



**Supplementary Figure S1:** A k-mer analysis of quality-trimmed Illumina reads (113.6 Gbp). The frequency distributions of distinct k-mers (21, 31, 41, 51, 61, and 71) are shown. Peaks appear around 9-11 K-mer coverage. This value suggests that the *Aurantiochytrium* haploid genome is 94-104 Mbp.