

COG\_matrix



**Fig. S6.** Number of significant COG predicted by Hypergeometric test and PhyloGLM including presence/absence version (binary) and copy numbers version (rawcounts). Circles filled by red color represent clusters only found in Hypergeometric test, circles in green color denote cluster only found in PhyloGLM test, and circles filled in yellow indicate overlap cluster in Hypergeometric test and PhyloGLM test. The numbers in circles refer to cluster counts.