

JOHAN B. MOLS, BARBARA GRAVENDEEL, LARS W. CHATROU, MICHAEL D. PIRIE, PAUL C. BYGRAVE, MARK W. CHASE AND PAUL J.A. KESSLER. 2004. Identifying clades in Asian Annonaceae: monophyletic genera in the polyphyletic Miliuseae. *American Journal of Botany* 91(4): 590-600.

Appendix. List of species analyzed. Herbarium acronyms follow Holmgren et al. (1990).

Species	Voucher collections	Origin voucher	Distribution species ¹	GenBank accession numbers	
				<i>rbcL</i>	<i>trnL-trnF</i>
<i>Alphonsea boniana</i> Finet & Gagnep.	Kessler PK 3116 (L)	Vietnam, Dan Huy District, Can Hai Centre	Burma to Peninsular Malaysia	AY318965	AY319077
<i>Alphonsea elliptica</i> Hook. f. & Thomson	Van Balgooy 5141 (L)	Indonesia, Bangka. Kebun Raya Bogor X-F-52	Peninsular Malaysia, Sumatra	AY318966	AY319078
<i>Alphonsea javanica</i> Scheff.	Chase 2072 (K)	Indonesia. Kebun Raya Bogor XVII-I-106	Peninsular Malaysia, Borneo	AY318967	AY319079
<i>Alphonsea kinabaluensis</i> J. Sinclair	Ridsdale DV-S-3048 (L)	Malaysia, Sabah, Danum Valley	Borneo	AY318968	AY319080
<i>Alphonsea</i> spec.	Mols 16 (L)	Indonesia, Kalimantan. Kebun Raya Bogor XX-D-6	-	AY318969	AY319081
<i>Alphonsea</i> spec.	Kessler PK 3186 (TISTR, Bangkok)	Thailand, Chalermglin's private garden.	-	AY318970	AY319082
<i>Anaxagorea javanica</i> Blume var. <i>javanica</i>	Kessler PK 3112 (L)	Singapore, Botanical Gardens Singapore	Thailand to Indonesia	AY319075	AY319189
<i>Anaxagorea luzonensis</i> A. Gray	Kessler PK 3231 (L)	Thailand, Khao Hin Sorn	India, China, Philippines to Moluccas	AY319074	AY319188
<i>Annickia kummeriae</i> (Engl. & Diels) Setten & Maas	Johnson 1942 (K, OWU)	Tanzania, Tanga region, Amani	Tropical East Africa	AY319057	AY319171
<i>Craibella phuyensis</i> Saunders, Su & Chalermglin	Kessler PK 3221 (L)	Thailand, Sunyatararn Monastery	Thailand	AY319001	AY319114
<i>Crematosperma microcarpum</i> R. E. Fr.	Chatrou et al. 208 (U)	Peru, Loreto, Yanamono	Peru, Brazil	AY319058	AY319172
<i>Desmopsis microcarpa</i> R. E. Fr.	Chatrou et al. 85 (U)	Costa Rica, Limón	Costa Rica, Panama	AY319059	AY319173
<i>Desmopsis schippii</i> Standl.	Chatrou et al. 94 (U)	Costa Rica, Limón	Belize to Panama	AY319060	AY319174
<i>Enicosanthum fuscum</i> (King) Airy-Shaw	Kessler PK 3222 (L)	Thailand, Sunyatararn Monastery	Thailand, Peninsular Malaysia	AY318973	AY319085
<i>Enicosanthum membranifolium</i> J. Sinclair	Kessler PK 3198 (L)	Thailand, Chalermglin's private Garden	Thailand, Peninsular Malaysia	AY318974	AY319086
<i>Enicosanthum paradoxum</i> Becc.	Kessler & Arifin PK 2746 (L)	Indonesia, Borneo, Tanjung	Borneo	AY318975	AY319087
<i>Enicosanthum</i> spec.	Ambriansyah et al. AA 2067 (L)	Indonesia, Borneo, Samboja	-	AY318976	AY319088
<i>Ephedranthus</i> spec.	Chatrou et al. 173 (U)	Peru, Loreto, Sucusari	-	AY319061	AY319175
<i>Fitzalania heteropetala</i> (F. Muell.) F. Muell.	Forster PIF 8326 (K)	Australia, North Kennedy	Australia	AY318977	AY319089
<i>Greenwayodendron suaveolens</i> (Engl. & Diels) Verd.	Semsei 2376 (K, WAG)	Kenya, Tanga region	Tropical Africa	AY318978	AY319090
<i>Haplostichanthus longirostris</i> (Scheff.) Heusden	Takeuchi & Ama 15656 (L)	Papua New Guinea, Bubia	New Guinea to Solomon Islands	AY318979	AY319091
<i>Klarobelia megalocarpa</i> Chatrou	Maas et al. 8521 (U)	Ecuador	Ecuador	AY319062	AY319176

Appendix. Continued.

Species	Voucher collections	Origin voucher	Distribution species [†]	GenBank accession numbers	
				<i>rbcL</i>	<i>trnL-trnF</i>
<i>Malmea dielsiana</i> R. F. Fr.	Chatrou et al. 122 (U)	Peru, Madre de Dios	Peru, Brazil	AY319063	AY319177
<i>Marsypopetalum pallidum</i> (Blume) Backer	Kessler PK 3192 (L)	Thailand, Chalermglin's private Garden	Peninsular Malaysia, Indonesia	AY318980	AY319092
<i>Meiogyne cylindrocarpa</i> (Burck) Heusden	Ridsdale DV-M1-1930 (L)	Malaysia, Sabah, Danum Valley	Indonesia to New Guinea and Marianas Islands	AY318981	AY319093
<i>Meiogyne spec.</i>	Kessler PK 3219 (L)	Thailand, Sunyatararn monastery	-	AY319002	AY319115
<i>Meiogyne stenopetala</i> (F. Muell.) Heusden subsp. <i>stenopetala</i>	Jessup 706 (K)	Australia, Queensland, Mossman	Australia	AY318971	AY319083
<i>Meiogyne virgata</i> (Blume) Miq.	Kessler PK 2751 (L)	Indonesia, Borneo, Tanjung	Thailand, Indochina, Indonesia, Philippines	AY318982	AY319094
<i>Melodorum fruticosum</i> Lour.	Chalermglin 440214-2 (L)	Thailand, Phu Khae	Thailand, Indochina, Peninsular Malaysia	AY319071	AY319185
<i>Melodorum cf. fruticosum</i> Lour. I	Mols 2 (L)	Indonesia, Ambon. Kebun Raya Bogor X-F-43	-	AY319072	AY319186
<i>Melodorum cf. fruticosum</i> Lour. II	Mols 10 (L)	Indonesia, Java. Kebun Raya Bogor XVI-E-85	Java	AY319073	AY319187
<i>Mezzettia parviflora</i> Becc.	Okada 3388 (L)	Indonesia, Kalimantan. Kebun Raya Bogor XX-D-36	Thailand to Moluccas	AY318983	AY319095
<i>Miliusa campanulata</i> Pierre	Chalermglin 440407-11 (TISTR, Bangkok)	Thailand, Phukadrung	Thailand, Indochina	AY318984	AY319096
<i>Miliusa cuneata</i> Craib	Chalermglin 440214-7 (L)	Thailand, Khlunga	Thailand, China	AY318985	AY319097
<i>Miliusa horsfieldii</i> (Benn.) Pierre	Mols 1 (L)	Indonesia, Java. Kebun Raya Bogor X-G-91	Thailand, China to Australia	AY318986	AY319098
<i>Miliusa lineata</i> (Craib) Ast	Kessler PK 3202 (L)	Thailand, Khao Yai National Park	Thailand, China to Australia	AY318987	AY319099
<i>Miliusa longipes</i> King	Pholsena 2651 (L)	Thailand, Khao Khitchakut	Thailand to Java	AY318988	AY319100
<i>Miliusa mollis</i> Pierre var. <i>mollis</i> I	Pholsena 1756 (L)	Thailand, Khao Soi Dao	Thailand, Indochina, Peninsular Malaysia	AY318989	AY319101
<i>Miliusa mollis</i> Pierre var. <i>mollis</i> II	Kessler PK 3207 (L)	Thailand, Khao Soi Dao	Thailand, Indochina, Peninsular Malaysia	AY318990	AY319102
<i>Miliusa spec.</i>	Middleton & Lamxay 269 (L)	Thailand, Nong Hin	-	AY318991	AY319103
<i>Miliusa thorelii</i> Finet & Gagnep.	Kessler PK 3184 (L)	Thailand, Maewong National Park	Thailand, Indochina	AY318992	AY319104
<i>Miliusa velutina</i> (Dunal) Hook.f. & Thomson	Pholsena 2842 (L)	Thailand, Ban Nong Khok	India to Thailand	AY318993	AY319105
<i>Mitrephora alba</i> Ridley	Chalermglin 440304-1 (TISTR, Bangkok)	Thailand, Lang Suan	Thailand, Peninsular Malaysia	AY318994	AY319106
<i>Mitrephora celebica</i> Scheff.	Mols 8 (L)	Indonesia: Sulawesi, Menado. Kebun Raya Bogor IV-H-51	Sulawesi	-	AY319107
<i>Mitrephora keithii</i> Ridley	Kessler PK 3190 (L)	Thailand, Chalermglin's private garden	Myanmar to Peninsular Malaysia	AY318995	AY319108
<i>Mitrephora polypyrena</i> (Blume) Miq.	Mols 7 (L)	Indonesia, Java. Kebun Raya Bogor IV-G-3	Java	AY318997	AY319110
<i>Mitrephora teysmannii</i> Scheff.	Kessler PK 3226 (L)	Thailand, Thung Yai Narasuan	Myanmar to Indonesia	AY318996	AY319109

Appendix. Continued.

Species	Voucher collections	Origin voucher	Distribution species [†]	GenBank accession numbers	
				<i>rbcL</i>	<i>trnL-trnF</i>
<i>Monocarpia euneura</i> Miq.	Slik 2002-2931 (L)	Indonesia, Borneo, ITCI concession	Borneo	AY318998	AY319111
<i>Mosannona vasquezii</i> Chatrou	Chatrou et al. 226 (U)	Peru, Loreto, Yanamono	Peru	AY319064	AY319178
<i>Neo-uvaria acuminatissima</i> (Miq.) Airy-Shaw	Ridsdale DV-SR-4671 (L)	Malaysia, Sabah, Danum Valley	Peninsular Malaysia, Philippines, Indonesia	AY318999	AY319112
<i>Neo-uvaria parallelivenia</i> (Boerl.) H. Okada & K. Ueda	Kessler sub IV-H-73	Indonesia, Kalimantan. Kebun Raya Bogor IV-H-73	Borneo, Java	AY319000	AY319113
<i>Onychopetalum periquino</i> (Rusby) D. M. Johnson & N. A. Murray	Chatrou et al. 425 (U)	Bolivia, Beni	Bolivia	AY319065	AY319179
<i>Orophea brandisii</i> Hook. f. & Thomson	Kessler PK 3180 (L)	Thailand, Klong Lan National Park	Myanmar, Thailand	AY319003	AY319116
<i>Orophea celebica</i> (Blume) Miq.	Kessler PK 2953 (L)	Indonesia, Sulawesi, Gunung Potong	Sulawesi	AY319004	AY319117
<i>Orophea creaghii</i> (Ridley) Leonardia & Kessler	Mols 19 (L)	Indonesia, Sumatra. Kebun Raya Bogor XX-D-116	Peninsular Malaysia to Sulawesi	AY319005	AY319118
<i>Orophea enterocarpa</i> Hook. f. & Thomson	Chalermglin 440403 (TISTR, Bangkok)	Thailand, Bang Lang	Myanmar, Thailand, Peninsular Malaysia	AY319006	AY319119
<i>Orophea enneandra</i> Blume	Kessler sub XX-D-179 (L)	Indonesia, Java. Kebun Raya Bogor XX-D-179	Java	AY319007	AY319120
<i>Orophea kerrii</i> Kessler	Chalermglin 440416-1 (L)	Thailand, Khao Luang	Myanmar, Thailand	AY319008	AY319121
<i>Orophea cf. malayana</i> Kessler	Hoffmann 11 (K)	Malaysia, Peninsular Malaysia Negiri Sembilan	Peninsular Malaysia	AY319045	AY319159
<i>Orophea myriantha</i> Merr.	Kessler et al. B 825 (L)	Indonesia, Borneo, Berau	Borneo	AY319009	AY319122
<i>Orophea polycarpa</i> A. DC.	Kessler PK 3234 (L)	Thailand, Khao Hin Sorn Botanical Garden	Sri Lanka, China to Peninsular Malaysia	AY319010	AY319123
<i>Oxandra espintana</i> (Spruce ex Benth.) Baill.	Chatrou et al. 133 (U)	Peru, Madre de Dios	Colombia, Peru	AY319066	AY319180
<i>Petalolophus megalopus</i> K. Schum.	Takeuchi & Ama 15599 (L)	Papua New Guinea, Bubia	New Guinea	AY319011	AY319124
<i>Phaeanthus ebracteolatus</i> (Presl) Merr.	Utteridge 17 (K)	Papua New Guinea, Madang Province, Baiteta	Philippines, Borneo to New Guinea	AY319012	AY319125
<i>Phaeanthus splendens</i> Miq.	Kessler B 1564 (L)	Indonesia, Borneo, Berau	Peninsular Malaysia, Sumatra, Borneo	-	AY319126
<i>Piptostigma pilosum</i> Oliv.	Cheek 7869 (K)	Cameroon	Tropical West Africa	AY319067	AY319181
<i>Platymitra macrocarpa</i> Boerl.	Okada 3457 (L)	Indonesia, Java. Kebun Raya Bogor IV-G-53	Thailand, Sumatra, Java	AY319013	AY319127
<i>Polyalthia borneensis</i> Merr.	Ridsdale DV-SR-7921 (L)	Malaysia, Sabah, Danum Valley	Borneo	AY319014	AY319128
<i>Polyalthia cauliflora</i> Hook. f. & Thomson	Kessler PK 3114 (L)	Singapore, Singapore Botanical Garden	Thailand to Indonesia	AY319015	AY319129
<i>Polyalthia celebica</i> Miq.	Mols 9 (L)	Indonesia. Kebun Raya Bogor IV-C-97	Sulawesi	AY319016	AY319130

Appendix. Continued.

Species	Voucher collections	Origin voucher	Distribution species [†]	GenBank accession numbers	
				<i>rbcL</i>	<i>trnL-trnF</i>
<i>Polyalthia cerasoides</i> (Roxb.) Beddome	Chalermglin 440214-4 (L)	Thailand, Phu Khae	India, Sri Lanka to Thailand, Indochina	AY319017	AY319131
<i>Polyalthia cinnamomea</i> (Hook. f. & Thomson) Hook. f. & Thomson	Ridsdale DV-M1-347 (L)	Malaysia, Sabah, Danum Valley	Thailand, Peninsular Malaysia, Borneo	AY319018	AY319132
<i>Polyalthia congesta</i> (Ridley) J. Sinclair	Ridsdale DV-S-5105 (L)	Malaysia, Sabah, Danum Valley	Borneo	AY319019	AY319133
<i>Polyalthia debilis</i> (Pierre) Finet & Gagnep.	Kessler PK 3228 (L)	Thailand	Thailand, Vietnam	AY319020	AY319134
<i>Polyalthia discolor</i> Diels	Takeuchi & Ama 16394 (L)	Papua New Guinea, Bubia	New Guinea	AY319021	AY319135
<i>Polyalthia flagellaris</i> (Becc.) Airy-Shaw	Duling 38 (K)	Brunei, Temburong	Borneo	AY319022	AY319136
<i>Polyalthia</i> cf. <i>glabra</i> J.Sinclair	Rastini 224 (L)	Indonesia, Bangka. Kebun Raya Bogor, IV-H-106	Peninsular Malaysia, Bangka	AY319032	AY319146
<i>Polyalthia glauca</i> (Hassk.) Boerl.	Mols 20 (L)	Indonesia, Java. Kebun Raya Bogor XX-D-81	Thailand to New Guinea	AY319023	AY319137
<i>Polyalthia lateriflora</i> Kurz	Hort. Bot. Bog. XII-B-VII-37 (L)	Indonesia. Kebun Raya Bogor XII-B-VII-37	Thailand to Indonesia	AY319024	AY319138
<i>Polyalthia littoralis</i> (Blume) Boerl.	Rastini 153 (L)	Indonesia, Java. Kebun Raya Bogor IV-H-53	Java	AY319026	AY319140
<i>Polyalthia longifolia</i> (Sonnerat) Thwaites	Johnson 1965 (OWU)	Tanzania, Dar-Es-Salaam, cultivated	India, Sri Lanka	AY319027	AY319141
<i>Polyalthia</i> cf. <i>longifolia</i> (Sonnerat) Thwaites	Mols 14 (L)	Indonesia, Sulawesi, Menado. Kebun Raya Bogor XX-D-121	India, Sri Lanka	AY319025	AY319139
<i>Polyalthia longipes</i> (Miq.) Koord. & Valeton	Ridsdale DV-M2-11443 (L)	Malaysia, Sabah, Danum Valley	Indonesia	AY319028	AY319142
<i>Polyalthia obliqua</i> Hook. f. & Thomson	Ambriansyah & Arifin AA 1694 (L)	Indonesia, Borneo, Kuari	Myanmar, Peninsular Malaysia, Borneo	AY319029	AY319143
<i>Polyalthia pendula</i> G. E. Schatz & Le Thomas	Rabevohitra 2386 (K, WAG)	Madagascar, Toliara	Madagascar	AY319030	AY319144
<i>Polyalthia rumphii</i> (Henschel) Merr.	Van Balgooy & Van Setten 5654 (L)	Indonesia, Sumatra, Lampung. Kebun Raya Bogor XX-D-110	Thailand to Philippines and Indonesia	AY319031	AY319145
<i>Polyalthia sclerophylla</i> Hook.f. & Thomson	Hort. Bot. Bog. XX-D-82 (L)	Malaysia, Peninsular Malaysia. Kebun Raya Bogor XX-D-82	Peninsular Malaysia, Sumatra	AY319033	AY319147
<i>Polyalthia</i> spec.	Ridsdale DV-M1-12314 (L)	Malaysia, Sabah, Danum Valley	-	AY318972	AY319084
<i>Polyalthia stenopetala</i> (Hook. f. & Thomson) Finet & Gagnep.	Chalermglin 440302 (TISTR, Bangkok)	Thailand, Chulabhoru	Thailand, Peninsular Malaysia	AY319034	AY319148
<i>Polyalthia stuhlmannii</i> (Engl.) Verd.	Luke & Robertson 1424 (K, WAG)	Kenya, Lamu district	Tropical East Africa	AY319035	AY319149
<i>Polyalthia subcordata</i> (Blume) Blume I	Gravendeel et al. 549 (L)	Indonesia, Java, Halimun National Park	Java, Sumatra, Borneo	AY319036	AY319150
<i>Polyalthia subcordata</i> (Blume) Blume II	Gravendeel et al. 678 (L)	Indonesia, Java, Kebun Raya Cibodas	Java, Sumatra, Borneo	AY319037	AY319151

Appendix. Continued.

Species	Voucher collections	Origin voucher	Distribution species ¹	GenBank accession numbers	
				<i>rbcL</i>	<i>trnL-trnF</i>
<i>Polyalthia suberosa</i> (Roxb.) Thwaites	Botanical Gardens Kaiserslautern s.n.	Sri Lanka. Botanical Garden Kaiserslautern s.n.	India to Peninsular Malaysia	AY319038	AY319152
<i>Polyalthia sumatrana</i> (Miq.) King	SAN 143918 (SAN)	Malaysia, Sabah	Peninsular Malaysia to Indonesia	AY319039	AY319153
<i>Polyalthia viridis</i> Craib	Chalermglin 440214-3 (L)	Thailand, Phu Khae	Thailand	AY319040	AY319154
<i>Polyalthia xanthopetala</i> Merr.	Ridsdale DV-S-5107 (L)	Malaysia, Sabah, Danum Valley	Borneo	AY319041	AY319155
<i>Popowia hirta</i> Miq.	Kessler B 1628 (L)	Indonesia, Borneo, Berau	Borneo, Sumatra	AY319042	AY319156
<i>Popowia odoardi</i> Diels	Ridsdale DV-SR-7422 (L)	Malaysia, Sabah, Danum Valley	Borneo	AY319043	AY319157
<i>Popowia pisocarpa</i> (Blume) Endl.	Van Balgooy & Van Setten 5683 (L)	Indonesia, Java. Kebun Raya Bogor XI-B-V-137	Indochina, Thailand to Philippines, Indonesia	AY319044	AY319158
<i>Pseudomalmea diclina</i> (R. F. Fr.) Chatrou	Chatrou et al. 211 (U)	Peru, Loreto, Yanamono,	Tropical South America	AY319068	AY319182
<i>Pseudoxandra lucida</i> R. F. Fr.	Chatrou et al. 212 (U)	Peru, Loreto, Yanamono	Peru, Venzuela	AY319076	AY319190
<i>Pseuduvaria brachyantha</i> Su & Saunders ined.	Takeuchi & Ama 15677 (L)	Papua New Guinea, Bubia	New Guinea	AY319046	AY319160
<i>Pseuduvaria coriacea</i> Su & Saunders ined.	Takeuchi & Ama 16314 (L)	Papua New Guinea, Bubia	New Guinea	AY319047	AY319161
<i>Pseuduvaria pamattonis</i> (Miq.) Su & Saunders	Slik 2002-2911 (L)	Indonesia, Borneo	Borneo, Philippines	AY319049	AY319163
<i>Pseuduvaria rugosa</i> (Blume) Merr.	Kessler PK 3209 (L)	Thailand, Khao Soi Dao	Myanmar to Java	AY319048	AY319162
<i>Sageraea lanceolata</i> Miq.	Ridsdale DV-M2-1692 (L)	Malaysia Sabah, Danum Valley	Peninsular Malaysia, Indonesia, Philippines	AY319050	AY319164
<i>Sapranthus microcarpus</i> (Donn. Smith) R. E. Fr.	Maas et al. 8457 (U)	Honduras	Mexico to Honduras	AY319052	AY319166
<i>Sapranthus viridiflorus</i> G. E. Schatz	Chatrou et al. 55 (U)	Costa Rica, La Selva	Costa Rica, Nicaragua	AY319051	AY319165
<i>Stelechocarpus burahol</i> (Blume) Hook. f. & Thomson	Mols 13 (L)	Indonesia, Java. Kebun Raya Bogor XX-D-22	Peninsular Malaysia to Indonesia	AY319053	AY319167
<i>Stelechocarpus cauliflorus</i> (Scheff.) R. E. Fr.	Hort. Bot. Bog. XV-A-196 (L)	Indonesia, Sumatra, Lampung. Kebun Raya Bogor XV-A-196	Thailand, Indochina to Indonesia	AY319054	AY319168
<i>Stenanona costaricensis</i> R. E. Fr.	Chatrou et al. 67 (U)	Costa Rica, Braulio Carrillo	Costa Rica, Nicaragua	AY319069	AY319183
<i>Stenanona panamensis</i> Standl.	Chatrou et al. 100 (U)	Costa Rica, Limón	Panama, Costa Rica	AY319070	AY319184
<i>Tridimeris hahniana</i> (Baill.) G. E. Schatz	Schatz 1198 (K)	Mexico, Veracruz	Mexico	AY319055	AY319169
<i>Trivalvaria macrophylla</i> (Blume) Miq. var. <i>macrophylla</i>	Chase 1207 (K)	Indonesia, Java. Kebun Raya Bogor XI-B-XVI-31	Thailand to Indonesia	AY319056	AY319170

¹ Data obtained from literature and available material at the Nationaal Herbarium Nederland.