**Supplementary Data 9. Sources of gene models.**

| Source          | EvidenceModeler weight | Suggested gene models | Comments                                           |
|-----------------|------------------------|-----------------------|---------------------------------------------------|
| Augustus        | 1                      | 10210                 | trained on PASA results                           |
| Augustus-HiQ    | 2                      | 6883                  | trained on PASA results                           |
| CodingQuarry    | 2                      | 21275                 | uses RNA-Seq mapped reads to derive gene models   |
| GeneMark        | 1                      | 20931                 | self-training                                     |
| GlimmerHMM      | 1                      | 19009                 | trained on PASA results                           |
| PASA            | 6                      | 11326                 | uses mapped Trinity transcripts to derive gene models |
| SNAP            | 1                      | 19296                 | trained on PASA results                           |
| **Total**       |                        | 108930                |                                                   |