

Supplementary Table S3 of Amrine *et al.* (2014)

Katherine C.H. Amrine, Wesley D. Swingley, and David H. Ardell

07 January 2014

This document presents Supplementary Table S3 of Amrine et al. (2014) “tRNA signatures reveal polyphyletic origins of streamlined SAR11 genomes among the Alphaproteobacteria” published in *PLoS Computational Biology*.

1 PDF attachments and how to regenerate this PDF file

The original org-mode file that generated this PDF is attached to this PDF. To generate the PDF from the org-mode document attachment, extract the attachment, open it in an Emacs with org-mode and export the org-mode document to PDF with *e.g.* `^C ^E d`. The data table presented below is also attached to this PDF in comma-separated-values (CSV) format. Attachments may be added or extracted in Adobe Acrobat Pro or the open-source pdftk toolkit.

2 Description

The table presents data on how the deletion of one of 22 different tRNA functional classes affects the tRNA CIF-based multiway phyloclassifications of 214 alphaproteobacterial genomes across seven alphaproteobacterial clades using the MLP multiway classifier model in WEKA. Here genomes are ordered to match, top-to-bottom and left-to-right, Figure 5 in Amrine et al. (2013). Clades are symbolized as follows: K => Rickettsiales, D => Rhodospirillales, S => Sphingomonadales, C => Caulobacteriales, B => Rhodobacteraceae, H => Hyphomonadaceae, Z => Rhizobiales. For each genome, the 22 clade classifications / functional class deletions are ordered by decreasing robustness of classifications to deletion over all genomes considered “known” (all but SAR11, Stappia, Labrenzia and Pseudovibrio).

The class order is as follows: F,T,K,E,L,X,P (203 out of 203 genomes), S (202 genomes), A,I (201 genomes), N,Y,Q,M,J,W (200 genomes) V,D (199 genomes), C,H,R,G (197 genomes).

Genome	Classifications[1]
WOLBACHIA SP- WRI	KKKKKKKKKKKKKKKKKKKKKK
WOLBACHIA PIPIENTIS	KKKKKKKKKKKKKKKKKKKKKK
WOLBACHIA ENDOSYMBIONT STRAIN TRS OF BRUGIA MALAYI	KKKKKKKKKKKKKKKKKKKKKK
WOLBACHIA ENDOSYMBIONT OF MUSCIDIFURAX UNIRAPTOR	KKKKKKKKKKKKKKKKKKKKKK
WOLBACHIA ENDOSYMBIONT OF DROSOPHILA SIMULANS	KKKKKKKKKKKKKKKKKKKKKK
WOLBACHIA ENDOSYMBIONT OF DROSOPHILA MELANOGASTER	KKKKKKKKKKKKKKKKKKKKKK
WOLBACHIA ENDOSYMBIONT OF DROSOPHILA ANANASSAE	KKKKKKKKKKKKKKKKKKKKKK
WOLBACHIA ENDOSYMBIONT OF CULEX QUINQUEFASCIATUS JHB	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA TYPHI STR- WILMINGTON	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA SIBIRICA 246	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA RICKETTSII STR- IOWA	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA RICKETTSII STR- 'SHEILA SMITH'	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA RICKETTSII	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA PROWAZEKII	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA PEACOCKII STR- RUSTIC	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA MASSILIAE MTU5	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA FELIS URRWXCAL2	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA ENDOSYMBIONT OF IXODES SCAPULARIS	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA CONORII STR- MALISH 7	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA CANADENSIS STR- MCKIEL	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA BELLII RML369-C	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA BELLII OSU 85-389	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA AKARI STR- HARTFORD	KKKKKKKKKKKKKKKKKKKKKK
RICKETTSIA AFRICAE ESF-5	KKKKKKKKKKKKKKKKKKKKKK
ORIENTIA TSUTSUGAMUSHI STR- IKEDA	KKKKKKKKKKKKKKKKKKKKKK
ORIENTIA TSUTSUGAMUSHI BORYONG	KKKKKKKKKKKKKKKKKKKKKK
NEORICKETTSIA SENNETSU STR- MIYAYAMA	KKKKKKKKKKKKKKKKKKKKKK
NEORICKETTSIA RISTICII STR- ILLINOIS	KKKKKKKKKKKKKKKKKKKKKK
EHRlichia RUMINANTIUM STR- WELGEVONDEN (U-PRETORIA)	KKKKKKKKKKKKKKKKKKKKKK
EHRlichia RUMINANTIUM STR- WELGEVONDEN (CIRAD)	KKKKKKKKKKKKKKKKKKKKKK
EHRlichia RUMINANTIUM STR- GARDEL	KKKKKKKKKKKKKKKKKKKKKK
EHRlichia CHAFFEENSIS STR- SAPULPA	KKKKKKKKKKKKKKKKKKKKKK
EHRlichia CHAFFEENSIS STR- ARKANSAS	KKKKKKKKKKKKKKKKKKKKKK
EHRlichia CANIS STR- JAKE	KKKKKKKKKKKKKKKKKKKKKK

Continued on next page

Genome	Classifications[1]
ANAPLASMA PHAGOCYTOPHILUM HZ	KKKKKKKKKKKKKKKKKKKKKK
ANAPLASMA MARGINALE STR- VIRGINIA	KKKKKKKKKKKKKKKKKKKKKK
ANAPLASMA MARGINALE STR- ST- MARIES	KKKKKKKKKKKKKKKKKKKKKK
ANAPLASMA MARGINALE STR- PUERTO RICO	KKKKKKKKKKKKKKKKKKKKKK
ANAPLASMA MARGINALE STR- MISSISSIPPI	KKKKKKKKKKKKKKKKKKKKKK
ANAPLASMA MARGINALE STR- FLORIDA	KKKKKKKKKKKKKKKKKKKKKK
PELAGIBACTER UBIQUE HIMB59	DDDDDDDDDDDDDDDDDDDDKD
RHODOSPIRILLUM RUBRUM ATCC 11170	DDDDDDDDDDDDDDDDDDDDDD
RHODOSPIRILLUM RUBRUM	DDDDDDDDDDDDDDDDDDDDDD
RHODOSPIRILLUM CENTENUM SW	DDDDDDDDDDDDDDDDDDDDDD
MAGNETOSPIRILLUM MAGNETOTACTICUM	DDDDDDDDDDDDDDDDDDDDDD
MAGNETOSPIRILLUM MAGNETICUM AMB-1	DDDDDDDDDDDDDDDDDDDDDD
GRANULIBACTER BETHESDENSIS CGDNIH1	DDDDDDDDDDDDDDDDDDDDDD
GLUCONOBACTER OXYDANS 621H	DDDDDDDDDDDDDDDDDDDDDD
GLUCONACETOBACTER DIAZOTROPHICUS PAL 5 (JGI)	DDDDDDDDDDDDDDDDDDDDDD
GLUCONACETOBACTER DIAZOTROPHICUS PAL 5	DDDDDDDDDDDDDDDDDDDDDD
ACIDIPHILUM CRYPTUM JF-5	DDDDDDDDDDDDDDDDDDDDDD
ZYMOMONAS MOBILIS SUBSP- MOBILIS ZM4	SSSSSSSSSSSSSSSSSSSSSS
ZYMOMONAS MOBILIS SUBSP- MOBILIS ATCC 10988	SSSSSSSSSSSSSSSSSSSSSS
SPHINGOPYXIS ALASKENSIS RB2256	SSSSSSSSSSSSSSSSSSSSSS
SPHINGOMONAS WITTICHII RW1	SSSSSSSSSSSSSSSSSSSSSS
SPHINGOMONAS SP- SKA58	SSSSSSSSSSSSSSSSSSSSSS
NOVOSPHINGOBIUM AROMATICIVORANS DSM 12444	SSSSSSSSSSSSSSSSSSSSSS
ERYTHROBACTER SP- SD-21	SSSSSSSSSSSSSSSSSSSSSS
ERYTHROBACTER SP- NAP1	SSSSSSSSSSSSSSSSSSSSSS
ERYTHROBACTER LITORALIS HTCC2594	SSSSSSSSSSSSSSSSSSSSSS
PHENYLOBACTERIUM ZUCINEUM HLK1	CCCCCCCCCCCCCCCCCZZZZ
CAULOBACTER SP- K31	CCCCCCCCCCCCCCCCCZZZZ
CAULOBACTER CRESCENTUS NA1000	CCCCCCCCCCCCCCCCCZZZZ
CAULOBACTER CRESCENTUS CB15	CCCCCCCCCCCCCCCCCZZZZ
BREVUNDIMONAS SP- BAL3	CCCCCCCCCCCCCCCCCZZZZ
ASTICCACAULIS EXCENTRICUS CB 48	CCCCCCCCCCCCCCCCCZZZZ
THALASSIOBIUM SP- R2A62	BBBBBBBBBBBBBBBBBBBBBB
SULFITOBACTER SP- NAS-14-1	BBBBBBBBBBBBBBBBBBBBBB
SULFITOBACTER SP- EE-36	BBBBBBBBBBBBBBBBBBBBBB
SILICIBACTER SP- TRICHCH4B	BBBBBBBBBBBBBBBBBBBBBB
SILICIBACTER SP- TM1040	BBBBBBBBBBBBBBBBBBBBBB
SILICIBACTER POMEROYI DSS-3	BBBBBBBBBBBBBBBBBBBBBB

Continued on next page

Genome	Classifications[1]
SILICIBACTER LACUSCAERULENSIS ITI-1157	BBBBBBBBBBBBBBBBBBBBBBBBBB
SAGITTULA STELLATA E-37	BBBBBBBBBBBBBBBBBBBBBBBBBB
RUEGERIA SP- R11	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOVARIUS SP- TM1035	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOVARIUS SP- HTCC2601	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOVARIUS SP- 217	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOVARIUS NUBINHIBENS ISM	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOBACTER SP- SK209-2-6	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOBACTER SP- MED193	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOBACTER SP- GAI101	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOBACTER SP- CCS2	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOBACTER SP- AZWK-3B	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOBACTER LITORALIS OCH 149	BBBBBBBBBBBBBBBBBBBBBBBBBB
ROSEOBACTER DENITRIFICANS OCH 114	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTERIALES BACTERIUM Y4I	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTERIALES BACTERIUM HTCC2654	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTERIALES BACTERIUM HTCC2150	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTERIALES BACTERIUM HTCC2083	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTERACEAE BACTERIUM KLH11	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTER SPHAEROIDES KD131	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTER SPHAEROIDES ATCC 17029	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTER SPHAEROIDES ATCC 17025	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTER SPHAEROIDES 2-4-1	BBBBBBBBBBBBBBBBBBBBBBBBBB
RHODOBACTER SPHAEROIDES	BBBBBBBBBBBBBBBBBBBBBBBBBB
PHAEOBACTER GALLAECIENSIS BS107	BBBBBBBBBBBBBBBBBBBBBBBBBB
PHAEOBACTER GALLAECIENSIS 2-10	BBBBBBBBBBBBBBBBBBBBBBBBBB
PARACOCCLUS DENITRIFICANS PD1222	BBBBBBBBBBBBBBBBBBBBBBBBBB
OCTADECABACTER ANTARCTICUS 307	BBBBBBBBBBBBBBBBBBBBBBBBBB
OCTADECABACTER ANTARCTICUS 238	BBBBBBBBBBBBBBBBBBBBBBBBBB
OCEANICOLA GRANULOSUS HTCC2516	BBBBBBBBBBBBBBBBBBBBBBBBBB
OCEANICOLA BATSENSIS HTCC2597	BBBBBBBBBBBBBBBBBBBBBBBBBB
OCEANIBULBUS INDOLIFEX HEL-45	BBBBBBBBBBBBBBBBBBBBBBBBBB
LOKTANELLA VESTFOLDENSIS SKA53	BBBBBBBBBBBBBBBBBBBBBBBBBB
JANNASCHIA SP- CCS1	BBBBBBBBBBBBBBBBBBBBBBBBBB
DINOROSEOBACTER SHIBAE DFL 12	BBBBBBBBBBBBBBBBBBBBBBBBBB
CITREICELLA SP- SE45	BBBBBBBBBBBBBBBBBBBBBBBBBB
ALPHA PROTEOBACTERIUM HTCC2255	BBBBBBBBBBBBBBBBBBBBBBBBBB
OCEANICHAULIS ALEXANDRII HTCC2633	HHHHHHHHHHHZZHHHZZHHHH

Continued on next page

Genome	Classifications[1]
MARICAULIS MARIS MCS10	HHHHHHHHHHSHHSSSSSHHHH
HYPHOMONAS NEPTUNIUM ATCC 15444	HHHHHHHHCCCCCCCCCHHHH
HIRSCHIA BALTICA ATCC 49814	HHHHHHHHBBBBBBBBBBHHHH
LABRENTIA ALEXANDRII DFL-11	SDSZDZZZZSZSSZZSZSSDS
STAPPIA AGGREGATA IAM 12614	DDDDZZZZZZDZDDDDDDDDZ
PSEUDOVIBRIO SP- JEO62	ZZBBBBZZZZZBBZZZZBBBB
PELAGIBACTER UBIQUE HIMB5	ZZKDZHHZZZZCZZZZZZZZZ
PELAGIBACTER UBIQUE HTCC7211	ZZHDZZZZZZZBZZZZZZZZZ
PELAGIBACTER UBIQUE HIMB114	ZZZZZZZZZZZZZZZZZZZZZ
PELAGIBACTER UBIQUE IMCC9063	ZZZZZZZZZZZZZZZZZZZZZ
PELAGIBACTER UBIQUE HTCC1062	ZZZZZZZZZZZZZZZZZZZZZ
PELAGIBACTER UBIQUE HTCC1002	ZZZZZZZZZZZZZZZZZZZZZ
PELAGIBACTER UBIQUE HTCC9565	ZZZZZZZZZZZZZZZZZZZZZ
XANTHOBACTER AUTOTROPHICUS PY2	ZZZZZZZZZZZZZZZZZZZZZ
SINORHIZOBIUM MELILOTI 1021	ZZZZZZZZZZZZZZZZZZZZZ
SINORHIZOBIUM MEDICAE WSM419	ZZZZZZZZZZZZZZZZZZZZZ
RHODOPSEUDOMONAS PALUSTRIS TIE-1	ZZZZZZZZZZZZZZZZZZZZZ
RHODOPSEUDOMONAS PALUSTRIS HAA2	ZZZZZZZZZZZZZZZZZZZZZ
RHODOPSEUDOMONAS PALUSTRIS CGA009	ZZZZZZZZZZZZZZZZZZZZZ
RHODOPSEUDOMONAS PALUSTRIS BISB5	ZZZZZZZZZZZZZZZZZZZZZ
RHODOPSEUDOMONAS PALUSTRIS BISB18	ZZZZZZZZZZZZZZZZZZZZZ
RHODOPSEUDOMONAS PALUSTRIS BISA53	ZZZZZZZZZZZZZZZZZZZZZ
RHODOPSEUDOMONAS PALUSTRIS	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM SP- NGR234	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM LEGUMINOSARUM BV- VICIAE 3841	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM LEGUMINOSARUM BV- TRIFOLII WSM2304	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM LEGUMINOSARUM BV- TRIFOLII WSM1325	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI KIM 5	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI IE4771	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI GR56	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI CIAT 894	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI CIAT 652	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI CFN 42	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI BRASIL 5	ZZZZZZZZZZZZZZZZZZZZZ
RHIZOBIUM ETLI 8C-3	ZZZZZZZZZZZZZZZZZZZZZ
PARVIBACULUM LAVAMENTIVORANS DS-1	ZZZZZZZZZZZZZZZZZZZZZ
OLIGOTROPHA CARBOXIDOVORANS OM5	ZZZZZZZZZZZZZZZZZZZZZ
OCHROBACTRUM INTERMEDIUM LMG 3301	ZZZZZZZZZZZZZZZZZZZZZ

Continued on next page

Genome	Classifications[1]
OCHROBACTRUM ANTHROPI ATCC 49188	ZZZZZZZZZZZZZZZZZZZZZZ
NITROBACTER WINOGRADSKYI NB-255	ZZZZZZZZZZZZZZZZZZZZZZ
NITROBACTER SP- NB-311A	ZZZZZZZZZZZZZZZZZZZZZZ
NITROBACTER HAMBURGENSIS X14	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOCELLA SILVESTRIS BL2	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM SP- 4-46	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM RADIOTOLERANS JCM 2831	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM POPULI BJ001	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM NODULANS ORS 2060	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM EXTORQUENS PA1	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM EXTORQUENS DM4	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM EXTORQUENS AM1	ZZZZZZZZZZZZZZZZZZZZZZ
METHYLOBACTERIUM CHLOROMETHANICUM CM4	ZZZZZZZZZZZZZZZZZZZZZZ
MESORHIZOBIUM SP- BNC1	ZZZZZZZZZZZZZZZZZZZZZZ
MESORHIZOBIUM LOTI MAFF303099	ZZZZZZZZZZZZZZZZZZZZZZ
HYPHOMICROBIUM DENITRIFICANS ATCC 51888	ZZZZZZZZZZZZZZZZZZZZZZ
HOEFLEA PHOTOTROPHICA DFL-43	ZZZZZZZZZZZZZZZZZZZZZZ
FULVIMARINA PELAGI HTCC2506	ZZZZZZZZZZZZZZZZZZZZZZ
CANDIDATUS LIBERIBACTER ASIATICUS STR- PSY62	ZZZZZZZZZZZZZZZZZZZZZZ
CANDIDATUS HODGKINIA CICADICOLA DSEM	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA SUIS BV- 5 STR- 513	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA SUIS BV- 3 STR- 686	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA SUIS ATCC 23445	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA SUIS 1330	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA SP- F5/99	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA SP- 83/13	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA PINNIPEDIALIS M292/94/1	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA PINNIPEDIALIS M163/99/10	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA PINNIPEDIALIS B2/94	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA OVIS ATCC 25840	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA NEOTOMAE 5K33	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA MICROTI CCM 4915	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA MELITENSIS BV- 3 STR- ETHER	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA MELITENSIS BV- 2 STR- 63/9	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA MELITENSIS BV- 1 STR- REV-1	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA MELITENSIS BIOVAR ABORTUS 2308	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA MELITENSIS ATCC 23457	ZZZZZZZZZZZZZZZZZZZZZZ
BRUCELLA MELITENSIS 16M	ZZZZZZZZZZZZZZZZZZZZZZ

Continued on next page

