

## Supplementary Figures S1-S12

### Article

#### Flourish in Darkness: Protist Communities of Water Sites in Cave Shulgan-Tash (Southern Urals, Russia)

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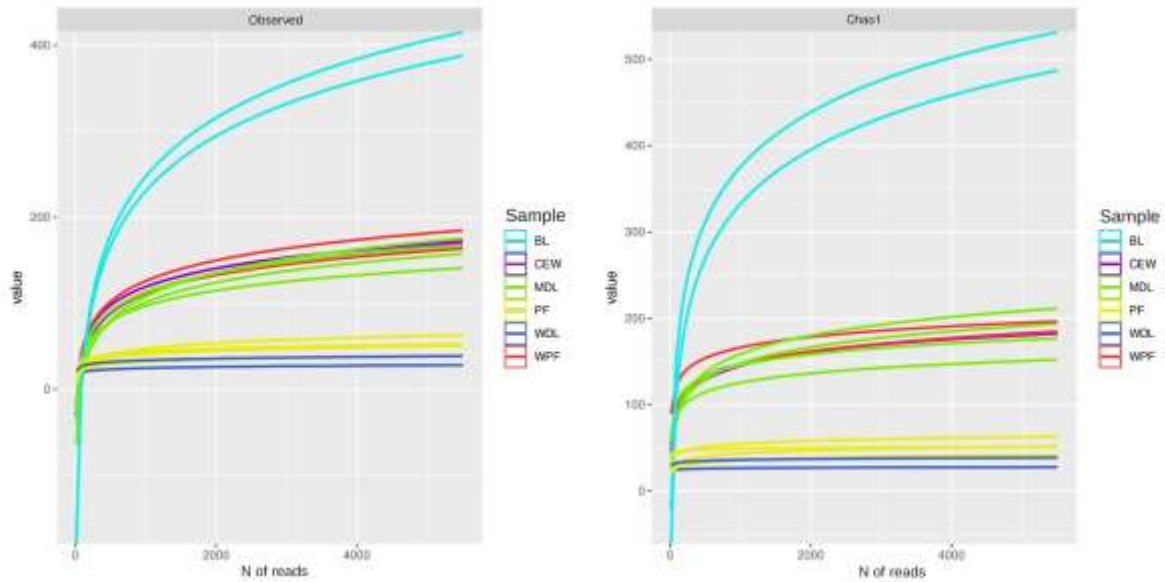
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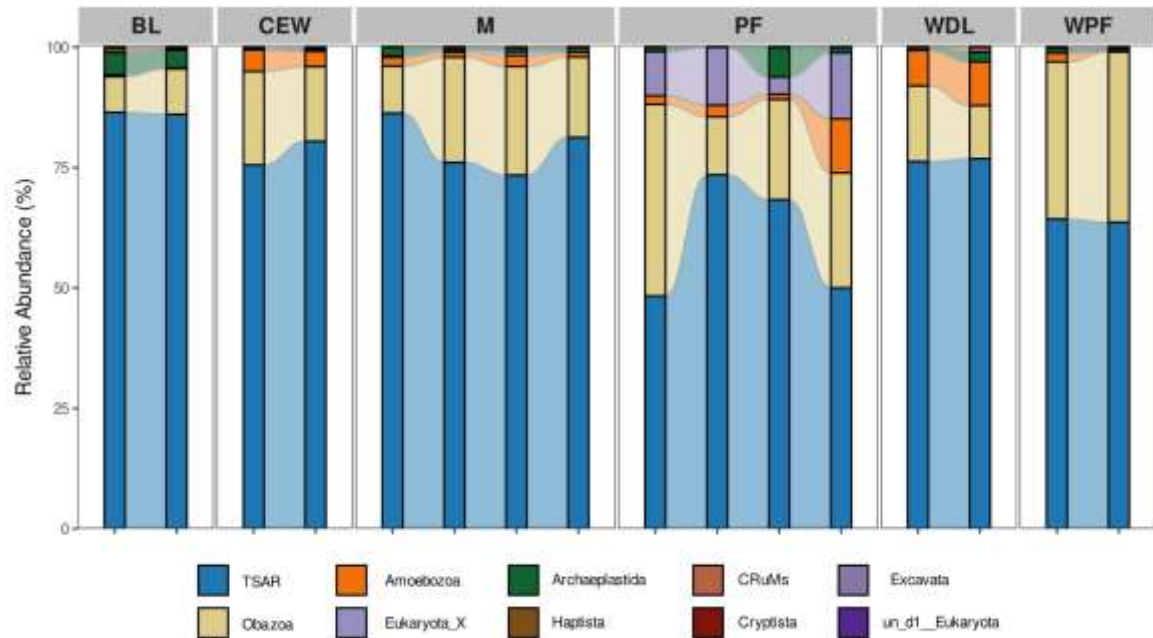
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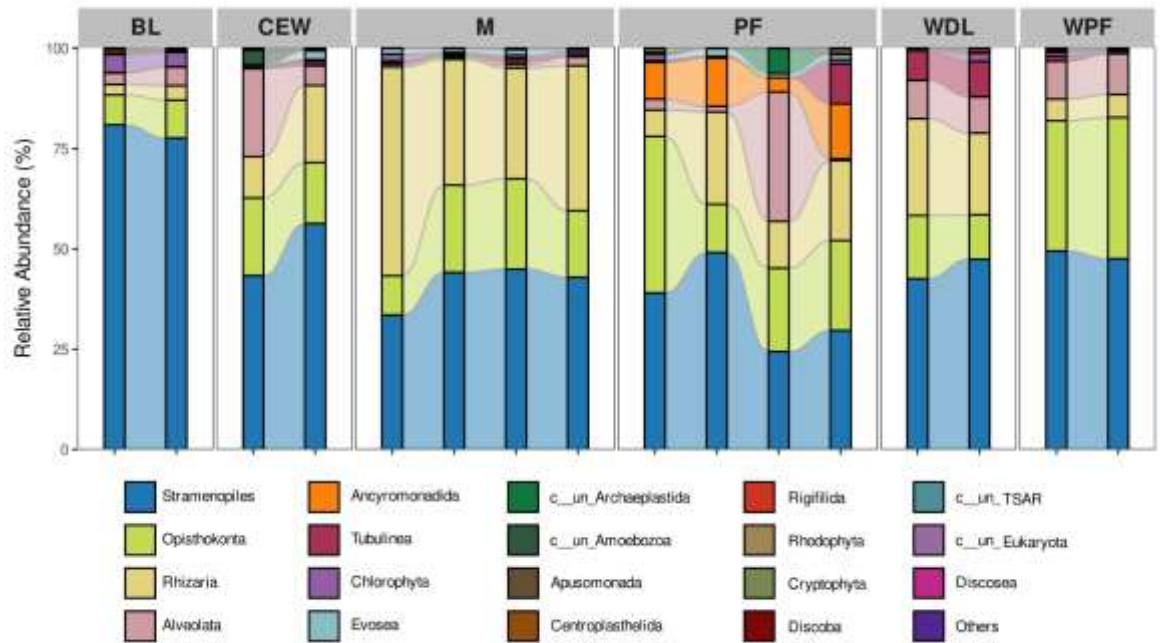
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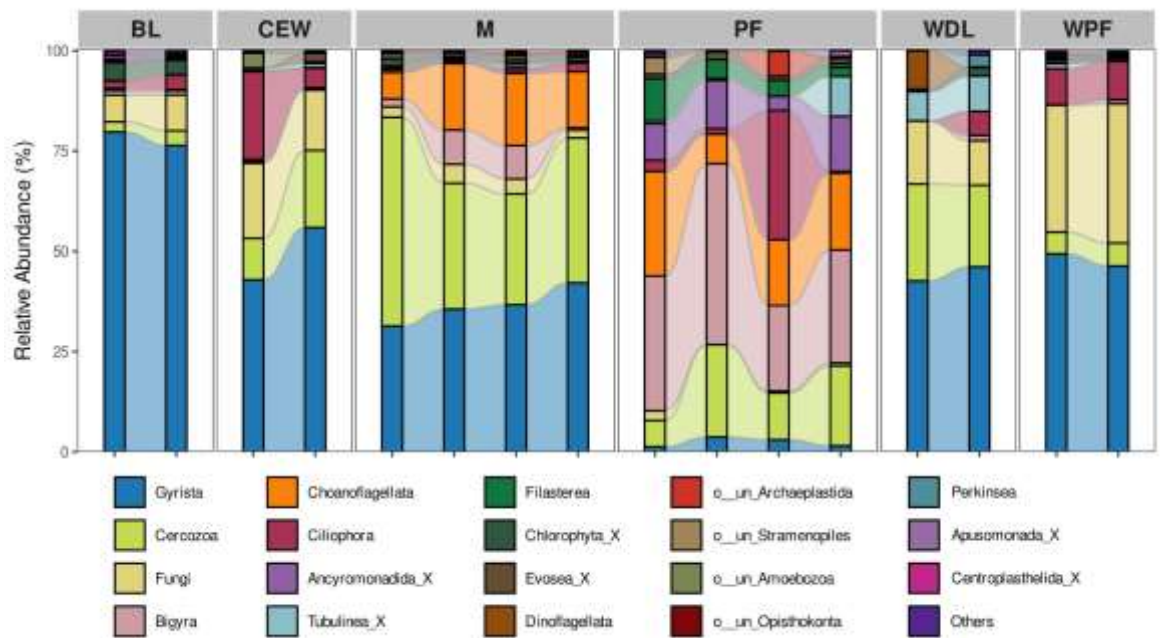
**Figure S1.** Rarefaction curves of sequenced 18S rDNA libraries from Shulgan-Tash Cave samples plotted for the total number of reads (x-axis) and the number of ASVs (y-axis, left graph) or Chao1 index value (y-axis, right graph). The colored curves correspond to the sampling sites



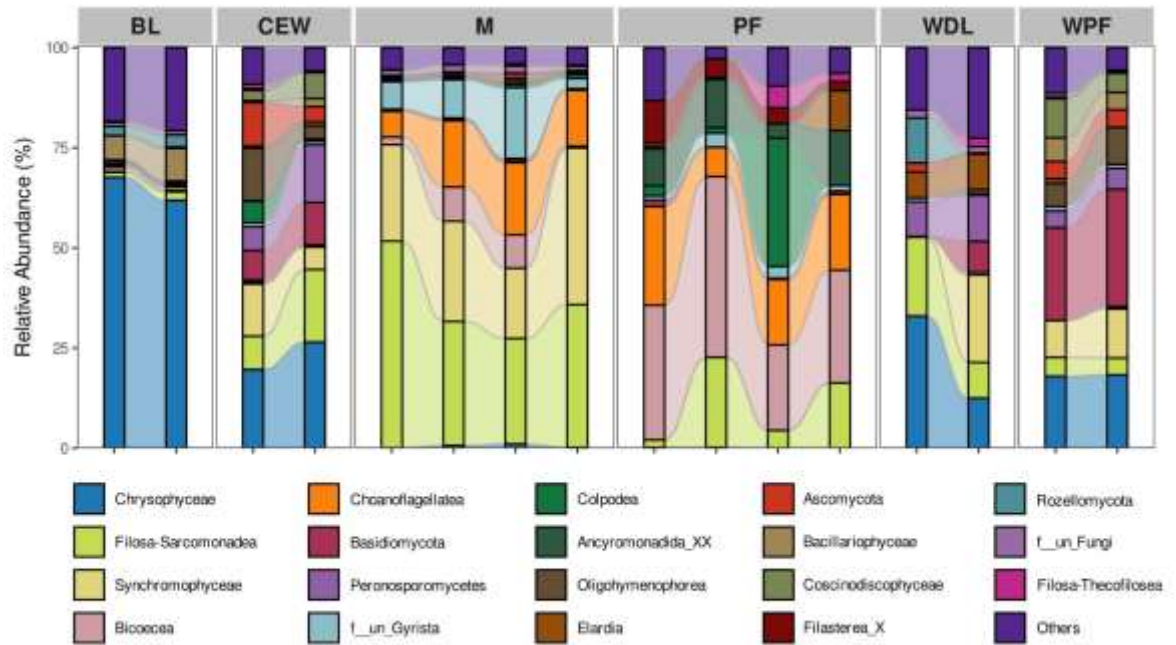
**Figure S2.** Relative abundances of top 20 protist supergroups in the communities of Shulgan-Tash Cave. Colors correspond to supergroup names. BL - water from Blue Lake; CEW - lake water at the point of inflow into Distant Lake; M - mats of Distant Lake; PF - pool finger biofilm; WDL - water in the middle of Distant Lake; WPF - water surrounding pool fingers.



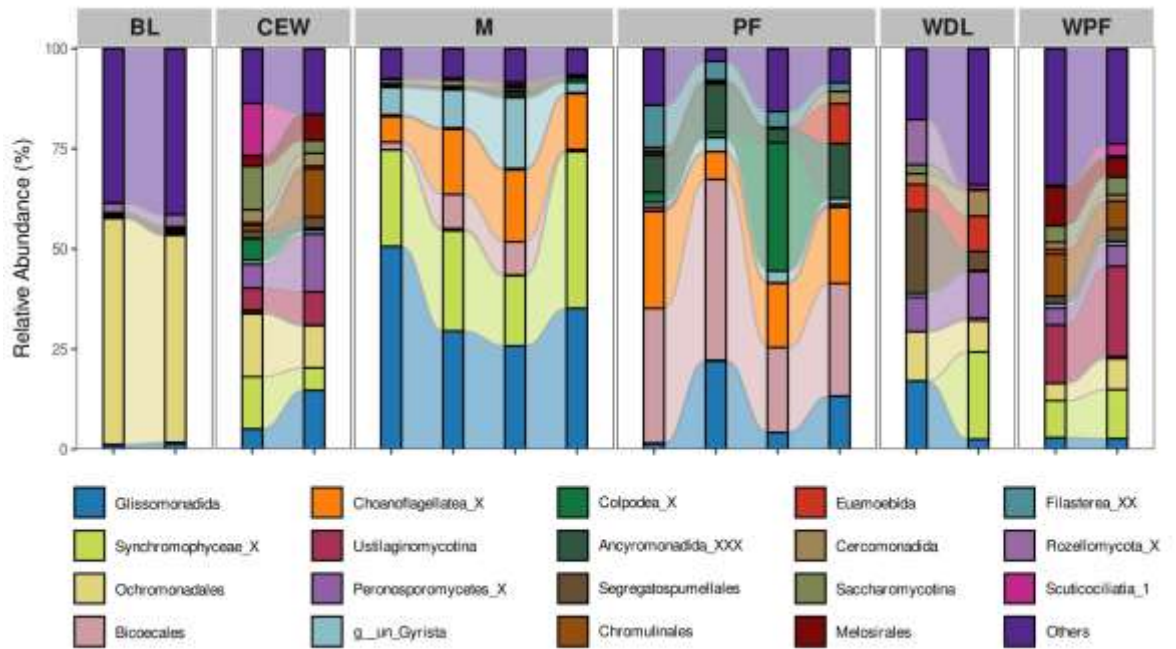
**Figure S3.** Relative abundances of top 20 protist divisions in the communities of Shulgan-Tash Cave. Colors correspond to division names. Labels as in Figure S2.



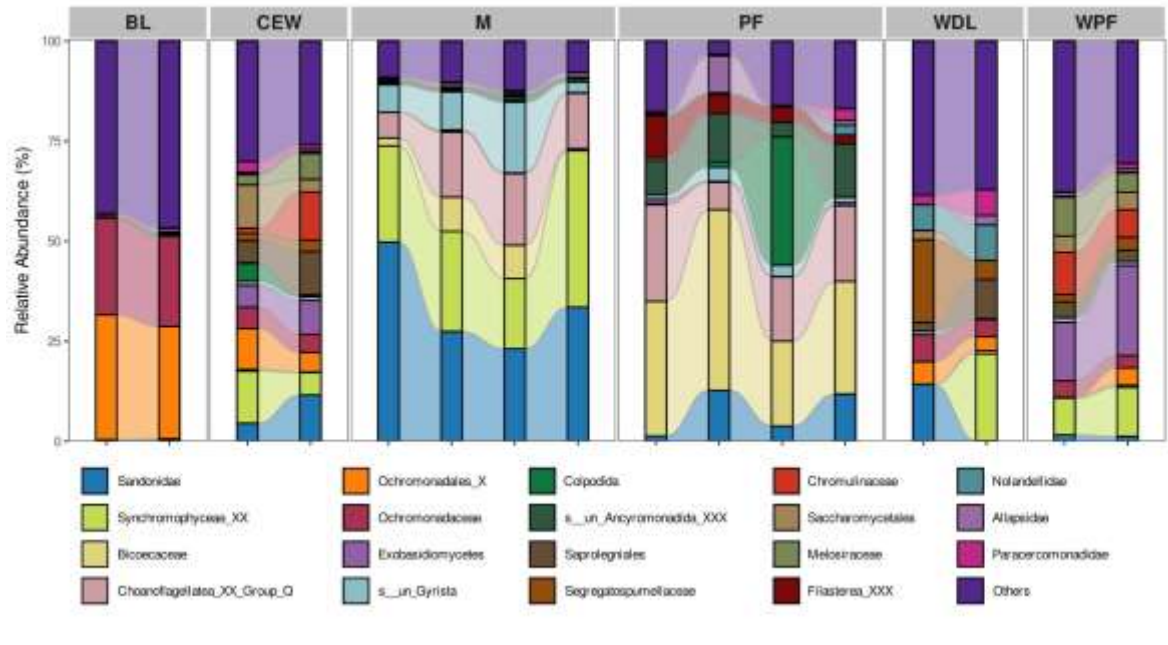
**Figure S4.** Relative abundances of top 20 protist subdivisions in the communities of Shulgan-Tash Cave. Colors correspond to subdivision names. Labels as in Figure S2.



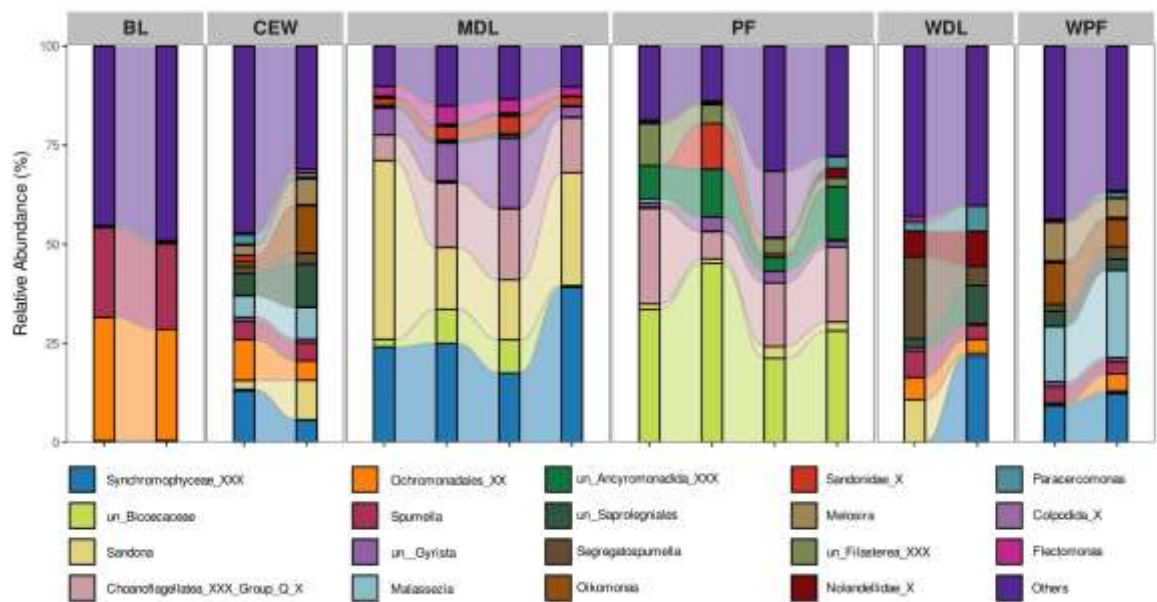
**Figure S5.** Relative abundances of top 20 protist classes in the communities of Shulgan-Tash Cave. Colors correspond to class names. Labels as in Figure S2.



**Figure S6.** Relative abundances of top 20 protist orders in the communities of Shulgan-Tash Cave. Colors correspond to order names. Labels as in Figure S2.

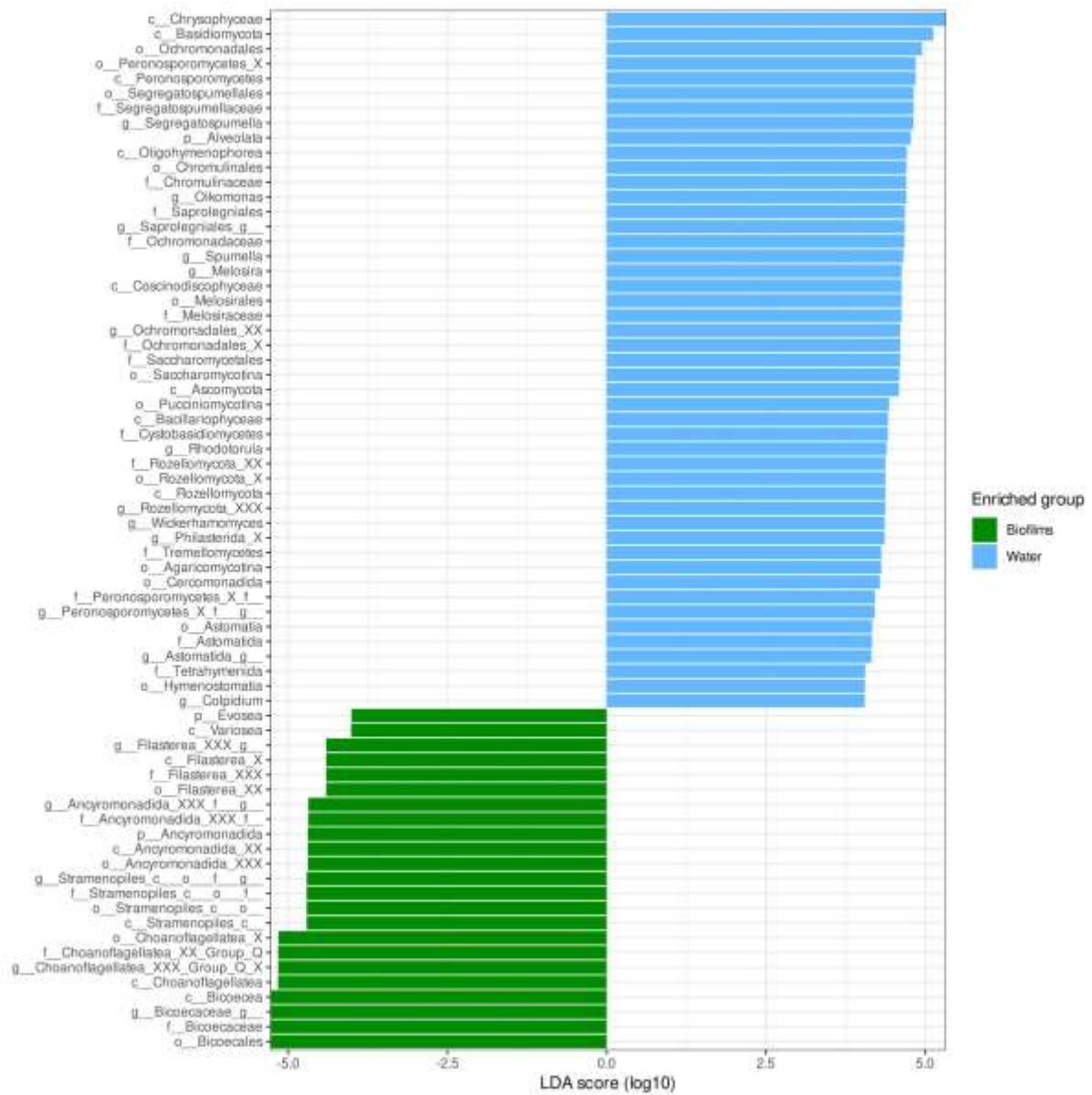


**Figure S7.** Relative abundances of top 20 protist families in the communities of Shulgan-Tash Cave. Colors correspond to family names. Labels as in Figure S2.

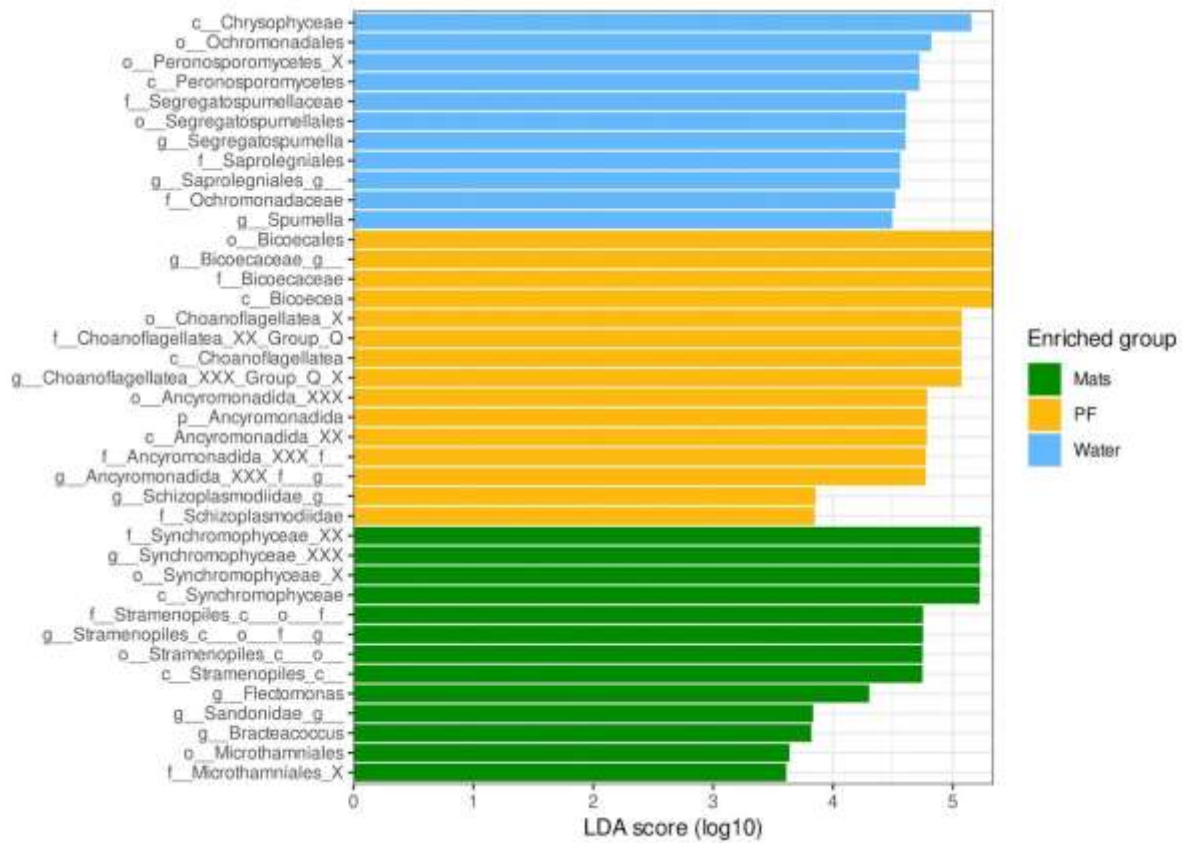


**Figure S8.** Relative abundances of top 20 protist genera in the communities of Shulgan-Tash Cave. Colors correspond to genus names. Labels as in Figure S2.

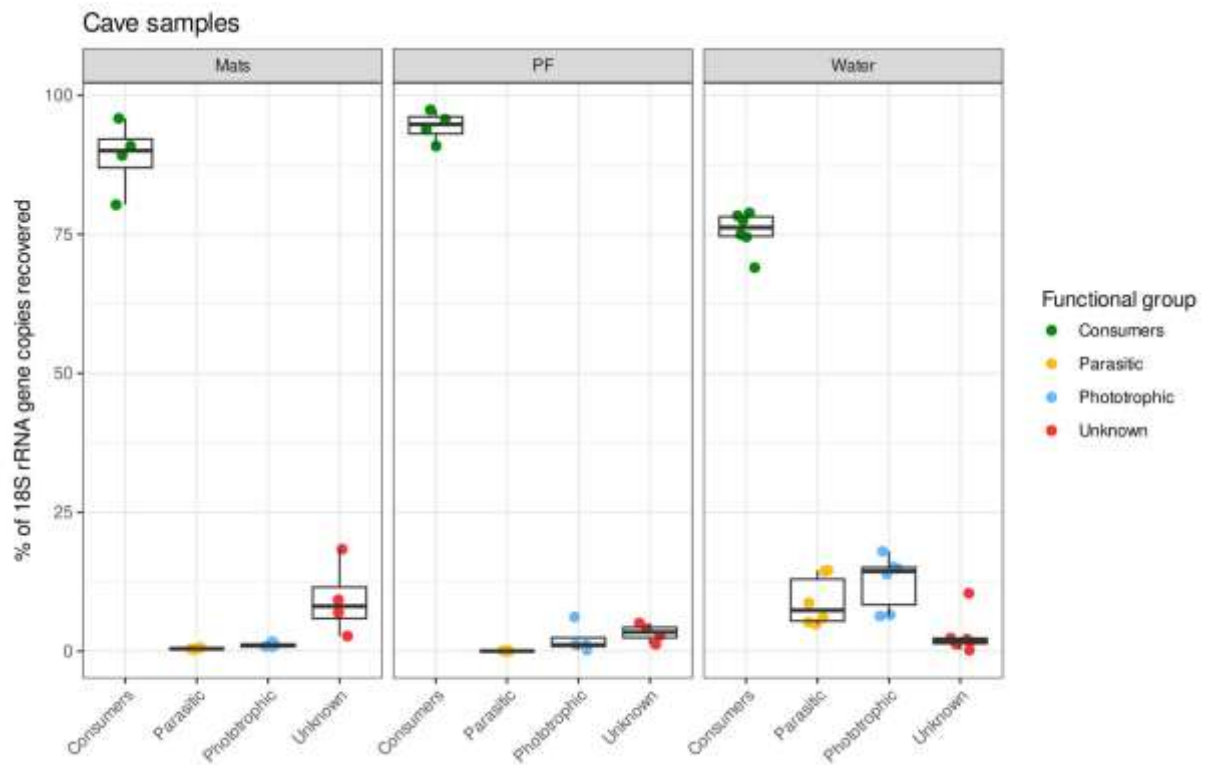




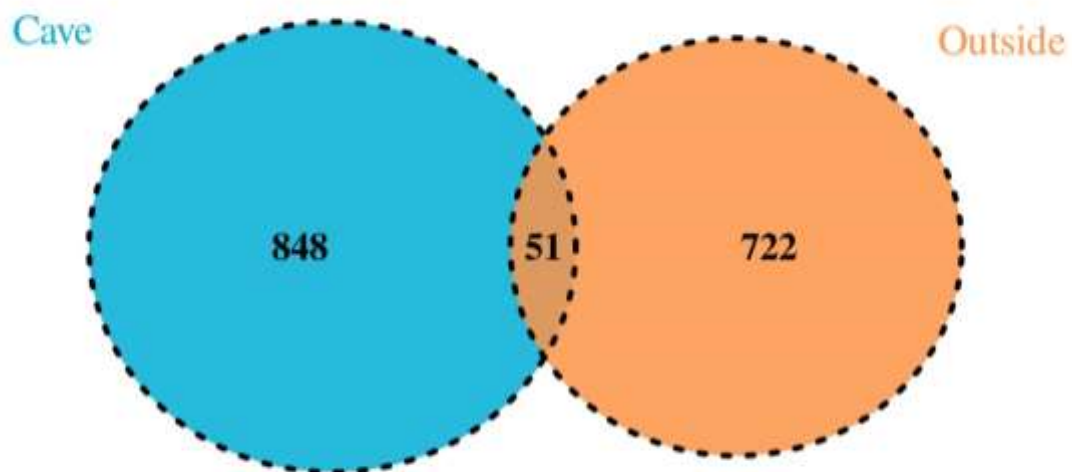
**Figure S9.** Linear discriminant analysis effect size (LEfSe) analysis of plankton and biofilm protist communities in Distant Lake inside Shulgan-Tash Cave. The plot shows taxa with significant differential abundance ( $P < 0.05$ , FDR, LDA > 4).



**Figure S10.** Top 40 of protist taxa with significant differential abundance revealed in biotopes of Distant Lake inside Shulgan-Tash Cave (mats, pool fingers (PF), and plankton (Water)) using linear discriminant analysis effect size (LEfSe) analysis. The plot shows taxa with significant differential abundance ( $P < 0.05$ , FDR, LDA  $> 2$ ).



**Figure S11.** The relative abundance of functional groups in plankton (Water) and biofilm (Mats and pool fingers (PF)) protist communities in Distant Lake inside Shulgan-Tash Cave. The colors correspond to the functional group.



**Figure S12.** Venn's diagram showing number of specific and shared ASVs in protist communities of Distant Lake located inside Shulgan-Tash Cave (Cave) and Blue Lake located outside the cave (Outside).