**S2 Table: Dechloromonas probe coverage analysis**

<table>
<thead>
<tr>
<th>Phylogenetic group</th>
<th>RDP</th>
<th>SILVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dechlo2</td>
<td>Dech219</td>
</tr>
<tr>
<td><strong>Dechloromonas</strong></td>
<td>227/319 (71%)</td>
<td>244/319 (76%)</td>
</tr>
<tr>
<td><strong>Ferribacterium</strong></td>
<td>47/49 (96%)</td>
<td>49/49 (100%)</td>
</tr>
<tr>
<td>Zoogloea</td>
<td>1/552 (&lt;1%)</td>
<td>1/552 (&lt;1%)</td>
</tr>
<tr>
<td>Uliginosidbacterium</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Azospira</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unclassified Rhodocyclaceae</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td><strong>Total Rhodocyclaceae</strong></td>
<td><strong>303</strong></td>
<td><strong>327</strong></td>
</tr>
<tr>
<td>Massilia</td>
<td>2/1706 (&lt;1%)</td>
<td>2/1706 (&lt;1%)</td>
</tr>
<tr>
<td>Neisseria</td>
<td>-</td>
<td>1/8464 (&lt;1%)</td>
</tr>
<tr>
<td>Limnophitans</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sphaeritilus</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Janthinobacterium</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Undibacterium</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total non-Rhodocyclaceae</strong></td>
<td><strong>6</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Values as fractions of group hits/total number classified in-group, % are given in parentheses. RDP = Ribosomal Database – Release 10, update 32 (analysis includes ‘good’ sequences; >1200bp); SILVA = SSU release 111 (analysis excludes highlighted suspect sequences (‘color group 1’))12; Greengenes = release October 201213.