

**Table S1.** Newly sequenced species in this study with associated assembly statistics

Species	Illumina library source	No. of reads per library	Max. contig length (bp)	N50 (bp)	No. of gene sequences analyzed	Average coverage for gene sequences	NCBI accession number
<b>Rafflesiaceae</b>							
<i>Rafflesia cantleyi</i> Solms-Laubach	Enriched mitochondria	3,325,206	18,830	9,922	35	16.1	SRR629613
<i>Rafflesia tuan-mudae</i> Becc.	Total genomic DNA	16,592,270	39,178	8,738	33	9.3	SRR629600
<i>Sapria himalayana</i> Griffith.	Enriched mitochondria	7,957,084	53,796	12,290	59	42.5	SRR629601
	Total genomic DNA	12,292,818	–	–	–	–	SRR629606
<b>Vitaceae</b>							
<i>Leea guineensis</i> G. Don	Total genomic DNA	7,002,750	14,273	2,516	35	2.2	SRR629604
<i>Tetrastigma cruciatum</i> Craib & Gagnepain	Total genomic DNA	9,845,286	81,423	3,902	50	3.6	SRR629611
<i>Tetrastigma rafflesiae</i> Miq.	Total genomic DNA	10,278,372	47,310	3,431	48	4.5	SRR629612