

Supplementary material

Genome skimming provides well resolved plastid and nuclear phylogenies, showing patterns of deep reticulate evolution in the tropical carnivorous plant genus *Nepenthes* (Caryophyllales)

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Table S1. List of accessions used for phylogenetic analyses with sectional association, voucher number, geographic origin and DNA number

All herbarium vouchers are located in the Australian Tropical Herbarium in Cairns (CNS)

Species	Section	Voucher	Origin	DNA number
<i>Nepenthes ampullaria</i> Jack	<i>Urceolatae</i>	Clarke, C. & Bourke, G. 2	Borneo, Malaysia	G07903
<i>Nepenthes benstonei</i> C.Clarke	<i>Pyrophytae</i>	Clarke, C. & Bourke, G. 38	Malay Peninsula, Malaysia	G07897
<i>Nepenthes bokorensis</i> Mey × <i>Nepenthes ventricosa</i> Blanco	<i>Pyrophytae</i> × <i>Insignes</i>	Clarke, C. & Bourke, G. 54	Horticultural	G07899
<i>Nepenthes bongso</i> Korth.	<i>Montanae</i>	Clarke, C. & Bourke, G. 19	Sumatra, Indonesia	G07898
<i>Nepenthes borneensis</i> J.H.Adam & Wilcock	<i>Regiae</i>	Clarke, C. & Bourke, G. 23		G07870
<i>Nepenthes boschiana</i> Korth.	<i>Regiae</i>	Clarke, C. & Bourke, G. 32	Borneo, Malaysia	G07855
<i>Nepenthes burkei</i> Hort.Veitch × <i>ventricosa</i> Blanco	<i>Regiae</i>	Clarke, C. & Bourke, G. 32	Borneo, Malaysia	G07877
<i>Nepenthes burkei</i> Veitch	<i>Insignes</i>	Clarke, C. & Bourke, G. 5	Mindoro, Philippines	G07875
<i>Nepenthes copelandii</i> Merr. ex Macfarl.	<i>Villosae</i>	Clarke, C. & Bourke, G. 24	Mindanao, Philippines	G07883
<i>Nepenthes ephippiata</i> Danser	<i>Regiae</i>	Clarke, C. & Bourke, G. 36	Borneo, Malaysia	G07900
<i>Nepenthes eymae</i> Sh.Kurata	<i>Regiae</i>	Clarke, C. & Bourke, G. 20	Sulawesi, Indonesia	G07887
<i>Nepenthes gymnamphora</i> Reinw. ex Nees	<i>Montanae</i>	Clarke, C. & Bourke, G. 12	Sumatra, Indonesia	G07893
<i>Nepenthes gymnamphora</i> Reinw. ex Nees	<i>Montanae</i>	Clarke, C. & Bourke, G. 8	Sumatra, Indonesia	G07901
<i>Nepenthes hamata</i> J.R.Turnbull & A.T.Middleton	<i>Tentaculatae</i>	Clarke, C. & Bourke, G. 14	Sulawesi, Indonesia	G07884
<i>Nepenthes izumiae</i> Troy Davis, C.Clarke & Tamin	<i>Montanae</i>	Clarke, C. & Bourke, G. 10	Sumatra, Indonesia	G07891
<i>Nepenthes izumiae</i> Troy Davis, C.Clarke & Tamin × <i>Nepenthes ventricosa</i> Blanco	<i>Montanae</i> × <i>Insignes</i>	Clarke, C. & Bourke, G. 51	Horticultural	G07866
<i>Nepenthes jacquelineae</i> C.Clarke, Troy Davis & Tamin	<i>Montanae</i>	Clarke, C. & Bourke, G. 9	Sumatra, Indonesia	G07873
<i>Nepenthes kampoiana</i> Lecomte	<i>Pyrophytae</i>	Clarke, C. & Bourke, G. 49	Indochina	G07895
<i>Nepenthes khasiana</i> Hook.f.	<i>Nepenthes</i>	Clarke, C. & Bourke, G. 15	India	G07874
<i>Nepenthes kongkandana</i> M. Catal. & Kruetr.	<i>Pyrophytae</i>	Clarke, C. & Bourke, G. 48	Malay Peninsula, Malaysia	G07869
<i>Nepenthes maxima</i> Reinw.	<i>Regiae</i>	Clarke, C. & Bourke, G. 40	Unclear	G07894
<i>Nepenthes minima</i> Jebb & Cheek	<i>Regiae</i>	Clarke, C. & Bourke, G. 50	Sulawesi, Indonesia	G07872
<i>Nepenthes mira</i> Jebb & Cheek	<i>Regiae</i>	Clarke, C. & Bourke, G. 4	Palawan, Philippines	G07902
<i>Nepenthes petiolata</i> Danser	<i>Villosae</i>	Clarke, C. & Bourke, G. 22	Mindanao, Philippines	G07881
<i>Nepenthes philippinensis</i> Macfarl.	<i>Regiae</i>	Clarke, C. & Bourke, G. 1	Palawan, Philippines	G07878
<i>Nepenthes rowanae</i> F.M.Bailey	<i>Incertae sedis</i>	Schulte, K. 258B	Australia	G05999
<i>Nepenthes rowanae</i> F.M.Bailey	<i>Incertae sedis</i>	Gray, B. 9126	Australia	G06028
<i>Nepenthes sanguinea</i> Lindl.	<i>Pyrophytae</i>	Clarke, C. & Bourke, G. 26	Malay Peninsula, Malaysia	G07858
<i>Nepenthes singalana</i> Becc.	<i>Montanae</i>	Clarke, C. & Bourke, G. 7	Sumatra, Indonesia	G07880
<i>Nepenthes</i> sp.	<i>Regiae</i>	Clarke, C. & Bourke, G. 33	Luzon, Philippines	G07886
<i>Nepenthes spathulata</i> Danser	<i>Montanae</i>	Clarke, C. & Bourke, G. 28	Sumatra, Indonesia	G07896
<i>Nepenthes spectabilis</i> Danser	<i>Montanae</i>	Clarke, C. & Bourke, G. 16	Sumatra, Indonesia	G07890
<i>Nepenthes talangensis</i> Nerz & Wistuba	<i>Montanae</i>	Clarke, C. & Bourke, G. 11	Sumatra, Indonesia	G07888
<i>Nepenthes tenax</i> C.Clark & R.Kruger	<i>Incertae sedis</i>	Schulte, K. 260	Australia	G06000
<i>Nepenthes tentaculata</i> Hook.f.	<i>Tentaculatae</i>	Clarke, C. & Bourke, G. 17	Borneo, Malaysia	G07885
<i>Nepenthes tobaica</i> Danser	<i>Montanae</i>	Clarke, C. & Bourke, G. 34	Sumatra, Indonesia	G07871

<i>Nepenthes truncata</i> Macfarl.	<i>Villosae</i>	Clarke, C. & Bourke, G. 41	Mindanao, Philippines	G07889
<i>Nepenthes ventricosa</i> Blanco	<i>Insignes</i>	Clarke, C. & Bourke, G. 47	Luzon, Philippines	G07865
<i>Nepenthes xiphioides</i> B.R.Salmon & R.G.Maulder	<i>Montanae</i>	Clarke, C. & Bourke, G. 13	Sumatra, Indonesia	G07876
<i>Drosera regia</i> Stephens	Outgroup			
<i>Oxyria sinensis</i> Hemsl.	Outgroup			

Table S2. Alignment length of all parts of the ribosomal array (external transcribed spacer–non-transcribed-spacer, ETS-NTS) with the amount of phylogenetic informative sites (PIS) and the percentage of PIS among all 39 included *Nepenthes* accessions

Locus	Length	PIS	PIS (%)
ITS1	268	49	18.28
ITS2	233	53	22.75
ETS	920	304	33.04
NTS	545	78	14.31
18S	1809	20	1.11
5.8S	152	7	4.61
26S	2998	78	2.60
Ribosomal RNAs (18S,5.8S,26S)	4959	105	2.12
Spacer (ETS, ITS1, ITS2, NTS)	1966	484	24.62
ITS1, 5.8S, ITS2	653	109	16.69
Total	6925	589	8.51

Table S3. Alignment length of all 95 used plastid loci representing 81 plastid genes with the amount of phylogenetic informative sites (PIS) and the percentage of PIS among all 39 included

<i>Nepenthes</i> accessions			
Locus	Length	PIS	PIS (%)
<i>accD</i>	1548	14	0.90
<i>atpA</i>	1524	14	0.92
<i>atpB</i>	1497	15	1.00
<i>atpE</i>	402	4	1.00
<i>atpF-p1</i>	144	0	0
<i>atpF-p2</i>	411	8	1.95
<i>atpH</i>	249	2	0.80
<i>atpI</i>	744	6	0.81
<i>ccsA</i>	993	25	2.52
<i>cemA</i>	690	11	1.59
<i>clpP-p1</i>	71	0	0
<i>clpP-p2</i>	292	2	0.68
<i>clpP-p3</i>	270	1	0.37
<i>infA</i>	286	3	1.05
<i>lhbA</i>	189	1	0.53
<i>matK</i>	1563	33	2.11
<i>ndhA-p1</i>	559	15	2.68
<i>ndhA-p2</i>	539	10	1.86
<i>ndhB-p1</i>	777	0	0
<i>ndhB-p2</i>	756	1	0.13
<i>ndhC</i>	363	4	1.10
<i>ndhD</i>	1508	16	1.06
<i>ndhE</i>	306	3	0.98
<i>ndhF</i>	2303	55	2.39
<i>ndhG</i>	531	14	2.64
<i>ndhH</i>	1183	16	1.35
<i>ndhI</i>	508	3	0.59
<i>ndhJ</i>	477	8	1.68
<i>ndhK</i>	866	11	1.27
<i>petA</i>	966	17	1.76
<i>petB-p2</i>	642	0	0
<i>petD-p2</i>	496	7	1.41
<i>petG</i>	114	1	0.88
<i>petL</i>	96	0	0
<i>petN</i>	90	1	1.11
<i>psaA</i>	2253	9	0.40
<i>psaB</i>	2205	11	0.50
<i>psaC</i>	246	3	1.22
<i>psaI</i>	111	2	1.80
<i>psaJ</i>	135	1	0.74
<i>psbA</i>	1062	11	1.04
<i>psbB</i>	1527	12	0.79
<i>psbC</i>	1422	8	0.56
<i>psbD</i>	1062	4	0.38
<i>psbE</i>	252	2	0.79
<i>psbF</i>	120	1	0.83
<i>psbH</i>	222	2	0.90
<i>psbI</i>	111	2	1.80
<i>psbJ</i>	123	1	0.81
<i>psbK</i>	189	1	0.53
<i>psbL</i>	117	0	0
<i>psbM</i>	105	1	0.95
<i>psbN</i>	132	1	0.76
<i>psbT</i>	108	0	0
<i>psbZ</i>	189	3	1.59

Locus	Length	PIS	PIS (%)
<i>rbcL</i>	1428	11	0.77
<i>rpl14</i>	369	2	0.54
<i>rpl16-p2</i>	399	2	0.50
<i>rpl2-p1</i>	393	2	0.51
<i>rpl2-p2</i>	435	0	0
<i>rpl20</i>	393	5	1.27
<i>rpl22</i>	615	14	2.28
<i>rpl23</i>	282	1	0.35
<i>rpl32</i>	181	3	1.66
<i>rpl33</i>	201	3	1.49
<i>rpl36</i>	114	0	0
<i>rpoA</i>	1008	22	2.18
<i>rpoB</i>	3213	31	0.96
<i>rpoC1-p1</i>	432	3	0.69
<i>rpoC1-p2</i>	1617	15	0.93
<i>rpoC2</i>	4172	63	1.51
<i>rps11</i>	417	12	2.88
<i>rps12-p1</i>	114	0	0
<i>rps12-p2</i>	232	0	0
<i>rps12-p3</i>	26	0	0
<i>rps14</i>	303	4	1.32
<i>rps15</i>	291	13	4.47
<i>rps16-p1</i>	40	0	0
<i>rps16-p2</i>	293	9	3.07
<i>rps18</i>	421	6	1.43
<i>rps19</i>	279	4	1.43
<i>rps2</i>	714	12	1.68
<i>rps3</i>	657	17	2.59
<i>rps4</i>	606	10	1.65
<i>rps7</i>	468	0	0
<i>rps8</i>	405	4	0.99
<i>ycf1</i>	5727	242	4.23
<i>ycf2</i>	6879	18	0.26
<i>ycf3-p1</i>	124	3	2.42
<i>ycf3-p2</i>	116	0	0
<i>ycf3-p3</i>	153	1	0.65
<i>ycf4</i>	555	1	0.18
<i>ycf68-p1</i>	42	0	0
<i>ycf68-p2</i>	505	2	0.40
Total	70263	931	1.33