A Guide To King's "Materials for a Flora of The Malayan Peninsula"

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Abstract

The first publication on the flora of Malaya was Sir George King's *Materials for a Flora of the Malayan Peninsula*. This appeared in 26 instalments over a period of 47 years (1889–1936). The manner of publication was somewhat complicated. This paper explains the various complications and gives the dates of issue of the various instalments.

Introduction

Although the best known Flora of the Malay Peninsula is that published by H.N. Ridley in five volumes between 1922 and 1925, it is a matter of general knowledge among Malesian botanists that much of Ridley's work was based on an earlier work done at Calcutta by Sir George King and his various associates, entitled *Materials for a Flora of the Malayan Peninsula*, published in 25 instalments between 1889 and 1915, and with a 26th instalment in 1936. The geographical area of the *Materials* covers the Malay Peninsula, and the Andaman and Nicobar Islands. In terms of quality, the *Materials* is superior to Ridley's *Flora* because whereas the former was based on original and careful study, the latter appears, in many places, to have been merely a hastily and inaccurately rewritten copy of the former work.

Unfortunately, the *Materials* can be quite complicated for a beginner to use, because, instead of being published in a few self-contained volumes with tables of contents, regular pagination and indices, the 26 instalments were published as separate papers in a periodical, the Journal of the Asiatic Society of Bengal, over the rather long period of 47 years. In fact it was never completed. The *Materials* in the Journal of the Asiatic Society of Bengal deal only with Dicotyledons and even so, the *Urticales viz. Cannabinaceae, Moraceae, Ulmaceae, Urticaceae*, and most of the *Euphorbiaceae* never appeared in print. As for *Ficus*, this is hardly a problem since King gave an extensive account of the genus in the Annals of the Royal Botanic Garden Calcutta Vol. 1, (1887–1888).

The Monocotyledons were all written up by H.N. Ridley and published independently in 3 volumes (called Parts) under the title *Materials for a Flora of the Malayan Peninsula, Monocotyledons* in 1907–1908, at Singapore.

King apparently realised that the interrupted manner of publication in the Journal would make the *Materials* difficult to use. He tried to overcome this by having extra copies of the first 21 instalments printed and assembled into 4 volumes *viz.* Vol. 1 Thalamiflorae, Vol. 2 Disciflorae, Vol. 3 Calyciflorae, Vol. 4 Gamopetalae, each volume with continuous pagination from 1 onwards, except Vol. 2 which continued

the pagination from Vol. 1. Instalments 22–26 were published in sequence hence the problem of repagination did not arise when they were assembled into Vol. 5, Incompletae. Botanists who use the *Materials* will almost certainly come across the 5-volume "reprint", found in most botanical libraries, rather than the original Journal which seems to be quite scarce.

However there are a number of complications in the use of the "reprinted" volumes. Firstly, each page of volumes 1–4 bears two page-numbers. The number series on the top of the page is the original Journal pagination, and is not continuous. The number series at the bottom is continuous. King had an index compiled for each volume, using the continuous pagination, but for purposes of citation, it is necessary to use the original Journal pagination.

Another complication is that tables of contents were not provided. This would not be a problem to anyone familiar with the system of Bentham and Hooker, which King tried to follow except for the fact that King was obliged now and again to postpone the treatment of difficult families. Consequently the family sequence is disrupted in several places.

A minor complication also arose when the Journal of the Asiatic Society fell behind schedule in publication e.g., when a number officially dated 1903 actually appeared in 1904. In such cases, both the official and actual dates of publication were given on the original Journal covers, to which it is necessary to refer whenever there is a need to establish priority. King himself cited dates of "publication" in short prefaces to the first four "reprinted" volumes but these dates sometimes refer to the dates on which the instalments were read at meetings of the Asiatic Society rather than to the dates on which they were actually published in printed form.

In the guide below, we have listed the instalments, families, dates of publication, and other details that may help users of the *Materials* to find their way. The dates of publication were obtained from the covers of an unbound set of numbers of the original Journal in the Singapore Botanic Gardens. For ordinary purposes of citation, we would recommend that the official year of publication be used.

Instalments 1–21 appeared in Series 2 (called "Part 2") of the Journal, (there were 3 parallel series) and we would recommend that the series be cited before the volume, for instance:

Diospyros wrayi King & Gamble, J. Asiat. Soc. Bengal II, 74 extra no. (1905) 209.

Capparis cucurbitina King, J. Asiat. Soc. Bengal II, 58 (1889) 395.

Instalments 22–26 appeared in Volume 75 of the Journal without any series number.

Ridley's account of the Monocotyledons appeared independently and should be cited as a book, e.g.,

Daemonorops calospatha Ridley. Mat. Fl. Mal. Pen. Monocots 2 (1907) 179.

Volume 1. Thalamiflorae

All families by G. King
(Column *A* = instalment; Column *B* = journal pages; Column *C* = renumbered pages; Column *D* = date of publication.)

A		Family	Ser.	Vol.	No.	Year	B	C	D
1	1.	Ranunculaceae	II	**58**	4	1889	359–361	3–5	30.XII.1889
	2.	Dilleniaceae					361–368	5–12	
	3.	Magnoliaceae					368–376	12–20	
	4.	(*see* Instalment 4)							
	5.	Menispermaceae					377–388	21–32	
	6.	Nymphaeaceae					388–391	32–35	
	7.	Capparideae					391–399	35–43	
	8.	Violaceae					399–408	43–52	
2	9.	Bixineae	II	**59**	2	1890	113–128	53–68	16.IX.1890
	10.	Pittosporeae					128–129	68–69	
	11.	Polygaleae					129–144	69–84	
	12.	Portulaceae					144–145	84–85	
	13.	Hypericineae					145–147	85–87	
	14.	Guttiferae					147–185	87–125	
	15.	Ternstroemiaceae					185–206	125–146	
	16.	(*see* Instalment 5)							
3	17.	Malvaceae	II	**60**	1	1891	38–57	147–166	19.V.1891
	18.	Sterculiaceae					57–95	166–204	
	19.	Tiliaceae					95–140	204–249	
4	4.	Anonaceae	II	**61**	1	1892	1–130	250–379	13.VI.1892
5	16.	Dipterocarpeae	II	**62**	2	1893	87–137	379–429	12.VIII.1893

Volume 2. Disciflorae

All families by G. King

A		Family	Ser.	Vol.	No.	Year	B	C	D
6	20.	Lineae	II	**62**	4	1893	189–192	431–434	6.III.1894
	21.	Malpighiaceae					192–197	434–439	
	22.	Geraniaceae					197–204	439–446	
	23.	Rutaceae					205–226	447–468	
	24.	Simarubeae					226–230	468–472	
	25.	Ochnaceae					231–235	473–477	
	26.	Burseraceae					235–262	477–504	
7	27.	Meliaceae	II	**64**	1	1895	16–90	504–578	15.IV.1895
	28.	Chailletiaceae (*also* Instalment 8)					90–94	578–582	
	29.	Olacineae					94–133	582–621	
	30.	Ilicineae					133–137	621–625	

Volume 2. Disciflorae *Continued*

A		Family	Ser.	Vol.	No.	Year	B	C	D
8	31.	Celastrineae	II	**65**	3	1896	339–370	625–656	1.X.1896
	32.	Rhamneae					370–384	656–670	
	33.	Ampelideae					384–419	670–705	
	34.	Sapindaceae					419–453	705–737	
	35.	Sabiaceae					453–459	739–745	
	36.	Anacardiaceae					459–514	745–800	
		Addition to Chailletiaceae					514–516	800–802	

Volume 3. Calyciflorae

All families by G. King except *Leguminosae* by D. Prain and *Sonerila (Melastomaceae)* by O. Stapf. *Droseraceae* was independently described twice, in Instalments 9 and 13, without explanation, and the second account made no reference to the first.

A		Family	Ser.	Vol.	No.	Year	B	C	D
9	37.	Connaraceae	II	**66**	1	1897	1–21	1–21	8.VI.1897
	38.	Leguminosae					21–275	21–275	
	39.	Rosaceae					275–297	275–297	
	40.	Saxifragaceae					297–305	297–305	
	41.	Droseraceae (*also* Instalment 13)					305–306	305–306	
	42.	Hamamelideae					306–309	306–309	
	43.	Halorageae					309–311	309–311	
	44.	Rhizophoreae					311–326	311–326	
	45.	Combretaceae					326–345	326–345	
	46.	(*see* Instalment 12)							
	47.	(*see* Instalment 11)							
10	48.	Lythraceae	II	**67**	1	1898	1–11	345–355	5.VIII.1898
	49.	Onagraceae					11–14	355–358	
	50.	Samydaceae					14–24	358–368	
	51.	(*see* Instalment 13)							
	52.	Cucurbitaceae					24–42	368–386	
	53.	(*see* Instalment 13)							
	54.	(*see* Instalment 13)							
	55.	(*see* Instalment 13)							
	56.	Araliaceae					42–63	386–407	
11	47.	Melastomaceae	II	**69**	1	1900	1–87	409–495	9.VIII.1900
12	46.	Myrtaceae	II	**70**	1	1901	66–142	496–572	14.VIII.1901
13		Datiscaceae (wrongly numbered 67)	II	**71**	1	1902	46–47	574–575	8.V.1902
		Droseraceae (wrongly numbered 54; *also see* Instalment 9)					47–48	575–576	

Volume 3. Calyciflorae *Continued*

A		Family	Ser.	Vol.	No.	Year	B	C	D
13	51.	Passifloreae	II	**71**	1	1902	49–56	577–584	
	53.	Begoniaceae (wrongly numbered 52)					56–68	584–596	
	54.	Ficoideae					68–69	596–597	
	55.	Umbelliferae					69–72	597–600	
	57.	Cornaceae					72–80	600–608	

Volume 4. Gamopetalae

The various families were written by G. King (K.), J.S. Gamble (G.), D. Prain, C.B. Clarke (Cl.) and H.N. Ridley (Ridl.), with King as editor.

A		Family (author)	Ser.	Vol.	No.	Year	B	C	D
14	58.	Caprifoliaceae (G.)	II	**72**	4	1903	112–115	2–5	6.II.1904
	59.	Rubiaceae (K. & G.)					115–229	5–119	
15		Rubiaceae cont.	II	**73**	3	1904	47–135	121–209	26.X.1904
16		Rubiaceae cont.	II	**74**	Extra No.	1905	1–20	211–230	4.I.1906
	60.	Valerianeae (K.)					21–22	231–232	
	61.	Compositae (K.)					22–48	232–258	
	62.	Stylidieae (G.)					48–49	258–259	
	63.	Goodenovieae (G.)					49–51	259–261	
	64.	Campanulaceae (G.)					51–58	261–268	
	65.	Vacciniaceae (K.)					58–67	268–277	
	66.	Ericaceae (K.)					68–80	278–290	
	67.	Monotropeae (Prain)					81–82	291–292	
	68.	Epacrideae (G.)					82–84	292–294	
	69.	Plumbagineae (G.)					84–86	294–296	
	78.	Gentianaceae (Cl.)					86–91	296–301	
17	70.	Myrsinaceae (K. & G.)	II	**74**	Extra No.	1905	93–157	303–367	4.I.1906
	71.	Sapotaceae (K. & G.)					157–201	367–411	
	72.	Ebenaceae (K. & G.)					202–230	412–440	
	73.	Styraceae (K. & G.)					230–254	440–464	
	74.	Oleaceae (K. & G.)					254–273	464–483	
	75.	(*see* Instalment 19)							
	76.	(*see* Instalment 19)							
	77.	(*see* Instalment 19)							
	78.	(*see* Instalment 16)							
18	79.	Hydrophyllaceae (G.)	II	**74**	Extra No.	1905	275–277	485–487	4.I.1906
	80.	Borragineae (K.)					277–284	487–494	
	81.	Convolvulaceae (Prain)					284–327	494–537	
	82.	Solanaceae (Prain)					327–340	537–550	
	83.	Scrophulariaceae (Prain)					341–364	551–574	
	84.	Orobanchaceae (Prain)					364–366	574–576	
	85.	Lentibulariaceae (Prain)					366–374	576–584	
	86.	(*see* Instalment 21)							

Volume 4. Gamopetalae *Continued*

A		Family (author)	Ser.	Vol.	No.	Year	B	C	D
18	87.	Bignoniaceae (G.)	II	**74**	Extra No.	1905	375–385	585–595	
	88.	Pedalineae (Prain)					385–386	595–596	
19	75.	Apocynaceae (G.)	II	**74**	Extra No.	1907	387–505	597–715	20.II.1908
	76.	Asclepiadaceae (G.)					505–597	715–807	
	77.	Loganiaceae (K.)					598–625	808–835	
20	89.	Acanthaceae (Cl.)	II	**74**	Extra No.	1907	628–698	838–908	27.III.1908
	90.	(*see* Instalment 21)							
	91.	Labiatae (Prain)					699–727	909–937	
	92.	Plantaginaceae (Prain)					727–728	937–938	
21	86.	Gesneraceae (Ridl.)	II	**74**	Extra No.	1908	730–793	940–1003	6.V.1909
	90.	Verbenaceae (G.)					794–869	1004–1079	

Volume 5. Incompletae

King died after completion of Vol. 4 and editorship of Vol. 5 passed over to J.S. Gamble. The various families were written by Gamble (G.), J.M. Macfarlane (Macf.), C. de Candolle (C. DC.), H.N. Ridley (Ridl.) and A.T. Gage. Family numbers 96 and 105 were allocated twice, the second one marked 'bis'. The account of the Euphorbiaceae gave only a key to the genera and accounts of the first 6 genera. It was explained in a note in Vol. 75 of the Journal by the Acting Secretary General of Asiatic Society of Bengal that the complete manuscript for Euphorbiaceae was awaiting publication when Ridley's Flora of the Malay Peninsula (1922–1925) appeared. The Society then felt that publication of the complete manuscript could not be justified.

A		Family (author)	Ser.	Vol.	No.	Year	B	C	D
22	93.	Nyctaginaceae (G.)	–	**75**	1	1912	2–3	–	?
	94.	Amarantaceae (G.)					3–17		
	95.	Polygonaceae (Gage)					18–23		
	96.	(*see* Instalment 24)							
	97.	Aristolochiaceae (G.)					23–33		
	98.	(*see* Instalment 24)							
	99.	Chloranthaceae (G.)					33–34		
	100.	(*see* Instalment 23)							
	101.	(*see* Instalment 23)							
	102.	Lauraceae (G.)					35–202		
	103.	Hernandiaceae (G.)					203–204		
23	100.	Myristicaceae (G.)	–	**75**	2	1912	205–249	–	?
	101.	Monimiaceae (G.)					250–256		
	102.	(*see* Instalment 22)							
	103.	(*see* Instalment 22)							
	104.	(*see* Instalment 24)							
	105.	Thymelaeaceae (G.)					256–265		
	105 *bis*.	Gonystylaceae (G.)					266–267		
	106.	Elaeagnaceae (G.)					267–269		
	107.	(*see* Instalment 24)							

Volume 5. Incompletae *Continued*

A		Family (author)	Ser.	Vol.	No.	Year	B	C	D
	108.	Santalaceae (G.)	–	**75**	2	1912	269–278		
24	96.	Nepenthaceae (Macf.)	–	**75**	3	1914	279–288	–	4.VI.1914
	98.	Piperaceae (C. DC.)					288–339		
	104.	Proteaceae (G.)					339–349		
	107.	Loranthaceae (G.)					349–391		
25	96 *bis.*	Cytinaceae (Ridl.)	–	**75**	4	1915	393–395	–	1.VI.1915
	109.	Balanophoraceae (Ridl.)					395–399		
	110.	(*see* Instalment 26)							
	111.	Urticaceae, *unpublished*							
	112.	Juglandaceae (G.)					399–403		
	113.	Myricaceae (G.)					403–405		
	114.	Casuarinaceae (G.)					405–406		
	115.	Fagaceae (G.)					406–466		
	116.	Salicaceae (G.)					466–468		
26	110.	Euphorbiaceae (Gage)	–	**75**	5	1936	469–527		IX.1936

Monocotyledons

The monocotyledons were written up by H.N. Ridley and published separately in Singapore in 1907, in three parts.

	Family	Part	Pages
R1	Hydrocharideae	1	3–6
R2	Orchideae		7–231
R3	Apostasiaceae		231–233
R4	Zingiberaceae	2	1–64
R5	Amaryllideae		64–69
R6	Burmanniaceae		69–75
R7	Taccaceae		75–78
R8	Dioscoreaceae		78–85
R9	Roxburghiaceae		85–86
R10	Liliaceae		86–108
R11	Pontederiaceae		108–110
R12	Philydraceae		110
R13	Xyrideae		111–113
R14	Commelinaceae		113–125
R15	Triurideae		125–126
R16	Alismaceae		126–127
R17	Naiadaceae		128–129
R18	Flagellariae		129–133
R19	Palmae		133–221
R20	Pandanae		221–235
R21	Araceae	3	1–52
R22	Lemnaceae		52–53
R23	Eriocauloneae		53–55
R24	Cyperaceae		55–118
R25	Gramineae		118–197

Index

With this index, a family in the above lists can be located. The families are taken in their modern sense, and referred to their sequence number in the lists. Their spelling is the officially conserved one, as given in the International Code of Botanical Nomenclature, so our Styracaceae are referred to 73 Styraceae. Their circumscription follows the (non-official) list by Dr. C.G.G.J. van Steenis, *Nomina Generum Malesianorum* (Leiden 1972), hence our Symplocaceae are referred to that same number, 73, because King included them in his Styraceae. Monocotyledons are referred to the work by Ridley, which has a number sequence of its own, here denoted with "R". If families were later combined, reference is made to both numbers, so our Orchidaceae which includes Apostasiaeae are referred to R2 and R3 because Ridley recognised them as separate families.