

Supplementary Table S5. GenBank accession numbers for the genes used in phylogenetic analysis

Strain	GenBank ID			
	Genome	16S	<i>rbcL</i>	<i>rpoC</i>
<i>Acaryochloris marina</i> MBIC11017	GCA_000018105.1	1409149–1410649	1775408–1776838	3644614–3646485
<i>Allocoleopsis franciscana</i> PCC 7113	GCA_000317515.1	34231–35600	2513378–2514538	6504737–6506614
<i>Anabaena cylindrica</i> PCC 7122	GCA_000317695.1	1320695–1322171	34579–36009	2953786–2955663
<i>Anabaena</i> sp. WA102	GCA_001277295.1	993237–994724	3647699–3649129	4156792–4158684
<i>Annamia dubia</i> NIES-4383	-	LC571519.1	LC571520.1	-
<i>Arthrospira</i> sp. PCC 9108	GCA_016745315.2	2539567–2541055	4113036–4114466	2742855–2744743
<i>Calothrix brevissima</i> NIES-22	GCA_002367995.1	1762633–1764119	3845975–3847405	7570730–7572607
<i>Calothrix parasitica</i> NIES-267	GCA_002368095.1	708378–709861	3197495–3198925	6317979–6319856
<i>Ca. Atelocyanobacterium thalassa</i> ALOHA	GCA_000025125.1	3507–4983	-	981188–983077
<i>Cyanobacterium aponinum</i> 0216	GCA_009710015.1	1508–3059	243274–244680	28152–30044
<i>Cyanobacterium aponinum</i> FACHB-4101	GCA_014697365.1	21–1508	65521–66927	26533–28425
<i>Cyanobacterium aponinum</i> PCC 10605	GCA_000317675.1	255939–257412	800936–802342	3566911–3568803
<i>Cyanobacterium</i> sp. HL-69	GCA_002813895.1	1317355–1318844	1664102–1665517	2830011–2831897
<i>Cyanobacterium stanieri</i> PCC 7202	GCA_000317655.1	3141823–3143145	126365–127771	2825082–2826968
<i>Cyanobacterium</i> sp. IPPAS B-1200	GCA_001747005.1	3327–4822	101575–102981	258685–260571
<i>Cyanobacterium stanieri</i> LEGE 03274	GCA_015207825.1	344–1831	53544–54950	4958–6844
<i>Cyanobacterium</i> sp. IPPAS B-1201	GCA_002736005.1	3281–4768	54686–56092	37191–39083
<i>Cyanothece</i> sp. PCC 7822	GCA_000147335.1	3853996–3855474	607906–609069	5191118–5192995
<i>Cyanothece</i> sp. PCC 8801	GCA_000021805.1	3806018–3807496	1677472–1678890	646120–647997
<i>Cylindrospermum</i> sp. NIES-4074	GCA_003994795.1	2870847–2872332	3894837–3896267	1882585–1884462
<i>Cylindrospermum stagnale</i> PCC 7417	GCA_000317535.1	279463–280830	2391125–2392555	5859536–5861413
<i>Dactylococcopsis salina</i> PCC 8305	GCA_000317615.1	886648–888016	1798755–1800176	639852–641741
<i>Dolichospermum compactum</i> NIES-806	GCA_002368115.1	295625–297109	304422–304751	2033842–2035734
<i>Geitlerinema</i> sp. PCC 7407	GCA_000317045.1	235886–237361	752774–753943	3581830–3583722
<i>Geminocystis herdmanii</i> PCC 6308	GCA_000332235.1	1974038–1975525	4013593–4015011	2552082–2553968
<i>Geminocystis urbisnovae</i> CALU 1334	-	MT463169.1	MT411494.1	MT411485.1
<i>Geminocystis urbisnovae</i> CALU 1759	-	MT463170.1	MT411495.1	MT411486.1
<i>Geminocystis urbisnovae</i> CALU 1794	-	MT463171.1	MT411496.1	MT411487.1
<i>Geminocystis urbisnovae</i> CALU 1801	-	MT463172.1	MT411497.1	MT411488.1
<i>Geminocystis urbisnovae</i> CALU 1807	-	MT463173.1	MT411498.1	MT411489.1
<i>Geminocystis</i> sp. NIES-3708	GCA_001548095.1	756700–758187	1667366–1668784	2680964–2682853
<i>Geminocystis</i> sp. NIES-3709	GCA_001548115.1	4144072–4145557	266575–267993	2745344–2747233
<i>Gloeobacter kilauensis</i> JS1	GCA_000484535.1	2731683–2733167	713821–715245	4093392–4095221
<i>Gloeobacter violaceus</i> PCC 7421	GCA_000011385.1	1571231–1572715	2307046–2308470	4498067–4499893
<i>Gloeocapsa</i> sp. PCC 7428	GCA_000317555.1	4787969–4789447	1141494–1142924	3927507–3929381
<i>Halomicronema hongdechloris</i> C2206	GCA_002075285.3	1208749–1210236	1178324–1179754	3922227–3924143
<i>Halothece</i> sp. PCC 7418	GCA_000317635.1	182176–183651	3829408–3830826	2337273–2339171
<i>Microcystis aeruginosa</i> NIES-298	GCA_010196425.1	4095284–4096772	1145239–1146654	531053–532933
<i>Microcystis aeruginosa</i> PCC 7806SL	GCA_002095975.1	608242–609730	4496725–4498140	2507385–2509265
<i>Microcystis panniformis</i> FACHB-1757	GCA_001264245.1	4352152–4353641	2928738–2930153	2051390–2053270
<i>Microcystis</i> sp. MC19	GCA_003019735.1	1023751–1025240	881026–882441	1776625–1778505
<i>Microcystis viridis</i> NIES-102	GCA_003945305.1	5700022–5701506	2265746–2267161	4769389–4771269
<i>Moorea produces</i> PAL-8-15-08-1	GCA_001767235.1	5100861–5102350	7228923–7230353	5610792–5612669
<i>Nostoc carneum</i> NIES-2107	GCA_002368155.1	1503412–1504898	4507098–4508528	7535694–7537571
<i>Nostoc flagelliforme</i> CCNUN1	GCA_002813575.1	26062–27550	5553309–5554739	3708667–3710544
<i>Nostoc linckia</i> NIES-25	GCA_002368035.1	3652399–3653884	4729239–4730669	2842773–2844650

Supplementary Table S5. Continued

Strain	GenBank ID			
	Genome	16S	<i>rbcL</i>	<i>rpoC</i>
<i>Nostoc</i> sp. CENA543	GCA_002896875.1	3885993–3887480	5459581–5461011	6370424–6372301
<i>Nostoc</i> sp. PCC 7524	GCA_000316645.1	5418828–5420194	1290272–1291702	3436573–3438450
<i>Nostoc</i> sp. TCL26-01	GCA_013393945.1	709348–710841	3511042–3512472	4606190–4608067
<i>Oscillatoria acuminata</i> PCC 6304	GCA_000317105.1	2196585–2197955	1163939–1165369	7587743–7589617
<i>Oxynema</i> sp. AP17	GCA_012295525.1	3200436–3201930	2354229–2355659	5053348–5055228
<i>Picosynechococcus</i> sp. NIES-970	GCA_002356215.1	1586405–1587883	1851093–1852508	2122366–2124276
<i>Picosynechococcus</i> sp. PCC 7002	GCA_000019485.1	1461361–1462812	1882749–1884164	2128434–2130344
<i>Picosynechococcus</i> sp. PCC 8807	GCA_001693295.1	1469814–1471303	1911060–1912475	2155527–2157437
<i>Planktothrix agardhii</i> PCC 7805	GCA_904830915.1	170299–171788	3053945–3055375	213369–215336
<i>Prochlorococcus marinus</i> MED4	GCA_000011465.1	313061–314525	519087–520502	1418077–1419981
<i>Prochlorococcus marinus</i> str. NATL2A	GCA_000012465.1	370879–372272	536918–538330	1507841–1509748
<i>Prochlorococcus</i> sp. MIT 0801	GCA_000757865.1	382743–38420	578502–579914	1583597–1585504
<i>Pseudanabaena</i> sp. PCC 7367	GCA_000317065.1	2484744–2486218	1184484–1185896	575588–577465
<i>Sodalinema gerasimenkoeae</i> IPPAS B-353	GCA_009846485.1	3801191–3802682	2166283–2167695	4022766–4024640
<i>Sphaerospermopsis kisseleviana</i> NIES-73	GCA_002368075.1	1832863–1834346	3069213–3070643	1280338–1282215
<i>Synechococcus elongatus</i> PCC 6301	GCA_000010065.1	1656455–1657943	139920–141338	2674375–2676249
<i>Synechococcus</i> sp. A15-28	GCA_014280175.1	1766937–1768413	1514746–1516161	547799–549703
<i>Synechococcus</i> sp. A18-25c	GCA_014280035.1	519335–520819	963017–964432	647950–649854
<i>Synechococcus</i> sp. BIOS-U3-1	GCA_014279975.1	579741–581225	1836753–1838168	2176787–2178691
<i>Synechococcus</i> sp. BMK-MC-1	GCA_014279955.1	584231–585714	717357–718772	2117923–2119827
<i>Synechococcus</i> sp. CB0101	GCA_000179235.2	2081307–2082791	891719–893131	1293765–1295669
<i>Synechococcus</i> sp. CBW1002	GCA_015840915.1	1834127–1835610	13993–15405	239278–241182
<i>Synechococcus</i> sp. CC9902	GCA_000012505.1	373319–374797	1563311–1564723	614027–615931
<i>Synechococcus</i> sp. KORDI-52	GCA_000737595.1	858822–860305	2350511–2351926	1116051–1117955
<i>Synechococcus</i> sp. LTW-R	GCA_014217875.1	2206340–2207823	332295–333707	2275255–2277159
<i>Synechococcus</i> sp. M16.1	GCA_014279895.1	439626–441111	638530–639945	1568891–1570795
<i>Synechococcus</i> sp. MEDNS5	GCA_014279875.1	547845–549329	679316–680731	1951801–1953705
<i>Synechococcus</i> sp. Minos11	GCA_014279855.1	368413–369897	782255–783670	1742593–1744497
<i>Synechococcus</i> sp. MIT S9220	GCA_014304815.1	513632–515109	1654164–1655579	1964863–1966767
<i>Synechococcus</i> sp. MVIR-18-1	GCA_014279835.1	552366–553850	1662592–1664004	1977356–1979260
<i>Synechococcus</i> sp. NOUM97013	GCA_014279815.1	531677–533161	1685925–1687340	2005492–2007396
<i>Synechococcus</i> sp. PCC1502	GCA_000317085.1	3279215–3280698	1660201–1661631	2581842–2583716
<i>Synechococcus</i> sp. PROS-9-1	GCA_014279775.1	523062–524546	1485977–1487389	1790589–1792493
<i>Synechococcus</i> sp. ROS8604	GCA_014279655.1	642054–643538	1973807–1975219	2359071–2360975
<i>Synechococcus</i> sp. RS9909	GCA_014279595.1	606632–608116	1818401–1819816	2135595–2137499
<i>Synechococcus</i> sp. SYN20	GCA_014279555.1	559774–561258	1878774–1880186	2222752–2224656
<i>Synechococcus</i> sp. SynAce01	GCA_001885215.1	1802583–1804067	2741829–2743241	1928452–1930356
<i>Synechococcus</i> sp. TAK9802	GCA_014279535.1	446860–448345	1491499–1492914	1657866–1659770
<i>Synechococcus</i> sp. UTEX 2973	GCA_000817325.1	603906–605391	1783587–1785005	1621790–1623664
<i>Synechocystis</i> sp. CACIAM 05	GCA_010222815.1	2428588–2430076	2454829–2456241	1801376–1803256
<i>Synechocystis</i> sp. IPPAS B-1465	GCA_003015225.1	3325895–3327386	2479254–2480666	1852929–1854809
<i>Synechocystis</i> sp. PCC 6714	GCA_000478825.2	1155232–1156722	3302033–3303445	3333058–3334938
<i>Synechocystis</i> sp. PCC 6803	GCA_000009725.1	3325053–3326541	2478414–2479826	1854102–1855982
<i>Thermosynechococcus elongatus</i> PKUAC-SCTE542	GCA_003555505.2	1531113–1532602	2247294–2248721	403982–405850
<i>Thermotichus lividus</i> PCC 6715	GCA_002754935.1	2460051–2461553	1601618–1603045	1375975–1377843
<i>Thermotichus vulcanus</i> NIES-2134	GCA_003990665.2	2204255–2205742	1434747–1436174	611393–613261
<i>Trichormus variabilis</i> NIES-23	GCA_002368015.1	483415–484900	6306040–6307470	6390658–6392535