

**Table S1.** NCBI data used in the ML Analysis.

Order	Family	Name	Accession	Genome Length (bp)
Ericales	Pentaphylacaceae	<i>Adinandra megaphylla</i>	MW697901	156,298
Ericales	Pentaphylacaceae	<i>Eurya alata</i>	MH782188	155,179
Ericales	Pentaphylacaceae	<i>Pentaphylax euryoides</i>	MF179498	156,132
Ericales	Pentaphylacaceae	<i>Ternstroemia gymnanthera</i>	MF179490	157,753
Ericales	Polemoniaceae	<i>Polemonium chinense</i>	MN057953	155,578
Ericales	Sapotaceae	<i>Argania spinosa</i>	MK533159	158,848
Ericales	Sapotaceae	<i>Manilkara zapota</i>	MN295595	158,386
Ericales	Sapotaceae	<i>Pouteria campechiana</i>	KX426215	157,922
Ericales	Sapotaceae	<i>Sideroxylon wightianum</i>	MG719834	159,538
Ericales	Primulaceae	<i>Aegiceras corniculatum</i>	MN167882	157,241
Ericales	Primulaceae	<i>Androsace bulleyana</i>	KU513438	152,110
Ericales	Primulaceae	<i>Androsace erecta</i>	MW450886	153,547
Ericales	Primulaceae	<i>Androsace laxa</i>	MG181220	151,942
Ericales	Primulaceae	<i>Androsace mariae</i>	MT732944	151,958
Ericales	Primulaceae	<i>Androsace paxiana</i>	KU513437	150,528
Ericales	Primulaceae	<i>Ardisia bullata</i>	MT505713	155,088
Ericales	Primulaceae	<i>Ardisia gigantifolia</i>	MN548760	156,216
Ericales	Primulaceae	<i>Ardisia mamillata</i>	MN136062	156,757
Ericales	Primulaceae	<i>Ardisia polysticta</i>	KC465962	156,506
Ericales	Primulaceae	<i>Ardisia solanacea</i>	MN094783	156,518
Ericales	Primulaceae	<i>Bryocarpum himalaicum</i>	MN103541	153,398
Ericales	Primulaceae	<i>Elingamita johnsonii</i>	MN094784	156,180
Ericales	Primulaceae	<i>Embelia scandens</i>	MW246148	157,259
Ericales	Primulaceae	<i>Embelia vestita</i>	MN167884	157,238
Ericales	Primulaceae	<i>Glaux maritima</i>	MW029425	154,939
Ericales	Primulaceae	<i>Lysimachia christinae</i>	MT982171	154,810
Ericales	Primulaceae	<i>Lysimachia congestiflora</i>	MK834324	154,505
Ericales	Primulaceae	<i>Lysimachia coreana</i>	KM819521	155,386
Ericales	Primulaceae	<i>Lysimachia hemsleyana</i>	MN519195	155,618
Ericales	Primulaceae	<i>Maesa montana</i>	KU569490	157,185

Order	Family	Name	Accession	Genome Length (bp)
Ericales	Primulaceae	<i>Myrsine africana</i>	MN165129	156,433
Ericales	Primulaceae	<i>Myrsine sandwicensis</i>	MN177700	156,284
Ericales	Primulaceae	<i>Myrsine stolonifera</i>	MN167883	156,953
Ericales	Primulaceae	<i>Parathesis chiapensis</i>	MN177699	156,666
Ericales	Primulaceae	<i>Parathesis donnell-smithii</i>	MN177698	156,344
Ericales	Primulaceae	<i>Primula ambita</i>	MK344743	153,837
Ericales	Primulaceae	<i>Primula asarifolia</i>	MK344726	153,878
Ericales	Primulaceae	<i>Primula beesiana</i>	MN504639	150,873
Ericales	Primulaceae	<i>Primula bulleyana</i>	MN428416	150,978
Ericales	Primulaceae	<i>Primula calliantha</i>	MZ054238	151,954
Ericales	Primulaceae	<i>Primula chrysochlora</i>	KX668178	151,944
Ericales	Primulaceae	<i>Primula chungensis</i>	KX668177	150,895
Ericales	Primulaceae	<i>Primula cicutariifolia</i>	MT268974	151,972
Ericales	Primulaceae	<i>Primula densa</i>	MK344759	153,332
Ericales	Primulaceae	<i>Primula denticulata</i> subsp. <i>sinodenticulata</i>	KX668180	154,660
Ericales	Primulaceae	<i>Primula duclouxii</i>	MK344764	153,028
Ericales	Primulaceae	<i>Primula dumicola</i>	MK344762	153,937
Ericales	Primulaceae	<i>Primula effusa</i>	MK344738	153,056
Ericales	Primulaceae	<i>Primula filchnerae</i>	MK888698	151,547
Ericales	Primulaceae	<i>Primula handeliana</i>	MG181221	151,081
Ericales	Primulaceae	<i>Primula helodoxa</i>	MN504640	151,909
Ericales	Primulaceae	<i>Primula hubeiensis</i>	MT268976.2	151,759
Ericales	Primulaceae	<i>Primula jiugongshanensis</i>	MT937162	151,696
Ericales	Primulaceae	<i>Primula knuthiana</i>	MG181223	152,502
Ericales	Primulaceae	<i>Primula kwangtungensis</i>	KX774737	153,757
Ericales	Primulaceae	<i>Primula matthioli</i> subsp. <i>pekinensis</i>	KY235373	152,239
Ericales	Primulaceae	<i>Primula merrilliana</i>	MT268977	151,843
Ericales	Primulaceae	<i>Primula modesta</i> var. <i>hannasanensis</i>	MZ779112	154,772
Ericales	Primulaceae	<i>Primula modesta</i> var. <i>koreana</i>	MZ779113	154,667
Ericales	Primulaceae	<i>Primula moupinensis</i>	KX668175	151,993
Ericales	Primulaceae	<i>Primula obconica</i> subsp. <i>begoniiformis</i>	MK344758	154,068
Ericales	Primulaceae	<i>Primula obconica</i> subsp. <i>fujianensis</i>	MK344735	153,918

Order	Family	Name	Accession	Genome Length (bp)
Ericales	Primulaceae	<i>Primula obconica</i> subsp. <i>obconica</i>	MK344754	152,577
Ericales	Primulaceae	<i>Primula obconica</i> subsp. <i>parva</i>	MK344729	154,057
Ericales	Primulaceae	<i>Primula obconica</i> subsp. <i>werringtonensis</i>	MK344741	153,711
Ericales	Primulaceae	<i>Primula oreodoxa</i>	KX641758	153,884
Ericales	Primulaceae	<i>Primula pellucida</i>	KX668181	153,225
Ericales	Primulaceae	<i>Primula persimilis</i>	KX641757	152,756
Ericales	Primulaceae	<i>Primula poissonii</i>	KF753634	151,664
Ericales	Primulaceae	<i>Primula pulchella</i>	KX668179	154,599
Ericales	Primulaceae	<i>Primula ranunculoides</i>	MT268978	150,187
Ericales	Primulaceae	<i>Primula rubifolia</i>	MK344749	154,061
Ericales	Primulaceae	<i>Primula sikkimensis</i>	KX668174	150,496
Ericales	Primulaceae	<i>Primula sinensis</i>	KU321892	150,859
Ericales	Primulaceae	<i>Primula sinolisteri</i> var. <i>aspera</i>	MK344745	153,345
Ericales	Primulaceae	<i>Primula sinolisteri</i> var. <i>sinolisteri</i>	MK344747	154,097
Ericales	Primulaceae	<i>Primula stenocalyx</i>	MW678839	153,678
Ericales	Primulaceae	<i>Primula stenodonta</i>	KX668176	150,785
Ericales	Primulaceae	<i>Primula tsiangii</i>	MN065496	153,281
Ericales	Primulaceae	<i>Primula veris</i>	KX639823	150,856
Ericales	Primulaceae	<i>Primula vilmoriniana</i>	MK344739	154,030
Ericales	Primulaceae	<i>Primula wilsonii</i>	MW442886	151,677
Ericales	Primulaceae	<i>Primula woodwardii</i>	MG181222	151,666
Ericales	Primulaceae	<i>Tapeinosperma multiflorum</i>	MN177701	155,168
Ericales	Primulaceae	<i>Tapeinosperma netor</i>	MN177702	154,616