

**Table S1.** Chemoautotroph organisms in *nifH* phylogenetic tree related with diazotrophs from Chile Bay

Organism	Family	Metabolic class	Cluster	Reference	Percentage of identical matches*	e-value*
<i>Methylocapsa palsarum</i>	<i>Beijerinckiaceae</i>	Methanotroph	1	[112]	93.39%	3.40E-84
<i>Methyloceanibacter</i> sp. wino2	<i>Hyphomicrobiaceae</i>	Methylotroph	1	[113]	93.39%	1.53E-84
<i>Methyloceanibacter stevinii</i>	<i>Hyphomicrobiaceae</i>	Methanotroph	1	[114]	92.56%	5.74E-84
<i>Methylocystis bryophila</i>	<i>Methylocystaceae</i>	Methanotroph	1	[115]	95.04%	1.51E-84
<i>Methylocystis</i> sp. SC2	<i>Methylocystaceae</i>	Methanotroph	1	[116]	97.52%	2.10E-87
<i>Xanthobacter autotrophicus</i> Py2	<i>Xanthobacteraceae</i>	Methylotroph	1	[117]	95.87%	1.26E-86

\*Values of BLASTP against the Chile Bay NifH reads.