

46. Morin N, Vallaeys T, Hendrickx L, Natalie L, Wilmotte A (2010) An efficient DNA isolation protocol for filamentous cyanobacteria of the genus *Arthrospira*. *Journal of Microbiological Methods* 80: 148–154.
47. Chen M, Quinnell RG, Larkum AWD (2002) Chlorophyll d as the major photopigment in *Acaryochloris marina*. *Journal of Porphyrins and Phthalocyanines* 6: 763–773.
48. Madigan M, Martinko J, Dunlap P, Clark D (2009) *Brock Biology of Microorganisms*, 12th ed. San Francisco: Pearson International Edition.
49. Valenzuela-Encinas C, Neria-Gonzalez I, Alcantara-Hernandez RJ, Estrada-Alvarado I, de la Serna FJZD, et al. (2009) Changes in the bacterial populations of the highly alkaline saline soil of the former lake Texcoco (Mexico) following flooding. *Extremophiles* 13: 609–621.
50. Sekiguchi Y, Yamada T, Hanada S, Ohashi A, Harada H, et al. (2003) *Anaerolinea thermophila* gen. nov., sp. nov. and *Caldilinea aerophila* gen. nov., sp. nov., novel filamentous thermophiles that represent a previously uncultured lineage of the domain Bacteria at the subphylum level. *International Journal of Systematic and Evolutionary Microbiology* 53: 1843–1851.
51. Wen AM, Fegan M, Hayward C, Chakraborty S, Sly LI (1999) Phylogenetic relationships among members of the Comamonadaceae, and description of *Delfia acidovorans* (den Dooren de Jong 1926 and Tamaoka et al. 1987) gen. nov., comb. nov. *International Journal of Systematic Bacteriology* 49: 567–576.
52. Krieg NR, Staley JT, Brown DR, Hedlund BP, Paster BJ, et al. (2010) *Bergey's Manual of Systematic Bacteriology*.
53. Bernardet JF, Grimont PAD (1989) Deoxyribonucleic-Acid Relatedness and Phenotypic Characterization of *Flexibacter-Columnaris* Sp-Nov, Nom Rev, *Flexibacter-Psychrophilus* Sp-Nov, Nom Rev, and *Flexibacter-Maritimus* Wakabayashi, Hikida, and Masumura 1986. *International Journal of Systematic Bacteriology* 39: 346–354.
54. Ferreira AC, Nobre MF, Moore E, Rainey FA, Battista JR, et al. (1999) Characterization and radiation resistance of new isolates of *Rubrobacter radiotolerans* and *Rubrobacter xylanophilus*. *Extremophiles* 3: 235–238.
55. Bryant DA, Costas AMG, Maresca JA, Chew AGM, Klatt CG, et al. (2007) *Candidatus Chloracidobacterium thermophilum*: An aerobic phototrophic acidobacterium. *Science* 317: 523–526.
56. Pester M, Schleper C, Wagner M (2011) The Thaumarchaeota: an emerging view of their phylogeny and ecophysiology. *Curr Opin Microbiol* 14: 300–306.
57. Al-Qassab S, Lee WJ, Murray S, Simpson AGB, Patterson DJ (2002) Flagellates from stromatolites and surrounding sediments in Shark Bay, Western Australia. *Acta Protozoologica* 41: 91–144.
58. Bower SM, Carnegie RB, Goh B, Jones SRM, Lowe GJ, et al. (2004) Preferential PCR amplification of parasitic protistan small subunit rDNA from metazoan tissues. *Journal of Eukaryotic Microbiology* 51: 325–332.
59. Guiry MD, Guiry GM (2011) *AlgaeBase*. World-wide electronic publication, National University of Ireland, Galway. <http://www.algaebase.org>.
60. Jones MDM, Forn I, Gadelha C, Egan MJ, Bass D, et al. (2011) Discovery of novel intermediate forms redefines the fungal tree of life. *Nature advance online publication*.
61. van der Grinten E, Janssen APHM, de Mutsert K, Barranguet C, Admiraal W (2005) Temperature- and light-dependent performance of the cyanobacterium *Leptolyngbya foveolarum* and the diatom *Nitzschia perminuta* in mixed biofilms. *Hydrobiologia* 548: 267–278.
62. Winsborough BM, Golubic S (1987) The Role of Diatoms in Stromatolite Growth - 2 Examples from Modern Fresh-Water Settings. *Journal of Phycology* 23: 195–201.
63. Turner S, Pryer KM, Miao VPW, Palmer JD (1999) Investigating deep phylogenetic relationships among cyanobacteria and plastids by small subunit rRNA sequence analysis. *Journal of Eukaryotic Microbiology* 46: 327–338.
64. Gupta RS, Mathews DW (2010) Signature proteins for the major clades of Cyanobacteria. *BMC EVOLUTIONARY BIOLOGY* 10.
65. Nakamura Y, Kaneko T, Sato S, Mimuro M, Miyashita H, et al. (2003) Complete genome structure of *Gloeobacter violaceus* PCC 7421, a cyanobacterium that lacks thylakoids. *DNA Research* 10: 137–145.
66. Tsuchiya T, Takaichi S, Misawa N, Maoka T, Miyashita H, et al. (2005) The cyanobacterium *Gloeobacter violaceus* PCC 7421 uses bacterial-type phytoene desaturase in carotenoid biosynthesis. *FEBS Letters* 579: 2125–2129.
67. Mimuro M, Yokono M, Akimoto S (2010) Variations in Photosystem I Properties in the Primordial Cyanobacterium *Gloeobacter violaceus* PCC 7421. *Photochemistry and Photobiology* 86: 62–69.
68. Rippka R, Waterbury J, Cohen-Bazire G (1974) A cyanobacterium which lacks thylakoids. *Archives of Microbiology* 100: 419–436.
69. Ferris MJ, RuffRoberts AL, Koczcynski ED, Bateson MM, Ward DM (1996) Enrichment culture and microscopy conceal diverse thermophilic *Synechococcus* populations in a single hot spring microbial mat habitat. *Applied and Environmental Microbiology* 62: 1045–1050.
70. Lara E, Moreira D, Lopez-Garcia P (2010) The Environmental Clade LKM11 and Rozella Form the Deepest Branching Clade of Fungi. *Protist* 161: 116–121.
71. Lepere C, Boucher D, Jardillier L, Domaizon I, Debroas D (2006) Succession and regulation factors of small eukaryote community composition in a lacustrine ecosystem (Lake pavin). *Applied and Environmental Microbiology* 72: 2971–2981.
72. Arp G, Reimer A, Reitner J (2001) Photosynthesis-induced biofilm calcification and calcium concentrations in Phanerozoic oceans. *Science* 292: 1701–1704.
73. Paerl HW, Steppe TF, Reid RP (2001) Bacterially mediated precipitation in marine stromatolites. *Environmental Microbiology* 3: 123–130.
74. Choo KS, Snocijs P, Pedersen M (2002) Uptake of inorganic carbon by *Cladophora glomerata* (Chlorophyta) from the Baltic Sea. *Journal of Phycology* 38: 493–502.
75. Awramik SM, Riding R (1988) Role of Algal Eukaryotes in Subtidal Columnar Stromatolite Formation. *Proceedings of the National Academy of Sciences of the United States of America* 85: 1327–1329.
76. Bosak T, Greene SE, Newman DK (2007) A likely role for anoxygenic photosynthetic microbes in the formation of ancient stromatolites. *Geobiology* 5: 119–126.
77. Bauld Jp, Chambers LAp, Skyring GWp Primary Productivity, Sulfate Reduction and Sulfur Isotope Fractionation in Algal Mats and Sediments of Hamelin pool, Shark Bay, W. A. \par. 753–764\par.
78. Bauer M, Kube M, Teeling H, Richter M, Lombardot T, et al. (2006) Whole genome analysis of the marine Bacteroidetes ‘*Gramella forsetii*’ reveals adaptations to degradation of polymeric organic matter. *Environmental Microbiology* 8: 2201–2213.
79. Freytag P, Verrecchia EP (1998) Freshwater organisms that build stromatolites: a synopsis of biocrystallization by prokaryotic and eukaryotic algae. *Sedimentology* 45: 535–563.
80. Souza-Egipsy V, Del Cura AG, Ascaso C, De Los Rios A (2006) Interaction between calcite and phosphorus in biomineralization processes in tufa carbonates. *International Review of Hydrobiology* 91: 222–241.
81. Golubic S, Radtke G, Le Campion-Alsumard T (2005) Endolithic fungi in marine ecosystems. *Trends in Microbiology* 13: 229–235.
82. Muyzer G, Dewaal EC, Uitterlinden AG (1993) Profiling of Complex Microbial Populations by Denaturing Gradient Gel-Electrophoresis Analysis of Polymerase Chain Reaction-Amplified Genes-Coding for 16s Ribosomal-Rna. *Applied and Environmental Microbiology* 59: 695–700.
83. Jaccard P (1901) Distribution de la Flore Alpine dans le Bassin des Dranses et dans quelques régions voisines. *Bulletin de la Société vaudoise des sciences naturelles* 37: 241–272.
84. Altschul SF, Madden TL, Schaffer AA, Zhang JH, Zhang Z, et al. (1997) Gapped BLAST and PSI-BLAST: a new generation of protein database search programs. *Nucleic Acids Research* 25: 3389–3402.
85. Zhang Z, Schwartz S, Wagner L, Miller W (2000) A greedy algorithm for aligning DNA sequences. *Journal of Computational Biology* 7: 203–214.
86. Katoh K, Misawa K, Kuma K, Miyata T (2002) MAFFT: a novel method for rapid multiple sequence alignment based on fast Fourier transform. *Nucleic Acids Research* 30: 3059–3066.
87. Philippe H (1993) MUST, a computer package of management utilities for sequences and trees. *Nucleic Acids Research* 21: 5264–5272.
88. Jobb G, von Haeseler A, Strimmer K (2004) TREEFINDER: a powerful graphical analysis environment for molecular phylogenetics. *BMC EVOLUTIONARY BIOLOGY* 4: 18.
89. Rambaut A (2009) FIGTREE <http://tree.bio.ed.ac.uk/>.
90. Larkin MA, Blackshields G, Brown NP, Chenna R, McGettigan PA, et al. (2007) Clustal W and clustal X version 2.0. *Bioinformatics* 23: 2947–2948.
91. Schloss PD, Handelsman J (2005) Introducing DOTUR, a computer program for defining operational taxonomic units and estimating species richness. *Applied and Environmental Microbiology* 71: 1501–1506.
92. Good IJ (1953) The population frequencies of species and the estimation of population parameters. *Biometrika* 40: 237–264.
93. Price MN, Dehal PS, Arkin AP (2010) FastTree 2-Approximately Maximum-Likelihood Trees for Large Alignments. *Plos One* 5.
94. Lozupone C, Knight R (2005) UniFrac: a new phylogenetic method for comparing microbial communities. *Applied and Environmental Microbiology* 71: 8228–8235.
95. Schloss PD, Westcott SL, Ryabin T, Hall JR, Hartmann M, et al. (2009) Introducing mothur: Open-Source, Platform-Independent, Community-Supported Software for Describing and Comparing Microbial Communities. *Applied and Environmental Microbiology* 75: 7537–7541.