Description and comparative genomics of *Algirhabdus cladophorae* gen. nov., sp. nov., a novel aerobic anoxygenic phototrophic bacterial epibiont associated with isolated from the green alga *Cladophora stimpsonii*.

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Supplementary

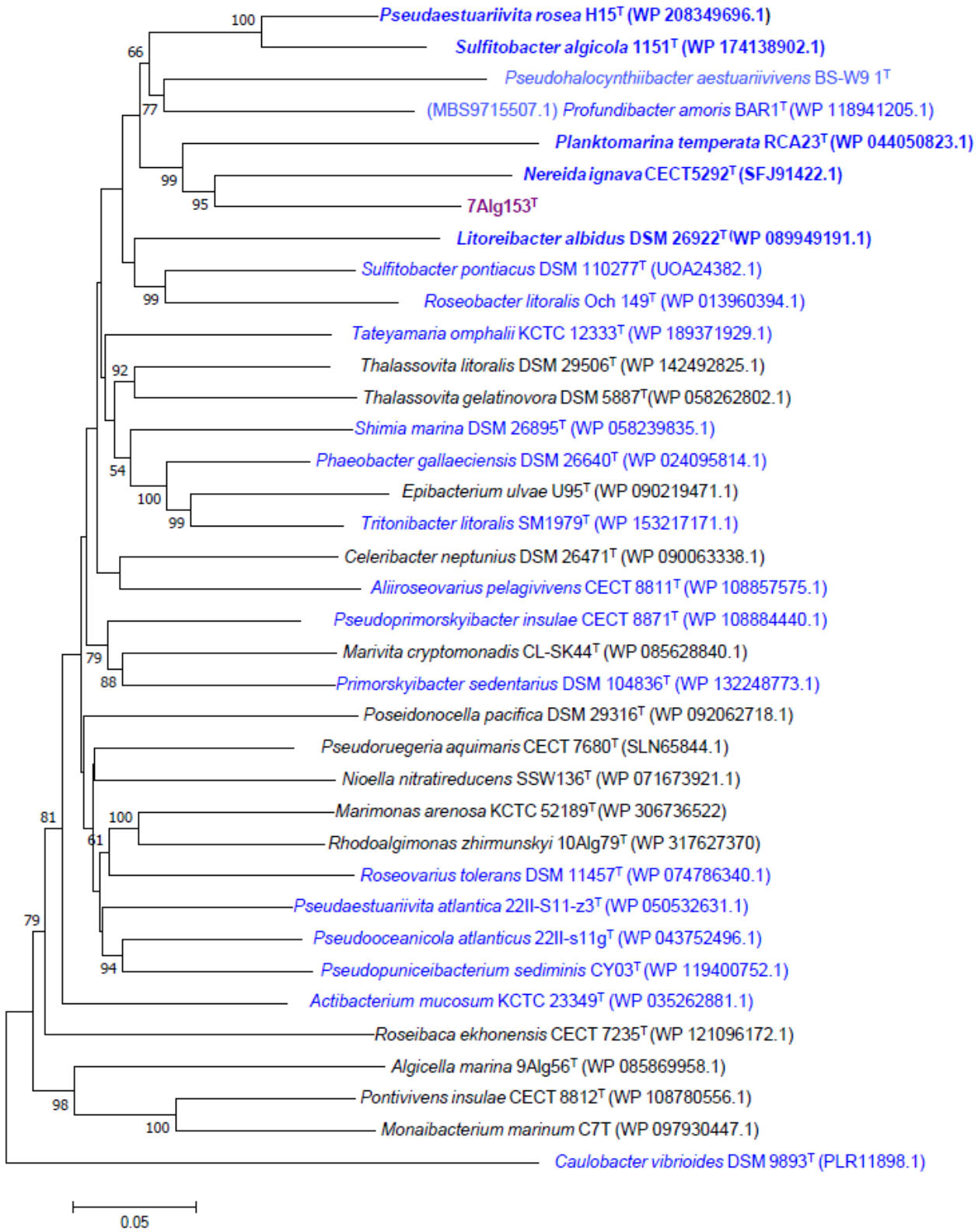


Figure S1. NJ RpoC tree showing phylogenetic relationships of the new strain 7Alg 153^T (KMM 6494^T) and type species strains from the closely related *Roseobacteraceae* and *Paracoccacea* (both formerly *Rhodobacteriaceae*) genera. Bootstrap values are based on 500 replicates and shown as percentage greater than 50. Bars are 0.05 substitutions per amino acid position. Strain *Caulobacter vibrioides* DSM 9893^T was used as an outgroup. GeBank/EMBL/DDB accession numbers are given in parentheses. The genomes of type species strains taken for a phylogenomic tree construction are shown in blue color.

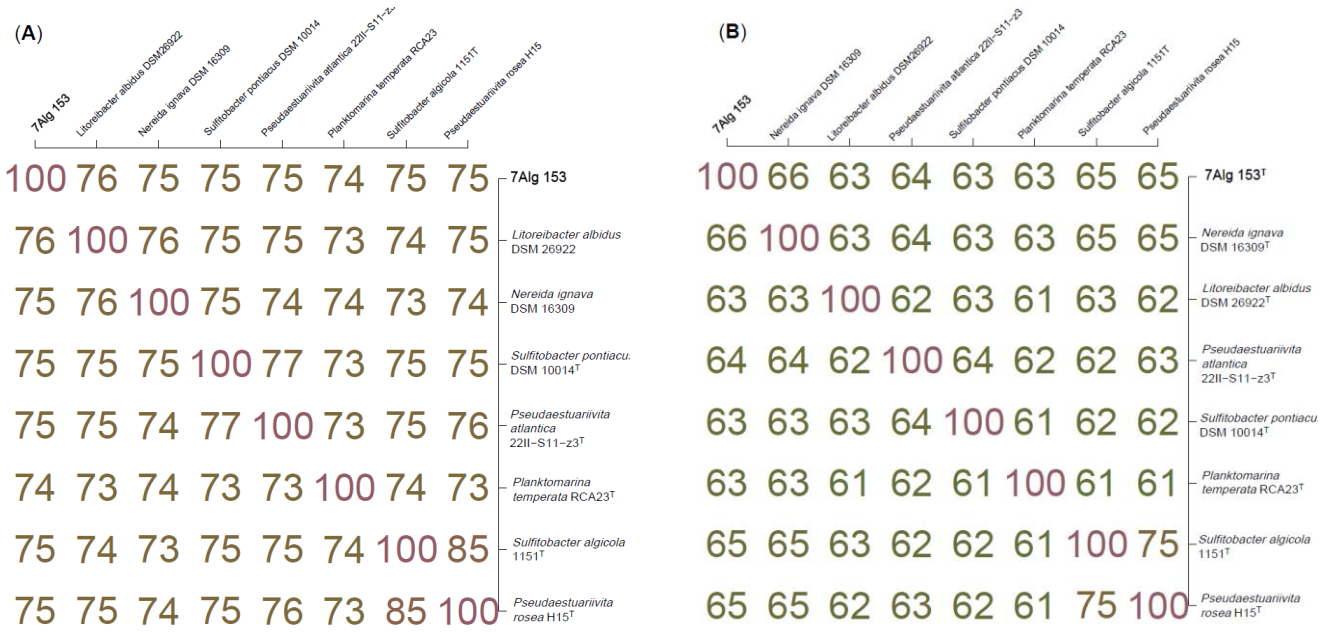


Table S1. The genome relatedness indexes display pairwise values of: (**A**) average nucleotide identities (ANI); (**B**) average amino acid identities (AAI) in percentages calculated using online servers ANI/AAI-Matrix, respectively.

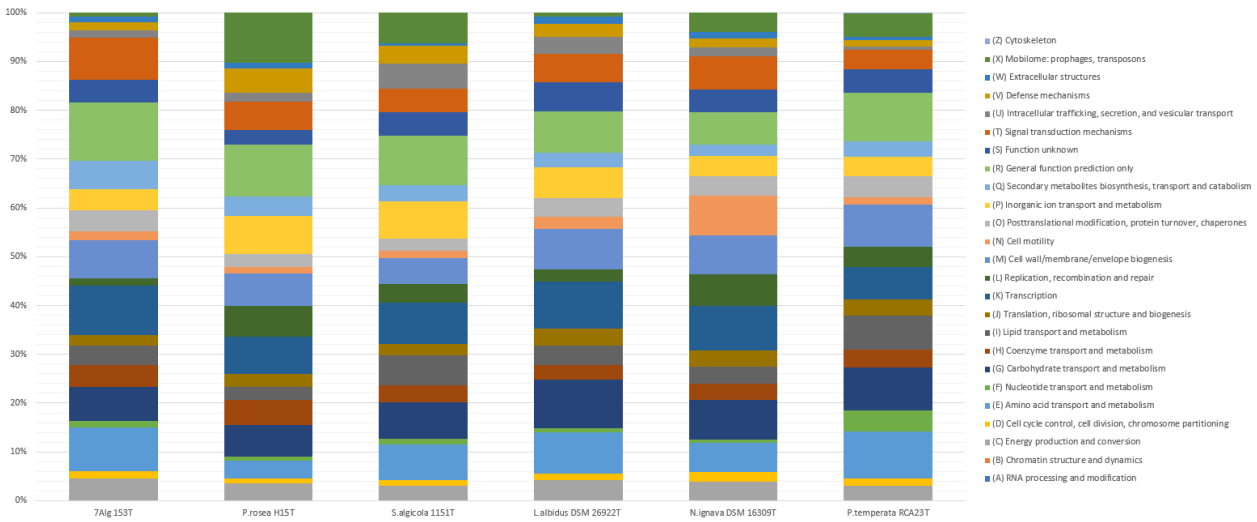
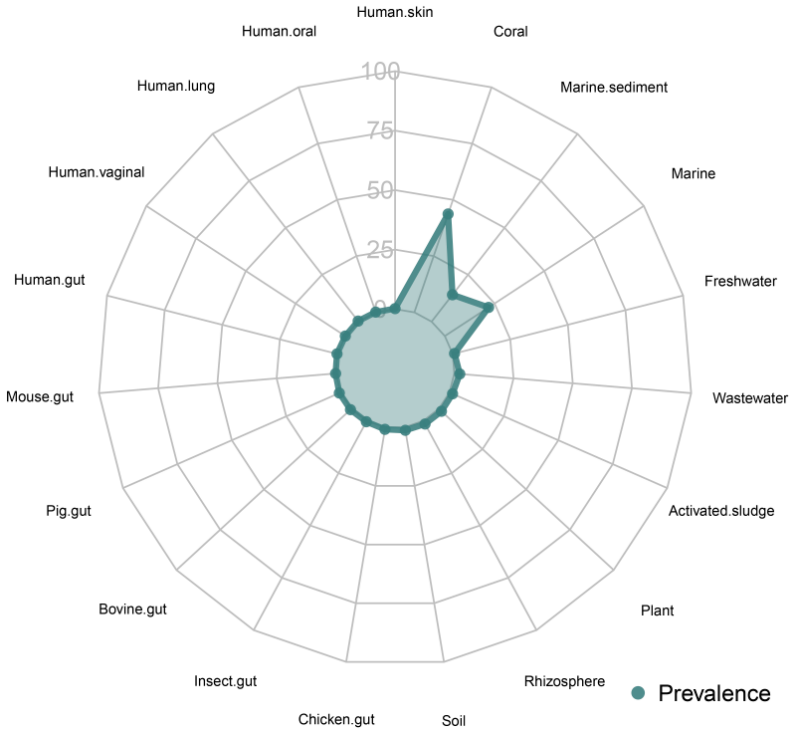


Figure S2. COG20 categories predicted in singletons among strains of the 7Alg 153^{T} clade.



FigureS3. Distribution and habitat preferences of 7Alg 153^{T} based on 16S rRNA gene amplicon databases from Protologger.

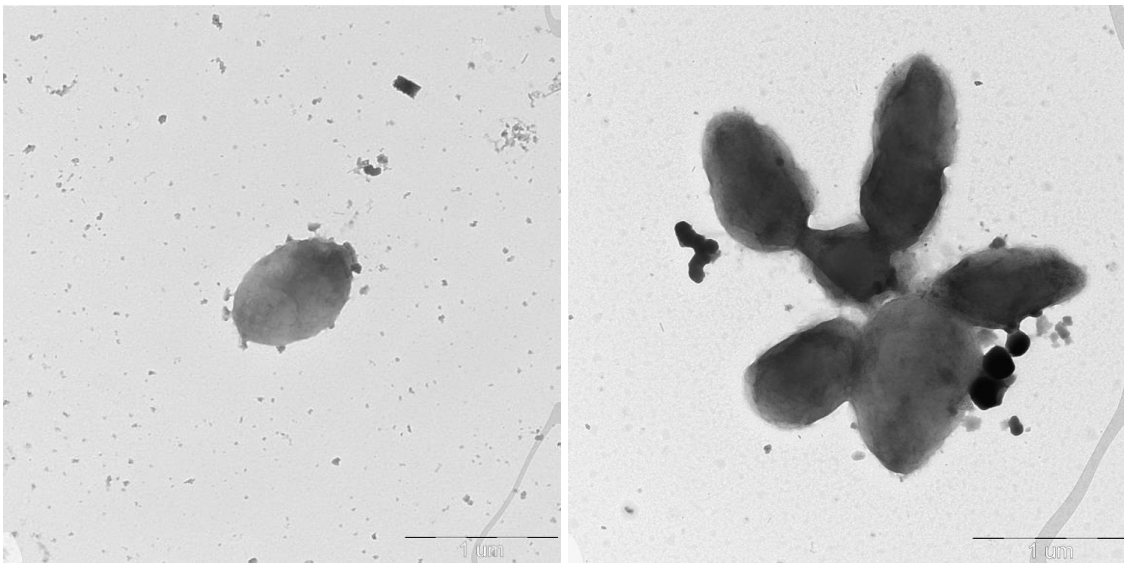


Figure S4. Transmission electron micrograph of strain 7Alg 153^{T}, bar, 1 µm.

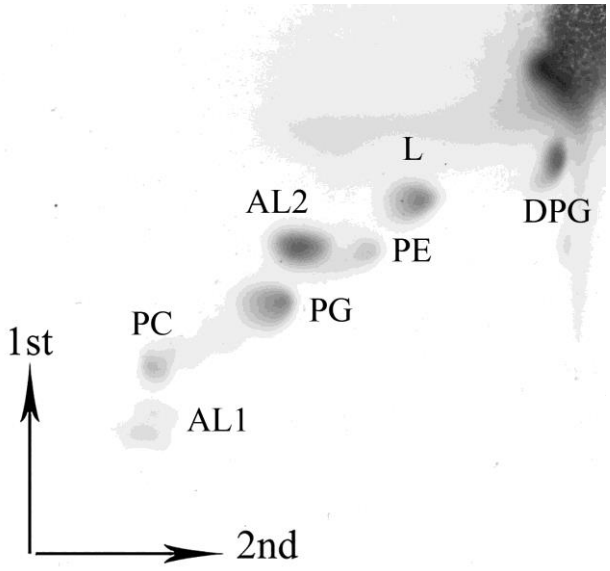


Figure S5. Two-dimensional thin-layer chromatograms of polar lipids of 7Alg 153^T. Abbreviations: DPG, diphosphatidylglycerol; PG, phosphatidylglycerol; PC, phosphatidylcholine; PE, phosphatidylethanolamine; AL1, AL2, unidentified aminolipids; L, unidentified lipid.