**Figure S2: Categories of orthologous groups in the dS/dS evolutionary analysis.**

- **All:** the orthologous groups containing a one-to-one relationship between all nine genomes.
- **Ara1:** the orthologous groups containing a one-to-one relationship within the *Arabidopsis* genus but allows for some pruning of the remaining six genomes and for lacking one of the genes in a coloured clade (red and green clade).
- **Variable:** this is the most variable category which only needs to have a single gene from *A. thaliana*, the rest can be pruned and lack one of the genes in a coloured clade (blue, red and green clade). **Green, red and blue branch pairs:** allows for lacking one of the genes within the clade and pruning, **black branches:** only one gene within the orthologous group, **orange:** allows for pruning of duplicated genes.