

**Supplementary Table S1.** Statistical values of datasets for maximum parsimony and maximum likelihood analyses in this study.

Dataset	No. of taxa	No. of bp <sup>1</sup>	Maximum parsimony						
			PIC <sup>2</sup>	No. of trees	Tree length	CI <sup>3</sup>	RI <sup>4</sup>	RC <sup>5</sup>	HI <sup>6</sup>
<i>tef1</i>	71	523	226	160	545	0.708	0.961	0.68	0.292
<i>tub2</i>	57	598	253	4	644	0.675	0.936	0.632	0.325
<i>cmdA</i>	70	692	263	72	536	0.711	0.965	0.686	0.289
<i>his3</i>	69	466	168	468	598	0.545	0.905	0.493	0.455
<i>tef1/tub2/cmdA/his3</i>	71	2279	911	30	2461	0.621	0.938	0.583	0.379

  

Dataset	Maximum likelihood							
	Subst. mode <sup>7</sup>	NST <sup>8</sup>	Rate matrix				Rates	
<i>tef1</i>	TIM2+G	6	1.6996	2.6313	1.6996	1.0000	5.2900	Gamma
<i>tub2</i>	TPM2uf+I+G	6	1.4626	4.1347	1.4626	1.0000	4.1347	Gamma
<i>cmdA</i>	TIM1+G	6	1.0000	3.3878	0.6980	0.6980	6.0097	Gamma
<i>his3</i>	TIM2+I+G	6	1.6118	5.5754	1.6118	1.0000	8.4960	Gamma
<i>tef1/tub2/cmdA/his3</i>	TIM2+I+G	6	1.5289	1.5289	1.5289	1.0000	5.7636	Gamma

<sup>1</sup> bp = base pairs.

<sup>2</sup> PIC = number of parsimony informative characters.

<sup>3</sup> CI = consistency index.

<sup>4</sup> RI = retention index.

<sup>5</sup> RC = rescaled consistency index.

<sup>6</sup> HI = homoplasy index.

<sup>7</sup> Subst. model = best fit substitution model.

<sup>8</sup> NST = number of substitution rate categories.