



Melainabacteria

- Gloeobacter violaceus GCF 000011385.1
Gloeobacter violaceus GCF 0000494535.1
Synechococcus sp. GCF 000332275.1
Synechococcus sp. GCF 000113225.1
Synechococcus sp. GCF 002760475.1
Synechococcus sp. GCF 000113205.1
Gloeomargarita lithophora GCF 001870225.1
Pseudanabaena sp. GCF 000317065.1
Synechococcus sp. GCF 000317085.1
Pseudanabaena sp. GCF 000332175.1
Pseudanabaena yagii GCF 012863495.1
Pseudanabaena sp. GCF 003967015.1
Pseudanabaena sp. GCF 001402795.1
Pseudanabaena biceps GCF 000332215.1
Pseudanabaena sp. GCF 00681605.1
ULC389 Pseudanabaena sp. L27
ULC066 Pseudanabaena frigida O-155
Pseudanabaena sp. GCF 006937785.1
ULC069 Pseudanabaena frigida O-302
Pseudanabaena sp. GCF 002914585.1
ULC070 Pseudanabaena frigida O-401
Acaryochloris sp. GCF 000238775.1
Acaryochloris sp. GCF 003231495.1
Cyanotheca sp. GCF 000022045.1
Synechococcus sp. GCF 000316685.1
Synechococcus lividus GCF 002754935.1
Thermosynechococcus sp. GCF 008386235.1
Thermosynechococcus elongatus GCF 000011345.1
Thermosynechococcus sp. GCF 000505665.1
Limnithrix sp. GCF 002742025.1
ULC417 Geitlerinema amphibium Gor-1
ULC381 Geitlerinema sp. L2
ULC415 Geitlerinema sp. SHC
Prochlorothrix hollandica GCF 000332315.1
Synechococcus elongatus GCF 000012525.1
Synechococcus elongatus GCF 003957805.1
Synechococcus lacustris GCF 003011125.1
Syn-Pro
Synechococcus sp. GCF 002252635.1
ULC065 Cyanobium sp. O-154
Synechococcus sp. GCF 002252625.1
Synechococcus sp. GCF 001885215.1
ULC082 Cyanobium sp. Chester Cone
ULC081 Cyanobium sp. Limnopolar
ULC084 Cyanobium sp. Laguna Chica
ULC191 Cyanobium sp. KOTKEL 10-1
Cyanobium sp. GCF 009834675.1
Synechococcus sp. GCF 002252675.1
Cyanobium gracile GCF 000316515.1
ULC428 Cyanobium sp. Torca
Vulcanococcus limneticus GCF 002252705.1
Synechococcus sp. GCF 000179255.1
Synechococcus sp. GCF 000179235.2
Cyanobium usitatum GCF 003011885.1
Synechococcus sp. GCF 002252665.1
ULC471 Cyanobium sp. BS4-0
Cyanobium sp. GCF 000088535.1
Cyanobium sp. GCF 000155635.1
ULC424 Leptolyngbya ectocarpi C86
ULC429 Leptolyngbya gracilis POS1
Leptolyngbya sp. GCF 000482245.1
Leptolyngbya sp. GCF 000316115.1
ULC027 Leptolyngbya antarctica ANT.PROGRESS2.5
ULC112 Phormidium priestleyi JR7
ULC074 Phormidium priestleyi O-067
ULC127 Phormidium priestleyi JR27
Synechococcus sp. GCF 000155595.1
ULC004 Leptolyngbya cf. fragilis ANT.LH52.1
ULC024 Leptolyngbya cf. fragilis ANT.RAUER8.1
Leptolyngbya sp. GCF 002286735.1
ULC035 Phormidium priestleyi ANT.ACEV5.1
ULC384 Leptolyngbya sp. L6
ULC431 Leptolyngbya sp. LK1
Leptolyngbya sp. GCF 000332095.2
ULC345 Leptolyngbya sp. PRUS1
ULC508 Pseudanabaena persicina POS
Lyngbya confervoides GCF 000817775.2
ULC453 Leptolyngbya sp. BLCC-M28
Halomicronema hongdechloris GCF 002075285.3
ULC449 Leptolyngbya sp. BLCC-M10
Nodosilinea sp. GCF 012911975.1
ULC090 Leptolyngbya cf. antarctica ANT-SOS
ULC041 Leptolyngbya cf. antarctica ANT.ACE1
ULC042 Leptolyngbya cf. antarctica ANT.ACEV6.1
ULC073 Leptolyngbya glacialis TM1FOS73
Leptolyngbya sp. GCF 000763385.1
ULC115 Leptolyngbya sp. JR12
Nodosilinea nodulosa GCF 000309385.1
Phormidium tenue GCF 0004775.1
ULC186 Leptolyngbya sp. FW074
Geitlerinema sp. GCF 000317045.1
ULC144 Leptolyngbya cf. antarctica Kir D8
ULC023 Leptolyngbya cf. antarctica ANT.FIRELIGHT.1
ULC484 Leptolyngbya sp. 6008
Neosynechococcus sphagnicola GCF 000775285.1
Leptolyngbya sp. GCF 001939115.1
Leptolyngbya ohadii GCF 002215035.1
ULC020 Pegethrix sp. ANT.MANNING.1
ULC367 Pegethrix frigida KOVACIK ANT 2003-73
Leptolyngbya sp. GCF 001548395.1
ULC422 Thermoleptolyngbya albertanae ETS-08
ULC402 Timaviella karstika GR13
ULC401 Timaviella circinata GR4-T
ULC037 Shackletoniella antarctica ANT.LH18.2
ULC031 Shackletoniella antarctica ANT.LH18.1-T
ULC104 Shackletoniella sp. ANT-BLACK - 2
ULC029 Stenomitosis sp. ANT.LH52B.3
ULC057 Stenomitosis sp. ANT.REIDJ.1
ULC018 Stenomitosis sp. ANT.LH53B.2
ULC001 Stenomitosis sp. ANT.LH53B.1
Leptolyngbya boryana GCF 000353285.1
Leptolyngbya sp. GCF 001548435.1
Leptolyngbya sp. GCF 001485215.1
ULC009 Plectolyngbya hodgsonii ANT.PROGRESS2.2-T
ULC030 Plectolyngbya hodgsonii ANT.H52B
ULC012 Plectolyngbya hodgsonii ANT.GENTNER2.2
Phormidismis priestleyi GCF 001650195.1
Phormidismis priestleyi GCF 001650195.1
ULC049 Phormidismis priestleyi ANT.LH66.1
ULC022 Phormidismis priestleyi ANT.LH61.2
ULC021 Phormidismis priestleyi ANT.GENTNER2.4
ULC147 Phormidismis priestleyi ANT.UTS.195
Phormidismis priestleyi GCF 003003695.1
ULC007 Phormidismis priestleyi ANT.LH52.4
Desertifilum sp. GCF 001746915.1
Oscillatoria sp. GCF 000332335.1
Geitlerinema sp. GCF 001870905.1
Geitlerinema sp. GCF 000332335.1
ULC137 Sodaolina komarekii Fagan-Nur
Microcoleus sp. GCF 009846485.1
Geitlerinema sp. GCF 012911965.1
Planktothrixoides sp. GCF 001276715.1
Oxynema sp. GCF 012295525.1
Oscillatoria acuminata GCF 000317105.1
ULC082 Phormidium pseudopriestleyi ANT - SHADE # 7
ULC102 Phormidium pseudopriestleyi ANT-BRACK - 2
ULC093 Phormidium pseudopriestleyi ANT-SALT
ULC106 Phormidium pseudopriestleyi ANT-G17 OSC
Trichodesmium erythraeum GCF 000014265.1
Planktothrix spp.
ULC444 Arthrospira platensis Lonar
Limnospira indica GCF 000973065.1
Arthrospira platensis GCF 000210375.1
ULC445 Arthrospira platensis Paracas
Lyngbya sp. GCF 000169095.1
Lyngbya aestuarii GCF 000478195.2
ULC567 Limnospira BLCC-M92
ULC525 Affixifilum floridanum BLCC-M61
ULC542 Affixifilum granulosum BLCC-M111
ULC588 Affixifilum granulosum BLCC-M117
ULC586 Neolyngbya regalis BLCC-M54
ULC522 Neolyngbya arenicola BLCC-M52
ULC557 Neolyngbya arenicola BLCC-M60
ULC530 Neolyngbya biscayensis BLCC-M69
ULC535 Neolyngbya biscayensis BLCC-M95
ULC600 Ophiophycus aeruginosus BLCC-M93
ULC599 Ophiophycus aeruginosus BLCC-M88
ULC601 Ophiophycus aeruginosus BLCC-M103
ULC598 Leptochromothrix engeni BLCC-M83
ULC597 Leptochromothrix valpauliae BLCC-M82
ULC529 Vermifilum ionodolium BLCC-M65
ULC457 Vermifilum ionodolium BLCC-M32
ULC454 Oscillatoria sp. BLCC-M29
Kamptomena formosum GCF 000332155.1
ULC403 Phormidium autumnale F32
ULC426 Phormidium ambiguum HK2
Microcoleus vaginatus GCF 000214075.1
Oscillatoria nigro-viridis GCF 000317475.1
ULC174 Phormidium lumbricale OTC8
ULC107 Microcoleus favosus JR1
ULC130 Phormidium murrayi TM2FOS130
ULC371 Microcoleus attenuatus KOVACIK ANT 2003-43
ULC097 Phormidium autumnale ANT-LUNCH
ULC406 Tychonema bornetii YLC011
Tychonema bourrellyi GCF 002412335.2
ULC307 Phormidium autumnale P4
ULC120 Microcoleus favosus JR20
ULC095 Phormidium autumnale ANT-PINNACLE#4
ULC373 Microcoleus favosus KOVACIK ANT 2004-50
ULC076 Phormidium autumnale O-151
Crinalium epipsammum GCF 000317495.1
Chamaesiphon polymorphus GCF 003003845.1
Chamaesiphon minutus GCF 000317145.1
Aliterella atlantica GCF 000952155.1
ULC194 Chroococcidiopsis sp. PB1101
Synechocystis sp. GCF 000332075.2
ULC197 Chroococcidiopsis sp. PB1113
Chlorogloea sp. GCF 000303885.1
ULC195 Chroococcidiopsis sp. SV1103
Gloeocapsopsis sp. GCF 000972865.1
Chroococcidiopsis sp. GCF 000219305.1
Gloeocapsa sp. GCF 000317555.1
Chroogloeocystis siderophila GCF 001904655.1
ULC718 Cephalothrix komarekiana sp. Nov-T
ULC610 Planktothrix sp. aqua2
Scytonema millii GCF 000817735.3
ULC604 Chroococcus sp. watercattle
Chroococcidiopsis cubana GCF 003991895.1
Chroococcidiopsis thermalis GCF 000317125.1
ULC060 Scytonema sp. ANT.LG2.8
Calothrix sp. GCF 000734895.2
Calothrix parasitica GCF 002368095.1
Rivularia sp. GCF 000316665.1
Calothrix rhizosoleniae GCF 000185595.1
Richelia intracellularis GCF 000350105.1
Calothrix sp. GCF 002368395.1
Calothrix sp. GCF 000317435.1
Calothrix sp. GCF 002368455.1
Calothrix sp. GCF 000331305.1
Calothrix desertica GCF 007380875.1
Chlorogloeopsis fritschii GCF 000317265.1
Fischerella sp. GCF 000517105.1
Fischerella spp.
Fischerella sp. GCF 002368315.1
Fischerella sp. GCF 000447235.1
Hapalosiphon sp. GCF 001275395.1
Fischerella muscicola GCF 000317245.1
Westiellopsis prolifica GCF 004323185.1
Fischerella sp. GCF 000315585.1
Scytonema sp. GCF 009725235.1
Tolypothrix bouteillei GCF 000760695.4
Mastigocladopsis repens GCF 000315565.1
Scytonema sp. GCF 002368435.1
Scytonema sp. GCF 002368235.1
ULC575 Iningainema tapete BLCC-T55
Brasilonema octagenarum GCF 012912125.1
ULC573 Brasilonema wernerae BLCC-T49
ULC574 Brasilonema tolantongensis BLCC-T51
ULC545 Brasilonema tolantongensis BLCC-T61
ULC550 Brasilonema octagenarum BLCC-T74
ULC547 Brasilonema octagenarum BLCC-T71
ULC544 Brasilonema santanae BLCC-T43
ULC546 Brasilonema santanae BLCC-T64
ULC548 Brasilonema fioreae BLCC-T60
ULC551 Brasilonema fioreae BLCC-T83
ULC149 Hassallia andreassenii AW20
Scytonema hofmanni GCF 000582685.1
Tolypothrix sp. GCF 002218085.1
Nostoc piscinale GCF 001298445.1
ULC088 Anabaena cf. oscillarioides S88
Nostoc sp. GCF 000316625.1
Nostoc cycadae GCF 002897135.1
Anabaenopsis circularis GCF 002367975.1
Nostoc sp. GCF 002896875.1
Anabaena sp. GCF 001597745.1
Nostoc sp. GCF 000316645.1
Nostoc sp. GCF 001548375.1
Nostoc sp. GCF 002368215.1
Trichormus variabilis GCF 002368015.1
Anabaena sp. GCF 009498015.1
ULC080 Anabaena sp. CY-036
Nostoc sp. GCF 002368335.1
Fortia contorta GCF 000332295.1
Calothrix sp. GCF 000316575.1
ULC591 Parakomarekiella sesnandensis COI00088998
Nostoc sp. GCF 002154725.1
Calothrix sp. GCF 002368195.1
Calothrix sp. GCF 002368175.1
Calothrix brevissima GCF 002367995.1
Tolypothrix sp. GCF 011769525.1
Fremyella diplosiphon GCF 002368275.1
Tolypothrix tenuis GCF 002368295.1
Nostoc carneum GCF 002368155.1
Nostoc sp. GCF 005869855.1
Nostoc linkia GCF 002608075.1
Nostoc linkia GCF 002368035.1
Nostoc commune GCF 003113895.1
ULC046 Nostoc sp. ANT.GENTNER2.6
ULC397 Nostoc sp. TG3
ULC447 Nostoc sp. TG11
ULC015 Nostoc sp. ANT.LH61.1
Nostoc flagelliforme GCF 002813575.1
Nostoc sphaeroides GCF 009372195.1
Nostoc sphaeroides GCF 003443655.1
Nostoc sp. GCF 002245985.1
Nostoc sp. GCF 002949735.1
Nostoc sp. GCF 002245975.1
Nostoc punctiforme GCF 00020025.1
Nostoc sp. GCF 010747425.1
Nostoc sp. GCF 009873495.1
Nostoc sp. GCF 001712795.1
Nostoc sp. GCF 002949795.1
ULC409 Nostoc sp. TG10
Nostoc sp. GCF 002246015.1
ULC038 Nostoc sp. ANT.LH52B.5
ULC008 Nostoc sp. ANT.PROGRESS.2.1
Nodularia sp. GCF 002218065.1
Nodularia spumigena GCF 003054475.1
Nodularia spumigena GCF 001623485.1
ULC421 Nodularia spumigena GCF 009414
Cylindrospermum stagnale GCF 000317535.1
Anabaena cylindrica GCF 000317695.1
Trichormus sp. GCF 001858025.1
Anabaena sp. GCF 000332135.1
Nostoc azollae GCF 000196515.1
Sphaerospermopsis kisseleviana GCF 002368075.1
Sphaerospermopsis reniformis GCF 005402885.1
Raphidiopsis brookii GCF 00175855.1
Cylindrospermopsis raciborskii GCF 002027345.1
Raphidiopsis curvata GCF 002368135.1
Cylindrospermopsis raciborskii GCF 006523545.1
Cylindrospermopsis raciborskii GCF 000175835.1
Anabaena sp. GCF 009712085.1
Anabaena sp. GCF 009711975.1
Dolichospermum planctonicum GCF 005402965.1
Dolichospermum circinale GCF 000426925.1
Dolichospermum circinale GCF 000426905.1
ULC611 Dolichospermum sp. BL7
Anabaena sp. GCF 009712035.1
Dolichospermum flos-aquae GCF 012516395.1
Dolichospermum sp. GCF 008121535.1
Anabaena sp. GCF 000312705.1
Dolichospermum sp. GCF 009711925.1
Dolichospermum sp. GCF 009711985.1
Dolichospermum compactum GCF 002368115.1
Dolichospermum sp. GCF 009711935.1
ULC602 Aphanizomenon sp. BL5
Aphanizomenon flos-aquae GCF 000521175.1
Aphanizomenon sp. GCF 009712065.1
Anabaena sp. GCF 001277295.1
Dolichospermum flos-aquae GCF 009712125.1
Coleofasciculus chthonoplastes GCF 000155555.1
Moorea produens GCF 001767235.1
Moorea bouillonii GCF 001942495.1
Moorea produens GCF 001854205.1
Moorea produens GCF 001942475.1
ULC437 Jaaginema subtilissimum La Gombe 3
ULC124 Geitlerinema sp. JR21
ULC020 Geitlerinema sp. ANT-CASTEN #2
ULC504 Geitlerinema cf. ionicum W2.1.2
ULC500 Geitlerinema nematodes W1.1.1
Microcoleus sp. GCF 000317155.1
ULC376 Wilmothia murrayi KOVACIK ANT 2004-75
ULC369 Wilmothia murrayi KOVACIK ANT 2003-15
ULC434 Wilmothia murrayi ANT.PENDANT.1
ULC441 Phormidium papyraceum BOTA3
Rubidibacter lacunae GCF 000473895.1
Euhaliotricha natronophila GCF 007904085.1
Halothece sp. GCF 000317635.1
Dactylococcopsis salina GCF 000317615.1
Spirulina subsalsa GCF 000314005.1
ULC448 Spirulina subsalsa BLCC-M33
Spirulina major GCF 001890765.1
ULC559 Spirulina subsalsa BLCC-M70
Stanieria sp. GCF 002355455.1
Stanieria cyanosphaera GCF 000317575.1
Hyalia patelloides GCF 000559855.1
Xenococcus sp. GCF 000332055.1
Myxosarcina sp. GCF 000756305.1
ULC346 Myxosarcina sp. PRUS2
Pleurocapsa sp. GCF 000332195.1
Chondrocystis sp. GCF 002368355.1
Synechococcus spp.
Cyanobacterium sp. GCF 001747005.1
Cyanobacterium aponinum GCF 002736005.1
Cyanobacterium aponinum GCF 000317675.1
Geminocystis sp. GCF 001548095.1
Geminocystis herdmanni GCF 000332235.1
Geminocystis sp. GCF 000332235.1
Gloeocapsa sp. GCF 000332035.1
ULC590 Johannesbaptistia floridana BLCC-M67
Pleurocapsa sp. GCF 000317025.1
Gloeotheca verrucosa GCF 000147335.1
Gloeotheca citrifomis GCF 000021825.1
Microcystis spp.
Synechocystis sp. GCF 000478825.2
Synechocystis sp. GCF 00222815.1
Synechocystis sp. GCF 003015225.1
Rippkaea orientalis GCF 000021805.1
Aphanizomenon sacrum GCF 003864295.1
Crocospaera wiesnerii GCF 000071235.1
Crocospaera subtropica GCF 000017845.1
Crocospaera sp. GCF 000313815.1
Crocospaera chwakensis GCF 000169335.1

Clade 1

Clade 2

Clade 3

Clade 4

Missing Clade

Clade 5

Clade 6

Clade 8

Clade 9

Clade 10 Non-Nostocales

Clade 10

Clade 11

Clade 11 Unicellular