

A Corrigendum on The “Jack-of-all-Trades” Flagellum From *Salmonella* and *E. coli* Was Horizontally Acquired From an Ancestral β -Proteobacterium

by Ferreira, J. L., Coleman, I., Addison, M. L., Zachs, T., Quigley, B. L., Wuichet, K., and Beeby, M. (2021). *Front. Microbiol.* 12:643180. doi: [10.3389/fmicb.2021.643180](https://doi.org/10.3389/fmicb.2021.643180)

In the original article, there was a mistake in **Figure 1** as published. **We inadvertently uploaded an outdated version of this figure.** The corrected **Figure 1** appears below.

Figure 1

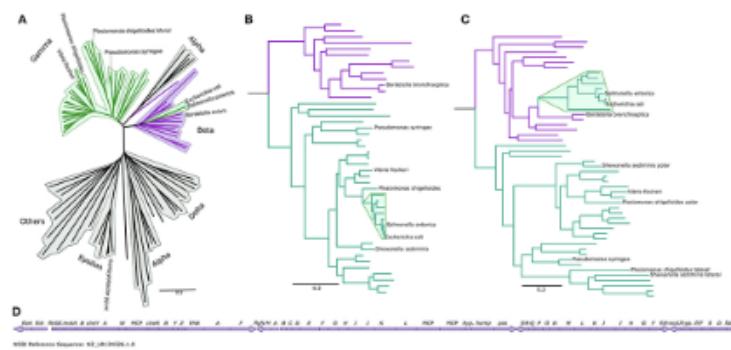
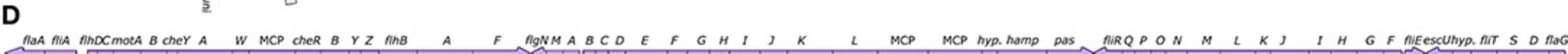
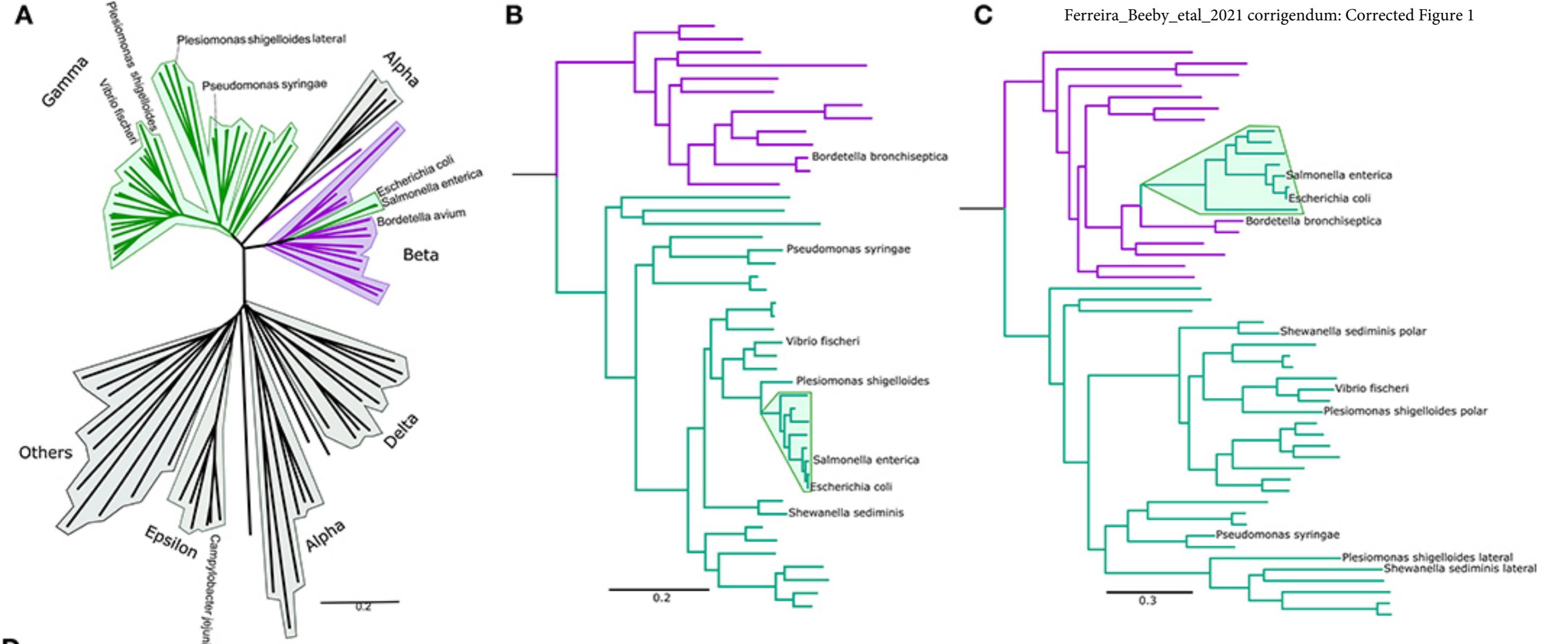


FIGURE 1. The Enterobacteriaceae have β -like motors. (A) An unrooted global flagellar phylogeny. γ -proteobacteria are highlighted in green: the enteric Enterobacteriaceae γ -proteobacteria (*Salmonella enterica* and *Escherichia coli*) are not clustered with the other γ -proteobacteria, but are clustered within the β -proteobacteria (purple). Fully annotated version of this tree is presented in Supplementary Figure S1. (B) An organismal phylogeny focused on γ - (green) and β -proteobacteria (purple), rooted with an ϵ -proteobacterium, *Campylobacter jejuni*. The Enterobacteriaceae are highlighted in green. Fully annotated version of this tree is presented in Supplementary Figure S4. (C) The flagellar phylogeny of the γ - (green) and β -proteobacteria (purple). Note the shift in position of the Enterobacteriaceae (highlighted in green) from the γ -proteobacterial clade to within the β -proteobacterial clade. Rooted with *Campylobacter jejuni*. Fully annotated version of this tree is presented in Supplementary Figure S5. (D) The *Bordetella bronchiseptica* flagellar gene cluster is arranged in one continuous genetic locus.

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.



NCBI Reference Sequence: NZ_LR134326.1.0

Ferreira_Beeby_et al_2021 corrigendum: Corrected Figure 1

Supplementary Material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fmicb.2021.643180/full#supplementary-material>

Supplementary Figure 1 | Fully annotated wide-scale flagellar phylogeny tree from **Figure 1A**. An unrooted, wide-scale tree of flagellar phylogeny. The Enterobacteriaceae (*Salmonella enterica* and *Escherichia coli*) are not clustered with the other γ -proteobacteria (green), but are clustered within the β -proteobacteria (purple).

Supplementary Figure 2 | Unrooted trees of individual flagellar proteins. Individual flagellar proteins used in the concatenated flagellar tree have similar topologies with each other and with the concatenated tree. β -proteobacteria in purple, γ -proteobacteria in green, lateral flagella highlighted in pink. 1 = polar, 2 = lateral.

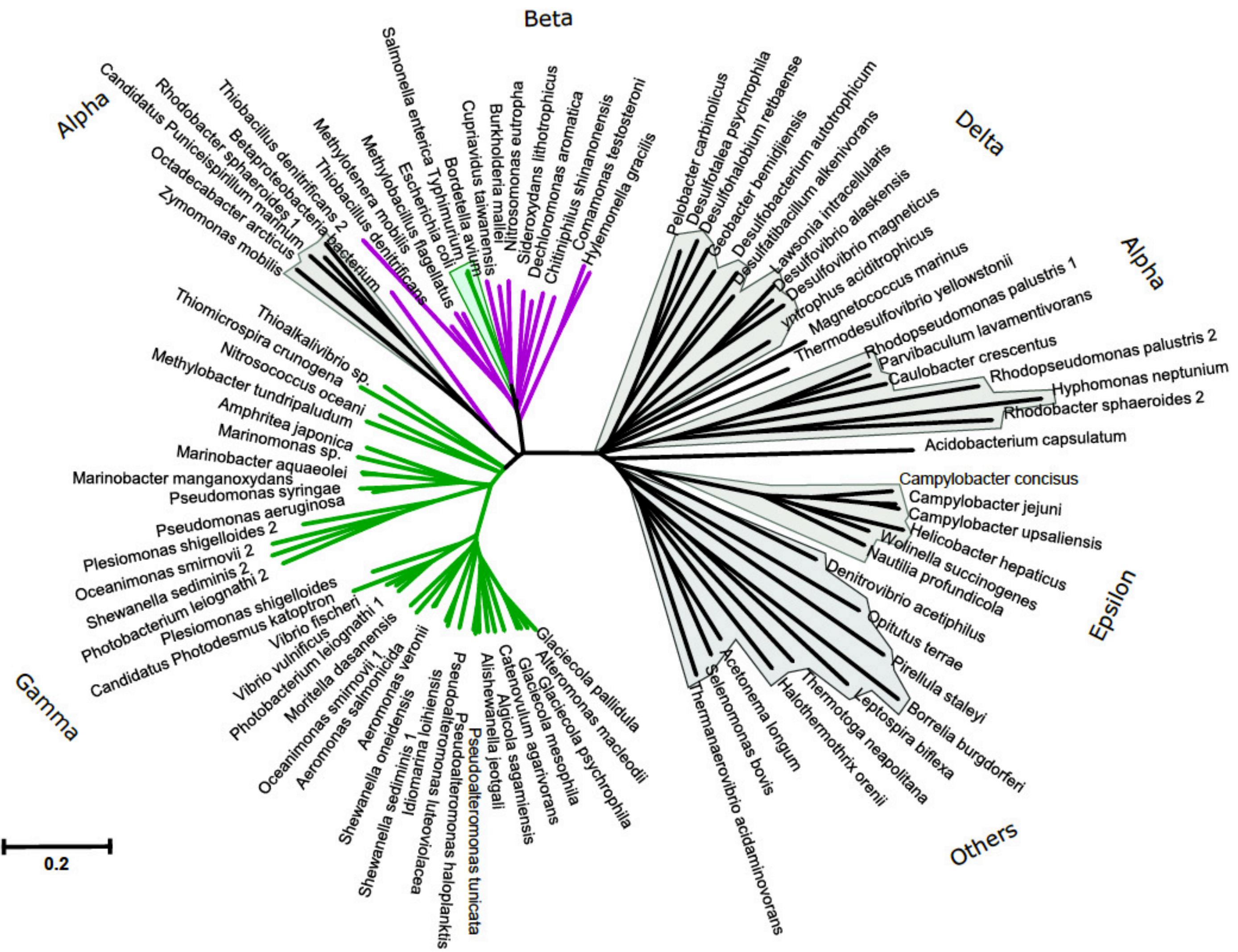
Supplementary Figure 3 | Trees made using the flagellar proteins C-ring proteins. Unrooted FliG and FliM trees differ from other flagellar protein trees (depicted in **Supplementary Figure S2**) or the concatenated tree (**Figure 1C**) due to long branches in the lateral flagellar clade (highlighted in pink). 1 = polar, 2 = lateral.

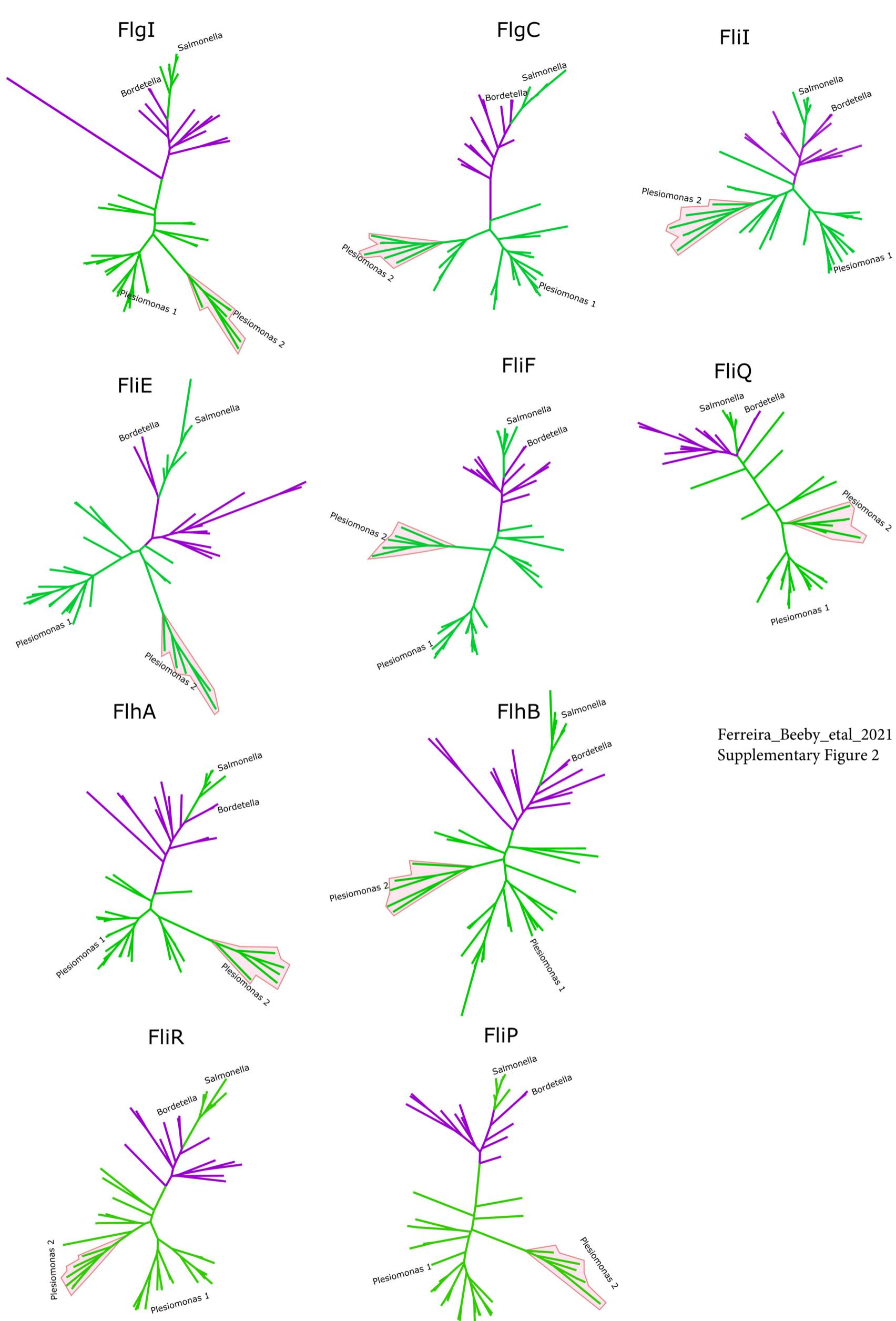
Supplementary Figure 4 | Fully annotated organismal phylogeny tree from **Figure 1B**. β -proteobacteria in purple, γ -proteobacteria in green, Enterobacteriaceae highlighted in green. Rooted with the ϵ -proteobacterium, *Campylobacter jejuni*. Bootstrap values indicated on nodes.

Supplementary Figure 5 | Fully annotated flagellar phylogeny tree from **Figure 1C**. β -proteobacteria in purple, γ -proteobacteria in green, Enterobacteriaceae highlighted in green. Rooted with the ϵ -proteobacterium, *Campylobacter jejuni*. Bootstrap values indicated on nodes.

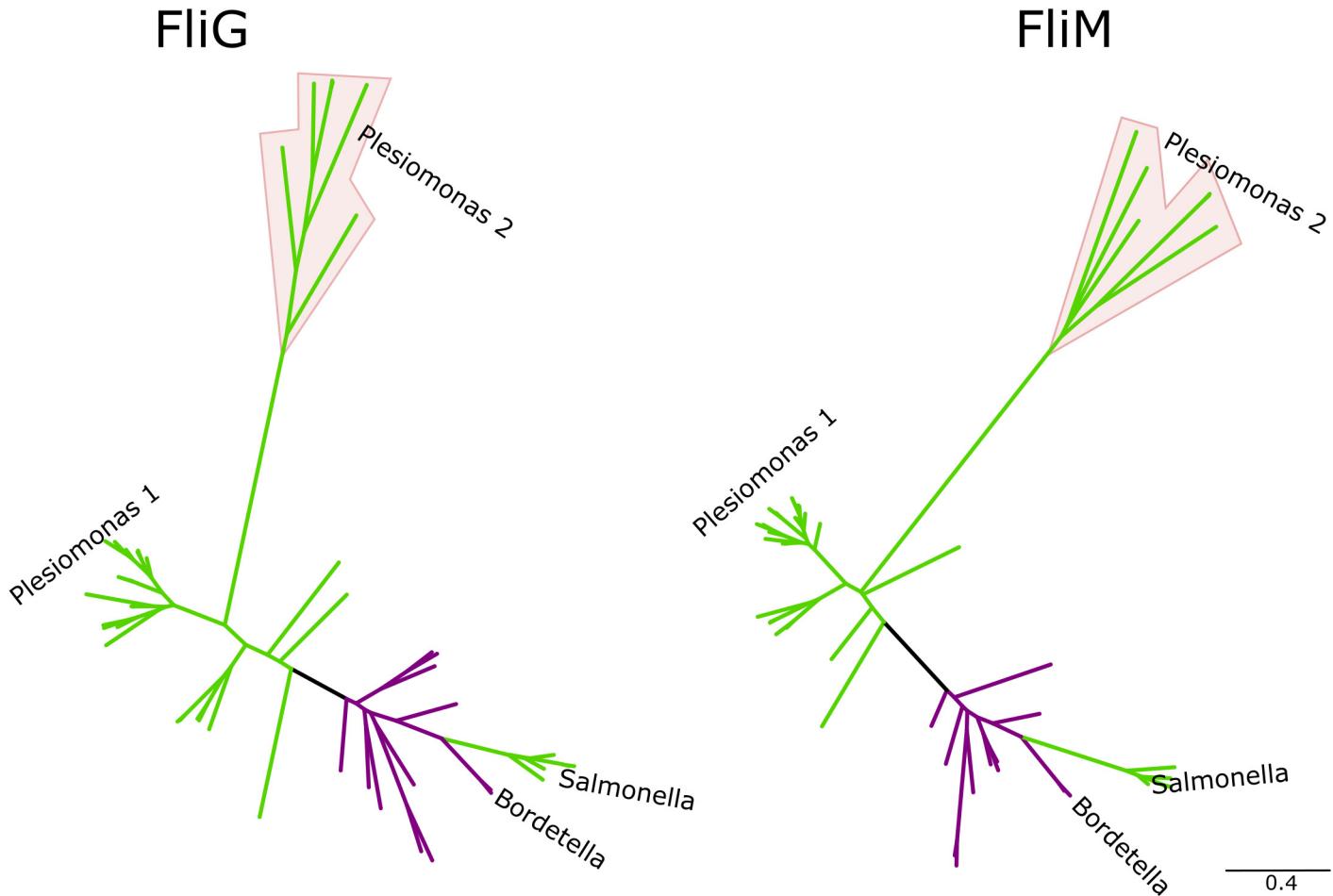
Supplementary Figure 6 | Example tomograms. **(A)** Slice through a representative tomogram of *B. bronchiseptica* with a peritrichous motor pointed out in green. **(B)** Slice through a representative tomogram of *P. shigelloides* with the lateral motor pointed out in purple and the polar motors with only hooks (filament protein, FliC, is deleted) in yellow.

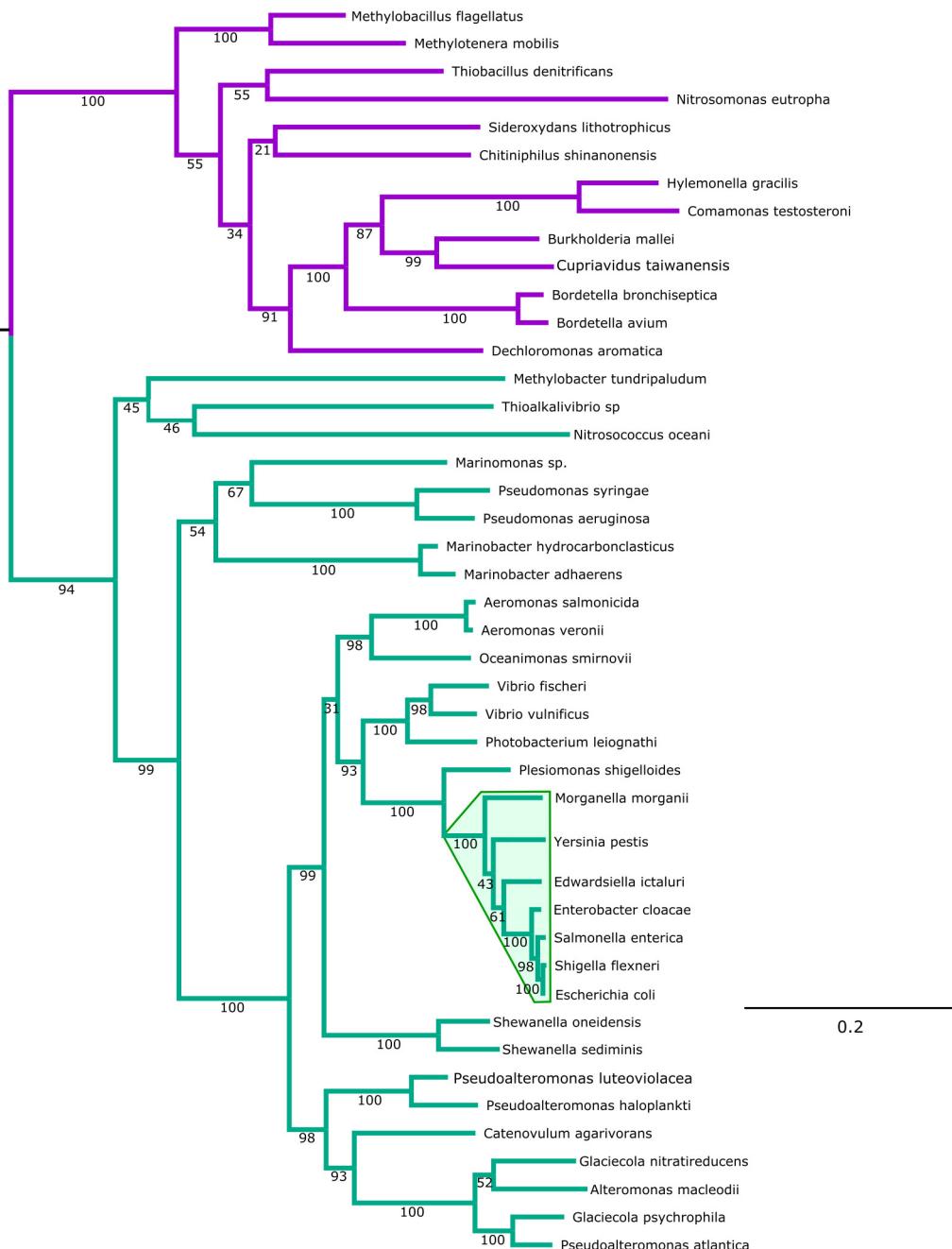
Supplementary Figure 7 | Subtomogram averages prior to C100 rotational averaging. **(A)** Slice through *Bordetella bronchiseptica* motor unsymmetrised subtomogram average, **(B)** Slice through *Plesiomonas shigelloides* lateral motor unsymmetrised subtomogram average. Boxes are 100 nm \times 100 nm.

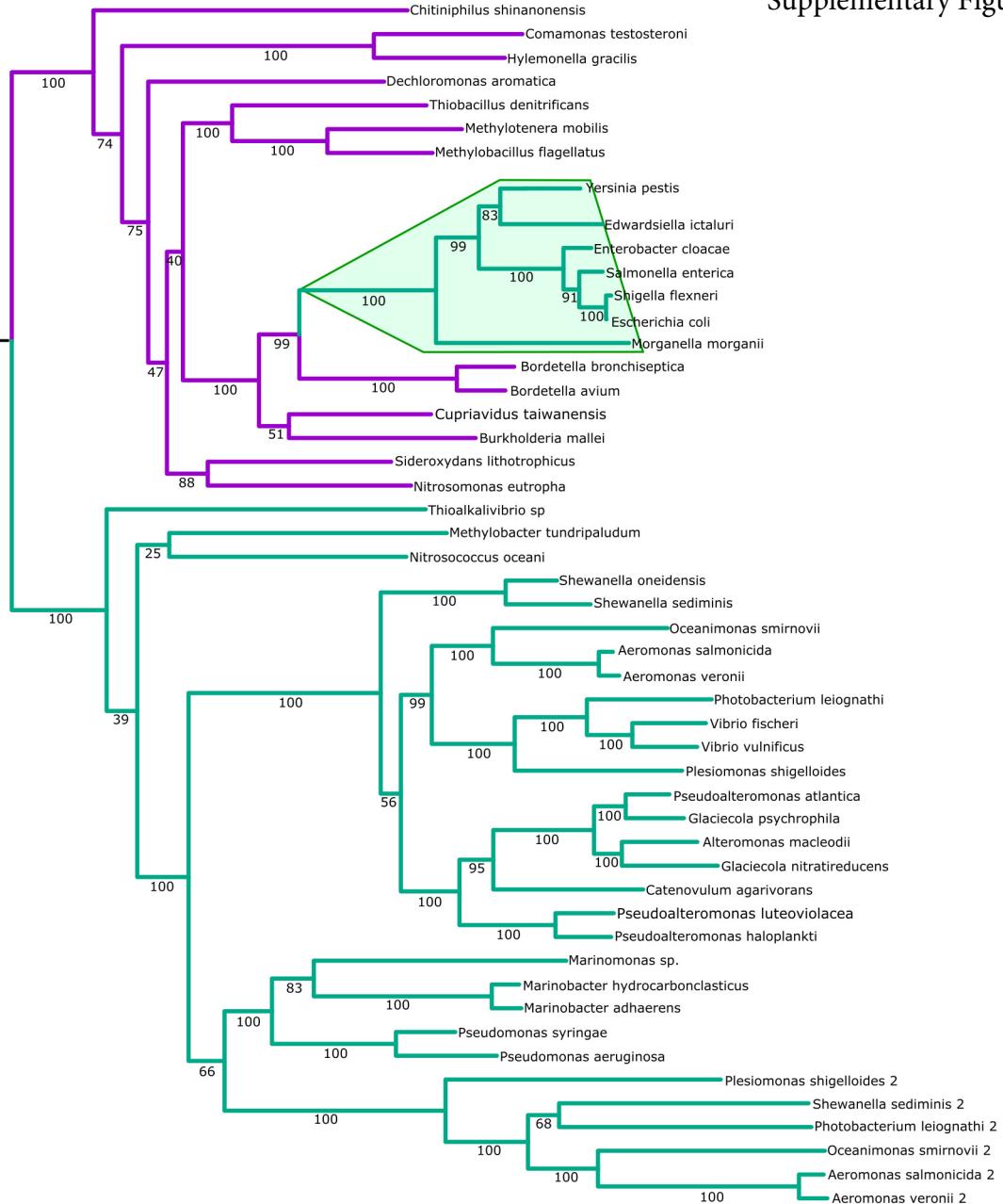




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Supplementary Figure 2







A

B. bronchiseptica
unsymmetrised



B

P. shigelloides
lateral
unsymmetrised



