

**Table S1.** *Roseobacter* clade bacteria investigated in this study.

<b>Species</b>	<b>Isolation Location</b>	<b>Isolation selection conditions</b>	<b>Reference</b>
<i>Ruegeria pomeroyi</i> DSS-3	Coastal seawater (Georgia, USA)	DMSP degradation	Gonzalez et al., 1999
<i>Roseobacter</i> sp. AzwK-3b	Coastal estuary water (California, USA)	Mn(II) oxidation	Francis and Hansel, 2006
<i>Roseobacter</i> sp. TM1038	Phycosphere of dinoflagellate <i>Pfiesteria piscicida</i>	Symbiosis; DMSP degradation	Miller and Belas, 2004
<i>Roseovarius nubinhibens</i> ISM	Caribbean Sea surface water	non-selective	Gonzalez et al., 1999
<i>Sulfitobacter</i> sp. NAS-14.1	North Atlantic Ocean surface water	DMSP degradation	Moran et al., 2007
<i>Sulfitobacter</i> sp. EE-36	Intertidal salt marsh water (Georgia, USA)	aromatic carbon oxidation	Gonzalez et al., 1996
<i>Phaeobacter</i> sp. Y3F	Intertidal salt marsh water (Georgia, USA)	aromatic carbon oxidation	Gonzalez et al., 1996