

Table S2. The 55 RAxML bootstrap trees that were identified by our phylogenomic analysis to support the monophyly of Chlamydiae and Plantae (with or without chromalveolates). The tree ID (see Table S1) precedes each tree.

Chromalveolata-Aureococcus_anophagefferens_65597
 (((Rhizaria-Bigelowiella_natans_DR040100_1:0.72724206751884379329,(Plantae-Volvox_carteri_88147_jgi:2.48901170768315482817,(Chromalveolata-Aureococcus_anophagefferens_16893:0.46299704618489145869,(Plantae-Ostreococcus_lucimarinus_92186:0.65128835950455521431,Chromalveolata-Phytophthora_sojae_131183:0.70796421820002231051)68:0.24663111912030225015)88:1.29031286259221977808)53:0.93860528452842373337)18:0.11803334696593120734,((Chromalveolata-Paramecium_tetraurelia_124427262:0.00000121823947223981,Chromalveolata-Paramecium_tetraurelia_124393186:0.03857124897277592473)90:0.21417203907242679528,Chlamydia-Candidatus_Protochlamydia_46447215:4.26671113976660887346)25:0.13366462751010307897,((Chromalveolata-Paramecium_tetraurelia_124416421:0.00554515469942662691,Chromalveolata-Paramecium_tetraurelia_124411770:0.00000121823947223981)100:0.24864645618983666209,Chromalveolata-Tetrahymena_thermophila_118350222:0.20529505743830500641)63:0.08439645907271642322)38:0.38687807306049093459)5:0.00842713575275412519,(((Excavata-Jakoba_bahamiensis_109794533_3:0.44431278128517287529,Excavata-Naegleria_gruberi_45024-fgeneshHS_pg.scaffold_1000114:0.54962745797387013713)24:0.14710028044105155631,((Chromalveolata-Thalassiosira_pseudonana_2190:0.98114433124445010748,((Chromalveolata-Phytophthora_sojae_158858:0.33770456369476825609,Chromalveolata-Aureococcus_anophagefferens_65597:0.37787471851945414469)85:0.07954432360397857560,Chromalveolata-Isochrysis_galbana_ISE00003557_3:0.40176344105849065569)39:0.07553046064732503451)7:0.13526346014854057076,(Excavata-Giardia_lambliia_157434715:0.00000121823947223981,Excavata-Giardia_lambliia_159112778:0.00000121823947223981)99:0.89158333844675108359)0:0.00352602529421938661)5:0.09889030710058813178,(Chromalveolata-Karenia_brevis_Kb_AUAO_B_77772_3:0.70810630266416207945,Plantae-Volvox_carteri_90652_jgi:0.70435779615160931666)28:0.12835105389802867193)16:0.12877910973152320584,Chromalveolata-Aureococcus_anophagefferens_66530:3.33756598858181963152);

Plantae-Arabidopsis_thaliana_15219361
 (Plantae-Arabidopsis_thaliana_15219361:0.22724140108382268055,(Plantae-Physcomitrella_patens_183222:0.56910705899345537251,(Bacteria-Geobacter_sp._110600188:0.55751803908851116365,(Chlamydia-Candidatus_Protochlamydia_46446484:0.82175508704329891518,Excavata-Naegleria_gruberi_52320-fgeneshHS_pg.scaffold_54000069:1.01884054710522153897)89:0.19670993057324157038)100:0.34868798350678809062)82:0.14028396556514940996,Plantae-Oryza_sativa_115444151:0.39929798345346095845);

Plantae-Arabidopsis_thaliana_15220982
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Synechococcus_elongatus_PCC_6301_56751211:0.00000121823947223981);

Plantae-Arabidopsis_thaliana_15223438

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Brucella_ovis_148560117:0.02710065679074320777,Bacteria-
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Sinorhizobium_medicae_150397279:0.23962959878961717641)48:0.04443220786478007528)88:0.06678121104095559313,(((
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Enterobacter_sakazakii_156933054:0.19414869639000656432,Bacteria-
Serratia_proteamaculans_157369252:0.09766310826658038124)82:0.05258590289716134902)28:0.05913168208968864331,(B
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Acinetobacter_baumannii_126643256:0.20620818122237180581,Bacteria-
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Methylobacillus_flagellatus_91774535:0.16555672112043598454,(Bacteria-
Vibrionales_bacterium_148977691:0.15289233219224815374,Bacteria-
Psychromonas_sp_90409060:0.18382293194807095005)29:0.04176601036358439101)20:0.04084573978934322169)15:0.034
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Frankia_alni_111220867:0.58095341020746782412)99:0.37435921362201418638,((Bacteria-
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Arabidopsis_thaliana_15223438:0.00560027477996302616)10:0.00000121823947223981)49:0.02797569840863609394,Plantae
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Apis_mellifera_66514115:0.60458269256926522317,(Opisthokonta-
Drosophila_melanogaster_45551084:0.00000121823947223981,Opisthokonta-
Drosophila_melanogaster_24652747:0.00000121823947223981)100:0.55942820925188396775)85:0.17157170745390712407)2
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Plantae-Arabidopsis_thaliana_15236554

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Plantae-Arabidopsis_thaliana_18395376

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Plantae-Arabidopsis_thaliana_18396238

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Plantae-Arabidopsis_thaliana_18408421

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Plantae-Arabidopsis_thaliana_18410414

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Plantae-Arabidopsis_thaliana_18418270

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Plantae-Arabidopsis_thaliana_42565237

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Physcomitrella_patens_12476:0.32833235083920692121)91:0.16807624259941653100)56:0.11696457071197216560,Plantae-
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Plantae-Arabidopsis_thaliana_42573275

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Plantae-Arabidopsis_thaliana_42573371

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Plantae-Chlamydomonas_reinhardtii_104193

(Cyanobacteria-Cyanothece_sp._CCY0110_126658167:0.06825500980045920429,(((Cyanobacteria-Nostoc_sp._PCC_7120_17228722:0.01205630852563517597,Cyanobacteria-Anabaena_variabilis_ATCC_29413_75906868:0.01583521251112155262)97:0.01833548008834672352,(Cyanobacteria-Nodularia_spumigena_CCY9414_119509215:0.05366903712111954078,Cyanobacteria-Nostoc_punctiforme_PCC_73102_23130352:0.03731931054360528716)42:0.00668387104419814696)100:0.08780551874821448943,(Cyanobacteria-Thermosynechococcus_elongatus_BP-1_22298534:0.10930303387252081337,((Bacteria-Prosthecochloris_vibrioformis_145219156:0.04733748722683246701,(Bacteria-Pelodictyon_luteolum_78186164:0.07916317931282931819,Bacteria-Chlorobium_phaeobacteroides_119358060:0.19576701636332677348)75:0.05474044510736555957)100:0.50178095710415870911,(((Chlamydia-Candidatus_Protoclhamydia_46447621:1.16991085293136665157,((Chlamydia-Candidatus_Protoclhamydia_46447213:0.63551342894129780881,(Plantae-Ostreococcus_tauri_10633:0.23089778000282901171,Plantae-Ostreococcus_lucimarinus_31136:0.09832583542072138860)100:0.57003376249287907029,(Plantae-Chlamydomonas_reinhardtii_104193:0.30468449541285258508,Plantae-Volvox_carteri_108215_jgi:0.21940800228216100765)100:0.25811468879567117662)100:0.26535528426780302658)99:0.35814892966481892689,(Bacteria-Marinomonas_sp._152997627:0.78369919172557933607,(Bacteria-Psychrobacter_sp._148654121:0.59025747546271634114,(Bacteria-Alcanivorax_borkumensis_110835023:0.43366052195557247551,((Bacteria-Ralstonia_eutropha_73541045:0.12805629193434961421,Bacteria-Burkholderia_phytofirmans_118044115:0.1321777051779097675)100:0.53467859605574730164,(Bacteria-Delftia_acidovorans_118729031:0.21765234568106889279,Bacteria-Acidovorax_avenae_120609942:0.12340203083271560069)100:0.15748583373907051874,Bacteria-Polaromonas_naphthalenivorans_121604209:0.22388901285814627462)100:0.17195089304227115234)84:0.15224665037083340291,(Bacteria-Shewanella_denitrificans_91793740:0.67375372291582869000,Bacteria-marine_gamma_119504827:0.71080329394531249765)14:0.06647818577003902774)29:0.11300006847936368282)48:0.15298

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((Bacteria-Saccharopolyspora_ erythraea_134101758:0.37673833554219932074,(Bacteria-Thermobifida_ fusca_72162442:0.29343200148379378067,(((Bacteria-Roseiflexus_sp._148656197:0.41196510397812818871,(Bacteria-Candidatus_ Desulfococcus_121541644:0.74898747062233062000,(Bacteria-Anaeromyxobacter_ dehalogenans_86157471:0.58941096489265643044)28:0.05632323142631570634)48:0.09884213763850956125,(((Bacteria-Pedobacter_sp._149275976:0.34161856339362273172,(Bacteria-Cytophaga_ hutchinsonii_110637940:0.28351988297825903018)27:0.03610178416519307931,(Bacteria-Microscilla_ marina_124002514:0.38187732479145453102)22:0.04740676001211944351,(((Bacteria-Desulfuromonas_ acetoxidans_95929912:0.18324950844089263335,(Bacteria-Bacteroides_ caccae_153807144:0.13866791283576704319,(Bacteria-Parabacteroides_ distasonis_150009644:0.11825387634302750306)97:0.08064301727138974141)95:0.08984739636825415932,

((Bacteria-Flavobacterium_johnsoniae_146298313:0.15552941091020192066,Bacteria-Flavobacteria_bacterium_89889440:0.30721891551689284316)100:0.12144344341684246147,(Bacteria-unidentified_eubacterium_149371964:0.16449430441522380764,Bacteria-Gramella_forsetii_120434482:0.16918290896667670387)90:0.05774047669220284951)92:0.07474480903684375954)64:0.04524582266612631881)25:0.04981587034372766259,Bacteria-Algoriphagus_sp._126645189:0.21570245953804395578)100:0.31513764490592166556,((Chromalveolata-Phytophthora_sojae_124508:0.58360473857182393331,(Excavata-Naegleria_gruberi_75743-fgeneshNG_pg.scaffold_84000052:0.61610043258329438842,(Opisthokonta-Apis_mellifera_66529862:0.53642056448404329405,Opisthokonta-Drosophila_melanogaster_20130383:0.31593210172346808395)100:0.41729975106802280616)92:0.14646083235511353493)93:0.12777406466202098634,(((Chlamydia-Chlamydia_muridarum_15834952:0.07900959204166853322,(Chlamydia-Chlamydia_trachomatis_15604781:0.00000121823947223981,Chlamydia-Chlamydia_trachomatis_76788775:0.0024576367493383879)100:0.06294776464235349311)100:0.18379629161599339571,(((Chlamydia-Chlamydia_pneumoniae_33241703:0.00000121823947223981,Chlamydia-Chlamydia_pneumoniae_16752679:0.00000121823947223981)54:0.00000121823947223981,Chlamydia-Chlamydia_pneumoniae_15618276:0.00247534638026705896)59:0.00000121823947223981,Chlamydia-Chlamydia_pneumoniae_15835894:0.00247915831819011919)100:0.26632264762956869841,(Chlamydia-Chlamydia_pneumoniae_62185046:0.06392626358809498643,(Chlamydia-Chlamydia_pneumoniae_89898384:0.09116440202215184141,Chlamydia-Chlamydia_pneumoniae_29840193:0.07645104664389383575)68:0.03683029345224593520)99:0.13151733368357845788)91:0.12214419015883486164)100:0.65394635780442844641,(Chlamydia-Candidatus_Protoclamydia_46446803:0.37391748802002988672,(((Plantae-Chlamydomonas_reinhardtii_139405:0.07571051401325484820,Plantae-Volvox_carteri_83275_jgi:0.06625724818795990234)100:0.22159457657125741781,(((Plantae-Ostreococcus_lucimarinus_36202:0.36274282247423245140,Plantae-Ostreococcus_tauri_15385:0.38266792558155909854)75:0.10279851448540978931,(((Plantae-Oryza_sativa_115436768:0.18595602604582367468,Plantae-Arabidopsis_thaliana_15232946:0.20800849256209519300)97:0.10829535332297797467,Plantae-Physcomitrella_patens_62167:0.22506668285492004156)99:0.13308055595481135813)48:0.04737390342660465631)99:0.12465171412370484871,Plantae-Cyanidioschyzon_merolae_CMQ275C:0.42445701878243352612)89:0.07867285237234430961)100:0.17757232206271941766)90:0.10953718386196957535)87:0.08307993333544186343)22:0.05230780585672085981)90:0.10108371562795821774,(((Bacteria-Geobacillus_thermodenitrificans_138896346:0.19489921102264093355,Bacteria-Bacillus_cereus_152977028:0.1738772779174559545)54:0.04695238718209549661,((Bacteria-Lactococcus_lactis_125623269:0.16048610858067158258,Bacteria-Streptococcus_pyogenes_15674319:0.15380067189661861260)100:0.38535978323257452649,(((Bacteria-Lactobacillus_gasseri_116628855:0.20381073846091657398,Bacteria-Leuconostoc_mesenteroides_116619116:0.42252876977223030597)100:0.15863567054327554207,Bacteria-Listeria_welshimeri_116873028:0.24518626830270809358)100:0.08388294827292092082,Bacteria-Staphylococcus_saprophyticus_73662343:0.36261461295859953591)97:0.07366322550918499856)55:0.03333804137200781920)34:0.06173163726216262387,Bacteria-Desulfotobacterium_hafniense_109647650:0.40259254568064856139)64:0.07514289781448102445,((Bacteria-Psychromonas_sp._90407450:0.21382375800481112638,((Bacteria-marine_gamma_119502753:0.32517630087011251128,(Bacteria-Oceanospirillum_sp._89095105:0.16891408553095080269,Bacteria-Oceanobacter_sp._94502122:0.17816903838105624391)51:0.02699936071836281024)49:0.03548703723923325726,Bacteria-Marinomonas_sp._152995102:0.25752998560574041909)94:0.10789865906003974494)100:0.17160090770394212378,(((Bacteria-Sodalis_glossinidius_85059426:0.12212224548517520983,(Bacteria-Yersinia_pseudotuberculosis_153948792:0.03887763127984072975,Bacteria-Serratia_proteamaculans_157370459:0.07103224279401640362)73:0.01967791330129379720)85:0.03068061685390450002,(((Bacteria-Shigella_sonnei_74312035:0.00000121823947223981,Bacteria-Escherichia_coli_15802051:0.00000121823947223981)100:0.02840761241829359643,Bacteria-Salmonella_enterica_16760464:0.00700321016219394334)67:0.01413741623180944477,((Bacteria-Klebsiella_pneumoniae_152970527:0.01204356056366379102,Bacteria-Citrobacter_koseri_157145898:0.01349684696850844516)36:0.00546383457302799819,Bacteria-Enterobacter_sakazakii_156934169:0.03626465502296627452)38:0.00841100610423431774)83:0.04236593775324004607)100:0.11519916497790358423,(Bacteria-Vibrio_angustum_90577965:0.00111459564801568334,Bacteria-Photobacterium_sp._89076033:0.02497914225496796273)100:0.20804580702812414117)99:0.11166955493225012852,((Bacteria-Chromobacterium_violaceum_34498527:0.16799908378433328626,Bacteria-Dechloromonas_aromatica_71908788:0.15956224837431706720)82:0.09467069698615879214,Bacteria-Neisseria_meningitidis_15677671:0.25068433988589783334)49:0.04419399145402747725)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753955671189229570,(((Bacteria-Clavibacter_michiganensis_148273171:0.25980771557431414642,Bacteria-Arthrobacter_aurescens_119960707:0.17173807386202008529)98:0.16094430761618089276,(Bacteria-Actinomyces_odontolyticus_154509115:0.30348026828647839404,Bacteria-Bifidobacterium_adolescentis_154488639:0.50588681445364513944)74:0.09003141643948722739)74:0.08066502651426316062,Bacteria-Streptomyces_avermitilis_29833001:0.16956219438793604382)87:0.08481710853126794847,Bacteria-Nocardioides_sp._119716211:0.33018995341914536557);

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(Bacteria-Ralstonia_eutropha_73542207:0.12002709172980793872,(((Bacteria-Rhodospirillum_rubrum_119900860:0.11689334269063432481,Bacteria-Polaromonas_naphthalenivorans_121604633:0.11200987903843655225)100:0.16782649671817773118,Bacteria-Polynucleobacter_sp._145588803:0.15645032067118255781)63:0.05889323789995537517,(((Bacteria-Nitratiruptor_sp._152990309:0.57169009804870274394,(((Bacteria-Dorea_longicatena_153853240:0.09021290018809877131,Bacteria-Ruminococcus_obeum_153812754:0.17475966259795480684)100:0.23046153099308319678,Bacteria-Clostridium_difficile_126698375:0.38986153904307635498)80:0.09660917020010532930,(((Chromalveolata-Aureococcus_anophagefferens_14447:0.61205163933036776935,(Chromalveolata-Thalassiosira_pseudonana_34698:0.20277436580712665526,Chromalveolata-Phaeodactylum_tricornutum_13791:0.15489989821730881792)100:0.35131866123348098885)92:0.23015188355539351051,(Plantae-Cyanidioschyzon_merolae_CMQ012C:1.21253683804141809688,(Plantae-Volvox_carteri_120889_jgi:0.16207150121947361265,Plantae-Chlamydomonas_reinhardtii_155606:0.02642021793998287210)100:0.45486808551719676297,(Plantae-Physcomitrella_patens_74110:0.24369479138092864368,(Plantae-Oryza_sativa_115464935:0.25749540799366049670,Plantae-Arabidopsis_thaliana_18400953:0.10502002140538994890)100:0.42774453861230216090)98:0.24962691153114069387,(Plantae-Ostreococcus_tauri_32784:0.24670619197491508445,Plantae-Ostreococcus_lucimarinus_31615:0.06951524047271036288)100:0.42413018123195811437)33:0.05577035551997758245)70:0.18803664605945025201)55:0.09102573976162051106)81:0.17402749558897012694,(Chlamydia-Candidatus_Proteochlamydia_46446962:0.28933712441839404272,((Chlamydia-Chlamydophila_pneumoniae_33241926:0.0000121823947223981,((Chlamydia-Chlamydophila_pneumoniae_15618484:0.0000121823947223981,Chlamydia-Chlamydophila_pneumoniae_15836104:0.0000121823947223981)28:0.0000121823947223981,Chlamydia-Chlamydophila_pneumoniae_16752465:0.0000121823947223981)19:0.0000121823947223981)99:0.06943985166831251332,(Chlamydia-Chlamydia_muridarum_15835357:0.01544973360270749350,(Chlamydia-Chlamydia_trachomatis_15605184:0.00855745650215312612,Chlamydia-Chlamydia_trachomatis_76789193:0.0000121823947223981)98:0.01057927530901202513)100:0.08919909898033856477,(Chlamydia-Chlamydophila_caviae_29839936:0.03419371535137689933,Chlamydia-Chlamydophila_abortus_62184810:0.03954097846598216004)45:0.01628079887864936418,Chlamydia-Chlamydophila_felis_89898645:0.05179450452983178771)69:0.04143122164786104678)87:0.09639737163463399372)98:0.32774060304922508768)92:0.14487622958862142464)90:0.32599586241951750143,(((Bacteria-Roseovarius_sp._114762980:0.05269170319049649998,(Bacteria-Dinoroseobacter_shibae_118734753:0.03534498076352769053,(Bacteria-Rhodobacterales_bacterium_126727914:0.09580548614221770509,((Bacteria-alpha_proteobacterium_114771672:0.20514942023210219757,Bacteria-Jannaschia_sp._89055871:0.09299735597403335774)52:0.03460538248615783324,Bacteria-Oceanicola_granulosus_89071234:0.07245453636964062361)12:0.01835312479321055470)29:0.03702518351631740173)60:0.04933783067567026198,Bacteria-Roseobacter_sp._149914396:0.07064247113291546865)51:0.04348509632945464498)100:0.15057970210425425384,(((Bacteria-Nitrobacter_hamburgensis_92118985:0.08920028293750946469,(Bacteria-Bradyrhizobium_japonicum_27376645:0.06334888746984651542,Bacteria-Rhodopseudomonas_palustris_115526759:0.08326321131727680569)52:0.01788981773168135322)100:0.12795228916599746261,(Bacteria-Methylobacterium_sp._149124304:0.18532062900096912816,Bacteria-Xanthobacter_autotrophicus_154246991:0.10234006669440925963)77:0.05363428099197331544)56:0.04486594939352527706,Bacteria-Parvibaculum_lavamentivorans_154252561:0.24737915396088877573)97:0.14729358099345840616,(((Bacteria-Ochrobactrum_anthropi_153008531:0.08905077337884818867,Bacteria-Bartonella_bacilliformis_121602842:0.15134999060343273802)28:0.02123940771371084571,Bacteria-Mesorhizobium_sp._110635521:0.07339706320165960418)47:0.02734950698152237292,(Bacteria-Aurantimonas_sp._90418962:0.15014648353444121076,(Bacteria-Sinorhizobium_medicae_150397839:0.03810989144907962756,(Bacteria-Agrobacterium_tumefaciens_15891221:0.06998633509954672871,Bacteria-Rhizobium_leguminosarum_116253722:0.08589561886863739115)38:0.01981159096945931189)73:0.06048071397034363028)42:0.01990886189899582215)94:0.09134040698155190818)84:0.08537884473065641966)100:0.31543697082441068957,(Bacteria-Bacillus_subtilis_16079834:0.27407910869862117664,Bacteria-

Geobacillus_thermodenitrificans_138896161:0.20000395993709960130)85:0.12311986112632597457,((Bacteria-
Leuconostoc_mesenteroides_116618556:0.17733433115377611466,Bacteria-
Oenococcus_oeni_116490816:0.12064690698052762952)100:0.19185410411072409409,Bacteria-
Lactobacillus_acidophilus_58337048:0.29420598866684205541)97:0.17905004469117247190)66:0.09644661126907344562)1
3:0.02122383543296823064)10:0.04452979429572453962)44:0.06622468713777901472)18:0.04980963049883913724,(Bacter
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Plantae-Chlamydomonas_reinhardtii_196649

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Plantae-Chlamydomonas_reinhardtii_503

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Plantae-Cyanidioschyzon_merolae_CMO211C

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Plantae-Cyanidioschyzon_merolae_CM313C

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Plantae-Oryza_sativa_115460026

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Plantae-Oryza_sativa_115463187

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Plantae-Oryza_sativa_115470767

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Plantae-Oryza_sativa_115474235

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Plantae-Oryza_sativa_115476574

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Plantae-Oryza_sativa_115483650

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Phaeodactylum_tricornutum_3262:0.28145628265308147986,Chromalveolata-
Thalassiosira_pseudonana_263714:0.22350776130134741848)97:0.41755133267170413403)23:0.09742855396757832409,Chla
mydia-
Candidatus_Proteochlamydia_46446952:0.48284171105267847945)29:0.06619194118988205866)50:0.13793402065230170317,
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Cyanidioschyzon_merolae_CMJ027C:0.51997274318420239059)95:0.29077336162873373970)96:0.17697534546161303171,(
Plantae-Ostreococcus_lucimarinus_30035:0.19062594011099556757,Plantae-
Ostreococcus_tauri_15515:0.2244242775927412115)99:0.49246147161474757015)95:0.18287085808564265688)97:0.244888
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Physcomitrella_patens_216994:0.35301044851518176282)100:0.15824981223074108261)100:0.21622227155734660697,Plant
ae-Arabidopsis_thaliana_15222600:0.00000121823947223981,Plantae-
Arabidopsis_thaliana_30692655:0.00000121823947223981);

Plantae-Ostreococcus_lucimarinus_31465

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Cyanidioschyzon_merolae_CML043C:0.97731558116961736449,((Plantae-
Arabidopsis_thaliana_15217683:0.76799590534159478672,Plantae-
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Physcomitrella_patens_162062:0.71225743852059297812)68:0.33466603831060698360,Plantae-
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Chlamydomonada felis_89898046:0.11928205227070079464)50:0.09928023483904174773)24:0.05636796131469919841,((Chro
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Ostreococcus_tauri_32641:0.29000985979903426415,Plantae-
Ostreococcus_lucimarinus_31465:0.19760702602810564787)100:0.81049112324942762520)85:0.35940735347168834002,Plan
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Chlamydia_trachomatis_15605564:0.00000121823947223981);

Plantae-Ostreococcus_tauri_18978

((((Cyanobacteria-Gloeobacter_violaceus_PCC_7421_37520371:0.39293393018078770496,Cyanobacteria-
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Trichodesmium_erythraeum_IMS101_113476080:0.17326183463666922080,Cyanobacteria-
Lyngbya_sp._PCC_8106_119484717:0.10713516362069719356)95:0.09347766161114749728,(((Cyanobacteria-
Cyanosphaera_watsonii_WH_8501_67920270:0.04011016438438030907)100:0.17817427350480091741,Cyanobacteria-
Synechocystis_sp._PCC_6803_16331965:0.18165399794023515123)90:0.09211556709952632704,(Cyanobacteria-
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Myxococcus_xanthus_108761817:0.58625660561410630756)100:0.47194172015364066475,(((Chromalveolata-
Aureococcus_anophagefferens_21140:0.34851573869769270075,(Plantae-
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Ostreococcus_lucimarinus_42734:0.20349312785880546706,Plantae-
Ostreococcus_tauri_18978:0.13942506132701648625)100:0.35863875891117247274)39:0.05891824141299967926)56:0.07540
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cteria-Dehalococcoides_sp._147668701:0.62338291566842818359,(Bacteria-
Herpetosiphon_aurantiacus_113938472:0.49931432233313999269,(Bacteria-
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Desulfotomaculum_reducens_134299523:0.21810176724457486230,Bacteria-
Pelotomaculum_thermopropionicum_147677367:0.15640285234004408510)65:0.06011420616823744123,Bacteria-
Moorella_thermoacetica_83590530:0.32868206925269760621)64:0.06196706314171749469,(Bacteria-
Desulfitobacterium_hafniense_89895209:0.23897139851934531829,Bacteria-
Thermosinus_carboxydvorans_121535583:0.21322213601555065066)15:0.03369210255289135231)17:0.03745529251159074
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Clostridium_difficile_126700418:0.11126136700613127595,Bacteria-
Alkaliphilus_metalliredigens_150390106:0.13885424824334682836)86:0.06696240453330844222,(((Bacteria-
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Geobacillus_thermodenitrificans_138896155:0.11108722619651449637)87:0.04096103742909298906,(((Bacteria-
Streptococcus_gordonii_157150691:0.06121503183539143272,Bacteria-
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cteria-
Staphylococcus_saprophyticus_73662429:0.21090686146079090646)99:0.11982831575468599894)39:0.044542976231858738
56)18:0.04098895389850593790,(Bacteria-
Caldicellulosiruptor_saccharolyticus_146295324:0.33380154596128891464,Bacteria-

Symbiobacterium_thermophilum_51892304:0.28262444374050427198)28:0.09635710915179156177)3:0.01136329816667950438)26:0.04187813879964322888)67:0.10362637874702315677,(Bacteria-Acidobacteria_bacterium_94967175:0.58448749799314803077,(Bacteria-Desulfovibrio_desulfuricans_78357885:0.60933062975881002732,Bacteria-Stigmatella_aurantiaca_115379882:0.41416463581863044441)26:0.08760815003406945134)23:0.07073161174245568006,(((Bacteria-Magnetococcus_sp._117923915:0.36976018719744585539,(Bacteria-Erythrobacter_litoralis_85373948:0.29969382263145499801,(Bacteria-Rhodobacterales_bacterium_126726306:0.14031165286621685717,(((Bacteria-Silicibacter_sp._99080611:0.07380189124693480041,Bacteria-Roseobacter_sp._126735583:0.09156504027867928830)64:0.02386924405210730585,Bacteria-Roseovarius_sp._149202809:0.13895658314436459824)38:0.03153690738901929885,(Bacteria-Sagittula_stellata_126729583:0.14851459399392580307,Bacteria-Paracoccus_denitrificans_119384626:0.12917014903242415857)47:0.03914997927129240662)42:0.05589684235341548652)100:0.12803363138621701167)100:0.29239127002811587941)61:0.09281433037857450552,(((Bacteria-Pseudomonas_syringae_66044476:0.18091151472187816385,Bacteria-Marinobacter_algicola_149375024:0.15976335241624772809)36:0.02803235036099648719,Bacteria-Psychrobacter_sp._148653724:0.35986245981304171293)68:0.06921399453685761483,(Bacteria-Thiomicrospira_crunigena_78485677:0.25415113325775195996,(Bacteria-Beggiatoa_sp._153875174:0.20392492649810459171,Bacteria-Methylococcus_capsulatus_53805144:0.28479782323087782236)42:0.05603045109816904429)35:0.03910290180819098876)38:0.07393623586149360161,Bacteria-Halorhodospira_halophila_121998478:0.24109667492353145657)100:0.25777290319850554301)32:0.09393452448559649892,(Bacteria-Mariprofundus_ferrooxydans_114777994:0.44017485133369405048,Bacteria-Desulfuromonas_acetoxidans_95929300:0.24086999685473259314)7:0.05905506591659890475)11:0.05974593828791495420,(Bacteria-delta_proteobacterium_94263087:0.45053162867139162628,((Bacteria-Pelobacter_propionicus_118580220:0.22532610198918440192,Bacteria-Geobacter_lovleyi_118744126:0.25379912189157149971)97:0.13264717695618902238,Bacteria-Syntrophus_aciditrophicus_85860047:0.57526599254013310869)19:0.06073050387678822354)15:0.06402371059492424632)8:0.04525532808413595259)50:0.10603993850176145208)37:0.08861968354045718366)9:0.01564676431459196063)25:0.08028222817113192522)55:0.12569662033135853285,Bacteria-Rubrobacter_xylanophilus_108804169:0.61351508643651808672)77:0.09288315615691232485,Bacteria-Thermus_thermophilus_46199978:0.44954925518992966404)100:0.22797101903719785287,((((Cyanobacteria-Synechococcus_sp._CC9902_78183849:0.00699252464264535443,Cyanobacteria-Synechococcus_sp._BL107_116071540:0.01712121619916786436)100:0.07569586730964400489,(Cyanobacteria-Synechococcus_sp._CC9605_78211790:0.04792490800763465897,Cyanobacteria-Synechococcus_sp._WH_8102_33864780:0.05817302638034517470)97:0.04010324033546866507)99:0.07206624861490923406,((Cyanobacteria-Prochlorococcus_marinus_str._MIT_9303_124024179:0.00226029290327897214,Cyanobacteria-Prochlorococcus_marinus_str._MIT_9313_33864129:0.00953603763896866685)100:0.09226837664142471807,((Cyanobacteria-Prochlorococcus_marinus_str._NATL1A_124025063:0.00881640539092576510,Cyanobacteria-Prochlorococcus_marinus_str._NATL2A_72383473:0.00569271774856764789)100:0.18778081750779013204,(Cyanobacteria-Prochlorococcus_marinus_subsp._marinus_str._CCMP1375_33239755:0.21217612055046033981,(Cyanobacteria-Prochlorococcus_marinus_str._MIT_9515_123965539:0.10512039074014695172,(Cyanobacteria-Prochlorococcus_marinus_str._AS9601_123967830:0.01391457890948992297,Cyanobacteria-Prochlorococcus_marinus_str._MIT_9301_126695632:0.02965455951994204475)100:0.05702191830336936218)100:0.33555833773260285158)60:0.04355814951584106864)96:0.12397210163828230323)80:0.09316984169417534545)25:0.01458545207185867228,(Cyanobacteria-Synechococcus_sp._CC9311_113953818:0.09316115935334695619,((Cyanobacteria-Synechococcus_sp._WH_7803_148238624:0.02539798930266220361,Cyanobacteria-Synechococcus_sp._WH_7805_88808038:0.02105651103073242006)100:0.08893128442652190047,Cyanobacteria-Synechococcus_sp._RS9917_87125118:0.05789818216254626060)47:0.03260963697667216415)61:0.02235945026272818936)41:0.04449515671674351275,Cyanobacteria-Synechococcus_sp._WH_5701_87301968:0.15738387334114620209)100:0.14175272409641795357,Cyanobacteria-Synechococcus_sp._RCC307_148243410:0.17974677890409521130)100:0.18126327316754167751)55:0.09363020904327822025)30:0.04422022325643615998)100:0.29150097560569054878,Cyanobacteria-Synechococcus_sp._JA-3-3Ab_86607442:0.09007656040629970218,Cyanobacteria-Synechococcus_sp._JA-2-3Ba2-13_86608004:0.01460359306670292075);

Plantae-Ostreococcus_tauri_21840

((((((Bacteria-Candidatus_Desulfococcus_121542771:0.50580432965369548359,(Bacteria-Syntrophobacter_fumaroxidans_116751069:0.45729688522538841644,Bacteria-delta_proteobacterium_94265985:0.68532283050959719173)54:0.13505840544102884482,(Bacteria-Desulfotalea_psychrophila_51246587:0.67656163295012927694,(Bacteria-Desulfuromonas_acetoxidans_95930458:0.63540511545487410316,Bacteria-

Pelobacter_carbinolicus_77919601:0.38636400153873967644)60:0.08994947640615481854)40:0.08633518439079701512)62:0.10830307440435128774)86:0.14454590812974424385,(((Bacteria-Dehalococcoides_ethenogenes_57234783:0.96958475852956305108,((Bacteria-Listeria_monocytogenes_153172836:0.31873851549886539347,(Bacteria-Bacillus_sp._126654250:0.21339656452581898249,Bacteria-Geobacillus_thermodenitrificans_138893718:0.14727293969188853806)73:0.05676168791357853044)56:0.07528911327871984360,(Bacteria-Staphylococcus_haemolyticus_70727515:0.33543867227020546240,Bacteria-Streptococcus_mutans_24380339:0.60090623634419515486)51:0.12703007758340578714)89:0.18897645546915017856)23:0.07882281554604111951,(((Bacteria-Clostridium_beijerinckii_150015284:0.39086097809105846412,Bacteria-Caldicellulosiruptor_saccharolyticus_146297223:0.38764927380264940782)51:0.07647588868369288584,Bacteria-Thermoanaerobacter_ethanolicus_114844602:0.5770311169784104817)30:0.09925963754962570385,(Bacteria-Carboxydotherrhus_hydrogenoformans_78044899:0.62236188646600598684,(Bacteria-Pelotomaculum_thermopropionicum_147676431:0.40326888787841702610,Bacteria-Desulfotomaculum_reducens_134297973:0.36272955891870090062)65:0.09758886906518764170)35:0.08776457002792746598)3:0.02370495335361340328,Bacteria-Syntrophomonas_wolfei_114565639:0.50542495637270834496)7:0.06370386093326410593)15:0.08904898744134433219,(((Cyanobacteria-Gloeobacter_violaceus_PCC_7421_37519671:0.32074370156623149830,Cyanobacteria-Lyngbya_sp._PCC_8106_119485100:0.36640097704202789775)99:0.15939734263731838992,((Cyanobacteria-Synechococcus_sp._RCC307_148242413:0.36909496337479713590,Cyanobacteria-Synechococcus_sp._WH_5701_87302769:0.20664979388876356103)98:0.08487849343006849401,(((Cyanobacteria-Prochlorococcus_marinus_str_MIT_9313_33862893:0.02140898116587524810,Cyanobacteria-Prochlorococcus_marinus_str_MIT_9303_124023320:0.01814102207658989732)100:0.15272302320479921867,(((Cyanobacteria-Prochlorococcus_marinus_str_NATL1A_124025655:0.01143750686827168031,Cyanobacteria-Prochlorococcus_marinus_str_NATL2A_72382119:0.01058864319700243868)100:0.32136389502894013859,((Cyanobacteria-Prochlorococcus_marinus_str_MIT_9312_78779251:0.01376529449014437557,(Cyanobacteria-Prochlorococcus_marinus_str_AS9601_123968461:0.02258911526621447743,Cyanobacteria-Prochlorococcus_marinus_str_MIT_9301_126696264:0.03122623575575363131)93:0.00751681236199532119)100:0.10960110914538991056,(Cyanobacteria-Prochlorococcus_marinus_str_MIT_9515_123966248:0.04159570339838733477,Cyanobacteria-Prochlorococcus_marinus_subsp_pastoris_str_CCMP1986_33861489:0.07323491428278591786)100:0.15883412589892642597)100:0.38247823473245595727)96:0.22900773907347302116,(Cyanobacteria-Prochlorococcus_marinus_str_MIT_9211_84518232:0.17303137464864407069,Cyanobacteria-Prochlorococcus_marinus_subsp_marinus_str_CCMP1375_33240214:0.24873417377522860638)60:0.05661544772131020531)78:0.12247556777162706132)40:0.03410798696884049380,((Cyanobacteria-Synechococcus_sp._CC9311_113955450:0.16719226473438031366,Cyanobacteria-Synechococcus_sp._RS9917_87124271:0.09591458408731375063)91:0.03762373995521550718,(Cyanobacteria-Synechococcus_sp._WH_7803_148239701:0.09754601469968866845,Cyanobacteria-Synechococcus_sp._WH_7805_88808455:0.10562038494492301255)99:0.13644709010789549120)96:0.10641658763711765723)34:0.03557255572731609500,(Cyanobacteria-Synechococcus_sp._WH_8102_33865587:0.13451784349492013071,((Cyanobacteria-Synechococcus_sp._CC9902_78184855:0.04527988298414252488,Cyanobacteria-Synechococcus_sp._BL107_116070729:0.02849048796983612991)100:0.12379257893099687715,Cyanobacteria-Synechococcus_sp._CC9605_78212719:0.11302549084352898900)45:0.03941248648391498799)88:0.05252948334178433182)64:0.12667186155937851244)100:0.44392061804960036842)72:0.13151750935283246235,(((Bacteria-Streptomyces_coelicolor_21221586:0.35756711743049401919,((Bacteria-marine_actinobacterium_88856862:0.12351366251748431557,(Bacteria-Clavibacter_michiganensis_148273551:0.15041241463475199525,Bacteria-Leifsonia_xyli_50955321:0.13061150165862348005)56:0.02864165299431507133)100:0.19400724439862035431,Bacteria-Arthrobacter_aureoscens_119960939:0.37742815411766006406)100:0.20073981828456680110)84:0.09374359821886843469,Bacteria-Nocardioides_sp._119718075:0.46122598634581268850)100:0.38211728909589659509,Bacteria-Acidobacteria_bacterium_94971567:0.98124624125228399052)31:0.11015679484271953537)9:0.08351544055248498466)5:0.07329131447291850621,Bacteria-Desulfitobacterium_hafniense_109647798:0.62318194604832555239)6:0.06924907450159699385)20:0.10152409616242666357,((Bacteria-Francisella_tularensis_110669898:0.80086783939436723134,(((Bacteria-Ralstonia_pickettii_121529190:0.20133671980147566094,Bacteria-Burkholderia_xenovorans_91781714:0.30514701479684980256)44:0.05927161222464966128,(Bacteria-Herminimonas_arsenicoxydans_134096052:0.06047797748221732383,Bacteria-Janthinobacterium_sp._152980074:0.07527345939197145619)100:0.30035779974866877451)43:0.05625648065892469712,(Bacteria-Polaromonas_naphthalenivorans_121603809:0.28662747980258751479,Bacteria-Comamonas_testosteroni_118052186:0.21105684619447345751)99:0.32016414253030522907)38:0.07233124639714712256,Bacteria-Bordetella_bronchiseptica_33599889:0.36947078599635330143)70:0.13723609142080681056,((Bacteria-Pseudomonas_syringae_71737559:0.37414937630649008904,((Bacteria-

Shewanella putrefaciens_146291903:0.36356578769406705520,(Bacteria-
Aeromonas_salmonicida_145298190:0.29194511611555007402,Bacteria-
Pseudoalteromonas_tunicata_88861341:0.45498763258640162466)22:0.03208079875524270236)39:0.04867937318368160265,
((Bacteria-Hahella_chejuensis_83644564:0.36194336754197720118,Bacteria-
Marinobacter_algicola_149377998:0.30854528791040580771)61:0.13195441913860342376,(Bacteria-
Klebsiella_pneumoniae_152970784:0.28542007461253837697,(Bacteria-
Haemophilus_somnus_113461140:0.20590224713573532234,Bacteria-
Actinobacillus_succinogenes_152979409:0.14617664174342423489)99:0.10314581772368348889,Bacteria-
Photobacterium_profundum_90412787:0.30437623369829985842)71:0.06572043350720080390)74:0.04958085207212831191)
30:0.05639270311216848519)26:0.04924448074787884932)35:0.07476972781447245586,(Bacteria-
Alkalilimnicola_ehrlichei_114319444:0.38447718296670646554,Bacteria-
Methylococcus_capsulatus_53804650:0.43358261414262544431)16:0.06004612554152993775)56:0.07653165285716197197)9
8:0.35649264760873400348)71:0.13496298711335599774,(Bacteria-
Mariprofundus_ferrooxydans_114777711:0.86798601813777853664,Bacteria-
Magnetococcus_sp._117924127:0.55093953360104630512)58:0.18050525446607301738)69:0.09174854235373090805)44:0.1
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Parabacteroides_merdae_154492215:1.06547468201954775857)95:0.29709505110820549900,(((Chlamydia-
Candidatus_Protoclhamydia_46447223:0.44921766561080794800,(Plantae-
Gracilaria_changii_120463315_2:0.37083443146026595638,Plantae-
Cyanidioschyzon_merolae_CMS444C:0.61824056561239670859)21:0.02263565118511486757)62:0.13485445926638431335,(
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Thalassiosira_pseudonana_31907:0.15686252627009036886)100:0.29697232093384340335)45:0.04790055995429806646,(Pla
ntae-Physcomitrella_patens_190580:0.18773310521669753226,(Plantae-
Arabidopsis_thaliana_15225820:0.14415777880428071178,Plantae-
Oryza_sativa_115440529:0.09944200235971600854)53:0.07017749654344011823)100:0.20218945913073016474,(Plantae-
Ostreococcus_lucimarinus_4287:0.05213456444895723380,Plantae-
Ostreococcus_tauri_21840:0.08033420933287499510)99:0.08329626807719568704,Plantae-
Chlamydomonas_reinhardtii_137673:0.30359840380890551481)99:0.16619447265233358579)99:0.16741160004036145792)5
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Aureococcus_anophagefferens_65516:0.87422770944854388819)90:0.14929111412709844542)100:0.67308853931310064223,
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Chlamydia_trachomatis_76789547:0.00217559110076925378)100:0.13435708006937135961,Chlamydia-
Chlamydia_muridarum_15834807:0.14272277342418571155)100:0.46001705091069894360,(Chlamydia-
Chlamydophila_caviae_29840572:0.03841739282171486441,(Chlamydia-
Chlamydophila_felis_89898006:0.08001616830047572626,Chlamydia-
Chlamydophila_abortus_62185389:0.11495450980610819047)76:0.04427373394204736634)99:0.25418537735695362345)85:0
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Chlamydophila_pneumoniae_33242322:0.00000121823947223981,Chlamydia-
Chlamydophila_pneumoniae_15836487:0.00000121823947223981);

Plantae-Ostreococcus_tauri_31283

(((Chromalveolata-Aureococcus_anophagefferens_6675:0.85203265156447327566,(Plantae-
Cyanophora_paradoxa_Contig299_5:0.57218442224666288265,(((Chlamydia-
Chlamydia_muridarum_15835243:0.04687978548083194391,(Chlamydia-
Chlamydia_trachomatis_76789075:0.00000121823947223981,Chlamydia-
Chlamydia_trachomatis_15605072:0.00000121823947223981)100:0.04482649177031228921)100:1.53198524721926387926,(E
xcavata-Trypanosoma_cruzi_71663480:0.36193474545110981833,Excavata-
Trypanosoma_brucei_74025836:0.46173491336111033290)97:0.53253713018251824796)79:0.17131890605544786155,Plantae

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Gracilaria_changii_Contig101_3:1.02246356512522473814)29:0.05874593306059323200)72:0.14817464271407104759)18:0.1
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Arabidopsis_thaliana_22328154:0.27505612098752674211,(Plantae-
Oryza_sativa_115455047:0.44120194940417073459,(Plantae-
Arabidopsis_thaliana_42568283:0.26094914338486341343,Plantae-
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Oryza_sativa_115451707:0.27399184956375616240)88:0.09998131379382058093)71:0.10925314915144369865)35:0.2050457
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Chlamydomonas_reinhardtii_123186:0.05659878113698368907)100:0.41140691028497994308)20:0.09309560024514033916,

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Plantae-Ostreococcus_tauri_37113

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Plantae-Ostreococcus_tauri_8662

(Bacteria-Bradyrhizobium_sp_148257427:0.18830442920055975864,(((Bacteria-Bruceella_ovis_148559451:0.02561471497346131179,Bacteria-Ochrobactrum_anthropi_153009066:0.03576570522629236859)100:0.41943904701710404970,Bacteria-Parvibaculum_lavamentivorans_154252855:0.26636390271310439459)67:0.09737711252267608475,(Bacteria-Methylobacterium_sp_149126077:0.25268511364403067887,(Bacteria-Magnetococcus_sp_117924071:0.45772855017366781416,(((Bacteria-Lawsonia_intracellularis_94987539:0.42399666508409711296,Bacteria-Desulfovibrio_vulgaris_120601783:0.30741764404826976698)100:0.35016980638814920734,(((Bacteria-Chlorobium_chlorochromatii_78188031:0.73557126098905800671,(Chlamydia-Candidatus_Protoclamydia_46445945:0.54393669157648005807,(Plantae-Ostreococcus_tauri_8662:0.13154848376700092882,Plantae-Ostreococcus_lucimarinus_33240:0.10196415445367824903)100:0.34353969069628714772,(Plantae-Physcomitrella_patens_43703:0.32744130855985609241,(Plantae-Oryza_sativa_115444103:0.24520569070820524837,Plantae-Arabidopsis_thaliana_15238896:0.26666422791418198379)100:0.30347374071173299770)95:0.13247732322162297791,Planta e-Volvox_carteri_97159_jgi:0.40463708107246698642)88:0.15998729220921753535)97:0.13394748264162953388)100:0.25917187940504876620)33:0.10005426850793520954,(Bacteria-Carboxydotherrus_hydrogenoformans_78043538:0.33461148407271290584,(((Bacteria-Symbiobacterium_thermophilum_51892339:0.32315853449993481306,(((Bacteria-Clostridium_difficile_126700272:0.21729846120089046924,Bacteria-Alkaliphilus_metalliredigens_150390647:0.23888295661388697644)91:0.10261740866761664970,(Bacteria-Thermoanaerobacter_ethanolicus_114844128:0.23713079660971730922,(Bacteria-Eubacterium_ventriosum_154485082:0.13924137754317317262,(Bacteria-Dorea_longicatena_153854700:0.13446768708633621836,Bacteria-Ruminococcus_obeum_153809802:0.14572820558666005342)89:0.04714852280729148193)100:0.27695895548458898672)21:0.03189089615552404000)31:0.05584869469067176018,(Bacteria-Caldicellulosiruptor_saccharolyticus_146295951:0.50601172060226862204,Bacteria-Thermosinus_carboxydvorans_121535927:0.31011291640825450200)41:0.09347100199745787819)30:0.05386936612261301188,(((Bacteria-Desulfotomaculum_reducens_134298535:0.25508591430115984400,(((Bacteria-Bacillus_pumilus_157692188:0.16727017541836272652,(Bacteria-Geobacillus_thermodenitrificans_138894646:0.21141603185405652421,(((Bacteria-Streptococcus_thermophilus_116628390:0.16177987910699889729,Bacteria-Lactococcus_lactis_125624479:0.16089838705167677779)100:0.13203877422120449681,Bacteria-Staphylococcus_haemolyticus_70726737:0.27700223653455691153)42:0.05923774646800541305,(Bacteria-Listeria_monocytogenes_153175268:0.15482300715607855146,(Bacteria-Pediococcus_pentosaceus_116492952:0.14632060252381340337,(Bacteria-Oenococcus_oeni_116491168:0.53031448015175175481,Bacteria-Lactobacillus_salivarius_90962030:0.12436112504046190064)88:0.06885833851706314734)92:0.13139743584601851212)21:0.02641755000356947602)40:0.06841300235274973274)12:0.02710771999947868618)100:0.26433442415349311938,Bacteria

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Desulfitobacterium_hafniense_109645973:0.34780725804099604792)36:0.08356065982786746449)20:0.069938788517229219
52,(Bacteria-Pelotomaculum_thermopropionicum_147678204:0.27807779927582926272,Bacteria-
Moorella_thermoacetica_83589686:0.45868806836417602701)34:0.08137662304285063486)0:0.05080407203568686192)5:0.0
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Bacteroides_capillosus_154500741:0.42025151505049107570,(Bacteria-
Arthrobacter_sp._116670123:0.33028412767809556261,Bacteria-
Mycobacterium_ulcerans_118618804:0.48655004459776535208)100:0.38207668371068542745)8:0.03955804509511984257)1
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Pelobacter_propionicus_118581697:0.25735569043375644549,Bacteria-
Geobacter_bemidjiensis_145619002:0.23474239531312826590)100:0.20738901428056030762)18:0.03927716004997061638,((
Bacteria-Syntrophus_aciditrophicus_85858517:0.49489663273416878431,(Bacteria-
Dehalococcoides_sp._147668966:0.49500915141159024246,(Bacteria-
Herpetosiphon_aurantiacus_113940985:0.46055103613187881040,Bacteria-
Roseiflexus_sp._148657877:0.28180993079869276485)72:0.05456687998023467684)71:0.07367151286678083610)20:0.04926
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Nitrosococcus_oceani_77166320:0.38519544689560331063,(((Bacteria-
Oceanospirillum_sp._89095267:0.24726403065902205491,Bacteria-
Marinomonas_sp._152996635:0.28674569095837926236)100:0.15348151463868545119,(Bacteria-
Saccharophagus_degradans_90020487:0.35074055406267423685,Bacteria-
Oceanobacter_sp._94501904:0.23915904676412380603)73:0.09985932427529956024)71:0.07035300917707913715,Bacteria-
Pseudomonas_aeruginosa_107099995:0.23585054505439728700)85:0.10779609812988259765)48:0.07320996046409400382)1
00:0.23529520068582029935)47:0.03341801244317009478)100:0.30046887773932312582)25:0.04214765026090690897)100:
0.22019251949052939810,Bacteria-Rhodopseudomonas_palustris_90423689:0.17940765660077634402);

Plantae-Physcomitrella_patens_218794

(Chlamydia-Chlamydophila_pneumoniae_15835695:0.00000121823947223981,((Chlamydia-
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Plasmodium_falciparum_124804314:1.20835944402427086786,(Excavata-
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Plantae-Physcomitrella_patens_55802

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Plantae-Physcomitrella_patens_60901

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Plantae-Physcomitrella_patens_70762

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Carboxydotherrmus_hydrogenoformans_78043781:0.31939091971337030262)30:0.13208833670724398623,((Cyanobacteria-Synechococcus_elongatus_PCC_7942_81300665:0.00000121823947223981,Cyanobacteria-Synechococcus_elongatus_PCC_6301_56752247:0.00706443503013132884)100:0.35571444532795049032,(Cyanobacteria-Gloeobacter_violaceus_PCC_7421_37520622:0.36767049470424906232,Cyanobacteria-Nostoc_punctiforme_PCC_73102_23125821:0.42858588242258410794)58:0.04979753457394767852)100:0.46295655661169249351,(Bacteria-Moorella_thermoacetica_83588899:0.41018470524233818786,(Bacteria-Syntrophomonas_wolfei_114565589:0.49957778398091606809,Bacteria-Desulfotobacterium_hafniense_89892755:0.34346901928164053075)35:0.14226095377430372779)0:0.06556166191185873460)0:0.00000121823947223981)12:0.08182143935842264848,((Bacteria-Anaeromyxobacter_sp._153006601:0.38055921959856842118,(Bacteria-Myxococcus_xanthus_108758559:0.12174940263156551479,Bacteria-Stigmatella_aurantiaca_115378509:0.12559721540475332624)100:0.27354989132802309815)48:0.12269811195924791580,Bacteria-Collinsella_aerofaciens_139439263:0.53613683262220257486)33:0.14674022147181875475)2:0.05687275598083507688)2:0.03552598730631863905,((Bacteria-Thermobifida_fusca_72160431:0.28996120406971953587,Bacteria-Streptomyces_avermitilis_29830723:0.11728920429337015563)97:0.25331831055003795061,Bacteria-Rubrobacter_xylanophilus_108805662:0.55879734020894178403)44:0.13528317526556449257,((Bacteria-Symbiobacterium_thermophilum_51891149:0.28819792511792602374,((Bacteria-Flavobacteria_bacterium_126662495:0.14611535840769379613,Bacteria-Flavobacterium_johnsoniae_146299285:0.10165454553281765004)85:0.14017116105718843699,Bacteria-unidentified_eubacterium_149369606:0.11813082138609908023)100:0.71320752952563748472)23:0.08373031768267748254,(((Bacteria-Staphylococcus_haemolyticus_70727433:0.38277154854919137605,((Bacteria-Lactobacillus_casei_116495716:0.43601170990784315906,(Bacteria-Chlorobium_chlorochromatii_78188173:0.61205018231354157976,Bacteria-Thermoanaerobacter_ethanolicus_114845498:0.2786296312040241965)41:0.09479797654943034058)50:0.18442921453851976454,(Bacteria-Alkaliphilus_metalliredigens_150387879:0.25439789481627000933,Bacteria-Clostridium_sp._106895303:0.23015467999780719888)65:0.07732990460272902433)11:0.05863337307841201551,Bacteria-Ruminococcus_torques_153815558:0.53232378078100883734)13:0.11730582955315314864)6:0.04319744551493163998,Bacteria-Bacillus_sp._126652937:0.34091461897315639140)7:0.06495111164459893560,((Bacteria-Pelobacter_carbinolicus_77917942:0.30456517337971061865,Bacteria-Desulfuromonas_acetoxidans_95928326:0.20103950185442304166)97:0.13256477864988933102,Bacteria-Geobacter_lovleyi_118746176:0.52242038792766798405)58:0.11084057572643503387)3:0.08277298270934640989)12:0.06789536538991432224)2:0.00000121823947223981)81:0.14644052271950500077)64:0.12180266468731583418,((Plantae-Ostreococcus_tauri_17006:0.23105338938422689821,Plantae-Ostreococcus_lucimarinus_37349:0.25135485056432443907)100:0.46519386217121155846,(Plantae-Volvox_carteri_89616_jgi:0.89319994948684955371,Plantae-Chlamydomonas_reinhardtii_74200:0.34135246875700619995)94:0.18500592890819073100)56:0.10109568330783454126)39:0.10137131654080058785)76:0.16810628361934396025,Chlamydia-Candidatus_Proteochlamydia_46446282:0.50713941511201832135)100:0.33860341104082203323)98:0.10775939973411481632,Chlamydia-Chlamydia_muridarum_15834852:0.07072250252742939836);

Plantae-Volvox_carteri_99233_jgi

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63:0.05553301231000767196)18:0.06635729147638902425,Chlamydia-
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