



**Figure S4. Maximum-likelihood tree for T4-like phages (GP23).** The main reference groups are indicated on the tree (near-T4 in red, T4-like cyanophages in blue), and leaf labels corresponding to virome sequences are colored (red for Lake Pavin and blue for Lake Bourget). The Far-T4 group is highlighted in yellow. The number of reads assembled is given in brackets for each contig. Nodes with at least 80% bootstrap support are flagged with black circles.