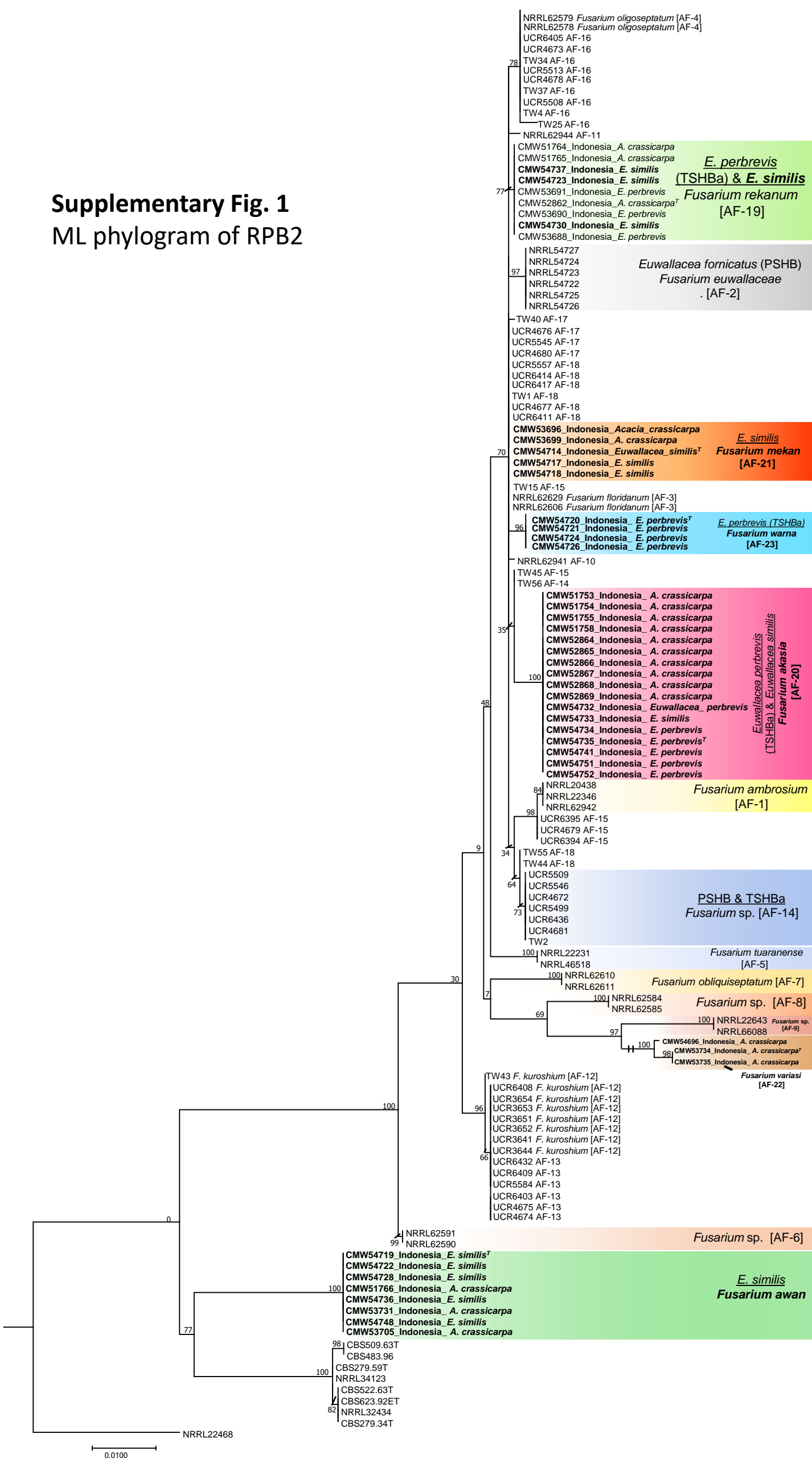
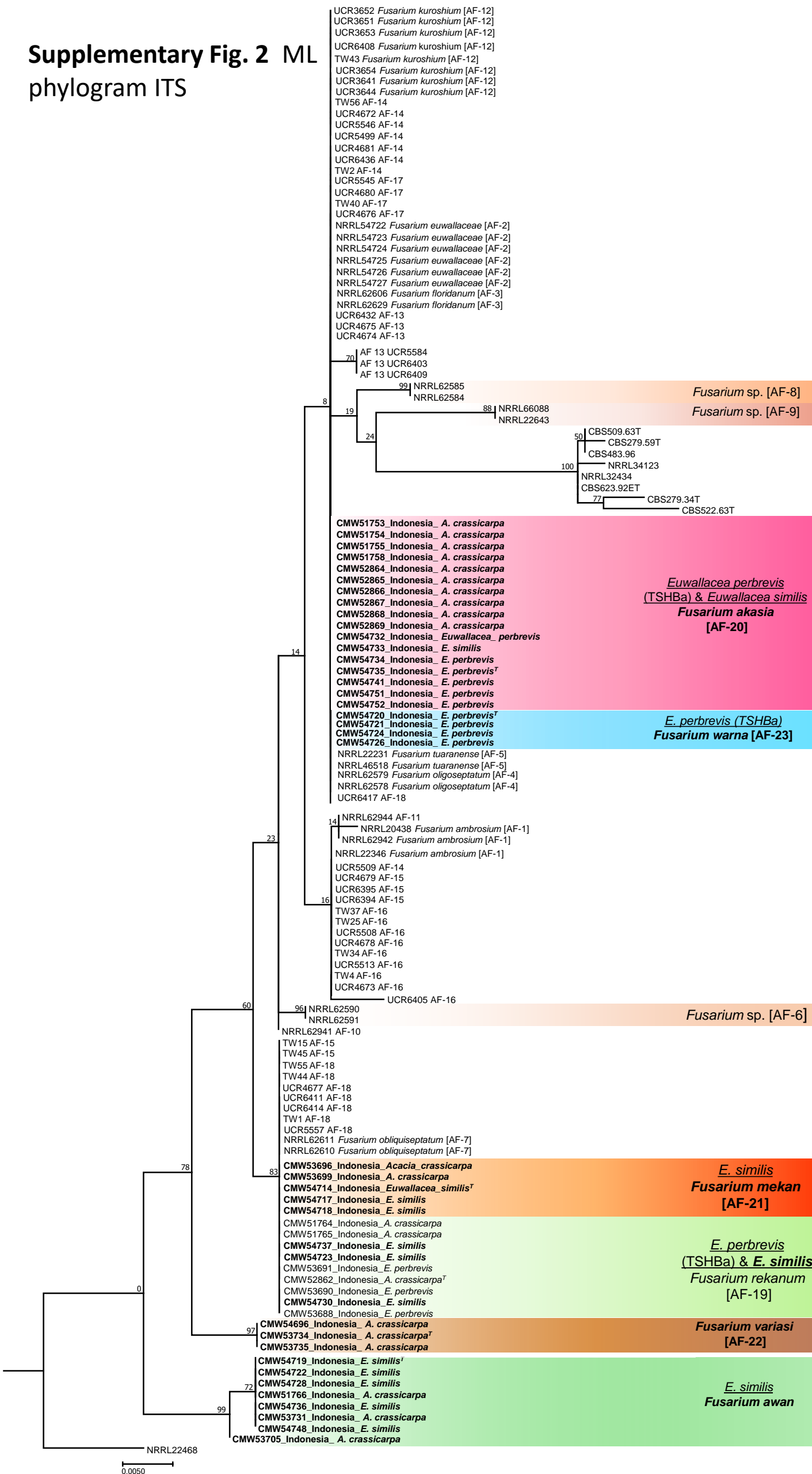


# Supplementary Fig. 1

## ML phylogram of RPB2

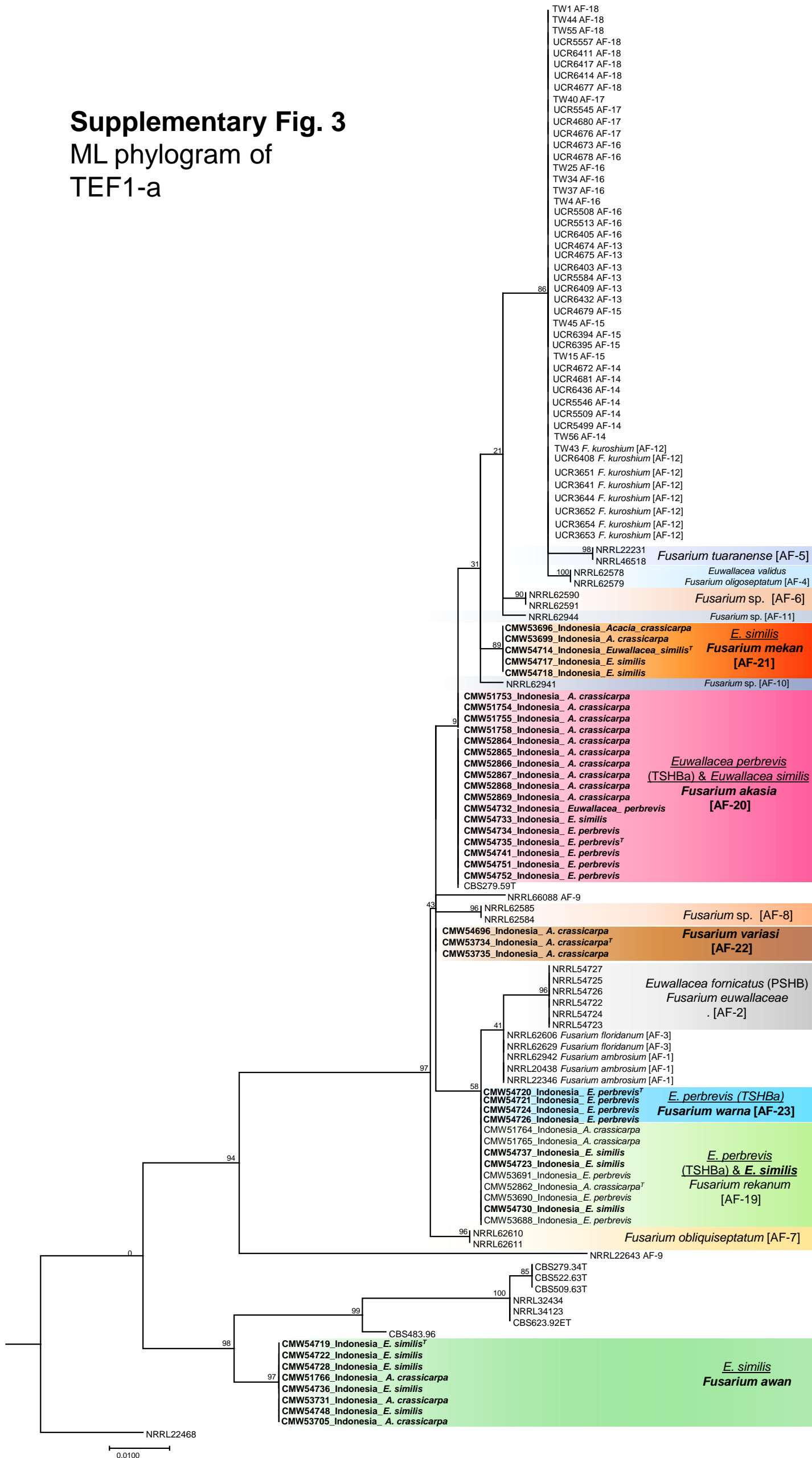


# Supplementary Fig. 2 ML phylogram ITS



# Supplementary Fig. 3

## ML phylogram of TEF1-a



**Supplementary Figure. 1** Phylogenetic analysis of the species in the Ambrosia *Fusarium* clade (AFC) using sequences obtained from the DNA-directed RNA polymerase II second largest subunit (RPB2). The phylogram was constructed using maximum likelihood with 1000 bootstrap replicates. Isolates in bold were sequenced in this study. **The 23** species within the AFC are identified as **AF-1 to AF-23** using an ad hoc nomenclature (Kasson et al. 2013, Na et al. 2018). *Fusarium neocosmosporiellum* (NRRL22468) represents the outgroup. T represents ex-type.

**Supplementary Figure. 2** Phylogenetic analysis of the species in the Ambrosia *Fusarium* clade (AFC) using sequences obtained from the ribosomal internal transcribed spacer (ITS). The phylogram was constructed using maximum likelihood with 1000 bootstrap replicates. Isolates in bold were sequenced in this study. **The 23** species within the AFC are identified as **AF-1 to AF-23** using an ad hoc nomenclature (Kasson et al. 2013, Na et al. 2018). *Fusarium neocosmosporiellum* (NRRL22468) represents the outgroup. T represents ex-type.

**Supplementary Figure. 3** Phylogenetic analysis of the species in the Ambrosia *Fusarium* clade (AFC) using sequences obtained from the elongation factor 1-  $\alpha$  (TEF1- $\alpha$ ). The phylogram was constructed using maximum likelihood with 1000 bootstrap replicates. Isolates in bold were sequenced in this study. **The 23 species** within the AFC are identified as **AF-1 to AF-23** using an ad hoc nomenclature (Kasson et al. 2013, Na et al. 2018). *Fusarium neocosmosporiellum* (NRRL22468) represents the outgroup. T represents ex-type.