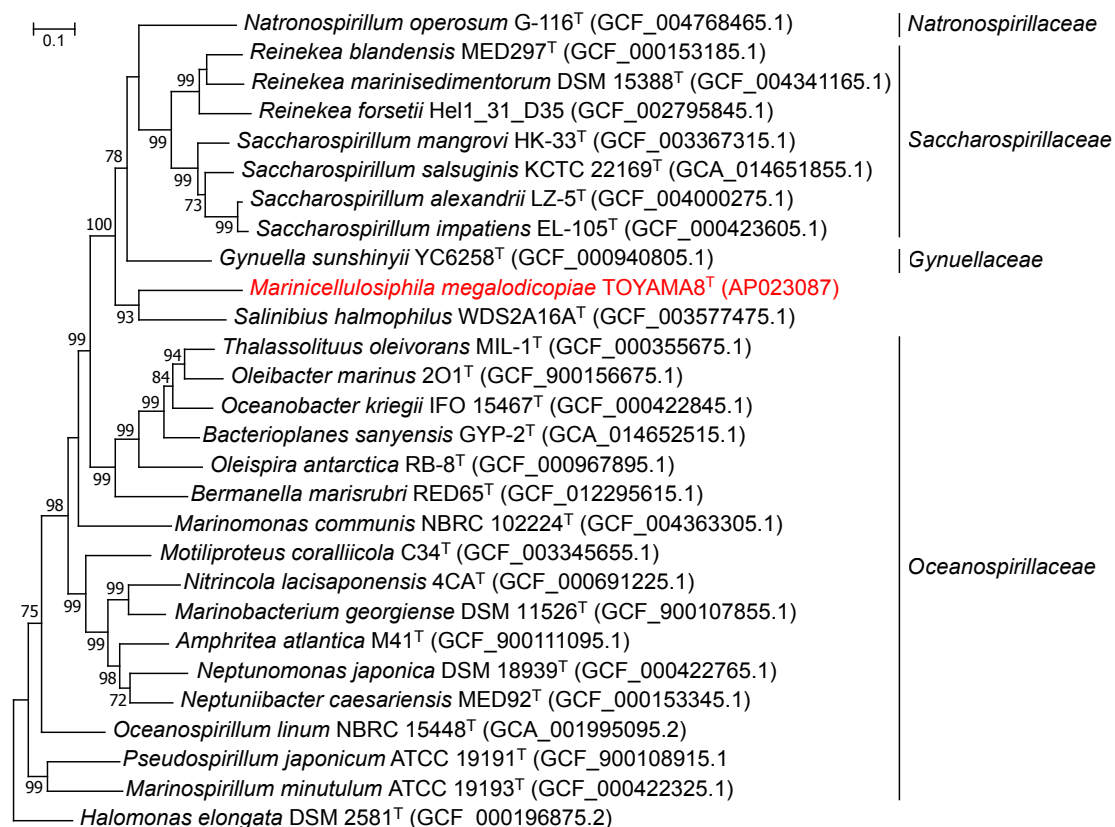


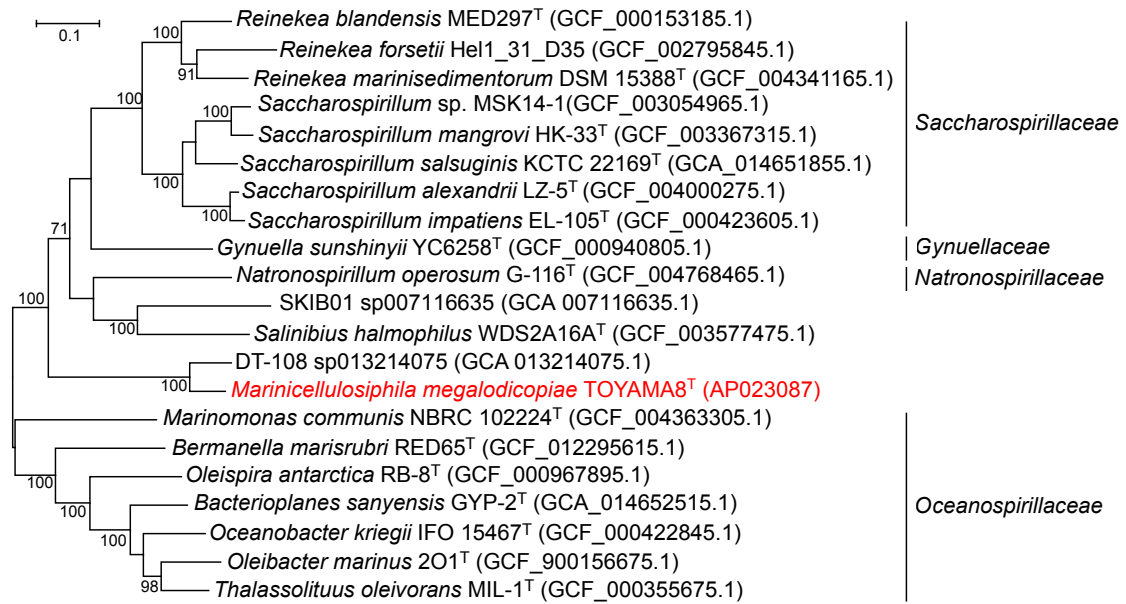
Supplementary data

Marinicellulosiphila megalodicopiae* gen. nov., sp. nov., a deep-sea alkaliphilic cellulolytic bacterium isolated from an endemic ascidian *Megalodicopia hians

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Supplementary Fig S1. Maximum-likelihood tree based on 120 concatenated single copy marker proteins of the strain TOYAMA8 and related genera in the family *Saccharospirillaceae*, *Gynuellaceae*, *Natronospirillaceae* and *Oceanospirillaceae*. Bootstrap values ($\geq 70\%$, 300 replications) are shown at nodes. Bar, 0.1 substitutions per nucleotide position. The tree was rooted using *Halomonas elongata* DSM 2581^T as the outgroup.



Supplementary Fig S2. Maximum-likelihood tree based on 120 concatenated single copy marker proteins of the strain TOYAMA8 and related species including environmental samples in the family *Saccharospirillaceae*, *Gynuellaceae*, and *Natronospirillaceae*. Bootstrap values ($\geq 70\%$, 300 replications) are shown at nodes. Bar, 0.1 substitutions per nucleotide position. A total 3,624 positions were used to calculate the tree. The tree was rooted using *Oceanospirillaceae* group.