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Appendix 1. *Eucalyptus* species (following Brooker 2000) and outgroup taxa used in analysis of ITS-sequence data

Samples not listed in this appendix are detailed in the previous study (Steane *et al.* 1999). Taxonomic codes represent the genus (*Angophora* or *Corymbia*) or subgenus (of *Eucalyptus*) and the section of each species. The original natural provenance of a specimen is given, followed, in parentheses, by the location from which the specimen was collected; absence of parenthesised text indicates a field collection. Origin or herbarium number; herbarium specimens are available for some samples ('herbarium number'); other samples were collected from known locations in botanic gardens ('origin'). ANBG, Australian National Botanic Garden, Australian Capital Territory (ACT); CBG, Australian National Herbarium, ACT; CCA, Currency Creek Arboretum, South Australia; CSIRO, Commonwealth Scientific and Research Organisation; DBG, Darwin Botanic Gardens; DN, D. Nicolle; DNA, Northern Territory Herbarium; E, East; HO, State Herbarium of Tasmania, Hobart; N, North; NSW, (Herbarium of) New South Wales; NT, Northern Territory; PNG, Papua New Guinea; Qld, Queensland; QRS, Atherton Herbarium, Qld; RTBG, Royal Tasmanian Botanic Garden, S, South; SA, South Australia; Tas., Tasmania; TU, University of Tasmania; Vic., Victoria; W, West; WA, Western Australia. *Corymbia* aff. *polycarpa* was collected as *C. polycarpa*, but has since been identified (by D. N.) as probably being *C. novoguineensis* on the basis of its seedling morphology and provenance details. n.a., information not available

Species	Genus or subgenus	Section	Code	Provenance (location)	Origin or herbarium number (Genbank accession no.)
<i>Allosoyncarpia ternata</i> S.T.Blake 2	<i>Allosoyncarpia</i>			Kakadu National Park (DBG)	HO 511582 (AF390446)
<i>Angophora euryphylla</i> (L.Johnson ex Leach)	<i>Angophora</i> Cav.	<i>Liberia</i>	AL	Broken Back Range, NSW (CCA)	CCA: seedling from DN 2082 (AF390448)
L.Johnson & K.Hill		<i>Liberia</i>	AL	Waite Arboretum, SA, no.156	Sale <i>et al.</i> 1996 (AF390449)
<i>A.floribunda</i> (Smith) DC	<i>Angophora</i>	<i>Liberia</i>	AL	W of Warwick, Qld (CCA)	CCA: seedling from DN 2103 (AF390447)
<i>A.leiocarpa</i> (G.Leach) K.R.Thiele & P.Y.Ladiges	<i>Angophora</i>	<i>Liberia</i>	AL	NA (ANBG 631899)	CBG 631899 (AF390450)
<i>A.melanoxylon</i> R.Baker	<i>Angophora</i>	<i>Rufaria</i>	CR	Derideri to Arufi, Western Province, PNG	CSIRO 16616 (AF390453)
<i>Corymbia</i> aff. <i>polycarpa</i>	<i>Corymbia</i>	<i>Blakearya</i>	CB	Barcaldine, Qld (RBGS, Mt Annan 863062)	NSW: seed from Hill 1749 (AF390458)
<i>C.appareninjia</i> K.D.Hill & L.A.S. Johnson 1	<i>Corymbia</i>	<i>Blakearya</i>	CB	NA (Waite Arboretum, SA, no. 1577A, B1)	Sale <i>et al.</i> 1996 (AF390459)
<i>C.appareninjia</i> K.D.Hill & L.A.S. Johnson 2	<i>Corymbia</i>	<i>Rufaria</i>	CR	NA (Waite Arboretum, SA, no. 154)	Sale <i>et al.</i> 1996 (AF390460)
<i>C.calophylla</i> (Lindl.) K.D.Hill & L.A.S.Johnson	<i>Corymbia</i>	<i>Politaria</i>	CP	NA (Waite Arboretum, SA)	Sale, unpub. (AF390461)
<i>C.curriodora</i> (Hook.) K.D.Hill & L.A.S.Johnson	<i>Corymbia</i>	<i>Ochraraia</i>	CO	NA (Waite Arboretum SA, no. 1639)	Sale <i>et al.</i> 1996 (AF390464)
<i>C.eximia</i> (Schauer) K.D.Hill & L.A.S.Johnson	<i>Corymbia</i>	<i>Rufaria</i>	CR	Bow Bridge, WA (CCA 68, 29)	CCA: seedling from DN 1138 (AF390451)
<i>C.ficifolia</i> (F.Muell.) K.D.Hill & L.A.S.Johnson	<i>Corymbia</i>	<i>Rufaria</i>	CR	NA (Waite Arboretum SA, no. 1626)	Sale <i>et al.</i> 1996 (AF390463)
<i>C.gummifera</i> (Gaertner) K.D.Hill & L.A.S.Johnson	<i>Corymbia</i>	<i>Rufaria</i>	CR	E of Bussetton, WA (CCA 72, 31)	CCA: seedling from DN 1147 (AF390456)
<i>C.haematoxylon</i> (Maiden) K.D.Hill & L.A.S.Johnson	<i>Corymbia</i>	<i>Politaria</i>	CP	Helidon Hills, Qld (CCA 86, 31)	CCA: seedling from DN 1259 (AF390457)
<i>C.intermedia</i> (R. Baker) K.D.Hill & L.A.S.Johnson 1	<i>Corymbia</i>	<i>Rufaria</i>	CR	Blackdown Tableland, Qld (CCA 54, 09)	CSIRO 15258B (AF390454)
<i>C.polycarpa</i> (F.Muell.) K.D.Hill & L.A.S.Johnson 1	<i>Corymbia</i>	<i>Apteria</i>	CA	Goodwood, Qld (CCA 49, 18)	CCA: seedling from DN 714 (AF390455)
<i>C.trachyphloia</i> (F.Muell.) K.D.Hill & L.A.S.Johnson ssp. <i>trachyphloia</i>	<i>Corymbia</i>	<i>Politaria</i>	CP	Cameronian Gate, Qld (RBGS, Mt Annan 892048)	NSW: seed from Blaxell 89/290 (AF390462)
<i>C.variegata</i> (F.Muell.) K.D.Hill & L.A.S.Johnson	<i>Symphyomyrtus</i>	<i>Exsertaria</i>	SE	E of Kupiano, PNG	CSIRO 13400B (AF390485)
<i>Eucalyptus alba</i> sens. lat. Reinw. ex Blume	<i>Symphyomyrtus</i>	<i>Ahdataria</i>	SA	S of Melrose, SA (CCA 128, 6)	CCA: seedling from DN 1676 (AF390502)
<i>E.albens</i> Benth.					

<i>E. baileyanus</i> F.Muell.	<i>Eudesmia</i>	<i>Reticulata</i>	UR	NA (ANBG 8603514P)	CBG 8603514P (AF390467)
<i>E. balladoniensis</i> Brooker sp.	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	Between Balladonia and Fraser Range, WA (CCA 28, 05)	CCA; seedling from <i>DN 118</i> (AF390503)
<i>E. balladoniensis</i>	<i>Sympphyomyrtus</i>	<i>Maidenaria</i>	SM	Bruthen, E Vic. (trial VRD73a, rep. 4, row 3, tree 1; family 2408)	HO 319654 (AF390477)
<i>E. brachyantha</i> F.Muell.	<i>Minutifructus</i>	<i>Domestica</i>	MD	NT	Sale (unpubl.) (AF390517)
<i>E. brassiana</i>	<i>Sympphyomyrtus</i>	<i>Exsertaria</i>	SE	E of Kypiano, PNG	CSIRO 13398-1 (AF390483)
<i>E. brevisylpis</i> Brooker	<i>Eucalyptus</i>	<i>Pedaria</i>	EPd	E of Mt Franklin, WA (CCA 76, 24)	CCA; seedling from <i>DN 1141</i> (AF390527)
<i>E. brockwayi</i> C.Gardner	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	NW of Norseman, WA (CCA 15, 15)	CCA; seedling from DN 136 (AF390505)
<i>E. cloeziana</i> F.Muell. 2	<i>Idiogenes</i>		Id	Monto, Qld (RBGS, Mt Annan 861779)	NSW; seed from FRI seed centre, FRI 1861779 (AF390522)
<i>E. cornuta</i> Labill.	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	Cape LeGrand, WA (CCA 28, 15)	CCA; seedling from <i>DN 173</i> (AF390496)
<i>E. crebra</i> F.Muell.	<i>Sympphyomyrtus</i>	<i>Ahnataria</i>	SA	NE of Tara, Qld (CCA 51, 01)	CCA; seedling from DN 680 (AF390503)
<i>E. curritii</i> Blakely & C.White 1	<i>Acerosae</i>		Ac	Ballion, Qld (RBGS, Mt Annan, 950722)	Seed from Qld DPI, Forest Service tree seed section (AF390524)
<i>E. curritii</i> 2	<i>Acerosae</i>		Ac	Kilroy Region, Qld (ANBG, Jervis Bay, 8300275)	CBG 8300275 (AF390525)
<i>E. deglupta</i> Blume 1	<i>Minutifructus</i>	<i>Equatoria</i>	ME	Philippines	CSIRO seed lot 19492-1 (AF390518)
<i>E. deglupta</i> 2	<i>Minutifructus</i>	<i>Equatoria</i>	ME	S of New Brit., Bulolo, PNG	CSIRO seed lot 19790B (AF390519)
<i>E. deglupta</i> 3	<i>Minutifructus</i>	<i>Equatoria</i>	ME	S of New Brit., Bulolo, PNG	CSIRO seed lot 19791B (AF390520)
<i>E. deglupta</i> 4	<i>Minutifructus</i>	<i>Equatoria</i>	ME	NA (Darwin Botanical Gardens, NT)	See Sale <i>et al.</i> 1993 (AF390521)
<i>E. delicata</i> L.A.S.Johnson & K.D.Hill	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	South of Peak Charles National Park, WA (CCA 19, 30)	CCA; seedling from <i>DN 149</i> (AF390507)
<i>E. diversicolor</i> F.Muell. 1	<i>Sympphyomyrtus</i>	<i>Inclusa</i>	SI	Seed from cultivated tree of unknown origin (CCA 46, 10)	NA (AY039753)
<i>E. diversicolor</i> 2	<i>Sympphyomyrtus</i>	<i>Inclusa</i>	SI	Walpole, WA (CCA 76, 18)	CCA; seedling from <i>DN 1142</i> (AY039754)
<i>E. diversicolor</i> 3	<i>Sympphyomyrtus</i>	<i>Inclusa</i>	SI	Walpole, WA (CCA 76, 17)	CCA; seedling from <i>DN 1142</i> (AF390493)
<i>E. dundasii</i> Maiden	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	Near Fraser Range, WA (CCA 11, 15)	CCA; seedling from <i>DN 129</i> (AF390501)
<i>E. dumii</i> Maiden	<i>Sympphyomyrtus</i>	<i>Maidenaria</i>	SM	Near Legume, NSW (CCA 89, 31)	CCA; seedling from <i>DN 1257</i> (AF390510)
<i>E. endesmoidea</i> F.Muell.	<i>Eudesmia</i>	<i>Limbata</i>	ULm	Waite Arboretum SA, No. 1929B	Sale <i>et al.</i> 1996 (AF390468)
<i>E. falcataria</i> Turcz.	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	NE of Hopetoun, WA (CCA 17, 30)	CCA; seedling from <i>DN 198</i> (AF390506)
<i>E. gamophylla</i> F.Muell.	<i>Eudesmia</i>	<i>Limbata</i>	ULm	Road to Kings Canyon, NT (CCA 09, 11)	NA (AF390469)
<i>E. glaucina</i> Smith	<i>Sympphyomyrtus</i>	<i>Exsertaria</i>	SE	S of Casino, NSW	CSIRO 11239B (AF390481)
<i>E. gongylocarpa</i> Blakely	<i>Eudesmia</i>	<i>Limbata</i>	ULm	Great Victoria Desert, WA (CCA 40, 25)	CCA; seedling from <i>DN 519</i> (AF390466)
<i>E. grandis</i> W.Hill ex Maiden 2	<i>Sympphyomyrtus</i>	<i>Latooangulatae</i>	SL	Ravenshoe, N Qld (Beerburrum trial; Kleing seed lot 2144)	NA (AF390471)
<i>E. grandis</i> 3	<i>Sympphyomyrtus</i>	<i>Latooangulatae</i>	SL	Paluma, Qld (trial P93 T13; GYM seed lot K5000)	NA (AF390472)
<i>E. guilfoylei</i> Maiden	<i>Cruciformes</i>		CC	(King's Park, Perth, WA 11/7/8)	Sale <i>et al.</i> 1996 (AF390511)
<i>E. hallii</i> Brooker		<i>Exsertaria</i>	SE	Near Goodwood, Qld (CCA 58, 6)	CCA; seedling from <i>DN 716</i> (AF390512)
<i>E. houseana</i> W.Fitzg. ex Maiden	<i>Sympphyomyrtus</i>	<i>Exsertaria</i>	SE	March Fly Glen, Kimberley, WA (CCA 134, 22)	CCA; Seedling from <i>DN 1911</i> (AF390487)
<i>E. jacksonii</i> Maiden	<i>Eucalyptus</i>	<i>Longistyla</i>	ELn	Valley of the Giants, WA (CCA 76, 10)	CCA; seedling from <i>DN 1140</i> (AF390529)
<i>E. latissinensis</i> K.Hill	<i>Eucalyptus</i>	<i>Amenta</i>	EAm	Goodwood, Qld (CCA 58, 33)	CCA; seedling from <i>DN 715</i> (AF390532)
<i>E. leucophloia</i> Brooker ssp. <i>leucophloia</i>	<i>Sympphyomyrtus</i>	<i>Platysperma</i>	SP	Round Hill, near Newman, WA (CCA 41, 27)	CCA; <i>DN 994</i> (AF390470)
<i>E. lochyeri</i> ssp. <i>lochyeri</i> Blaxell & K.Hill	<i>Sympphyomyrtus</i>	<i>Exsertaria</i>	SE	NW of Ravenshoe, Qld	CCA; seedling from <i>DN 1323</i> (AF390488)
<i>E. lucasii</i> Blakely	<i>Sympphyomyrtus</i>	<i>Ahnataria</i>	SA	W of Wiluna, WA (CCA 39, 12)	CCA; seedling from <i>DN 545</i> (AF390494)
<i>E. maidemii</i> F.Muell.	<i>Eucalyptus</i>	<i>Maidenaria</i>	SM	Mt Myrtle, NSW (trial RP173-3, prov. 28)	NA (AF390474)
<i>E. marginata</i> Donn ex Smith ssp. <i>thalassica</i> Brooker & Hopper		<i>Longistyla</i>	ELn	Gingin, WA (CCA 26, 29)	CCA; seedling from <i>DN 246</i> (AF390530)

<i>E. megacarpa</i> F.Muell.	<i>Eucalyptus</i>	<i>Longistyla</i>	ELn	Two People's Bay, WA (CCA 70, 37)	CCA: seedling from <i>DN 1137</i> (AF390528)
<i>E. melliodora</i> Cunn. Ex Schauer	<i>Sympphyomyrtus</i>	<i>Adnataria</i>	SA	Black Hill Flora Centre, Athelstone, SA	Ellis <i>et al.</i> 1991 (AF390514)
<i>E. michaeliana</i> Blakely	<i>Sympphyomyrtus</i>	<i>Racema</i>	SR	Near Hillgrove, NSW (CCA 61, 3)	CCA: seedling from <i>DN 843</i> (AF390484)
<i>E. microcorys</i> F.Muell.	<i>Alveodata</i>		AI	(Waite Arboretum, SA, 1564, C2)	Sale <i>et al.</i> 1996 (AF390516)
<i>E. microtheca</i> F.Muell.	<i>Sympphyomyrtus</i>	<i>Adnataria</i>	SA	Newcastle Creek on Stuart Hwy, NT (CCA 82, 32)	CCA: seedling from <i>DN 1338</i> (AF390515)
<i>E. obtusiflora</i> DC	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	Near Coolimba, WA (CCA 10, 32)	CCA: seedling from <i>DN 266</i> (AF390500)
<i>E. optimia</i> L.A.S.Johnson & K.D.Hill	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	Between Balladonia and Fraser Range, WA (CCA 27, 10)	CCA: seedling from <i>DN 115</i> (AF390508)
<i>E. ovata</i> Labill.				Kingston, Tas.	TU 204 (AF390480)
<i>E. pachyphylla</i> F.Muell.	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	E of Mt Webb, Gibson Desert, WA (CCA 73, 28)	Seedling of <i>DN 1203</i> (AF390473)
<i>E. petiota</i> F.Muell.	<i>Sympphyomyrtus</i>	<i>Latoangulatae</i>	SL	Mossman, Daintree, N Qld (RBGS, Mt Annan, 882/162)	NSW: seed from Blaxell 88/164 (AF390491)
<i>E. perriniana</i> F.Muell. ex Rodway 1	<i>Sympphyomyrtus</i>	<i>Maidenaria</i>	SM	Kosciusko, NSW (Mt Lloyd trial, 5, 24)	HQ 508267 (AF390475)
<i>E. perriniana</i> 2	<i>Sympphyomyrtus</i>	<i>Maidenaria</i>	SM	Lake Sorell, Tas.	TU 688 (AF390476)
<i>E. pilularis</i> Smith	<i>Eucalyptus</i>	<i>Pseudophloia</i>	EPs	Domain, Sydney, NSW (RBGS 19739)	NA (AF390533)
<i>E. platyphylla</i> F.Muell.	<i>Sympphyomyrtus</i>	<i>Exsertaria</i>	SE	NW of Mareeba, Qld	CSIRO 12966A (AF390486)
<i>E. polyanthemos</i> Schauer ssp. <i>polyanthemos</i>	<i>Sympphyomyrtus</i>	<i>Adnataria</i>	SA	Near Rylestone, NSW (CCA 46, 36)	CCA: seedling from <i>DN 742</i> (AF390513)
<i>E. populnea</i> F.Muell. ssp. <i>populnea</i>	<i>Sympphyomyrtus</i>	<i>Adnataria</i>	SA	NE of Tara, Qld (CCA 59, 13)	CCA: seedling from <i>DN 679</i> (AF390495)
<i>E. pseudoglobulus</i> Naudin ex Maiden	<i>Sympphyomyrtus</i>	<i>Maidenaria</i>	SM	Wiben's Hill, Vic (trial RP173-3, prov. 26)	NA (AF390478)
<i>E. rubiginosa</i> Brooker	<i>Primitiva</i>		P	Isla Gorge, Qld (RBGS 831317)	ANH: MH Brooker 8260 (AF390526)
<i>E. salmonophloia</i> F.Muell.	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	Great Victoria Desert, WA (CCA 42, 14)	CCA: seedling from <i>DN 341</i> (AF390509)
<i>E. scoparia</i> Maiden	<i>Sympphyomyrtus</i>	<i>Maidenaria</i>	SM	Mt Norman, Qld (CCA 72, 34)	CCA: seedling from <i>DN 672</i> (AF390479)
<i>E. staeiri</i> (Maiden) Kessell & C.Gardner	<i>Eucalyptus</i>	<i>Longistyla</i>	ELn	Wellstead, WA (CCA 70, 34)	CCA: seedling from <i>DN 1133</i> (AF390531)
<i>E. stoatei</i> C.Gardner	<i>Sympphyomyrtus</i>	<i>Dumaria</i>	SD	SE Raventhorpe, WA (CCA 41, 34)	CCA: seedling from <i>DN 181</i> (AF390498)
<i>E. tenueps</i> (Maiden & Blakely) Blakely & C.White	<i>Cuboidea</i>		Cb	Auburn Rd., 44 km N of Warrego Hwy (RBGS 842705)	NSW: seed from A.N.Rodd 4161 (AF390523)
<i>E. tereticornis</i> Smith	<i>Sympphyomyrtus</i>	<i>Exsertaria</i>	SE	Mt Molloy, Qld	CSIRO 13661B (AF390482)
<i>E. tetradonta</i> F.Muell.	<i>Eudesmia</i>	<i>Complanata</i>	UCm	NT	DNA; CP 521 (AF390465)
<i>E. tindaliae</i> Blakely	<i>Eucalyptus</i>	<i>Capillula</i>	ECP	SE of Grafton, NSW (CCA 138, 3)	CCA: seedling from <i>DN 1243</i> (AF390534)
<i>E. torquata</i> Luehm.	<i>Sympphyomyrtus</i>	<i>Dumaria</i>	SD	NW of Norseman, WA (CCA 43, 3)	CCA: seedling from <i>DN 135</i> (AF390499)
<i>E. urophylla</i> S.T.Blake 1	<i>Sympphyomyrtus</i>	<i>Latoangulatae</i>	SL	Lomblen I., Indonesia (Beerburnum trial)	CSIRO 18096 (AF390489)
<i>E. urophylla</i> 2	<i>Sympphyomyrtus</i>	<i>Latoangulatae</i>	SL	Flores I., Indonesia (Beerburnum trial)	CSIRO 17567 (AF390492)
<i>E. urophylla</i> 3	<i>Sympphyomyrtus</i>	<i>Latoangulatae</i>	SL	W. Alor I., Indonesia (Beerburnum trial)	CSIRO 17841 (AF390490)
<i>E. wandoo</i> Blakely ssp. <i>wandoo</i>	<i>Sympphyomyrtus</i>	<i>Bisectae</i>	SB	Stirling Range NP, WA (CCA 23, 31)	CCA: seedling from <i>DN 230</i> (AF390497)
<i>E. wetarensis</i> L.D.Pryor	<i>Sympphyomyrtus</i>	<i>Latoangulatae</i>	SL	Wetar, Indonesia	CSIRO 17832 (AY039752)
<i>Lophostemon confertus</i> R.Br.				NA (RTBG A26B111)	HO 512140 (AF390444)
'Stockwellia' 2		'Stockwellia'		Atherton, Qld (CSIRO Arboretum 944, Atherton, Qld)	QRS: B.Gray 7268 (AF390445)