

1 **Supplementary Figures**

2 **Genomic-based taxonomic classification of the order *Sphingomonadales***

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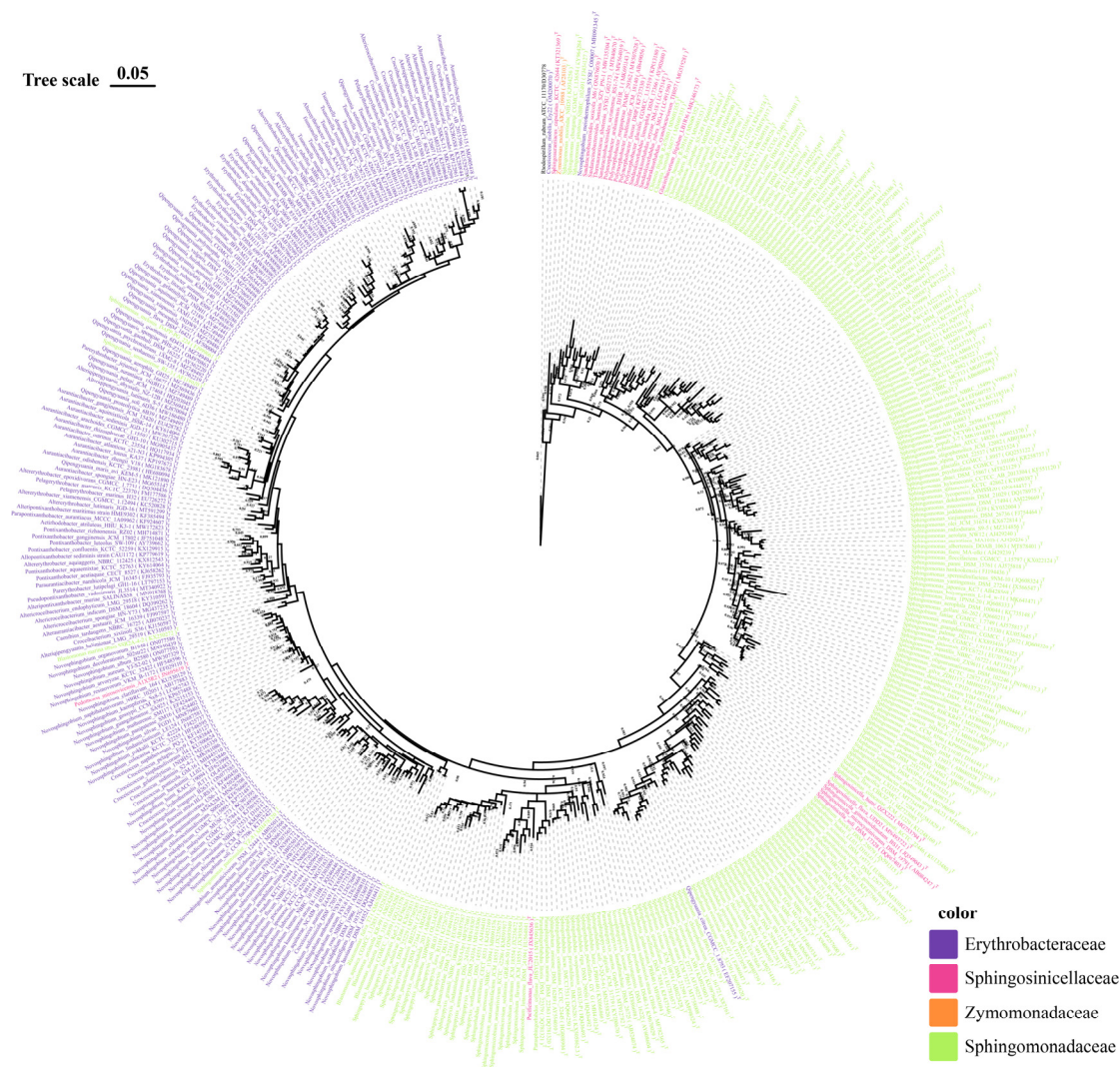
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19 **Figure S1.** The maximum-likelihood tree based on 16S rRNA gene sequences showing
 20 the phylogenetic relationship of Sphingomonadales type strains. Bootstrap values are
 21 based on 1,000 replicates; only bootstrap values 0.7 are shown. Bar, 0.01 substitutions
 22 per nucleotide position. Red, yellow, blue and purple represent the family
 23 *Erythrobacteraceae*, *Sphingomonadaceae*, *Sphingosinicellaceae* and
 24 *Zymomonadaceae*, respectively. *Rhodospirillum rubrum* ATCC 11170^T was used as an
 25 outgroup.



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27 **Figure S2.** Maximum-likelihood tree based on 120 concatenated protein sequences
 28 showing the phylogenetic relationship of type strains belonging to the order
 29 *Sphingomonadales*. Bootstrap values are based on 1000 replicates. Bar. 0.1
 30 substitutions per amino acid position. *Rhodospirillum rubrum* ATCC 11170^T was used
 31 as an outgroup.

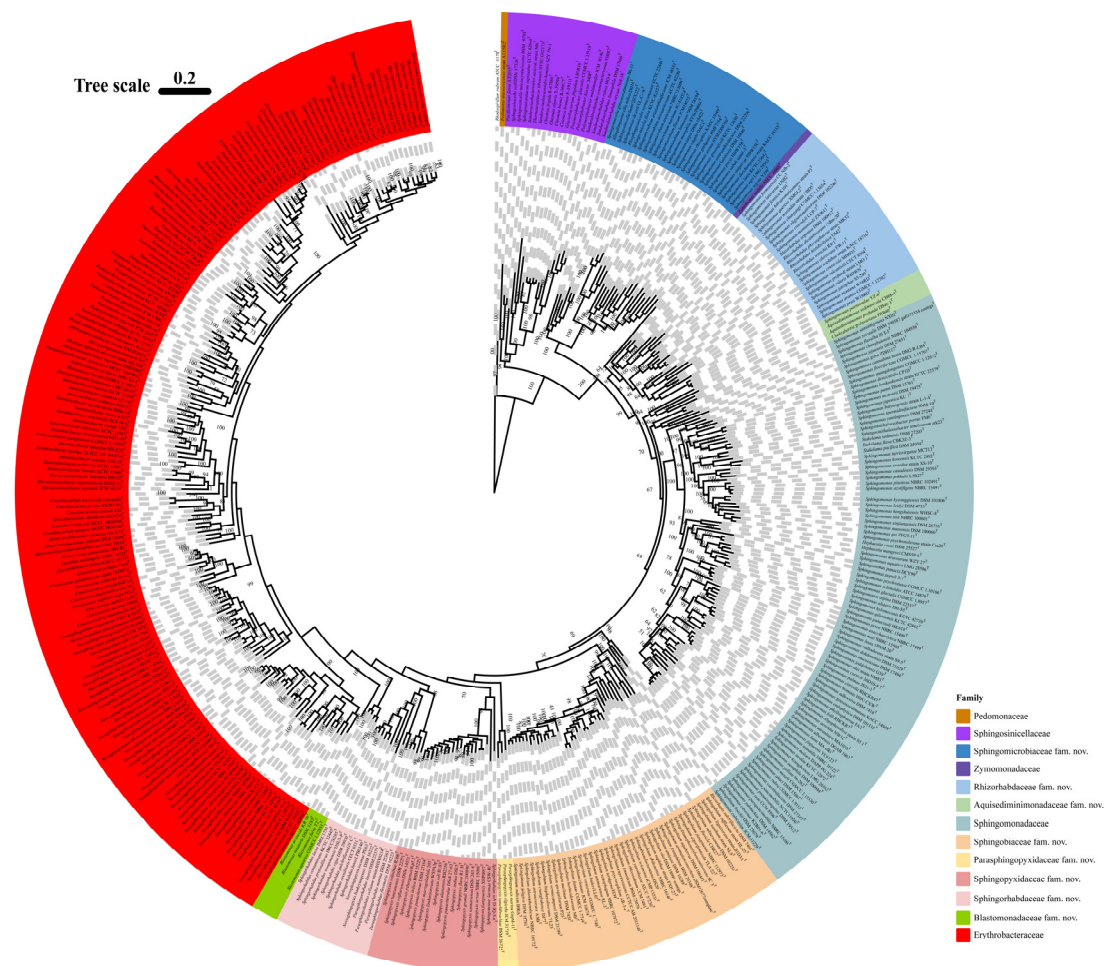
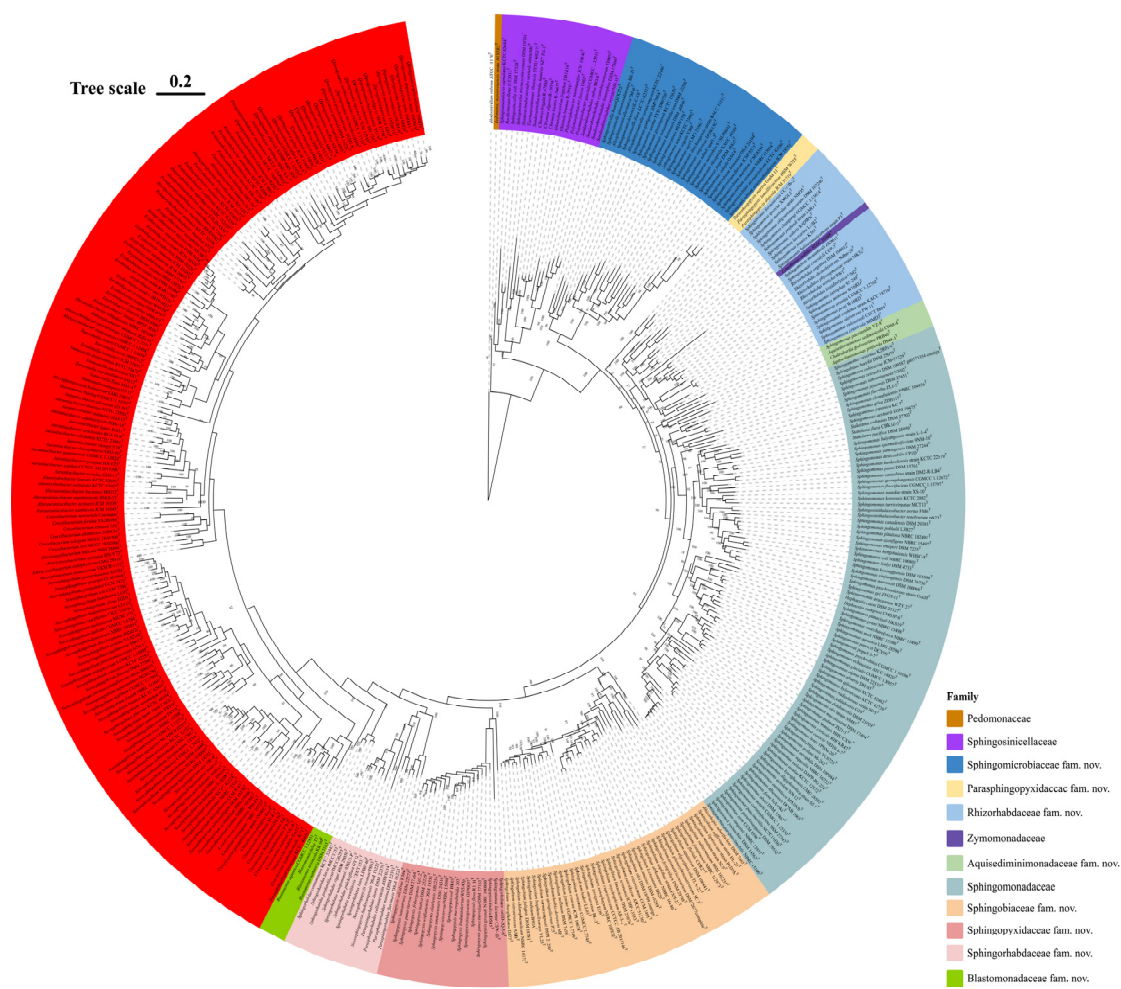
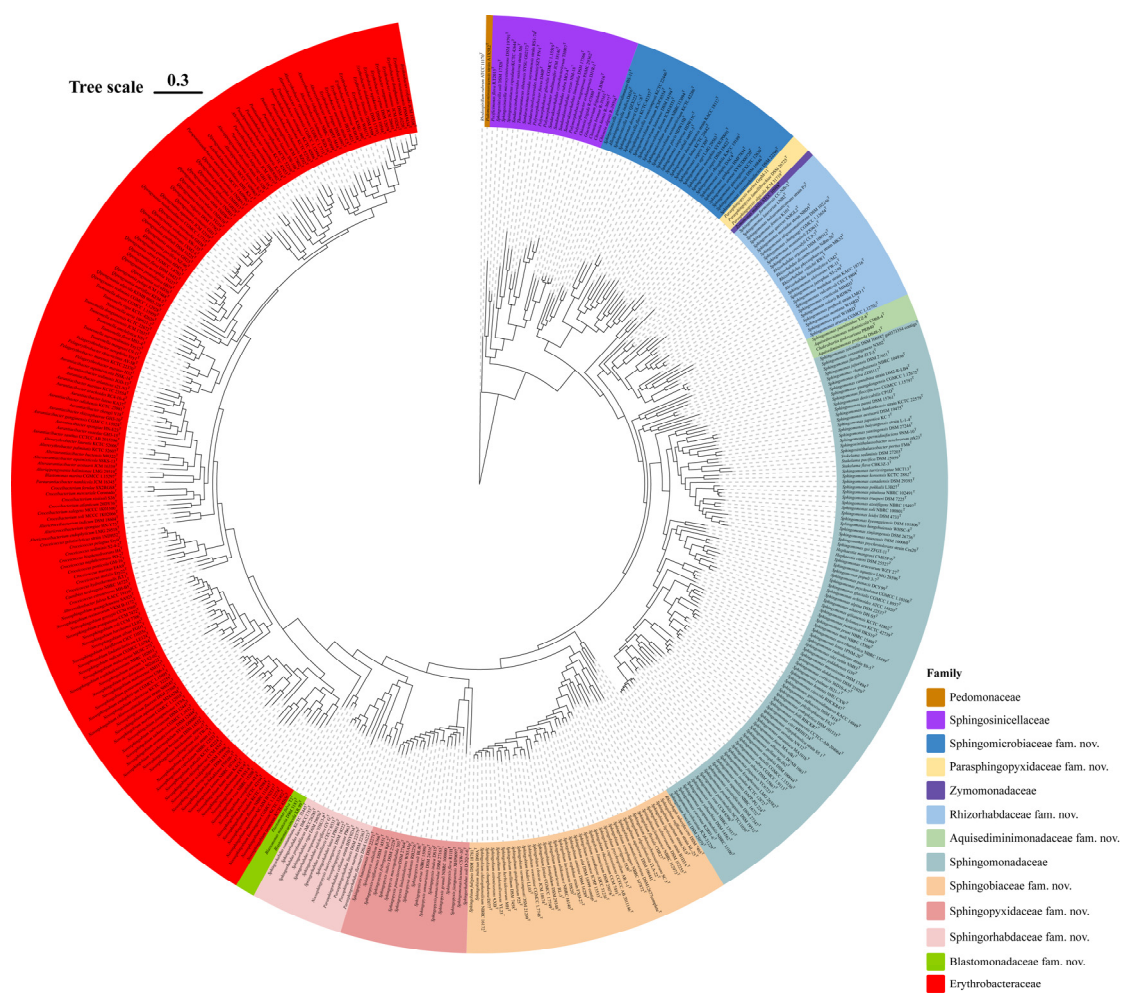


Figure S3. Maximum-likelihood tree based on 22 concatenated protein sequences showing the phylogenetic relationship of type strains belonging to the order *Sphingomonadales*. Bootstrap values are based on 1000 replicates. Bar. 0.1 substitutions per amino acid position. *Rhodospirillum rubrum* ATCC 11170^T was used as an outgroup.

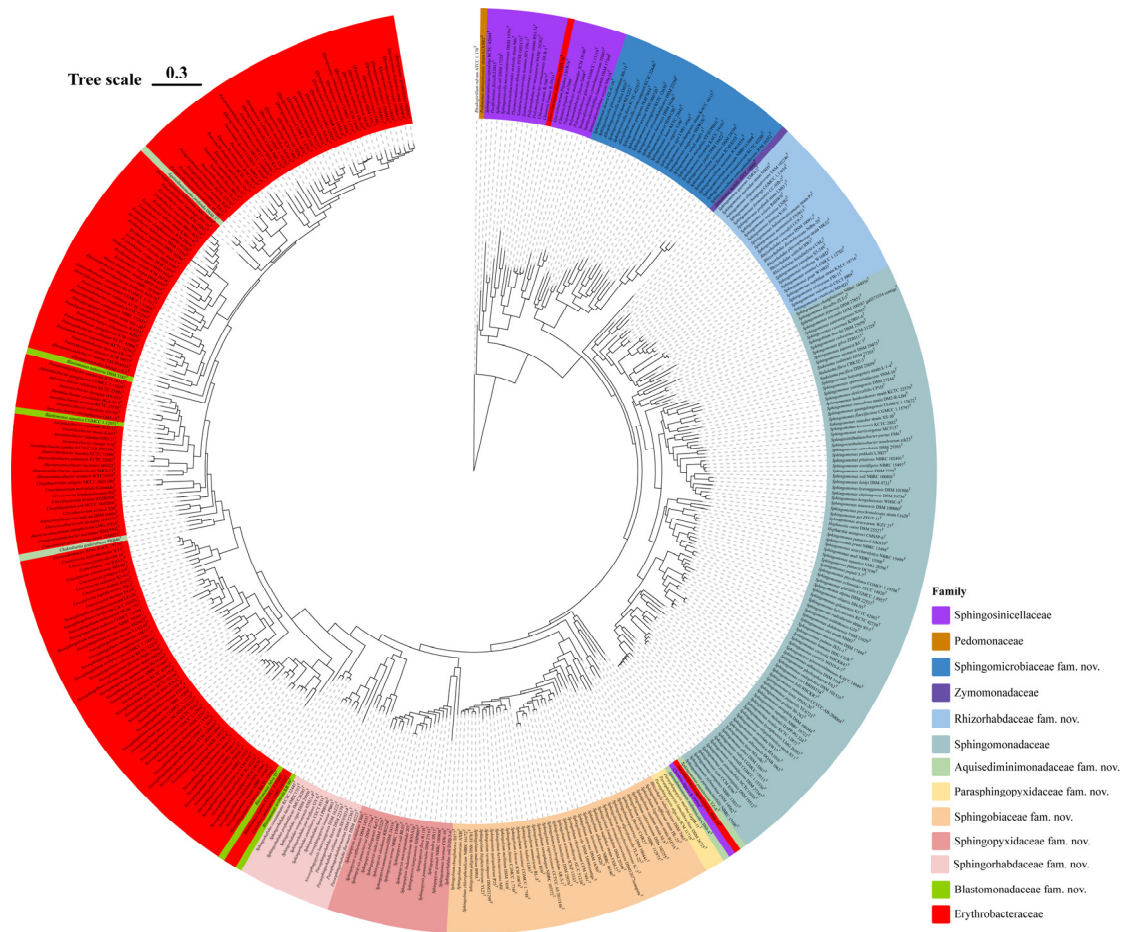


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39 **Figure S4.** Bayesian tree based on 120 concatenated protein sequences showing the
 40 phylogenetic relationship of type strains belonging to the order *Sphingomonadales*.
 41 Bootstrap values are based on 1000 replicates. Bar. 0.1 substitutions per amino acid
 42 position. *Rhodospirillum rubrum* ATCC 11170^T was used as an outgroup.



44 **Figure S5.** Bayesian tree based on 22 concatenated protein sequences showing the
 45 phylogenetic relationship of type strains belonging to the order *Sphingomonadales*.
 46 Bootstrap values are based on 1000 replicates. Bar. 0.1 substitutions per amino acid
 47 position. *Rhodospirillum rubrum* ATCC 11170^T was used as an outgroup.



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