

**Table S6.** Best partitioning schemes and substitution models.

Subset	Best Model	Subset Partitions	Subset Sites
1	GTR+I+G	12S and 16S	1-389, 390-830
2	GTR+I+G	Argk exon1	831-1429\3
3	GTR+I+G	Argk exon2, EF1 $\alpha$ exon2 and Opsin exon2	832-1429\3, 3811-4628\3, 4715-5247\3
4	SYM+G	Argk exon3, Opsin exon3 and PEPCK exon3	833-1429\3, 4716-5247\3, 5351-5748\3
5	GTR+G	Argk intron and PEPCK intron	1430-1677, 5749-6188
6	GTR+I+G	COI1 and Cytb1	1678-3221\3, 3222-3809\3
7	GTR+I+G	COI2	1679-3221\3
8	GTR+I+G	COI3	1680-3221\3
9	GTR+I+G	Cytb2	3223-3809\3
10	GTR+I+G	Cytb3	3224-3809\3
11	GTR+I	EF1 $\alpha$ exon1	3810-4628\3
12	GTR+G	EF1 $\alpha$ exon3	3812-4628\3
13	HKY+I+G	EF1 $\alpha$ intron	4629-4713
14	HKY+I+G	Opsin exon1 and PEPCK exon1	4714-5247\3, 5349-5748\3
15	GTR+G	Opsin intron	5248-5348
16	SYM+I+G	PEPCK exon2	5350-5748\3