

**Supplemental Table S7.** Number of F-box proteins in *Arabidopsis*, *Oryza* and *Populus* showing homology to other plant species as revealed by tBLASTn search against the transcript assemblies from 254 plant species (Childs *et al.* 2007).

Ortholog Clade (Expected Number)	Observed Number at (E-value cutoff used in blast search)							
	(1.0E <sup>-10</sup> )	1.0E <sup>-20</sup>	1.0E <sup>-30</sup>	1.0E <sup>-40</sup>	1.0E <sup>-50</sup>	1.0E <sup>-60</sup>	1.0E <sup>-70</sup>	1.0E <sup>-80</sup> )
<b>A (408)</b>	393	353	258	148	79	44	33	26
<b>O (386)</b>	343	279	214	178	130	98	79	66
<b>P (59)</b>	48	39	30	29	24	20	18	16
<b>AO (168)</b>	167	154	138	117	103	69	56	45
<b>AP (93)</b>	88	81	77	72	66	59	56	52
<b>OP (193)</b>	186	170	141	113	81	61	57	52
<b>AOP (347)</b>	336	323	314	298	277	263	248	236
P-value*	7.8E <sup>-01</sup>	3.2E <sup>-02</sup>	9.2E <sup>-08</sup>	2.2E <sup>-19</sup>	3.9E <sup>-37</sup>	3.8E <sup>-51</sup>	8.8E <sup>-56</sup>	2.4E <sup>-59</sup>

\* *P*-value was obtained from the significant test for chi-square goodness-of-fit between the ortholog clade distribution of the F-box proteins having blast hits and the ortholog clade distribution of all the query F-box proteins as shown in the Venn diagram in Figure 2.