

Table S2 Taxonomic affiliation and accession numbers for the sequences considered in the phylogene

Higher Taxon	Accession	Organism names	
Alpha-proteobacteria	YP004285020	Acidiphilium multivorum AIU301	
	NP422556	Caulobacter crescentus CB15	
	YP001937208	Orientia tsutsugamushi str Ikeda	
	YP003854109	Parvularcula bermudensis HTCC2503	
	YP004550179	Sinorhizobium meliloti AK83	
	YP003576367	Rhodobacter capsulatus SB 1003	
	YP162038	Zymomonas mobilis subsp. mobilis ZM4	
	YP865616	Magnetococcus sp. MC-1	
	YP865616	Wolbachia sp. wRi	
	YP198549	Wolbachia Wbm	
Beta-proteobacteria	YP003082820	Neisseria meningitidis alpha14	
	YP002355372	Thauera sp. MZ1T	
	YP003523671	Sideroxydans lithotrophicus ES-1	
	YP315791	Thiobacillus denitrificans ATCC 25259	
	YP003051656	Methylovorus glucosetrophus SIP3-4	
	YP004294842	Nitrosomonas sp. AL212	
	YP003751536	Ralstonia solanacearum PSI07	
	Gamma-proteobacteria	YP003526615	Nitrosococcus halophilus Nc4
		YP004135566	Haemophilus influenzae F3031
		YP004827520	Enterobacter asburiae LF7a
YP004392921		Aeromonas veronii B565	
YP129238		Photobacterium profundum SS9	
YP004313230		Marinomonas mediterranea MMB-1	
YP004785265		Acidithiobacillus ferrivorans SS3	
YP001266120		Pseudomonas putida F1	
YP003617676		Legionella pneumophila 2300/99 Alcov	
YP001210125		Dichelobacter nodosus VCS1703A	
Delta-proteobacteria	YP004537681	Thioalkalimicrobium cyclicum ALM1	
	NP718902	Shewanella oneidensis MR-1	
	YP114114	Methylococcus capsulatus str. Bath	
	YP004853627	Xanthomonas axonopodis pv citrumelo F1	
	YP005885474	Marinobacter adhaerens HP15	
	YP003951943	Stigmatella aurantiaca DW4/3-1	
	Chlamydiae/Verrucomicro	YP001819352	Opitutus terrae PB90-1
		NP219999	Chlamydia trachomatis D/UW-3/CX
	Bacteroidetes	YP 680066	Cytophaga hutchinsonii ATCC 33406
		YP 004316311	Sphingobacterium sp. 21
YP 004579396		Lacinutrix sp. 5H-3-7-4	
Actinobacteria	YP 003145049	Slackia heliotrinireducens DSM 20476	
	YP 004723195	Mycobacterium africanum GM041182	
	YP 003110115	Acidimicrobium ferrooxidans DSM 10331	
Chloroflexi	YP 002522588	Thermomicrobium roseum DSM 5159	
	YP 003320569	Sphaerobacter thermophilus DSM 20745	
	YP 001432135	Roseiflexus castenholzii DSM 13941	
	YP 001546311	Herpetosiphon aurantiacus DSM 785	
Firmicutes	YP 073989	Symbiobacterium thermophilum IAM 14863	
	YP 004326063	Streptococcus oralis Uo5	
	YP 003972425	Bacillus atrophaeus 1942	
Deinococcus-Thermus	YP 002785119	Deinococcus deserti VCD115	
	YP 003507187	Meiothermus ruber DSM 1279	
Cyanobacteria	YP 001658460	Microcystis aeruginosa NIES-843	
	YP 323262	Anabaena variabilis ATCC 29413	
	YP 003137494	Cyanothece sp. PCC 8802	
	NP 442453	Synechocystis sp. PCC 6803	
	NP 923785	Gloeobacter violaceus PCC 7421	
	YP 723781	Trichodesmium erythraeum IMS101	
	YP 172078	Synechococcus elongatus PCC 6301	
	YP 001550413	Prochlorococcus marinus str MIT 9211	
	YP 001516290	Acarochloris marina MBIC11017	
	NP 683006	Thermosynechococcus elongatus BP-1	
Acidobacteria	YP 731203	Synechococcus sp. CC9311	
	YP 002755471	Acidobacterium capsulatum ATCC 51196	
Spirochetes	YP 822312	Candidatus Solibacter usitatus Ellin6076	
	YP 003786643	Brachyspira pilosicoli 95/1000	
Chrysiogenetes	YP 004112072	Desulfurispirillum indicum S5	
Gemmatimonadetes	YP 002762295	Gemmatimonas aurantiaca T-27	
Deferribacteres	YP 003495576	Deferribacter desulfuricans SSM1	
Aquificales	YP 004281002	Desulfurobacterium thermolithotrophum DSM	
Chlorobi	YP 002018719	Pelodictyon phaeoclathratiforme BU-1	
Nitrospirae	YP 003796898	Candidatus Nitrospira defluvii	
Planctomycetes	YP 003370976	Pirellula staleyi DSM 6068	

Table S2 (continued)

Higher Taxon	Accession	Organism names
Metazoa	EAT43108	<i>Aedes aegypti</i>
	AAC26225	<i>Drosophila melanogaster</i>
	AF2503681	<i>Danio rerio</i>
	AAB94626	<i>Xenopus laevis</i>
	CAB65962	<i>Homo sapiens</i>
	AAZ78230	<i>Pan troglodytes</i>
	AAA79169	<i>Bos taurus</i>
	BAI47962	<i>Sus scrofa domestica</i>
	AAA37615	<i>Mus musculus</i>
	AAB66503	<i>Gallus gallus</i>
	CCD75202	<i>Schistosoma mansoni</i>
	EDO40867	<i>Nematostella vectensis</i>
Fungi	NP587720	<i>Schizosaccharomyces pombe</i> 972h-
	XP003194818	<i>Cryptococcus gattii</i> WM276
	EFP82759	<i>Puccinia graminis</i> f.sp. <i>tritici</i> CRL 75-36-700-3
	AAA34667	<i>Saccharomyces cerevisiae</i>
	CCA39904	<i>Komagataella pastoris</i> CBS 7435
	EGV64906	<i>Candida tenuis</i> ATCC 10573
	XP001396807	<i>Aspergillus niger</i> CBS 513.88
	EFW23046	<i>Coccidioides posadasii</i> str. Silveira
	XP002544726	<i>Uncinocarpus reesii</i> 1704
	EEH10395	<i>Ajellomyces capsulatus</i> G186AR
	EEH17729	<i>Paracoccidioides brasiliensis</i> Pb03
	EEQ29549	<i>Arthroderma otae</i> CBS 113480
	EGE07189	<i>Trichophyton equinum</i> CBS 127.97
	EGY20619	<i>Verticillium dahliae</i> VdLs.17
	EFQ30694	<i>Glomerella graminicola</i> M1.001
	EHA54679	<i>Magnaporthe oryzae</i> 70-15
	EFX05816	<i>Grosmannia clavigera</i> kw1407
	EAU91411	<i>Coprinopsis cinerea</i> okayama7#130
Amoebozoa	EGG22223	<i>Dictyostelium fasciculatum</i>
	EFA74915	<i>Polysphondylium pallidum</i> PN500
Ciliates	XP001347260	<i>Paramecium tetraurelia</i> strain d4-2
	XP001017797	<i>Tetrahymena thermophila</i>
Kinetoplastida	AEM25314	<i>Phytomonas</i> sp. JMPA-2011
	AEM25309	<i>Angomonas deanei</i>
	AEM25307	<i>Strigomonas culicis</i>
	AEM25313	<i>Herpetomonas muscarum</i>
	AEM25312	<i>Leptomonas costaricensis</i>
	AEM25316	<i>Parabodo caudatus</i>
Euglenida	AEA86537	<i>Euglena gracilis</i>
	AEA86538	<i>Euglena gracilis</i>
Chromerida	AEQ18828	<i>Chromera velia</i>
	AEQ18827	<i>Chromera velia</i>
Stramenopiles	XP 002286994	<i>Thalassiosira pseudonana</i> CCMP1335
	XP 002179541	<i>Phaeodactylum tricornutum</i> CCAP 1055
	CCA26575	<i>Albugo laibachii</i> Nc14
	XP 002899013	<i>Phytophthora infestans</i> T30-4
	EGZ14268	<i>Phytophthora sojae</i>
Choanoflagellida	EGD74306	<i>Salpingoeca</i> sp. ATCC 50818
Heterolobosea	XP 002681413	<i>Naegleria gruberi</i>
Apicomplexa	CAD12105	<i>Plasmodium yoelii</i>
Chlorophyta	EDP03868	<i>Chlamydomonas reinhardtii</i>
	AF3329631	<i>Polytomella</i> sp. Pringsheim 198.80
Streptophyta	EFJ10716	<i>Selaginella moellendorffii</i>
	BAB20760	<i>Cucumis sativus</i>
	BAA22284	<i>Oryza sativa</i>
	CAA73614	<i>Arabidopsis thaliana</i>
	CAC50871	<i>Nicotiana tabacum</i>
	CAA06705	<i>Solanum tuberosum</i>
	AAB71887	<i>Hordeum vulgare</i>
	BAA05102	<i>Cucumis sativus</i>
Ichthyosporea	EFW39873	<i>Capsaspora owczarzaki</i> ATCC 30864
Rhizaria	ACB43300	<i>Paulinella chromatophora</i>
Nematodes	ADI33752	<i>Dirofilaria immitis</i>
	ADI33751	<i>Onchocerca volvulus</i>
	ADI33750	<i>Acanthocheilonema viteae</i>
	ADI33748	<i>Brugia malayi</i>
	ADI33749	<i>Brugia malayi</i>
	AB710465*	<i>Strongyloides venezuelensis</i>
	LSC01092 1**	<i>Litomosoides sigmodontis</i>

Accession numbers are for NCBI GenBank, unless specified

*Identified in this study

** Obtained from NEMBASE4 (<http://www.nematodes.org/nembase4/>)