

# **Seasonal dynamics of Lake Winnipeg's microbial communities reveal aerobic anoxygenic phototrophic populations to coincide with sunlight availability**

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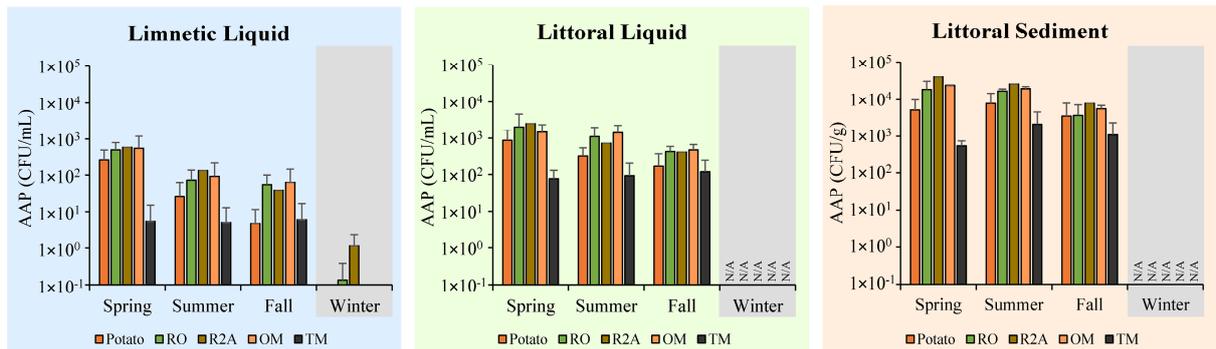
## **Supplemental Figures:**

**Figure S1. AAP counts on various complex media.**

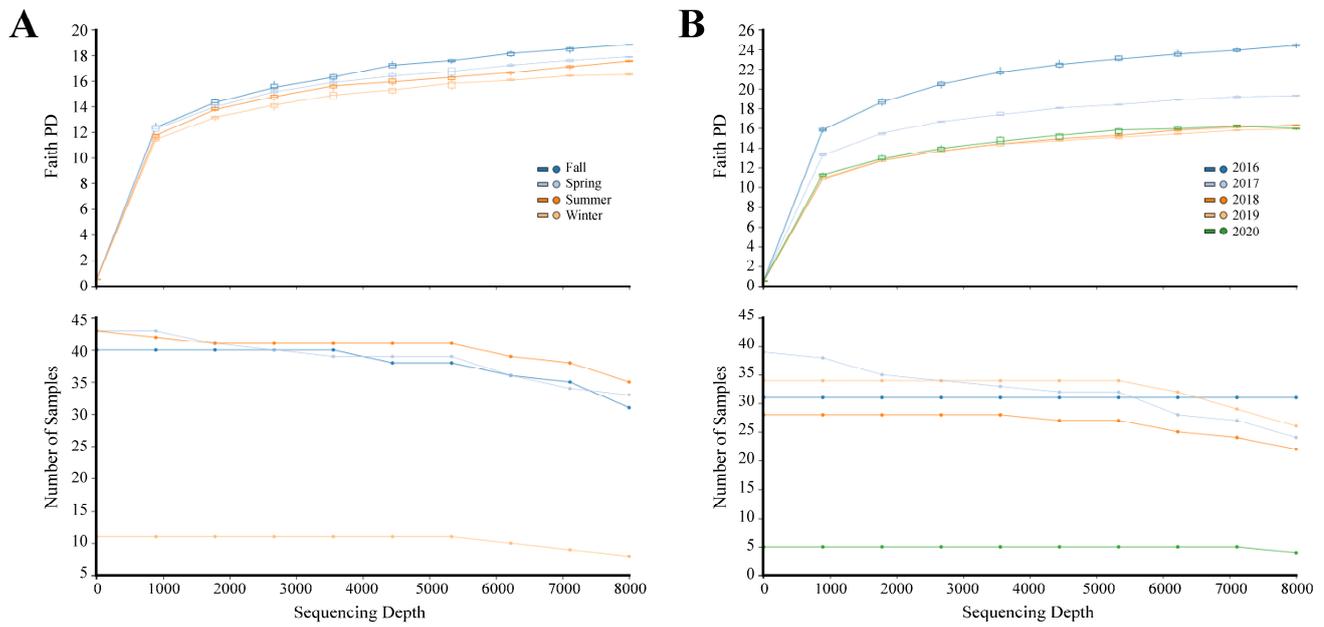
**Figure S2. Rarefaction curves of sequenced microbial communities.**

**Figure S3. Alternative colourations of PCoA ordination based on Jaccard diversity distance matrix.**

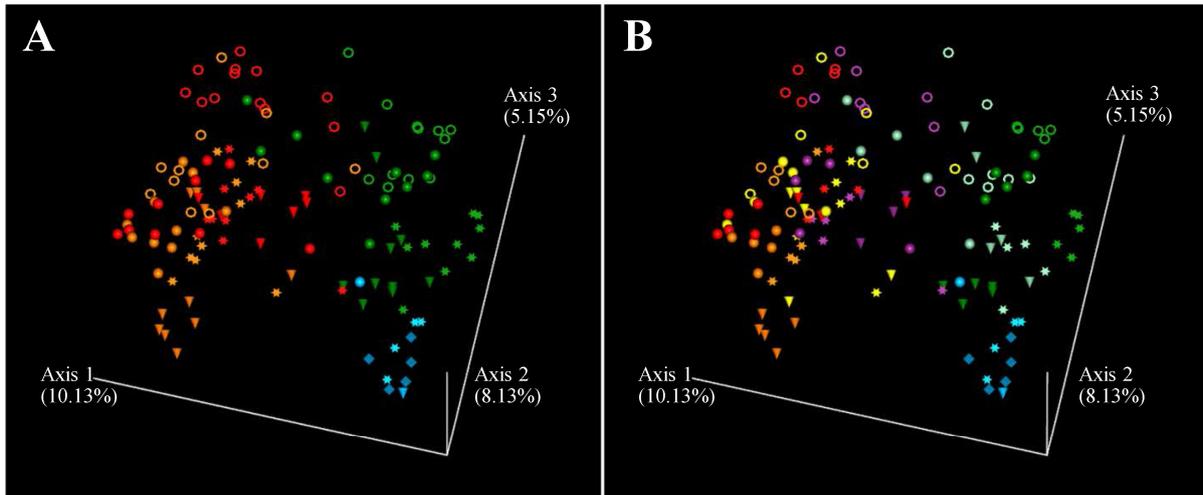
**Figure S4. Littoral community composition of sediment compared to liquid samples.**



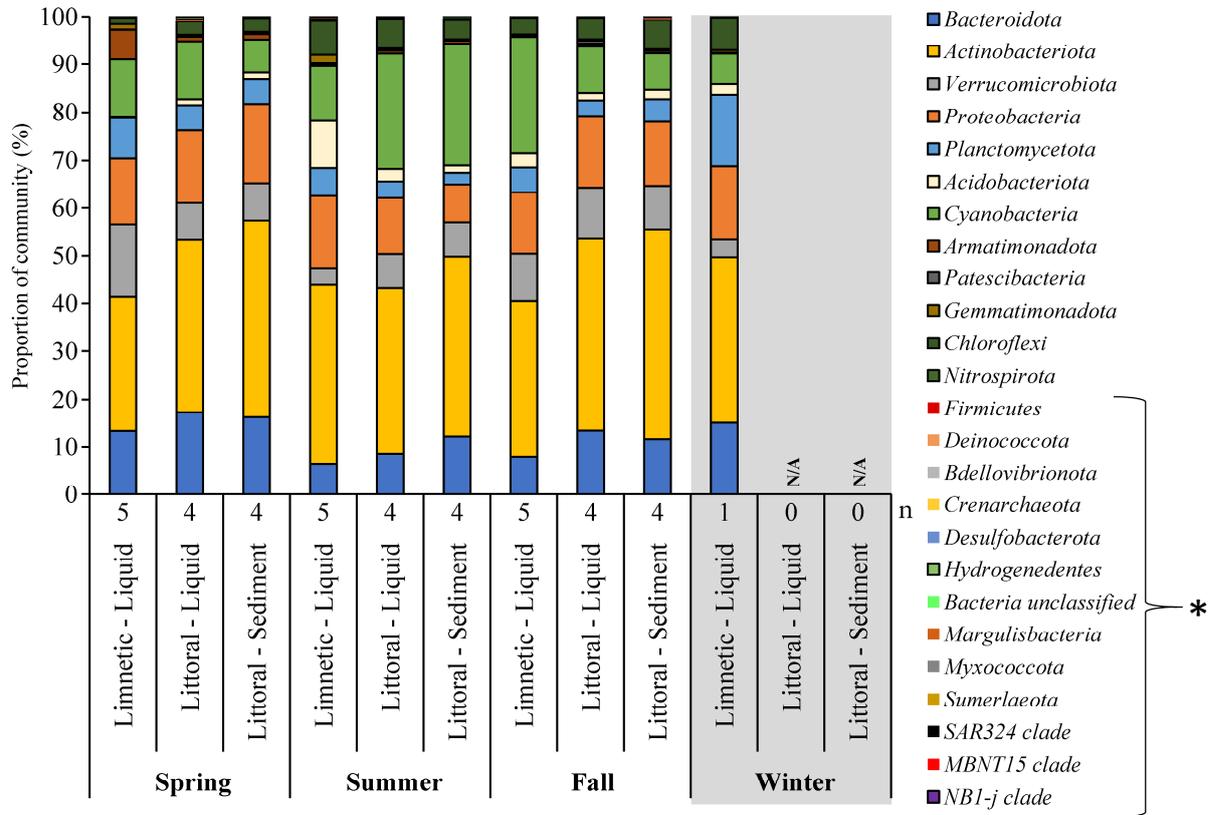
**Figure S1. AAP counts on various complex media.** Enumerated values from all limnetic water and littoral water/sediment samples, averaged by season. N/A, not analyzed.



**Figure S2. Rarefaction curves of sequenced microbial communities. (A) Yearly and (B) seasonal totals of 16S V4 rRNA genes reached a plateau in diversity, when all samples reached sufficient sequencing depth.**



**Figure S3. Alternative colouration of PCoA ordination based on Jaccard diversity distance matrix. (A)** Seasons included: Winter, blue; Spring, green; Summer, orange; Fall, red. **(B)** Euphotic zones separated: Winter limnetic, blue; Spring limnetic, green; Spring littoral, teal; Summer limnetic, orange; Summer littoral, yellow; Fall limnetic, red; Fall littoral, purple.



**Figure S4. Littoral community composition of sediment compared to liquid samples.** Zone averages from Spring 2017 to Winter of 2018. N/A, not analyzed; n, number of samples per season. \*, *Minimal Clades (<1%)*.