

Table S1 Comparison of trinity assemblies utilizing illumina and/or 454 reads. sim PE, simulated paired-end; USCO, universal single-copy ortholog.

| Assembly | Components | Transcripts | N50 | N90 | Orthologs | USCOs |
|---------------------------|------------|-------------|------|-----|-----------|-------|
| Illumina | 44811 | 96330 | 2545 | 571 | 8955 | 3071 |
| 454 (newbler)* | 16647* | 22507 | 1567 | 559 | 7628 | 2907 |
| 454 sim PE | 25649 | 58060 | 696 | 306 | 6557 | 2465 |
| Illumina + 454 | 45676 | 103597 | 2183 | 516 | 8830 | 2999 |
| Illumina + 454 sim PE | 49410 | 122521 | 1745 | 448 | 9370 | 3120 |
| Illumina + 454 (newbler)* | 54099* | 118322 | 742 | 168 | 9057 | 3107 |
| 454 | 13724 | 25374 | 1097 | 434 | 6876 | 2646 |

*assembly newbler included for reference. Newbler does not compute components and the number of isogroups is reported instead. Orthologs, the number of putative orthologs between the assembly and the *Tribolium castaneum* proteome. In each assembly Illumina data was first digitally normalized.