

## Supplemental Table I

### Proportion of genes overlapped in orthologous groups constructed via tree and similarity based methods

| Orthologous groups | Arabidopsis : Poplar |             | Arabidopsis: Rice |             | Arabidopsis: Moss |             |
|--------------------|----------------------|-------------|-------------------|-------------|-------------------|-------------|
|                    | Tree                 | Similarity* | Tree              | Similarity* | Tree              | Similarity* |
| 1¶                 | 0.805                | 0.843       | 0.822             | 0.816       | 0.764             | 0.878       |
| 2                  | 0.805                | 0.843       | 0.825             | 0.813       | 0.767             | 0.879       |
| 3                  | 0.806                | 0.844       | 0.820             | 0.820       | 0.768             | 0.880       |
| 4                  | 0.810                | 0.842       | 0.822             | 0.822       | 0.768             | 0.876       |
| 5                  | 0.810                | 0.837       | 0.822             | 0.822       | 0.769             | 0.878       |
| 6                  | 0.810                | 0.838       | 0.822             | 0.822       | 0.767             | 0.876       |
| 7                  | 0.809                | 0.839       | 0.822             | 0.818       | 0.769             | 0.882       |
| 8                  | 0.809                | 0.840       | 0.821             | 0.817       | 0.767             | 0.877       |
| 9                  | 0.807                | 0.844       | 0.824             | 0.809       | 0.765             | 0.878       |
| 10                 | 0.808                | 0.841       | 0.821             | 0.820       | 0.769             | 0.877       |
| Average            | 0.808                | 0.841       | 0.822             | 0.818       | 0.767             | 0.878       |

¶ A set of OGs by tree-based approach was compared with 10 sub-sets of OGs constructed by similarity based approach.

\*10 independent sub-sets of OGs were constructed by similarity based approach.