

**Table S3.** Average amino acid identity (AAI) and percentage of conserved proteins (POCP) among strains D3-12<sup>T</sup> and G2-2<sup>T</sup> and their closely related taxa of the family *Roseobacteraceae*

Taxa: 1, strain D3-12<sup>T</sup> (CP104793); 2, strain G2-2<sup>T</sup> (CP170201–3); 3, *Rhodalgimonas zhirmunskyi* 10Alg 79<sup>T</sup> (JANFFA000000000); 4, *Ponticoccus litoralis* KCCM 90028<sup>T</sup> (JBDNCH000000000); 5, *Aquicoccus porphyridii* L1 8-17<sup>T</sup> (VINQ000000000); 6, *Marimonas lutisalis* GH1-19<sup>T</sup> (SKCI000000000); 7, *Marimonas arenosa* KCTC 52189<sup>T</sup> (JANHAX000000000); 8, *Cognatishimia maritima* DSM 28223<sup>T</sup> (FQWM000000000)

|               |   | POCP value (%) |      |      |      |      |      |      |      |
|---------------|---|----------------|------|------|------|------|------|------|------|
|               |   | 1              | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
| AAI value (%) | 1 | –              | 61.3 | 68.3 | 45.6 | 62.0 | 65.2 | 64.6 | 51.3 |
|               | 2 | 75.0           | –    | 66.2 | 44.5 | 62.9 | 62.4 | 62.5 | 52.4 |
|               | 3 | 74.1           | 74.4 | –    | 50.3 | 68.6 | 70.5 | 70.4 | 57.0 |
|               | 4 | 67.5           | 67.6 | 67.6 | –    | 46.8 | 46.5 | 46.6 | 46.9 |
|               | 5 | 74.4           | 74.7 | 74.1 | 67.8 | –    | 66.6 | 65.2 | 53.9 |
|               | 6 | 75.9           | 75.9 | 75.5 | 68.6 | 80.3 | –    | 77.7 | 53.4 |
|               | 7 | 76.6           | 76.6 | 75.1 | 67.9 | 76.1 | 78.5 | –    | 53.7 |
|               | 8 | 69.1           | 68.4 | 68.9 | 67.5 | 68.7 | 69.4 | 68.8 | –    |