Optimal Growth Temperature, Species Names and Sequence names.

| Name in the Tree | Species Name                     | Optimal grow temperature |         | te SSU stem<br>nt G+C conten | LSU stem<br>t G+C conten | it SSU : Sequence Name   | LSU : Sequence<br>Name |
|------------------|----------------------------------|--------------------------|---------|------------------------------|--------------------------|--|------------------------|
| Bactéries        |                                  |                          |         |                              |                          |  |                        |
| Aquifex_ae       | Aquifex aeolicus                 |                          | 85 79.2 | 82.7                         | 80.3                     | AE000709   | AE000709               |
| Bacillu_su       | Bacillus subtilis                | 38.75                    | 70.2    | 66.9                         | 66.2                     | AF058766   | D26185                 |
| Bactero_fr       | Bacteroides fragilis             |                          | 37 67.0 | 65.1                         | 58.7                     | M11656   | gil53711291:c314376    |
| Borreli_bu       | Borrelia burgdorferi             |                          | 32 66.4 | 58.7                         | 57.3                     | M84815   | AE001147               |
| Buchner_ap       | Buchnera aphidicola              | ?                        | 69.3    | 62.8                         | 61.3                     | M63249   | AF129498               |
| Campylo_je       | Campylobacter jejuni             |                          | 42 67.6 | 59.2                         | 59.1                     | L14630   | AL139074               |
| Chlamyd_mu       | Chlamydia muridarum              |                          | 37 68.7 | 63.0                         | 58.7                     | U68437   | U68436                 |
| Chlamyd_tr       | Chlamydia trachomatis            |                          | 37 68.6 | 63.0                         | 58.6                     | AE001345   | AE001345               |
| Chlorob_li       | Chlorobium limicola              |                          | 30 68.0 | 63.3                         | 63.5                     | Y08102   | M31904                 |
| Clostri_bo       | Clostridium botulinum            |                          | 35 68.7 | 64.3                         | 62.6                     | X68187   | M94178                 |
| deinoco_ra       | Deinococcus radiodurans          |                          | 37 71.5 | 69.5                         | 62.1                     | gil15805042:84836-86337 Deinococcus radiodurans R1 chromosome 1. complete sequence | gil15805042:252343-2   |
| Escheri_co       | Escherichia coli                 |                          | 37 70.7 | 66.4                         | 65.1                     | AB035926   | AE000406               |
| Flavoba_od       | Flavobacterium odoratum          |                          | 25 67.6 | 61.0                         | 61.0                     | M58777   | M62807                 |
| Gemmata_ob       | Gemmata obscuriglobus            |                          | 30 70.5 | 67.4                         | 66.2                     | AJ231191   | gil12583965lgblAF24!   |
| Helicob_py       | Helicobacter pylori              | ?                        | 66.2    | 62.8                         | 59.3                     | AE000620   | U27270                 |
| Lactoco_la       | Lactococcus lactis               |                          | 30 68.2 | 63.8                         | 60.3                     | AJ271851   | X68434                 |
| Leucono_me       | Leuconostoc mesenteroides        |                          | 25 68.4 | 62.5                         | 62.7                     | M23035   | Z75487                 |
| Mycobac_le       | Mycobacterium leprae             |                          | 37 72.0 | 72.4                         | 68.6                     | U15186   | U00014                 |
| Mycopla_ge       | Mycoplasma genitalium            |                          | 37 64.3 | 54.5                         | 56.9                     | U39693   | U39694                 |
| Pasteur_mu       | Pasteurella multocida            |                          | 37 68.5 | 62.5                         | 58.2                     | M35018   | gil15601865:343584-{   |
| Pirellu_ma       | Pirellula marina                 | 31.5                     | 70.0    | 67.7                         | 65.9                     | X62912   | X07408                 |
| Plancto_br       | Planctomyces brasiliensis        | ?                        | 70.0    | 69.0                         | 59.8                     | AJ231190   | gil12583960lgblAF24!   |
| Pseudom_ae       | Pseudomonas aeruginosa           |                          | 37 70.8 | 66.9                         | 66.8                     | AF023658   | Y00432                 |
| Rickett_pr       | Rickettsia prowazeeki            |                          | 37 69.0 | 64.1                         | 58.7                     | AJ235272   | AJ235270               |
| Staphyl_au       | Staphylococcus aureus            | 33.5                     | 68.9    | 61.5                         | 62.5                     | L36472   | L36472                 |
| Strepto_co       | Streptomyces coelicolor          |                          | 37 73.0 | 72.4                         | 68.4                     | AL109848   | AL356612               |
| Synecho_sp       | Synechocystis sp.                |                          | 29 68.9 | 65.4                         | 65.1                     | D64000   | D64000                 |
| Thermoa_te       | Thermoanaerobacter tengcongensis | 68.5                     | 73.0    | 72.4                         | 65.5                     | AF209708   | gil20806542:55537-58   |
| Thermot_ma       | Thermotoga maritima              |                          | 80 77.6 | 79.3                         | 77.8                     | M21774   | M67498                 |

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| Thermus_th | Thermus thermophilus              | 72.5   | 76.1     | 77.8 | 78.0 | M26923  | X12612               |
|------------|-----------------------------------|--------|----------|------|------|---|----------------------|
| Trepone_pa | Treponema pallidum                |        | 37 69.2  | 66.4 | 63.5 | AE001204  | AE001204             |
| Ureapla_ur | Ureaplasma urealyticum            |        | 37 65.6  | 56.3 | 57.3 | AF073448  | AE002112             |
| Vibrio_ch  | Vibrio cholerae                   |        | 37 70.0  | 64.3 | 63.9 | AE004341  | AE004097             |
| Xylella_fa | Xylella fastidiosa                | ?      | 69.3     | 65.9 | 66.3 | AF203388  | AE003861             |
| Archées    |                                   |        |          |      |      |   |                      |
| Acidian_in | Acidianus infernus                | 88     | 79.2     | 80.9 | 77.9 | X89852  | U32318               |
| Aeropyr_pe | Aeropyrum pernix                  | 92.5   | 82.3     | 83.2 | 85.4 | AB008745  | AB008745             |
| Archaeo_fu | Archaeoglobus fulgidus            |        | 83 79.5  | 80.6 | 79.5 | AE000965  | AE000966             |
| Desulfu_mo | Desulfurococcus mobilis           |        | 85 82.0  | 83.5 | 78.7 | gil145077 gblM36474.1 DMORGX D.mobilis ribosomal 16S RNA gene               | gil40816lemblX05480  |
| Haloarc_ma | Haloarcula marismortui            |        | 45 73.6  | 72.1 | 66.6 | AF034619  | AF034619             |
| Halofer_me | Haloferax mediterranei            | 48.725 | 73.5     | 70.3 | 66.4 | D11107  | U82482               |
| Methano_ac | Methanosarcina acetivorans        | 37.5   | 71.4     | 70.3 | 61.8 | gil20088899:1073041-1074470 Methanosarcina acetivorans C2A. complete genome | gil20088899:1930333  |
| Methano_ja | Methanococcus jannaschii A        | 85     | 79.4     | 80.4 | 79.6 | U67473  | U67472               |
| Methano_ka | Methanopyrus kandleri             |        | 98 83.3  | 83.7 | 81.5 | M59932  | gil20093440:585273-{ |
| Methano_ma | Methanosarcina mazei              |        | 35 71.8  | 70.8 | 61.8 | AJ012095  | gil21226102:c235022- |
| Methano_th | Methanobacterium thermoformicicum | ?      | 73.7     | 71.8 | 70.6 | X68713  | AE000940             |
| Methano_va | Methanococcus vannielii           | 37.5   | 73.3     | 71.3 | 67.8 | M36507  | X02729               |
| Nanoarc_eq | Nanoarchaeum equitans             |        | 90 81.0  | 83.5 | 77.5 | gil38349555:432326-433720 Nanoarchaeum equitans Kin4-M. complete genome     | gil38349555:394002-0 |
| Natrono_ma | Natronobacterium magadii          |        | 37 73.7  | 72.9 | 67.0 | X72495  | X72495               |
| Pyrococ_ab | Pyrococcus abyssi                 |        | 96 81.1  | 84.2 | 81.8 | AJ225071  | AJ248283             |
| Pyrococ_fu | Pyrococcus furiosus               |        | 100 80.8 | 83.7 | 78.0 | U20163  | gil18976372:138687-1 |
| Pyrococ_ho | Pyrococcus horikoshii             |        | 98 81.1  | 84.2 | 81.5 | AP000001  | AB009472             |
| Sulfolo_ac | Sulfolobus acidocaldarius         | 72.5   | 79.8     | 82.7 | 77.2 | D14876  | U05018               |
| Sulfolo_so | Sulfolobus solfataricus           |        | 85 79.6  | 78.6 | 77.4 | X90478  | M67495               |
| Thermoc_ce | Thermococcus celer                | 81.5   | 80.2     | 82.7 | 80.0 | M21529  | M67497               |
| Thermof_pe | Thermofilum pendens               | 87.5   | 80.4     | 80.6 | 81.0 | X14835  | X14835               |
| Thermop_ac | Thermoplasma acidophilum          |        | 59 73.2  | 69.5 | 67.2 | M38637  | M32298               |
| Eucaryotes |                                   |        |          |      |      |   |                      |
| Acorus_gr  | Acorus gramineus                  |        | 61.9     | 57.4 | 61.5 | AF197584  | AF036490             |
| Andreae_ni | Andreaea nivalis                  |        | 59.9     | 55.8 | 57.9 | AJ243169  | AJ271023             |
| Arabido_th | Arabidopsis thaliana              |        | 61.7     | 57.1 | 60.5 | AC006837  | AC006837             |
| Branchi_fl | Branchiostoma floridae            |        | 62.3     | 62.8 | 61.5 | M97571  | AF061796             |
| Caenorh_el | Caenorhabditis elegans            |        | 60.8     | 60.7 | 57.1 | X03680  | X03680               |
|            |                                   |        |          |      |      |   |                      |

| Candida_al | Candida albicans          | 58.1 | 55.8 | 55.4 | X53497   | L07796               |
|------------|---------------------------|------|------|------|----------|----------------------|
| Chlorel_el | Chlorella ellipsoidea     | 58.3 | 55.0 | 55.3 | D13324   | D17810               |
| Ciona_in   | Ciona intestinalis        | 62.1 | 61.0 | 63.0 | AB013017 | gil11494226lgblAF212 |
| Cryptoc_ne | Cryptococcus neoformans   | 59.1 | 58.1 | 55.1 | L05427   | L14067               |
| Dictyos_di | Dictyostelium discoideum  | 58.4 | 57.4 | 52.5 | K02641   | X00601               |
| Drosoph_me | Drosophila melanogaster   | 59.7 | 54.0 | 53.1 | M21017   | M21017               |
| Entamoe_hi | Entamoeba histolytica     | 52.5 | 49.1 | 45.3 | X56991   | X65163               |
| Euglena_gr | Euglena gracilis          | 63.7 | 62.8 | 60.2 | M12677   | X53361               |
| Euplote_ae | Euplotes aediculatus      | 60.3 | 55.8 | 54.7 | X03949   | AF223571             |
| Gelidiu_ca | Gelidium caulacantheum    | 62.8 | 62.0 | 59.4 | U60343   | AF039544             |
| Giardia_ar | Giardia ardeae            | 74.3 | 79.1 | 77.2 | Z17210   | X58290               |
| Giardia_in | Giardia intestinalis      | 75.2 | 82.7 | 80.4 | X52949   | X52949               |
| Girardi_ti | Girardia tigrina          | 59.1 | 54.3 | 54.5 | AF013157 | U78718               |
| Gracila_ve | Gracilaria verrucosa      | 62.5 | 61.8 | 57.7 | L26205   | gil4539517lemblY115  |
| Guillar_th | Guillardia theta          | 61.4 | 59.9 | 59.0 | AF083031 | AJ010592             |
| Homo_sa    | Homo sapiens              | 63.7 | 64.1 | 63.4 | K03432   | J01866               |
| Hylocom_sp | Hylocomium splendens      | 59.9 | 56.8 | 57.9 | X95477   | AJ271024             |
| Latimer_ch | Latimeria chalumnae       | 63.6 | 62.0 | 63.2 | L11288   | U34336               |
| Onikusa_pr | Onikusa pristoides        | 62.8 | 62.3 | 59.1 | U60353   | AF039541             |
| Oryza_sa   | Oryza sativa              | 61.8 | 58.1 | 61.4 | AF069218 | M16845               |
| Phytoph_me | Phytophthora megasperma   | 59.4 | 55.6 | 56.2 | M54938   | X75632               |
| Plasmod_fa | Plasmodium falciparum     | 56.9 | 52.2 | 50.2 | M19172   | U48228               |
| Sacchar_ce | Saccharomyces cerevisiae  | 58.4 | 56.3 | 55.9 | U53879   | U53879               |
| Schizos_po | Schizosaccharomyces pombe | 59.0 | 56.3 | 55.7 | X54866   | Z19136               |
| Scytosi_lo | Scytosiphon lomentaria    | 60.9 | 56.1 | 56.9 | D16558   | D16558               |
| Squalus_ac | Squalus acanthias         | 63.4 | 60.7 | 62.7 | M91179   | AF061800             |
| Tetrahy_py | Tetrahymena pyriformis    | 58.6 | 53.7 | 52.9 | M98021   | X01533               |
| Tetrahy_th | Tetrahymena thermophila   | 58.6 | 53.5 | 52.9 | M10932   | X54512               |
| Toxopla_go | Toxoplasma gondii         | 61.2 | 57.1 | 55.9 | L24381   | AF076901             |
| Trypano_br | Trypanosoma brucei        | 61.7 | 62.5 | 59.0 | AL359782 | X05682               |
| Trypano_cr | Trypanosoma cruzi         | 61.8 | 62.3 | 57.5 | AF245382 | L22334               |
|            |                           |      |      |      |          |                      |

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|  |      |
| 2-3140885 Bacteroides fragilis YCH46. complete genome                              |      |
|  |      |
|  |      |
| 254285 Deinococcus radiodurans R1 chromosome 1. complete sequence                  |      |
| 5369.1 AF245369 Gemmata obscuriglobus 23S ribosomal RNA gene. partial sequence     |      |
|  |      |
| 346487 Pasteurella multocida subsp. multocida str. Pm70. complete genome           |      |
| 5364.1IAF245364 Planctomyces brasiliensis 23S ribosomal RNA gene. partial sequence |      |

3465 Thermoanaerobacter tengcongensis MB4. complete genome

1.1|DMRRN23 Desulfurococcus mobilis 23S ribosomal RNA

-1933231 Methanosarcina acetivorans C2A. complete genome

588370 Methanopyrus kandleri AV19. complete genome -232130 Methanosarcina mazei Go1. complete genome

396863 Nanoarchaeum equitans Kin4-M. complete genome

141735 Pyrococcus furiosus DSM 3638. complete genome

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2177.1|AF212177 Ciona intestinalis 28S ribosomal RNA gene. partial sequence

i08.1|GV11508 Gracilaria verrucosa 28S rRNA gene. ITS2