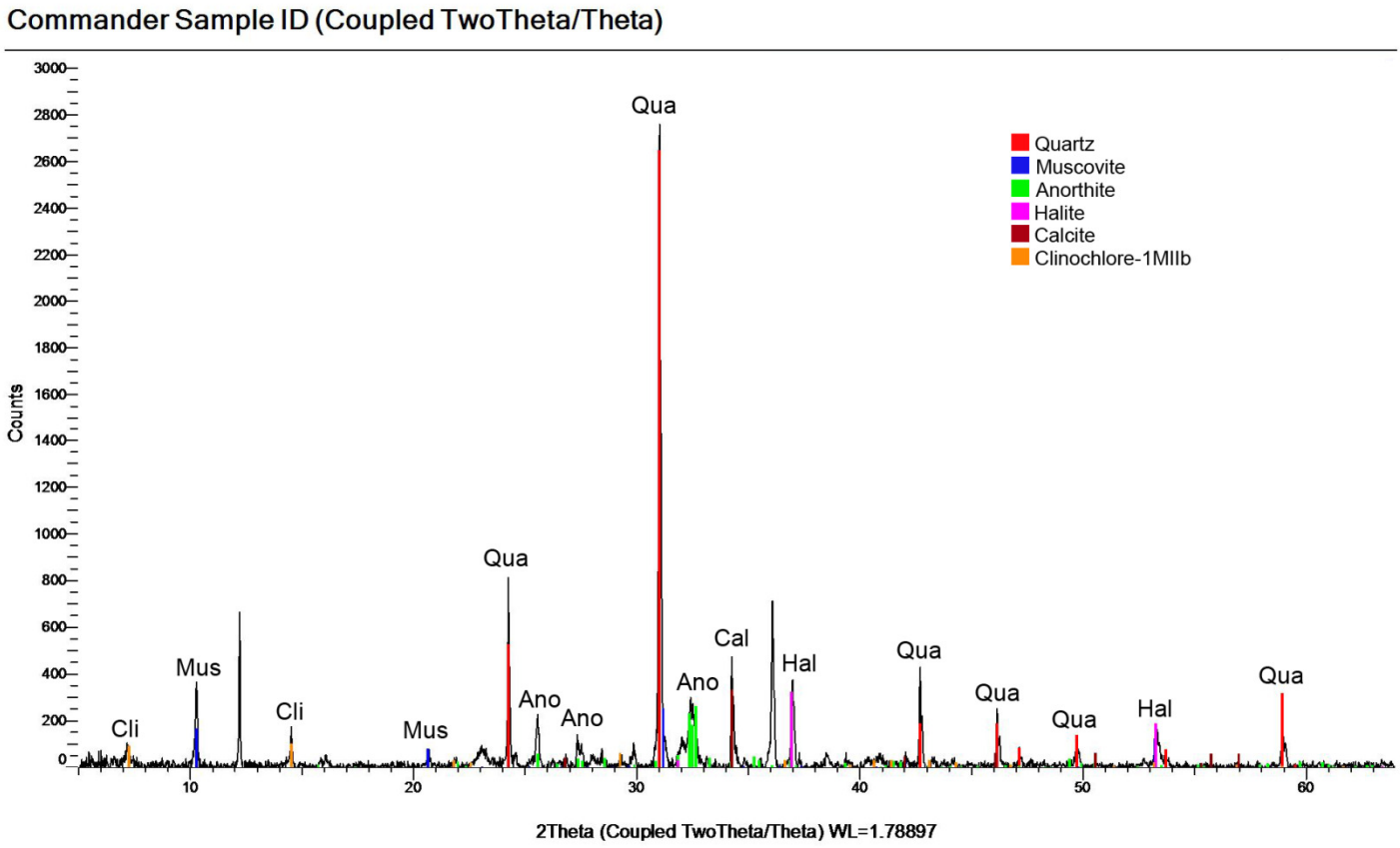


Figure 12. The XRD pattern of 3 m deep sediments from Ursu Lake.



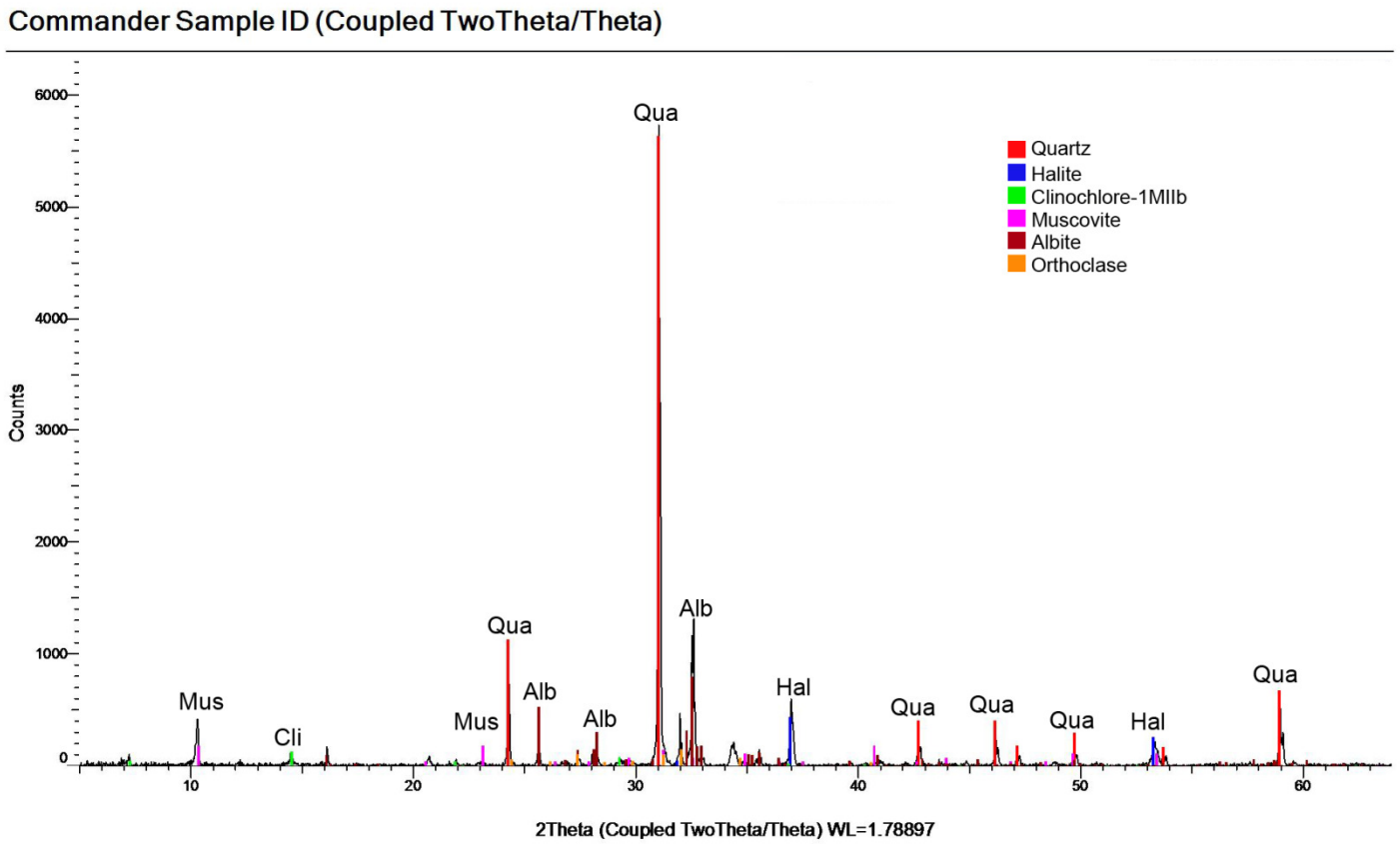
Abbreviations: Qua-quartz; Mus-muscovite; Hal-halite; Ano-anorthite; Cli-clinochlore; Fer-ferro-actinolite.

Figure 13. The XRD pattern of 16 m deep sediments from Ursu Lake.



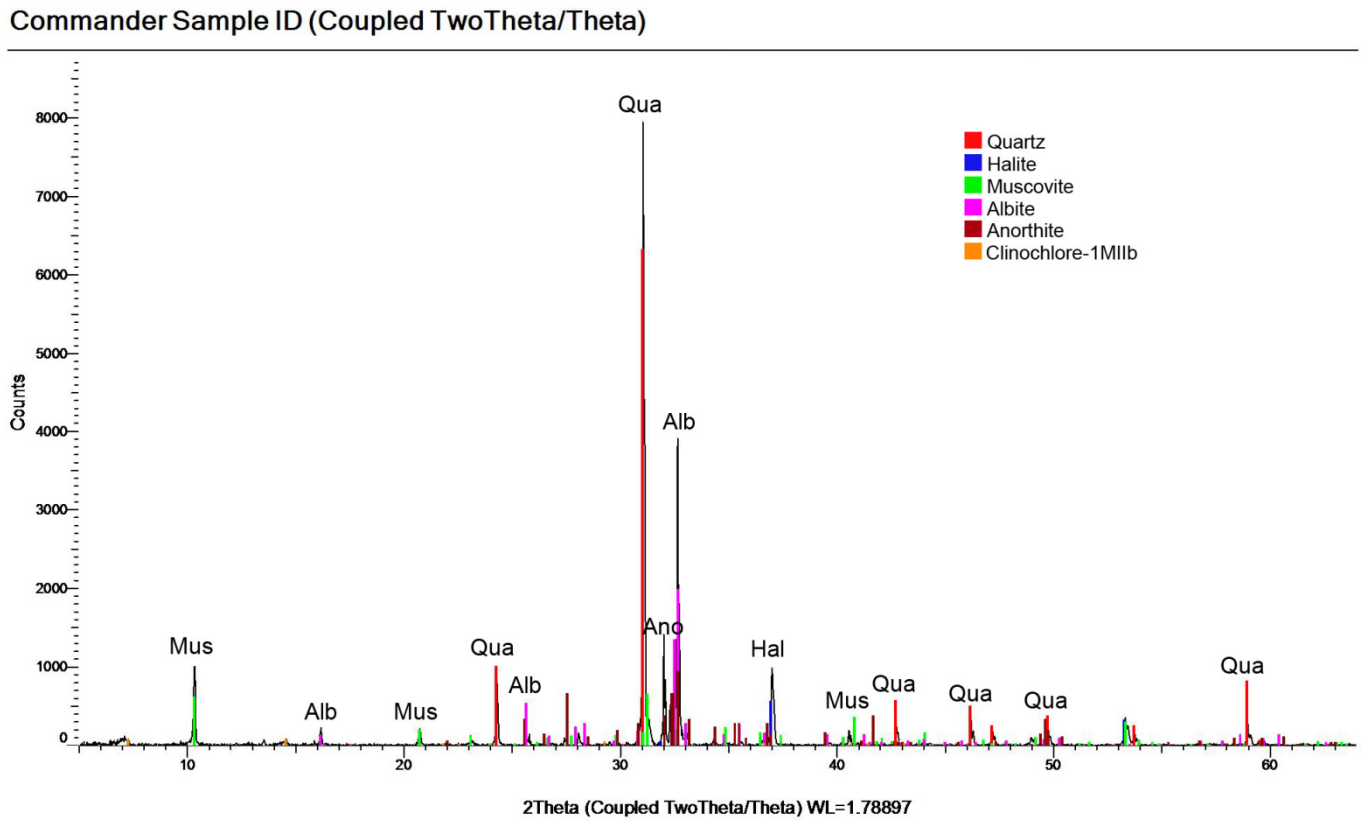
Abbreviations: Qua-quartz; Mus-muscovite; Ano-anorthite; Hal-halite; Cal-calcite; Cli-clinochlore

Figure 14. The XRD pattern of 2 m deep sediments from Fara Fund Lake.



Abbreviations: Qua-quartz; Hal-halite; Cli-clinochlore; Mus-muscovite; Alb-albite.

Figure 15. The XRD pattern of 4 m deep sediments from Fara Fund Lake.



Abbreviations: Qua-quartz; Hal-halite; Mus-muscovite; Alb-albite; Ano-anorthite.

Figure 16. DAPI epifluorescence microscopy images of Ursu Lake microbiota displaying coccus (A; 0.5 m deep) and vibrio (B; 9 m deep) morphotypes.

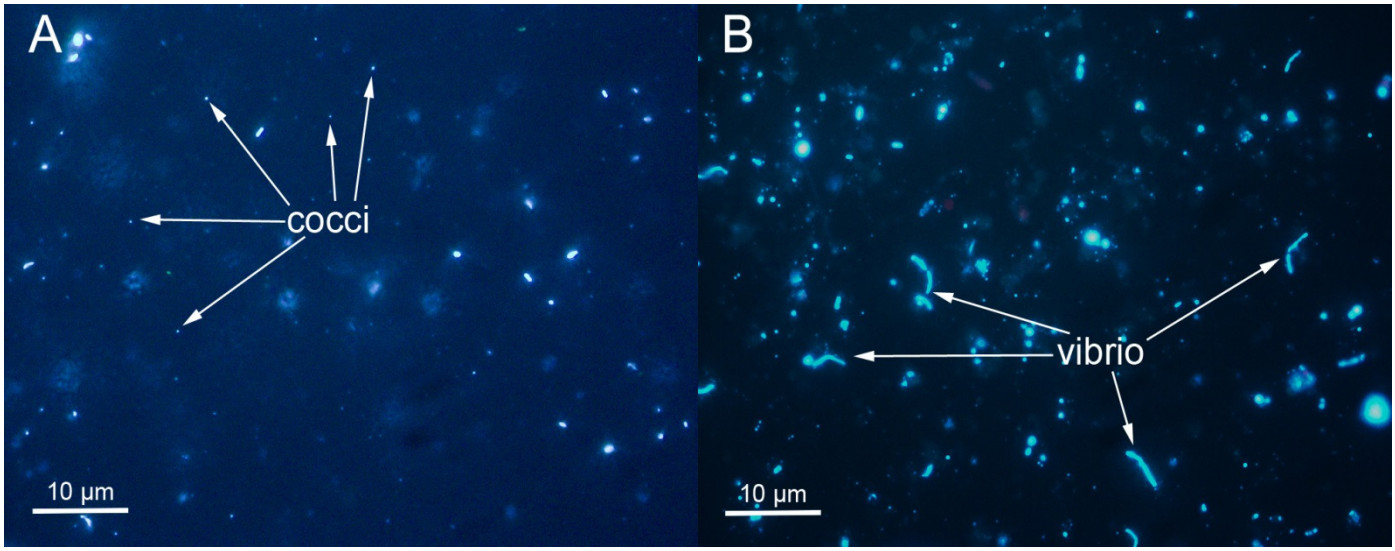


Figure 17. DAPI epifluorescence microscopy images of Fara Fund Lake microbiota displaying coccus (A; 0.5 m deep) and spirilla (B; 11 m deep) morphotypes.