

TreeBASE reviewer links for the three phylogenetic datasets are found below. These links are intended for review purposes only and should not be included in a final published version of the manuscript.

Nuclear mating type genes

<http://purl.org/phylo/treebase/phylows/study/TB2:S27636?x-access-code=bac297ebaf07847a21900bda42697210&format=html>

Mitochondrial alignment, all genes except *cob*

<http://purl.org/phylo/treebase/phylows/study/TB2:S27637?x-access-code=aabd95c7d3ea8fcf6ff2990d8bfba0ac&format=html>

Mitochondrial alignment, *cob* exons only

<http://purl.org/phylo/treebase/phylows/study/TB2:S27638?x-access-code=9c42aaa9c529decd2e421f04ef168d81&format=html>

The Geneious workflow mentioned in the text is available here.

<https://github.com/cgmayers/QuickAssemble>