

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

| <b>Source</b> | <b>EvidenceModeler weight</b> | <b>Suggested gene models</b> | <b>Comments</b>                                       |
|---------------|-------------------------------|------------------------------|---|
| 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                       |   |